



One Safe Source

2008-2009 Parts Catalog

CATERPILLAR®

**"Our Cat® Dealer
helps us increase
job productivity
and efficiency."**

"WE'RE ALWAYS LOOKING FOR THAT EXTRA

EDGE. We need to maximize every minute of
production while keeping our costs down. Our Cat®
Dealer offers solutions that help us reduce downtime,
boost productivity and cut operating costs."

SERVICE. We'll be there with the solutions you need
throughout the life of your Cat® machines. Call or stop by
soon to find out all the ways we can help you get the most
from your equipment.



www.cat.com

© 2008 Caterpillar All Rights Reserved
CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress, as well as corporate
and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

CATERPILLAR®
TODAY'S WORK. TOMORROW'S WORLD.™

Air Intake and Exhaust Systems		Ground Engaging Tools – Loaders	
Mufflers	1-2	Base Edge/Base Edge Assembly	8-2
Exhaust Pipe Extensions	1-6	Loader Buckets	8-6
Air Intake Pipe Extensions	1-7	Loader Edges	8-10
Air Intake and Exhaust Stack Clamps	1-8	Loader Rock Buckets	8-11
Rain Traps and Rain Caps	1-9	Loader GP Buckets	8-12
Batteries and Electrical Parts		Loader Segments	8-15
Batteries	2-2	Segments & Top Wear Plates	8-16
Electrical Parts	2-17	Segments & Spade Edge Segments	8-20
Filters and Fluids		Loader GP Buckets	8-21
Filters Overview	3-2	Loader Wear Plates	8-23
Engine Oil Filters	3-3	Loader Sidebar Protectors	8-28
Fuel Filters	3-5	Sidebar Protectors	8-28
Fuel Water Separators	3-7	Loader Tips	8-29
Air Filters	3-8	Loader Adapters	8-33
Breathers	3-11	Loader Adapters/Protectors	8-37
Hydraulic Filters	3-13	Ground Engaging Tools – Motor Graders	
Lubricants	3-17	Motor Grader Bits	9-2
Coolants	3-42	Motor Grader Cutting Edges	9-5
Greases	3-48	Motor Grader End Bits	9-10
Specialty Chemicals	3-56	Ground Engaging Tools – Paving Products	
Ground Engaging Tools – Backhoe Loaders		Paving Product Bits, Tools and Holders	10-2
Backhoe Loader Buckets	4-2	Ground Engaging Tools – Rippers/Scarifiers	
Backhoe Loader Edges and Adapters	4-3	Ripper/Scarifier Tips	11-2
Backhoe Loader Buckets	4-4	Ripper/Scarifier Shanks	11-3
Backhoe Loader Base Edge and Corners	4-5	Ripper/Scarifier Tips	11-4
Backhoe Loader Adapters	4-6	Ground Engaging Tools – Scrapers	
Backhoe Loader Tips	4-8	Scraper Cutting Edges	12-2
Ground Engaging Tools – Bulldozers/Compactors		Scraper Router Bits	12-3
Bulldozer Blades	5-2	Scraper Cutting Edges and Tips	12-4
Bulldozer End Bits	5-14	Scraper Bolt-On Adapter Tips	12-5
Bulldozer Wear Bars and Plates	5-21	Elevating Scraper Parts	12-6
Bulldozer Wear Plates	5-22	Elevating Scraper Parts/Parts Kits	12-9
Compactor Blades	5-28	Plastic Auger Groups	12-10
Compactor Cutting Edges	5-29	Steel Auger Groups	12-11
Compactor End Bits	5-31	Hardware	
Compactor Plates/Tips	5-33	Bolts	13-2
Compactor Feet	5-34	Nuts	13-30
Compactor Feet/Cleaner Bars	5-35	Washers	13-38
Compactor Wear Plates	5-36	Screws	13-41
Ground Engaging Tools – Compact Construction Equipment		Link Brackets	13-44
Compact Wheel Loader	6-2	Rivets	13-45
Mini-Hex	6-4	Pins	13-47
Skid Steer Loaders	6-5	Rod Ends	13-50
Ground Engaging Tools – Excavators		Woodruff Keys	13-53
Excavator Bucket Base Edge Assemblies	7-2	Snap Rings	13-54
Excavator Bucket Base Edges	7-7	Hose Clamps	13-56
Excavator Tips – K Series™	7-8	Springs	13-57
Excavator Tips – Side Pin Style	7-10	Kits	13-60
Excavator Sidecutters	7-13	Convenient Hardware Packages	13-61
		Check-a-Thread	13-63

Table of Contents

Hose And Couplings

Bulk Hoses	14-2
Couplings	14-4
Specialty Hoses	14-10
Hump Hoses & Clamps	14-12

Operator Environment

Lamps, Lights and Bulbs	15-2
Cat Comfort Seats	15-9
Cat® Radios and Accessories	15-18
Installation Kits	15-21
Adapter Harnesses	15-21
Antennas	15-22
Speakers	15-22
Coax Cable	15-23
Converters – 24 Volts to 12 Volts	15-23
Cat® Air Conditioning Kits	15-24
Windshield Wipers	15-26
Mud Flaps	15-27

Remanufactured Products

Remanufactured Products for Engines	16-2

Seals

Seals/O-Rings	17-2
Seals	17-30
Seals/O-Ring Materials	17-33
Seals/Backup Rings	17-35

Service And Repair Kits

Kit Definition	18-2
Service & Repair Kits	18-2
Finding Service & Repair Kits	18-2
Engine Gasket Kits	18-3
Power Train Kits	18-4
Hydraulic Kits	18-4

Tires

Cat® Tires	19-2
Cat Quality	19-2
Premium Conventional Tires	19-2
Low Side Wall (LSW) Tires	19-3
Premium Conventional vs. Low Side Wall	19-4
Premium Conventional Flotation Tires	19-4
Extreme Duty Pneumatic	19-5
Extreme Duty Solid	19-6
Extreme Duty Solid Flexport	19-6
Non-Marking Extreme Duty Solid Flexport	19-7
Mounted Assemblies	19-8

Shop Supplies And Hand Tools

Metal Cutting	20-2
Lighting/Electrical Products	20-4
Personal/Safety	20-7
Material Handling, Storage, Packaging, and Shipping	20-40
Disposal and Storage Products for Hazardous Material	20-41
Hand Tools (Inch)	20-42
Hand Tools (Metric)	20-57
Miscellaneous Hand Tools	20-65
Casting Salvage	20-86
Tool Boxes	20-90
Electrical Tools	20-95
Torque Wrenches	20-96
Pneumatic Tools	20-102

V-Belts

V-Belt Sizing Guide	21-2
V-Belt Maintenance Tips	21-2
Non-Cog Type	21-3
Cog Type	21-4
Serpentine Type	21-8

Total Support. One Source. Your Cat[®] Dealer.

As your Cat[®] Dealer, we define world-class product support. We offer you the right parts and service solutions, when and where you need them.

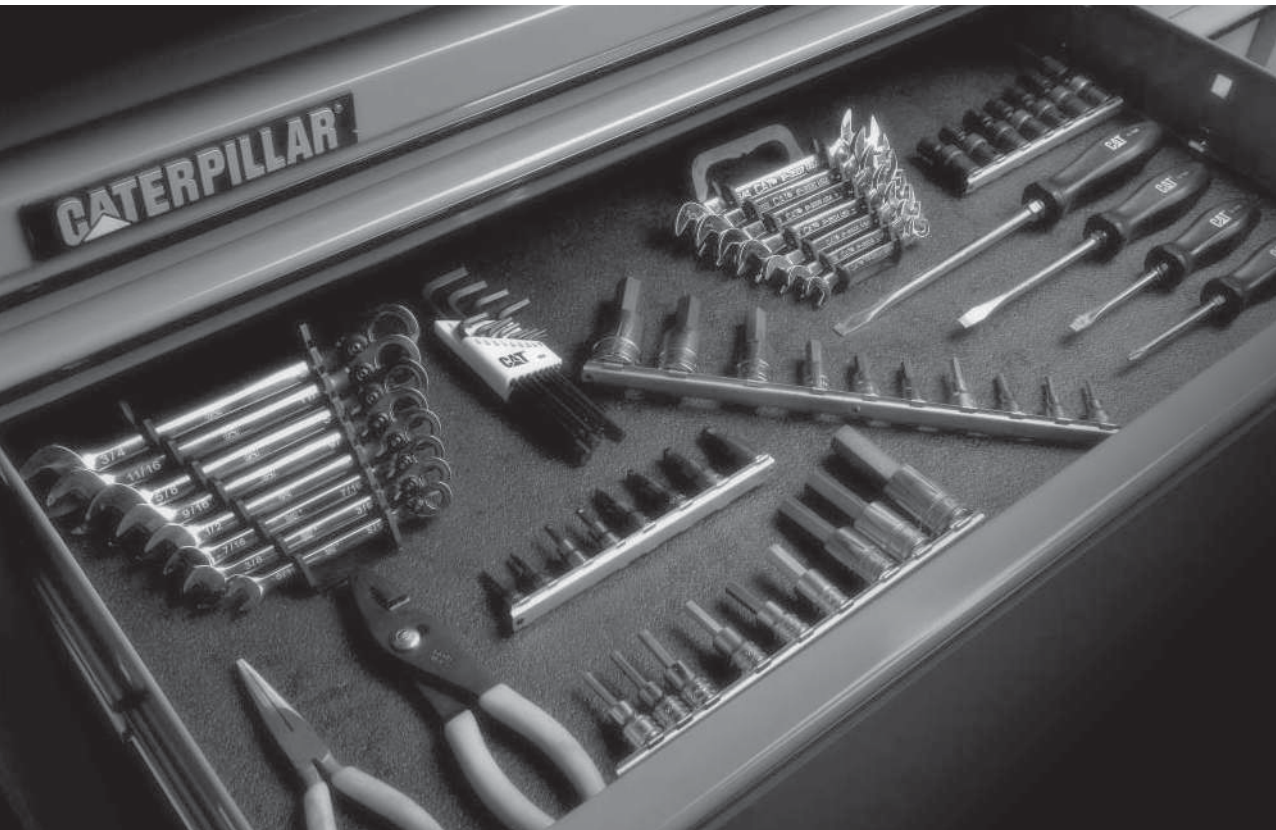
We are proud to offer you the thousands of Caterpillar[®] parts listed in this new edition of the *One Safe Source* catalog. You can count on genuine Cat parts to deliver top performance and long life, because they are built to high-quality, original equipment specifications.

We carry most parts listed in this catalog in stock for your immediate, off-the-shelf convenience. And thanks to Caterpillar's worldwide distribution system, we can deliver most other parts within 24 hours.

Our highly trained experts offer you comprehensive service options to keep your equipment up and running, maximizing your investment. Whether you are maintaining one-machine or many, the support you get from us makes the difference that counts every day.

Part numbers and specifications are subject to change without notice. To ensure you receive the correct parts, please provide the model and serial numbers of the machines or engines on which they will be used.

Some of the products listed in this catalog are not available in certain parts of the world. Please check with us for more information.



Your Cat® Dealer has everything you need for your Service Department.

CAT® DEALERS OFFER A WIDE RANGE of high-quality products you use every day in your maintenance and service department including:

- Hardware
- Hand and power tools
- Floor absorbents
- Personal safety products
- Paints and chemicals
- Shop towels
- Abrasives and drill bits
- And much more.

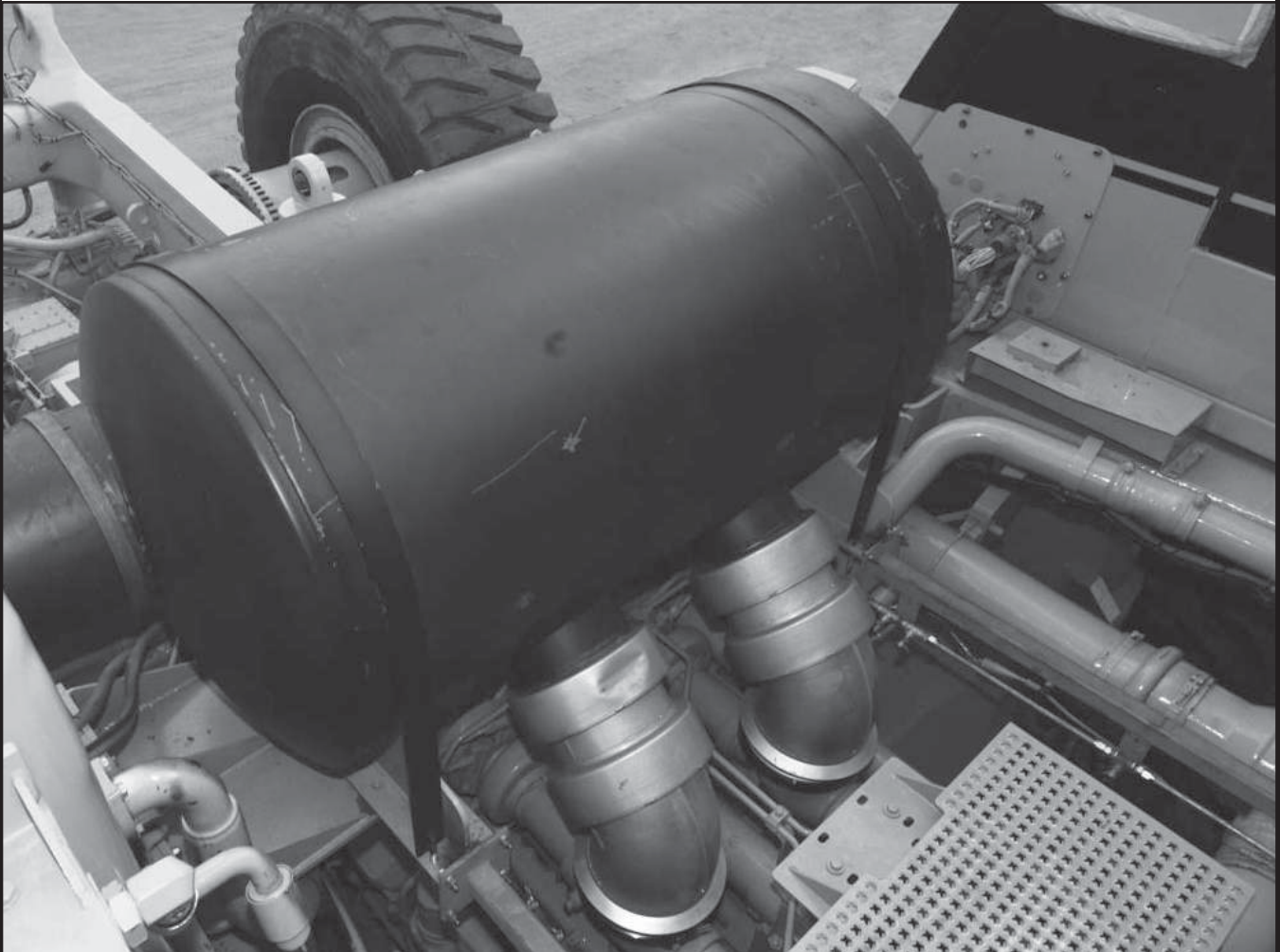
SERVICE. We'll be there with the solutions you need throughout the life of your Cat® machines. Call or stop by soon to find out all the ways we can help you get the most from your equipment.



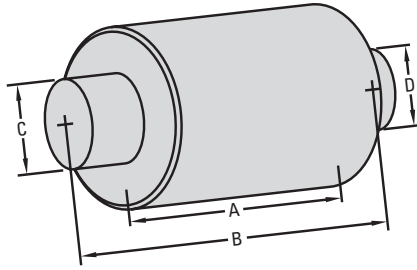
www.cat.com

© 2008 Caterpillar All Rights Reserved
CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

CATERPILLAR®
TODAY'S WORK. TOMORROW'S WORLD.™



Mufflers



- Help reduce engine exhaust sound and aid in operator comfort.
- Are essential for machines working in enclosed areas.

A Body Length	B Overall Length	C Inlet Diameter	D Outlet Diameter	Part Number	Additional Parts
279.4 mm (11.00 in)	482.6 mm (19 in)	101.6 mm (4 in)	101.6 mm (4 in)	3B-6216	
279.4 mm (11.00 in)	485.1 mm (19.1 in)	88.9 mm (3.5 in)	88.9 mm (3.5 in)	5H-2656	
302.3 mm (11.9 in)	485.1 mm (19.1 in)	76.2 mm (3 in)	76.2 mm (3 in)	3B-6218	
309.6 mm (12.19 in)	431.8 mm (17 in)	76.2 mm (3 in)	79.4 mm (3.13 in)	3K-3124	
309.9 mm (12.2 in)	433.4 mm (17.06 in)	117.5 mm (4.63 in)	130.2 mm (5.13 in)	6N-0731	
330.2 mm (13.00 in)	565.2 mm (22.25 in)	102.39 mm (4.031 in)	101.6 mm (4 in)	112-5088	7E-3870 — Clamp
333 mm (13.11 in)	494.22 mm (19.46 in)	34.9 mm (1.374 in)	34.9 mm (1.374 in)	150-3416	
336.6 mm (13.25 in)	565.2 mm (22.25 in)	102.4 mm (4.03 in)	101.6 mm (4 in)	7E-3683	
336.8 mm (13.26 in)	722.8 mm (28.46 in)	102.4 mm (4.03 in)	101.6 mm (4 in)	4Y-4951	
341.8 mm (13.46 in)	389 mm (15.31 in)	127.97 mm (5.038 in)	130.81 mm (5.15 in)	116-0680	
355.6 mm (14.00 in)	560 mm (22.05 in)	130.2 mm (5.13 in)	104.8 mm (4.13 in)	8N-9463	
374.5 mm (14.74 in)	590.6 mm (23.25 in)	128 mm (5.04 in)	127 mm (5 in)	1W-9229	
381 mm (15.00 in)	584.2 mm (23 in)	Threaded	76.2 mm (3 in)	2N-1572	
383.4 mm (15.09 in)	444.5 mm (17.5 in)	76.2 mm (3 in)	66.7 mm (2.63 in)	7N-4674	
393.7 mm (15.5 in)	533.4 mm (21 in)	76.2 mm (3 in)	79.5 mm (3.13 in)	4P-0660	
400 mm (15.75 in)	455 mm (17.91 in)	45.5 mm (1.791 in)	42 mm (1.654 in)	175-6542	
412.7 mm (16.25 in)	676.2 mm (26.62 in)	102.4 mm (4.03 in)	105.2 mm (4.14 in)	112-3249*	
434.3 mm (17.1 in)	679.5 mm (26.75 in)	111.1 mm (4.37 in)	114.3 mm (4.5 in)	8S-2809	
434.3 mm (17.1 in)	793.8 mm (31.25 in)	111.1 mm (4.37 in)	114.2 mm (4.5 in)	7N-8117	
434.3 mm (17.1 in)	882.6 mm (34.75 in)	111.1 mm (4.37 in)	114.3 mm (4.5 in)	2P-5081	
434.8 mm (17.12 in)	584.2 mm (23 in)	101.6 mm (4 in)	127 mm (5 in)	1W-2572	
434.9 mm (17.12 in)	584.2 mm (23 in)	101.6 mm (4 in)	127 mm (5 in)	6N-3964	
441.5 mm (17.38 in)	567 mm (22.32 in)	76.2 mm (3 in)	79.4 mm (3.13 in)	7N-0061	
444.5 mm (17.5 in)	526.5 mm (20.73 in)	92.1 mm (3.63 in)	104.8 mm (4.13 in)	8N-5388	
447.8 mm (17.63 in)	558.8 mm (22 in)	127 mm (5 in)	130.1 mm (5.12 in)	8S-9473	2B-6296 (2) — Stud
452.4 mm (17.81 in)	603.3 mm (23.75 in)	111.1 mm (4.37 in)	114.2 mm (4.5 in)	1P-0408	
452.4 mm (17.81 in)	679.5 mm (26.75 in)	111.1 mm (4.37 in)	114.3 mm (4.5 in)	7S-8443	
457.2 mm (18.00 in)	653.1 mm (25.71 in)	88.9 mm (3.5 in)	92.1 mm (3.63 in)	1W-4623	
459.7 mm (18.1 in)	663.9 mm (26.14 in)	127 mm (5 in)	131.8 mm (5.19 in)	7W-7439	
462.8 mm (18.22 in)	462.8 mm (18.22 in)	76.2 mm (3 in)	79.4 mm (3.13 in)	4P-4757	
465 mm (18.31 in)	1400 mm (55.12 in)	66.7 mm (2.626 in)	63.5 mm (2.5 in)	197-9717	
465 mm (18.31 in)	1554 mm (61.18 in)	66.7 mm (2.626 in)	63.5 mm (2.5 in)	131-8259	
470 mm (18.5 in)	470 mm (18.5 in)	73.4 mm (2.89 in)	73.3 mm (2.89 in)	127-8592	
470 mm (18.5 in)	470 mm (18.5 in)	73.4 mm (2.89 in)	73.3 mm (2.89 in)	127-8594	
470 mm (18.5 in)	470 mm (18.5 in)	73.4 mm (2.89 in)	73.3 mm (2.886 in)	142-1576	
472.6 mm (18.61 in)	844.6 mm (33.25 in)	102.39 mm (4.031 in)	104.19 mm (4.102 in)	112-7670	7E-3870 — Clamp
482.6 mm (19.00 in)	647.7 mm (25.5 in)	88.9 mm (3.5 in)	92.1 mm (3.63 in)	7C-7344	
482.6 mm (19.00 in)	647.7 mm (25.5 in)	102.4 mm (4.03 in)	105.2 mm (4.14 in)	9S-9328	
493 mm (19.41 in)	607 mm (23.9 in)	128 mm (5.04 in)	156.2 mm (6.15 in)	7N-1393	
493.7 mm (19.44 in)	683 mm (26.89 in)	127 mm (5 in)	127 mm (5 in)	7E-0853	
494 mm (19.45 in)	500 mm (19.69 in)	73.41 mm (2.89 in)	73.33 mm (2.887 in)	7W-5194	
499.1 mm (19.65 in)	660.4 mm (26 in)	127.96 mm (5.038 in)	157.23 mm (6.19 in)	200-3200	
500 mm (19.69 in)	500 mm (19.69 in)	73 mm (2.87 in)	73 mm (2.87 in)	9Y-0254	
500 mm (19.69 in)	550 mm (21.65 in)	80.7 mm (3.177 in)	80.7 mm (3.177 in)	8U-0801	

* Ejector is included with muffler.

(Continued)

Mufflers (Continued)

A Body Length	B Overall Length	C Inlet Diameter	D Outlet Diameter	Part Number	Additional Parts
501.7 mm (19.75 in)	802 mm (31.57 in)	89.4 mm (3.52 in)	91.75 mm (3.612 in)	146-9733	9Y-8315 — Clamp
505.5 mm (19.9 in)	626.5 mm (24.67 in)	116 mm (4.57 in)	130.8 mm (5.15 in)	7C-5851	
508 mm (20.00 in)	749.3 mm (29.5 in)	101.6 mm (4 in)	104.8 mm (4.13 in)	1W-1766	
508 mm (20.00 in)	1181.1 mm (46.5 in)	150.6 mm (5.93 in)	101.6 mm (4 in)	8S-0905	
508 mm (20.00 in)	591 mm (23.27 in)	102.11 mm (4.02 in)	102.11 mm (4.02 in)	2U-8426	7E-3870 — Clamp
511.9 mm (20.15 in)	626.5 mm (24.67 in)	116 mm (4.57 in)	130.8 mm (5.15 in)	4W-5053	
512 mm (20.16 in)	626.5 mm (24.67 in)	116 mm (4.57 in)	130.8 mm (5.15 in)	4P-6548	
512 mm (20.16 in)	626.5 mm (24.67 in)	116 mm (4.567 in)	130.81 mm (5.15 in)	101-8740	
513 mm (20.2 in)	513 mm (20.2 in)	76.65 mm (3.018 in)	79.5 mm (3.13 in)	101-0349	
516.4 mm (20.33 in)	569.4 mm (22.42 in)	116 mm (4.567 in)	130.81 mm (5.15 in)	6I-2408	
520.7 mm (20.5 in)	571.5 mm (22.5 in)	76.66 mm (3.018 in)	79.5 mm (3.13 in)	107-7473	
523.6 mm (20.61 in)	608.2 mm (23.94 in)	127.96 mm (5.038 in)	130.81 mm (5.15 in)	4P-6649	
523.8 mm (20.62 in)	608.3 mm (23.95 in)	127.96 mm (5.038 in)	156.24 mm (6.151 in)	200-3199	
528 mm (20.79 in)	597 mm (23.5 in)	64.01 mm (2.52 in)	64.01 mm (2.52 in)	134-1945	
533.4 mm (21 in)	681 mm (26.81 in)	128 mm (5.04 in)	156.2 mm (6.15 in)	7N-9674	
535.9 mm (21.1 in)	662.5 mm (26.08 in)	131.97 mm (5.196 in)	129.7 mm (5.106 in)	166-6670	
535.9 mm (21.1 in)	662.5 mm (26.08 in)	131.97 mm (5.196 in)	129.7 mm (5.106 in)	134-5423	
535.9 mm (21.1 in)	662.5 mm (26.08 in)	127.97 mm (5.038 in)	129.7 mm (5.106 in)	198-1939	
541.2 mm (21.31 in)	647.2 mm (25.48 in)	101.6 mm (4 in)	92.1 mm (3.63 in)	4P-4010	
552.2 mm (21.74 in)	644.7 mm (25.38 in)	127 mm (5 in)	155.6 mm (6.13 in)	1W-4187*	
558.2 mm (21.98 in)	563 mm (22.17 in)	73.4 mm (2.89 in)	73.33 mm (2.887 in)	112-5089	
558.2 mm (21.98 in)	563 mm (22.17 in)	73.4 mm (2.89 in)	73.33 mm (2.887 in)	112-5090	
558.8 mm (22.00 in)	755.7 mm (29.75 in)	114.3 mm (4.5 in)	130.2 mm (5.13 in)	2W-3428	2P-5608 (1) — Pipe 0S-1571 (2) — Bolt
558.8 mm (22.00 in)	895.6 mm (35.26 in)	127 mm (5 in)	130.8 mm (5.15 in)	6N-5437	
559 mm (22.01 in)	645 mm (25.39 in)	116 mm (4.57 in)	130.8 mm (5.15 in)	1N-2936	
565 mm (22.24 in)	894.8 mm (35.23 in)	222.3 mm (8.75 in)	257.2 mm (10.13 in)	4W-0532	
565.2 mm (22.25 in)	906.5 mm (35.69 in)	204.19 mm (8.039 in)	258.8 mm (10.189 in)	111-4352	
575 mm (22.64 in)	575 mm (22.64 in)	61.7 mm (2.429 in)	61.7 mm (2.429 in)	5I-7935	
575 mm (22.64 in)	575 mm (22.64 in)	61.5 mm (2.421 in)	61.5 mm (2.421 in)	5I-7914	
581.1 mm (22.88 in)	581.1 mm (22.88 in)	89.3 mm (3.516 in)	91.7 mm (3.61 in)	173-7129	9Y-8315 — Clamp
596.7 mm (23.49 in)	741.4 mm (29.19 in)	169.4 mm (6.669 in)	171.04 mm (6.734 in)	4W-8485	
596.9 mm (23.5 in)	596.9 mm (23.5 in)	101.6 mm (4 in)	104.8 mm (4.13 in)	2W-3597	
596.9 mm (23.5 in)	755.6 mm (29.75 in)	168.3 mm (6.63 in)	171 mm (6.73 in)	7W-3659	
596.9 mm (23.5 in)	755.7 mm (29.75 in)	168.3 mm (6.63 in)	171 mm (6.73 in)	7W-3660	
600 mm (23.62 in)	747.3 mm (29.42 in)	127 mm (5 in)	155.6 mm (6.13 in)	7C-6398	
600 mm (23.62 in)	654 mm (25.75 in)	89.28 mm (3.515 in)	101.6 mm (4 in)	7C-3693	
601.7 mm (23.69 in)	939.8 mm (37 in)	101.6 mm (4 in)	130.2 mm (5.13 in)	2P-5609	
601.7 mm (23.69 in)	939.8 mm (37 in)	102.4 mm (4.03 in)	130.8 mm (5.15 in)	4N-8942*	
601.6 mm (23.69 in)	1035 mm (40.75 in)	101.6 mm (4 in)	104.8 mm (4.13 in)	6N-1878	
609.6 mm (24.00 in)	696 mm (27.4 in)	111.1 mm (4.37 in)	133.4 mm (5.25 in)	4W-3632	
609.5 mm (24.00 in)	787.5 mm (31 in)	102.4 mm (4.03 in)	130.8 mm (5.15 in)	2T-3814	
612.6 mm (24.12 in)	612.6 mm (24.12 in)	89.3 mm (3.516 in)	92.13 mm (3.627 in)	9Y-4668	9Y-8315 — Clamp
612.6 mm (24.12 in)	612.5 mm (24.11 in)	89.3 mm (3.516 in)	92.13 mm (3.627 in)	119-8411	9Y-8315 — Clamp
612.6 mm (24.12 in)	1551.7 mm (61.09 in)	220.1 mm (8.665 in)	258.8 mm (10.189 in)	4W-0969	
622.3 mm (24.5 in)	571.5 mm (22.5 in)	76.66 mm (3.018 in)	66.8 mm (2.63 in)	126-0734	
625.4 mm (24.62 in)	735.2 mm (28.94 in)	155.6 mm (6.13 in)	158.8 mm (6.25 in)	2W-8437	
625.6 mm (24.63 in)	774.2 mm (30.48 in)	127.64 mm (5.025 in)	156.2 mm (6.15 in)	4P-1463	
630 mm (24.8 in)	630 mm (24.8 in)	93.1 mm (3.67 in)	79.5 mm (3.13 in)	112-1665	
635.1 mm (25.00 in)	689 mm (27.13 in)	76.2 mm (3 in)	79.4 mm (3.13 in)	9Y-1403	
635.2 mm (25.01 in)	1051 mm (41.38 in)	102.4 mm (4.031 in)	130.8 mm (5.15 in)	2C-9500	2C-8705 — Cap

* Ejector is included with muffler.

(Continued)

Mufflers

Mufflers (Continued)

A Body Length	B Overall Length	C Inlet Diameter	D Outlet Diameter	Part Number	Additional Parts
645 mm (25.39 in)	645 mm (25.39 in)	61.5 mm (2.42 in)	94 mm (3.7 in)	272-4674	
645 mm (25.39 in)	645 mm (25.39 in)	66 mm (2.6 in)	94 mm (3.7 in)	272-4673	
654 mm (25.75 in)	790.7 mm (31.13 in)	168.2 mm (6.622 in)	171.04 mm (6.734 in)	4P-2496	
657.2 mm (25.87 in)	844.6 mm (33.25 in)	127 mm (5 in)	127 mm (5 in)	6N-0396*	
660.4 mm (26.00 in)	660.4 mm (26 in)	101.6 mm (4 in)	101.6 mm (4 in)	7E-2944	
660.4 mm (26.00 in)	788 mm (31.02 in)	104.8 mm (4.13 in)	101.6 mm (4 in)	7E-5663	
660.4 mm (26.00 in)	831.9 mm (32.75 in)	101.6 mm (4 in)	130.2 mm (5.13 in)	9S-7079*	
660.4 mm (26.00 in)	844.6 mm (33.25 in)	127 mm (5 in)	130.2 mm (5.13 in)	4N-4577*	
660.4 mm (26.00 in)	844.6 mm (33.25 in)	127 mm (5 in)	130.2 mm (5.13 in)	8S-6558	
660.4 mm (26.00 in)	844.5 mm (33.25 in)	127 mm (5 in)	130.2 mm (5.13 in)	7N-3235*	
660.4 mm (26.00 in)	882.7 mm (34.75 in)	88.9 mm (3.5 in)	104.8 mm (4.13 in)	2P-6255	
660.4 mm (26.00 in)	882.7 mm (34.75 in)	101.6 mm (4 in)	104.8 mm (4.13 in)	2P-2744	
660.4 mm (26.00 in)	938 mm (36.93 in)	127 mm (5 in)	130.2 mm (5.13 in)	4W-0456*	
660.4 mm (26.00 in)	952.5 mm (37.5 in)	152.4 mm (6 in)	155.6 mm (6.13 in)	8S-5438*	
660.4 mm (26.00 in)	952.5 mm (37.5 in)	152.4 mm (6 in)	155.6 mm (6.13 in)	8S-6443	
660.4 mm (26.00 in)	987 mm (38.86 in)	127 mm (5 in)	155.6 mm (6.13 in)	1N-3452*	4P-6465 (1) — Tube Assy.
660.4 mm (26.00 in)	819.2 mm (32.25 in)	89.3 mm (3.516 in)	89.3 mm (3.516 in)	111-0389	
660.4 mm (26.00 in)	914.4 mm (36 in)	102.39 mm (4.031 in)	130.81 mm (5.15 in)	4N-5191	
660.4 mm (26.00 in)	952.5 mm (37.5 in)	153.39 mm (6.039 in)	171.04 mm (6.734 in)	1W-2489	
660.4 mm (26.00 in)	660.4 mm (26.00 in)	89.3 mm (3.52 in)	91.7 mm (3.61 in)	252-1152	
663.1 mm (26.11 in)	809.7 mm (31.88 in)	169.4 mm (6.669 in)	171.04 mm (6.734 in)	7W-5867	
663.4 mm (26.12 in)	663.4 mm (26.12 in)	102.4 mm (4.031 in)	101.6 mm (4 in)	137-6995	7E-3870 — Clamp
673.1 mm (26.5 in)	774.7 mm (30.5 in)	76.2 mm (3 in)	66.7 mm (2.63 in)	4N-6638	
693 mm (27.28 in)	693 mm (27.28 in)	102.39 mm (4.031 in)	105.23 mm (4.143 in)	7Y-2040	
697 mm (27.44 in)	1060.7 mm (41.76 in)	92.1 mm (3.63 in)	92.1 mm (3.63 in)	137-4097	
723.9 mm (28.5 in)	1122.4 mm (44.19 in)	63.5 mm (2.5 in)	66.7 mm (2.63 in)	7N-1659	
723.9 mm (28.5 in)	723.9 mm (28.5 in)	102.39 mm (4.031 in)	104.2 mm (4.102 in)	6I-3662	7E-3870 — Clamp
724 mm (28.5 in)	724 mm (28.5 in)	102.39 mm (4.031 in)	104.2 mm (4.102 in)	128-1009	7E-3870 — Clamp
725.4 mm (28.56 in)	775.4 mm (30.53 in)	153.4 mm (6.039 in)	156 mm (6.142 in)	157-2828	
727 mm (28.62 in)	824.8 mm (32.47 in)	154.6 mm (6.087 in)	203.2 mm (8 in)	2W-9626	
733.4 mm (28.87 in)	1122 mm (44.17 in)	76.2 mm (3 in)	66.7 mm (2.63 in)	1W-9832	
736.6 mm (29.00 in)	930.2 mm (36.62 in)	127 mm (5 in)	152.4 mm (6 in)	6N-4184*	
736.6 mm (29.00 in)	977.9 mm (38.5 in)	127 mm (5 in)	155.6 mm (6.13 in)	7N-8923*	7N-8903 (1) — Bracket Assy. 0S-1588 (1) — Cap Screw 1D-4717 (1) — Nut 5M-2894 (2) — Washer
790 mm (31.1 in)	790 mm (31.1 in)	102.4 mm (4.03 in)	105.2 mm (4.14 in)	7Y-1508	
790 mm (31.1 in)	790 mm (31.1 in)	102.39 mm (4.031 in)	105.23 mm (4.143 in)	118-9906	
796.8 mm (31.37 in)	1136.6 mm (44.75 in)	203.2 mm (8 in)	206.4 mm (8.13 in)	7N-6905	
806.5 mm (31.75 in)	1035 mm (40.75 in)	168.3 mm (6.63 in)	168.3 mm (6.63 in)	7W-8445*	
806.4 mm (31.75 in)	1054.1 mm (41.5 in)	152.4 mm (6 in)	171.5 mm (6.75 in)	4N-5184	
806.5 mm (31.75 in)	1098.6 mm (43.25 in)	168.2 mm (6.62 in)	171.2 mm (6.74 in)	2P-2728	6F-7012 (2) — Stud
806.5 mm (31.75 in)	1098.6 mm (43.25 in)	168.2 mm (6.62 in)	171.2 mm (6.74 in)	8S-6559	
806.4 mm (31.75 in)	1098 mm (43.2 in)	168.2 mm (6.62 in)	171 mm (6.73 in)	307-1303	
806.5 mm (31.75 in)	1098.6 mm (43.25 in)	168.3 mm (6.63 in)	171.5 mm (6.75 in)	8N-4975	
806.5 mm (31.75 in)	1143 mm (45 in)	168.2 mm (6.62 in)	171.2 mm (6.74 in)	9S-7786*	
806.5 mm (31.75 in)	1098.55 mm (43.25 in)	168.2 mm (6.622 in)	171.15 mm (6.738 in)	8S-8167	
806.5 mm (31.75 in)	1098.6 mm (43.25 in)	168.2 mm (6.622 in)	171.15 mm (6.738 in)	1W-2491	
813 mm (32.01 in)	1132 mm (44.57 in)	89.15 mm (3.51 in)	89 mm (3.504 in)	222-0458	
817.6 mm (32.19 in)	1071 mm (42.17 in)	153.39 mm (6.039 in)	156.4 mm (6.157 in)	7W-9707	1F-0750 — Weld Nut
825.5 mm (32.5 in)	1089.8 mm (42.91 in)	101.6 mm (4 in)	104.8 mm (4.13 in)	1W-0370	

* Ejector is included with muffler.

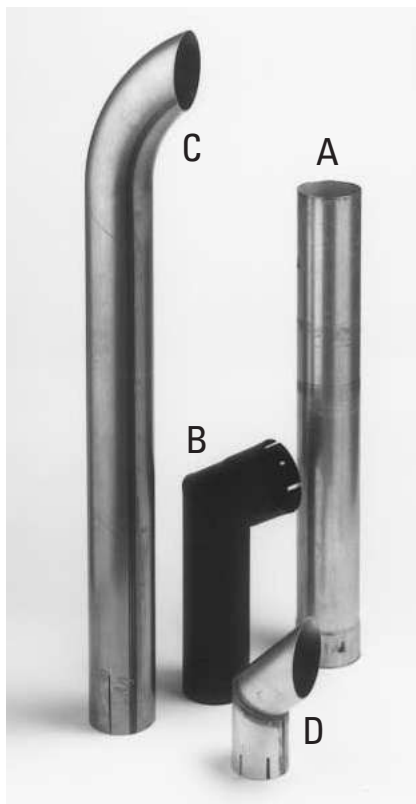
(Continued)

Mufflers (Continued)

A Body Length	B Overall Length	C Inlet Diameter	D Outlet Diameter	Part Number	Additional Parts
828.8 mm (32.63 in)	1132.52 mm (44.59 in)	88.9 mm (3.5 in)	92.1 mm (3.626 in)	100-4594	8N-4044 — Flange
844.6 mm (33.25 in)	1136.6 mm (44.75 in)	204.19 mm (8.039 in)	202.92 mm (7.989 in)	2W-3773	
875 mm (34.45 in)	875 mm (34.45 in)	102.39 mm (4.031 in)	114.2 mm (4.496 in)	7Y-1978	
875 mm (34.45 in)	875 mm (34.45 in)	102.39 mm (4.031 in)	114.2 mm (4.496 in)	6I-6425	
875 mm (34.45 in)	875 mm (34.45 in)	102.39 mm (4.031 in)	105.23 mm (4.143 in)	109-9323	7E-3870 — Clamp
875 mm (34.45 in)	875 mm (34.45 in)	102.39 mm (4.031 in)	114.2 mm (4.496 in)	109-9463	7E-3870 — Clamp
889 mm (35.00 in)	977.6 mm (38.49 in)	76.2 mm (3 in)	79.4 mm (3.13 in)	7N-5539	
889 mm (35.00 in)	1074.7 mm (42.31 in)	127 mm (5 in)	152.4 mm (6 in)	7N-2187	
889 mm (35.00 in)	1122.5 mm (44.19 in)	76.2 mm (3 in)	79.4 mm (3.13 in)	1W-9519	
898.5 mm (35.37 in)	1121.5 mm (44.15 in)	89.15 mm (3.51 in)	76.2 mm (3 in)	6I-1715	8N-4044 — Flange
924 mm (36.38 in)	924 mm (36.38 in)	141 mm (5.551 in)	152.4 mm (6 in)	102-3927	
924 mm (36.38 in)	924 mm (36.38 in)	127.8 mm (5.031 in)	131 mm (5.157 in)	196-8203	
924 mm (36.38 in)	924 mm (36.38 in)	127.8 mm (5.031 in)	131 mm (5.157 in)	139-8723	
924 mm (36.38 in)	954.5 mm (37.58 in)	127.8 mm (5.031 in)	131 mm (5.157 in)	205-6642	
952.5 mm (37.5 in)	1136.6 mm (44.75 in)	128 mm (5.04 in)	153.4 mm (6.04 in)	4N-1565*	
965.2 mm (38.00 in)	1141.5 mm (44.94 in)	101.6 mm (4 in)	127 mm (5 in)	6N-4183*	
990.6 mm (39.00 in)	1143 mm (45 in)	152.4 mm (6 in)	152.4 mm (6 in)	2W-4072	2W-7861 (1) — Flange 2W-7862 (1) — Gasket 5L-4398 (6) — Bolt 1B-5357 (6) — Nut 5P-8245 (12) — Washer
1024.1 mm (40.32 in)	1024.4 mm (40.33 in)	116 mm (4.567 in)	129.67 mm (5.105 in)	160-8583	
1028.7 mm (40.5 in)	1114.5 mm (43.88 in)	168.2 mm (6.62 in)	171 mm (6.73 in)	7N-9647	
1066.8 mm (42.00 in)	1371.6 mm (54 in)	254 mm (10 in)	258.8 mm (10.19 in)	7E-6811	
1127 mm (44.37 in)	1601.9 mm (63.07 in)	152.4 mm (6 in)	130.81 mm (5.15 in)	122-4989	
1155.5 mm (45.49 in)	1595.5 mm (62.81 in)	152.4 mm (6 in)	130.2 mm (5.13 in)	7W-7181	
1354.8 mm (53.34 in)	1505 mm (59.25 in)	127.64 mm (5.025 in)	127 mm (5 in)	163-0451	
1378 mm (54.25 in)	1505 mm (59.25 in)	127.64 mm (5.025 in)	127 mm (5 in)	6I-0137	
1449.3 mm (57.06 in)	1700.3 mm (66.94 in)	102.4 mm (4.031 in)	101.6 mm (4 in)	129-4048	7E-3870 — Clamp
1455.6 mm (57.31 in)	1700.3 mm (66.94 in)	102.4 mm (4.031 in)	127 mm (5 in)	106-6699	7E-3870 — Clamp
1509.8 mm (59.44 in)	1593.9 mm (62.75 in)	152.4 mm (6 in)	130.2 mm (5.13 in)	7W-7182	

* Ejector is included with muffler.

Exhaust Pipe Extensions



- Help remove exhaust, sound, and smoke from the operator's area.
- Not for use with an engine that has an air pre-cleaner with an exhaust-powered dust ejection system.

Item	Outside Diameter	Length	Part Number
Straight Pipe (A)	63.5 mm (2.50 in)	673.1 mm (26.50 in)	3B-6940
Straight Pipe (A)	76.2 mm (3.00 in)	584.2 mm (23.00 in)	8F-6403
Straight Pipe (A)	76.2 mm (3.00 in)	838.2 mm (33.00 in)	7B-3831
Straight Pipe (A)	76.2 mm (3.00 in)	1574.8 mm (62.00 in)	7M-5350
Straight Pipe (A)	82.6 mm (3.25 in)	901.7 mm (35.50 in)	1P-9554
Straight Pipe (A)	88.9 mm (3.50 in)	762.0 mm (30.00 in)	3H-8688
Straight Pipe (A)	92.2 mm (3.63 in)	730.0 mm (28.74 in)	6C-0027
Straight Pipe (A)	101.6 mm (4.00 in)	339.6 mm (13.37 in)	4N-6217
Straight Pipe (A)	101.6 mm (4.00 in)	698.5 mm (27.50 in)	9F-2838
Straight Pipe (A)	101.6 mm (4.00 in)	762.0 mm (30.00 in)	4H-7256
Straight Pipe (A)	101.6 mm (4.00 in)	850.9 mm (33.50 in)	4M-0810
Straight Pipe (A)	105.2 mm (4.14 in)	635.0 mm (25.00 in)	2P-6249
Straight Pipe (A)	114.3 mm (4.50 in)	762.0 mm (30.00 in)	1M-5270
Straight Pipe (A)	117.5 mm (4.63 in)	431.8 mm (17.00 in)	8S-8981
Straight Pipe (A)	117.5 mm (4.63 in)	698.5 mm (27.50 in)	9S-1768
Straight Pipe (A)	130.8 mm (5.15 in)	908.1 mm (35.75 in)	2P-1438
Straight Pipe (A)	133.4 mm (5.25 in)	762.0 mm (30.00 in)	8H-2718
Straight Pipe (A)	149.9 mm (5.90 in)	762.0 mm (30.00 in)	4S-6941
Straight Pipe (A)	168.2 mm (6.62 in)	797.1 mm (31.38 in)	9S-6120
Straight Pipe (A)	171.5 mm (6.75 in)	304.8 mm (12.00 in)	4N-6668
45° Outlet (B)	108.0 mm (4.25 in)	276.1 mm (10.87 in)	1P-8463
Radial Square Cut Outlet (C)	101.6 mm (4.00 in)	312.7 mm (12.31 in)	7N-2537
Radial Square Cut Outlet (C)	101.6 mm (4.00 in)	1003.3 mm (39.50 in)	2H-2191
Radial Square Cut Outlet (C)	152.4 mm (6.00 in)	965.0 mm (37.99 in)	7E-3509
Radial Square Cut Outlet (C)	152.4 mm (6.00 in)	1267.0 mm (49.88 in)	4N-5958
Radial Square Cut Outlet (C)	167.4 mm (6.59 in)	1092.2 mm (43.00 in)	3R-5327
45° Square Cut Outlet (D)	80.3 mm (3.16 in)	248.9 mm (9.80 in)	9S-7534
45° Square Cut Outlet (D)	80.3 mm (3.16 in)	654.1 mm (25.75 in)	7S-7128
45° Square Cut Outlet (D)	80.3 mm (3.16 in)	1125.2 mm (44.30 in)	7S-7681
45° Square Cut Outlet (D)	107.6 mm (4.24 in)	285.0 mm (11.22 in)	7Y-1517
45° Square Cut Outlet (D)	107.7 mm (4.24 in)	676.2 mm (26.62 in)	2P-4611
45° Square Cut Outlet (D)	111.3 mm (4.38 in)	1016.0 mm (40.00 in)	5M-5856
45° Square Cut Outlet (D)	114.8 mm (4.52 in)	665.2 mm (26.19 in)	7S-8736
45° Square Cut Outlet (D)	139.7 mm (5.50 in)	950.0 mm (37.40 in)	8N-4445
45° Square Cut Outlet (D)	167.4 mm (6.59 in)	1339.9 mm (52.75 in)	7M-9877
45° Square Cut Outlet (D)	175.0 mm (6.89 in)	1066.8 mm (42.00 in)	9S-7290
45° Square Cut Outlet (D)	195.1 mm (7.68 in)	1378.0 mm (54.25 in)	5D-7771

Related parts, such as hardware and braces, are not included with all exhaust pipe extensions. Please check the parts book for related part numbers.

Intake extensions raise the air intake level to avoid low-lying dust concentrations.

- Provide cleaner air for your engine.
- Are easily installed between the pre-cleaner and the inlet pipe of the air cleaner.

Item	Outside Diameter	Length	Part Number
Air Intake Pipe Extension	82.6 mm (3.25 in)	698.5 mm (27.50 in)	7S-7117
Air Intake Pipe Extension	82.6 mm (3.25 in)	1168.4 mm (46.00 in)	8S-0985
Air Intake Pipe Extension (with clamp)	101.6 mm (4.00 in)	342.9 mm (13.50 in)	8S-2382
Air Intake Pipe Extension	101.6 mm (4.00 in)	762.0 mm (30.00 in)	7F-1499
Air Intake Pipe Extension	101.6 mm (4.00 in)	1320.8 mm (52.00 in)	1F-1342
Air Intake Pipe Extension	115.1 mm (4.53 in)	457.2 mm (18.00 in)	7H-0870
Air Intake Pipe Extension	127.0 mm (5.00 in)	342.9 mm (13.50 in)	8S-2381
Air Intake Pipe Extension	127.0 mm (5.00 in)	457.2 mm (18.00 in)	9H-8318
Air Intake Pipe Extension	127.0 mm (5.00 in)	1143.0 mm (45.00 in)	5H-7610
Air Intake Pipe Extension	150.1 mm (5.91 in)	1143.0 mm (45.00 in)	5D-5016
Air Intake Pipe Extension (with clamp)	167.1 mm (6.58 in)	342.9 mm (13.50 in)	8S-2383
Air Intake Pipe Extension (with clamp)	177.8 mm (7.00 in)	685.8 mm (27.00 in)	8S-8354
Air Intake Pipe Extension (with clamp)	228.6 mm (9.00 in)	339.1 mm (13.35 in)	8S-2384



Air Intake and Exhaust Stack Clamps



Item	Diameter	Part Number
Air Intake and Exhaust Stack Clamps	35.1 mm (1.38 in)	8M-4106
Air Intake and Exhaust Stack Clamps	38.1 mm (1.50 in)	1F-9774
Air Intake and Exhaust Stack Clamps	42.5 mm (1.67 in)	8M-7581
Air Intake and Exhaust Stack Clamps	44.5 mm (1.75 in)	8M-2325
Air Intake and Exhaust Stack Clamps	63.5 mm (2.50 in)	6B-3771
Air Intake and Exhaust Stack Clamps	67.6 mm (2.66 in)	2F-8299
Air Intake and Exhaust Stack Clamps	68.5 mm (2.70 in)	099-2062
Air Intake and Exhaust Stack Clamps	69.9 mm (2.75 in)	8N-9758
Air Intake and Exhaust Stack Clamps	76.2 mm (3.00 in)	8M-3121
Air Intake and Exhaust Stack Clamps	79.2 mm (3.12 in)	4K-2544
Air Intake and Exhaust Stack Clamps	79.8 mm (3.14 in)	2F-5152
Air Intake and Exhaust Stack Clamps	81.8 mm (3.22 in)	1W-5869
Air Intake and Exhaust Stack Clamps	83.3 mm (3.28 in)	5S-0580
Air Intake and Exhaust Stack Clamps	83.5 mm (3.29 in)	5A-8598
Air Intake and Exhaust Stack Clamps	93.3 mm (3.67 in)	3H-8604
Air Intake and Exhaust Stack Clamps	96.0 mm (3.78 in)	8F-5714
Air Intake and Exhaust Stack Clamps	103.9 mm (4.09 in)	2H-2190
Air Intake and Exhaust Stack Clamps	106.0 mm (4.17 in)	9S-8068
Air Intake and Exhaust Stack Clamps	109.5 mm (4.31 in)	9S-8071
Air Intake and Exhaust Stack Clamps	118.6 mm (4.67 in)	5A-8600
Air Intake and Exhaust Stack Clamps	131.4 mm (5.17 in)	2P-7806
Air Intake and Exhaust Stack Clamps	131.6 mm (5.18 in)	6F-8814
Air Intake and Exhaust Stack Clamps	133.4 mm (5.25 in)	8H-2758
Air Intake and Exhaust Stack Clamps	142.0 mm (5.59 in)	8M-0280
Air Intake and Exhaust Stack Clamps	152.4 mm (6.00 in)	5D-5017
Air Intake and Exhaust Stack Clamps	157.2 mm (6.19 in)	1N-4720
Air Intake and Exhaust Stack Clamps	160.5 mm (6.32 in)	8S-5444
Air Intake and Exhaust Stack Clamps	165.6 mm (6.52 in)	2R-1159
Air Intake and Exhaust Stack Clamps	171.9 mm (6.77 in)	5H-7292
Air Intake and Exhaust Stack Clamps	174.2 mm (6.86 in)	8S-1460
Air Intake and Exhaust Stack Clamps	178.8 mm (7.04 in)	5S-5327
Air Intake and Exhaust Stack Clamps	181.6 mm (7.15 in)	8S-1353
Air Intake and Exhaust Stack Clamps	185.0 mm (7.28 in)	7P-4595
Air Intake and Exhaust Stack Clamps	198.1 mm (7.80 in)	8M-1883
Air Intake and Exhaust Stack Clamps	207.3 mm (8.16 in)	4N-9330
Air Intake and Exhaust Stack Clamps	208.0 mm (8.19 in)	2P-7418
Air Intake and Exhaust Stack Clamps	213.4 mm (8.40 in)	1W-1305
Air Intake and Exhaust Stack Clamps	223.9 mm (8.81 in)	4W-1814
Air Intake and Exhaust Stack Clamps	265.8 mm (10.46 in)	6N-9298

Rain traps and rain caps are made of heavy-gauge steel and are gravity-operated to provide low-cost protection for engine exhaust systems.

- Help keep rain, snow, and dirt from entering the exhaust manifold.
- Available for every Cat diesel and starting engine exhaust stack and for most other engines in your equipment spread.
- For use with both turbocharged and naturally-aspirated engines.
- Not for use with machines that have a muffler.

Item	Exhaust Stack Diameter	Part Number
Rain Cap	32-36 mm (1.25-1.44 in)	7S-1724
Rain Trap	34-38 mm (1.34-1.47 in)	8F-3822
Rain Trap	37-41 mm (1.47-1.59 in)	8F-3825
Locking Rain Cap	38-43 mm (1.50-1.69 in)	7S-5004
Rain Trap	63-68 mm (2.50-2.69 in)	6F-6521
Locking Rain Cap	63-68 mm (2.50-2.69 in)	7S-4993
Rain Trap	76-81 mm (3.00-3.19 in)	6F-6522
Locking Rain Cap	76-81 mm (3.00-3.19 in)	7S-4992
Locking Rain Cap	82-87 mm (3.22-3.41 in)	8S-1935
Locking Rain Cap	88-94 mm (3.50-3.69 in)	7S-4995
Locking Rain Cap	102-106 mm (4.00-4.19 in)	7S-4994
Locking Rain Cap	114-119 mm (4.50-4.69 in)	7S-1784
Rain Cap	127-132 mm (5.00-5.19 in)	9S-7148
Locking Rain Cap	133-138 mm (5.25-5.44 in)	7S-4413
Rain Cap	140-144 mm (5.50-5.69 in)	7S-4410
Rain Cap	152-157 mm (6.00-6.20 in)	7S-4411
Rain Cap	156-160 mm (6.14-6.30 in)	3R-7698
Locking Rain Cap	171-176 mm (6.75-6.94 in)	7S-5003
Locking Rain Cap	175-180 mm (6.88-7.07 in)	8S-1417
Rain Cap	203 mm (8.00 in)	6N-7611



ONE SAFE SOURCE

2008-2009



BATTERIES AND ELECTRICAL PARTS

Batteries

Premium High Output Batteries



- Vibration Resistance . . . 5-times the industry Standard.
- 4D & 8D Maintenance Free Batteries — World's Highest Cold Cranking Amps.
- Exclusive "Flat Top" 4D & 8D Maintenance Free Batteries — No leaking or lost caps.
- Provide three or more times the life of the best known battery brands.

BCI Group Size	Part Number	Cold Cranking Amps*	Reserve Capacity Minutes**	Volts	Amp Hr. Capacity @ 20 Hrs.	Construction
8D	153-5720	1,500	465	12	210	Maintenance Free — Calcium Design
8D	101-4000	1,400	400	12	190	Hybrid Design (Dry Only)
4D	153-5710	1,400	425	12	200	Maintenance Free — Calcium Design
4D	153-5700	1,125	305	12	145	Maintenance Free — Calcium Design
4D	9X-9730	1,300	400	12	190	Hybrid Design (Dry Only)
4D	9X-9720	1,000	275	12	140	Hybrid Design (Dry Only)
31	175-4390	1,000	180	12	90	Maintenance Free — Calcium Design, Stud Terminals — Starting
31	175-4370	825	190	12	100	Maintenance Free — Calcium Design, Stud Terminals, Start/Deep Cycle
31	175-4360	710	185	12	100	Maintenance Free — Calcium Design, Stud Terminals, Deep Cycle/Start
31	115-2422	1,000	170	12	90	Maintenance Free — Calcium Design — Accessible Cover
31	115-2421	950	170	12	90	Maintenance Free — Calcium Design — Accessible Cover
31	9X-3404	950	165	12	100	Maintenance Free — Calcium Design
31	3T-5760	750	165	12	100	Maintenance Free — Silver/Calcium Design
24	153-5656	650	110	12	52	Maintenance Free — Silver/Calcium Design
74	153-5660	650	110	12	52	Maintenance Free — Silver/Calcium Design, Side Terminals
58	175-4280	500	70	12	35	Maintenance Free — Silver/Calcium Design
2	153-5690	765	210	6	90	Hybrid Design (Dry Only)
31	250-0480	710	185	12	100	Maintenance Free — Calcium Design, Dual Terminal Stud and SAE-Marine Deep Cycle/Starting
65	230-6368	880	140	12	80	Maintenance Free — Silver/Calcium Design

All batteries have taper post design and are shipped dry except as noted.

* For 30 seconds at 0° F

** 25 Amp output at 80° F

Premium High Output Batteries (Continued)



BCI Group Size	Part Number	Add Water Maintenance Check/Hrs.	BCI Overall Dimensions			Nominal Weight		Acid To Fill
			Length	Width	Height	Wet	Dry	
8D	153-5720	MF	520 mm (20.47 in)	275 mm (10.8 in)	248 mm (9.76 in)	60 kg (132 lb)	--	--
8D	101-4000	1,000	526.5 mm (20.7 in)	278 mm (10.96 in)	248 mm (9.76 in)	60 kg (132 lb)	39 kg (86 lb)	17.0 L (18.0 qt)
4D	153-5710	MF	520 mm (20.47 in)	218 mm (8.58 in)	248 mm (9.76 in)	54 kg (119 lb)	--	--
4D	153-5700	MF	520 mm (20.47 in)	218 mm (8.58 in)	248 mm (9.76 in)	46 kg (101 lb)	--	--
4D	9X-9730	1,000	527 mm (20.75 in)	218 mm (8.58 in)	248 mm (9.76 in)	54 kg (119 lb)	37 kg (81 lb)	14.0 L (14.8 qt)
4D	9X-9720	1,000	527 mm (20.75 in)	218 mm (8.58 in)	248 mm (9.76 in)	46 kg (101 lb)	27 kg (59 lb)	15.0 L (15.9 qt)
31	175-4390	MF	328.4 mm (12.9 in)	171.2 mm (6.74 in)	236 mm (9.29 in)	27 kg (60 lb)	--	--
31	175-4370	MF	328.4 mm (12.9 in)	171.2 mm (6.74 in)	236 mm (9.29 in)	27 kg (60 lb)	--	--
31	175-4360	MF	328.4 mm (12.9 in)	171.2 mm (6.74 in)	236 mm (9.29 in)	27 kg (60 lb)	--	--
31	115-2422	MF	328.4 mm (12.9 in)	171.2 mm (6.74 in)	240.3 mm (9.46 in)	27 kg (60 lb)	--	--
31	115-2421	MF	328.4 mm (12.9 in)	171.2 mm (6.74 in)	240.3 mm (9.46 in)	27 kg (60 lb)	20 kg (44 lb)	6.2 L (6.6 qt)
31	9X-3404	MF	330.2 mm (13 in)	172 mm (6.77 in)	240.3 mm (9.46 in)	26 kg (58 lb)	--	--
31	3T-5760	MF	330.2 mm (13 in)	172 mm (6.77 in)	240.3 mm (9.46 in)	25 kg (55 lb)	--	--
24	153-5656	MF	278.9 mm (10.98 in)	174 mm (6.85 in)	229.1 mm (9.0 in)	18 kg (39 lb)	--	--
74	153-5660	MF	278.9 mm (10.98 in)	178.2 mm (7.0 in)	206.9 mm (8.15 in)	18 kg (39 lb)	--	--
58	175-4280	MF	253.1 mm (9.96 in)	182.5 mm (7.2 in)	176 mm (6.9 in)	14 kg (31 lb)	--	--
2	153-5690	1,000	260 mm (10.24 in)	173 mm (6.8 in)	221.6 mm (8.72 in)	17 kg (37 lb)	10 kg (22 lb)	4.5 L (4.8 qt)
31	250-0480	MF	328.4 mm (12.9 in)	171.2 mm (6.74 in)	236 mm (9.29 in)	27 kg (60 lb)	--	--
65	230-6368	MF	303.4 mm (11.9 in)	190.8 mm (7.5 in)	191.4 mm (7.5 in)	21 kg (45.5 lb)	--	--

MF – Maintenance Free

General Service Batteries

BCI Group Size	Part Number	Volts	Cold Cranking Amps*	Reserve Capacity Minutes**	Amp Hr. Capacity @ 20 Hrs.	Construction	BCI Overall Dimensions			Nominal Weight		Acid To Fill
							Length	Width	Height	Wet	Dry	
Agricultural/Industrial/Truck (Shipped Dry)												
1	8T-9734	6	650	180	100	Maintenance Free, Calcium Grids	229 mm (9.0 in)	175 mm (6.9 in)	224 mm (8.8 in)	15 kg (33.5 lb)	8 kg (17.5 lb)	4.3 L (4.5 qt)
3D	8T-9730	6	1,400	675	320	Low Maintenance, Low Antimony Grids	518 mm (20.4 in)	221 mm (8.7 in)	254 mm (10.0 in)	54 kg (120.0 lb)	38 kg (84.0 lb)	10.4 L (11.0 qt)
7D	8T-9731	6	950	350	156	Low Maintenance, Low Antimony Grids	399 mm (15.7 in)	178 mm (7.0 in)	231 mm (9.1 in)	27 kg (59.5 lb)	15 kg (34.0 lb)	7.1 L (7.5 qt)
24F	9X-1382	12	650	120	50	Maintenance Free, Silver/Calcium Grids	269 mm (10.6 in)	173 mm (6.8 in)	229 mm (9.0 in)	17 kg (38.5 lb)	12 kg (25.5 lb)	5.7 L (6.0 qt)
26	145-4517	12	540	80	48	Maintenance Free, Silver/Calcium Grids	224 mm (8.8 in)	173 mm (6.8 in)	203 mm (8.0 in)	15 kg (33.0 lb)	11 kg (24.0 lb)	3.1 L (3.5 qt)
26R	145-4518	12	540	80	48	Maintenance Free, Silver/Calcium Grids	224 mm (8.8 in)	173 mm (6.8 in)	203 mm (8.0 in)	15 kg (33.0 lb)	11 kg (24.0 lb)	3.3 L (3.5 qt)
27	3E-8925	12	675	120	55	Maintenance Free, Silver/Calcium Grids	305 mm (12.0 in)	170 mm (6.7 in)	229 mm (9.0 in)	20 kg (45.0 lb)	13 kg (29.0 lb)	6.2 L (6.5 qt)
Automotive/Light Truck/SUV (Shipped Dry)												
22F	9X-1384	12	425	65	32	Maintenance Free, Silver/Calcium Grids	239 mm (9.4 in)	173 mm (6.8 in)	211 mm (8.3 in)	13 kg (29.5 lb)	8 kg (18.0 lb)	4.3 L (4.5 qt)
24	9X-1383	12	650	120	50	Maintenance Free, Silver/Calcium Grids	259 mm (10.2 in)	173 mm (6.8 in)	229 mm (9.0 in)	17 kg (38.5 lb)	12 kg (25.5 lb)	5.7 L (6.0 qt)
Marine/Recreational (Shipped Dry)												
8V	8C-3640	8	980	350	175	Low Maintenance, Low Antimony Grids	527 mm (20.8 in)	184 mm (7.2 in)	270 mm (10.6 in)	41 kg (90.0 lb)	27 kg (60.0 lb)	10.9 L (11.5 qt)
General Service — Agricultural/Industrial/Truck (Shipped Wet)												
1	8C-3617	6	650	180	100	Maintenance Free, Calcium Grids	229 mm (9.0 in)	175 mm (6.9 in)	224 mm (8.8 in)	14 kg (30.0 lb)	--	--
2	8C-3629	6	780	215	90	Low Maintenance, Low Antimony Grids	264 mm (10.4 in)	175 mm (6.9 in)	224 mm (8.8 in)	17 kg (36.5 lb)	--	--
3EE	8C-3620	12	400	95	54	Low Maintenance, Low Antimony Grids	490 mm (19.3 in)	109 mm (4.3 in)	229 mm (9.0 in)	20 kg (43.0 lb)	--	--
3EH	8C-3632	6	875	250	115	Low Maintenance, Low Antimony Grids	490 mm (19.3 in)	109 mm (4.3 in)	254 mm (10.0 in)	22 kg (47.5 lb)	--	--
4	8C-3633	6	1,000	270	125	Maintenance Free, Calcium Grids	320 mm (12.5 in)	175 mm (6.9 in)	241 mm (9.5 in)	21 kg (47.0 lb)	--	--
4D	8C-3623	12	900	260	115	Low Maintenance, Low Antimony Grids	528 mm (20.8 in)	216 mm (8.5 in)	257 mm (10.1 in)	44 kg (97.0 lb)	--	--
4DLT	8C-3622	12	860	250	100	Low Maintenance, Low Antimony Grids	508 mm (20.0 in)	208 mm (8.2 in)	208 mm (8.2 in)	36 kg (79.0 lb)	--	--
7D	8C-3635	6	950	350	156	Low Maintenance, Low Antimony Grids	401 mm (15.8 in)	178 mm (7.0 in)	234 mm (9.2 in)	27 kg (59.5 lb)	--	--

All batteries have taper post design and are shipped dry except as noted

* For 30 seconds at 0° F

** 25 Amp output at 80° F

(Continued)

General Service Batteries (Wet)

BCI Group Size	Part Number	Volts	Cold Cranking Amps*	Reserve Capacity Minutes**	Amp Hr. Capacity @ 20 Hrs.	Construction	BCI Overall Dimensions			Nominal Weight		Acid To Fill
							Length	Width	Height	Wet	Dry	
Agricultural/Industrial/Truck (cont.)												
8D	8C-3624	12	1,300	430	190	Low Maintenance, Low Antimony Grids	526 mm (20.7 in)	279 mm (11.0 in)	254 mm (10.0 in)	60 kg (131.5 lb)	--	--
24F	3T-5858	12	650	120	55	Maintenance Free, Silver/Calcium Grids	269 mm (10.6 in)	173 mm (6.8 in)	229 mm (9.0 in)	17 kg (38.5 lb)	--	--
27	8C-3601	12	675	120	65	Maintenance Free, Silver/Calcium Grids	305 mm (12.0 in)	170 mm (6.7 in)	229 mm (9.0 in)	20 kg (45.0 lb)	--	--
27F	8C-3602	12	675	120	65	Maintenance Free, Silver/Calcium Grids	315 mm (12.4 in)	170 mm (6.7 in)	229 mm (9.0 in)	20 kg (45.0 lb)	--	--
30H	8C-3627	12	850	180	100	Maintenance Free, Calcium Grids	330 mm (13.0 in)	173 mm (6.8 in)	241 mm (9.5 in)	26 kg (57.5 lb)	--	--
31	8C-3628	12	800	170	80	Maintenance Free, Calcium Grids (Stud terminals)	330 mm (13.0 in)	173 mm (6.8 in)	241 mm (9.5 in)	25 kg (54.5 lb)	--	--
8D	250-0473	12	1,450	450	190	Maintenance Free, Calcium Grids Transit Bus Terminal	526 mm (20.7 in)	279 mm (11.0 in)	254 mm (10.0 in)	62 kg (136.5 lb)	--	--
Automotive/Light Truck/SUV												
22F	3T-5859	12	425	65	35	Maintenance Free, Silver/Calcium Grids	239 mm (9.4 in)	173 mm (6.8 in)	211 mm (8.3 in)	13 kg (29.5 lb)	--	--
24	3T-5857	12	650	120	55	Maintenance Free, Silver/Calcium Grids	259 mm (10.2 in)	173 mm (6.8 in)	229 mm (9.0 in)	17 kg (38.5 lb)	--	--
26	8C-3600	12	540	80	45	Maintenance Free, Silver/Calcium Grids	224 mm (8.8 in)	173 mm (6.8 in)	203 mm (8.0 in)	11 kg (24.5 lb)	--	--
41	8C-3605	12	660	110	64	Maintenance Free, Silver/Calcium Grids	292 mm (11.5 in)	175 mm (6.9 in)	175 mm (6.9 in)	17 kg (37.0 lb)	--	--
55/56/62	8C-3611	12	585	95	52	Maintenance Free, Silver/Calcium Grids (Dual terminals)	224 mm (8.8 in)	152 mm (6.0 in)	216 mm (8.5 in)	15 kg (33.0 lb)	--	--
58	8C-3612	12	580	55	53	Maintenance Free, Silver/Calcium Grids	254 mm (10.0 in)	183 mm (7.2 in)	175 mm (6.9 in)	14 kg (30.5 lb)	--	--
75	7X-6100	12	720	100	60	Maintenance Free, Silver/Calcium Grids (Side terminals)	229 mm (9.0 in)	178 mm (7.0 in)	185 mm (7.3 in)	16 kg (34.5 lb)	--	--
42	250-0490	12	475	70	40	Maintenance Free, Silver/Calcium Grids	241 mm (9.5 in)	175 mm (6.9 in)	175 mm (6.9 in)	13 kg (29.0 lb)	--	--
25	250-0488	12	600	90	45	Maintenance Free, Silver/Calcium Alloy — Severe Service	230 mm (9.1 in)	175 mm (6.8 in)	225 mm (8.8 in)	14 kg (31.0 lb)	--	--

All batteries have taper post design and are shipped dry except as noted

* For 30 seconds at 0° F

** 25 Amp output at 80° F

General Service Batteries (Wet) (Continued)

BCI Group Size	Part Number	Volts	Cold Cranking Amps*	Reserve Capacity Minutes**	Amp Hr. Capacity @ 20 Hrs.	Construction	BCI Overall Dimensions			Nominal Weight		Acid To Fill
							Length	Width	Height	Wet	Dry	
Automotive/Light Truck/SUV (cont.)												
35	250-0487	12	600	90	45	Maintenance Free, Silver/Calcium Alloy — Severe Service	230 mm (9.1 in)	175 mm (6.8 in)	225 mm (8.8 in)	14 kg (31.0 lb)	--	--
65	250-0484	12	650	105	55	Maintenance Free, Silver/Calcium Alloy — Severe Service	304 mm (12 in)	187 mm (7.3 in)	194 mm (7.6 in)	18 kg (39.0 lb)	--	--
Dual Terminal Offering												
24/24F/74	127-0824	12	930	130	63	Maintenance Free, Silver/Calcium Grids	277 mm (10.9 in)	178 mm (7.0 in)	229 mm (9.0 in)	20 kg (44.0 lb)	--	--
34/78	127-0826	12	875	120	66	Maintenance Free, Silver/Calcium Grids	274 mm (10.8 in)	175 mm (6.9 in)	203 mm (8.0 in)	19 kg (41.0 lb)	--	--
34/78	250-0486	12	690	100	60	Maintenance Free, Silver/Calcium Alloy — Severe Service	273 mm (10.7 in)	175 mm (6.8 in)	203 mm (8.0 in)	17 kg (36.5 lb)	--	--
75/86	250-0489	12	540	85	47	Maintenance Free Silver/Calcium Grids	248 mm (9.7 in)	178 mm (7.0 in)	206 mm (8.1 in)	14 kg (30.5 lb)	--	--
Marine/Recreational												
GC-2	8C-3641	6	115 min. 75 Amps @ 80° F		215	Deep Cycle, Antimony Grids (Offset post with horizontal hole)	262 mm (10.3 in)	180 mm (7.1 in)	277 mm (10.9 in)	29 kg (63.0 lb)	--	--
U1	8C-3636	12	260	32	25	Maintenance Free, Calcium Grids (L-Terminal)	198 mm (7.8 in)	130 mm (5.1 in)	185 mm (7.3 in)	7 kg (16.5 lb)	--	--
24M	8C-3638	12	650	120	55	Marine Starting, Maintenance Free Silver, Calcium Grids (Stud terminals)	274 mm (10.8 in)	173 mm (6.8 in)	239 mm (9.4 in)	17 kg (38.5 lb)	--	--
27M	8C-3639	12	625	150	80	Deep Cycle, Antimony Grids Dual Terminal (Stud terminals)	318 mm (12.5 in)	173 mm (6.8 in)	239 mm (9.4 in)	22 kg (49.0 lb)	--	--
4D	152-8006	12	970	375	183	Maintenance Free — Gelled Deep Cycle	528 mm (20.8 in)	216 mm (8.5 in)	254 mm (10.0 in)	59 kg (129.8 lb)	--	--
8D	152-7242	12	1150	475	225	Maintenance Free — Gelled Deep Cycle	528 mm (20.8 in)	282 mm (11.1 in)	254 mm (10.0 in)	73 kg (160.8 lb)	--	--

All batteries have taper post design and are shipped dry except as noted

* For 30 seconds at 0° F

** 25 Amp output at 80° F

Absorbed Glass Mat (AGM) Batteries, Designed for High-rate Uninterruptible Power Supplies (UPS) or Standby Applications

BCI Group Size	Part No.	Discharge Ratings		Amp Hour @ 20 Hour Rate to 1.75 Volts Per Cell @ 25° C (77° F)	Normal Voltage	Construction	Terminal	BCI Overall Dimensions			Container Height	Nominal Weight Wet
		Power Watts Per Cell For 15 Mins. to 1.67 V.P.C. @ 25° C (77° F)	Discharge Rating in Amperes For 15 Mins. to End Voltage of 1.67 V.P.C. @ 25° C (77° F)					Length	Width	Terminal Height		
U1	250-0474	116	62	1.63	12	MF-AGM/VRLA	1	196 mm (7.71 in)	132 mm (5.18 in)	182 mm (7.18 in)	157 mm (6.18 in)	11 kg (24 lb)
45	250-0475	156	84.3	2.75	12	MF-AGM/VRLA	2	225 mm (8.84 in)	135 mm (5.31 in)	221 mm (8.7 in)	207 mm (8.14 in)	18 kg (38.5 lb)
24	250-0476	262	140	3.95	12	MF-AGM/VRLA	2	259 mm (10.2 in)	173 mm (6.8 in)	232 mm (9.14 in)	206 mm (8.12 in)	24 kg (53 lb)
27	250-0477	304	165	4.61	12	MF-AGM/VRLA	2	323 mm (12.72 in)	173 mm (6.8 in)	220 mm (8.68 in)	206 mm (8.12 in)	29 kg (63 lb)
31	250-0478	350	186	5.25	12	MF-AGM/VRLA	3	329 mm (12.93 in)	171 mm (6.75 in)	222 mm (8.75 in)	218 mm (8.58 in)	31 kg (69 lb)
31(A)	250-0479	475	261	6.66	12	MF-AGM/VRLA	3	342 mm (13.5 in)	172 mm (6.77 in)	286 mm (11.25 in)	281 mm (11.08 in)	45 kg (98 lb)
4D(H)	250-0483	624	338	9.91	12	MF-AGM/VRLA	4	552 mm (21.73 in)	210 mm (8.82 in)	237 mm (9.34 in)	222 mm (8.74 in)	59 kg (129 lb)

MF-AGM/VRLA = Maintenance Free-Absorbed Glass Mat (AGM) Battery. Battery has Flame Arrestor and is low-pressure self sealing
Housed in flame-retardant polypropylene (rated 28 LOI) 12-Volt Monoblocks

(A) = Battery is 63.5 mm (2.5 in) taller and 13 mm (0.57 in) longer than standard Group 31

(H) = Battery has handles

Sealed Valve-Regulated Lead Acid (VRLA) with electrolyte absorbed in separators consisting of a sponge-like mass of matted glass fibers
Preferred for high-rate performance in uninterruptible power supply (UPS) or standby applications

VPC = Volts per Cell

WPC = Watts per Cell. Ratings conform to IEEE-485 Standards

VRLA batteries use recombination reaction to prevent the escape of hydrogen and oxygen gases normally lost in a flooded lead acid battery. They are non-spillable, never need watering and should never be opened

* Note: Availability of UPS batteries are planned for late 2005

AGM batteries have a longer production lead time than regular lead-acid type batteries

Important: Alternator and charger instructions: for 12-volt AGM Batteries charge to 14.4 volts but no more than 14.6 volts at 20° C (68° F)



UL Recognized Component

Valve Regulated AGM Batteries — Terminal Locations

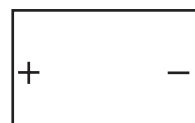
1-BCI Group U1



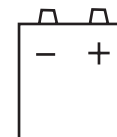
2-BCI Groups 45, 24, 27



3-BCI Group 31



4-BCI Group



VRLA batteries are a UL Recognized Component and are
I.C.C.O., I.M.D.E., I.A.T.A., and D.O.T. Air Transportable Approved.

Terminals

1 = Lead terminal. L shaped. Terminals have square holes.

2 = Lead terminal with brass inserts. 1/4-20 x 0.25 Deep Female Thread.

3 = Lead terminal with brass inserts. Centerline terminals. 1/4-20 x 0.25 Deep Female Thread.

4 = End terminals with brass inserts. 1/4-20 (UNC) Female Thread. Ratings conform to IEEE-485 Standards.

Digital Battery Analyzer



- Used to test the condition (full state charge, voltage) of 6 and 12-volt batteries quickly and accurately, even when discharged to as low as one volt.
- Tests batteries in the machine or vehicle without disconnecting battery cables.

Item	Part Number
Digital Battery Analyzer	177-2330

Battery Load Tester



- Measures voltage and amps for 6, 8, and 12-volt batteries.
- Measures voltage to one-hundredth of a volt and has a 1,000 amp load capacity.

Item	Part Number
Battery Load Tester	4C-4911

24-Volt Analyzer Group 271-8590

SMCS Code: 1401-081, 0785

Model: All

Warranty: Manufacturer's

European Union compliant, CE marked

- Used to perform battery, electrical system and diode tests.
- Used with 225-8266 Amp Probe and 271-8585 Printer.
- Used on 12 and 24-volt electrical systems (digital circuitry accurately controls testing — requires minimal interaction).
- Hand-held
- Large, backlit display requires less scrolling, provides more information.
- Long 4.6 m (15.0 ft) cables allow operator to perform tests from cab of machine.
- Step-by-step instructions quickly and easily guide technician through tests.
- Tests flooded lead acid and absorbed glass mat (AGM) batteries with 50 to 4,000 Cold Cranking Amp (CCA). Cranking Amp (CA), Amp Hours (A-HR), Japanese Industrial Standard (JIS), or German-Deutsche Industry Norm (DIN) capacity ratings.
- Tests battery pack configurations, through algorithm design:
 - single battery, 6 or 12 volt
 - two batteries in series, 24 volt
 - two, three, or four batteries in parallel, 12 volt
 - two banks in parallel, each bank with batteries in series, 24 volt
- Internal resistance loads are applied for all configurations.
- Amp clamp connections allow use of optional amp clamp cables for current drain and starting/charging tests.
- Features infrared communications compatibility for optional wireless printer with user defined header and footer for custom printouts.
- PC interface port allows unit updates as new software is released — downloaded software for new battery types, system updates, and features.
- Ergonomically designed over-molded surround with soft-touch keys for easy operation while wearing gloves during cold weather.
- Security cable connection tethers tool in order to prevent drops or for security purposes.
- Includes 24-volt analyzer, test cables, battery terminal adapters, manual, and case with foam insert.

(Continued)

24-Volt Analyzer Group 271-8590 (Continued)

Repair Information

The unit is warrantied by the manufacturer for 3 years from the date of receipt.
Cables are warrantied for 90 days from the date of receipt. If the unit needs servicing, contact the manufacturer's repair facility.

SPX Service Solutions
2300 Park Drive
Owatonna, MN 55060-0994
Phone: 1-800-344-4013 x4369

Reference

NEHS0973 Tool Operating Manual 271-8590 Analyzer Group (24 Volt)

Replacement Parts	
Test Cables, 4.6 m (15 ft)	271-8587
Rechargeable Battery	281-1947
Carrying Case with Foam Insert	281-1950
Analyzer Only	271-8589
Optional Accessories	
Clamp-on Ammeter (400, 1,200 Amp Ranges)	255-8266
Optional Printer Group	271-8585
Printer Serial Cable	281-1948
Thermal Paper	184-7679

Battery Tests	Flooded Lead Acid (FLA) Absorbed Glass Mat (AGM)
Cold Cranking Amp Range	50 to 4,000 CCA — 24 Volt
Battery Voltage	Single, Series, or Parallel to 24 Volt
Electrical System Tests	12 and 24 Volt, Starting/Charging/Diode Test
Scales	CCA, CA, AHR, MCA, JIS, DIN
PC Interface	For Field Software Updates
IR Compatible	For Optional Infrared Wireless Printer
Amp Clamp Ports	For Optional Amp Clamp Connections
Display	Backlit 4 × 20 Character Display

Batteries

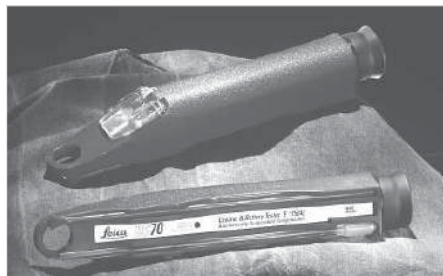
Battery Voltmeter 295-2618



- Small digital voltmeter designed to quickly determine state of charge of 6 to 60-volt batteries on or off the machine.
- Easier and faster than using a hydrometer to measure specific gravity.
- Works on all batteries including sealed maintenance free batteries.
- Bright, red LED display easy to read outdoors and in low light conditions.
- Chart on rear of meter shows battery approximate percent of charge based on battery voltage for 12-volt batteries (Chart in Operating Manual includes 6, 8, and 12-volt batteries).
- No internal batteries to wear out.
- Small enough to carry in pocket or toolbox.
- 4C-8552 Test Lead Kit included with 295-2618 Voltmeter.

Range	6.0 to 60.0 VDC
Operating Temperature Range	-30° C to +70° C (-22° F to +158° F)
Accuracy: 0° C to 70° C (32° F to 158° F) -30° C to 0° C (-22° F to 32° F)	+0.2 VDC +0.23 VDC
Input Voltage Protection	+100 VDC Max.
Power	Powered by Battery Being Tested
Current Requirement	0.18 Amp
Settling Time	3 Seconds
Weight	0.113 kg (4 oz)
Size	76 mm × 84 mm × 20 mm (3.0 in × 3.3 in × 0.8 in)
Service Part	4C-8552 Test Lead Kit (included with 295-2618 Voltmeter)

Coolant and Battery Tester



- Used for checking coolant freezing point and battery charge condition (specific gravity).
- Can also be used to check some types of permanent antifreeze, such as Dowtherm 209 Coolant.
- For use on either hot or cold radiators.

Item	Part Number
Coolant and Battery Tester (° C)	245-5829
Coolant and Battery Tester (° F)	245-5829

Battery Cable Terminals

Item	Cable Size	Part Number
Battery Cable Terminal (A Negative)	365	3S-6050
Battery Cable Terminal (A Negative)	365	9S-6333
Battery Cable Terminal (A Positive)	365	3S-6049
Battery Cable Terminal (A Positive)	365	3S-6051
Battery Cable Terminal (B Negative)	365	9S-5753
Battery Cable Terminal (B Negative)	365	9S-5755
Battery Cable Terminal (B Positive)	365	9S-5752
Battery Cable Terminal (B Positive)	365	9S-5754
Battery Cable Terminal (C ½ inch Hole)	365	1M-4986
Battery Cable Terminal (C ½ inch Hole)	365	1S-7251
Battery Cable Terminal (C ½ inch Hole)	365	5P-2600
Battery Cable Terminal (C ½ inch Hole)	366	3L-7634
Battery Cable Terminal (C ¼ inch Hole)	365	030-1709
Battery Cable Terminal (C ¼ inch Hole)	365	030-1706
Battery Cable Terminal (C ⅜ inch Hole)	365	030-1707
Battery Cable Terminal (C ⅜ inch Hole)	365	1S-7252
Battery Cable Terminal (C ⅜ inch Hole)	365	035-0425
Battery Cable Terminal (C ⅜ inch Hole)	366	031-9295
Battery Cable Terminal (C ⅜ inch Hole)	365	030-1708
Battery Cable Terminal (C ⅜ inch Hole)	365	030-1705



Battery Ground Straps

Item	Length	Ground End Hole	Battery End Hole	Part Number
Battery Ground Strap	108 mm (4.3 in)	11 mm (⅞ in)	14 mm (⅝ in)	8M-4963
Battery Ground Strap	137 mm (5.4 in)	8 mm (⅝ in)	5 mm (⅜ in)	8L-8420
Battery Ground Strap	140 mm (5.5 in)	11 mm (⅞ in)	11 mm (⅞ in)	1S-2342
Battery Ground Strap	305 mm (12.0 in)	10 mm (⅜ in)	14 mm (⅝ in)	2L-6716
Battery Ground Strap	305 mm (12.0 in)	14 mm (⅞ in)	10 mm (⅜ in)	4M-7146
Battery Ground Strap	457 mm (18.0 in)	14 mm (⅞ in)	17 mm (⅝ in)	3R-2853



Battery Cable Repair Kit

- For use during cable fabrication and repair.
- For use with heavy 1/0 through 4/0 gauge electrical cables.

Kit Part Number	Item	Quantity	Part Number
6V-3025	Cable Repair Kit		
	Roto Crimping Tool	1	6V-3021
	Cable Cutter	1	6V-3022
	Box Assembly	1	6V-3023
	Butt Splice (4/0)	2	6V-3020
	Butt Splice (3/0)	3	6V-3019
	Butt Splice (2/0)	4	6V-3017
	Butt Splice (1/0)	3	6V-3018



Batteries

Battery Charging Posts



- For checking state of charge and charging of stud terminal type batteries.

Part Number	Description
4C-5637	Charging Posts (+ & -) for Group 31 Stud Terminal Batteries
4C-5638	Charging Posts (+ & -) for screw-in Side Terminal Batteries

- Extra Vent Caps for Dry Charged Batteries

Part Number	Description
7N-0060	10 - Vent Caps

Booster Cables



- Professional quality
- Ensure quick and efficient connections
- Designed for convenience and safety
- Flexi-spring cable guards
- Meets SAEJ1494 specifications

Part No.	Length	Gauge	Cir. Mil. Copper	Jacket ²	Amp Clamp	Side Terminal Adapters	Weight
4C-4933	3.66 m (12 ft)	4	32,900	T-94	500	YES	3.6 kg (8 lb)
4C-4934 ¹	3.66 m (12 ft)	4	32,900	T-94	500	YES	3.6 kg (8 lb)
4C-4935	4.572 m (15 ft)	4	32,900	T-94	500	YES	4.1 kg (9 lb)
4C-4936	6 m (20 ft)	4 AWG	41,300	T-94	500	YES	5.4 kg (12 lb)
300-5899	6 m (20 ft)	1 AWG	83,600	T-94	800	NO	7.7 kg (17 lb)
4C-4938	4.572 m (15 ft)	1/0 AWG	106,400	T-94	800	NO	7.3 kg (16 lb)

¹ Equipped with stop/go light — red L.E.D.s warn operator if polarity is reversed.

² T-94: flexible to 4° C (-40° F).

Portable Chargers 4C-4924 and 4C-4925

- Charges all standard and maintenance-free batteries with four charging positions
- Heavy-duty chrome plated handles
- Fan cooled
- UL and CSA listed for indoor/outdoor use

4C-4924 also features:

- Automatic timer — 90 minute and “hold” position
- AC and DC circuit overload protection
- Patented stop/go light



Part. No.	UL Continuous Ratings (Amps)	UL Cranking Assist Rate (Amps)	UL Boost Rate (Amps)	AC Cord	DC Leads	Clamp Rating	Volt	Weight
4C-4924	70/60	230	420	6 ½ ft 16-3	7 ft 4AWG	500A	6/12	17.2 kg (38 lb)
4C-4925	40/10/2	132	250	6 ½ ft 18-3	6 ft 8AWG	200A	6/12	11.8 kg (26 lb)

Emergency Jump Start Receptacle Assemblies

- Mount on the machine to provide a direct electrical connection to the starting motor.
- Available in several cable lengths to suit your particular application.
- For use with 8S-2632 or 9S-3664 Emergency Start Systems.

Item	Length	Part Number
Emergency Jump Start Receptacle Assembly	0.380 m (1.25 ft)	9S-9015
Emergency Jump Start Receptacle Assembly	0.460 m (1.42 ft)	2G-1830
Emergency Jump Start Receptacle Assembly	1.220 m (4.00 ft)	8S-2633
Emergency Jump Start Receptacle Assembly	1.520 m (5.00 ft)	9S-9016
Emergency Jump Start Receptacle Assembly	1.820 m (6.00 ft)	4N-6580
Emergency Jump Start Receptacle Assembly	2.130 m (7.00 ft)	1P-1250
Emergency Jump Start Receptacle Assembly	2.680 m (9.00 ft)	4N-6579
Emergency Jump Start Receptacle Assembly	3.050 m (10.00 ft)	9S-9312
Emergency Jump Start Receptacle Assembly	3.660 m (12.00 ft)	9D-8647



Starting/Charging Analyzer Group



- Identifies deteriorating starting and charging system components before they fail.
- Contains a 5.5 m cable for testing from the operator’s seat.

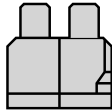
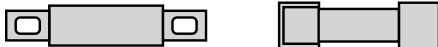
Item	Part Number
Starting/Charging Analyzer Group	6V-2150

Battery Post Brush 1U-9921



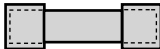
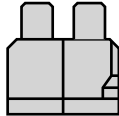
- Stiff wire bristles thoroughly clean posts

Fuses

Amperage	Maximum Voltage	Fuse Desc.	Part Number	Graphic
3A	250V	Time Delay Ferrule	9G-3782	
4A	250V	Time Delay Ferrule	9K-1896	
5A	500V	Time Delay Ferrule	5N-0095	
30A	32V	Time Delay Ferrule	6N-9353	
10A	32V	Plug Fuse	9W-1442	
15A	32V	Plug Fuse	9W-1441	
20A	32V	Plug Fuse	9W-1446	
30A	32V	Plug Fuse	8T-9636	
12A	250V	TRON Rectifier	7C-3882	
15A	130V	TRON Rectifier	3N-2050	
15A	250V	TRON Rectifier	3N-7807	
25A	600V	TRON Rectifier	7L-2760	
50A	600V	TRON Rectifier	7L-2765	
60A	600V	TRON Rectifier	7L-6745	
70A	600V	TRON Rectifier	7L-6750	
400A	150V	TRON Rectifier	039-6987	
50A	30VDC	Stud Mounted	3C-1064	
60A	125V	Stud Mounted	031-2436	
275A	30VDC	Stud Mounted	3C-0524	
450A	250V	Stud Mounted	030-1698	
500A	250V	Stud Mounted	030-1699	
500A	30VDC	Stud Mounted	3C-0516	
600A	250V	Stud Mounted	039-6577	
600A	250V	Stud Mounted	030-1697	
60A	125V	Low Voltage Limiter	090-7012	
300A	125V	Low Voltage Limiter	090-7013	
0.75A	250V	Ferrule	7T-0037	
1.25A	250V	Ferrule	034-3128	
1A	250V	Ferrule	8K-4644	
1A	600V	Ferrule	3N-5612	
2A	250V	Ferrule	8D-8724	
3A	32V	Ferrule	8M-0454	
3A	250V	Ferrule	8D-8113	
4A	60V	Ferrule	7N-0472	
4A	32V	Ferrule	8M-0457	
5A	250V	Ferrule	2S-6024	
5A	600V	Ferrule	5N-5535	
5A	250V	Ferrule	033-3672	
6A	250V	Ferrule	8M-0458	
6A	60V	Ferrule	3T-5802	
6A	250V	Ferrule	8D-9497	
6A	32V	Ferrule	9D-6032	
7.5A	250V	Ferrule	3K-8781	
7.5A	32V	Ferrule	8M-0455	
8A	32V	Ferrule	7D-4975	
10A	250V	Ferrule	9Y-6027	
10A	250V	Ferrule	3K-8782	
14A	32V	Ferrule	3D-4529	
15A	32V	Ferrule	8M-8948	
20A	32V	Ferrule	8M-0456	
25A	32V	Ferrule	3T-4425	
30A	32V	Ferrule	8M-8947	

(Continued)

Fuses (Continued)

Amperage	Maximum Voltage	Fuse Desc.	Part Number	Graphic
5A	250VAC	General Purpose	5N-5532	
10A	250VAC	General Purpose	5N-5533	
12A	600V	LIMITRON	9Y-8419	
15A	250VAC	General Purpose	5N-5534	
5A	32V	Mini	141-2759	
7.5A	32V	Mini	141-2760	
10A	32V	Mini	113-8490	
15A	32V	Mini	113-8491	
20A	32V	Mini	113-8492	
25A	32V	Mini	113-8493	
30A	32V	Mini	124-3548	
70A	600V	LIMITRON Quick Acting	190-9551	
80A	600V	LIMITRON Quick Acting	190-9558	
110A	600V	LIMITRON Quick Acting	173-5434	
125A	600V	LIMITRON Quick Acting	173-5435	
150A	600V	LIMITRON Quick Acting	190-9563	
175A	600V	LIMITRON Quick Acting	184-4645	

Fuse Holders and Puller



Item	Part Number
Dashmount Fuse Holder	4K-5122
In-Line Fuse Holder	051-4069
Fuse Block	5K-2849
Fuse Holder	7N-8292
Wire-to-Wire Fuse Holder	3K-8783
Wire-to-Wire Fuse Holder	8D-8719
Fuse Puller	116-7471

Pressure Switches



For use with engine oil pressure sensing or any application requiring setting switches.

Item	Switching Point	Contacts at 0 kPa	Port Fitting	Electrical Connector	Part Number
Pressure Switch	37.9 ± 21 kPa (5.5 ± 3 psi)	Open	1/4 NPTF	#8 Screws	3E-2026
Pressure Switch	68.9 ± 21 kPa (10.0 ± 3 psi)	Open	1/8 NPTF	#8 Screws	107-0611
Pressure Switch	68.9 ± 21 kPa (10.0 ± 3 psi)	Closed	1/8 NPTF	#8 Screws	107-0616
Pressure Switch	68.9 ± 21 kPa (10.0 ± 3 psi)	Open	1/4 NPTF	#8 Screws	107-0612
Pressure Switch	68.9 ± 21 kPa (10.0 ± 3 psi)	Open	9/16 UNF	Sure Seal	6T-4949
Pressure Switch	124.0 ± 21 kPa (18.0 ± 3 psi)	Open and Closed	9/16 UNF	Sure Seal	6T-6652
Pressure Switch	207.0 ± 28 kPa (30.0 ± 4 psi)	Open and Closed	9/16 UNF	Sure Seal	6T-6651
Pressure Switch	276.0 ± 28 kPa (40.0 ± 4 psi)	Open and Closed	9/16 UNF	Sure Seal	6T-6653

Bulk Electrical Cable and Wire

Item	Gauge	Package* Length	Part Number
Lighting Wire	6	15 m (50 ft)	5P-5675
Lighting Wire	8	15 m (50 ft)	5P-5689
Lighting Wire	10	30 m (100 ft)	5P-5622
Lighting Wire	12	30 m (100 ft)	5P-5621
Lighting Wire	14	30 m (100 ft)	5P-5624
Lighting Wire	16	30 m (100 ft)	5P-5623
Lighting Wire	18	30 m (100 ft)	5P-5677
Starter Cable	Black 00	7.62 m (25 ft)	159-8050
Starter Cable	Black 000	7.62 m (25 ft)	159-8052
Starter Cable	Red 0	7.62 m (25 ft)	159-8047
Starter Cable	Red 00	7.62 m (25 ft)	159-8049
Starter Cable	Red 000	7.62 m (25 ft)	159-8051
Starter Cable	Red 0000	7.62 m (25 ft)	159-8053
Ignition Wire	N/A	7.62 m (25 ft)	5P-6036
Glow Plug Wire	No. 12	7.62 m (25 ft)	5P-6020

* Serviced in increments of their packaged length.



Electrical Terminals

Item	Screw Size	Wire Size	Part Number
Blade Terminal	Female	16-14	5P-4571 (30)
Blade Terminal	Male	16-14	4S-1988 (10)
Butt Splices		16-14	136-4877 (15)
Ring Terminal	¼ inch	8	2L-8058 (10)
Ring Terminal	¼ inch	12-10	2L-8067 (10)
Ring Terminal	¼ inch	16-14	2L-8077 (15)
Ring Terminal	⅜ inch	12-10	2L-8069 (10)
Ring Terminal	⅜ inch	16-14	2L-8079 (15)
Ring Terminal	½ inch	12-10	2L-8071 (10)
Ring Terminal	No. 10	12-10	2L-8076 (20)
Ring Terminal	No. 10	16-14	2L-8066 (10)
Ring Terminal	No. 8	16-14	2L-8075 (20)



Electrical Terminal Kit



- Contains 14 different types and sizes of terminals.
- Contains a multi-purpose crimping tool that performs all the steps required to install terminals.
- Eliminates the need for a soldering iron and insulating material.

Kit Part Number	Item	Quantity	Part Number
140-9944	Terminal Assortment		
	Ring Terminal	10	2L-8058
	Ring Terminal	10	2L-8066
	Ring Terminal	10	2L-8067
	Ring Terminal	10	2L-8069
	Ring Terminal	10	2L-8071
	Ring Terminal	20	2L-8075
	Ring Terminal	20	2L-8076
	Ring Terminal	15	2L-8077
	Ring Terminal	15	2L-8079
	Blade Terminal	10	4S-1988
	Blade Terminal	30	5P-4571
	Crimping Tool	1	9S-9150
	Butt Splice	15	136-4877

Conduits



Item	Inside Diameter	Package Length*	Part Number
Flexible Steel Conduit	10 mm (0.38 in)	7.62 m (25 ft)	5P-3399
Flexible Steel Conduit	19 mm (0.75 in)	3.05 m (10 ft)	5P-6952
Flexible Steel Conduit	25 mm (1.00 in)	3.05 m (10 ft)	5P-6951
Non-Metallic Conduit (Loom/Auto)	6 mm (0.25 in)	30.48 m (100 ft)	5P-5984
Non-Metallic Conduit (Loom/Auto)	10 mm (0.38 in)	15.24 m (50 ft)	5P-5982
Non-Metallic Conduit (Loom/Auto)	11 mm (0.44 in)	7.62 m (25 ft)	5P-5985
Non-Metallic Conduit (Loom/Auto)	13 mm (0.50 in)	15.24 m (50 ft)	5P-5988
Non-Metallic Conduit (Loom/Auto)	16 mm (0.62 in)	7.62 m (25 ft)	5P-5987
Non-Metallic Conduit (Loom/Auto)	19 mm (0.75 in)	7.62 m (25 ft)	5P-5983
Non-Metallic Conduit (Loom/Auto)	25 mm (1.00 in)	3.05 m (10 ft)	5P-5986
Vinyl Covered, Flexible Steel Conduit	10 mm (0.38 in)	7.62 m (25 ft)	5P-0694
Vinyl Covered, Flexible Steel Conduit	13 mm (0.50 in)	15.24 m (50 ft)	5P-0695
Vinyl Covered, Flexible Steel Conduit	19 mm (0.75 in)	3.05 m (10 ft)	5P-0696
Vinyl Covered, Flexible Steel Conduit	25 mm (1.00 in)	3.05 m (10 ft)	5P-1276

* Serviced in increments of their packaged length.

Wire Protector

Item	Outside Diameter	Package* Length	Part Number
Wire Protector	6 mm (0.25 in)	7.62 m (25 ft)	5P-6039

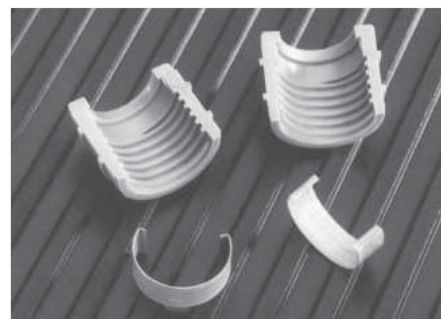
* Serviced in increments of their packaged length.



Electrical Conduit Field Repair Fasteners

- Provide fast and easy electrical system repairs.
- Made of high-impact plastic and locked with a steel spring clip.
- Designed to separate for quick installation or removal.

Item	Part Number
Repair Fastener	9S-5324



Sure-Seal Electrical Connector Kit

- For use in replacing faulty sure-seal connectors or fabricating new wiring harnesses.
- Provides longer service life and superior corrosion resistance.
- Allows for fast, in-field installation.

Kit Part Number	Item	Quantity	Part Number
6V-3000	Sure-Seal Electrical Connector Kit		
	Crimping Tool	1	6V-3001
	Box Assembly	1	6V-3007
	Socket	100	7N-7779
	Pin	100	7N-7780
	Sealing Plug	50	9G-3695
	Housing	3	7N-7777
	Housing	3	7N-7778
	Housing	3	7N-9738
	Housing	3	7N-9737
	Housing	3	7N-7781
	Housing	3	7N-7782
	Housing	3	7N-8204
	Housing	3	7N-8205
	Housing	1	9G-3670
	Housing	1	9G-3676
	Housing	1	9G-3667
	Housing	1	9G-3673
	Insertion Tool	1	6V-3008



Deutsch (DT) Style Connector Service Kit



- Required for field repair of Deutsch (DT) style electrical connectors.

Kit Part Number	Item	Quantity	Part Number
175-3700	Deutsch (DT) Style Connector Service Kit		
	Wedge Removal Tool	1	147-6456
	Removal Tool	6	151-6320
	Utility Box	1	152-7997
	Seal Plug	30	8T-8737
	Connector Pin	30	9X-3401
	Connector Socket	30	9X-3402
	Connector Pin	30	126-1767
	Connector Socket	30	126-1768
	Receptacle Lock Wedge	10	3E-3371
	Receptacle Lock Wedge	5	3E-3377
	Receptacle Lock Wedge	5	3E-3383
	Receptacle Lock Wedge	5	3E-3389
	Receptacle Kit	3	102-8801
	Receptacle Kit	10	102-8802
	Receptacle Kit	5	102-8803
	Receptacle Kit	5	102-8804
	Receptacle Kit	3	102-8805
	Receptacle Kit	3	102-8806
	Connector Plug Kit	3	155-2255
	Plug Lock Wedge	5	155-2258
	Plug Lock Wedge	5	155-2259
	Connector Plug Kit	5	155-2260
	Plug Lock Wedge	5	155-2263
	Connector Plug Kit	3	155-2265
	Connector Plug Kit	10	155-2270
	Connector Plug Kit	5	155-2271
	Connector Plug Kit	3	155-2274

Field Soldering Iron Group



- For use in soldering electrical connections in the field.
- Designed to be lightweight and easy to use.
- Designed with a temperature regulated tip that provides better control for outdoor usage.
- Designed with an in-line fuse to help prevent damage or overload.
- For use with a 12V vehicle cigarette lighter plug or with a 4C-9024 Portable Battery Pack.

Item	Part Number
Field Soldering Iron Group	9U-7560
Solder, 0.5 kg (1 lb) Spool	9U-7562

Crimping Tools

Item	Part Number
Standard Crimping Tool	9S-9150
Heavy-Duty Crimping Tool	8S-1075
12-18 Gauge Crimping Tool	1U-5804



Voltage Tester 5P-7277

- Used to make quick checks for presence of voltage.
- Indispensable for checking out circuits, relays, bulbs, wires, and switches.
- Designed for voltage range from 12 to 36 volts.
- Bulb lights brightly when connected to 36 volts and gets progressively dimmer with lower voltages.
- Encased in rugged, hi-impact plastic housing which is grease and chemical resistant.



Circuit Tester

- Provides a fast check for continuity in non-energized circuits.
- Shines brightly when connected to zero ohms and progressively dims up to about 10 ohms.
- Includes batteries and bulb.

Item	Part Number
Circuit Tester	8T-0500

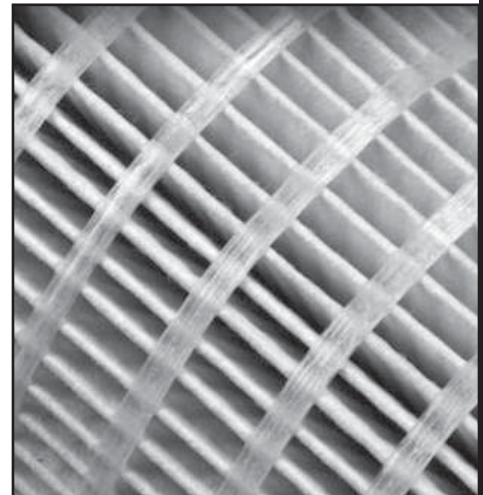


Spark Plug Firing Indicator

- Provides a simple, effective way to check spark plug voltage.
- Shows voltage intensity, spark plug misfires, faulty coils, and faulty wiring.
- Features a compact size and handy clip for pocket storage.

Item	Part Number
Firing Indicators	9U-6695





Cat® Filters...Engineered Protection For Every Application



- Genuine parts optimized for Cat Equipment.
- Manufactured worldwide to Caterpillar specifications for global quality assurance.
- Complete line of products and services to meet your business needs.

Cat Standard Efficiency Fluid Filters — Engine Oil

- Features standard elements for normal duty filtration.
- Designed to maintain system cleanliness.
- Removes contaminants before the lube oil reaches critical components.
- Available for all Cat equipment models.



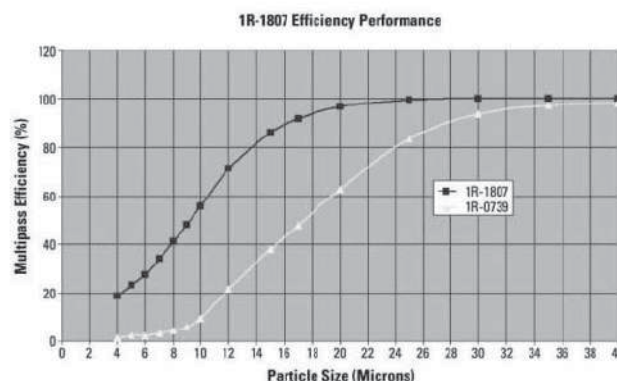
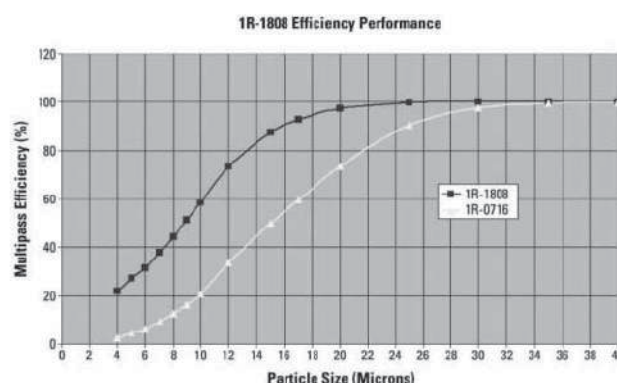
Cat Advanced Efficiency Fluid Filters — Engine Oil

Cat Advanced Efficiency Engine Oil Filters provide increased contamination control over Standard Efficiency Filters, without requiring a shortened change interval. And, they are more economically priced than Ultra High Efficiency filters.

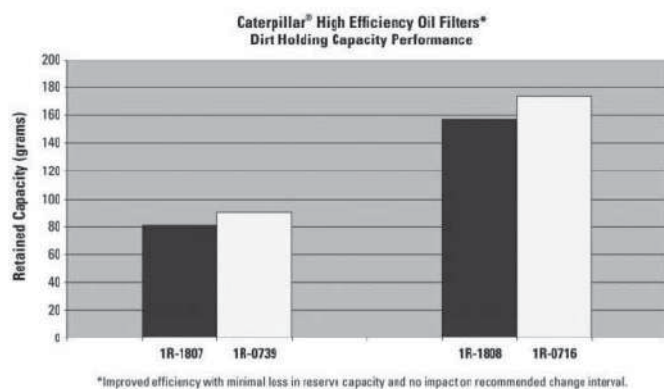
Standard Efficiency	Advanced Efficiency
1R-0739	1R-1807
1R-0716	1R-1808

Improved Filtering Media

Cat Advanced Efficiency Oil Filters contain an improved filtering media which captures more contaminants, reducing wear on critical oil-lubricated engine components. This results in extended life and improved performance. The graphs below illustrate the efficiency of the 1R-1807 and 1R-1808 filters as compared to their Standard Efficiency Counterparts.



Reserve Dirt-holding Capacity



Although higher-efficiency filters accumulate dirt more quickly than Standard Efficiency filters, Cat Advanced Efficiency Engine Oil filters do not require a shortened change interval. They feature a reserve dirt-holding capacity, which compensates for the majority of dirt accumulation increase, letting customers maintain standard oil change intervals. The relative dirt-holding capacity of Advanced and Standard Efficiency filters are illustrated in the graph.

Cat Standard Efficiency Fluid Filter — Fuel

- Features standard elements for normal duty filtration.
- Designed to maintain system cleanliness.
- Removes contaminants before the lube oil reaches critical components.
- Available for all Cat equipment models.

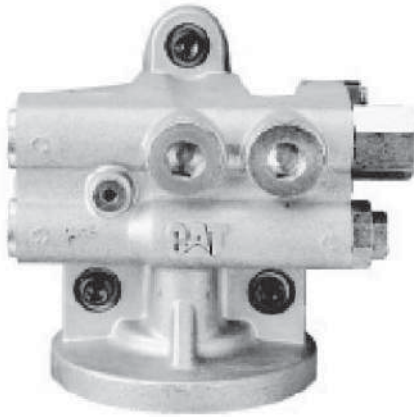
Cat Advanced High Efficiency Fluid Filter — Fuel

- Engineered for maximum protection, performance and fuel economy.
- Removes more contaminants, maximizing protection of injectors, pumps and other critical engine components.
- Best choice to meet today's fuel contamination challenges, especially in applications with dirty fuel.
- Engineered for today's diesel engines with higher injection pressures and closer tolerances.
- High efficiency cellulose/synthetic blend filtration removes more than 98% of particles 4 microns or larger.

Technology Features	Benefits	Results
Self-lubricating, free-rotating seal	Prevents bunching, eliminates leaks	Prevents contamination for longer engine life
One-piece aluminum base plate	Added reinforcing to prevent ruptures due to cold starts	Protects against leaks and the introduction of contaminants for longer component life
One-piece urethane end caps	Tighter bond with filter media	Eliminates gaps, keeping contaminants out of the engine for added protection, eliminates leak paths
Spiral roving and acrylic beads	Maintains pleat stability and spacing to eliminate bunching; holds dirt in environments with vibration	Maximum efficiency and capacity; better protection and longer life engine
Non-metallic center tube to prevent collapsing during pressure spikes and cold oil start-ups	30% stronger than metal	Eliminates scored bearings and damage to other critical engine components
Resin-impregnated filter media	Custom blended media	Maximizes performance and life
One-piece, heavy gauge canister	Provides structural strength and anti-rupture protection	Durability and structural integrity supports extended intervals
Full range of media options	Engineered to meet specific operating conditions, equipment requirements and economical considerations	Filtration matched to your performance needs



Cat PrimeTime Priming Pumps



Cat PrimeTime Priming Pumps are easily installed on the frame or engine as retrofits. They prime the filter and fuel system with a flip of the switch.

- No need to pre-fill filter and risk debris reaching injectors
- Primes fuel filter in two to six minutes
- No time-consuming, difficult manual pumping

Cat Fuel Water Separators

- Removes more than 98% of debris 10 microns and larger — and eliminates virtually all free water and more than 87% emulsified water.
- Minimize the risk of plunger-to-barrel scuffing and seizure in fuel injectors, reducing failure rates.
- Extends the life of engine fuel injectors and the secondary, high efficiency fuel filter.

Features	Benefits	Results
Thicker gauge canister	Resist canister cracking and failure in extensive field testing	Longer life and increased protection
Primary fuel filter	Removes more than 98% of debris 10 microns and larger	Minimize the risk of plunger-to-barrel scuffing and seizure in fuel injectors, reducing failure rates
Water separator	Removes virtually all free water and more than 87% of emulsified water from diesel fuel	Extend the life of engine fuel injectors and the secondary, high efficiency fuel filter
Manual screw knob	Drains the collection bowl in less than a minute	Reduces maintenance and downtime
Reusable water collection bowl	Transparent for easy monitoring	Reduces maintenance costs



1R-0770

Cat Fuel Water Separators — Retrofits

Engine	Prime Time Full Flow Configuration	Prime Time Prime Only Configuration	Basic Configuration
Small Engines C12 and smaller	Kit 206-5756	N/A	Base 195-1068 with 1R-0769 (axial seal) FWS or Base 177-9778 with 1R-0770 (radial seal) FWS
Medium Engines C15-C16, 3408-3412	Kit 206-5756 The 1R-0770, included in the kit, can be replaced with the 1R-0771 for additional capacity.	N/A	Base 195-1068 with 1R-0781 (axial seal) FWS or Base 177-9778 with 1R-0771 (radial seal) FWS
Large Engines 3500 series	N/A	Kit 206-5756	(2) 207-2422 groups, each includes a 200-4139 (axial seal) FWS

Cat Standard Efficiency Radial Seal Air Filters



- Features standard elements for normal duty filtration.
- Designed for larger capacity and longer service life.
- Prevents dirt, soot, sand and other contaminants from entering your system.
- Available for all Cat equipment models.

Technology Features	Benefits	Results
Radial seal design	No tools required	Service times and maintenance costs minimized
All-steel adapter ring available to retrofit some axial seal cleaners	Quickly bolts into position to accept the new filter design	Easily converts some older machines
One-piece molded urethane end caps	Forms a tough, reliable, corrosion-proof bond to paper media	Up to 30% more seal contact area; more reliable seal than conventional elements
Densely pleated filter paper	Large media area provides up to 50% more capacity	Superior capacity without impeding airflow
Built-in pleat support and positive pleat spacing	Prevents pleat bunching	Ensures optimum filter media surface area
Heavy-duty metal inner and outer wrap	Increases structural strength and durability	Added protection and longer life
Baked-on enamel outer filter wrap	Resists corrosion	Longer component life

Cat Ultra High Efficiency Radial Seal Air Filters



- Features a unique media with a very fine fiber surface layer that improves filtration efficiency early in the life of the elements.
- Super fast efficiency rate eliminates window of opportunity for sharp abrasive particles to damage engine.
- Sustained low restriction leads to improved filter capacity, engine performance and fuel economy.
- Highly effective in today's engines with tight engine tolerances; maintain low emission and high performance requirements.
- Unique design for applications where extremely fine dust particles make up a high percentage of the contaminants in the atmosphere.
- Ideal for applications that have operating conditions with high amounts of exhaust soot, which tends to plug normal filters at low hours.

Technology Features	Benefits	Results
High initial filtration efficiency and high overall efficiency	Less dust reaches the engine	Reduced engine wear
Immediate dust cake build-up on the filter surface	Media at maximum efficiency when new; dust cake builds faster	Reduced engine wear, improved fuel economy and lower maintenance costs
Low initial and overall restriction throughout the life of the filter	Engine breathes easier; less power required to pull in air	Improved fuel economy and better engine performance and power
Super capacity	Filter lasts longer with fewer filter changes	Less chance of contamination during service
Exclusive Cat media	Super capacity, long life, maximum protection	Protect engine, reduce wear of hard sharp particles that can score cylinder

Air Axial Seal Filter to Air Radial Seal Filter Adapter Kit Cross Reference

Axial Seal Type — Standard Primary	Axial Seal Type — Secondary	Optional Radial Seal Retrofit Kits — Axial to radial seal adapter kit	Radial Seal Type — Standard Primary	Radial Seal Type — Primary — UHE	Radial Seal Type — Secondary
7W-5389	2S-1285	6I-3828	6I-2499	132-7164	6I-2500
7W-5389	8N-4901	6I-3829	6I-2499	132-7164	6I-2500
7W-5317	2S-1286	6I-3830	6I-2501	128-2686	6I-2502
7W-5317	9S-9972	6I-3831	6I-2501	128-2686	6I-2502
7W-5316	8N-6883	6I-3831	6I-2503	132-7165	6I-2504
7W-5316	2S-1287	6I-3830	6I-2503	132-7165	6I-2504
7W-5495	1P-7360	6I-3832	6I-0273	132-1674	6I-0274
7W-5313	1P-8482	6I-3833	6I-2505	132-1675	6I-2506
7W-5313	6N-6444	6I-3833	6I-2507	132-7166	6I-2508
7W-5216	7N-1308	6I-3833	6I-2509	132-7167	6I-2510
7W-9853	7W-9567	106-7120	106-3969	132-7168	106-3973
4W-5716	6N-6067	106-7120/222-4376	106-3969	132-7168	106-3973
8N-6309	8N-2556		123-6855	132-7169	123-6856
9Y-7662	9Y-7663		131-8822	132-0685	131-8821

Cab Air Filtration Upgrade Options

Not for use in filtering hazardous materials

Odor Reduction Cabin Air Filters

- Caterpillar now offers a selection of charcoal impregnated cabin air filters for use in applications, where odors or airborne irritants are a concern. These filters provide significant odor reduction, but they are not designed to filter hazardous materials.

Compatibility and Fit

- Odor Reduction Cabin Air Filters can be used as direct replacements for standard filters. No modification is necessary, and pressure drop is similar to standard, so there is no adverse effect on air flow, A/C and heat performance, or cabin air pressure. Correct substitutions are indicated in the table below.

Activated-carbon filtering

- Odor Reduction Cabin Air Filters use high-performance activated carbon to quickly absorb odor-causing particles and reduce odors to a comfortable level. A bonded structure holds carbon in place even in high-vibration conditions and prevents carbon dusting. This design also makes the filters easy to install and safe to dispose.

Improved particle removal

- Odor Reduction filters also provide higher particle removal efficiency, both initially and throughout filter life. Fewer particles of soil, dust, pollen, mold spores and other irritants enter the cab, even after sustained use.

High surface dust loading

- By holding more dust on the surface, Odor Reduction Cabin Air Filters provide a number of benefits. They last longer, are easier to clean, protect the A/C core from performance-robbing build-up, and reduce maintenance costs for the HVAC unit.

Cleaning and re-use is recommended for Odor Reduction filters under the following circumstances:

- Airflow restriction is increased
- Filter is not damaged
- Filter has been used less than 12 months
- Odor reduction capabilities are still good
- * To clean the filter, use compressed air at 70 psi or less with a 1/8 inch diameter nozzle at a minimum distance of 2 inches.

Replacement Guidelines

- Replace damaged filters, filters used longer than 12 months or filters that no longer reduce odors.

Part Number	Upgrade Option	Type
107-0266	175-2841	Dust Reduction
7T-1890	175-2839	Dust Reduction
9X-8216	175-2840	Dust Reduction
105-4968	139-3204	Dust and Odor Reduction

(Continued)

Cab Air Filtration Upgrade Options (Continued)

Not for use in filtering hazardous materials

Part Number	Upgrade Option	Type
112-7448	175-2838	Dust and Odor Reduction
113-0305	196-3161	Dust and Odor Reduction
116-5796	142-7069	Dust and Odor Reduction
119-3355	233-8359	Dust and Odor Reduction
2V-0036	175-2837	Dust and Odor Reduction
6T-0988	175-2831	Dust and Odor Reduction
7G-8116	141-7903	Dust and Odor Reduction
7T-1889	175-2836	Dust and Odor Reduction
7X-6012	200-8460	Dust and Odor Reduction
7X-6041	175-2834	Dust and Odor Reduction
8P-5343	175-2835	Dust and Odor Reduction
9G-1518	175-2833	Dust and Odor Reduction
7T-1890	175-2832	Dust and Odor Reduction
9W-3639	3E-7904	Dust and Odor Reduction
238-0479	311-4065	Dust Reduction
149-1912	220-8800	Dust and Odor Reduction
107-0266	282-5339	Dust and Odor Reduction
180-7487	282-5340	Dust and Odor Reduction
238-0479	291-3928	Dust and Odor Reduction
209-8217	307-4442	Dust and Odor Reduction
259-3222	266-7765	Lower Restriction
119-3355	268-6704	Lower Restriction
209-8217	268-6705	Lower Restriction

Retro-Fit Breather Upgrade Options¹

Function of Breathers

- Breathers are an important part of any professional contamination control strategy. As the volume of liquid changes inside a container (e.g., a hydraulic tank), air must enter and exit the container in order to prevent the container from becoming over-pressurized or in vacuum. Without a breather the exchange of air as it enters and exits tanks introduces air borne contaminants.

Not filtering small air-borne particles results in:

- Pre-mature component replacement
- Lower productivity
- More frequent filter changes

Use of Breathers

- Track-type tractors, stationary engines (industrial, marine, generator sets), motor graders, and Challenger® agriculture tractors are a few product families that have breathers installed on production fuel tanks, hydraulic systems, and gear boxes. Utilizing breathers in order to improve system performance on Caterpillar® production equipment is expanding.
- To improve existing fluid system contamination control, Caterpillar is providing retrofit breathers for field installation on Cat equipment and other manufacturers' equipment.

Advantage of a Breather

- In general, small particles cause abrasive wear on components and larger particles tend to cause sudden breakdowns by clogging pathways or creating interference between components. Usually, a breather is much less expensive than a filter, and its use can increase the service interval for the filter. In systems where air is forced out through the breather, such as in hydraulic or fast fill applications, the dirt is blown out of the element, thereby increasing its life.

Breather Selection

- The level of breather filtration required in a system depends on the application. The more sensitive to contamination the system is, the greater the need for filtration.

General Rule of Thumb

- Efficiency — Higher breather efficiencies will maintain a cleaner system.
- Restriction — If air flow capacity is in question, use the larger breather.
- Location — When choosing the location for the breather, make sure that it is as convenient as possible to inspect and change: good clearance and visual line.

Change intervals

- Breather change interval can vary widely depending on extremes in operating conditions. As a general rule, change breathers with every fluid change or when breather vent slots appear clogged.

Inspection

- Include visual inspection of breathers in routine maintenance inspections. If in doubt, change the breather. The cost of a new breather is minimal in comparison to the potential downstream costs of not changing it.

Description	Part Number
0.125 inch NPT Pipe Thread	
Breather	5F-5434
Breather	8M-2665
0.25 inch NPT Pipe Thread	
Breather	124-2831
Breather	183-3873
Breather	4H-6112
Breather	9G-5127
0.375 inch NPT Pipe Thread	
Breather	171-5286
Breather	9G-9981
0.75 inch NPT Pipe Thread	
Breather	6G-0078
Breather	7U-7613
1.06 inch NPT Pipe Thread — Breather Vents with Pressure and Vacuum Relief — DO NOT MODIFY, REPLACEMENT PARTS ONLY ²	
Breather	116-2810
Breather	160-5615
Breather	188-8844
Breather	191-5439

(Continued)

Retro-Fit Breather Upgrade Options¹ (Continued)

Description	Part Number
1.06 inch NPT Pipe Thread — Breather Vents with Pressure and Vacuum Relief — DO NOT MODIFY, REPLACEMENT PARTS ONLY (Continued) ²	
Breather	207-5997
Breather	4T-4145
Breather	9J-4703
Breather	2U-7441
1.06 inch NPT Pipe Thread — Breather Vents with Manual Pressure Relief — DO NOT MODIFY, REPLACEMENT PARTS ONLY ²	
Breather	154-6165
Breather	157-7911
Breather	220-0812
Breather	220-0813
Breather	220-0814
Breather	9T-0818
Cartridge/Spin-On Type	
Hydraulic Filter Advanced	077-5232
Breather	171-5286
Hydraulic Filter Advanced	186-5778
Breather	194-7849
Fuel Filter	1R-0710
Fuel Filter Advanced	1R-0750
Breather	245-7451
Breather	6G-0078
Breather	8X-4575
Breather	9C-4937
Breather	9T-1119
Metric	
Breather	055-1990
Breather	145-0870

¹ Breather Efficiency Micron Rating Guide — Standard efficiency: > 50 µm absolute
Advanced efficiency: 10-50 µm absolute

² **Warning!** For breather vents with manual or automatic pressure/vacuum relief, do not modify relief setting! These are replacement parts only, and must not be interchanged with parts that have different pressure/vacuum relief settings. Original pressure/vacuum relief setting must be retained in order to prevent pump and/or seal damage.

Choosing the Correct Cat Hydraulic Filter

The Cat Hydraulic Filter line now includes Standard, Advanced Efficiency and Ultra High Efficiency (UHE) filters, providing our customers the best selection and the best engineered protection available anywhere.

Selection Guidelines

In order to choose the right filter for your machine, always begin by consulting the maintenance manual for proper change interval and recommended filter part numbers. It is usually safe to substitute a higher-efficiency filter, but NEVER substitute a lower-efficiency filter than the one recommended.

If your transmission or hydraulic system has a filter bypass dash indicator and a Standard filter is recommended, you can use an Advanced Efficiency or UHE. If you do not have a bypass indicator, consult your Cat Dealer before upgrading.

Hydraulic and Transmission Filters

Cat Standard Efficiency Hydraulic and Transmission Filters

- Features standard elements for normal duty filtration.
- Designed to maintain system cleanliness.
- Available for all Cat equipment models.

Cat Advanced High Efficiency Hydraulic and Transmission Filters

- Special media provides advanced protection against contaminant introduction during maintenance and repair.
- Engineered for effective contamination control.
- Protects hydraulic and drive train systems against accelerated wear.

Cat Ultra High Efficiency Hydraulic and Transmission Filters

- Super-fine synthetic media removes a higher proportion of very small particles and an even higher proportion of larger particles.
- Specially engineered to aid in optimum contamination control efforts.
- Increases system efficiency, eliminate system failures and extend oil life.
- Reduces exposure of abrasives to critical components — extending component wear life.
- Use to clean up systems following repairs and rebuilds.



Hydraulic and Transmission Spin-On Filter Options

Selection Guidelines

- In order to choose the right filter for your machine, always begin by consulting the maintenance manual for proper fit and installation.

Upgrade Procedure and Intervals

- Higher efficiency filters can clog sooner because they trap smaller particles which standard filters do not.

Hydraulic and Transmission Spin-On Filter Options (Continued)

Approx. Size	Thread Size	Standard Efficiency	Advanced High Efficiency	Ultra High Efficiency	Fire Resistant
3 × 5	$1\frac{3}{16}$ -16	119-4740		211-1026	
3 × 5	1-12		077-3492		
3 × 6	2-12	41-3948	184-3931	126-1813	
3 × 6	M45 × 2		51-8670		
3 × 9	2-12		130-3212	126-1814	
3 × 9			41-3950	126-1814	
3 × 9			185-0337	126-1814	
4 × 6	1 $\frac{3}{8}$ -12	090-2900	144-6691	126-1815	121-9868
4 × 6	2-16	123-8189			
4 × 6	1 $\frac{1}{8}$ -16	4T-6915			
4 × 6	1 $\frac{1}{8}$ -16	139-4359			
4 × 7	1 $\frac{1}{8}$ -16		093-7521		
4 × 7	1-12 UNF2B	161-4741			
4 × 8	1 $\frac{1}{2}$ -16		3T-8642		
4 × 9	1 $\frac{1}{4}$ -12		201-0875	223-7810	
4 × 9	1 $\frac{3}{8}$ -12		1G-8878	102-2828	156-0214
4 × 10	1 $\frac{1}{8}$ -16	8C-0292			
5 × 7	1 $\frac{1}{2}$ -16		4T-6788	223-7809	
5 × 7	1 $\frac{1}{2}$ -16		9T-8578	144-0832	
5 × 7	1 $\frac{1}{2}$ -16		077-3058		
5 × 8	1 $\frac{3}{4}$ -12		9T-6636	126-1816	
5 × 8	1 $\frac{1}{2}$ -16		209-5590		
5 × 11	1 $\frac{1}{2}$ -16	9U-6985	9U-5870	9U-6983	198-3188
5 × 11	1 $\frac{1}{2}$ -16	9U-6985	9U-6984	9U-6983	
5 × 12	1 $\frac{3}{4}$ -12		108-1153	126-1817	134-3014
5 × 12	1 $\frac{3}{4}$ -12		9T-0973	126-1817	134-3014
5 × 12	1 $\frac{3}{4}$ -12			225-4118	
5 × 12	1 $\frac{3}{8}$ -12		6E-6408	126-1818	
5 × 14	1 $\frac{3}{4}$ -12		152-6902	207-5035	

Hydraulic and Transmission Cartridge Filter Options

Approx. Size	Standard Efficiency	Advanced High Efficiency	Ultra High Efficiency	Fire Resistant
1 × 4	109-7293			
2 × 3	094-1053			
2 × 4	109-7289			
2 × 8	7F-7238			
2 × 8	1G-5459			
2 × 8	123-8999		117-9900	
2 × 9	9U-5871			
2 × 10	8T-7479			
3 × 4	5J-8879			
3 × 4	081-4169			
3 × 5	1R-0746		126-1810	
3 × 5	9J-6472			
3 × 5	2U-6391			
3 × 5	094-4421			
3 × 5	180-0850			
3 × 6	081-2634			
3 × 8	9T-9054		9T-7656	
3 × 8			7R-4568	
3 × 8	134-0964		4C-6860	
3 × 8	185-1379		185-1278	
3 × 9	1R-0728		139-1532	4T-3130
3 × 9	1R-0729			
3 × 9	8H-0847			
3 × 9			8T-3815	
3 × 13	1Q-1688			
3 × 17	159-2967			
4 × 6	9C-8688			
4 × 7	077-3250			
4 × 7	077-2825			
4 × 7	077-4375			
4 × 7	032-9868			
4 × 8	123-2873			
4 × 8	2C-8410			
4 × 8	092-2568			
4 × 8	143-2849			
4 × 8	159-1427			
4 × 8	159-1428			

(Continued)

Hydraulic and Transmission Cartridge Filter Options (Continued)

Approx. Size	Standard Efficiency	Advanced High Efficiency	Ultra High Efficiency	Fire Resistant Fluid
4 × 9	1R-0719	1R-0773	132-8875	4T-3131
4 × 9		198-7397	139-1533	
4 × 9			077-5479	
4 × 9	054-1719			
4 × 9	089-3940			
4 × 9	078-0651			
4 × 9	081-3540			
4 × 11			046-9290	
4 × 11	093-5369			
4 × 16	163-4032			
4 × 16 (R)	7R-8232			
4 × 16 (R)	077-3569			
4 × 26	6E-5216			
5 × 5	6J-0363			
5 × 6	5J-8877			
5 × 7 (R)	1R-0735	1R-0777	139-1537	104-6931
5 × 7 (R)			138-1253	
5 × 9	1R-0741	1R-0778	132-8876	4T-3132
5 × 9			139-1534	
5 × 9	9G-6420			
5 × 10.5			1R-1809	
5 × 11 (R)	1R-0722	1R-0774	139-1536	4T-3134
5 × 24	109-7287		137-7249	
6 × 12	094-3229		139-1539	
6 × 12			5I-4530	
6 × 16	126-2081	178-9806	126-2131	
6 × 18	094-4412		139-1540	
6 × 18			4I-9513	
7 × 9	1R-0732	1R-0792	167-2009	4T-3133
7 × 9 (R)		1R-1802		
10 × 22	185-1375	192-1560		

Health and Safety

Under normal conditions of intended use, these products do not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. Always observe good hygiene measures. Read and understand the Material Safety Data Sheet (MSDS) before using this product. For a copy of the MSDS, visit us on the web at www.catmsds.com.

Cat® DEO™

Recommended Use

- Low-emission diesel engines including Cat engines with ACERT® Technology.
- Heavy-duty diesel engines made by other manufacturers that recommend API CH-4 and CG-4. See “Typical Characteristics” for more information.
- Automotive gasoline engines that require API SL or SJ category oils. See “Typical Characteristics” for more information.
- Cat earthmoving, commercial, marine and on-highway truck diesel engines, excluding 3600, C280, 3126 and 3116 MUI Marine and MaK diesel engines. The 3116 and 3126 MUI Marine diesel engines with closed crankcase ventilation systems should use Cat SAE0™.

Discover the Difference

- Cat DEO is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for Cat machines.
- Increased Engine Life — Resists oxidation and prevents build-up of deposits on pistons and rings.
- Extended Drain Intervals — Extends oil drain intervals while providing excellent engine protection and performance when used in conjunction with our S•O•S Services oil analysis program.
- Proven Performance — Tested thoroughly in Cat diesel engines including Cat engines with ACERT Technology to ensure excellent engine life and performance.
- Long-Lasting Protection — Improved soot control and enhanced shear stability enable oil to maintain proper viscosity for longer operating periods in Cat engines with ACERT Technology, especially those equipped with HEUI systems.



Typical Characteristics{A}							
Location	Worldwide		Canada, Mexico and United States		Brazil		Egypt and Saudi Arabia
SAE Viscosity Grade	SAE 15W-40	SAE 10W-30	SAE 15W-40	SAE 10W-30	SAE 15W-40	SAE 10W-30	SAE 10W-30
API Service Classification — Diesel	CI-4, CH-4, CG-4, CF-4/CF	CI-4, CH-4, CG-4, CF-4/CF	CI-4 PLUS, CI-4, CH-4, CG-4, CF-4/CF	CI-4, CH-4, CG-4, CF-4/CF	CI-4, CH-4, CG-4, CF-4/CF	CI-4, CH-4, CG-4, CF-4/CF	CH-4, CG-4, CF-4/CF
API Service Classification — Gasoline	SL	SL	SL	SL	SL	SL	SJ
ACEA Classifications	E5/B3/A2				E5		
Caterpillar Performance Level	ECF-1	ECF-1	ECF-1	ECF-1	ECF-1	ECF-1	ECF-1
Volvo Performance Level	VDS-3	VDS-2	VDS-3	VDS-2	VDS-3	VDS-2	

(Continued)

Cat® DEO™ (Continued)

Location	Worldwide		Canada, Mexico, and United States		Brazil		Egypt and Saudi Arabia
SAE Viscosity Grade	SAE 15W-40	SAE 10W-30	SAE 15W-40	SAE 10W-30	SAE 15W-40	SAE 10W-30	SAE 15W-40
MB Performance Level	228.3				228.3		
DDC Performance Level			93K214				
Cummins Performance Level	CES 20071/72/76/77	CES 20071/76	CES 20071/76/78	CES 20071/76	CES 20071/72/76/77	CES 20071/76	CES 20071/72/76/77
Mack Performance Level	EO-M Plus	EO-M Plus	EO-NPP	EO-M Plus	EO-M Plus	EO-M Plus	EO-M Plus
MAN Performance Level	3275				3275		
RVI Performance Level	RLD				RLD		
Allison Performance Level					C4		
Flash Point, °C (ASTM D92)	230	222	224	227	220	222	184
Pour Point, °C (ASTM D97)	-30	-36	-30	-33	-33	-36	-30
Viscosity cSt @ 40° C (ASTM D445)	103	76	120.5	76	105	75	103
Viscosity cSt @ 100° C (ASTM D445)	14.2	11.5	15.5	11.5	14.4	11.2	14.2
Viscosity Index (ASTM D2270)	141	145	135	145	141	142	141
Sulfated Ash, % wt. (ASTM D874)	1.3	1.3	1.3	1.3	1.1	1.1	1.3
TBN (ASTM D2896)	11.3	11.3	11.3	11.3	10.6	10.6	11.3
Zinc, % wt. (ASTM D4951)	0.146	0.146	0.146	0.146	0.133	0.133	0.133
Gravity @ 16° C API (ASTM D287)	29.3	31.3	29.3	31.8	28.9	31.5	28
Gravity @ 16° C Specific	0.88	0.869	0.88	0.867	0.88	0.868	0.89

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Cat® DEO™ (Continued)

Metric Volume (L)	English Volume (gal)	Part Number ¹
SAE 10W-30		
--	5	3E-9709
--	55	3E-9708
--	Bulk	155-6198
20	--	3E-9844
200	--	130-7055
208	--	3E-9707
1000	--	148-3539
Bulk	--	5P-2586
--	0.250 (1 Qt.)	3E-9715
--	(4x) 1	248-7518
--	5	3E-9713
--	55	3E-9712
--	Bulk	155-6199
1	--	123-4077
4	--	3E-9902
5	--	3E-9901
18	--	3E-9900
19	--	3E-9849
20	--	3E-9848
200	--	3E-9842
205	--	3E-9841
208	--	3E-9840
1000	--	3E-9838
Bulk	--	8T-9548

¹ Part numbers listed below are not available in all regions. See your Caterpillar dealer for part numbers appropriate for your region.

(Continued)

Cat® DEO™ Monograde

For Cat 3600 Series Diesel Engines

Recommended Use

- Cat DEO Monograde is the only oil approved by Caterpillar for use in the 3600 series diesel engines operating on distillate diesel fuels.
- Cat DEO Monograde is recommended for older Cat engines equipped with precombustion fuel injection systems that permit the use of American Petroleum Institute CD or CF oil.
- Cat DEO Monograde can be used with low-sulfur diesel fuel and protects Cat engines operating on higher sulfur diesel fuels (3600 series engines operating on fuel containing up to 1.30% sulfur, and precombustion engines operating on fuel containing up to 0.065% sulfur fuel).

Discover the Difference

- Cat DEO Monograde is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for Cat 3600 series diesel engines.
- Increased Engine Life — Resists oxidation and prevents build-up of deposits on pistons and rings.
- Extended Drain Intervals — Extends oil drain intervals while providing excellent engine protection and performance when used in conjunction with our S•O•S Services oil analysis program.
- Proven Performance — Tested in Cat 3600 series diesel engines worldwide.

Typical Characteristics{A}		
SAE Viscosity Grade	SAE 30	SAE 40{B}
API Service Classification — Diesel	CF{C}	CF{C}
CCMC	D3	D3
Caterpillar Performance Level (engine)	1M-PC	1M-PC
Allison Performance Level (transmission)	C-3	C-3
Flash Point, °C (ASTM D92)	234	234
Pour Point, °C (ASTM D97)	-33	-33
Viscosity cSt @ 40° C (ASTM D445)	103	133
Viscosity cSt @ 100° C (ASTM D445)	11.6	13.8
Viscosity Index (ASTM D2270)	100	100
Sulfated Ash, % wt. (ASTM D874)	1.9	1.9
TBN (ASTM D2896)	13.0	13.0
Zinc, % wt. (ASTM D4951)	0.12	0.12
Gravity @ 16° C API (ASTM D287)	26.8	26.2
Phosphorus, % wt. (ASTM D1091)	0.11	0.11

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

{B} Passes FZG DIN 51354-2 A/8, 3/90 FLS 12.

{C} Can be used in applications where the obsolete API CD classification oil is recommended.

Cat® DEO™ Monograde (Continued)

For Cat 3600 Series Diesel Engines

Metric Volume (L)	English Volume (gal)	Part Number
SAE 30		
--	0.250 (1 Qt.)	8C-3702
--	(4x) 1	248-7520
--	5	8C-3700
--	55	8C-3699
--	Bulk	155-6201
5	--	9X-6178
20	--	7X-7840
200	--	7X-2887
205	--	7X-7839
208	--	9X-6462
1000	--	9X-6271
Bulk	--	8C-3698
SAE 40		
--	0.250 (1 Qt.)	8C-3707
--	1	8C-3706
--	5	8C-3705
--	55	8C-3704
--	Bulk	155-6202
18	--	9X-2004
20	--	7X-7843
200	--	9X-8528
205	--	7X-7842
208	--	9X-6463
1000	--	9X-6272
Bulk	--	8C-3703

Cat® DEO SYN™



Recommended Use

- Cat earthmoving, commercial, marine and on-highway truck diesel engines, excluding 3600, C280, 3126 and 3116 MUI Marine and MaK diesel engines. The 3116 and 3126 MUI Marine diesel engines with closed crankcase ventilation systems should use Cat SAE0™.
- Low-emission diesel engines including Cat engines with ACERT® Technology.
- Heavy-duty diesel engines made by other manufacturers that recommend API CI-4, CH-4, CG-4 category oil.
- Automotive gasoline engines that require API SL category oils.

Discover the Difference

- Cat DEO SYN is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Excellent Cold-Weather Operation — Allows cold start-ups at temperatures as low as -30° C (-22° F) without loss of flow to critical engine parts.
- Extended Drain Intervals — Extends oil drain intervals while providing excellent engine protection and performance when used in conjunction with our S•O•S Services oil analysis program.
- Increased Fuel Economy — Reduces friction on internal engine parts.

Typical Characteristics{A}	
SAE Viscosity Grade	SAE 5W-40
API Service Classification	CI-4 PLUS{B}, CI-4, CH-4, CG-4, CF, CS
Caterpillar Performance Level	ECF-1-a, ECF-2
Volvo Performance Level	VDS-3
ACEA Performance Level	E5/E4
Cummins Performance Level	71/76/77/78
Mack Performance Level	E0-NPP
MB Performance Level	228.3
Gravity, API	34.1
Specific	0.85
Flash Point, °C (°F) (ASTM D92)	226 (437)
Pour Point, °C (°F)	-45 (-49)
Viscosity cSt @ 40° C	95.0
Viscosity cSt @ 100° C	14.8
Viscosity SUS @ 110° F	440.0
Viscosity SUS @ 210° C	77.9
Viscosity Index	151
Sulfated Ash, % wt.	1.35
TBN (ASTM D2896)	12.0
Zinc, % wt. (ASTM D4951)	0.146
Gravity @ 16° C API (ASTM D287)	34.1
Gravity @ 16° C Specific	0.85

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

{B} For North America Only

Metric Volume (L)	English Volume (gal)	Part Number
SAE 5W-40		
--	(4x) 1	248-7519
--	55	141-3341
--	Bulk	155-6200
5	--	224-8665
20	--	224-8666
208	--	224-8667
Bulk	--	142-1417

Cat® Arctic DEO SYN™**Applications**

- Synthetic engine oil for Cat and other OEM earthmoving, commercial, marine and on-highway truck diesel engines.
- Preferred engine oil for arctic climates and operation at temperature extremes.

Features

- Blend of two Group IV synthetic base stocks for improved flow and reduced friction at temperatures as low as -40° C.
- Greater lubricating ability and increased resistance to oxidation at temperatures approaching +30° C (+86° F).
- A higher solubility capability in order to keep soot and contaminants in suspension.

Benefits

- Maximum productivity, long life and low operating costs at low temperature extremes.
- Extended drain capability when used with S•O•S Services oil analysis program.



Typical Characteristics{A}	
SAE Viscosity Grade	SAE 0W-30
API Service Classification — Diesel	CH-4, CG-4, CF-4, CF
API Service Classification — Gasoline	SJ
Caterpillar Performance Level	ECF-1-a
Cummins Performance Level	CES 20071/76
Mack Performance Level	EO-M
Flash Point, °C (ASTM D92)	224
Pour Point, °C (ASTM D97)	-51
Viscosity cSt @ 40° C (ASTM D445)	63.3
Viscosity cSt @ 100° C (ASTM D445)	11.3
Viscosity Index (ASTM D2270)	176
CCS Viscosity, cP @ -35° C	176
Sulfated Ash, % wt. (ASTM D874)	1.25
TBN (ASTM D2896)	10.2
Zinc, % wt. (ASTM D4951)	0.13
Gravity @ 16° C API (ASTM D287)	28.0
Gravity @ 16° C Specific	0.89

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 0W-30		
20	--	228-6071
205	--	228-6073
Bulk	--	5P-5289

Cat® DEO-ULS™

(For the United States, Canada, and Mexico only)



Recommended Use

- Cat DEO-ULS exceeds the performance requirements of Caterpillar ECF-3 (Engine Crankcase Fluid Specification) and API CJ-4.
- Strongly recommended for all 2007 on-highway engines equipped with aftertreatment systems using 15-ppm sulfur fuel.
- May also be used with engines not equipped with aftertreatment systems using 500-ppm (or less) sulfur fuel without affecting the oil change interval.

Discover the Difference

- Cat DEO-ULS is developed and tested to provide superior protection and life for Cat engines.
- Better Detergents — Protects against piston and ring groove deposits.
- Advanced Additive Package — Improves protection of the engine and the Diesel Particulate Filter (DPF).
- Enhanced Dispersants — Provides better soot-related viscosity control, prevents viscosity loss from shearing and reduces oil consumption.
- Improved Protection from Thermal and Oxidative Breakdown — Withstands higher sump temperatures while offering low-temperature pumpability.

Typical Characteristics{A}	
SAE Viscosity Grade	SAE 15W-40
API Service Classification — Diesel	CJ-4, CI-4 PLUS/CI-4, CH-4, CG-4, CF-4/CF
API Service Classification — Gasoline	SM
Caterpillar Performance Level	ECF-3
Volvo Performance Level	VDS-4
ACEA Performance Level	E7
Cummins Performance Level	CES 20081
Mack Performance Level	EO-O Premium Plus
DDC Performance Level	PGOS 93K218
Flash Point, °C (ASTM D92)	230
Pour Point, °C (ASTM D97)	-30
Viscosity cSt @ 40° C (ASTM D445)	115
Viscosity cSt @ 100° C (ASTM D445)	15.0
Viscosity Index (ASTM D2270)	137
Sulfated Ash, % wt. (ASTM D874)	0.97
TBN (ASTM D2896)	10.3
Phosphorus, % wt. (ASTM D4951)	0.100
Sulfur, % wt. (ASTM D2622)	0.3
Gravity @ 16° C API (ASTM D287)	30.2
Gravity @ 16° C Specific	0.876

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 15W-40		
--	1	291-3866
--	5	291-3868
--	55	291-3869

Cat® NGEOTM**Recommended Use**

- Designed for engines using gaseous fuels.
- Compatible with exhaust catalyst applications that require a low-phosphorus oil.
- Provides optimum engine and oil life with low-sulfur gaseous fuels that contain less than 0.43 mg hydrogen sulfide per mega Joule (0.35 mg hydrogen sulfide per BTU).

Discover the Difference

- Cat NGEO is formulated from select base stocks blended with special additives to provide an economical engine oil for natural gas applications. Cat NGEO is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- High-Endurance Lubrication — Performs throughout the long oil change intervals common for gaseous fuel engines.
- Reduced Piston and Cylinder Wear — Anti-oxidation and anti-nitration properties prevent carbon deposit buildup to minimize scuffing, scoring and wear.
- Increased Valve Life — Protects against damage to guide faces and seals.
- Corrosion Protection — Neutralizes acids to prevent rust and copper corrosion.
- High-Temperature Performance — Provides excellent thermal stability and resists foaming and sludge formation.



Typical Characteristics{A}	
SAE Viscosity Grade	SAE 40
Gravity, API	28
Flash Point, °C (ASTM D92)	252
Pour Point, °C (ASTM D97)	-15
Viscosity cSt @ 40° C (ASTM D445)	126.2
Viscosity cSt @ 100° C (ASTM D445)	13.2
Viscosity Index (ASTM D567)	98
Sulfated Ash, % wt. (ASTM D874)	0.52
TBN, mg KOH/g (ASTM D2896)	5.6
Phosphorus, % wt. (Spectro or AA)	0.030
Calcium, % wt. (Spectro or AA)	0.12

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 30		
19	--	121-0326
205	--	9X-8526
SAE 40		
19	--	121-0327
200	--	197-6911
205	--	9X-8527
208	--	105-3336
209	--	166-3491
1000	--	159-8156

Cat® NGEO EL250TM**Applications**

- For natural gas engines and other engines requiring low ash oil.

Features

- Increased detergent concentration and acid neutralizing capability to assure less lacquer and deposits on pistons and valves.

(Continued)

Cat® NGE0 EL250™ (Continued)

- Control of sludge formulation.
- Outstanding resistance to oil nitration and oxidation.

Benefits

- Improves ring and liner service life.
- Increased soot-handling capability.
- Protection against valve guide face and seat damage, piston scuffing, scoring and piston/cylinder wear, foam and corrosion damage, and piston carbon deposits.

Drain Recommendations

G3400 — 1,000 hrs

G3500 — 1,250 hrs

G3600 — 6,000 hrs

Metric Volume (L)	English Volume (gal)	Part Number
SAE 30		
20	--	216-9220
208	--	216-9223
Bulk	--	7X-2425
SAE 40		
20	--	216-9221
208	--	216-9224
Bulk	--	7X-2426

Cat® NGE0 EL350™



Recommended Use

- Provides superior lubrication in high-horsepower gaseous-fueled engines.
- Compatible with exhaust catalyst applications that require a low-phosphorus oil.
- Compatible with “lean burn” engines requiring low-ash oil.
- Provides optimum engine and oil life with low-sulfur gaseous fuels that contain less than 0.43 mg hydrogen per mega Joule (0.35 mg hydrogen sulfide per BTU).
- May be used in engines that use high-sulfur gas or bio-gas, provided that shorter drain intervals are employed.

Discover the Difference

- Cat NGE0 EL350 is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for Cat natural gas engines.
- Reduced Piston and Cylinder Wear — Anti-oxidation and anti-nitration properties prevent deposit buildup to minimize scuffing, scoring and wear.
- Increased Spark Plug and Valve Life — Excellent detergent and dispersant additives protect against deposits and damage.
- Corrosion Protection — Acid neutralizers protect parts from rust and copper corrosion.
- Extended Drain Intervals — Provides extended oil drain capabilities when used in conjunction with our S•O•S Services oil analysis program.

Drain Recommendations

G3400 — 2,000 hrs

G3500 — 2,000 hrs

G3600 — 8,000 hrs

Cat® NGE0 EL350™ (Continued)

Typical Characteristics{A}	
SAE Viscosity Grade	SAE 40
Gravity @ 16° C, API (ASTM D287)	29.3
Gravity @ 16° C, Specific	0.882
Flash Point, °C (ASTM D92)	250
Pour Point, °C (ASTM D97)	-20
Viscosity cSt @ 40° C (ASTM D445)	130
Viscosity cSt @ 100° C (ASTM D445)	13
Viscosity Index (ASTM D2270)	99
Sulfated Ash, % wt. (ASTM D874)	0.5
TBN, mg KOH/g (ASTM D2896)	6.5
Phosphorus, % wt. (Spectro or AA)	0.03
Calcium, % wt. (Spectro or AA)	0.13

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 40		
--	5	225-5082
--	55	225-5083
--	Bulk	272-3217
20	--	225-5084
208	--	225-5085

Cat® TDT0™**Recommended Use**

- Preferred lubricant for Cat power shift transmissions, and most final drives and wet brake compartments.
- Cat machine compartments where TO-4 and TO-4M specification oils are recommended.
- Other manufacturers' machines that recommend TO-4 or TO-4M or specification oils for their transmissions, final drives and wet brake compartments.

Discover the Difference

- Cat TDT0 is developed, tested and approved by Caterpillar to meet the same high standards as all Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for Cat machine compartments where TO-4 oils are specified.
- Longer Clutch Life — Prolongs clutch disc life up to 45%.
- Optimum Wear Life — Ensures long life and excellent performance for gears, bearings and friction disc material.
- System-Matched Formula — Engineered as an integral part of Cat power shift transmissions, most wet brake compartments, and Hydrostatic Systems.



(Continued)

Cat® TDTO™ (Continued)

Typical Characteristics{A}			
SAE Viscosity Grade	SAE 10W	SAE 30	SAE 50
Caterpillar Test	TO-4	TO-4	TO-4
Allison Test	C-4	C-4	C-4
ISO Viscosity Grade	46	100	220
Flash Point, °C (°F) (ASTM D92)	202 (395)	224 (435)	240 (464)
Pour Point, °C (°F) (ASTM D97)	-33 (-27) min.	-18 (0) min.	-15 (5) min.
Viscosity cP @ -25° C (ASTM D5293)	6840		
Viscosity cSt @ 40° C (ASTM D445)	42.0	100	195
Viscosity cSt @ 100° C (ASTM D445)	6.1	11.2	18.0
Viscosity Index (ASTM D2270)	97	97	96
Sulfated Ash, % wt. (ASTM D4951)	1.2	1.2	1.2
TBN (ASTM D2896)	7.9	7.9	7.9
Zinc, % wt. (ASTM D4951)	0.127	0.127	0.127
Gravity API (ASTM D287)	29.7	27.0	24.7
Phosphorus, % wt. (ASTM D4951)	0.110	0.110	0.110
Calcium, % wt.	0.298	0.298	0.298

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 10W		
--	5	8T-9568
--	55	8T-9569
--	Bulk	155-6212
5	--	100-7019
19	--	145-0995
20	--	7X-7852
25	--	9X-8525
200	--	112-2866
205	--	7X-7851
208	--	103-2528
209	--	123-3104
1000	--	166-0393
Bulk	--	3P-0659
SAE 30		
--	(4x) 1	248-7521
--	5	8T-9572
--	55	8T-9573
--	Bulk	155-6213

(Continued)

Cat® TDT0™ (Continued)

Metric Volume (L)	English Volume (gal)	Part Number
SAE 30 (Continued)		
5	--	9X-6467
18	--	9X-2010
19	--	9X-8469
20	--	7X-7855
200	--	7X-2888
205	--	7X-7854
208	--	9X-6466
1000	--	7X-7611
Bulk	--	2P-9869
SAE 50		
--	5	8T-9576
--	55	8T-9577
--	Bulk	155-6214
5	--	9X-8443
18	--	9X-2012
19	--	9X-8531
20	--	7X-7858
200	--	9X-8530
205	--	7X-7857
208	--	3E-9478
1000	--	7X-7612
Bulk	--	5P-1228

Cat® TDT0-TMS™**Recommended Use**

- Cat transmissions, wet brakes and hydraulic compartments that must operate in wide temperature ranges.
- Cat machine compartments where TO-4 and TO-4M specification oils are recommended.
- Other manufacturers' machines that recommend TO-4 or TO-4M specification oils for their transmissions, final drives and wet brake compartments.

Discover the Difference

- Cat TDT0-TMS is a proprietary formulation that was specifically developed, tested and approved by Caterpillar to ensure peak performance in your transmission and to meet the same high standards as all Genuine Cat Parts.
- Longer Component Life — Reduces wear on transmission gears.
- Improved Cold-Weather Performance — Improves performance and efficiency of transmissions in cold weather, especially for machines with electronic controls.
- Optimum Wear Life — Ensures long life and excellent performance for gears, bearings and friction disc material.
- Fewer Oils, Fewer Changes — Can be used in multiple compartments with extended drain intervals over multiple seasons.



(Continued)

Cat® TDTO-TMS™ (Continued)

Typical Characteristics{A}	
SAE Viscosity Grade	Multi-Viscosity
Caterpillar Test	TO-4M, TO-4
Allison Test	C-4
Gravity, API (ASTM D287)	29.2
Flash Point, °C (°F) (ASTM D92)	222 (432)
Pour Point, °C (°F) (ASTM D97)	-39 (-38)
Viscosity cSt @ 40° C (ASTM D445)	107
Viscosity cSt @ 100° C (ASTM D445)	14.2
Viscosity Index (ASTM D2270)	134
Sulfated Ash, % wt. (ASTM D4951)	1.2
TBN (ASTM D2896)	8.4
Zinc, % wt. (ASTM D4951)	0.127
Phosphorus, % wt. (ASTM D4951)	0.110
Calcium, % wt.	0.298
KRL Shear Stability	10.0%

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
Multi-Viscosity		
--	5	154-0195
--	55	154-0194
--	Bulk	154-0192
20	--	154-0196
208	--	154-0197
Bulk	--	154-0193

Cat® Arctic TDTO™



Recommended Use

- This synthetic blend provides outstanding protection and performance in transmissions, torque converters, final drives, hydraulics, and wet brakes as well as machines with combined systems in Caterpillar and other original equipment manufacturer equipment, particularly during cold temperature operation.

Discover the Difference

- Controls transmission and brake disc slippage.
- Increased transmission clutch life.
- Controls clutch chatter.
- Provides greater machine rimpull.
- Increased machine breakout force.
- Multiple compartment use, minimizing the number of oils required.
- Excellent compatibility with seals and elastomers, including fluorelastomers, and all disc materials used in Cat machines.
- Excellent protection for components during cold temperature operation.
- Improved cold weather engine starting ability.
- Extends oil drain intervals while providing excellent engine protection and performance when used in conjunction with our S•O•S Services oil analysis program.

(Continued)

Cat® Arctic TDTO™ (Continued)

Typical Characteristics{A}	
SAE Viscosity Grade	SAE 0W-20
Caterpillar Performance Level	TO-4
Allison Performance Level	C-4
Komatsu Performance Level	Micro-Clutch
Vickers Performance Level	35VQ25
Gravity @ 16° C (60° F) API (ASTM D287)	30.8
Gravity @ 16° C (60° F) Specific	0.872
Flash Point, °C (ASTM D92)	170
Pour Point, °C (ASTM D97)	-54
Viscosity cP @ -40° C (ASTM D2983)	7,000
Viscosity cSt @ 40° C (ASTM D445)	32.9
Viscosity cSt @ 100° C (ASTM D445)	7.5
Low Temperature Pumpability @ °C (ASTM D4684)	-54
Sulfated Ash, % wt. (ASTM D4951)	1.2
TBN (Total Base Number) (ASTM D664)	7.9
Zinc, ppm	1,250
Phosphorus, ppm	1,060
Calcium, ppm	3,000

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 0W-20		
20	--	228-6069
205	--	228-6070

Cat® SAE0™**Recommended Use**

- Cat Special Application Engine Oil is the only oil approved by Caterpillar for use in the 3116 and 3126 Marine Diesel Engines with mechanical unit injection and a closed crankcase ventilation system. This system circulates blowby gases from the engine crankcase to the turbocharger inlet. These blowby gases can form harmful deposits in the turbocharger and the aftercooler. Cat Special Application Engine Oil is designed to reduce or eliminate the formation of these harmful deposits.¹

Discover the Difference

- Stops the buildup of deposits in the turbocharger compressor and the aftercooler that can reduce power and cause an increase in smoke.
- Maintains stable oil consumption within the specified oil change interval and from one interval to the next.
- Stabilizes functional chemistry throughout each service interval.
- Stops the buildup of deposits on pistons and rings that can increase oil consumption.
- Helps to eliminate the formation of deposits on pistons that are abrasive enough to polish the hone pattern from the surface of the liners.
- Prevents the clumping of soot particles that can cause an abnormal increase in viscosity, piston deposits, or sludge.

¹ Cat SAE0 should not be used in 3406, 3126, C-10, C-12, or 3116 low emission on-highway truck engines. Use Cat DEO multi-grade oils.



(Continued)

Cat® SAE0™ (Continued)

Typical Characteristics{A}		
SAE Viscosity Grade	SAE 30	SAE 40
Manufacturer's Test — Cat	1K	1K
Manufacturer's Test — Allison	C4	
Flash Point, °C (ASTM D92)	232	232
Pour Point, °C (ASTM D97)	-23	-18
Viscosity cSt @ 100° C (ASTM D445)	11.0	14.0
Sulfated Ash, % wt. (ASTM D874)	0.9	0.9
TBN (ASTM D2896)	6.5	6.5
Zinc, % wt. (ASTM D1549)	0.12	0.12
Phosphorus, % wt. (ASTM D1091)	0.10	0.10

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 30		
--	1	170-5262
--	5	198-7368
--	Bulk	161-5824
SAE 40		
--	1	170-5261
--	5	198-7369

Cat® FDAO™



Recommended Use

- Preferred lubricant for Cat Off-Highway Truck front wheels, differentials and final drives.
- Preferred lubricant for Cat Large Track-Type Tractor, Pipelayer, and Track Skidder final drives (steel-tracked machines with elevated final drives except the D5M, D6M and 561M).
- Compatible with Cat final drives and axles that previously specified TO-4 lubricants and do not contain friction material.

Discover the Difference

- Cat FDAO is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for Cat Off-Highway Trucks and Large Track-Type Tractors.
- Extended Drain Intervals — Allows for double-length drain intervals in off-highway truck final drives, as compared to TO-4 commercial oils.
- Minimal Foaming — Formulated to protect against the damaging effects of air.

Cat® FDAO™ (Continued)

Typical Characteristics{A}	
SAE Viscosity Grade	SAE 60
ISO Viscosity Grade	320
Caterpillar Test	FD-1
Gravity, 16° C API (ASTM D287)	25.9
Gravity, 16° C Specific	0.899
Flash Point, °C (°F) (ASTM D92)	225 (491)
Pour Point, °C (°F) (ASTM D97)	-15 (5)
Viscosity cSt @ 40° C (ASTM D445)	334
Viscosity cSt @ 100° C (ASTM D445)	25.2
Viscosity cP @ -10° C (ASTM D2983)	75,000
Viscosity Index (ASTM D2270)	97
Copper Strip (ASTM D130, 2 hrs @ 100° C)	1A

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 60		
--	5	184-6022
--	55	184-6021
--	Bulk	184-6020
18	--	206-5210
20	--	184-8055
200	--	198-7672
205	--	201-9855
208	--	184-8056
1000	--	221-3445
1200	--	202-9753
Bulk	--	184-8054

Cat® FDAO SYN™**Recommended Use**

- Preferred lubricant for Cat Off-Highway Truck and D11R carrydozer front wheels, differentials and final drives operating under high load factors.
- Compatible with Cat final drives and axles that previously specified Cat FDAO or TO-4 lubricants and do not contain friction material.

Discover the Difference

- Cat FDAO SYN is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Extended Drain Intervals — Extends drain intervals up to a factor of three in off-highway truck final drives, as compared to Cat TDTO and TO-4 oils.
- Minimal Foaming — Formulated to protect against the damaging effects of air.
- Longer Bearing and Gear Life — Has demonstrated the capability to double bearing life and quadruple gear life when compared to TDTO and TO-4 oils used in off-highway truck final drives.



(Continued)

Cat® FDAO SYN™ (Continued)

Typical Characteristics{A}	
SAE Viscosity Grade	Multigrade
ISO Viscosity Grade	320
Caterpillar Test	FD-1
Gravity, 16° C API (ASTM D287)	33.4
Flash Point, °C (°F) (ASTM D92)	246 (474) min.
Pour Point, °C (°F) (ASTM D97)	-36 (-38)
Viscosity cSt @ 40° C (ASTM D445)	320
Viscosity cSt @ 100° C (ASTM D445)	31.6
Viscosity cP @ -20° C (ASTM D2983)	34,000
Viscosity cP @ -30° C (ASTM D2983)	131,200
Viscosity Index (ASTM D2270)	138
Copper Strip (ASTM D130, 2 hrs @ 100° C)	1A

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
Multi-Viscosity		
--	5	208-2390
--	55	198-7450
18	--	206-5211
208	--	206-5212

Cat® HYDO™



Recommended Use

- Preferred lubricant for most Cat Hydraulic and Hydrostatic Systems.
- Appropriate for other manufacturers' machines that recommend oils that pass the Vickers 35VQ25 vane pump test.

Discover the Difference

- Cat HYDO is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- 4,000-Hour Drain Intervals — Provides extended oil-change intervals in compartments where recommended.
- System-Matched Formula — Engineered as an integral part of Cat Hydraulic and Hydrostatic Systems.
- High Zinc Levels — Contains significantly more zinc than industrial hydraulic oils for better anti-wear and water-dispersion performance.

Cat® HYDO™ (Continued)

Typical Characteristics{A}	
SAE Viscosity Grade	SAE 30
Gravity, 16° C API (ASTM D287)	28.2
Vickers Vane Pump Test (35VQ25)	Pass
Viscosity cSt @ 40° C (ASTM D445)	102
Viscosity cSt @ 100° C (ASTM D445)	11.5
Flash Point, °C (ASTM D92)	252
Pour Point, °C (ASTM D97)	-18
Viscosity Index (ASTM D2567)	100
Zinc, % (ASTM D4591)	0.12
Phosphorus, % (ASTM D1091)	0.110
Foam Test Seq. 1 ml. (ASTM D892){B}	25/0
Foam Test Seq. 2 ml. (ASTM D892){B}	50/0
Foam Test Seq. 3 ml. (ASTM D892){B}	25/0

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

{B} New oil, as received, with 0.1% water by volume added.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 10W		
--	(4x) 1	248-7522
--	5	8T-9580
--	55	8T-9581
--	Bulk	155-6216
5	--	9X-6171
18	--	9X-2014
19	--	9X-8533
20	--	7X-7861
60	--	121-4044
200	--	9X-8532
205	--	7X-7860
208	--	9X-6468
1000	--	7X-7613
Bulk	--	2P-9063
SAE 30 ¹		
18	--	100-7017
20	--	127-5454
200	--	122-6627
208	--	127-5453
Bulk	--	231-3801

¹ Available in Argentina, Botswana, Ecuador, Indonesia, Kenya, Lebanon, Malaysia, Morocco, Pakistan, Philippines, Singapore, Thailand, and Venezuela.

Cat® GO



Recommended Use

- Cat GO is a multi-viscosity API GL-5 classification gear oil intended for extreme-pressure applications, such as the following:
- Differentials and final drives on Cat Wheel Tractor-Scrapers, specific Articulated Trucks, Wheel Excavators, and Backhoe Loaders.
- Cold Planer direct drive transmissions, differentials and final drives.
- Drum bearings on Vibratory Soil Compactors.

Discover the Difference

- Cat GO is tested and approved by Caterpillar to meet the same high standards as all Genuine Cat Parts.
- Longer Gear and Bearing Life — Superior thermal stability and oxidation resistance reduce deposits and wear.
- Extreme-Pressure Performance — Provides extra protection for improved performance and life in extreme-load conditions.
- Simplified Maintenance — Multi-purpose capability reduces number of gear lubricants needed for maintenance.
- Wide Temperature Range — Provides excellent stability at high temperatures and superior performance at low temperatures for easier start-ups.

Typical Characteristics{A}		
SAE Viscosity Grade	SAE 80W-90	SAE 85W-140
Gravity @ 16° C API (ASTM D287)	26.6	25.1
Flash Point, °C (°F) (ASTM D92)	210 (410)	230 (446)
Pour Point, °C (°F) (ASTM D97)	-27 (-17)	-18 (0)
Viscosity cSt @ 40° C (ASTM D445)	139	333
Viscosity cSt @ 100° C (ASTM D445)	14.5	25.4
Viscosity cP @ -26° C (ASTM D2983)	110,000	N/A
Viscosity Index (ASTM D2270)	104	99
Phosphorus, % wt. (ASTM D1091)	0.087	0.087

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Cat® G0 (Continued)

Metric Volume (L)	English Volume (gal)	Part Number
SAE 80W-90		
--	5	8T-9582
--	15	8C-7398
--	30	8T-9583
--	55	8T-9584
--	Bulk	155-6220
5	--	9X-6470
20	--	7X-7867
60	--	7X-7887
208	--	9X-6469
1000	--	119-5129
1200	--	8C-9927
Bulk	--	2P-9863
SAE 85W-140		
--	5	9X-6185
4	--	7X-7618
18	--	133-9643
19	--	9X-8535
20	--	7X-7617
200	--	205-4312
205	--	7X-7616
209	--	133-9644
1000	--	7X-7615
Bulk	--	7X-7614

Cat® Synthetic GO



Recommended Use

- Cat Synthetic GO is a full synthetic multi-viscosity API GL-5 classification multipurpose gear oil for the following applications:
- Sealed-and-lubricated track pins on Cat Track-Type Tractors and Track-Type Loaders.
- Track-Type Tractor equalizer bar ends.
- Differentials and final drives on Cat Wheel Tractor-Scrapers, specific Articulated Trucks, Wheel and Mini Excavators, and Backhoe Loaders.
- Specific Articulated Trucks as recommended in your Operation and Maintenance Manual.
- Motor grader circle drives.
- Cold Planer direct drive transmissions, differentials and final drives.
- Drum bearings on Vibratory Soil Compactors.
- Speed reducers on augers and elevators.

Discover the Difference

- Cat Synthetic GO is tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for Cat machines.
- Maximum Gear and Bearing Life — Provides ultimate protection against scoring of gear teeth, as well as pitting in gear teeth and rolling-element bearings.
- Extended Track Life — Improves galling resistance, reduces seal wear and minimizes bushing end grooving in sealed-and-lubricated track joints.
- Wide Temperature Range — Offers superior stability at high temperatures and superior performance at low, even arctic, temperatures.
- Reduced Wear — Provides excellent oxidation resistance which reduces buildup of harmful deposits.
- Extreme-Pressure Performance — Offers powerful protection under extreme duty conditions.

Typical Characteristics{A}	
SAE Viscosity Grade	SAE 75W-140
API Service Classification	GL-5, MT-1
Gravity API (ASTM D287)	31.7
Gravity, Specific	0.867
Flash Point, °C (°F) (ASTM D92)	220 (428)
Pour Point, °C (°F) (ASTM D97)	-46 (-51)
Channel Point, °C (°F, max (FTMS 791A-3456))	-45 (-49)
Viscosity cSt @ 40° C (ASTM D445)	185
Viscosity cSt @ 100° C (ASTM D445)	25
Viscosity Index (ASTM D2270)	172
Phosphorus, % wt. (ASTM D1091)	0.141

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 75W-140		
--	5	242-3466
--	55	242-3467
Bulk	--	8C-3400

Cat® Arctic GO

Metric Volume (L)	English Volume (gal)	Part Number
SAE 75W-90		
--	5	8C-3688
--	55	8C-3747
--	Bulk	155-6222
Bulk	--	5P-7040

Cat® MTO**Recommended Use**

- Recommended for older Cat Backhoe Loader rear axles and Cat Challenger Tractors.
- Cat components and systems recommending multipurpose tractor fluid that meet Ford/New Holland M2C134D specification.
- Most Cat Hydraulic Systems.

Discover the Difference

- Cat MTO is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Improved Braking and Clutching — Where approved for use, enhances control and extends life in clutches and wet brakes.
- Lower Maintenance Costs — Exceptional anti-wear properties extend equipment and component lives.
- Cold-Weather Operation — Can be used in temperatures as low as -25° C (-13° F).
- Simplified Maintenance — Can be used in multiple compartments, reducing inventory and the chance of using the wrong oil.
- Long-Lasting Performance — Offers high thermal stability and oxidation resistance for long service life in severe applications.



(Continued)

Cat® MTO (Continued)

OEM Compatibility	
Cat MTO meets the following OEM specifications:{B}	
Ford New Holland	M2C134/D
Ford New Holland	FNHA-2-C-201.00
John Deere	J29 C
Massey Ferguson	M1135, M1141
Komatsu Dresser	BO6-0001, N06-0002, 35VQ25A Pump
Denison	HF-0, HF-1, HF-2
Vickers	35VQ25 Pump
Sundstrand	22 Axial Piston Pump
AGCO Power Fluids	821 XL
Kubota	UDT
Volvo	WB-101/BM
Cat MTO can be substituted in applications that require the following:	
Case	MS1204, MS1205, MS1206, MS1207, MS1209, MS1210
White-New Idea	Q-1802, Q-1826
Deutz-Allis	821 XL
AGCO Power Fluids	821 XL
Cincinnati Milacron	P-68, P-69, P-70
Allison	C-4 (Agriculture Only)
Typical Characteristics{A}	
Gravity API (ASTM D287)	28.6
Flash Point, °C (°F) (ASTM D92)	214 (417)
Pour Point, °C (°F) (ASTM D97)	-42 (-44)
Viscosity Brookfield, cP at -20° C	4300
Viscosity cSt @ 40° C (ASTM D445)	58
Viscosity cSt @ 100° C (ASTM D445)	9.3
Viscosity Index (ASTM D2270)	140
Zinc, % wt.	0.15 min.

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

{B} Cat MTO does not meet Cat TO-4 or FD-1 and should not be used in compartments that specify TO-4 or FD-1 oil.

Metric Volume (L)	English Volume (gal)	Part Number
SAE 10W-30		
--	5	105-3335
--	55	105-3334
--	Bulk	155-6218
5	--	172-6894
18	--	135-3189
19	--	112-9183
20	--	109-4395
200	--	126-2700
205	--	138-4271
208	--	120-5286
Bulk	--	105-3333

Cat® Axle and Brake Oil Additive

Metric Volume (L)	English Volume (qt)	Part Number
--	1 qt	197-0017

**Cat® Hydraulic Oil Additive**

Metric Volume (L)	English Volume (qt)	Part Number
--	1 qt	1U-9891

Health and Safety

Under normal conditions of intended use, these products do not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. Always observe good hygiene measures. Read and understand the Material Safety Data Sheet (MSDS) before using this product. For a copy of the MSDS, visit us on the web at www.catmsds.com.

Cat® ELC™



Recommended Use

- Cat ELC meets or exceeds the requirements of the following specifications and guidelines:
- Cat EC-1
- ASTM D-3306
- ASTM D-6210
- TMC RP-329
- TMC RP-338
- SAE J1034
- Cat ELC also meets the performance requirements of Cummins, Detroit Diesel, International, Mack and Volvo.

Discover the Difference

- Cat ELC is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for all Cat machine cooling systems.
- Lower Maintenance Costs — Reduces engine coolant and additive costs by as much as 500% compared to conventional coolants. Cat ELC eliminates the need for supplemental coolant additives, extends coolant change-out intervals and reduces disposal requirements.
- Advanced Metal Protection — Incorporates an advanced formula technology with organic acid additive corrosion inhibitors, such as a combination of mono and dicarboxylates for maximum protection of copper, solder, brass, steel, cast iron and aluminum.

Typical Characteristics{A}	
Color	Strawberry Red
Boiling protection with 1 bar (15 psi) radiator cap	
50% Cat ELC/50% water	129° C (265° F)
60% Cat ELC/40% water (ELC concentrate added)	132° C (270° F)
Freezing protection	
50% Cat ELC/50% water	-37° C (-34° F)
60% Cat ELC/40% water (ELC concentrate added)	-52° C (-62° F)
Nitrite (50% solution)	500 ppm
Molybdate (50% solution)	530 ppm

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
Cat ELC Concentrate		
--	1	119-5150
Cat ELC — 50/50 Premix		
--	1	101-2844
--	5	129-2151 ¹
--	55	101-2845 ¹
--	275	222-1534 ¹
--	Bulk	156-2653 ¹

(Continued)

Cat® ELC™ (Continued)

Metric Volume (L)	English Volume (gal)	Part Number
Cat ELC Concentrate (with embitterment)		
--	1	238-8647 ³
5	--	205-6615 ⁴
Cat ELC Premix 50/50 (with embitterment)		
--	1	238-8648 ²
--	5	238-8649 ²
--	55	238-8650 ²
5	--	205-6611 ³
25	--	205-6612 ³
210	--	205-6613 ³
1000	--	205-6614 ³
1000	--	237-4953 ⁴
5	--	215-4245 ⁵
20	--	215-4246 ⁵

¹NACD — Only²NACD — North America³EAME — Europe, Africa, Middle East⁴APD — Australia⁵LACD — Brazil**Cat® ELC Extender****Recommended Use**

- Exceeds Cat EC-1 performance requirements.
- Protects against cylinder liner/block pitting and cavitation erosion.
- Should be added at 500 000 km (300,000 miles) for Cat On-Highway Trucks and 6,000 hours for commercial engines.
- Extender is only necessary once during the life of the coolant.
- Ensures Cat ELC performance to 1 000 000 km (600,000 miles) or 12,000 hours.

ELC Extender and Flush Intervals

Cat ELC Extender should be added after 6,000 hours or 500 000 km (300,000 miles) of operation, and the system should be drained and flushed with clean water after 12,000 hours or 1 000 000 km (600,000 miles). No cleaning agents are needed.



Metric Volume (L)	English Volume (gal)	Part Number
Cat ELC Extender		
--	>0.250 (1 qt)	119-5152
--	1	210-0786
1	--	215-4241 ¹
5	--	219-3039 ¹

¹LACD — Brazil

Cat® DEAC™



Recommended Use

- Cat DEAC is approved for use in all Cat machines, commercial engine and truck engine applications and most diesel, gas or natural gas engines made by other manufacturers.
- Cat DEAC meets the following ASTM standards:
- ASTM D6210 (Heavy-duty antifreeze/coolants)
- ASTM D3306 (Automotive applications)
- ASTM D4656 (Automotive applications)
- ASTM D1384 (Glassware corrosion test)

Discover the Difference

- Cat DEAC is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Excellent Performance — Contains organic and inorganic corrosion inhibiting and anti-foam additives, and provides superior protection against pitting, corrosion and freezing down to -37° C (-34° F).
- Convenience — Fully formulated, no pre-mixing with supplemental coolant additive required at initial fill. Concentrate available in 1- and 55-gallon containers for top-off.

Typical Characteristics{A}	
Color	Magenta
Boiling protection °C (°F) 15 psi pressure cap (ASTM D1177)	
50% Cat DEAC/50% water	129 (265)
60% Cat DEAC/40% water (maximum)	132 (270)
Freezing protection °C (°F)	
50% Cat DEAC/50% water	-37 (-34)
60% Cat DEAC/40% water (maximum)	-52 (-62)
Silicate (concentrate) SiO ₂	900-1100 ppm
Ethylene Glycol (% volume)	95.2% min.
Inhibitors Additives (% volume)	4.3-4.8%

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
Cat DEAC — Concentrate		
--	1	8C-3684
--	55	8C-3686
--	Bulk	156-2649
Cat DEAC — Concentrate Embittered		
--	1	238-8651
--	55	238-8653
20	--	9X-6585 ¹
Bulk	--	2P-9868 ¹
Cat DEAC — 50/50 Premix		
--	Bulk	156-2650
20	--	3E-9441 ¹
205	--	3E-9440 ¹

¹EAME — Europe, Africa, Middle East

Cat® SCA

Application

- For regular maintenance use with Cat DEAC low silicate heavy-duty diesel engine coolants, including glycol-based antifreezes.

Features

- Helps stop rust and mineral deposits from forming in the cooling system.

Benefits

- Protects all metals.
- Protects against cylinder liner cavitation and corrosion.
- Will not affect gaskets or hoses.



Metric Volume (L)	English Volume (gal)	Part Number
Cat SCA for DEAC		
--	0.063 (½ pint)	6V-3542
--	0.125 (1 pint)	8T-1589
--	0.250 (1 qt)	3P-2044
--	5	8C-3680
--	55	5P-2907
1	--	217-0616
20	--	217-0617
208	--	217-0618

Cat® NGEC™

Recommended Use

Cat NGEC Premix 50/50 is a heavy-duty cooling system fluid especially designed to provide superior protection against pitting, freezing, and corrosion in Cat natural gas engines. It protects all metals including aluminum.

Discover the Difference

- Cat NGEC is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Fully Formulated — Does not require an initial supplemental cooling additive.
- Quick, easy servicing.
- Superior Protection — Contains both organic and inorganic corrosion inhibitors as well as anti foam additives. It provides superior protection against pitting, corrosion and freezing down to -37° C (-34° F).

Typical Characteristics{A}	
Color	Purple
Boiling protection with 15 psi pressure cap °C (°F) (ASTM D1177)	
50% Cat NGE/50% water	265 (129)
60% Cat NGEC/40% water (concentrate added)	270 (132)
Freezing protection °C (°F)	
50% Cat NGEC/50% water	-34 (-37)
60% Cat NGEC/40% water (maximum)	-62 (-52)
Ash content, % wt. (ASTM D1119)	0.60
Silicate (concentrate) SiO2 (ppm)	450-550
Ethylene Glycol (% volume)	45.3
Inhibitors Additives (% volume)	2.2-2.4

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

(Continued)

Cat® NGETM (Continued)

Metric Volume (L)	English Volume (gal)	Part Number
--	1	233-9797
--	5	233-9798
--	55	233-9799
--	275	239-3649

Cooling System Cleaner — Standard



Applications

- Cooling system cleaner; full effect after several weeks in the cooling system.
- Not for use in removing large amounts of oil from cooling systems.

Features

- Removes scale or lime deposits.

Benefits

- Cleans cooling system while the machine works.

Metric Volume (L)	English Volume (gal)	Part Number
--	0.500 (2 qt)	6V-4511 ¹
1.89	--	185-5121 ²

¹NACD — North America

²EAME — Europe, Africa, Middle East

Cooling System Cleaner — Quick Flush



Applications

- For use as preventative maintenance or as a short-time flush at the time of coolant change.
- Not for use in removing large amounts of oil from cooling systems.

Features

- Removes limes, scale and solder bloom.

Benefits

- Allows for one-step cleaning in just 90 minutes.

Metric Volume (L)	English Volume (gal)	Part Number
--	0.125 (1 pt)	4C-4609
--	0.250 (1 qt)	4C-4610
--	1	4C-4611
--	5	4C-4612
--	55	4C-4613

Cooling Conditioner Test Kit

Applications

- Simple dip test takes just minutes to perform.

Features

- Does not require dilution, titration or drops to count.

Benefits

- Includes a color density change for people with color blindness.



Product	Part Number
Coolant Conditioner Test Kit (100 test strips, sample, bottle, pipette)	4C-9301
Refill test strips	4C-9297

ELC™ Dilution Test Kit

- Tests reserve alkalinity and contamination.
- Used to test inhibitor level of Cat ELC.
- Simple pass/fail system is indicated by color.
- Disposable — kit contains pre-measured chemicals in sample tubes.



Product	Part Number
ELC Dilution Test Kit (100 test strips, sample, bottle, pipette)	233-9116

Battery and Coolant Refractometer

- Used to measure freezing point of coolants plus battery charge condition.
- Refractometer uses a prism and lens with simple focus adjustment to provide accurate and repeatable measurements on easy to read scales.
- Easy to operate.
- Automatic temperature compensation (ATC).
- Requires only 2 to 3 drops of solution.
- Carrying case and calibration screwdriver included.
- Reads degrees Centigrade and Fahrenheit.



Range	Resolution
-60 to 32° F propylene glycol freeze point	10° F
-50 to 0° C ethylene glycol freeze point	5° C
1.15 to 1.30 specific gravity of battery acid	0.01

Product	Part Number
Battery and Coolant Refractometer	245-5829

Health and Safety

Under normal conditions of intended use, these products do not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. Always observe good hygiene measures. Read and understand the Material Safety Data Sheet (MSDS) before using this product. For a copy of the MSDS, visit us on the web at www.catmsds.com.

Cat® Multipurpose Grease



Recommended Use

- Cat Multipurpose Grease is recommended for grease fittings and lubrication points in low-load, low-speed applications and ambient temperatures ranging from -30° to 40° C (-22° to 104° F).

Discover the Difference

- Cat Multipurpose Grease is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Reduced Component Wear — Resists softening and protects parts from wear.
- Corrosion Protection — Resists oxidation and protects metal against rust. Will not corrode or damage steel, copper bearing alloys or conventional seal materials.
- Excellent General Purpose — Lithium Complex grease for applications where load, speed, temperature and moisture conditions are low.

Typical Characteristics{A}	
NGLI #	2
Ambient Range, F	-22° to +104°
Ambient Range, C	-30° to +40°
Operating Range, F	-25° to +300°
Operating Range, C	-32° to +149°
Base Fluid Type	Petroleum
Thickener Type	Lithium Complex
Color	Blue
% Molybdenum disulfide	0
Worked Penetration (mm)	265-295
% Change/100,000 stroke	-5 to +15
Roll Stability w/H ₂ O, % change	N/A
Viscosity Index, Min	N/A
Viscosity @ 100° C, cSt	19.5-22.5
Viscosity @ 40° C, cSt	230-245
4 Ball Wear (mm) Max, Typ.	0.75
4 Ball E.P. Weld Point (kg) Min.	315
Timken E.P. Test OK load (lb) Typ.	55 Min
Oxidation-psi drop/500 hr Max	N/A
Rust Test	Pass
Copper Corrosion	1b
Dropping Point	+260° C (+500° F)

{A} The values shown below are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (kg)	English Volume (lb)	Part Number
NLGI Grade #2		
397 g (cartridge)	14 oz (cartridge)	1P-0808
450 g (cartridge)	15.9 oz (cartridge)	129-1950 ¹
16 (metal pail)	35 (metal pail)	129-1919
16 (plastic pail)	35 (plastic pail)	7X-7664
54 (keg)	120 (keg)	9X-6488
181 (drum)	400 (drum)	7X-7665
1588 (tote)	3,500 (tote)	129-1921

¹ Australia use

Cat® Advanced 3Moly Grease

Recommended Use

- Cat Advanced 3Moly Grease is recommended for grease fittings and lubrication points in medium-load and medium-speed applications with ambient temperatures ranging from -20° to 40° C (-4° to 104° F).

Discover the Difference

- Cat Advanced 3Moly Grease is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Factory-Fill — Used as standard factory-fill for most Cat machines.
- Long Life — Lithium based and enhanced with 3% molybdenum disulfide (moly), Cat Advanced 3Moly Grease is an excellent grease for Cat applications where speed, load and temperature are moderate and moisture is low.
- Reduced Component Wear — Resists softening and protects parts from wear.
- Corrosion Protection — Resists oxidation and protects metal against rust. Will not corrode or damage steel, copper bearing alloys or conventional seal materials.



Typical Characteristics{A}	
NGLI #	2
Ambient Range, F	-4° to +104°
Ambient Range, C	-20° to +40°
Operating Range, F	-5° to +300°
Operating Range, C	-21° to +149°
Base Fluid Type	Petroleum
Thickener Type	Lithium Complex
Color	Gray
% Molybdenum disulfide	3
Worked Penetration (mm)	265-295
% Change/100,000 stroke	10 Max
Roll Stability w/H ₂ O, % change	N/A
Viscosity Index, Min	N/A
Viscosity @ 100° C, cSt	22
Viscosity @ 40° C, cSt	320
4 Ball Wear (mm) Max, Typ.	0.55
4 Ball E.P. Weld Point (kg) Min.	315
Timken E.P. Test OK load (lb) Typ.	55 Min
Oxidation-psi drop/500 hr Max	N/A
Rust Test	Pass
Salt Fog Test, hours	N/A
Copper Corrosion	1b
Dropping Point	+260° C (+500° F)

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (kg)	English Volume (lb)	Part Number
NLGI Grade #2 (3% Moly)		
397 g (cartridge)	14 oz (cartridge)	5P-0960
450 g (cartridge)	15.9 oz (cartridge)	129-1952 ¹
16 (plastic pail)	35 (plastic pail)	7X-7699
16 (metal pail)	35 (metal pail)	129-1924
54 (keg)	120 (keg)	9X-6489
181 (drum)	400 (drum)	7X-7701
1588 (tote)	3,500 (tote)	129-1926

¹ Australia use

Cat® Ultra 5Moly Grease

Recommended Use

- Cat Ultra 5Moly Grease is formulated for grease fittings and lubrication points in high-load and high-speed applications with ambient temperatures ranging from -35° to 40° C (-31° to 104° F) for NLGI #1, -30° to 50° C (-22° to 122° F) for NLGI #2, and -40° C to 36° C (40° F to 95° F) for NLGI #0.

Discover the Difference

- Cat Ultra 5Moly Grease is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Moisture Resistance — Resists washout from fresh and salt water.
- Long Life — High-quality calcium sulfonate complex formula with 5% molybdenum disulfide (moly) provides long service life in Cat applications.
- Reduced Component Wear — Resists softening and continues to protect parts under extreme loads and high speeds.
- Corrosion Protection — Resists oxidation and protects metal against rust. Will not corrode or damage steel, copper bearing alloys or conventional seal materials.
- Low Environmental Risk — Is formulated to use no lead, antimony, zinc, barium, chlorine, phosphorus or free sulfur.

Typical Characteristics{A}			
NGLI #	0	1	2
Ambient Range, F	-40° to +95°	-31° to +104°	-22° to +122°
Ambient Range, C	-40° to +35°	-35° to +40°	-30° to +50°
Operating Range, F	-49° to +300°	-40° to +300°	-25° to +300°
Operating Range, C	-45° to +149°	-40° to +149°	-32° to +149°
Base Fluid Type	Petroleum	Petroleum	Petroleum
Thickener Type	Calcium Sulfonate Complex	Calcium Sulfonate Complex	Calcium Sulfonate Complex
Color	Gray	Gray	Gray
% Molybdenum disulfide	5	5	5
Worked Penetration (mm)	355-385	310-340	265-295
% Change/100,000 stroke	±5	±5	±5
Roll Stability w/H ₂ O, % change	±5	±5	±5
Viscosity Index, Min	N/A	N/A	N/A
Viscosity @ 100° C, cSt	11.5	11.5	11.5
Viscosity @ 40° C, cSt	150	150	150
4 Ball Wear (mm) Max, Typ.	0.5	0.5	0.5
4 Ball E.P. Weld Point (kg) Min.	620	620	620
Timken E.P. Test OK load (lb) Typ.	60	60	60
Oxidation-psi drop/500 hr Max	N/A	N/A	N/A
Rust Test	Pass	Pass	Pass
Salt Fog Test, hours	+4,000	+4,000	+4,000
Copper Corrosion	1a	1a	1a
Dropping Point	+288° C (+550° F)	+288° C (+550° F)	+288° C (+550° F)

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Cat® Ultra 5Moly Grease (Continued)

Metric Volume (kg)	English Volume (lb)	Part Number
NLGI Grade #0		
181 (drum)	400 (drum)	206-2406
1588 (tote)	3,500 (tote)	206-7411
NLGI Grade #1		
397 g (cartridge)	14 oz (cartridge)	161-9203
450 g (cartridge)	15.9 oz (cartridge)	197-9227 ¹
16 (plastic pail)	35 (plastic pail)	183-3432
54 (keg)	120 (keg)	161-0970
181 (drum)	400 (drum)	161-0971
1588 (tote)	3,500 (tote)	266-8564
NLGI Grade #2		
397 g (cartridge)	14 oz (cartridge)	183-3424
450 g (cartridge)	15.9 oz (cartridge)	183-3425 ¹
16 (plastic pail)	35 (plastic pail)	183-3426
54 (keg)	120 (keg)	183-3427
181 (drum)	400 (drum)	183-3428
1588 (tote)	3,500 (tote)	183-3429

¹ Australia use**Cat® Desert Gold Grease****Recommended Use**

- Cat Desert Gold Grease is recommended for grease fittings and lubrication points in all load and speed applications and ambient temperature ranges of -20° to 60° C (-4° to 140° F).

Discover the Difference

- Cat Desert Gold Grease is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Extreme Life — High-quality calcium-sulfonate complex synthetic base with 5% molybdenum disulfide (moly) delivers unmatched performance in Cat applications.
- Extreme Heat Operation — Performs and protects where ambient temperatures are regularly above 90° F.
- Moisture Resistance — Resists washout from fresh and salt water.
- Reduced Component Wear — Resists softening and continues to protect parts under extreme loads and high speeds.
- Corrosion Protection — Resists oxidation and protects metal against rust. Will not corrode or damage steel, copper bearing alloys or conventional seal materials.
- Low Environmental Risk — Is formulated not to contain lead, antimony, zinc, barium, chlorine, phosphorus or free sulfur.



(Continued)

Cat[®] Desert Gold Grease (Continued)

Typical Characteristics{A}	
NGLI #	2
Ambient Range, F	-4° to +140°
Ambient Range, C	-20° to +60°
Operating Range, F	-10° to +4500°
Operating Range, C	-23° to +2320°
Base Fluid Type	Synthetic
Thickener Type	Calcium Sulfonate Complex
Color	Gold
% Molybdenum disulfide	5
Worked Penetration (mm)	265-295
% Change/100,000 stroke	±1
Roll Stability w/H ₂ O, % change	±1
Viscosity Index, Min	125
Viscosity @ 100° C, cSt	265-295
Viscosity @ 40° C, cSt	370-425
4 Ball Wear (mm) Max, Typ.	0.45
4 Ball E.P. Weld Point (kg) Min.	620
Timken E.P. Test OK load (lb) Typ.	65
Oxidation-psi drop/500 hr Max	5
Rust Test	Pass
Salt Fog Test, hours	+1,100
Copper Corrosion	1a
Dropping Point	+302° C (+575° F)

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (kg)	English Volume (lb)	Part Number
NLGI Grade #2		
397 g (cartridge)	14 oz (cartridge)	129-1938
450 g (cartridge)	15.9 oz (cartridge)	129-1937 ¹
16 (metal pail)	35 (metal pail)	129-1942
16 (plastic pail)	35 (plastic pail)	129-1941
54 (keg)	120 (keg)	129-1943
181 (drum)	400 (drum)	129-1944
1588 (tote)	3,500 (tote)	129-1946

¹ Australia use

Cat® Arctic Platinum Grease

Recommended Use

- Cat Arctic Platinum Grease is recommended for grease fittings and lubrication points in all load and speed applications and ambient temperature ranges of -50° to 20° C (-58° to 68° F).

Discover the Difference

- Cat Arctic Platinum Grease is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Extreme Life — High-quality calcium-sulfonate complex synthetic base with 5% molybdenum disulfide (moly) delivers unmatched performance in Cat applications.
- Extreme-Cold Operation — Performs and protects where ambient temperatures are regularly below 0° F.
- Moisture Resistance — Resists washout from fresh and salt water.
- Reduced Component Wear — Resists softening and continues to protect parts under extreme loads and high speeds.
- Corrosion Protection — Resists oxidation and protects metal against rust. Will not corrode or damage steel, copper bearing alloys or conventional seal materials.
- Low Environmental Risk — Is formulated not to contain lead, antimony, zinc, barium, chlorine, phosphorus or free sulfur.



Typical Characteristics{A}	
NGLI #	0
Ambient Range, F	-58° to +68°
Ambient Range, C	-50° to +20°
Operating Range, F	-70° to +275°
Operating Range, C	-57° to +135°
Base Fluid Type	Synthetic
Thickener Type	Calcium Sulfonate Complex
Color	Platinum
% Molybdenum disulfide	5
Worked Penetration (mm)	355-385
% Change/100,000 stroke	±5
Roll Stability w/H ₂ O, % change	±5
Viscosity Index, Min	125
Viscosity @ 100° C, cSt	5-7
Viscosity @ 40° C, cSt	30-40
4 Ball Wear (mm) Max, Typ.	0.45
4 Ball E.P. Weld Point (kg) Min.	620
Timken E.P. Test OK load (lb) Typ.	65
Oxidation-psi drop/500 hr Max	5
Rust Test	Pass
Salt Fog Test, hours	N/A
Copper Corrosion	1a
Dropping Point	+260° C (+500° F)

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (kg)	English Volume (lb)	Part Number
NLGI Grade #0		
16 (plastic pail)	35 (plastic pail)	129-8708
54 (keg)	120 (keg)	129-8709
181 (drum)	400 (drum)	129-8710

Cat® High Speed Ball Bearing Grease

Recommended Use

- Electric motors, fan drives, starters, alternators, generators
- It can also be used in automotive and industrial applications, especially where equipment is operated intermittently in severe conditions.

Discover the Difference

- Cat High Speed Ball Bearing Grease is developed, tested and approved by Caterpillar to meet the same high standards as Genuine Cat Parts.
- Formulated with synthetic thickener and corrosion inhibitors, High Speed Ball Bearing Grease provides excellent lubrication in ball and roller bearings operating over a broad temperature range.
- High-Stress Performance — Provides outstanding protection at high speeds (10,000 rpm and greater) and the high temperatures (163° C/325° F) associated with high speeds.
- Moisture Resistance — Resists wash out from fresh and salt water.
- Increased Component Life — Heat resistance provides improved protection, reducing component wear rates.
- Low-Temperature Operation — Remains mobile in temperatures as low as -30° C (-22° F).

Typical Characteristics{A}		
NGLI #		3-4
Ambient Range, F		-4° to +104°
Ambient Range, C		-20° to +40°
Operating Range, F		-40° to +325°
Operating Range, C		-40° to +163°
Base Fluid Type		Petroleum
Thickener Type		Polyurea
Color		Blue-Green
% Molybdenum disulfide		0
Worked Penetration (mm)		265-295
% Change/100,000 stroke		±1
Roll Stability w/H ₂ O, % change		N/A
Viscosity Index, Min		N/A
Viscosity @ 100° C, cSt		9-13
Viscosity @ 40° C, cSt		95-110
4 Ball Wear (mm) Max, Typ.		N/A
4 Ball E.P. Weld Point (kg) Min.		N/A
Timken E.P. Test OK load (lb) Typ.		N/A
Oxidation-psi drop/500 hr Max		5
Rust Test		Pass
Salt Fog Test, hours		+1,100
Copper Corrosion		1a
Dropping Point		+260° C (+500° F)

{A} The values shown are typical values and should not be used as quality control parameters to either accept or reject product. Specifications are subject to change without notice.

Metric Volume (L)	English Volume (gal)	Part Number
NGLI #2		
397 g (cartridge)	14 oz (cartridge)	2S-3230

White Assembly Grease

Applications

- For use in general assembly and other light-duty applications.

Features

- Added tackifiers, making it ideal for holding gears, bearings, gaskets and other parts during assembly.
- Contains no molybdenum disulfide.

Benefits

- Exceptional general purpose grease.

Metric Volume (L)	English Volume (gal)	Part Number
NLGI #0		
254 g (tube)	10 oz (tube)	266-9682
NLGI #2		
397 g (cartridge)	14 oz (cartridge)	129-1966
16 (plastic pail)	35 (plastic pail)	129-1969

Cat® Hammer Paste

- Specially formulated for high impact hydraulic attachments.

Metric Volume (L)	English Volume (gal)	Part Number
NLGI #2		
397 g (cartridge)	14 oz (cartridge)	130-6951
5 kg (tub)	11 lb (tub)	133-8807

High Vacuum Grease

- For applications where maintaining a seal under vacuum or pressure is required.

Metric Volume (L)	English Volume (gal)	Part Number
113 g (cartridge)	4 oz (cartridge)	186-1530

Ultra Synthetic Generator Grease

- Clay-thickened, synthetic based oil, multi-service grease.
- Provides low temperature breakaway performance.

Metric Volume (L)	English Volume (gal)	Part Number
NLGI #1.5		
397 g (cartridge)	14 oz (cartridge)	108-8611

Introduction**MSDS Information**

MSDS Information for Caterpillar Chemicals/Lubricants/Adhesives can be found at www.catmsds.com

Medical Emergency Contacts

For a medical emergency involving Caterpillar Chemicals/Lubricants/Adhesives, call 800-458-5924 (in United States of America) 303-893-1322 (in all other countries)

NOTE:

Not all products are available worldwide. Some products have different part numbers for Europe, Africa, Middle East, and Common Wealth of Independent States (EAME) dealers and customers to order due to specific hazardous material label information required in EAME for these products. Products which require specific hazardous material labels in EAME may not be available in all container sizes in EAME. "N/A" indicates a product which is not available in EAME.

High Vibration Adhesive

Part Number	EAME Part Number	Size
308-3506	185-4003	25.0 ml (0.85 fl oz)

- Bond wood, metal, glass, most rubbers and plastics — bond serial number
- Fast curing — handling strength in minutes; full strength in 2-4 hours
- Heat resistant to 121° C (250° F)
- High strength, vibration and oil resistant
- Adhesive quantity: 25 ml (0.85 fl oz)



Belzona® Kit for Block Repair

- Used for repair of pitting/cavitation erosion in engine blocks
- Contains metal filled epoxy compounds to replace the metal which has been eroded away by pitting/cavitation in engine blocks

Belzona 1221 Super E-Metal (207-7532 EAME only)

- Can be molded or hand formed and machined after it is cured
- At 25° C (77° F), has a 3 minute pot life
- Can be machined after 35 minutes; has full mechanical properties after 60 minutes; and can be immersed in chemicals after 20 hours

Belzona 1311 Ceramic R Metal (207-7531 EAME only)

- Can be molded or hand formed but it must be machined with diamond tooling or ground after it is cured
- At 25° C (77° F), has a 15 minute pot life
- Can be machined or ground after 1 hour; has full mechanical properties after 24 hours; and can be immersed in chemicals after 48 hours

Belzona 1111 Super Metal (207-7530 EAME only)

- Can be molded or hand formed and machined after it is cured
- At 25° C (77° F), has a 15 minute pot life
- Can be machined after 1 hour; has full mechanical properties after 24 hours; and can be immersed in chemicals after 48 hours



Reference

SEHS8869 Special Instruction; contains instructions for making repairs to engine blocks with 1U-6132 Belzona® 1311 Ceramic R Metal

SELD0458 Reconditioning Bulletin for 3500 Cylinder Block Pitting; instructions for repairing water port damage with 1U-6132 Belzona 1311 Ceramic R Metal

SEBF8263 Reuse and Salvage Guide for 3500 Top Deck Repair on cylinder blocks; instructions for repairing top deck damage with 1U-6132 Belzona 1311 Ceramic R Metal

Part Number	EAME Part Number	Description	Qty.
1U-6142	--	Belzona Kit for Block Repair	1
Come in handy plastic tool box; knives, spatulas, work surface and tool box are not serviced separately ¹			
1U-6140	207-7532	Belzona 1221 Super E-Metal (125 gram) Kit	4
1U-6132	207-7531	Belzona 1311 Ceramic R Metal (2 kg) Kit	1
1U-6136	207-7530	Belzona 1111 Super Metal (2 kg) Kit	1
1U-6128	NULL	Reinforcement Tape (10 meter)	1

¹ NOTE: These products are packaged in kits to provide the correct ratio for mixing. They must be mixed only in the correct ratio in order to get satisfactory results. The various bases and solidifiers are not serviced individually. Instructions for use of each of these compounds are included in the kit and the correct mix ratios are specified for each. If desired, the cure speed of the Belzona compounds can be accelerated by the application of heat. You can apply the heat by either heat lamps, ovens or heat guns.

Belzona® Kit for Challenger Track Belt Repair

- Used for repair cuts, tears and severe localized wear on the belt of the Challenger track
- Contains durable and abrasion resistant two component elastomeric repair system for repairing, rebuilding and protecting rubber and metal substrates
- Belzona D&A can be hand formed during application to conform to any contour. Cured material may be dressed down or trimmed (as you would the base material).

Order separately: 144-7783 Belzona 2911 Q.C. Conditioner, 150 g unit

A 156-2732 Roughing Brush is available separately to assist in properly preparing the edge of the area to be repaired. It is specially-designed to prepare the rubber surface prior to repair. (Service Part: 156-2733 Refill Teeth)

Part Number	Description	Qty.
Comes boxed as a kit; knives, spatulas and mixing bowls are not serviced separately ¹		
144-7779	Belzona 2111 D&A Hi-Build Elastomer Kit, 500 g unit (15.65 fl oz)	1

¹NOTE: These products are packaged in kits to provide the correct ratio for mixing. They must be mixed only in the correct ratio achieved by carefully emptying both the base and solidifier container. Do not open these containers until you are ready to complete the mixing and application. The material is not usable after extended exposure to air. The base and solidifier are not serviced separately. The 2911 Q.C. Conditioner is used as required to produce a thin, even coat. It is serviced separately to enable replacement of out-of-date units.

Quickmetal

- Adheres to metal and closes gaps of up to 0.5 mm (0.020 in) in diameter on shafts, housings, bearing spinouts, keyways, and splines

Part Number	Size	Package Quantity
269-1943	48.2 g (1.7 oz) tube	1

Sealant Repair Kits

Part Number	EAME Part Number	Description	Size
173-0531	185-4005	--	--
Kit Consist			
4C-9507	185-3988	Retaining Compound	50 ml (1.69 fl oz)
7M-7456	185-3994	Bearing Mount	50 ml (1.69 fl oz)
9S-3263	185-3996	Thread Lock	50 ml (1.69 fl oz)
5P-3413	185-3992	Pipe Sealant 12/3 oz (85 g) tube	50 ml (1.69 fl oz)
169-5464	185-4004	Quick Cure Primer	133 ml (4.50 fl oz)

Thread Lock

- Removable strength
- Breakaway torque — 12.995 N•m (115 in. lb)
- Prevail torque — 5.989 N•m (53 in. lb)
- Service temperature up to 149° C (300° F)
- Medium Gap fill, up to 0.13 mm (0.005 in)
- 10 minute fixture — 24 hour full cure time
- Used to seal, lock in place, and prevent rust lock: can be used on small bolts, set screws, terminal screws, deck plate cap screws, radiator guard bolts, roller guard rolls

Part Number	EAME Part Number	Size	Qty.
4C-4030	N/A	10 ml (0.34 fl oz)	10
9S-3263	185-3996	50 ml (1.69 fl oz)	10

High Strength Thread Lock

Part Number	EAME Part Number	Size	Qty.
154-9731	N/A	10 ml (0.34 fl oz)	10
155-0695	185-3998	50 ml (1.69 fl oz)	10

- High strength — permanent
- Breakaway torque — 25.99 N•m (230 in. lb)
- Prevail torque — 36.16 N•m (320 in. lb)
- Service temperature up to 149° C (300° F)
- Medium Gap fill, up to 0.15 mm (0.007 in)
- 10 minute fixture — 24 hour full cure time



High Strength/High Temperature Retaining Compounds

Part Number	EAME Part Number	Size	Qty.
4C-9506	N/A	10 ml (0.34 fl oz)	10
4C-9507	185-3988	50 ml (1.69 fl oz)	5

- High temperature capacity — 232° C (450° F)
- Large gap fill 0.38 mm (0.015 in)
- High shear strength — 21 mPa (3,000 psi)
- Medium cure speed — cure time 2-4 hours
- Seals/locks in place, augment slip fits on large bolts and studs, lip seals and wear sleeves, pins, gears and pulleys



Bearing Mounts

Part Number	EAME Part Number	Size	Qty.
4C-4032	N/A	10 ml (0.34 fl oz)	10
7M-7456	185-3994	50 ml (1.69 fl oz)	5

- High shear strength — 21 mPa (3,000 psi)
- Service temperature up to 149° C (300° F)
- Medium gap fill, up to 0.13 mm (0.005 in)
- Fast cure speed — full cure time 1-2 hours at room temperature
- Used to seal, lock in place, augment press fits and slip fits on: large bolts, lip seals, ball bearings in housings or on shafts, thin wall bushings in housings, sintered bearings, plain bearings, needle bearings, core plugs, wear sleeves, cartridge pins on loader linkages, gears, pulleys, fan hubs



Pipe Sealant w/Teflon

- Very low shear strength; large gap fill
- Service temperature up to 149° C (300° F)
- Very slow cure speed
- Seal and lock tapered pipe plugs, nipples, and fittings

Part Number	EAME Part Number	Size	Qty.
5P-3413	185-3992	50 ml (1.69 fl oz)	10



Quick Cure Primer



- Removes grease and oil from surface
- Reduces cure time on anaerobic sealants and adhesives such as thread lock, retaining compound, and bearing mount
- Convenient aerosol application
- Single-component, non-CFC solvent-based surface activator
- Use when temperature is below 15° C (59° F)

Part Number	EAME Part Number	Size
169-5464	185-4004	133 ml (4.50 fl oz)

Clear Adhesive Sealant

- Holds seals in place during assembly
- Contents comes in a syringe
- Used for Single Cylinder Oil Test Engines (SCOTE)

Part Number	Size
1Y-3904	20 ml (0.68 fl oz)

Wicking Sealant



- Locks and seals fasteners after assembly
- Low viscosity approximately 12 mPa (12 cP's)
- Small gap fill 0.1 mm (0.004 inch) diametral
- High shear strength 21 mPa (3,000 psi) on steel
- Fast cure time 1 hr to full cure
- High heat resistance — up to 149° C (300° F)
- Low viscosity (almost as thin as water): makes this material ideal for sealing and locking tight press fits and allows this material to wick into joints that are already assembled, then cure in between the mating parts to seal and lock parts in place, prevent loosening from vibration
- Apply Wicking Sealant to: screws in terminal strips on generator sets, lift trucks, on and off-road equipment to prevent loosening from vibration. (Normally the screws must be removed individually, cleaned, thread locker applied and then the screws must be reinstalled) and also to seal minor porosity in welded joints, castings, and die castings to prevent weeping/seeping type leaks. For best results, apply to suspect areas before they are contaminated with oils, etc.

Part Number	EAME Part Number	Size	Qty.
4C-9509	N/A	50 ml (1.69 fl oz)	10

(Continued)

Cyanoacrylate Adhesives

Part Number	Color
157-7228	Clear
152-9155	Black

- Use for instant bonding on mated metal, plastic or rubber parts and assemblies
- Good general purpose liquid "super glue"
- Fast curing and high strength
- 153-9155 (black) has increased impact resistance
- Store between 2° C and 8° C (35.6° F to 46.4° F)
- Gap fill: 0.0762 mm (0.003 inch) for clear and 0.15 mm (0.006 inch) for black
- Size: 3 g (0.105 oz)
- See Material Safety Data Sheet (MSDS) for additional information



Cement

Part Number	EAME Part Number	Size	Qty.
5H-2471	185-4591	236 ml (7.98 fl oz)	12

- Bond, seal or patch
- Bond cork, leather, rubber, metal — bond headliners and wall insulation in cabs
- Contains flammable solvent



General Purpose Spray Adhesive

Part Number	Size
222-3113	340 g (11.99 oz)

- Works on metal, foam, or decals
- Does not require a catalyst
- Short open time
- Convenient aerosol application
- Excellent general purpose adhesive
- Quickly fixes problems in the shop or field



Epoxy Mixer Cup Kit

Part Number	Size	Qty.
266-3144	41.4 ml (1.40 fl oz)	10

- 10 pre-measured mixer packets in each can — each one contains the correct ratio of resin and catalyst
- General purpose, high strength, bonding and sealing



Epoxy Adhesive, Nozzle Mixer, Applicator

Model: 3500



- Fast cure adhesive
- 30 minute handling strength

Part Number	Shear Strength	Pot Life	Mix Ratio	Size
143-9508	2,500 psi	9 minutes	1:1	48.2 g (1.70 oz)
143-9509	2,500 psi	9 minutes	1:1	48.2 g (1.70 oz)
143-9510	2,500 psi	9 minutes	1:1	48.2 g (1.70 oz)
143-9511	2,500 psi	9 minutes	1:1	48.2 g (1.70 oz)

Plexus MA 300

- General purpose, semi-flexible adhesive
- Bonds most unprepared common plastics (ABS, PVC, acrylic)
- Also bonds fiber-reinforced composites and metals

Working time	4 to 6 minutes
Fixture time	12 to 15 minutes
Shear strength	3,000 to 3,500 psi
Size	50 ml duo pack syringe

Part Number	Description	Size
209-0987	Adhesive	50 ml (1.69 fl oz)

RTV Silicone Adhesive Sealant

- Makes formed-in-place gaskets of any size and shape filling voids and irregular surfaces for a positive seal
- Pressurized dispenser produces a consistent and even bead size
- Can be applied faster with less waste than using standard squeeze tubes
- Ready-to-use, no mixing and cures at room temperature
- Excellent weather resistance and extreme flexibility — will not harden or crack
- Adheres to metal, glass, natural and synthetic rubbers, wood, ceramic, other silicone rubbers, painted surfaces, and many plastics
- Resistant to most chemicals, solvents, and oils — blue only, not black
- Works for electrical insulating applications — blue only, not black
- Non-sag — can be applied to horizontal or vertical surfaces
- Low odor, non-corrosive sealant — blue only, not black
- Will not harm oxygen sensors — blue only, not black

Part Number	Size	Color
141-5830	205 g (7.23 oz)	Black
141-5831	205 g (7.23 oz)	Blue

Gasket Maker

Part Number	EAME Part Number	Size
6V-6640	185-3985	50 ml (1.69 fl oz)

- Medium strength for rigid flanges where extra shear strength is desired
- Service temperature up to 175° C (350° F)
- Large gap fill, up to 0.5 mm (0.020 in)
- Fast cure speeds
- Uses original equipment gasket for many applications, seals and locks, tapered pipe plugs, nipples, and fittings, core plugs; some final drive flanges. Replaces flywheel housing gasket in several applications.

**Gasket Compound # 1**

Part Number	Size	Qty.
4C-9501	85 g (3 oz) tube	12

- N/A in EAME
- Dries hard, machinable
- Resists gasoline, diesel fuel, oils, antifreeze, alkali, acids, steam
- Withstands pressures to 34 474 kPa (5,000 psi)
- Withstands temperature to 204° C (400° F)

**Gasket Compound # 2**

Part Number	Size	Qty.
4C-9502	85 g (3 oz) tube	12

- N/A in EAME
- Non-hardening; thick, pasty
- Resists gasoline, diesel fuel, oils, antifreeze, alkali, acids, steam
- Withstands pressures to 34 474 kPa (5,000 psi)
- Withstands temperature to 204° C (400° F)
- Seals joints in segmented gaskets, and "T" joints



Gasket Compound # 3



- N/A in EAME
- Thin, brushable, for sealing finely machined surfaces
- Resists gasoline, diesel fuel, oils, antifreeze, alkali, acids, steam
- Withstands pressures to 34 474 kPa (5,000 psi)
- Withstands temperature to 204° C (400° F)
- Seal many types of gear type pumps; seals rubber hose to nipple connections

Part Number	Size	Qty.
4C-9505	120 ml (4.06 fl oz)	12

Flexible Gasket Makers



- Moderate strength for thin flexible flanges
- Service temperature up to 177° C (350° F)
- Large gap fill, up to 0.5 mm (0.020 in)
- Fast cure speed
- Uses original equipment gasket for many applications, seals and locks, tapered pipe plugs, nipples and fittings, and some final drive flanges

Part Number	EAME Part Number	Size
1U-8846	185-3983	50 ml (1.69 fl oz)
4C-5300	185-3984	300 ml (10.14 fl oz)

Liquid Gasket



- For use on 3176 Engine
- Permanently flexible
- Seals up to 0.08 mm (0.003 in)
- Temperature resistance is 149° C (300° F)
- Will not cause corrosion on aluminum parts
- Contains acetone (highly flammable); does not contain chlorine
- 236 ml (8 fl oz) size comes in a brush top can

Part Number	EAME Part Number	Size
138-8436	185-4590	236 ml (7.98 fl oz)

Room Temperature Vulcanizing (RTV) Silicone Adhesive/Sealants



- General purpose bonding and sealing applications
- Resists cracking, shrinking, and migration
- Excellent temperature range
- Can be used for some low pressure gasketing applications
- Minimum temperature: -73° C (-100° F)

(Continued)

Room Temperature Vulcanizing (RTV) Silicone Adhesive/Sealants (Continued)

Part Number	EAME Part Number	Qty.	Color	Intermittent Max. Temperature	Continuous Max. Temperature	Size
Standard cure for most applications						
3S-6252	185-3986	1	Black	260° C (260.00° F)	204° C (204.00° F)	82.8 ml (2.80 fl oz)
8T-9014	205-8858	10	Clear	249° C (249.00° F)	204° C (204.00° F)	300 ml (10.14 fl oz)
8T-9022	185-3987	10	Blue	260° C (260.00° F)	204° C (204.00° F)	300 ml (10.14 fl oz)
High Temperature Adhesive Sealant						
8T-9013	205-8857	10	Red	316° C (316.00° F)	260° C (260.00° F)	300 ml (10.14 fl oz)
4C-9614	N/A	1	Red	316° C (316.00° F)	260° C (260.00° F)	82.8 ml (2.80 fl oz)
Electronic application RTV (Non-corrosive cure)						
8T-0065	186-1527	1	White	260° C (260.00° F)	204° C (204.00° F)	82.8 ml (2.80 fl oz)
Sensor Safe RTV						
4C-9612	N/A	1	Ultra-Black	260° C (260.00° F)	204° C (204.00° F)	82.8 ml (2.80 fl oz)
Glass to glass bonding — Windshield seam RTV						
119-0781	N/A	1	Clear	249° C (249.00° F)	204° C (204.00° F)	300 ml (10.14 fl oz)

Thermally Conductive RTV Kit

Part Number	Description	Shelf Life
4C-6715	RTV Kit	6 months at 24° C (75° F)

- Increases thermal conductivity between diode and aluminum heat sink assembly on rotating field of power generator
- High thermal conductivity and electrical isolation
- Conformable, cure in place thermal interface
- Storage at or near freezing (0° C [32° F]) prolongs product life
- Also see heat sink compound

Superior E-Z Thrust Caulker

Part Number	Description	Cartridge Size
4C-6922	E-Z Thrust Caulker	0.01 gal

- Holds any 12 oz. tube designed for use with a caulking gun
- Recommended for all grades of caulks, sealants and adhesives from heavy to light consistencies



Heavy-Duty Air Powered Caulking Gun

Part Number	Description	Air Line Length	Required Air Pressure
4C-6507	Caulking Gun	10 ft with standard ¼ inch fittings	5-100 psi

- Easy twist-lock loading
- Smooth uniform bead dispensing
- No after-dripping
- Pistol handle grip for comfort
- All metal construction



Super Ratchet-Type Caulker



- Designed for the professionals who prefer ratchet guns
- Will outlast, outperform all other ratchet guns
- Engineered to withstand heavy use
- Equipped with ladder hook, built-in spout cutter, seal puncture tool, and convenient "D" ring and wrist strap
- Size of cartridge: 1/10 gal.

Part Number	Description	Cartridge Size
4C-6923	Ratchet-Type Caulker	0.01 gal

Window Bonding Adhesives and Tooling

Part Number	EAME Part Number	Description	Size
9U-6919	N/A	Butyl Sealant	3/8 inch x 1/8 inch x 50 foot roll
Seal glass to glass joints			
119-0781	N/A	Clear Silicone Adhesive	300 ml (10.2 oz) cartridge
Primer for polycarbonate			
121-3911	187-4858	Window Primer	250 ml (8.5 oz) tube
Primer for ABS plastic			
166-1359	187-4862	ABS Primer	--

Window Tool Kit

Part Number	EAME Part Number	Description	Size
121-9777	--	Cutout Wire	--
121-9778	--	Cutout Knife	--
121-9779	--	Replacement Blades for 121-9778	--
121-9780	--	Handles for cutout wire	--
121-9781	--	Heavy Duty Caulking Gun	--
121-9782	--	Suction Cup Holder	--
127-6883	--	Sponge Brushes	--
127-6421	--	Window Tool Kit (complete kit)	--

To Bond Large Windows

Clean the area to be repaired with 9U-6917 NACD only (189-8679 EAME only) (pour top quart) or 222-3117 (aerosol) (189-6296 EAME only). Use 121-3911(187-4858 EAME only) to prepare the area. Wait 10 minutes, then apply 121-3908 (187-4856 EAME only) to the area.

See SEHS9824-01 Special Instruction (6/99) for detailed instructions.

Part Number	EAME Part Number	Description	Size
121-3908	187-4856	Window Adhesive	310 ml (10.5 oz) tube
121-3911	187-4858	Window Primer	250 ml (8.5 oz) tube

To Bond Windows to Full Cure Within 2 Hours

Caution: Window must be installed within 10 minutes using this system.

Pre-heat 175-2935 inside 175-2936 Oven for 1 hour prior to repairs. Clean the area to be repaired with 9U-6917 (189-8679 EAME only) (pour top quart) or 222-3117 (189-6296 EAME only) (aerosol).

If glass is supplied without ceramic coating, use 121-3911 (187-4858 EAME only) to prepare the area. Wait 10 minutes, then use 175-2934 (187-4864 EAME only) to activate the area. Wait 10 minutes, then apply the pre-heated 175-2935 (187-4857 EAME only) to the area.

1-hour drive-away time, 2-hour full cure

See SEHS9824-01 Special Instruction (6/99) for detailed instructions.

Part Number	EAME Part Number	Description	Size
121-3911	187-4858	Window Primer	250 ml (8.5 oz) tube
175-2934	187-4864	Activator	250 ml (8.5 oz) tube
175-2935	187-4857	Fast Cure Window Adhesive and Booster	310 ml (10.5 oz) tube

Windshield Cleaner

- Good for all types of glass
- Safe for plastics, vinyl, tile, and all hard surfaces
- Non-streaking
- Dries completely
- Does not leave a film

Part Number	Size
222-3120	340 g (11.99 oz)

Xtreme Windshield Washer Fluid

- Blue-tinted windshield cleaner and de-icer
- Effective to -28.89° C (-20° F)

Part Number	Size	Package Quantity
271-1648	3.79 L (1 gal) jug	6

Plastic and Rubber Protectant

- Contains no silicone
- Formulated with UV inhibitors to protect surface area
- Cleans and protects

Part Number	Size
222-3122	340 g (11.99 oz)

Seal Installation Kit

- N/A in EAME
- Used to clean and lubricate Duo Cone seals prior to installation (developed by Cat MVC)
- Cleaner dries quickly and leaves no film
- For best results, use cleaner, lubricant, and critical task wipers

(Continued)

Seal Installation Kit (Continued)

Part Number	Description	Size	Seal Cleaner	Seal Lubricant	Critical Task Wipers
169-0503	--	--	237 ml (8 oz)	237 ml (8 oz)	203 × 203 mm (8 × 8 in); 50 per package
Seal Installation Kit consist					
169-5418	Seal Lubricant (1 Gallon)	3.8 L (1 gal)	--	--	--
169-5420	Seal Cleaner (1 Gallon)	3.8 L (1 gal)	--	--	--
265-2256	Critical Task Wipers	--	--	--	--

Air Filter Cleaning Kit

- Used to clean air filter elements
- For use in AIRSEPS technology in marine engine applications
- Specially formulated for removing dirt from cotton gauze air filters — prevents shrinkage or other damage to filter element when used according to manufacturer's directions
- Air filter oil greatly increases effectiveness of filter — oil is added to filter after cleaning
- System includes Formulated Cleaning Solution, Genuine Red Oil, and spray nozzle
- Cleans four 228.6 × 228.6 mm (9 × 9 in) tapered filters or equivalent



Part Number	Description	Qty.
102-9720	Air Filter Cleaning Kit	--
Service Parts		
9U-7971	Air Filter Cleaner	0.95 L (1 qt)
102-9721	Filter Cleaner Oil	0.35 L (12 oz)

Cabinet Washers and Agitating Tanks**Cat Cabinet and Tank Liquid and Cat Cabinet and Tank Powder**

- Strong alkaline cleaners that remove dirt, oils, paint, and carbon deposits from ferrous metal parts
- Clean better than previous Hydrosolv products due to increased levels of surfactants and wetting agents
- Well suited for use in cabinet pressure washers and hot tanks

Hydrosolv 4110

- Non-foaming aluminum safe cleaner
- Strong alkaline cleaner that removes dirt, oils, paint, and carbon deposits from aluminum and ferrous metal parts without discoloration
- Well suited for use in cabinet pressure washers and hot tanks



Part Number	EAME Part Number	Name	Qty.	Size
174-6855	185-4593	Cat Cabinet & Tank Liquid	1	208.2 L (55 gal)
4C-8648	N/A	Hydrosolv 4110	1	3.8 L (1 gal)
174-6854	N/A	Cat Cabinet & Tank Liquid	1	18.9 L (5 gal)
174-6856	N/A	Cat Cabinet & Tank Powder	1	18.9 L (5 gal)
174-6857	N/A	Cat Cabinet & Tank Powder	1	208.2 L (55 gal)
4C-8650	N/A	Hydrosolv 4110	1	208.2 L (55 gal)

Pressure Wash

**Hydrosolv 4165**

- Heavy-duty concentrated alkaline cleaner formulated for use in high-pressure washers
- Provides two weeks rust protection if you do not rinse the part after cleaning

Part Number	EAME Part Number	Name	Qty.	Size
1U-5490	185-4619	Cat HD Pressure Wash	1	18.9 L (5 gal)

Defoamant and Descaleant/Conditioner

**Hydrosolv defoamant DK100**

- Designed to knock down excess foam in hot tanks, cabinet washers, anti-freeze stills, or any other aqueous foaming solution

Hydrosolv Descaleant and Conditioner

- Can be used as a concentrate to remove scale from pumps, lines and coils
- Should be diluted 50% and used as a water conditioner for high-pressure washers having automatic water conditioner dispensers

Part Number	EAME Part Number	Description	Qty.	Size
1U-8813	185-4623	Hydrosolv Defoamant DK100	4	1 gal
1U-9698	—	Hydrosolv Descaleant and Conditioner	12	1 quart

General Purpose Detergents

**Cat GP Wash**

- Economical ready-to-use general-purpose liquid cleaner for shop maintenance, machine washing, floor washing, etc.
- Provides good detergency for all types of light duty cleaning

Part Number	EAME Part Number	Name	Qty.	Size
174-6860	N/A	Cat GP Wash	1	18.9 L (5 gal)
174-6861	N/A	Cat GP Wash	1	208.2 L (55 gal)

Chemtool LAC 110 All-Purpose Cleaner Concentrate

- Concentrated all-purpose cleaner and degreaser
- USDA-approved for effectiveness and safety
- Bio-degradable, non-phosphorous for all washing applications including homes, RV's, office industry equipment, automobiles, and boats

Part Number	Size	Package Quantity
269-8297	18.93 L (5 gal) Bucket	1

Carpet/Upholstery Cleaner

- Easy cleaning of carpet and like fabrics



Part Number	Size	Package Quantity
269-1928	0.56 L (19 oz) Aerosol Can	12

Oil Dyes



- Highly concentrated oil soluble dyes for adding color to lubricating oils, transmission oils, hydraulic oils and fuels
- Visible at concentrations of 1 part in 10,000 or more. It only takes 30 ml (1 oz) to color 473 L (125 gal) of light color oil
- Use it to color code oils to prevent mixups
- Use it to identify the source of leaks when more than one source is possible
- Hint: For sumps with dark colored oil, use oil dyes which are visible in black light (ultraviolet) such as 1U-5572 through 1U-5575

Part Number	EAME Part Number	Color	Size	Qty.
9U-5031	185-4779	Red	240 ml (8.12 fl oz)	1
9U-5032	185-4781	Blue	240 ml (8.12 fl oz)	1

Aerosol Liquid Penetrant and Developer



- Checks for surface cracks in ferrous and non-ferrous parts with regular light
- Contains no chlorine or sulphur bearing solvent
- Conforms to MIL-1-25135, RDT F-3-6T standard and other military specifications
- Simple and easy to use

Cross Reference Chart for Liquid Penetrant Kit						
Description	Cat/Crown Fault Finder	Magnaflux Spot Check	Turco By Check	Sherwin Dubl-Check	Met-L- Check	Min. Ship. Qty.
Penetrant, Aerosol	4C-4804	SKL-S	By Check	DP-40	VP-31	12 each
Developer, Aerosol	4C-4805	SKD-NF	By Check	D-100	D-70	12 each

Smoke Candles



- Quick and easy way to check for cab leaks
- Inexpensive
- Generates 4,000 cu. ft. of dense white smoke
- Easy to use — light one smoke candle and set on floor of cab, close windows and doors with fan on HI. Watch for areas where white smoke is escaping.

Part Number	Qty.
4C-5623	1 Dozen per Box

UV Visible Dyes for Leak Detection

- Detects leaks in light or dark oils, fuels, water solutions

(Continued)

UV Visible Dyes for Leak Detection (Continued)

Part Number	Description	Size	Dosage
To detect oil leaks in engines, transmission, hydraulic systems, etc.			
1U-5572	Oil Glo 22 Additive	28.4 g (1 oz) Bottle	28.4 g (1 oz) per 7.58 L (2 gal) of Oil
1U-5573	Oil Glo 22 Additive	0.47 L (1 pt) Bottle	28.4 g (1 oz) per 7.58 L (2 gal) of Oil
To detect fuel leaks or suspected fuel dilution			
1U-5574	Gas Glo 32 Additive	28.4 g (1 oz) Bottle	28.4 g (1 oz) per 37.9 L (10 gal) of Gasoline or Diesel Fuel
1U-5575	Gas Glo 32 Additive	0.47 L (1 pt) Bottle	28.4 g (1 oz) per 37.9 L (10 gal) of Gasoline or Diesel Fuel
To detect cooling system leaks, use			
1U-5576	Water Glo 23 Additive	28.4 g (1 oz) Bottle	28.4 g (1 oz) per 151.6 L (40 gal) of Water
1U-5577	Water Glo 23 Additive	0.47 L (1 pt) Bottle	28.4 g (1 oz) per 151.6 L (40 gal) of Water

Leak Detection

- Handheld
- An anodized aluminum lamp housing
- Makes it easier and quicker to detect leaks in oil, fuel and cooling systems
- Additives, available separately, can be put in the suspect system and the leak point will show in the black light (ultraviolet light)
- Instructions come with the kit
- Also works with fluorescent penetrant kit
- Optional light cover, made of heat-resistant neoprene rubber, helps protect the user from possible burn injury, and also provides protection against mechanical shock damage



Part Number	Description
1U-5566	Black Light, 110 Volts
280-8961	Black Light, 220 Volts
Service Parts	
1U-5567	Black Light Filter
1U-5568	110V, 150 Watt Spot Bulb
Optional Items	
1U-5570	Storage Case (Heat Resistant)
1U-5569	Ultraviolet Light Cover
280-8147	120V/100 Watt Ultraviolet Spot Bulb, 26 mm Base, Average Intensity 7000 milliwatts
280-8144	120V/100 Watt Ultraviolet Spot Bulb, 30 mm Base, Average Intensity 7000 milliwatts
280-8148	240V/150 Watt Ultraviolet Spot Bulb, Average Intensity 7000 milliwatts

Brake Cleaner Low VOC

- Cleans parts of dust, dirt, grease, oil, and brake fluid residue
- Non-chlorinated formula
- Fast acting cleaner for all metal parts
- Dries quickly
- Low level of volatile organic chemicals
- Approved for sale in California

Part Number	LACD/APD/ EAME Part Number	Size
222-3117	222-3118	340 g (11.99 oz)

Electrical Component Cleaner

- Leaves no residue
- Cleans and dries quickly — no need for rinsing
- Will not cause corrosion
- Non-flammable material

Part Number	LACD/APD/ EAME Part Number	Size
222-3124	222-3119	340 g (11.99 oz)

Mineral Spirits

- For use in solvent stands, immersion tanks, and manual cleaning equipment
- Can be used with brush, rags, or spray
- Has minimum flash point of 96° C (205° F) COC
- High quality product with excellent solvency and is capable of being recycled indefinitely through a solvent reclaiming still
- If used in spray equipment, follow recommendations of spray equipment manufacturer
- Always follow precautions from Material Safety Data Sheet

Part Number	EAME Part Number	Size	Qty.
4C-6796	185-4756	18.93 L (5 gal)	1
4C-6797	185-4757	208 L (55 gal)	1

Rust Preventative¹

Part Number	Size
222-3121	340 g (11.99 oz)

- Provides a hard film surface with good corrosion and rust resistance
- Protects equipment stored outside
- Helps protect equipment used around salty environments
- Provides protection in humid environments



¹NOTE: Read and follow all manufacturer's directions and safety precautions when using this product.

Light Penetrating and Lubricating Oil

Part Number	Size
222-3123	340 g (11.99 oz)

- Use on anything that squeaks, sticks, or binds, like door hinges and hand tools
- Lubricates tight fitting or stubborn bolts, nuts, keys, and pins
- Displaces water
- Can be used to dry wet electrical system
- Loosens nuts, bolts, fittings, battery cables, and hinges
- Rust and corrosion inhibitor

**CT2 Air Tool Oil/Lubricant**

Part Number	Size	Package Quantity
269-1944	0.95 L (1 qt) Bottle	12

- Lubricates and protects piston-type or rotary pneumatic air tools
- Prevents rust/corrosion



Heavy Duty Penetrating Oil



- Quickly loosens stubborn parts — frozen nuts, bolts, pipe fittings, heat valves, rolling pins, press fit parts, and key ways
- Heavy-duty
- Enhanced penetration action

Part Number	Size
222-3115	340 g (11.99 oz)

Dry Film Lubricant



- Dry, low-friction lubricant
- Does not attract dust or dirt
- For use with sliding surfaces, such as motor grader blades circles and backhoe loader extended stick and side shift mechanisms

Part Number	Size
242-6990	340 g (11.99 oz)

Battery Cleaner



- Dissolves and neutralizes battery acid and harmful corrosion from all battery parts, terminals, cables, hold-downs, and boxes
- Recommended for all construction and industrial equipment batteries
- Can be used on automobile, marine, and industrial batteries

Part Number	Size
222-3111	340 g (11.99 oz)

Battery Saver



- Creates a protective coating, giving maximum battery protection
- Recommended for use on all battery installations
- Keeps dirt and other contaminants from interfering with the flow of power
- Prolongs battery, cable, and clamp life

Part Number	Size
222-3112	340 g (11.99 oz)

Chain and Cable Lubricant

Part Number	Size	Qty.
222-3110	340 g (12 fl oz)	12

- Good corrosion and rust resistance
- Reduces and protects chain against wear — increases life of chain and cable
- Foaming action that helps cover all surfaces
- Fast penetrating action
- Resists high temperature breakdown

**Reusable, Bulk-Liquid Sprayers**

Warranty: Manufacturer's

- Used to apply oil and water-based bulk chemicals, such as cleaners, degreasers, penetrating oils, solvents, or lubricants
- Compressed air sprayers provide a cost effective, reusable alternative to traditional spray cans (eliminates both storage and disposal concerns)
- Caterpillar compressed air sprayers use a special chemical-resistant internal seal which virtually eliminates seal replacement problems found in standard sprayers
- Eliminate using flammable and/or environmentally dangerous propellants
- Canisters pressurized with compressed air from any standard air compressor
- Both sprayers constructed with metal canisters (steel or brass), brass nozzles, and corrosion resistant internal parts
- Steel canister sprayers are used for oil and solvent-based materials while brass canisters can also be used for water-based materials
- Cannot be used for paint application
- Capacity: 0.9 L (32 oz)



Part Number	Description
231-7015	Steel Canister Sprayer
231-7020	Brass Canister Sprayer
Service Parts	
231-7016	Adjustable Tube
231-7017	Seal
231-7018	Nozzle

Plastic Spray Bottle

Part Number	Size
264-4356	473 ml (15.99 fl oz)

- For general application cleaning solutions
- Trigger-type atomizer cap with adjustable spray
- One or two ounce gradations
- Color: opaque



Thread Lubricant



- Moderate temperature
- High torque
- Prevents galling; eases disassembly
- Completely transparent to S•O•S analysis
- Use inside engines, transmissions, etc. where S•O•S will be used and all highly torqued undercarriage components
- Extremely economical to use
- Comes in brush-top can

Part Number	EAME Part Number	Size	Qty.
4C-5592	N/A	227 g (8 oz)	12
4C-5593	185-3989	1.13 kg (40 oz)	12

High Temperature Anti-Seize



- Allows easy loosening of joined parts in high temperature environments
- Matches Caterpillar production specifications
- Heavy-duty

Part Number	EAME Part Number	Description	Size	Qty.
4C-5599	N/A	Brush-top Can	227 g (8 oz)	12
5P-3931	185-3990	Brush-top Can	1.13 kg (40 oz)	12
222-3114	N/A	Aerosol	340 g (12 oz)	--

Heat Sink Compound

- High thermal conductivity
- Does not break down
- No migration
- Protects high current carrying semi-conductors, power transistors, diodes, and SCR's
- Also see 4C-6715 Thermally Conductive RTV

Part Number	EAME Part Number	Size	Qty.
5P-8937	186-1529	142 g (5.01 oz)	1

Molybdenum Paste



- Prevents bushing to thrust ring galling on elevated track model tractors
- On head bolts on some model engines

Part Number	EAME Part Number	Size	Qty.
6V-4876	186-1531	500 g (17.64 oz)	1

Camshaft and Follower Lubricant

- Prevents galling on camshafts with slipper type followers
- Apply during engine buildup to provide necessary lubrication at startup

Part Number	EAME Part Number	Size	Qty.
8T-2998	185-4758	236 ml (7.98 fl oz)	12

**Silicone Turbo Grease**

- Silicone grease for turbocharger rebuilding
- Not for use on silicone O-rings (yellow or white) or hoses

Part Number	EAME Part Number	Size	Qty.
6V-2055	186-1530	150 g (5.29 oz)	1

**Dielectric Tune-Up Grease**

- Silicone grease — lubricate electrical connections
- Prevents fusing of spark plug boots
- Prevents corrosion in multi pin connectors on wiring harnesses

Part Number	EAME Part Number	Size
151-1340	185-4002	9 ml (0.30 fl oz)



Silicone Fluids



- For fan drive assemblies and clutches with viscous fluid drives
- Part No. 8M-0553 is equivalent to Schwitzer Part No. 136874
- Part No. 9M-5165 is equivalent to Schwitzer Part No. 138868

Part Number	Qty.	Size	Used in
8M-0553	1	150 ml (5.07 fl oz)	8M-4665 Fan Drive Clutch
9M-5165	1	150 ml (5.07 fl oz)	2S-5562 Clutch Assembly/7M-3542 Clutch Assembly/ 9M-8437 Clutch Assembly
4C-6508	1	300 ml (10.14 fl oz)	3600 Visconic Damper

Silicone Lubricant



- Silicone grease
- Extreme temperature resistance
- Lubricant for rubber boots on Caterpillar flexible drive couplings on marine engines
- Not for use on silicone O-rings (yellow or white) or hoses

Part Number	EAME Part Number	Size	Qty.
5N-5561	186-1528	340 g (11.99 oz)	10

Air Conditioning Pump Lubricants — PAG Oil



- Specially formulated lubricants for use with R-134a Refrigerants

Part Number	EAME Part Number	Size	Qty.	Oil Type	Viscosity
4C-2959	206-1990	250 ml (8.45 fl oz)	1	Polyalkylene Glycol Oil for Sanden Compressors	High Viscosity Refrigerant Oil for R-134a
4C-2960	185-5141	250 ml (8.45 fl oz)	1	Polyester Oil	ISO Viscosity Refrigerant Oil for R-134a
9U-7551	185-5155	250 ml (8.45 fl oz)	1	Polyalkylene Glycol Oil	Low Viscosity Refrigerant Oil for R-134a

A/C Refrigerant Flushing Solvent

- Flushes lubricant contaminants and solids from A/C system lines
- Compatible with CFC, HCFC and HFC refrigerants
- Compatible with mineral, ester and PAG oil lubricants
- Use in 153-8537 Air Conditioning Component Flusher (solvent recycler)
- See flushing unit operators manual for instructions on use

Part Number	EAME Part Number	Size
153-8538	185-5131	3.8 L (1 gal)

**Vacuum Pump Oil**

- Approved for all Caterpillar vacuum pumps
- All vacuum pump suppliers recommend changing the vacuum pump oil after every pump down to prevent contamination of the next system to be serviced

Part Number	EAME Part Number	Qty.	Size
1U-9763	N/A	12	1 L (0.25 gal)

**UPS 250 Vacuum Pump Oil**

(UPS) 250

Warranty: One Year

SMCS Code: 4480-039

- An annual service schedule for UPS 250 vacuum pump is recommended

Part Number	Capacity of Pump ¹	Size
190-8487	0.7 L (23.67 oz)	1 L (33.81 oz)

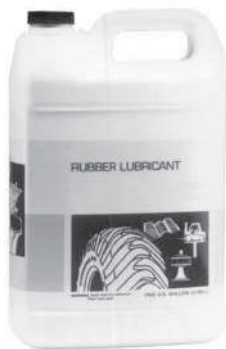
¹ Caterpillar UPS Vacuum Pumps have a capacity of 0.7 L and should not be filled beyond sight gauge fill line. Failure to follow this instruction will cause oil to leak from pump.

Sealant for Liquid Filled Rims on Wheel Loaders

- Seals cracks and pinholes in rims
- Use one tube per rim

Part Number	Qty.
2G-7781	1 Tube



Rubber Lubricant

- Lubricates rubber to metal during tire mounting and dismounting
- Helps prevent rim corrosion and damage to bead surfaces
- Renews appearance of rubber and vinyl products
- Prevents squeaks in rubber parts

Part Number	Size	Qty.
5P-3975	3.8 L (1 gal)	1

P-80 Assembly Lubricant

Warranty: Manufacturer's



SMCS Code: 0645

- Specially formulated liquid that lubricates rubber so it is easy to install, remove, or otherwise manipulate
- Unique feature — its ability to provide temporary lubrication (Once the work with the rubber is complete, emulsion rubber lubricant disappears and surfaces return to original condition.)
- Provides high degree of lubricity while wet; stays wet long enough to complete the work, then it's gone; contains no silicones or other persistent ingredients so lubricity goes away completely
- Lubricated parts won't crumble, tear, or lose their elasticity; lubricant does not harm glass, metal, wood, or other materials
- Keep emulsion rubber lubricant out of freezing or near-freezing temperatures. In colder climates be especially careful not to leave emulsion rubber lubricant in any unheated area for lengthy periods.

Part Number	EAME Part Number	Size
207-1601	207-1600	1 L (0.25 gal)

Tire Lubricant

- Contains no soaps
- Leaves no residue — will not rust rims
- Helps seal tire to rim without bonding
- Reduces bead damage
- Nontoxic, odorless

Part Number	Description	Size
139-2398	Lubricants	3.8 L (1 gal)

Caterpillar 119 Cutting Oil

- Straight cutting oil for machining ferrous metal
- Drilling, tapping, honing
- Contains chlorine and sulfur for optimum tool life and finish
- Compounded for easy removal with no troublesome residues

Part Number	Qty.	Size
1U-8805	4	3.8 L (1.00 gal)

**Caterpillar 250 Grinding Fluid**

- Water soluble cutting oil, grinding fluid and coolant
- Drilling, tapping, honing non-ferrous metals
- Grinding on crankshafts, etc.
- Compounded for easy removal with no troublesome residues
- Formulated with built-in biocide to control bacteria that cause odors and dermatitis

Part Number	Qty.	Size
1U-8808	4	3.8 L (1 gal)

**V.C.I. Oil**

Reference

SEHS9031 Special Instructions

- Use for storing vehicles and vehicle components such as engines and transmissions for periods of up to one year
- Protects all ferrous parts when maintained at the proper concentration in a closed container
- Has a vapor phase that is more strongly attracted to bare ferrous metals than water
- Will continue to perform indefinitely as long as it stays sealed in the compartment
- Meets Mil-P-46002A

Part Number	EAME Part Number	Qty.	Size
4C-6792	N/A	12	1.0 L (0.25 gal)
4C-6794	185-4770	1	18.9 L (5.00 gal)

**Compactor Oil**

Part Number	EAME Part Number	Qty.	Size
4C-6767	185-4759	1	20 L (5.28 gal)

- Special synthetic oil used in vibrator drum of compactors
- Packaged in 20 L (5 gal) pails
- Large machines take 20 L (5 gal) per drum
- Small machines take 10 L (2 ½ gal) per drum



Caterpillar 450 Rust Preventive Oil

- Water displacing rust preventive oil is more strongly attracted to bare metal than water
- Apply by dipping, brushing, or spraying
- Leaves a long lasting, rust preventive film that protects against rusting for a year in covered storage conditions
- Should be protected from dirt and dust accumulation to prolong its effectiveness

Part Number	EAME Part Number	Qty.	Size
1U-8809	185-5127	4	3.8 L (1 gal)

Caterpillar 4A Rust Preventive Oil

- Long lasting, heavy-duty waxy film
- Apply by dipping, brushing, or spraying
- Leaves a long lasting, rust preventive film that protects from damage by outside condensation, rainfall, etc. up to a year
- Must be removed by solvent or hot alkaline cleaner

Part Number	EAME Part Number	Qty.	Size
1U-8801	185-5123	4	3.8 L (1 gal)

O-Ring Assembly Compound

- Retains O-rings in the groove in O-ring face seal (ORFS) fittings during assembly
- Holds in both horizontal and vertical positions
- Nontoxic
- Will not harm hydraulic system components
- Not for use on air conditioning systems

Part Number	EAME Part Number	Size	Qty.
1U-6396	185-4776	12	236 ml (8 fl oz)
1U-6395	N/A	4	3.79 L (1 gal)

Governor Oil

Model: 3600 Engine

- For 3600 Engine Woodward Governor



Part Number	EAME Part Number	Qty.	Size
136-9642	185-4775	1	0.95 L

Hydraulic Oil Additive

- Low friction additive for some hydraulic systems
- Relieves “stick-slip” on noisy hydraulic cylinders
- Not for use on machines which have a common sump for hydraulics, brake, and transmissions

Part Number	EAME Part Number	Size	Qty.
1U-9891	185-4771	0.95 L (1 qt) bottle	12



Oil Stabilizer

- Reduces oil consumption
- Reduce engine wear
- Helps keep vital engine parts clean
- Reduce thermal oil and viscosity breakdown

This product should only be used as needed in the following engines:	
Engine Model	Engine Serial No.
3406E	5EK1-Up, 5DS1-Up, 6TS1-Up, 1LW1-Up, 2WS1-Up, 1MM1-Up, 4AS1-Up
C-15	6NZ1-82494
C-16	7CZ1-Up

Part Number	EAME Part Number	Qty.	Size
143-3655	185-4774	12	0.94 L



Brake Fluid



- Meets DOT and SAE requirements

DOT 3

- Use where DOT 3 brake fluid is specified by service manual or operators guide
- Loaders, lift trucks, and service trucks

DOT 5

- DOT 5 is for extreme service conditions where higher than normal temperatures will be encountered or where moisture absorption is a problem
- High performance cars and off road vehicles

Part Number	EAME Part Number	Qty.	Size
DOT 3			
4C-5585	N/A	12	0.94 L (1 qt)
4C-5586	185-4663	4	3.79 L (1 gal)
DOT 5			
4C-5588	N/A	12	0.94 L (1 qt)

Conostan™ Oil Standards

- Five blends to cover your expected ranges
- Known accuracy
- Reliable and readily available

Element	4C-8339	4C-8340	4C-8341	4C-8342	4C-8343
Ag	10 ppm	25 ppm	100 ppm		
AL	10 ppm	25 ppm	100 ppm		
Cr	5 ppm	10 ppm	25 ppm		
Cu	10 ppm	25 ppm	100 ppm	500 ppm	
Fe	10 ppm	25 ppm	100 ppm	500 ppm	150 ppm
Mg	10 ppm	25 ppm	100 ppm		
Mo	5 ppm	10 ppm	25 ppm		
N2	10 ppm	25 ppm	100 ppm	500 ppm	
Ni	10 ppm	25 ppm	100 ppm		
Pb	10 ppm	25 ppm	100 ppm		
Si	10 ppm	25 ppm	100 ppm	500 ppm	
Sn	10 ppm	25 ppm	100 ppm		
Zn	10 ppm	25 ppm	100 ppm		

Part Number	Description	Size	Qty.
4C-8344	Five Blend Oil Group	--	1
Five Blend Group Consist			
4C-8339	Oil	236 ml (7.98 fl oz)	1
4C-8340	Oil	236 ml (7.98 fl oz)	1
4C-8341	Oil	236 ml (7.98 fl oz)	1
4C-8342	Oil	236 ml (7.98 fl oz)	1
4C-8343	Oil	236 ml (7.98 fl oz)	1

Calibration Fluid

- Fuel injection test benches
- Pop Testers

Part Number	EAME Part Number	Qty.	Size
6V-6068	185-4665	1	18.9 L (4.99 gal)
6V-6067	N/A	1	208 L (54.95 gal)



Radiator Repair



- Fills seams and holes in radiators
- For temporary in field repairs
- Cures in 15 minutes
- Withstands normal cooling system operating pressures
- Also see Iron-Stitch Repair Kit in Salvaging Equipment Section

Part Number	Size	Qty.
8T-9018	14 g (0.49 oz)	10

Caterpillar Manifold Sealer



- Seals and bonds at temperatures up to 1093° C (2,000° F)
- Seals male/female joints in segmented exhaust manifolds

Part Number	Size	Qty.
2P-2333	473 ml (15.99 fl oz)	1

Ether Cylinder



- Cold weather starting aid
- Heavy-duty construction
- Quick starts from -45.5° C (-50° F)
- Easy to install, hand tighten

7N-0296

- Fits most 3400 series and smaller engine applications
- For measured shot systems

7X-1062

- Fits most 3500 series engine applications
- Comes with specially designed filter and foam disc collar to keep impurities out of the system

Part Number	EAME Part Number	Qty.	Size
130-8414	N/A	12	227 g (8 oz)
7N-0296	187-4851	24	509 g (18 oz) — 7.6 cm (3 in) diameter
7X-1062	187-4852	12	594 g (21 oz) — 10 cm (4 in) diameter

Fuel Tank Repair

- Fill seams and holes in fuel tanks
- For temporary in field repairs
- Hardens in 15 minutes
- Will adhere to fuel wetted surfaces
- Also see 1U-8118 Fuel Tank Repair Kit for Plastic Fuel Tanks

Part Number	Size	Qty.
8T-9019	7.0 g (0.25 oz)	10



Heet Gasoline Fuel Additive

- For gas engines, removes water from fuel lines, prevents rust and corrosion



Part Number	Size	Package Quantity
269-8292	0.35 L (12 oz) Bottle	24

CT2 Diesel Fuel Winterizer/Antigel

- Prevents filter plugging, waxing and fuel gelling
- Treats 946.35 L (250 gal)
- Reduces need for blends with #1 fuel



Part Number	Size	Package Quantity
269-1949	0.95 L (1 qt) Jug	12

Diesel Fuel Conditioner



A new diesel fuel conditioner, specified for and by Caterpillar, is available.

In order to address customer requests linked to differences in fuel quality found throughout the world, Caterpillar has responded with a cost effective, multi-purpose Diesel Fuel Conditioner. It incorporates a much more robust level of chemistry and performance not found in other products of its type.

Use of the convenient tip (measure) and pour container allows accurate dilution in all sizes of equipment. 1 ounce of Caterpillar Diesel Fuel Conditioner treats 11 gallons of diesel fuel (one 32-ounce container will treat 350 gallons of diesel fuel).

The conditioner comes in a case of six 32-ounce containers.

As sulfur restrictions become more stringent, Caterpillar Diesel Fuel Conditioner will help compensate for reduced lubricity found in some low sulfur diesel fuels. It will also improve combustion, fuel storage stability, and fuel system life.¹

- **Lubricity:** Compensates for reduced lubricity found in some low sulfur diesel fuels. Protects fuel pumps and injectors from wear and scuffing.
- **Detergency:** Helps maintain correct injector spray pattern. Improves combustion efficiency.
- **Fuel Stability:** Reduces the formation of gums, sludge and deposits that can block fuel filters. Dramatically improves fuel storage stability. Disperses insoluble gums.
- **Water Handling:** Helps keep moisture dispersed in the fuel as tiny drops to be eliminated during the combustion process. Helps to eliminate component damage caused by water in fuel.
- **Corrosion Protection:** Helps to protect fuel systems against rust and corrosion. Improves fuel system life.

Part Number	Description	Size
256-4968 ¹	Diesel Fuel Conditioner	0.9 L (0.25 gal)

¹ Not for use in the C7, C9, C13 and C15 2007 Cat On-Highway Engines with ACERT Technology.

CT2 Antifreeze and Rust Guard



- Provides corrosion protection and prevention for air breaking system
- Anti-static and anti-fungal
- Also used in pneumatic hose lines

Part Number	Size	Package Quantity
272-5745	0.95 L (1 qt) Bottle	12

Anti-Spatter Compound

- Protects tips on MIG welding torches from weld spatter

Part Number	Qty.	Size
4C-4217	12	207.0 ml (7.00 fl oz)



Orange Hand Cleaner

- Excellent hand cleaning for dirty, oily, greasy hands. For exceptionally dirty or greasy hands, use Hand Cleaner with Pumice.
- Mild citrus smell
- Contains Corn Huskers Lotion, aloe, lanolin and jojoba to help prevent dermatitis
- Contains NO petroleum solvents
- Biodegradable
- Works with or without water



Part Number	Description	Size ¹	Qty.
9U-5026	Orange Hand Cleaner (smooth)	225 ml (7.5 fl oz)	12
9U-5027	Orange Hand Cleaner (smooth)	3.8 L (1 gal)	4
9U-5028	Orange Hand Cleaner (w/pumice)	225 ml (7.5 fl oz)	12
9U-5029	Orange Hand Cleaner (w/pumice)	3.8 L (1 gal)	4
9U-5030	Wall Mount Bracket for 1 gal Container	--	1

¹ All 1 gallon jugs come with individual pumps included. 7.5 fl. oz. bottles have self-sealing flip top caps.

Heavy-Duty Hand Cleaners

- Heavy-duty hand cleaner for oil, grease, tar, grime, soil, resins, printer's ink, epoxies, paint, and cements
- Works faster than standard orange hand cleaner
- Fine ground pumice provides a deep scrubbing action to remove difficult grease and grime
- Pleasantly scented, containing lanolin and aloe
- Will not irritate most hands and does not leave a greasy residue



Item	Part Number	Description	Size
1	191-6310	Heavy-Duty Hand Cleaner	15 oz
2	191-6311	Heavy-Duty Hand Cleaner	128 oz

Orange Hand Wipes



- Premoistened, heavy-duty towel with pumice like performance
- Removes grease, adhesive, oil, lubricant, ink, wax, sealant, paint, and much more
- Quickly absorbs dirt and grease from your hands
- Contains germ fighting Triclosan and hand conditioners
- Available in two sizes — 72 count bucket and 250 count counter display which includes one bucket
- Individually packaged towels are easy to store and carry (works great for field repair trucks, etc.)
- Keep in a pocket in freezing temperatures

Part Number	Towel Size	Qty.	Units/Case	Minimum Purchase Size
144-3393	266 × 311.2 mm (10.5 × 12.25 in)	72 per Bucket	6	1 Case
144-3394	203 × 311.2 mm (8.0 × 12.25 in)	250 per Display	—	250 Count Counter Display and One Bucket

Gojo Lemon with Pumice Hand Cleaner



- Removes grease, tar, and oil from hands, with or without water

Part Number	Size	Package Quantity
269-1937	2.04 kg (4.5 lb) Plastic Bucket	4

Zep Cherry Bomb Hand Cleaner



- Multipurpose cherry-scented hand cleaner for dirt, grease, and oils

Part Number	Size	Package Quantity
269-1939	3.79 L (1 gal) Plastic Jug	4

Arm and Hammer Baking Soda

- Deodorizer/cleaner



Part Number	Size	Package Quantity
269-8271	0.45 kg (1 lb) Box	1

Cascade Pure Rinse Dishwasher Soap

- General all-purpose cleaner



Part Number	Size	Package Quantity
269-1948	4.54 L (1.2 gal) Plastic Jug	1

Ice-A-Way Rock Salt

- Effective to temperatures of -15° C (5° F)
- Screened for uniform crystal size

Part Number	Size	Package Quantity
269-1941	22.68 kg (50 lb) Yellow Poly Bag	1

Ice Foe

- Melts 3 times more ice than competition at rate of 0.059-0.12 L (2-4 oz) per 0.84 square meter (1 sq yd)
- Effective to -45.55° C (-50° F)

Part Number	Size	Package Quantity
269-1950	45.36 kg (100 lb) Carton	1

DYKEM Hi Spot Bluing Paste

- Intensely blue, soft, uniform paste that spreads easily and evenly to show high spots on bearings
- Used on flat bearing surfaces of lathes, planers, and milling machines

Part Number	Size	Package Quantity
280-1555	15.59 g (0.55 oz) Tube	36

Caterpillar Enamel Topcoats

- Pure, lead free industrial enamel suitable for interior or exterior use on earthmoving, construction and material handling equipment, trucks, engines, machinery, and metal buildings
- Formulated to produce a finish that sets up in minutes, is tack-free in a few hours, and dries overnight to a hard film
- Very resistant to fading, chalking, cracking, and chipping
- Can be applied directly to either wood or metal without using a primer



Part Number	Description	Package Quantity	Size/Type
261-7012 ¹	Yellow Paint, High Heat, High Gloss ¹	12	340 g (12 oz) Aerosol Can
4C-4200	Yellow Paint, High Gloss	12	340 g (12 oz) Aerosol Can
206-6417	Hiway Yellow Paint, High Gloss	12	340 g (12 oz) Aerosol Can
4C-4202	Mojave Brown Paint, Medium Gloss	12	340 g (12 oz) Aerosol Can
243-5451	Power Module White Paint, High Gloss	12	340 g (12 oz) Aerosol Can
4C-4198	Black Paint, Medium Gloss	12	340 g (12 oz) Aerosol Can
4C-5842	Black Paint, Flat	12	340 g (12 oz) Aerosol Can
4C-5843	Black Paint, High Gloss	12	340 g (12 oz) Aerosol Can
9U-7946	Bright Beige Paint, Medium Gloss	12	340 g (12 oz) Aerosol Can
9U-7948	Dawn Gray Paint, Medium Gloss	12	340 g (12 oz) Aerosol Can
127-4966	Dark Gray Paint, Medium Gloss	12	340 g (12 oz) Aerosol Can
140-2576	Matterhorn White Paint, High Gloss	12	340 g (12 oz) Aerosol Can
173-4060	Charcoal Gray Paint, High Gloss	12	340 g (12 oz) Aerosol Can
243-5459	Cat Gray 61 Paint, High Gloss	12	340 g (12 oz) Aerosol Can
261-7013 ¹	Yellow Paint, High Heat, High Gloss ¹	4	3.8 L (1 gal) Can
4C-4184	Yellow Paint, High Gloss Fast Drying	4	3.8 L (1 gal) Can
4C-4192	Yellow Paint, High Gloss Fast Drying	1	19 L (5 gal) Pail
4C-4207	Yellow Paint, High Gloss Fast Drying	1	208 L (55 gal) Drum
4C-6129	Yellow Paint, High Gloss	4	3.8 L (1 gal) Can
4C-6122	Yellow Paint, High Gloss	1	19 L (5 gal) Pail
4C-6127	Yellow Paint, High Gloss	1	208 L (55 gal) Drum
4C-4185	Hiway Yellow Paint, High Gloss	4	3.8 L (1 gal) Can
4C-4186	Mojave Brown Paint, Medium Gloss	4	3.8 L (1 gal) Can
243-5450	Power Module White Paint, High Gloss	4	3.8 L (1 gal) Can
249-1817	Power Module White Paint, High Gloss	1	19 L (5 gal) Pail
4C-4183	Black Paint, Medium Gloss	4	3.8 L (1 gal) Can
4C-4191	Black Paint, Medium Gloss	1	19 L (5 gal) Pail
9U-7947	Bright Beige Paint, Medium Gloss	4	3.8 L (1 gal) Can
9U-7949	Dawn Gray Paint, Medium Gloss	4	3.8 L (1 gal) Can
243-5458	Cat Gray 61 Paint, High Gloss	4	3.8 L (1 gal) Can
140-2577	Matterhorn White Paint, High Gloss	4	3.8 L (1 gal) Can
140-2578	Matterhorn White Paint, High Gloss	1	19 L (5 gal) Pail
225-6502	Black Paint, High Gloss	4	3.8 L (1 gal) Can
9U-7714	Black Paint, Flat	4	3.8 L (1 gal) Can
9U-7719	Yellow Paint, High Gloss 3.5 VOC	4	3.8 L (1 gal) Can
9U-7720	Yellow Paint, High Gloss 3.5 VOC	1	19 L (5 gal) Pail
249-1816	Power Module White Paint, High Gloss 3.5 VOC	4	3.8 L (1 gal) Can
9U-7717	Black Paint, Medium Gloss 3.5 VOC	4	3.8 L (1 gal) Can
9U-7725	Yellow Paint, High Gloss Water Reducible 2.8 VOC	4	3.8 L (1 gal) Can
9U-7726	Yellow Paint, High Gloss Water Reducible 2.8 VOC	1	19 L (5 gal) Pail
9U-7731	Black Paint, Medium Gloss Water Reducible 2.8 VOC	4	3.8 L (1 gal) Can
249-1815	Power Module White Paint, High Gloss Water Reducible 2.8 VOC	4	3.8 L (1 gal) Can
249-1814	Power Module White Paint, High Gloss Water Reducible 2.8 VOC	1	19 L (5 gal) Pail

¹For use with ACERT engines only

Caterpillar Yellow Primer Paint



- Pure, lead free rust-inhibitive industrial primer sealer with excellent adhesion and durability
- Specially formulated to resist rusting, peeling, and fading
- Dries tack-free in a few hours and overnight to hard durable coating with excellent weather resistance
- Should be recoated with Caterpillar enamel topcoat paint

Part Number	Description	Package Quantity	Size/Type
4C-4190	Yellow Primer Paint	4	3.8 L (1 gal) Can
4C-4197	Yellow Primer Paint	1	19 L (5 gal) Pail
4C-4211	Yellow Primer Paint	1	208 L (55 gal) Drum
4C-4205	Yellow Primer Paint	12	340 g (12 oz) Aerosol Can

Caterpillar Yellow High Gloss Urethane Paint



- Specially formulated lead-free industrial 2K polyurethane for repairing or touching up urethane finishes
- Excellent adhesion to a urethane finish when the surface is properly sanded and prepared
- Produces a finish that sets up in minutes, is tack-free in a few hours, and dries overnight to a hard high-gloss finish
- Very resistant to fading, chalking, cracking, and chipping
- Recommended for equipment requiring long term outside durability and exposure to the elements

Part Number	Description	Package Quantity	Size/Type
9U-7721	Yellow Urethane Paint, High Gloss	4	3.8 L (1 gal) Can

Caterpillar Urethane Hardener

- For professional or industrial use only
- Add to 9U-7721 Caterpillar Yellow Urethane Paint in a 3:1 paint to hardener ratio
- Faster drying time
- Enhances gloss, durability, and chemical resistance
- Used by professional painters
- Automotive-quality product line
- Follow Caterpillar label directions for use
- Mix paint and hardener thoroughly before application
- DO NOT mix more than will be used within a 3-hour period
- DO NOT use paint that has started to thicken; high temperature will reduce pot life of paint

Part Number	Description	Package Quantity	Size/Type
9U-7723	Urethane Hardener	4	3.8 L (1 gal) Container

Caterpillar Paint and Primer Thinner

- Excellent solvent to be used with Caterpillar enamel paint and primer
- Leaves the film quickly and will not impair the setting-up or tack-free time of the enamel or primer paint
- Evaporates fast and is less likely to cause sagging and running
- Because of its high solvency, a relatively small amount of thinner is needed to reduce paint to a spray consistency



Part Number	Description	Package Quantity	Size/Type
4C-4189	Paint and Primer Thinner	6	3.8 L (1 gal) Can
4C-4196	Paint and Primer Thinner	1	19 L (5 gal) Pail

Caterpillar Paint and Primer Thinner with Retarder

- Excellent solvent to be used with Caterpillar enamel paint and primer
- Leaves the film slowly to provide flow and leveling in hot or dry conditions and on large equipment where slower drying is desired
- Evaporates slowly and is less likely to cause dry over-spray
- Because of its high solvency, a relatively small amount of thinner is needed to reduce paint to a spray consistency



(Continued)

Caterpillar Paint and Primer Thinner with Retarder (Continued)

Part Number	Description	Package Quantity	Size/Type
4C-6130	Paint and Primer Thinner with Retarder	6	3.8 L (1 gal) Can

Caterpillar Urethane Paint Reducer

- Specially formulated to be used with Caterpillar urethane paints
- Because of its high solvency, a relatively small amount of thinner is needed to reduce paint to a spray consistency
- Excellent thinner for cleaning and flushing spray equipment after application use

Part Number	Description	Package Quantity	Size/Type
9U-6360	Urethane Paint Reducer	6	3.8 L (1 gal) Can

Caterpillar Paint and Decal Remover

- Quickly removes paint, decals, varnishes, lacquers, enamels, and synthetic finishes on wood and metal without damaging the surface
- Lower Variable Organic Compound (VOC) formula
- Formulated to be used as packaged — no further dilution is required
- Do not use on plastics, vinyl, linoleum, fiberglass, or synthetic fibers

Part Number	Description	Package Quantity	Size/Type
263-6148	Paint and Decal Remover	12	340 g (12 oz) Aerosol Can
263-6151	Paint and Decal Remover	6	3.8 L (1 gal) Can

Caterpillar Black Muffler Paint

- Formulated to resist temperatures up to 538° C (1,000° F)
- Once properly cured, forms a hard, lasting finish that resists salt spray and will not chip or peel
- Ideal for use on mufflers, exhaust systems, or any surface exposed to very high heat

Part Number	Description	Package Quantity	Size/Type
4C-4199	Black Muffler Paint	12	340 g (12 oz) Aerosol Can

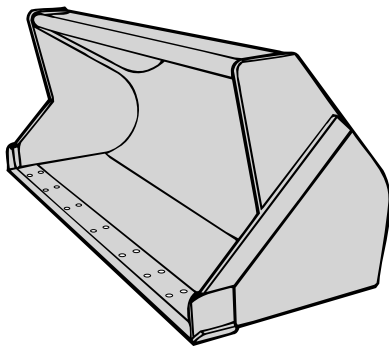
ONE SAFE SOURCE

2008-2009



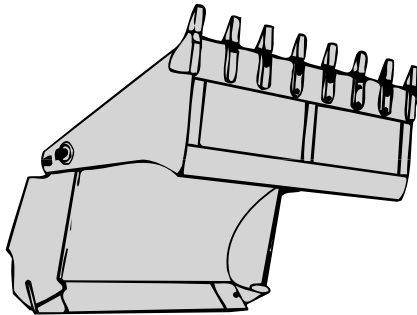
GROUND ENGAGING TOOLS | BACKHOE LOADERS

Front Buckets



General Purpose Bucket

- For use in handling bank and stockpile materials.



Multi-Purpose Bucket

- Provides more dump clearance and grabbing capabilities due to its movable clam.
- For use in general loading.

Model*	Base Edge Width	Base Edge	Bucket Corner	
			LH	RH
416/416B/416C/416C IT	2240 mm (88.0 in)	9R-0316		
416D/420/420D/426	2262 mm (89.0 in)	9R-4672	9R-4674	9R-4674
426B/426C/426C IT	2262 mm (89.0 in)	9R-4672	9R-5205	9R-5206
428/428B/428C IT	2388 mm (94.0 in)	9R-5313	9R-4674	9R-4674
430D/436B/436C/436C IT	2395 mm (94.3 in)	9R-5313	9R-5205	9R-5206
446/446B/446D	2408 mm (94.8 in)	9R-4101	9R-5748	9R-5747
	2408 mm (94.8 in)	6Q-2193	6Q-2196	6Q-2197
	2413 mm (95.0 in)	9R-4672		

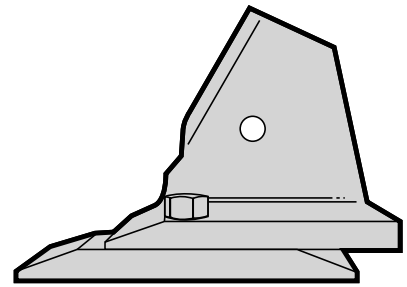
* J225 Tip Size for Machine Models 446, 446B and 446D.
J200 for all other Bucket Types and Machine Models.

Front Bucket Bolt-On Edges

When penetration is not a problem, use bolt-on cutting edges.

Bolt-on cutting edges:

- Increase base edge life up to five times over an unprotected base edge.
- Are quick and easy to replace.
- Increase bucket capacity.
- Provide smooth floor maintenance capability.
- Are made of DH-2™ steel alloy and are hardened to 430-520 Brinell.



Model	Base Edge Width	Base Edge**	Bucket Corner		Bolt-on Edge	Bolt	Nut
			LH	RH			
416/416B/416C/416C IT 416D/420/420D/426 426B/426C/426C IT 428/428B/428C IT 430D/436B/436C/436C IT 446/446B/446D	2240 mm (88.0 in)	9R-0316					
	2262 mm (89.0 in)	9R-4672	9R-4674	9R-4674	9W-8215 (2)	3F-5108 (8)	4K-0367 (8)
	2262 mm (89.0 in)	9R-4672***	9R-5205	9R-5206	9W-8215 (2)	3F-5108 (8)	8E-0367 (8)
	2388 mm (94.0 in)	9R-5313	9R-4674	9R-4674	118-7110 (2)	3F-5108 (8)	8E-0367 (8)
	2395 mm (94.3 in)	9R-5313	9R-5205	9R-5206	118-7110 (2)	3F-5108 (8)	8E-0367 (8)
	2408 mm (94.8 in)	9R-4101	9R-5748	9R-5747	9U-9665 (2)	3F-5188 (12)	4K-0367 (12)
	2408 mm (94.8 in)	6Q-2193	6Q-2196	6Q-2197	9U-9665 (2)	3F-5188 (12)	4K-0367 (12)
	2413 mm (95.0 in)	9R-4672			9W-8215 (2)	3F-5108 (8)	4K-0367 (8)

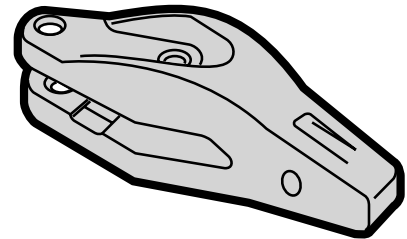
** Eight teeth for all bucket types and machine models except for 9R-0316, 9R-4101 and 6Q-2193 base edges that have no teeth.

*** This base edge does not include teeth when used on 9R-5988 bucket. The base edge is drilled for bolt-on unitooth tips.

Number in parentheses () after the part number indicates the quantity required.

Front Bucket Bolt-On Adapters

- Provide excellent impact resistance.
- Provide excellent penetration ability.
- For use with larger backhoe loaders that work in abrasive conditions.



Model	Base Edge Width	Base Edge**	Bucket Corner		Bolt-on Adapter	Bolt	Nut
			LH	RH			
416/416B/416C/416C IT 416D/420/420D/426 426B/426C/426C IT 428/428B/428C IT 430D/436B/436C/436C IT 446/446B/446D	2240 mm (88.0 in)	9R-0316					
	2262 mm (89.0 in)	9R-4672	9R-4674	9R-4674	8E-2184 (8)	4F-3656 (16)	4K-0367 (16)
	2262 mm (89.0 in)	9R-4672***	9R-5205	9R-5206	8E-2184 (8)	4F-3656 (16)	8E-0367 (16)
	2388 mm (94.0 in)	9R-5313	9R-4674	9R-4674	8E-2184 (8)	4F-3656 (16)	8E-0367 (16)
	2395 mm (94.3 in)	9R-5313	9R-5205	9R-5206	8E-2184 (8)	4F-3656 (16)	8E-0367 (16)
	2408 mm (94.8 in)	9R-4101	9R-5748	9R-5747			
	2408 mm (94.8 in)	6Q-2193	6Q-2196	6Q-2197			
	2413 mm (95.0 in)	9R-4672			8E-2184 (8)	4F-3656 (16)	4K-0367 (16)

** Eight teeth for all bucket types and machine models except for 9R-0316, 9R-4101 and 6Q-2193 base edges that have no teeth.

*** This base edge does not include teeth when used on 9R-5988 bucket. The base edge is drilled for bolt-on unitooth tips.

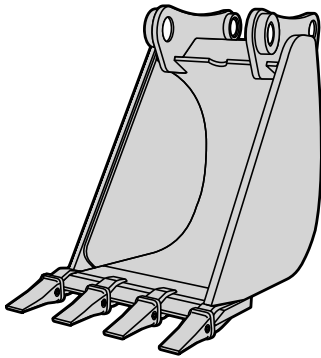
Number in parentheses () after the part number indicates the quantity required.

Ground Engaging Tools — Backhoe Loader Buckets

Rear Buckets

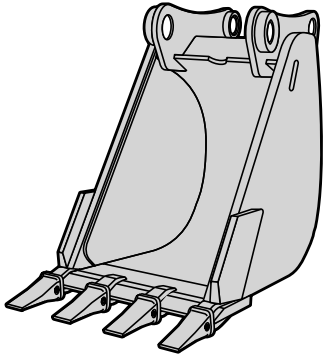
Standard Duty Bucket

- For use in handling bank and stockpile materials.



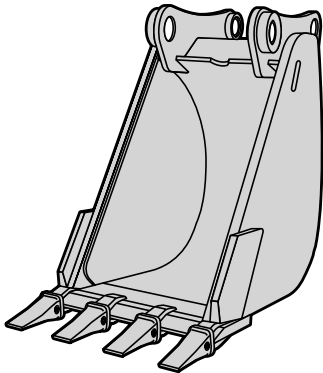
Heavy Duty Bucket

- Provides longer life in abrasive materials due to replaceable corners, a thicker base edge, and bottom wear strips.



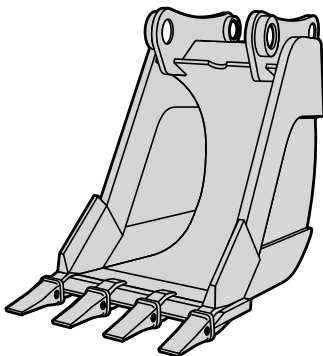
High Capacity Bucket

- Provides more capacity and a longer tip radius.
- Contains the same construction as the heavy duty bucket.
- For use in abrasive materials that are easily penetrated.



Extreme Service Bucket

- Contains heavy duty side plates, base edges, and corner adapters in addition to sidebar protectors and bottom wear strips.
- For use in prying out rock and concrete.



Rear Bucket — Base Edge and Corners*

Model	Base Edge Width	Base Edge	Bucket Corner		Weld-On Adapter	Weld-On Double Strap Adapter	Bolt-On Adapter	Bolt	Nut
			LH	RH					
416/416B/416C/416C IT 420/426/426B/426C 426C IT/428/428B 428C IT/436B/436C IT 446/446B/446D	296 mm (12 in)	100-6002	9R-8987	9R-8988			8E-2184 (3)	4F-3656 (6)	4K-0367 (6)
	335 mm (12 in)	134-5877	134-5884	134-5885		119-3204/119-3205 (3)	8E-2184 (3)	4F-3656 (6)	4K-0367 (6)
	339 mm (12 in)	136-6886	136-7150	136-7150		119-3204/119-3205 (3)	8E-2184 (3)	4F-3656 (6)	4K-0367 (6)
	413 mm (16 in)	134-5878	134-5884	134-5885		119-3204 (3)			
	457 mm (18 in)	136-7046	136-7051	136-7049	6Y-3224 (3)	119-3204/119-3205 (4 or 5)	8E-2184 (3)	4F-3656 (6)	4K-0367 (6)
	451 mm (18 in)	136-6887	136-6885	136-6885	6Y-3224 (3)	119-3204/119-3205 (4 or 5)	8E-2184 (3)	4F-3656 (6)	4K-0367 (6)
	413 mm (16 in)	9R-8983*	9R-8987	9R-8988	6Y-3224 (3)		8E-2184 (3)	4F-3656 (6)	4K-0367 (6)
	419 mm (16 in)	9R-9459	9R-9456	9R-9454	6Y-3224 (3)	119-3204/119-3205 (4 or 5)	8E-2184 (3)	4F-3656 (6)	4K-0367 (6)
	603 mm (24 in)	134-5880	134-5884	134-5885		119-3204 (5)			
	609 mm (24 in)	136-7047	136-7051	136-7049	6Y-3224 (4)	119-3204/119-3205 (4 or 5)	8E-2184 (4 or 5)	4F-3656 (8 or 10)	4K-0367 (8 or 10)
	603 mm (24 in)	136-6888	136-6885	136-6885	6Y-3224 (4)	119-3204/119-3205 (4 or 5)	8E-2184 (4 or 5)	4F-3656 (8 or 10)	4K-0367 (8 or 10)
	570 mm (22 in)	9R-9241	9R-9819	9R-9820	6Y-3224 (4)	119-3204/119-3205 (4 or 5)	8E-2184 (4 or 5)	4F-3656 (8 or 10)	4K-0367 (8 or 10)
	572 mm (23 in)	9R-9458	9R-9456	9R-9454		119-3204/119-3205 (4 or 5)	8E-2184 (4 or 5)	4F-3656 (8 or 10)	4K-0367 (8 or 10)
	566 mm (22 in)	9R-8984*	9R-8987	9R-8988	6Y-3224 (4)		8E-2184 (4 or 5)	4F-3656 (8 or 10)	4K-0367 (8 or 10)
	718 mm (28 in)	9R-8985*	9R-8987	9R-8988	6Y-3224 (5)		8E-2184 (5 or 6)	4F-3656 (10 or 12)	4K-0367 (10 or 12)
	722 mm (28 in)	9R-9833	9R-9819	9R-9820	6Y-3224 (5)	119-3204/119-3205 (5)	8E-2184 (5 or 6)	4F-3656 (10 or 12)	4K-0367 (10 or 12)
	755 mm (30 in)	136-6889	136-6885	136-6885	6Y-3224 (5)	119-3204/119-3205 (5)	8E-2184 (5 or 6)	4F-3656 (10 or 12)	4K-0367 (10 or 12)
	724 mm (29 in)	9R-9457	9R-9456	9R-9454	6Y-3224 (5)	119-3204/119-3205 (5)	8E-2184 (5 or 6)	4F-3656 (10 or 12)	4K-0367 (10 or 12)
	908 mm (36 in)	136-6890	136-6885	136-6885	6Y-3224 (6)	119-3204/119-3205 (6)	8E-2184 (6)	4F-3656 (12)	4K-0367 (12)
	871 mm (34 in)	9R-8986*	9R-8987	9R-8988	6Y-3224 (6)		8E-2184 (6)	4F-3656 (12)	4K-0367 (12)
	876 mm (34 in)	9R-9455	9R-9456	9R-9454	6Y-3224 (6)				

* Bucket does not include teeth. The base edge is drilled for Bolt-On Unitooth tips.

J225 for 446, 446B, and 446D.

J200 for all other machine models.

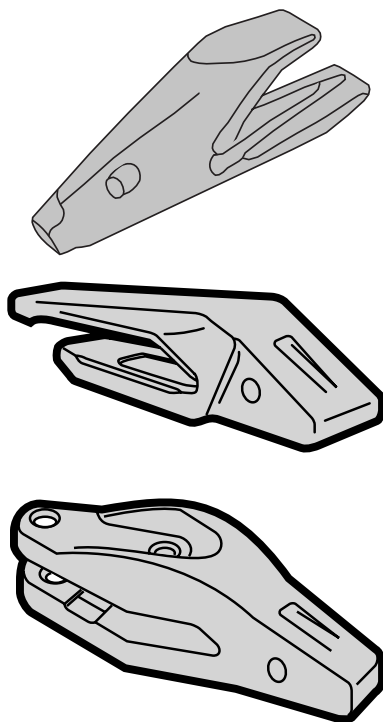
Rear Bucket Adapters

Weld-On Double Strap Adapters

- Provides good retention in high-impact conditions.
- Protects the base edge well.
- For use in general loading applications where adapter retention is important.

Bolt-On Adapters

- Provides excellent impact resistance.
- Provides excellent penetration ability.
- For use with larger backhoe loaders that work in abrasive conditions.



Ground Engaging Tools — Backhoe Loader Adapters

Model	Base Edge Width	Base Edge	Bucket Corner		Weld-on Adapter	Weld-on Double Strap Adapter
			LH	RH		
416D/420D/430D	305 mm (12 in)	174-3951				168-1204/195-9204 (3)
		154-5254	134-5884	134-5885		168-1204/195-9204 (3)
		154-5268				168-1204/195-9204 (3)
		219-9494				201-1235 (3)
		219-9493				201-1234 (3)
		219-9496				201-1234 (4)
	406 mm (16 in)	134-5878	134-5884	134-5885		195-9204 (3)
		219-9482				201-1234 (3)
	457 mm (18 in)	136-7046				168-1204/195-9204 (4)
		134-5879	134-5884	134-5885		168-1204/195-9204 (4)
		136-6887				168-1204/195-9204 (4)
		219-9487				201-1234 (4)
		219-9483				201-1234 (4)
		219-9491				201-1234 (4)
	610 mm (24 in)	136-7047				168-1204/195-9204 (5)
		134-5880	134-5884	134-5885		168-1204/195-9204 (5)
		136-6888				168-1204/195-9204 (5)
		219-9488				201-1234 (5)
		219-9484				201-1234 (5)
		219-9492				201-1234 (8)
	762 mm (30 in)	172-8270				195-9204 (10)
		134-5881	134-5884	134-5885		168-1204/195-9204 (5)
		136-6889				168-1204/195-9204 (5)
		219-9489				201-1235 (5)
		219-9485				201-1234 (5)
		219-9495				201-1234 (10)
	914 mm (36 in)	134-5882	134-5884	134-5885		168-1204/195-9204 (6)
		136-6890				168-1204/195-9204 (6)
		219-9490				201-1235 (6)
		219-9486				201-1234 (6)

Base Edge Part Numbers that start with 174-XXXX, 154-XXXX, 136-XXXX, 134-XXXX, 172-XXXX use DRS200.

Base Edge Part Numbers that start with 219-XXXX use DRS230.

Tips

Cat backhoe loader bucket tips are side pinned for excellent tip retention and quick, easy tip changing. The pin hole is located through the tip sides which are the areas of least wear.

Long Tip

- The best choice for most applications.

Short Tip

- Provides more strength.
- Contains less wear material.

Utility Tip

- For use in general purpose excavator and loader bucket applications.

Wide Tip

- Contains less wear material.
- Provides less penetration.
- Provides a cleaner floor and less spillage.

Penetration Tip

- Provides better penetration.
- Contains less wear material.

Bolt-On Unitooth

- Improves penetration where breakage is not a problem.
- Tip and adapter are one integrated piece for easy installation and lower initial costs.
- For use in nonabrasive materials.

Sharp Corner Tip/Sharp Center Tip

- Provides the best penetration.
- Contains the least wear material.



Tips

Twin Sharp Tip

- For use for severe digging in rock and frost.



Heavy Duty Long Tip

- Contains more wear material than Abrasion Tip.
- Provides greater strength than Long Tip.
- Provides better penetration due to a streamlined-profile.



Heavy Duty Abrasion Tip

- Contains the greatest amount of wear material.
- Provides good strength.
- Provides good penetration.



Tips — Diagonal Retention System

DRS200 and DRS230

The new system for all rear Backhoe Loader buckets except for the 446 model, provides good retention that is not affected by surface wear and easier installation since no clearance is needed between tips.

- Proprietary (RH Drive).
- 20-30% more wear material vs. J200.
- Easy access for pin installation & removal (40°).



Ground Engaging Tools — Backhoe Loader Tips

Tips

Front Bucket Tips

	J200	J225
Heavy Duty Abrasion		6Y-6223
Heavy Duty Long		8E-4222
Long	1U-3202	6Y-3222
Penetration	1U-3209	6Y-8229
Short		6Y-6221
Utility	7T-8202	
Unitooth Center Tip	8J-6207	
Unitooth Center Tip — Bolt	5J-4771	
Unitooth Corner Tip (lh)	1U-1868	
Unitooth Corner Tip (rh)	1U-1869	
Unitooth Corner Tip — Bolt	6F-0196	
Standard Pin	8E-6208	6Y-3228
Standard Retainer	8E-6209	8E-6259
Heavy Duty Pin		132-4762
Heavy Duty Retainer		149-5733

Rear Bucket Tips

	J200	J225	DRS200	DRS230
Chisel			195-7202	208-5232
Heavy Duty Abrasion		6Y-6223		
Heavy Duty Long		8E-4222		
Impact			195-7205	
Long	1U-3202	6Y-3222	195-7206	208-5236
Penetration	1U-3209	6Y-8229		208-5235
Sharp			195-7209	208-5239
Sharp Center	9W-8209	6Y-7229		
Sharp Center	9W-8208	6Y-7228		
Short		6Y-6221		
Twin Sharp	135-8208		195-7207	208-5237
Utility	7T-8202			
Wide	109-9200	186-3010	195-7210	208-5240
Standard Pin	8E-6208	6Y-3228		201-1238
Standard Retainer	8E-6209	8E-6259		201-1239
Heavy Duty Pin		132-4762		
Heavy Duty Retainer		149-5733		
Flex Pin			195-7200	

ONE SAFE SOURCE

2008-2009

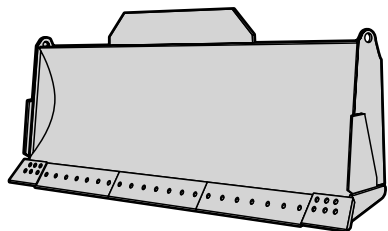


GROUND ENGAGING TOOLS | BULLDOZERS/COMPACTORS

Ground Engaging Tools — Bulldozer Blades

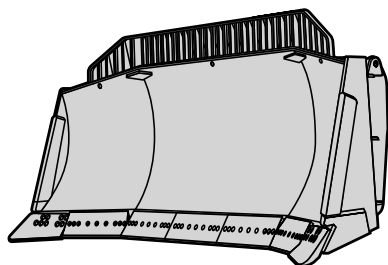
Bulldozer Cutting Edges

Straight Blade (S)



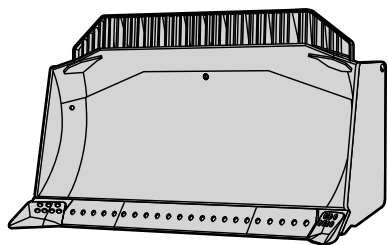
- A good general purpose blade for most dozing applications. Available for most machines.

Universal Blade (U)



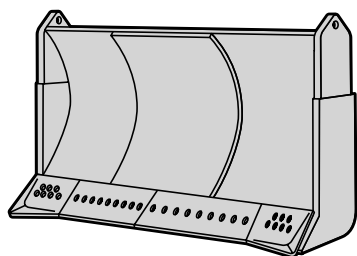
- A straight blade with large "wings" to carry large loads more efficiently over long distances. Available only for larger models.

Semi-U Blade (SU)



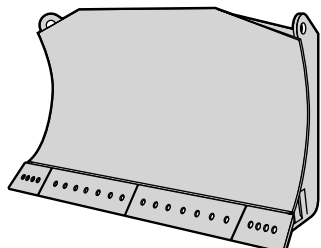
- A straight blade with small "wings" to provide better load carrying characteristics for mid-sized and large machines.

Cushion Blade (C)



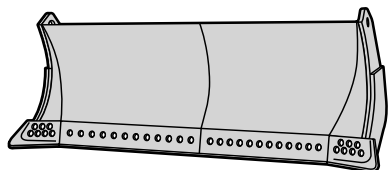
- A relatively narrow blade, primarily for pushing scrapers.

Power Angle and Tilt Blade (P)



- A very versatile blade for smaller machines.

Angle Blade (A)



- An economical, light to medium duty blade designed for use on D8 and smaller machines where the ability to side-cast is desired.

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
3S	6EH,15W,88U	Straight	16 mm (0.62 in)	Center Edge	4T-6230 (2)	3F-5108 (6)	4K-0367 (6)	
	31M,40V	Straight	16 mm (0.62 in)	Center Edge	4T-6231 (2)	3F-5108 (7)	4K-0367 (7)	
3P	8SU,1GP,2JP,9RH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	4T-6230 (2)	3F-5108 (6)	4K-0367 (6)	
	96X,5WH,8JP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	4T-6232 (2)	3F-5108 (8)	4K-0367 (8)	
Super LGP	8HF,8KP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	6Y-5841 (2)	3F-5108 (6)	4K-0367 (6)	
	8XP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	141-0413 (2)	3F-5108 (8)	4K-0367 (8)	
	5LH		16 mm (0.62 in)	Center Edge	4T-6230 (2)	3F-5108 (6)	4K-0367 (6)	5P-8247 (6)
Narrow PLGP				Center Edge	4T-6231	3F-5108 (7)	4K-0367 (7)	5P-8247 (7)
			16 mm (0.62 in)	Center Edge	157-7338 (2)	3F-5108 (7)	4K-0367 (7)	
			16 mm (0.62 in)	Center Edge	4T-2977	4F-3654 (18)	4K-0367 (18)	
4A	12D,78D,05F1-2850	Angle	16 mm (0.62 in)	Center Edge	4T-2979	4F-3654 (13)	4K-0367 (13)	
	05F,97E,24F,65F	Angle	16 mm (0.62 in)	Center Edge	4T-2981	4F-3654 (23)	4K-0367 (23)	
	10D,79D,06F1-11299	Angle	16 mm (0.62 in)	Center Edge	4T-2974	4F-3654 (5)	4K-0367 (5)	
4S	52E,96E,26F,06F1300-UP,95G,33R	Angle	16 mm (0.62 in)	End Edge	4T-2973 (2)	4F-3654 (6)	4K-0367 (6)	
	6AC,26C	Angle	16 mm (0.62 in)	Center Edge	4T-8940 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
	2A,25F,67F	Straight	16 mm (0.62 in)	Center Edge	4T-2980	4F-3654 (15)	4K-0367 (15)	
	2TC,3CH,3DC	Straight	16 mm (0.62 in)	Center Edge	4T-3720 (2)	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
	4A,40D	Straight	16 mm (0.62 in)	Center Edge	4T-2977	4F-3654 (18)	4K-0367 (18)	
			19 mm (0.75 in)	Center Edge	4T-3021	4F-3654 (18)	4K-0367 (18)	
	27F,67E,94G	Straight	16 mm (0.62 in)	Left End/Right End	4T-2972	4F-3654 (4)	4K-0367 (4)	
				Center Edge	4T-2983	4F-3654 (3)	4K-0367 (3)	
			19 mm (0.75 in)	Left End/Right End	4T-3028	4F-3654 (4)	4K-0367 (4)	
				Center Edge	4T-3027	4F-3654 (3)	4K-0367 (3)	
			16 mm (0.62 in)	Left End/Right End	8A-8581	4F-3654 (7)	4K-0367 (7)	
	93C	Straight		Center Edge	8A-8580	4F-3654 (7)	4K-0367 (7)	
4S-LGP	4HC	Straight	16 mm (0.62 in)	Center Edge	4T-8940 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
	84E,19J,45J	Straight	19 mm (0.77 in)	Center Edge	4T-3028 (2)	4F-3654 (4)	4K-0367 (4)	
			16 mm (0.62 in)	Center Edge	4T-3029	4F-3654 (7)	4K-0367 (7)	
4P				Center Edge	4T-2972 (2)	4F-3654 (4)	4K-0367 (4)	
				Center Edge	4T-2982	4F-3654 (7)	4K-0367 (7)	
	2YH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	4T-6230 (2)	3F-5108 (6)	4K-0367 (6)	5P-8247 (6)
	4AC,92B,5NH,7EH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	3G-9306 (2)	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
	6CH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	6Y-5841 (2)	3F-5108 (6)	4K-0367 (6)	5P-8247 (6)
	8LP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	140-2187 (2)	3F-5108 (6)	4K-0367 (6)	5P-8247 (6)
4P-LGP	9SH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	104-9634 (2)	3F-5108 (6)	4K-0367 (6)	5P-8247 (6)
	46H,8ZH,9YH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	4T-6232 (2)	3F-5108 (8)	4K-0367 (8)	5P-8247 (8)
	5EC,5RH,7CH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	4T-8940 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)

Number in parentheses () after the part number indicates the quantity required.
** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.
* Edges are 280 mm (11") wide.

Ground Engaging Tools — Bulldozers/Compactors

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
4P-LGP (cont.)	6DH,9TH,8MP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	6Y-5842 (2)	3F-5108 (8)	4K-0367 (8)	5P-8247 (8)
	8YP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	141-2238 (2)	3F-5108 (8)	4K-0367 (8)	5P-8247 (8)
4P-XL	6XH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	8E-9377 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
			19 mm (0.77 in)	Center Edge	4T-6659 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
5A	91H,96H,42K	Angle	16 mm (0.62 in)	Center Edge	4T-2978	3F-5108 (24)	4K-0367 (24)	
			19 mm (0.75 in)	Center Edge	4T-3030 (2)	3F-5108 (12)	4K-0367 (12)	
	93H1-3846 98H,11J,13J	Angle	19 mm (0.75 in)	Center Edge	4T-3008	3F-5108 (24)	4K-0367 (24)	
				Left End /Right End	4T-3020	3F-5108 (12)	4K-0367 (12)	
	3AH,2FH,2TH	Angle	19 mm (0.75 in)	Center Edge	4T-3013	5J-4773	2J-3506	5P-8248
5S	6AC,2GC	Angle	16 mm (0.62 in)	Center Edge	1U-2207	5J-4773	2J-3506	5P-8248
	2BH,4FH	Straight	19 mm (0.75 in)	Center Edge	4T-8940 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
	10J,12J,92H,97H	Straight	19 mm (0.75 in)	Left End /Right End	3G-6062 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
				Center Edge	4T-3026	3F-5108 (4)	4K-0367 (4)	5P-8247 (4)
	19R,16K	Straight	19 mm (0.75 in)	Center Edge	4T-3025	3F-5108 (7)	4K-0367 (7)	5P-8247 (7)
	90H	Straight	16 mm (0.62 in)	Left End /Right End	4T-3024	3F-5108 (28)	4K-0367 (28)	5P-8247 (28)
5S-LGP	12H,3KH	Straight	19 mm (0.75 in)	Center Edge	4T-2972	3F-5108 (4)	4K-0367 (4)	5P-8247 (4)
	4AH	Straight	19 mm (0.75 in)	Center Edge	4T-2983	3F-5108 (3)	4K-0367 (3)	5P-8247 (3)
	7BH	Semi-U	19 mm (0.75 in)	Left End/Right End	4T-3028	3F-5108 (4)	4K-0367 (4)	5P-8247 (4)
				Center Edge	4T-3027	3F-5108 (3)	4K-0367 (3)	5P-8247 (3)
				Center Edge	1U-2211 (2)	5J-4773 (9)	2J-3506 (9)	5P-8248 (9)
5P	2AH,2MH,7AH	Power Angle & Tilt	19 mm (0.75 in)	Center Edge	4T-0731 (2)	5J-4773 (5)	2J-3506 (5)	5P-8248 (5)
	4GP,6JP	Power Angle & Tilt	19 mm (0.75 in)	Left End Edge/Right End	9U-8057	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
				Center Edge	4T-6659	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
				Center Edge	3G-4282 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
				Center Edge	8E-9377 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
5P-LPG	6MH,9WH	Power Angle & Tilt	19 mm (0.75 in)	Center Edge	4T-6659 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
	8GP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	3G-9306 (2)	5J-4771 (6)	2J-3506 (6)	5P-8248 (6)
	1YH,2SH	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	140-0983 (2)	5J-4771 (6)	2J-3506 (6)	5P-8248 (6)
	4FP,BHY	Power Angle & Tilt	19 mm (0.75 in)	Center Edge	4T-2315 (2)	5J-4773 (10)	2J-3506 (10)	5P-8248 (10)
	6PH,9XH,8NP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	4T-8940 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
6A	8ZP	Power Angle & Tilt	16 mm (0.62 in)	Center Edge	6Y-5842 (2)	3F-5108 (8)	4K-0367 (8)	5P-8247 (8)
	16C5001-UP,37D,81D,16E,03F,04F,40H	Angle	16 mm (0.62 in)	Center Edge	142-4914 (2)	3F-5108 (8)	4K-0367 (8)	5P-8247 (8)
			19 mm (0.75 in)	Center Edge	4T-3008	3F-5108 (11)	4K-0367 (11)	
				End Edge	4T-3020 (2)	3F-5108 (9)	4K-0367 (9)	
	15C5001-UP,39D,82D,08E,09E	Angle	16 mm (0.62 in)	Center Edge	4T-2978	3F-5108 (24)	4K-0367 (24)	
54U,44E,47G,58G,18H 1BH1-0569,4DH,4LH,3EH		Angle	19 mm (0.75 in)	Center Edge	4T-3030 (2)	3F-5108 (12)	4K-0367 (12)	
		Angle	19 mm (0.75 in)	Center Edge	4T-3009 (2)	4F-7827 (10)	2J-3506 (10)	5P-8248 (10)
		Angle	19 mm (0.75 in)	Center Edge	4T-6262 (3)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
			25 mm (1.00 in)	Center Edge	7T-9977 (3)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
6A (cont.)	1BH0570-UP	Angle	19 mm (0.75 in)	Center Edge	4T-2952 (4)	5J-4773 (5)	2J-3506 (5)	5P-8248 (5)
			25 mm (1.00 in)	Center Edge	4T-2985 (4)	5J-4773 (5)	2J-3506 (5)	5P-8248 (5)
			19 mm (0.75 in)	Center Edge	4T-2952 (4)	5J-4773 (5)	2J-3506 (5)	5P-8248 (5)
6A Custom Wide	6HP	Angle	25 mm (1.00 in)	Center Edge	4T-2985 (4)	5J-4773 (5)	2J-3506 (5)	5P-8248 (5)
			19 mm (0.75 in)	Center Edge	109-9093 (4)	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
6S	1DH1-599,2HH,3JH,4BH	Straight	19 mm (0.75 in)	Left End/Right End	4T-3010	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
				Center Edge	4T-6659	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
			25 mm (1.00 in)	Left End/Right End	7T-9978	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
				Center Edge	7T-9976**	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
			25 mm (1.00 in)	Center Edge	4T-2985 (3)	5J-4773 (5)	2J-3506 (5)	5P-8248 (5)
			19 mm (0.75 in)	Center Edge	4T-3023	3F-5108 (22)	4K-0367 (22)	5P-8247 (22)
	15C1-5000	Straight	19 mm (0.75 in)	Center Edge	4T-3021	3F-5108 (18)	4K-0367 (18)	5P-8247 (18)
			19 mm (0.75 in)	Left End/Right End	4T-3010	4F-7827 (4)	2J-3506 (4)	5P-8248 (4)
				Center Edge	4T-3013	4F-7827 (7)	2J-3506 (7)	5P-8248 (7)
	21H,41H	Straight	19 mm (0.75 in)	Left End/Right End	4T-3010	4F-7827 (4)	2J-3506 (4)	5P-8248 (4)
				Center Edge	4T-3011	4F-7827 (11)	2J-3506 (11)	5P-8248 (11)
				Center Edge	4T-2976	3F-5108 (22)	4K-0367 (22)	
6S-LPG	16C1-5000	Straight	16 mm (0.62 in)	Center Edge	4T-2977	3F-5108 (18)	4K-0367 (18)	
			16 mm (0.62 in)	Center Edge	4T-6659 (3)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
			19 mm (0.75 in)	Center Edge	7T-9976 (3)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
6SU	1AH,2LH,3FH,1SP,3HP,BHG	Semi-U	25 mm (1.00 in)	Center Edge	9W-1878 (8)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
			19 mm (0.75 in)	Center Edge	6Y-3840 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
			25 mm (1.00 in)	Center Edge	6Y-3840 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
	8AH,8BH	Semi-U	25 mm (1.00 in)	Center Edge	4T-6659	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
			19 mm (0.75 in)	Center Edge	9U-8057 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
				End	9W-1878 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
6SU Custom Wide	1TP3FP,1WP,3RP,4AP,8SP,BHM	Semi-U	25 mm (1.00 in)	Center Edge	6Y-3840 (2)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
			19 mm (0.75 in)	Center Edge	106-0956 (2)	5J-4773 (9)	2J-3506 (9)	5P-8248 (9)
			25 mm (1.00 in)	Center Edge	229-6599 (2)	5J-4773 (9)	2J-3506 (9)	5P-8248 (9)
6PXL	B6X,G6M,G6N	Power Angle & Tilt	19 mm (0.75 in)	Center Edge	3G-4282 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
			19 mm (0.75 in)	Center Edge	4T-2315 (2)	5J-4773 (10)	2J-3506 (10)	5P-8248 (10)
			19 mm (0.75 in)	Center Edge	127-3050 (2)	5J-4773 (10)	2J-3506 (10)	5P-8248 (10)
6P-LGP	4MP,B6L,G6G	Power Angle & Tilt	19 mm (0.75 in)	Center Edge	3G-4282 (2)	5J-4773 (7)	2J-3506 (7)	5P-8248 (7)
			19 mm (0.75 in)	Center Edge	177-4550 (2)	5J-4773 (9)	2J-3506 (9)	5P-8248 (9)
6P-LGP Foldable	G6M	Power Angle & Tilt	19 mm (0.75 in)	Center Edge				
			19 mm (0.75 in)	Center Edge				
7S	F6W,F6Y	Power Angle & Tilt	19 mm (0.75 in)	Center Edge				
7S	2E,5A,17C1-5000,17E,34D,83D,84C	Straight	19 mm (0.75 in)	Center Edge	4T-2954	5J-4771 (23)	2J-3506 (23)	
			25 mm (1.00 in)	Center Edge	4T-2864	5J-4771 (23)	2J-3506 (23)	

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Ground Engaging Tools — Bulldozer Blades

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
7S (cont.)	6KB,8ZB,4XC,8NH,J8L,CDL	Straight	19 mm (0.75 in)	Center Edge	4T-5318 (3)	6F-0196 (6)	2J-3505 (6)	5P-8248 (6)
			25 mm (1.00 in)	Center Edge	7T-6678*	6F-0196 (6)	2J-3505 (6)	5P-8248 (6)
			35 mm (1.38 in)	Center Edge	107-3363 (3)	6F-0196 (6)	2J-3505 (6)	5P-8249 (6)
			19 mm (0.75 in)	Center Edge	4T-2946	5J-4773 (7)	2J-3506 (7)	
	23F,31F,59F,14H	Straight		Left End/Right End	4T-2945 (2)	5J-4773 (5)	2J-3506 (5)	
			25 mm (1.00 in)	Left End/Right End	4T-2991	5J-4773 (5)	2J-3506 (5)	
				Center Edge	4T-2990	5J-4773 (7)	2J-3506 (7)	
			19 mm (0.75 in)	Center Edge	4T-2921	5J-4772 (7)	2J-3505 (7)	5P-8249 (7)
	49K,53J,60K,64K,57G	Straight		Left End/Right End	4T-2922 (2)	5J-4772 (5)	2J-3505 (5)	5P-8249 (5)
			25 mm (1.00 in)	Left End/Right End	4T-2992	5J-4772 (5)	2J-3505 (5)	5P-8249 (5)
7S-LGP	6JB,3GH,4FG,4XH,5GH	Straight		Center Edge	4T-2993	5J-4772 (7)	2J-3505 (7)	5P-8249 (7)
				Left End/Right End	9W-9794	5J-4772 (5)	2J-3505 (5)	5P-8249 (5)
				Center Edge	9W-9795*	5J-4772 (7)	2J-3505 (7)	5P-8249 (7)
			19 mm (0.75 in)	Center Edge	4T-3901 (3)	6F-0196 (7)	2J-3505 (7)	
	2RP,8RH,5SP,9KP,J4L,CDN	Straight	35 mm (1.38 in)	Center Edge	135-9778 (3)*	6F-0196 (7)	2J-3505 (7)	
			19 mm (0.75 in)	Center Edge	128-5883 (3)	6F-0196 (7)	2J-3505 (7)	
			25 mm (1.00 in)	Center Edge	135-6537*	6F-0196 (9)	2J-3505 (9)	
			35 mm (1.38 in)	Center Edge	145-7846 (3)	6F-0196 (7)	2J-3505 (7)	
	3GH,4FG,6JB,4XH,56H	Straight	25 mm (1.00 in)	Left End/Right End	7T-6537*	6F-0196 (5)	2J-3505 (5)	
			25 mm (1.00 in)	Left End/Right End	7T-6592	6F-0196 (4)	2J-3505 (4)	5P-8249 (4)
7U	5SB,7AC,9JB,8MH,J1L,CDL	Universal		Center Edge	7T-6591 (2)*	6F-0196 (6)	2J-3505 (6)	5P-8249 (6)
			19 mm (0.75 in)	Center Edge	4T-2955	5J-4773 (9)	2J-3506 (9)	
				Left End/Right End	4T-2952 (2)	5J-4773 (5)	2J-3506 (5)	
			25 mm (1.00 in)	Left End/Right End	4T-2985	5J-4773 (5)	2J-3506 (5)	
	42G	Universal		Center Edge	4T-2890	5J-4773 (9)	2J-3506 (9)	
			19 mm (0.75 in)	Center Edge	4T-2917	5J-4772 (9)	2J-3505 (9)	5P-8249 (9)
				Left End/Right End	4T-2916 (2)	5J-4772 (5)	2J-3505 (5)	5P-8249 (5)
			25 mm (1.00 in)	Center Edge	4T-3421	5J-4772 (9)	2J-3505 (9)	5P-8249 (9)
	85D,61K,94R	Universal		Left End/Right End	4T-3420 (2)	5J-4772 (5)	2J-3505 (5)	5P-8249 (5)
				Center Edge	9W-9793*	5J-4772 (9)	2J-3505 (9)	5P-8249 (9)
7SU	2FC,2JH,4DB,1JP,8LH,CDT,J6L,BHT	Semi-U		Left End/Right End	9W-9792* (2)	5J-4772 (5)	2J-3505 (5)	5P-8249 (5)
			25 mm (1.00 in)	Left End/Right End	7T-6936	6F-0196 (4)	2J-3505 (4)	
				Center Edge	7T-6678*	6F-0196 (6)	2J-3505 (6)	
			35 mm (1.38 in)	Left End/Right End	107-3362	6F-0196 (4)	2J-3505 (4)	
	4DB,2FC,2JH,1JP,8LH,CDT,J6L,BHT	Semi-U		Center Edge	107-3363	6F-0196 (6)	2J-3505 (6)	
			19 mm (0.75 in)	Center Edge	4T-5318	6F-0196 (6)	2J-3505 (6)	
				Left End/Right End	1U-1192 (2)	6F-0196 (6)	2J-3505 (6)	
			19 mm (0.75 in)	Center Edge	4T-3901 (3)	6F-0196 (7)	2J-3505 (7)	5P-8248 (8)
	3CC,4EB,4ZC	Angle		Center Edge	7T-6589 (3)*	6F-0196 (7)	2J-3505 (7)	5P-8249 (7)
			25 mm (1.00 in)	Center Edge				

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
7A (cont.)	30C,4EB,4ZC	Angle	35 mm (1.38 in)	Center Edge	135-9778*	6F-0196 (7)	2J-3505 (7)	5P-8248 (8)
			19 mm (0.75 in)	Center Edge	4T-2949 (2)	5J-4771 (15)	2J-3506 (15)	5P-8248 (15)
	6A,17C5001-Up,35D,84D,6E,18E	Angle	25 mm (1.00 in)	Center Edge	4T-2863 (2)	5J-4771 (15)	2J-3506 (15)	5P-8248 (15)
			19 mm (0.75 in)	Center Edge	4T-2948 (3)	5J-4771 (7)	2J-3506 (7)	5P-8248 (7)
	13F,13H,22F,30F,72F	Angle	25 mm (1.00 in)	Center Edge	4T-2989 (3)	5J-4771 (7)	2J-3506 (7)	5P-8248 (7)
				Center Edge	9W-9796 (3)*	5J-4771 (7)	2J-3506 (7)	5P-8248 (7)
	1JH,2WP,6AH,9CH,9WPC,XB,A5G,DZB	Universal	28 mm (1.12 in)	Center Edge	9W-5232 (2)	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
				Left End/Right End	4T-6378 (2)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
			35 mm (1.38 in)	Left End/Right End	7T-9127	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	9W-6092 (2)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
8U			45 mm (1.77 in)	Left End/Right End	112-2473	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	112-2475 (2)**	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
	6Y1-1395	Universal	25 mm (1.00 in)	Center Edge	4T-3422 (2)	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
				Left End/Right End	4T-3417 (2)	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
			35 mm (1.38 in)	Left End/Right End	1U-4929	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	1U-4931 (2)	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			35 mm (1.38 in)	Left End/Right End	6Y-6359*	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	6Y-6360 (2)*	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.57 in)	Left End Edge/Right End	7T-4346/45*	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	7T-4347 (2)*	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			45 mm (1.77 in)	Left End/Right End	107-3480	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	107-3483 (2)	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
	6Y1396-Up,42Z,82M	Universal	28 mm (1.12 in)	Center Edge	4T-9590	4J-9058 (14)	2J-3507 (14)	
				Left End/Right End	4T-9587 (2)	4J-9058 (5)	2J-3507 (5)	
			35 mm (1.38 in)	Left End/Right End	9W-4398	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	9W-4397	4J-9058 (14)	2J-3507 (14)	5P-8250 (14)
			45 mm (1.77 in)	Left End/Right End	9W-3927	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	9W-3926*	4J-9058 (14)	2J-3507 (14)	5P-8250 (14)
	11C,74D,88D,24E	Universal	25 mm (1.00 in)	Center Edge	4T-3419	1J-6762 (12)	2J-3506 (12)	
				Left End/Right End	4T-2861 (2)	1J-6762 (9)	2J-3506 (9)	
	20F,45K,48K	Universal	25 mm (1.00 in)	Center Edge	4T-6513	5J-2409 (10)	2J-3505 (10)	
				Left End/Right End	4T-6512 (2)	5J-2409 (6)	2J-3505 (6)	
			35 mm (1.38 in)	Left End/Right End	6Y-6762	5J-2409 (6)	2J-3505 (6)	
				Center Edge	6Y-6765	5J-2409 (10)	2J-3505 (10)	
			40 mm (1.57 in)	Center Edge	7T-4355**	4J-9058 (10)	2J-3507 (10)	
				Left End/Right End	7T-4354 (2)**	4J-9058 (6)	2J-3507 (6)	
			45 mm (1.77 in)	Left End/Right End	107-3475	5J-2409 (6)	2J-3505 (6)	
				Center Edge	107-3478	5J-2409 (10)	2J-3505 (10)	
	29J,30E,73E	Universal	45 mm (1.77 in)	Left End/Right End	107-3474	5J-2409 (6)	2J-3505 (6)	

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Ground Engaging Tools — Bulldozer Blades

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
8U (cont.)	29J,30E,73E 30V,34W,65X,69V	Universal Universal	45 mm (1.77 in)	Center Edge	107-3478	5J-2409 (10)	2J-3505 (10)	
			25 mm (1.00 in)	Center Edge	4T-2986	4J-9058 (5)	2J-3507 (5)	
				Left End/Right End	4T-2987 (2)	4J-9058 (6)	2J-3507 (6)	
			35 mm (1.38 in)	Left End/Right End	9W-8656	4J-9058 (5)	2J-3507 (5)	
				Center Edge	9W-8655 (2)	4J-9058 (6)	2J-3507 (6)	
			40 mm (1.57 in)	Left End/Right End	7T-4349/50**	4J-9208 (5)	2J-3507 (5)	
				Center Edge	7T-4352 (2)*	4J-9208 (6)	2J-3507 (6)	
			45 mm (1.77 in)	Left End/Right End	107-3481	4J-9058 (6)	2J-3507 (6)	
				Center Edge	107-3473 (2)	4J-9058 (5)	2J-3507 (5)	
			28 mm (1.12 in)	Center Edge	4T-6381	4J-9058 (9)	2J-3507 (9)	5P-8250 (9)
8SU	1KH,2PP,2TP,3MP,3WH, 1HP,6LH,9BH,9PH,2NP 05A,9TP,BHW,B8S,DZA	Semi-U		Left End/Right End	6Y-5540 (2)	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			35 mm (1.38 in)	Center Edge	7T-9126	4J-9058 (9)	2J-3507 (9)	5P-8250 (9)
				Left End/Right End	7T-9125 (2)	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			45 mm (1.77 in)	Center Edge	112-2472	4J-9058 (9)	2J-3507 (9)	5P-8250 (9)
				Left End/Right End	112-2471 (2)	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			19 mm (0.75 in)	Center Edge	4T-2944 (2)	1J-6762 (13)	2J-3506 (13)	5P-8248 (13)
			25 mm (1.00 in)	Center Edge	4T-2860 (2)	1J-6762 (13)	2J-3506 (13)	5P-8248 (13)
			28 mm (1.12 in)	Left End/Right End	4T-3417	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	4T-3423 (2)	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
			35 mm (1.38 in)	Left End/Right End	1U-4929	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
	4Y1-1939	Semi-U		Center Edge	1U-4930 (2)	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
				Left End/Right End	6Y-6359**	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	6Y-6358 (2)**	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
			40 mm (1.57 in)	Left End/Right End	7T-4346/45**	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	7T-5235**	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
			45 mm (1.77 in)	Left End/Right End	107-3482	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	107-3480 (2)	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
			28 mm (1.12 in)	Center Edge	4T-9586	4J-9058 (11)	2J-3507 (11)	5P-8250 (11)
				Left End/Right End	6Y-5540 (2)	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			35 mm (1.38 in)	Left End/Right End	9W-4398	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
	4Y1940-Up	Semi-U		Center Edge	9W-4396	4J-9058 (11)	2J-3507 (11)	5P-8250 (11)
			45 mm (1.77 in)	Left End/Right End	9W-3927	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
				Center Edge	9W-3925	4J-9058 (11)	2J-3507 (11)	5P-8250 (11)
			25 mm (1.00 in)	Center Edge	4T-3418 (2)	5J-2409 (10)	2J-3505 (10)	5P-8249 (10)
			35 mm (1.38 in)	Center Edge	6Y-6763 (2)	5J-2409 (10)	2J-3505 (10)	5P-8249 (10)
			40 mm (1.57 in)	Center Edge	6Y-5777 (2)**	5J-2409 (10)	2J-3505 (10)	5P-8249 (10)
			45 mm (1.77 in)	Center Edge	107-3476 (2)	5J-2409 (10)	2J-3505 (10)	5P-8249 (10)
			25 mm (1.00 in)	Center Edge	4T-6531 (2)	5J-2409 (10)	2J-3505 (10)	5P-8249 (10)
			35 mm (1.38 in)	Center Edge	6Y-6764 (2)	5J-2409 (14)	2J-3505 (14)	5P-8249 (14)
				Center Edge				
	14J,44K,47K,69E,80V,95S	Semi-U		Center Edge				
			25 mm (1.00 in)	Center Edge				
			35 mm (1.38 in)	Center Edge				
			40 mm (1.57 in)	Center Edge				
			45 mm (1.77 in)	Center Edge				
			25 mm (1.00 in)	Center Edge				
			35 mm (1.38 in)	Center Edge				
				Center Edge				
				Center Edge				
				Center Edge				
	29E,78C,94E	Semi-U		Center Edge				
			25 mm (1.00 in)	Center Edge				
			35 mm (1.38 in)	Center Edge				
				Center Edge				
				Center Edge				
				Center Edge				
				Center Edge				
				Center Edge				
				Center Edge				
				Center Edge				

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
8SU (cont.)	29E,78C,94E	Semi-U	40 mm (1.57 in)	Center Edge	6Y-5776 (2)*	5J-2409 (14)	2J-3505 (14)	5P-8249 (14)
			45 mm (1.77 in)	Center Edge	107-3477 (2)	5J-2409 (14)	2J-3505 (14)	5P-8249 (14)
	44C1193-Up,73D KMB,LAA,DZC	Semi-U	25 mm (1.00 in)	Center Edge	4T-2862 (2)	1J-6762 (14)	2J-3506 (14)	5P-8248 (14)
			28 mm (1.12 in)	Center Edge	4Z-9058	4J-9058 (13)	2J-3507 (13)	5P-8250 (13)
8SU LGP	1HH,2XP6NH,9AH,4ZP	Angle	28 mm (1.12 in)	Left End/Right End	6Y-5540 (2)	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			28 mm (1.12 in)	Center Edge	9W-5432*	4F-4042 (9)	2J-3505 (9)	5P-8250 (9)
			35 mm (1.38 in)	Center Edge	9W-9098	4F-4042 (7)	2J-3505 (7)	5P-8250 (7)
			45 mm (1.77 in)	Center Edge	112-2474 (3)	4F-4042 (8)	2J-3507 (8)	5P-8250 (8)
8A	5Y,27B,41Z	Angle	25 mm (1.00 in)	Left End/Right End	4T-2987	4J-9208 (6)	2J-3507 (6)	3K-5234 (6)
			35 mm (1.38 in)	Center Edge	4T-2988 (2)	4J-9208 (7)	2J-3507 (7)	3K-5234 (7)
			35 mm (1.38 in)	Left End Edge/Right End	9W-8657	4J-9208 (6)	2J-3507 (6)	3K-5234 (6)
			35 mm (1.38 in)	Center Edge	9W-8655 (2)*	4J-9208 (7)	2J-3507 (7)	3K-5234 (7)
			35 mm (1.38 in)	Left End/Right End	1U-4932	4J-9208 (6)	2J-3507 (6)	3K-5234 (6)
			40 mm (1.57 in)	Center Edge	1U-4933 (2)	4J-9208 (7)	2J-3507 (7)	3K-5234 (7)
			40 mm (1.57 in)	Left End/Right End	7T-4352	4J-9208 (6)	2J-3507 (6)	3K-5234 (6)
			45 mm (1.77 in)	Center Edge	7T-4353 (2)**	4J-9208 (7)	2J-3507 (7)	3K-5234 (7)
			45 mm (1.77 in)	Left End/Right End	107-3481	4J-9208 (6)	2J-3507 (6)	3K-5234 (6)
			19 mm (0.75 in)	Center Edge	107-3479 (2)	4J-9208 (7)	2J-3507 (7)	3K-5234 (7)
			25 mm (1.00 in)	Center Edge	4T-2943 (2)	1J-6762 (16)	2J-3506 (16)	
			35 mm (1.38 in)	Center Edge	4T-2888 (2)	1J-6762 (16)	2J-3506 (16)	
			25 mm (1.00 in)	Center Edge	9W-8657 (2)	1J-6762 (16)	2J-3506 (16)	
			25 mm (1.00 in)	Center Edge	4T-6532 (4)	5J-2409 (6)	2J-3505 (6)	
			35 mm (1.38 in)	Center Edge	6Y-6761 (4)	5J-2409 (6)	2J-3505 (6)	
			40 mm (1.57 in)	Center Edge	107-3474 (4)**	5J-2409 (6)	2J-3505 (6)	
8C	28E11126-UP,93E,14F,77C	Angle	25 mm (1.00 in)	Left End/Right End	7T-4348 (4)**	5J-2409 (6)	2J-3505 (6)	
			25 mm (1.00 in)	Center Edge	4T-2994 (3)	4J-9058 (8)	2J-3507 (8)	
			35 mm (1.38 in)	Center Edge	9W-8658 (3)	4J-9058 (8)	2J-3507 (8)	
			40 mm (1.57 in)	Center Edge	107-3484 (3)**	4J-9058 (8)	2J-3507 (8)	
			28 mm (1.12 in)	Left End/Right End	7T-4351 (3)**	4J-9058 (8)	2J-3507 (8)	
			28 mm (1.12 in)	Center Edge	135-9373 (3)	4F-4042 (8)	2J-3507 (8)	5P-8250 (8)
			35 mm (1.38 in)	Center Edge	136-9628 (3)	4F-4042 (8)	2J-3507 (8)	5P-8250 (8)
			45 mm (1.77 in)	Center Edge	135-9629 (3)	4F-4042 (8)	2J-3507 (8)	5P-8250 (8)
			25 mm (1.00 in)	Center Edge	4T-2867 (1)	5J-2409 (13)	2J-3505 (13)	
			25 mm (1.00 in)	Center Edge	4T-3418 (2)	5J-2409 (10)	2J-3505 (10)	
			28 mm (1.12 in)	Center Edge	6Y-5538	4J-9208 (15)	2J-3507 (15)	5P-8250 (15)
			35 mm (1.38 in)	End	6Y-5540 (2)	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
8R	1LH,1MP,2ZH,7PH,9MP,CMH,CMN CMS,CMW,CMZ	Universal	35 mm (1.38 in)	Left End/Right End	7T-9125	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			35 mm (1.38 in)	Center Edge	7T-5701	4J-9058 (15)	2J-3507 (15)	5P-8250 (15)
			45 mm (1.77 in)	Left End/Right End	112-2471	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			45 mm (1.77 in)	Left End/Right End				

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Ground Engaging Tools — Bulldozer Blades

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
9U (cont.)	1LH, 1MP2ZH, 7PH, 9MP, CMH, CMN CMS, CMW, CMZ 14C, 19K, 78X	Universal	45 mm (1.77 in)	Center Edge	9W-7044**	4J-9058 (15)	2J-3507 (15)	5P-8250 (15)
				Center Edge	4T-6378 (3)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				End Edge	4T-6378 (3)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
			35 mm (1.38 in)	Intermediate Edge	4T-6379 (2)	4J-9058 (4)	2J-3507 (4)	5P-8250 (4)
				Right/Left End Edge	9W-6092	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				Intermediate Edge	9W-9197	4J-9058 (4)	2J-3507 (4)	5P-8250 (4)
			40 mm (1.57 in)	Center Edge	9W-6092	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				Left End/Right End	7T-4341*	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				Left Intermediate	7T-4336*	4J-9058 (4)	2J-3507 (4)	5P-8250 (4)
			40 mm (1.57 in)	Center Edge	7T-4341*	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				Right Intermediate	7T-4337*	4J-9058 (4)	2J-3507 (4)	5P-8250 (4)
				Right/Left End Edge	7J-2959	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
9SU	19Y1-1474, 78S	Universal	45 mm (1.77 in)	Intermediate Edge	7J-2979	4J-9208 (4)	2J-3507 (4)	5P-8250 (4)
				Center Edge	7J-2959	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
				Left End/Right End	4T-6382	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
			35 mm (1.38 in)	Center Edge	4T-6381	4J-9208 (9)	2J-3507 (9)	5P-8250 (9)
				Left End/Right End	9W-4503	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
				Center Edge	7T-9126 (2)	4J-9208 (9)	2J-3507 (9)	5P-8250 (9)
			35 mm (1.38 in)	Left End/Right End	6Y-0315*	1J-4948 (6)	2J-3507 (6)	5P-8250 (6)
				Center Edge	6Y-0313 (2)**	1J-4948 (9)	2J-3507 (9)	5P-8250 (9)
				Right End Edge	6Y-0314*	1J-4948 (6)	2J-3507 (6)	5P-8250 (6)
			40 mm (1.57 in)	Left End/Right End	9W-4506	1J-4948 (6)	2J-3507 (6)	5P-8250 (6)
				Center Edge	9W-4507 (2)	1J-4948 (9)	2J-3507 (9)	5P-8250 (9)
				Left End Edge/Right End	6Y-0481/80*	1J-4948 (6)	2J-3507 (6)	5P-8250 (6)
	19Y1475-Up	Universal	45 mm (1.77 in)	Center Edge	6Y-0479 (2)**	1J-4948 (9)	2J-3507 (9)	5P-8250 (9)
				Left End/Right End	7T-9781	6V-8360 (5)	3K-9770 (5)	4K-0684 (5)
				Center Edge	9W-0775 (3)	6V-8360 (5)	3K-9770 (5)	4K-0684 (5)
			45 mm (1.77 in)	Left End/Right End	9W-3929	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				Center Edge	9W-3931 (3)	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				Center Edge	4T-6453 (1)	4J-9058 (13)	2J-3507 (13)	5P-8250 (13)
			28 mm (1.12 in)	End Edge	4T-6457 (2)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				Left End/Right End	7J-2964	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				Center Edge	7J-2963	4J-9058 (13)	2J-3507 (13)	5P-8250 (13)
	55C	Universal	28 mm (1.10 in)	Center Edge	6Y-5539 (1)	4J-9208 (12)	2J-3507 (12)	5P-8250 (12)
				End	6Y-5540 (2)	4J-9208 (5)	2J-3507 (5)	5P-8250 (5)
				Left End/Right End	7T-9125	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
			35 mm (1.38 in)	Center Edge	7T-5702	4J-9058 (12)	2J-3507 (12)	5P-8250 (12)
				Left End/Right End	112-2471	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
				Left End/Right End				

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
9SU (cont.)	1LP,1MH,2LP,5BH,7NH,2ZP,2B,9LH,9RP CLC,CLN,CLY,CMA	Semi-U	45 mm (1.77 in)	Center Edge	9W-7043	4J-9058 (12)	2J-3507 (12)	5P-8250 (12)
				Center Edge	4T-6386 (3)	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
	5A,18K,46K,61U,73R	Semi-U	28 mm (1.12 in)	Center Edge	9W-4500 (3)	4J-9058 (7)	2J-3507 (7)	5P-8250 (7)
			35 mm (1.38 in)	Center Edge	7T-4342 (3)*	4J-9058 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.57 in)	Center Edge	7J-2980 (3)	8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.57 in)	Center Edge	4T-6386	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
	18Y1-1875,42S,52Y	Semi-U	28 mm (1.12 in)	End Edge	4T-6385 (2)	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
			35 mm (1.38 in)	Left End/Right End	9W-4502	1J-4948 (8)	2J-3507 (8)	5P-8250 (8)
				Center Edge	9W-4500	1J-4948 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.57 in)	Left End Edge	6Y-0311*	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
				Center Edge	6Y-0310**	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
				Right End Edge	6Y-0312*	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
				Left End/Right End	9W-4508	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
			45 mm (1.77 in)	Center Edge	7J-2980	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
				Left End Edge	6Y-0477*	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
9U SXS	21E1-831,25E,06A	Semi-U	28 mm (1.12 in)	Center Edge	6Y-0476**	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
				Right End Edge	6Y-0478*	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
			40 mm (1.57 in)	Center Edge	4T-6459 (1)	8J-2928 (9)	2J-3507 (9)	5P-8250 (9)
				End Edge	4T-6456 (2)	8J-2928 (6)	2J-3507 (6)	5P-8250 (6)
	18Y1876-Up	Semi-U	35 mm (1.38 in)	Center Edge	7J-2961 (1)	4J-9208 (9)	2J-3507 (9)	5P-8250 (9)
				End Edge	7J-2960 (2)	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
			45 mm (1.77 in)	Left End/Right End	7T-9779	6V-8360 (5)	3K-9770 (5)	4K-0684 (5)
				Center Edge	7T-9782 (2)	6V-8360 (6)	3K-9770 (6)	4K-0684 (6)
	21E832-Up,53C,89D	Semi-U	28 mm (1.12 in)	Left End/Right End	9W-3930	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				Center Edge	9W-3928 (2)	5P-8823 (6)	3K-9770 (6)	4K-0684 (6)
			40 mm (1.57 in)	Center Edge	4T-6448	4J-9208 (10)	2J-3507 (10)	5P-8250 (10)
				Center Edge	7J-2962 (2)	4J-9208 (10)	2J-3507 (10)	5P-8250 (10)
9A	20H	Universal	28 mm (1.12 in)	Center Edge	4T-6378 (4)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
				Center Edge	4T-6377 (3)	4J-9058 (4)	2J-3507 (4)	5P-8250 (4)
				Center Edge	4T-6379 (2)	4J-9058 (4)	2J-3507 (4)	5P-8250 (4)
				Center Edge	4T-6388 (1)	8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
9C	70F,45G,20Y	Cushion	28 mm (1.12 in)	End Edge	4T-6387 (2)	8J-2928 (9)	2J-3507 (9)	5P-8250 (9)
				Center Edge	7J-2966 (1)	8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
				End Edge	7J-2965 (2)	8J-2928 (9)	2J-3507 (9)	5P-8250 (9)
				Center Edge	4T-6450(1)	8J-2928 (15)	2J-3507 (15)	5P-8250 (15)
9R	39K	Rip Dozer	28 mm (1.12 in)	End Edge	4T-6388 (2)	8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
				Center Edge	4T-6386 (3)	8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.57 in)	Center Edge	7J-2980 (3)	8J-2928 (7)	2J-3507 (7)	5P-8250 (7)

* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

Ground Engaging Tools — Bulldozers/Compactors

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
10U	80W	Universal	35 mm (1.38 in)	Left End/Right End	1U-4457 (2)	5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
				Center Edge	1U-4458 (3)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			40 mm (1.57 in)	Left End/Right End	4T-0084 (2)	5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
				Center Edge	4T-0083 (3)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			45 mm (1.77 in)	Left End/Right End	6Y-0019 (2)	5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
				Center Edge	6Y-0018 (3)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			50 mm (2.00 in)	Left End/Right End	4T-0608 (2)	5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
				Center Edge	4T-0609 (3)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			60 mm (2.36 in)	Left End/Right End	6Y-0022 (2)	5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
				Center Edge	6Y-0023 (3)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
10SU	1SH,7WH,4L,P6FP,BHF,BHP	Universal	35 mm (1.38 in)	Center Edge	9W-6615 (3)	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				End	9W-6608 (2)	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
			45 mm (1.77 in)	Center Edge	9W-6658 (3)	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				End	9W-6657 (2)	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
			60 mm (2.36 in)	Center Edge	8E-2087 (3)**	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				End	8E-2086 (2)**	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
			60 mm (2.36 in)	Center Edge (ARM)	223-8149 (3)**	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				End Edge (ARM)	195-9170 (1)**	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				End Edge (ARM)	201-1230 (1)**	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
	79W	Semi-U	35 mm (1.38 in)	Center Edge	1U-4459 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				End	1U-4455 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			40 mm (1.57 in)	Center Edge	4T-0081 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				End	4T-0082 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			45 mm (1.77 in)	Left End/Right End	6Y-0017 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	6Y-0016 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			50 mm (2.00 in)	Center Edge	4T-0607 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				End	4T-0604 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			60 mm (2.36 in)	Left End/Right End	6Y-0021 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	6Y-0020 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
	1RH,7RH,4KP,6EP,BHJ,BHA	Semi-U	35 mm (1.38 in)	Center Edge	9W-6609 (2)	5P-8823 (6)	3K-9770 (6)	4K-0684 (6)
				End	9W-6608 (2)	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
			45 mm (1.77 in)	Center Edge	9W-6656 (2)	5P-8823 (6)	3K-9770 (6)	4K-0684 (6)
				End	9W-6657 (2)	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
			60 mm (2.36 in)	Center Edge (ARM)	195-9171 (2)	5P-8823 (6)	3K-9770 (6)	4K-0684 (6)
				End	195-9170	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
			60 mm (2.36 in)	End	201-1230	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				Center Edge	8E-2085 (2)**	5P-8823 (6)	3K-9770 (6)	4K-0684 (6)
			75 mm (2.95 in)	End Edge	8E-2086 (2)**	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
				Center Edge	135-9580 (2)**	5P-8823 (6)	3K-9770 (6)	4K-0684 (6)

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

* Edges are 280 mm (11") wide.

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
10SU (cont.)	1RH,7RH,4KP6EP,BHJ,BHA	Semi-U	75 mm (2.95 in)	End Edge	135-9579 (2)**	5P-8823 (5)	3K-9770 (5)	4K-0684 (5)
10C	83W	Cushion	35 mm (1.38 in)	Right/Left End Edge	9J-3751	8J-2928 (10)	2J-3507 (10)	5P-8250 (10)
11U	4CB,5TB,9MH,9ZH,4YP,8RP	Universal	45 mm (1.77 in)	Right/Left End Edge	9W-2425	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Right/Left Center Edge	9W-2424	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	9W-2426	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			45 mm (1.77 in)	Center Edge	138-6483 (2)#	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	138-6484	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	138-6485	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	138-6486	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			60 mm (2.36 in)	Right/Left End Edge	9W-4494	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Right/Left Center Edge	9W-4493	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	9W-4495	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			60 mm (2.36 in)	Center Edge (ARM)	195-9173 (2)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge (ARM)	195-9174 (1)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge (ARM)	195-9175 (1)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge (ARM)	201-1231 (1)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			75 mm (3.00 in)	Center Edge	195-7187 (2)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	135-9577 (2)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	135-9578**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
11SU	1AP,4BB,4KB,9NH,4XP,8PP	Semi-U	45 mm (1.77 in)	Left End/Right End	9W-2425	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	9W-2426 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			60 mm (2.36 in)	Left End/Right End	9W-4494	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				Center Edge	9W-4495 (2)	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			75 mm (3.00 in)	Center Edge	135-9578 (2)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
				End Edge	135-9577 (2)**	5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
11 Carrydozer	5JP,BHZ	General Duty	45 mm (1.77 in)	Reversible Edge	238-3171 (5)	5P-8361 (8)	3K-9770 (8)	4K-0684 (8)
		Extended Wear Life	60 mm (2.36 in)	One-Way Edge	229-7052 (5)	5P-8361 (8)	3K-9770 (8)	4K-0684 (8)
		Extended Wear Life (ARM)		Reversible Edge	238-3177 (5)	5P-8361 (8)	3K-9770 (8)	4K-0684 (8)
				One-Way Edge	267-8654 (5)	5P-8361 (8)	3K-9770 (8)	4K-0684 (8)
			60 mm (2.36 in)	Reversible Edge	268-8751 (5)	5P-8361 (8)	3K-9770 (8)	4K-0684 (8)
				One-Way Edge	268-8750 (5)	5P-8361 (8)	3K-9770 (8)	4K-0684 (8)

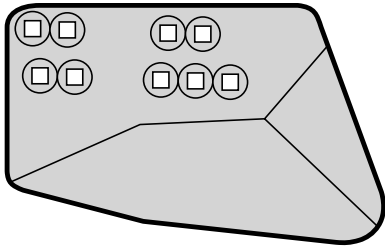
* Edges are 280 mm (11") wide.

Number in parentheses () after the part number indicates the quantity required.

** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

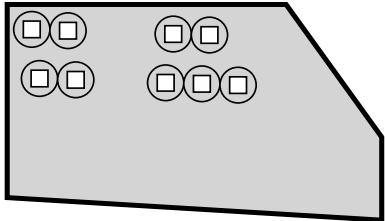
195-5118 — Same as 136-6153/4 with one sharp edge.

Bulldozer End Bits



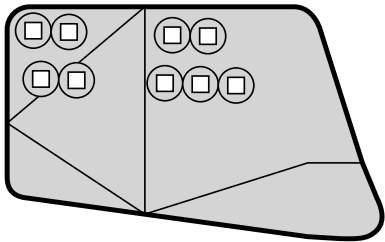
General Duty End Bits

- Provides a thicker wear area than the cutting edge.
- Made from DH-2 steel in the D3 through D6 sizes.
- Made from DH-3™ steel in the D7 through D11 sizes.
- For use in most dozing applications.



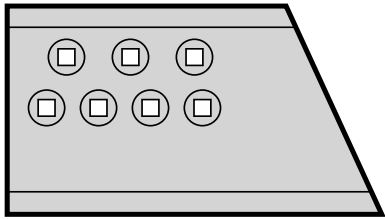
Utility End Bits

- Provides good corner protection in high impact, high abrasion materials.
- Made from through-hardened DH-2 steel.
- For use in applications where face wear is a problem.



Extended Wear Life End Bits

- Provides an excellent cutting edge to end bit wear ratio in abrasive conditions.
- Provides a maximum depth of cut relative to the cutting edge.
- Provides a thicker wear area than the cutting edge.
- Made from DH-2 steel in the D4 through D6 sizes.
- Made from DH-3 steel in the D7 through D11 sizes.



Finish Dozing End Bits

- Provides a depth of cut equal to the cutting edge.
- Protects the blade corner in low impact, low abrasion materials.
- Made from through-hardened DH-2 steel.
- For use in finish and semi-finish dozing.

Model	Serial Number	Blade Model	Thickness	General End Bits		Utility End Bits		Extended Wear Life End Bits		Finish Dozing End Bits		Bolts	Nuts	Washers
				(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)			
D3	5WH,6EH,85U 96X,8XP8HP 8KP2JP9RH 1GP8JP	Power Angle & Tilt	16 mm (0.62 in)							4T-6229	4T-6229	3F-5108 (3)	4K-0367 (3)	5P-8247 (3)
	15W,31M,40V 86U,5LH	Straight	16 mm (0.62 in)							4T-6229	4T-6229	3F-5108 (3)	4K-0367 (3)	5P-8247 (3)
	2A,4A,19J 25F,27F,40D 45J,67E,67F 84E,93C,94G	Straight	19 mm (0.75 in) 22 mm (0.88 in)	9F-7074 3G-8322	9F-7073 3G-8321					4T-3052 4T-3052	4T-3051 4T-3051	3F-5108 (6) 3F-5108 (6)	4K-0367 (6) 4K-0367 (6)	5P-8247 (6) 5P-8247 (6)
	2TC,3CH,3DC 4HC	Straight	22 mm (0.88 in)	140-6788	140-6787			4T-5408	4T-5407	8E-9378	8E-9379	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
D4	2YH,4AC,4GH 6CH,6DH,8ZH 9YH	Power Angle & Tilt	16 mm (0.62 in) 16 mm (0.62 in)							4T-6229 6Y-5840**	4T-6229 6Y-5839**	3F-5108 (3) 3F-5108 (3)	4K-0367 (3) 4K-0367 (3)	5P-8247 (3) 5P-8247 (3)
	5EC,5NH,9RH 6XH,9ZB,7CH 7EH	Power Angle & Tilt	22 mm (0.88 in)					4T-5408	4T-5407	8E-9378	8E-9379	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
	2A,4A,19J 25F,27F,40D 45J,67E,67F 84E,93C,94G	Straight	19 mm (0.75 in) 22 mm (0.88 in)	9F-7074 3G-8322	9F-7073 3G-8321					4T-3052 4T-3052	4T-3051 4T-3051	3F-5108 (6) 3F-5108 (6)	4K-0367 (6) 4K-0367 (6)	5P-8247 (6) 5P-8247 (6)
	2TC,3CH,3DC 4HC	Straight	22 mm (0.88 in)					4T-5408	4T-5407	8E-9378	8E-9379	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
D4 LGP	2YH,4AC,4GH 6CH,6DH,8ZH 9SH,9TH,9YH 8MP,8YP8LP	Power Angle & Tilt	16 mm (0.62 in) 22 mm (0.88 in)							4T-6229 6Y-5840	4T-6229 6Y-5839	3F-5108 (3) 3F-5108 (3)	4K-0367 (3) 4K-0367 (3)	5P-8247 (3) 5P-8247 (3)
	5NH,7CH,5EC, 5RH,9ZB	Power Angle & Tilt	22 mm (0.88 in)					4T-5408	4T-5407	8E-9378	8E-9379	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
	2AH,2MH,7AH 6JP,4GP HGP,W5C	Power Angle & Tilt	22 mm (0.88 in)							4T-6229	4T-6229	3F-5108 (3)	4K-0367 (3)	5P-8247 (3)
	2BH,4FH,4AH 6MH,9WH,8GP 7BH	Straight Power Angle & Tilt	22 mm (0.88 in) 22 mm (0.88 in)	140-6788# 140-6787#	140-6787# 140-6787#			4T-5408	4T-5407	8E-9378 8E-9378	8E-9379 8E-9379	5J-4773 (4) 5J-4771 (4)	2J-3506 (4) 2J-3506 (4)	5P-8248 (4) 5P-8248 (4)
D5	10J,12J,16K 10J,12J,16K 19R,90H,92H 97H	Straight Straight	19 mm (0.75 in) 22 mm (0.88 in)	9F-7074 3G-8322	9F-7073 3G-8321					4T-3052 4T-3052	4T-3051 4T-3051	3F-5108 (6) 3F-5108 (6)	4K-0367 (6) 4K-0367 (6)	5P-8247 (6) 5P-8247 (6)
	91H,96H,42K 11J,13J,98H	Angle	19 mm (0.75 in)	9F-7076	9F-7075					4T-3050	4T-3049	3F-5108 (6)	4K-0367 (6)	

** Angled.

* Heavy Duty Mining end bit.

Number in parentheses () after the part number indicates the quantity required.

Hot cupped end bits.

Ground Engaging Tools — Bulldozer End Bits

Model	Serial Number	Blade Model	Thickness	General End Bits		Utility End Bits		Extended Wear Life End Bits		Finish Dozing End Bits		Bolts	Nuts	Washers
				(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)			
D5 (cont.)	93H1-3846 93H-3847-Up 6RH		22 mm (0.88 in)	3G-8296	3G-8295					4T-3050	4T-3049	3F-5108 (6)	4K-0367 (6)	
			19 mm (0.75 in)	4J-8262	4J-8261					4T-3042	4T-3041	4F-7827 (6)	2J-3506 (6)	
			22 mm (0.88 in)	3G-8298	3G-8297					4T-3042	4T-3041	4F-7827 (6)	2J-3506 (6)	
			22 mm (0.88 in)	140-6786#	140-6787#			4T-5408	4T-5407	8E-9379**	8E-9378**	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
D5 LGP	1YH,2SH,8HY 1ZH,3KH 8NP,8ZP 6PH,9XH	Power Angle & Tilt Straight Power Angle & Tilt	22 mm (0.88 in)	140-6786#	140-6787#			4T-5408	4T-5407	8E-9378	8E-9379	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
			22 mm (0.88 in)	140-6786#	140-6787#			4T-5408	4T-5407	8E-9378	8E-9379	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
										6Y-5840**	6Y-5839**	3F-5108 (3)	4K-0367 (3)	5P-8247 (3)
D6	1BH570-Up 3PP4BP,1XP 3GP,1ZP6HP,1YP 01C,02G,03G 6C,9A,800 15C1-5000,15E 02G,16C1-5000 36D,03G,38D 39H,85C 1CH,2NH,4PH 8BH,8AH 2SP,6GP ECA,S6D 1TP,3FP,1WP 3RP,4AP,8SP 9BP,BHM 1DH1-599,1AH 2HH,3JH,4BH 1DH600-Up 1RP,3EP CLH,BHN 3EH,4DH,4LH 1BH1-569 3F,4F,8E 9E,15C5001-Up 16C5001-Up 16E,37D,39D 40H,81D,82D 17H,21H,46G 55G,63S,95E 18H,44E,47G 54U,58G 1AH,2LH,3FH 1SP,3HP,BHN	Angle Straight Semi-U Semi-U Semi-U Straight Straight Angle Angle Straight Angle Straight Straight Straight	30 mm (1.18 in) 35 mm (1.38 in)	6Y-4410	6Y-4411	122-8617	122-8618	9W-1876	9W-1875	9W-8875	9W-8874	5J-4773 (6) 5J-4773 (6)	2J-3506 (6) 2J-3506 (6)	5P-8248 (6) 5P-8248 (6)
			22 mm (0.88 in)	3G-8322	3G-8321							4F-0391 (3)	4K-0367 (3)	
			30 mm (1.18 in) 35 mm (1.38 in)	6Y-4410	6Y-4411	122-8617	122-8618	9W-1876	9W-1875	9W-8875	9W-8874	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
								4T-5408	4T-5407	8E-9378	8E-9379	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
			30 mm (1.18 in)	6Y-4410	6Y-4411	122-8617	122-8618	9W-1875	9W-1876	9W-8875	9W-8874	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
								4T-4454	4T-4455	4T-4436	4T-4435	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
			30 mm (1.18 in)	6Y-4410	6Y-4411	122-8617	122-8618	9W-1876	9W-1875	9W-8875	9W-8874	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
								4T-4454	4T-4455	4T-4436	4T-4435	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
			22 mm (0.88 in)	3G-8296	3G-8295					4T-3050	4T-3049	3F-5108 (6)	4K-0367 (6)	
			22 mm (0.88 in)	9F-7076	9F-7075							3F-5108 (6)	4K-0367 (6)	
			22 mm (0.88 in)	5J-1420	5J-1419					4T-3046	4T-3045	4F-7827 (6)	2J-3506 (6)	
			22 mm (0.88 in)	3G-8320	3G-8319							4F-7827 (6)	2J-3506 (6)	
			22 mm (0.88 in)	3G-8298	3G-8297					4T-3042	4T-3041	4F-7827 (6)	2J-3506 (6)	
			25 mm (1.00 in)	8E-9900	8E-9901							4F-7827 (6)	2J-3506 (6)	
								4T-4454	4T-4455	4T-4436	4T-4435	5J-4773 (6)	2J-3506 (6)	5P-8248 (6)
D6 LGP														

Number in parentheses () after the part number indicates the quantity required.

Hot cupped end bits.

* Heavy Duty Mining end bit.

** Angled.

Model	Serial Number	Blade Model	Thickness	General End Bits		Utility End Bits		Extended Wear Life End Bits		Finish Dozing End Bits		Bolts	Nuts	Washers
				(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)			
D6 LGP (cont.)	4MP4,TPAWP B6L,G6G,G6M	Power Angle & Tilt	22 mm (0.88 in)	140-6788#	140-6787#			4T-5408	4T-5407	8E-9378**	8E-9379**	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
						177-4552	177-4551					5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
D6, D6XL	3WP,3XPB6X G6M,G6N	Power Angle & Tilt	22 mm (0.88 in)	140-6788#	140-6787#			4T-5408	4T-5407	8E-9378**	8E-9379**	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
				6Y-4410	6Y-4411	122-8617	122-8618	9W-1875	9W-1876	9W-8875	9W-8874	5J-4773 (4)	2J-3506 (4)	5P-8248 (4)
D7	2E,5A 17C1-5000,17E 34D,83D,84C	Straight	35 mm (1.38 in)							4T-6672	4T-6671	5J-4771 (7)	2J-3506 (7)	
				9W-6198	9W-6199					4T-6506	4T-6505	6F-0196 (7)	2J-3505 (7)	
	4EB,13H 22F,30F,72F 13F,3CC,4ZC	Angle	22 mm (0.88 in)	3G-8294	3G-8293					4T-6506	4T-6505	5J-2409 (7)	2J-3505 (7)	
				3G-8316	3G-8315					4T-6506	4T-6505	5J-2409 (7)	2J-3505 (7)	5P-8249 (7)
	5SB,42G,61K 85D,94R,8MH 7AC,9JB	Universal	25 mm (1.00 in)	4J-8844	4J-8843							5J-2409 (7)	2J-3505 (7)	5P-8249 (7)
				9W-6198	9W-6199	105-0574	105-0575					5J-2409 (7)	2J-3505 (7)	5P-8249 (7)
	6A,6E 17C5001-Up,18E 35D,84D	Angle	45 mm (1.75 in)			105-0576	105-0577					5J-2409 (7)	2J-3505 (7)	5P-8249 (7)
				3G-8294	3G-8293					4T-6506	4T-6505	6F-0196 (7)	2J-3505 (7)	
	6KB,14H,8ZB 23F,31F,49K 53J,59F,60K 64K,4XC,8ZB 8NH,CDC J8L,576	Straight	22 mm (0.88 in)	3G-8294	3G-8293							6F-0196 (7)	2J-3505 (7)	
				3G-8316	3G-8315					4T-6506	4T-6505	6F-0196 (7)	2J-3505 (7)	
	42G,61K,85D 5SB,8MH,COL J1L,9J,8,7AC,94R	Universal	45 mm (1.75 in)	4J-8844	4J-8843							6F-0196 (7)	2J-3505 (7)	
				9W-6198	9W-6199	105-0574	105-0575					6F-0196 (7)	2J-3505 (7)	
D7 LGP	6JB,2RP,8RH 5SP,9KPCDN J4L	Straight	28 mm (1.12 in)			105-0576	105-0577					6F-0196 (7)	2J-3505 (7)	
				4J-8844	4J-8843					4T-6506	4T-6505	6F-0196 (7)	2J-3505 (7)	
D8	1HH,2XP,6NH 9AH,4ZP,DZD BHR,9ZP	Angle	40 mm (1.57 in)	8E-4194	8E-4193							4F-4042 (7)	2J-3507 (7)	5P-8250 (7)
						100-3140	100-3139			6Y-4278	6Y-4277	4F-4042 (7)	2J-3507 (7)	5P-8250 (7)
			60 mm (2.36 in)			136-8756	136-8757							

Number in parentheses () after the part number indicates the quantity required.
 # Hot cupped end bits. * Heavy Duty Mining end bit. ** Angled.

Ground Engaging Tools — Bulldozer End Bits

Model	Serial Number	Blade Model	Thickness	General End Bits		Utility End Bits		Extended Wear Life End Bits		Finish Dozing End Bits		Bolts	Nuts	Washers		
				(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)					
D8 (cont.)	1JH,6AH,2WP 9CH,9WPCXB A5G,DZB	Universal	40 mm (1.57 in)	8E-4194	8E-4193				8E-4538	8E-4537	6Y-4278	6Y-4277	4J-9058 (7)	2J-3507 (7)	5P-8250 (7)	
			50 mm (1.97 in)			100-3140	100-3139					4J-9058 (7)	2J-3507 (7)	5P-8250 (7)		
			60 mm (2.36 in)			136-8756	136-8757									
	1KH,2PP,3MP 2TP,9BH,2NP 1HP,6LH,9PH 3WH,05A,9TP KMB,LAA,BHW B85,DZA	Semi-U	40 mm (1.58 in)	8E-4194	8E-4193				8E-4538	8E-4537	6Y-4278	6Y-4277	4J-9058 (7)	2J-3507 (7)	5P-8250 (7)	
			50 mm (1.97 in)			100-3140	100-3139					4J-9058 (7)	2J-3507 (7)	5P-8250 (7)		
			60 mm (2.36 in)			136-8756	136-8757									
	3E,8A,12C 18C,32D,44C 73D,86D	Semi-U	25 mm (1.00 in)								4T-6672	4T-6671	1J-6761 (7)	2J-3506 (7)		
			25 mm (1.00 in)	3J-2465	3J-2466						4T-6668	4T-6667	1J-6761 (7)	2J-3506 (7)		
	07A,18C,33D 72D,87D,99D 07E,22E	Angle	28 mm (1.12 in)	4J-8844	4J-8843						4T-6506	4T-6505	5J-2409 (7)	2J-3505 (7)		
			28 mm (1.12 in)	3G-8316	3G-8315								5J-2409 (7)	2J-3505 (7)		
			40 mm (1.57 in)	3G-8286	3G-8285								5J-2409 (7)	2J-3505 (7)		
	28E11126-UP	Angle	30 mm (1.18 in)	3G-8318	3G-8317								4J-9058 (7)	2J-3507 (7)	5P-8250 (7)	
			40 mm (1.57 in)	3G-8288	3G-8287								4J-9058 (7)	2J-3507 (7)	5P-8250 (7)	
			30 mm (1.18 in)	3G-8318	3G-8317					4T-8090	4T-8089	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
	4Y1-1939	Semi-U	40 mm (1.58 in)	3G-8288	3G-8287							4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
			28 mm (1.12 in)	4J-8724	4J-8723	100-3136	100-3135	8E-4540	8E-4539			4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
			35 mm (1.38 in)	3G-8292	3G-8291			8E-4540	8E-4539			4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
	4Y1940-Up	Semi-U	40 mm (1.58 in)	3G-8284	3G-8283							4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
			50 mm (1.97 in)	8E-4196	8E-4197							4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
			60 mm (2.36 in)			100-3138	100-3137					4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
	5Y27B,41Z	Angle	30 mm (1.18 in)	3G-8318	3G-8317							4J-9058 (7)	2J-3507 (7)	5P-8250 (7)		
			40 mm (1.58 in)	3G-8288	3G-8287							4J-9058 (7)	2J-3507 (7)	5P-8250 (7)		
			28 mm (1.12 in)	9J-1478	9J-1477							4J-9058 (7)	2J-3507 (7)	5P-8250 (7)		
	6Y1-1395 30V,34W,65X 69V	Universal	40 mm (1.58 in)	3G-8288	3G-8287						4T-6240	4T-6239	4J-9058 (7)	2J-3507 (7)	5P-8250 (7)	
			35 mm (1.38 in)	3G-8292	3G-8291					7T-4090	7T-4091	4T-6240	4T-6239	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			45 mm (1.75 in)			100-3136	100-3135	8E-4540	8E-4539			4J-9208 (7)	2J-3507 (7)	5P-8250 (7)		
	6Y1396-Up 8ZM,42Z	Universal	50 mm (1.97 in)	8E-4196	8E-4197								4J-9208 (7)	2J-3507 (7)	5P-8250 (7)	
			60 mm (2.36 in)			100-3138	100-3137							4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			28 mm (1.12 in)	3J-2466	3J-2465					4T-6667	4T-6668	1J-6762 (7)	2J-3506 (7)			

Number in parentheses () after the part number indicates the quantity required.

Model	Serial Number	Blade Model	Thickness	General End Bits		Utility End Bits		Extended Wear Life End Bits		Finish Dozing End Bits		Bolts	Nuts	Washers
				(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)			
D8 (cont.)	14J,29E,44K 47K,69E,78C 94E	Semi-U	28 mm (1.12 in)	3G-8300	3G-8299							5J-2409 (7)	2J-3505 (7)	
			40 mm (1.58 in)	3G-8278	3G-8277							5J-2409 (7)	2J-3505 (7)	
			28 mm (1.12 in)	4J-8844	4J-8843					4T-6506	4T-6505	5J-2409 (7)	2J-3505 (7)	
			28 mm (1.12 in)	3G-8316	3G-8315							5J-2409 (7)	2J-3505 (7)	
	20F,24E,29J 30E,45K,48K 73E	Universal	40 mm (1.58 in)	3G-8286	3G-8285							5J-2409 (7)	2J-3505 (7)	
			28 mm (1.12 in)	3G-8302	3G-8301							4J-9058 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.58 in)	3G-8280	3G-8279							4J-9058 (7)	2J-3507 (7)	5P-8250 (7)
			28 mm (1.12 in)	4J-8844	4J-8843					4T-6506	4T-6505	5J-2409 (7)	2J-3505 (7)	
	29V,30W,60V 68V	Semi-U	28 mm (1.12 in)	3G-8316	3G-8315							5J-2409 (7)	2J-3505 (7)	
			40 mm (1.57 in)	3G-8286	3G-8285							5J-2409 (7)	2J-3505 (7)	
D9	43K	Rip Dozer	40 mm (1.57 in)							4T-6669	4T-6670	5J-2409 (7)	2J-3505 (7)	
			45 mm (1.75 in)			100-3136	100-3135			7J-2976	7J-2975	5J-2409 (7)	2J-3505 (7)	
			50 mm (1.97 in)	8E-4196	8E-4197			8E-4540	8E-4539	6Y-4278	6Y-4277	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			50 mm (1.97 in)									4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
	1LH,1MP,2ZH 7PH,CMS,CMW CMZ,9MP	Universal	60 mm (2.36 in)			100-3138	100-3137					4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			45 mm (1.75 in)			100-3136	100-3135					4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			50 mm (1.97 in)	8E-4196	8E-4197			8E-4540	8E-4539	6Y-4278	6Y-4277	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			50 mm (1.97 in)									4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
	1MH,5BH,2BP 2ZP,1LP,2LP 7NH,9LH,9RP CLC,CLN,CLY CMA,CMN	Semi-U	45 mm (1.75 in)			100-3138	100-3137					4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			50 mm (1.97 in)	8E-4196	8E-4197			8E-4540	8E-4539	6Y-4278	6Y-4277	4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
			60 mm (2.36 in)			100-3138	100-3137					4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
	5A,18K,21E 25E,53C,61U 73R,89D	Semi-U	35 mm (1.38 in)	3G-8290	3G-8289							8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.58 in)	3G-8282	3G-8281							8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			32 mm (1.25 in)	4J-8724	4J-8723			7T-4094	7T-4095			8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			35 mm (1.38 in)	3G-8292	3G-8291							8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
	14C,19K,20H 55C,78X,CMH	Universal	40 mm (1.58 in)	3G-8284	3G-8283							8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			50 mm (1.97 in)	8E-4196	8E-4197							8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.58 in)	1U-1546	1U-1545			8E-4542	8E-4541	3G-7764	3G-7763	5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			45 mm (1.75 in)			100-3132	100-3131					5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
	18Y,42S,52Y	Semi-U	55 mm (2.16 in)	8E-4198	8E-4199							5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			60 mm (2.36 in)			100-3134	100-3133					5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			60 mm (2.38 in)	7T-4688	7T-4689							5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			40 mm (1.58 in)	1U-1546	1U-1545			8E-4542	8E-4541	3G-7764	3G-7763	5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
	19V,78S	Universal	45 mm (1.75 in)			100-3132	100-3131					5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			55 mm (2.16 in)	8E-4198	8E-4199							5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			60 mm (2.36 in)	7T-4688	7T-4689	100-3134	100-3133					5P-8823 (7)	3K-9770 (7)	4K-0684 (7)

Number in parentheses () after the part number indicates the quantity required.

Ground Engaging Tools — Bulldozer End Bits

Model	Serial Number	Blade Model	Thickness	General End Bits		Utility End Bits		Extended Wear Life End Bits		Finish Dozing End Bits		Bolts	Nuts	Washers
				(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)			
D9 (cont.)	52C,90D 11E,26E	Angle	32 mm (1.25 in)	4J-8724	4J-8723							8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			35 mm (1.38 in)	3G-8291	3G-8292							8J-2928 (7)	2J-3507 (7)	5P-8250 (7)
			40 mm (1.57 in)	3G-8283	3G-8284							4J-9208 (7)	2J-3507 (7)	5P-8250 (7)
	70F,45G	Cushioned												
	20Y	Cushioned								4T-6389	4T-6389			
D10	39K	R								4T-6392	4T-6391			
	1RH,1SH,4LP 6FP,BHF,BHP	Universal	45 mm (1.75 in)	8E-4198	8E-4199	100-3132	100-3131	8E-4542	8E-4541			5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			60 mm (2.36 in)			100-3134	100-3133					5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
	1RH,4KP6EP 7RH,BHJ,BHA	Semi-U	45 mm (1.75 in)	8E-4198	8E-4199	100-3132	100-3131	8E-4542	8E-4541			5P-8823 (7)	3K-9770 (7)	4K-0684 (7)
			120 mm (4.72 in)	107-3516*	107-3515*							5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
	1RH,4KP6EP 7RH,BHJ,BHA	Universal	120 mm (4.72 in)	113-0338*	113-0338*							5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			60 mm (2.36 in)	8E-4544	8E-4543	8E-9786	8E-9785	8E-4546	8E-4545			5P-8361 (9)	3K-9770 (9)	4K-0684 (9)
	79W,80W	Semi-U	75 mm (2.95 in)			8E-9748	8E-9749					5P-8361 (9)	3K-9770 (9)	4K-0684 (9)
			60 mm (2.36 in)	8E-4544	8E-4543	8E-9786	8E-9785	8E-4546	8E-4545			5P-8361 (9)	3K-9770 (9)	4K-0684 (9)
	83W	Cushioned								4T-6538	4T-6358			
D11	48B,4KB,9NH 19P,8PP,1AP	Semi-U	60 mm (2.36 in)	8E-4544	8E-4543	8E-9786	8E-9785	8E-4546	8E-4545			5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			75 mm (2.95 in)	8E-4544	8E-4543	8E-9748	8E-9749					5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
	4CB,5TB,9MH 9ZH,4YP,8DP 8RP	Universal	60 mm (2.36 in)	8E-4544	8E-4543	8E-9786	8E-9785	8E-4546	8E-4545			5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			75 mm (2.95 in)	8E-4544	8E-4543	8E-9748	8E-9749					5P-8823 (9)	3K-9770 (9)	4K-0684 (9)
			120 mm (4.72 in)	109-9047*	109-9047*							5P-8823 (9)	3K-9770 (9)	4K-0684 (9)

Number in parentheses () after the part number indicates the quantity required.

* Heavy Duty Mining end bit.

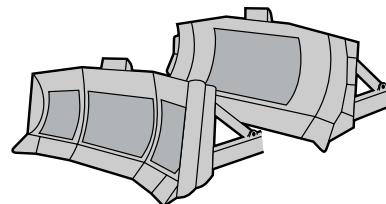
** Angled.

Model	Serial Number	Edge Thickness	Penetration End Bits		Standard End Bits		Extended Wear Life (EWL) End Bits		Short End Bits		EWL — Short End Bits		ARM — EWL End Bits		ARM — Penetration End Bits		Bolts Per Edge	Nuts Per Edge	Washers Per Edge
			(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)	(lh)	(rh)			
11 Carrydozer	5JP,BHZ	60 mm (2.36 in)	273-7224	273-7223	273-7226	273-7225			273-7229	273-7228							5P-8361 (9)	3K-9770 (9)	4K-0684 (9)
							273-7231	273-7230			273-7233	273-7232	273-7235	273-7234	223-8128	223-8127	5P-8361 (9)	3K-9770 (9)	4K-0684 (9)

Number in parentheses () after the part number indicates the quantity required.

Bulldozer Wear Bars

- Offers additional wear resistance and strength to the dozer blade in high wear/high impact applications.
- Made of DH-2 through-hardened alloy steel.
- For use over the blade liner or wear plate on a dozer blade.



Item	Length	Part Number
Wear Bar	2.438 m (8 ft)	107-3386
Wear Bar	2.743 m (9 ft)	107-3387
Wear Bar	3.353 m (11 ft)	107-3388
Wear Bar	3.658 m (12 ft)	107-3389
Wear Bar	3.962 m (13 ft)	107-3390
Wear Bar	4.572 m (15 ft)	107-3391

Bulldozer Plates

Reinforcing Wear Plates:

- Provides extended blade life in highly abrasive or extreme impact conditions.
- Provides a repair or resurface option for worn or damaged moldboards.
- Are formed to fit the curve of the blade so that they are easily installed.

Pusher Plates:

- Are made of heat treated steel.
- Are formed to fit the curve of the blade so that they are easily installed.
- For use on bulldozer blades that are used to push loading scrapers.

Ground Engaging Tools — Bulldozer Wear Plates

Model	Serial Number	Blade Model Power Angle & Tilt	Item	Plate Height	Plate Width	Plate Thickness	Reinforcing Wear Plate
D3	85U8376-Up	Power Angle & Tilt	Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3116 (2)
			Wear Plates			8 mm (0.31 in)	1J-3108 (5)
D3 LGP	85U1-8375	Power Angle & Tilt	Wear Plates			8 mm (0.31 in)	3J-3114 (3)
			Wear Plates			8 mm (0.31 in)	3J-3114 (2)
			Wear Plates			8 mm (0.31 in)	3J-3116 (2)
D4	2A,25F,67F	Straight Angle	Wear Plates			8 mm (0.31 in)	3J-3116 (4)
			Wear Plates			8 mm (0.31 in)	3J-3115
			Wear Plates			8 mm (0.31 in)	3J-3117
D5	67E	Angle	Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
D6	90H	Straight	Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
D7	6A,17C,5001-Up,35D,84D,6E,18E 13F,22F,30F,72F,13H,4EB,3CC	Straight	Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
D8	64K,05A,1701-5000,84C,340,83D 02E,6KB,8NH,87B,4XC	Straight	Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
D9	85D,42G,61K,94R,5SB,8MH,9JB,7AC	Universal	Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117
			Wear Plates			8 mm (0.31 in)	3J-3117

Number in parentheses () after the part number indicates the quantity required.

Model	Serial Number	Blade Model	Item	Plate Height	Plate Width	Plate Thickness	Reinforcing Wear Plate
D7 (cont.)	4DB,1JP8L11,CDT	Semi-U	Push Plate			16 mm (0.63 in)	4J-3699
	All	Semi-U	Wear Plates			8 mm (0.31 in)	3J-3142 (4)
	CDT	Semi-U	Right End Wear Plate			12 mm (0.5 in)	4Z-9148
D7 LGP			Center Wear Plate			12 mm (0.5 in)	4Z-9151
			Left End Wear Plate			12 mm (0.5 in)	4Z-9150
	6JB,2RP,BRH,3GH,4XH,5GH,5SP,9K9	Straight	Wear Plates			12 mm (0.5 in)	2J-8523 (5)
D8	1JH,6AH,2WP,A5G,DZB,9CH,6AH	Universal	Left End Wear Plate			16 mm (0.63 in)	6Y-7246
			Center Wear Plate			16 mm (0.63 in)	6Y-7244
			Right End Wear Plate			16 mm (0.63 in)	6Y-7245
	1KH,2PP,2TP,3MP,DZA,B8S,2NP	Semi-U	Left End Wear Plate			16 mm (0.63 in)	9W-2760
	9BH,9PH,1HP,6LH		Left End Wear Plate			16 mm (0.63 in)	9W-2760
			Left Center Wear Plate			16 mm (0.63 in)	9W-2759
			Center Wear Plate			16 mm (0.63 in)	9W-2756
			Center Wear Plate			16 mm (0.63 in)	9W-1771
			Right Center Wear Plate			16 mm (0.63 in)	9W-2758
			Right End Wear Plate			16 mm (0.63 in)	9W-2757
			Right End Pusher Plate			16 mm (0.63 in)	9W-2757
			Pusher Plate			16 mm (0.63 in)	9W-2756
	1LH,2ZH	Angle	Wear Plates			10 mm (0.40 in)	2J-8526 (5)
	4Y1-1939	Semi-U	Wear Plates			13 mm (0.50 in)	1U-4417 (5)
			Pusher Plate			16 mm (0.63 in)	6J-9248
	4Y1940-Up,74M,402,9TB,26B	Semi-U	Left Center Wear Plate			16 mm (0.63 in)	9T-0252
			Left Center Wear Plate			16 mm (0.63 in)	9T-0250
			Center Wear Plate			16 mm (0.63 in)	4T-9592
			Right End Wear Plate			16 mm (0.63 in)	9T-0249
			Right Center Pusher Plate			16 mm (0.63 in)	9T-0251
	6Y1-1395,4SZ,82M	Universal	Wear Plates			13 mm (0.50 in)	1U-4417 (6)
	6Y1396-Up	Universal	Left End Wear Plate			16 mm (0.63 in)	9T-0254
			Left Center Wear Plate			16 mm (0.63 in)	9T-0256
			Right Center Wear Plate			16 mm (0.63 in)	9T-0255
			Right End Wear Plate			16 mm (0.63 in)	9T-0253
			Center Pusher Plate			16 mm (0.63 in)	4T-9592
	20F,45K,48K	Universal	Wear Plates			13 mm (0.50 in)	6J-9286 (4)
	29V,30W,68V,60V	Semi-U	Wear Plates			12 mm (0.47 in)	9J-1659 (5)
			Pusher Plate			16 mm (0.63 in)	9J-6870
	30E,73E,29J	Universal	Wear Plates			12 mm (0.47 in)	4J-4205 (4)
	30V,65X,69V,34W	Universal	Pusher Plate			20 mm (0.79 in)	4J-4129
			Left End Wear Plate			12 mm (0.47 in)	9J-7540
			Right End Wear Plate			12 mm (0.47 in)	9J-7539

Number in parentheses () after the part number indicates the quantity required.

Ground Engaging Tools — Bulldozer Wear Plates

Model	Serial Number	Blade Model	Item	Plate Height	Plate Width	Plate Thickness	Reinforcing Wear Plate
D8 (cont.)	30V,65X,69V,34W	Universal	Wear Plates			12 mm (0.47 in)	9J-1659 (4)
			Pusher Plate			16 mm (0.63 in)	9J-6870
	43K	Rip Dozer	Wear Plates			16 mm (0.63 in)	6J-9285
			Pusher Plate			16 mm (0.63 in)	9J-6870
	60V,68V,29V,30W	Semi-U	Wear Plates			12 mm (0.47 in)	9J-1659
			Wear Plates			13 mm (0.50 in)	6J-9286 (4)
	69E,80V,95S,14J,44K,47K	Semi-U	Wear Plates			12 mm (0.47 in)	4J-4205 (4)
			Push Plate			20 mm (0.79 in)	4J-4129
	78C,29E,94E	Semi-U	Push Plate			16 mm (0.63 in)	2J-9418
			Wear Plates			10 mm (0.4 in)	2J-8526 (5)
D9	1LH,2ZH,7PH,1MP,9MP,CMS,CMZ,T9H	Universal	Left End Wear Plate			16 mm (0.63 in)	217-7157
			Center Wear Plate			16 mm (0.63 in)	217-7156
			Right End Wear Plate			16 mm (0.63 in)	217-7155
	1MH,5BH,CLY,CMA,7NH,1LP,2LP,2PT,9J	Semi-U	Left End Wear Plate			16 mm (0.63 in)	218-3887
			Left Center Wear Plate			16 mm (0.63 in)	9T-0252
			Center Wear Plate			16 mm (0.63 in)	7T-5803
			Center Wear Plate			16 mm (0.63 in)	218-3888
			Right Center Wear Plate			16 mm (0.63 in)	9T-0251
			Right End Wear Plate			16 mm (0.63 in)	218-3885
			Right End Wear Plate			16 mm (0.63 in)	218-3885
			Pusher Plate			16 mm (0.63 in)	7T-5803
			Wear Plates			13 mm (0.50 in)	6J-9269 (4)
	All	Universal	Center Wear Plate			16 mm (0.63 in)	6J-9248
			Wear Plates			13 mm (0.50 in)	6J-9249 (4)
			Wear Plates			13 mm (0.50 in)	3J-3380 (5)
	18V1876-Up	Angle	Left End Wear Plate			16 mm (0.63 in)	9W-1261
			Left Center Wear Plate			16 mm (0.63 in)	9W-1260
			Center Wear Plate			16 mm (0.63 in)	9W-0810
			Right Center Wear Plate			16 mm (0.63 in)	9W-1259
			Right End Wear Plate			16 mm (0.63 in)	9W-1258
			Left End Wear Plate			16 mm (0.63 in)	4T-3735
	19Y1-1474,78S1-1474	Universal	Left Center Wear Plate			16 mm (0.63 in)	4T-3737
			Center Wear Plate			16 mm (0.63 in)	1U-0902
			Right Center Wear Plate			16 mm (0.63 in)	4T-3736
			Right End Wear Plate			16 mm (0.63 in)	4T-3734
			Left End Wear Plate			16 mm (0.63 in)	9W-0808
	19Y1475-Up	Universal	Left Center Wear Plate			16 mm (0.63 in)	9W-0811
			Center Wear Plate			16 mm (0.63 in)	9W-0810
			Right Center Wear Plate			16 mm (0.63 in)	9W-0809

Number in parentheses () after the part number indicates the quantity required.

Model	Serial Number	Blade Model	Item	Plate Height	Plate Width	Plate Thickness	Reinforcing Wear Plate
D9 (cont.)	19V1475-Up 52Y	Universal Semi-U	Right End Wear Plate			16 mm (0.63 in)	9W-0812
			Left End Wear Plate			16 mm (0.63 in)	4T-3731
			Right Center Wear Plate			16 mm (0.63 in)	4T-3732
			Left Center Pusher Plate			16 mm (0.63 in)	4T-3733
	55C 14C, 19K, 78X 18K, 46K, 73R, 61U, 05A	Universal Semi-U	Center Pusher Plate			16 mm (0.63 in)	1U-0902
			Wear Plates			12 mm (0.47 in)	2J-8525 (4)
			Wear Plates			12 mm (0.47 in)	6J-9269 (4)
			Wear Plates			12 mm (0.47 in)	6J-9249 (4)
	9RP, CLC	Semi-U	Push Plate			16 mm (0.63 in)	6J-9248
			Right End Wear Plate			14 mm (0.55 in)	218-3885
			Center Wear Plate			14 mm (0.55 in)	218-3888
			Left End Wear Plate			14 mm (0.55 in)	218-3887
	All Push-Plates		Push Plate			12 mm (0.47 in)	1U-0903
			Push Plate			16 mm (0.63 in)	1U-0902
			Wear Plates			12 mm (0.47 in)	2J-8523 (4)
			Push Plate			20 mm (0.79 in)	2J-8524
	18Y1-1875, 52Y1-1875, 425	Semi-U	Right End Wear Plate			16 mm (0.63 in)	4T-3730
			Right Center Wear Plate			16 mm (0.63 in)	4T-3732
			Center Wear Plate			16 mm (0.63 in)	1U-0902
			Left Center Wear Plate			16 mm (0.63 in)	4T-3733
	70F, 45G, 20Y1-533, 20Y543	Cushioned	Left End Wear Plate			16 mm (0.63 in)	4T-3731
			Push Plate			16 mm (0.63 in)	4J-3868
			Push Plate			20 mm (0.79 in)	9J-4567
			Push Plate			20 mm (0.79 in)	4T-9534
	CMH, CMN 52C, 90D, 11E, 26E 63E, 39K	Angle Rip Dozer	Push Plate			16 mm (0.63 in)	7T-5803
			All			12 mm (0.47 in)	3J-3380 (5)
			Sides			12 mm (0.47 in)	6J-9249 (4)
			Center			16 mm (0.63 in)	6J-9248
D10	1SH, 7WH	Universal	Left End Wear Plate			16 mm (0.63 in)	9W-7265
			Left Center Wear Plate			16 mm (0.63 in)	9W-7264
			Center Wear Plate			16 mm (0.63 in)	9W-2409
			Center Wear Plate			16 mm (0.63 in)	6Y-1080
	1SH, 7WH 79W1-536	Universal Semi-U	Right Center Wear Plate			16 mm (0.63 in)	9W-7262
			Right End Wear Plate			16 mm (0.63 in)	9W-7263
			Wear Plates	2005 mm (78.9 in)	710 mm (28 in)	13 mm (0.50 in)	3G-6344 (8)
			Pusher Plate	1679 mm (66.1 in)	1524 mm (60 in)	16 mm (0.63 in)	3G-6343
	79W537-Up	Semi-U	Left End Wear Plate			16 mm (0.63 in)	4T-3723
			Left Center Wear Plate			16 mm (0.63 in)	4T-3724
			Right Center Wear Plate	1570 mm (61.8 in)	1074 mm (42.3 in)	16 mm (0.63 in)	4T-3725

Number in parentheses () after the part number indicates the quantity required.

Ground Engaging Tools — Bulldozer Wear Plates

Ground Engaging Tools — Bulldozers/Compactors

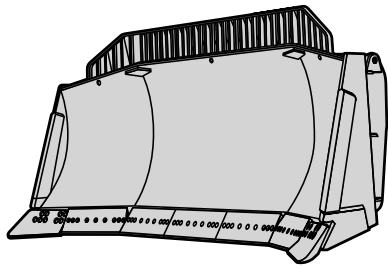
Model	Serial Number	Blade Model	Item	Plate Height	Plate Width	Plate Thickness	Reinforcing Wear Plate
D10 (cont.)	79W537-Up	Semi-U	Right End Wear Plate	1430 mm (56.3 in)	524 mm (20.6 in)	16 mm (0.63 in)	4T-3722
			Center Pusher Plate	1905 mm (75.0 in)	2000 mm (78.7 in)	1 mm (0.03 in)	1U-3697
	80W1-467	Universal	Wear Plates	2005 mm (78.9 in)	710 mm (28.0 in)	13 mm (0.50 in)	3G-6344 (9)
			Left End Wear Plate			16 mm (0.63 in)	4T-3727
	80W468-Up	Universal	Left Center Wear Plate			16 mm (0.63 in)	4T-3728
			Center Wear Plate			16 mm (0.63 in)	1U-3697
			Right Center Wear Plate			16 mm (0.63 in)	4T-3729
			Right End Wear Plate			16 mm (0.63 in)	4T-3726
	83W	Cushion	Pusher Plate	922 mm (36.3 in)	1900 mm (74.8 in)	20 mm (0.80 in)	9J-4567
			Right End Wear Plate			14 mm (0.55 in)	218-3939
	4LP,6FP,BHF,BHP	Universal	Center Wear Plate			14 mm (0.55 in)	218-3941
			Left End Wear Plate			14 mm (0.55 in)	218-3940
	1RH,7RH,4KP,6EP,BHA,BHJ	Semi-U	Right End Wear Plate			14 mm (0.55 in)	218-3922
			Right Center Wear Plate			16 mm (0.63 in)	9W-7260
			Center Wear Plate			16 mm (0.63 in)	9W-2409
			Left Center Wear Plate			16 mm (0.63 in)	9W-7261
			Left End Wear Plate			14 mm (0.55 in)	218-3923
			Right End Wear Plate			14 mm (0.55 in)	218-3922
			Center Wear Plate			14 mm (0.55 in)	218-3924
			Left End Wear Plate			14 mm (0.55 in)	218-3923
			Push Plate			16 mm (0.63 in)	9W-2409
			Left End Wear Plate			16 mm (0.63 in)	4T-8144
			Left End Wear Plate			16 mm (0.63 in)	4T-8144
			Left Center Wear Plate			16 mm (0.63 in)	4T-8146
D11	4BB,4KB,9NH,1AP	Semi-U	Center Wear Plate	1994 mm (78.5 in)	2050 mm (80.7 in)	16 mm (0.63 in)	4T-5308
			Center Wear Plate			16 mm (0.63 in)	6Y-1100
			Right Center Wear Plate	1783 mm (70.2 in)	1220 mm (48.0 in)	16 mm (0.63 in)	4T-8145
			Right End Wear Plate			16 mm (0.63 in)	4T-8143
			Pusher Plate			16 mm (0.63 in)	4T-5308
			Right End Wear Plate			14 mm (0.55 in)	136-3984
			Center Wear Plate			14 mm (0.55 in)	136-3986
			Left End Wear Plate			14 mm (0.55 in)	139-3985
			Left End Wear Plate			16 mm (0.63 in)	4T-7630
			Left End Wear Plate			16 mm (0.63 in)	4T-7630
			Left Center Wear Plate			16 mm (0.63 in)	4T-7631
			Center Wear Plate	1994 mm (78.5 in)	2050 mm (80.7 in)	16 mm (0.63 in)	4T-5308
	8PP	Semi-U	Center Wear Plate			16 mm (0.63 in)	6Y-1319
			Right Center Wear Plate	1783 mm (70.2 in)	693 mm (27.3 in)	16 mm (0.63 in)	4T-7632
			Right End Wear Plate			16 mm (0.63 in)	4T-7629
	4CB,5TB,4CB-Up to 00787	Universal					

Number in parentheses () after the part number indicates the quantity required.

Model	Serial Number	Blade Model	Item	Plate Height	Plate Width	Plate Thickness	Reinforcing Wear Plate
D11 (cont.)	4CB for 00788 and Up, 9MH,9ZH	Universal	Right End Wear Plate			16 mm (0.63 in)	122-2320
			Center Wear Plate			16 mm (0.63 in)	122-2322
			Left End Wear Plate			16 mm (0.63 in)	122-2321
	8RP	Universal	Right End Wear Plate			14 mm (0.55 in)	126-8341
			Center Wear Plate			14 mm (0.55 in)	126-8343
			Left End Wear Plate			14 mm (0.55 in)	126-8342

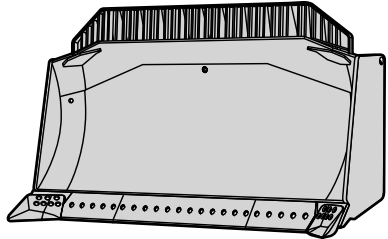
Number in parentheses () after the part number indicates the quantity required.

Compactor Cutting Edges



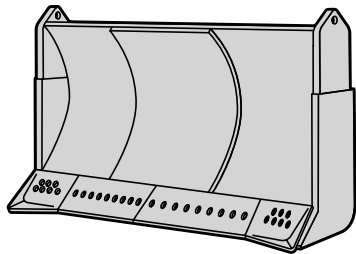
Universal Blade

- A straight blade with large “wings” to carry large loads more efficiently over long distances. Available only for larger models.



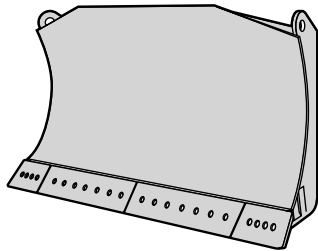
Semi-U Blade

- A straight blade with small “wings” to provide better load carrying characteristics for mid-sized and large machines.



Cushion Blade

- A relatively narrow blade, primarily for pushing scrapers.



Power Angle and Tilt Blade

- A very versatile blade for smaller machines.

Compactor Cutting Edges

Caterpillar compactor cutting edges are made of through-hardened alloy steel for excellent abrasion resistance and strength, and all Caterpillar compactor cutting edges are guaranteed against breakage. Caterpillar compactor cutting edges are available in various thicknesses to match your machine size and application, and they are available in shorter lengths for ease of storage, handling, installation, and maintenance.

Caterpillar compactor cutting edges are made of DH-2 steel.

- DH-2 steel provides increased hardness and toughness for excellent wear and impact resistance.

Ground Engaging Tools — Compactor Cutting Edges

Model	Serial Number	Blade Model	Edge Thickness	Edge Type	Edge Part Number	Bolts Per Edge	Nuts Per Edge	Washers Per Edge
814	36S, 16Z, 3YP 56D, 23K		19 mm (0.75 in)	Right/Left End Edges	4T-2923	5J-2409	2J-3505	5P-8249
				Center Edge	4T-2922	5J-2409	2J-3505	5P-8249
				Right/Left End Edges	4T-2922	6F-019	2J-3505	
815	24K1-1044, 59E1-341 24K1045-UP, 59E342-UP		19 mm (0.75 in)	Center Edge	4T-2993	6F-0196	2J-3505	
				Left/Right End Edges	4T-2922	6F-0196	2J-3505	
				Left/Right End Edges	4T-3020	3F-5108	4K-0567	
				Center Edge	4T-3008	3F-5108	4K-0567	
816	41S, 15Z, 3ZP 51K		19 mm (0.75 in)	Center Edge	4T-3004	4F-7827	2J-3506	
				Center Edge	4T-3012	5J-4773	2J-3506	
				Left/Right End Edges	4T-2923	5J-2409	2J-3505	
824	2HP 35G 35G, 64G, 93G 88H 4JP 89X		25 mm (1.00 in)	Center Edge	4T-2922	5J-2409	2J-3505	
				Left/Right End Edges	4T-6532	6F-0196	2J-3505	
				Center Edge	4T-6531	6F-0196	2J-3505	
				Left End Edge	122-9227 (2)	6F-0196	2J-3505	
825	97X, 90K, 2GP 14B	Universal	25 mm (1.00 in)	Right/Center End Edges	4T-3420	6F-0196	2J-3505	
				Center Edge	4T-6514 (2)	5J-2409	2J-3505	
				Left/Right End Edges	107-3524+	5J-2409	2J-3505	
826	89X 97X, 90K, 2GP 14B	Universal	25 mm (1.00 in)	Center Edge	109-9014 (2)+	5J-2409	2J-3505	
				Center Edge	4T-6448 (2)	4J-9058	2J-3507	
				Center Edge	4T-6532	6F-0196	2J-3505	
834	64G 93G, 93GB	Cushion	25 mm (1.00 in)	Center Edge	4T-6238	4F-4042	2J-3507	
				Center Edge	4T-6515 (2)	5J-2409	2J-3505	
				Left/Right End Edges	4T-8798	6F-0196	2J-3505	
834G	27K, 14B, 36G, 96G		60 mm (2.36 in)	Center Edge	4T-8797 (2)	6F-0196	2J-3505	
				Center Edge	4T-2889 (2)	6F-0196	2J-3505	
				Left/Right Edges	4T-6532	6F-0196	2J-3505	
835	27K, 36G, 96G		25 mm (1.00 in)	Center Edge	4T-6531	6F-0196	2J-3505	
				Left End Edge	123-3756+	5J-2409	2J-3505	
				Center Edge	123-3754(2)+	5J-2409	2J-3505	
835	27K, 36G, 96G		25 mm (1.00 in)	Right End Edge	123-3755+	5J-2409	2J-3505	
				Center Edge	4T-6515(2)	5J-2409	2J-3505	

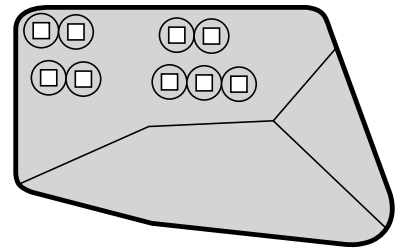
Number in parentheses () after the part number indicates the quantity required.
 ** Extended Wear Life edge. Edge is wider and contains offset bolt holes. Use only Extended Wear Life end bits.

* Edges are 280 mm (11") wide.
 + G930 Heavy Duty Mining Edge.

Compactor End Bits

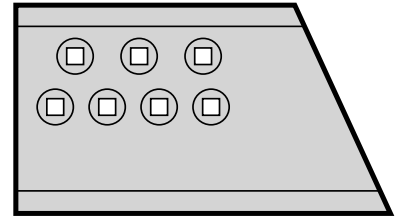
General Duty End Bits

- Provides a thicker wear area than the cutting edge.
- Made from DH-2 or DH-3 steel, depending on the application.
- For use in most dozing applications.



Finish Dozing End Bits

- Provides a depth of cut equal to the cutting edge.
- Protects the blade corner in low impact, low abrasion materials.
- Made from through-hardened DH-2 steel.
- For use in finish and semi-finish dozing.



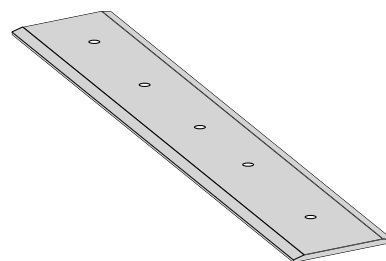
Ground Engaging Tools — Compactor End Bits

Model	Serial Number	Blade Model	Thickness	General Duty End Bits		Finish Dozing End Bits		Bolts	Nuts	Washers
				(lh)	(rh)	(lh)	(rh)			
814	36S,41S,3ZP		28 mm (1.12 in)			4T-6242	4T-6241	5J-2409	2J-3505	5P-8249
	22 mm (0.88 in)		3G-8294	3G-9283	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
815	24K1-1044		19 mm (0.75 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	19 mm (0.75 in)		9F-7076	9F-7075	4T-3050	4T-3049	3F-5108	4K-0367		
	22 mm (0.88 in)		3G-8296	3G-8295	4T-3050	4T-3049	3F-5108	4K-0367		
	24K1045-UP		4J-8262	4J-8261	4T-3042	4T-3041	4F-7827	2J-3506		
	59E1-341		3G-8298	3G-8297	4T-3042	4T-3041	4F-7827	2J-3506		
815S	59E342-UP	Straight	22 mm (0.88 in)	3G-8296	3G-8295	4T-3050	4T-3049	3F-5108	4K-0367	
	39S		3G-8298	3G-8297	4T-3042	4T-3041	4F-7827	2J-3506		
	39S,95E		22 mm (0.88 in)	5J-1420	5J-1419	4T-3046	4T-3045	5J-4773	2J-3506	
	36S,41S,3ZP,3YP		3G-8298	3G-8297	4T-3046	4T-3045	5J-4773	2J-3506		
816	56D,51K,23K		28 mm (1.12 in)	3G-8294	3G-8293	3G-8294	3G-8293	6F-0196	2J-3505	5P-8249
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
824	2HP,35G,64G,93G		22 mm (0.88 in)	3G-8294	3G-8293	3G-8294	3G-8293	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	60 mm (2.36 in)		109-9025*	109-9024*	4T-6506	4T-6505	6F-0196	2J-3505		
824S	88H		35 mm (1.38 in)	3G-8290	3G-8289			4J-9208	2J-3507	
	40 mm (1.58 in)		3G-8282	3G-8281			4J-9208	2J-3507		
	60 mm (2.36 in)		109-9025*	109-9024*			5J-2406	2J-3505		
825	4JP,93G	Straight	28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		3G-8288	3G-8287	4T-6240	4T-6239	4F-4042	2J-3505		
	89X		9J-1478	9J-1477	4T-6240	4T-6239	4F-4042	2J-3505		
826	27K,14B,36G		30 mm (1.18 in)	3G-8318	3G-8317	4T-6240	4T-6239	4F-4042	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	97X,90K,2GP,93G		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
834	27K,14B,36G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	64G,93G,96G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
834G	27K,14B,36G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G,64G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	27K,14B,36G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	93G,96G		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		124-7285*	124-7284*			6F-0196	2J-3505		
	27K,14B,36G,64G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		124-7285*	124-7284*			6F-0196	2J-3505		
	27K,14B,36G,64G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		124-7285*	124-7284*			6F-0196	2J-3505		
	27K,14B,36G,64G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		124-7285*	124-7284*			6F-0196	2J-3505		
	27K,14B,36G,64G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		124-7285*	124-7284*			6F-0196	2J-3505		
	27K,14B,36G,64G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		124-7285*	124-7284*			6F-0196	2J-3505		
	27K,14B,36G,64G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		124-7285*	124-7284*			6F-0196	2J-3505		
	27K,14B,36G,64G		3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		28 mm (1.12 in)	4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505	
	60 mm (2.36 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
	27K,14B,36G		124-7285*	124-7284*			6F-0196	2J-3505		
835	93G,96G		22 mm (0.88 in)	3G-8294	3G-8293	4T-6506	4T-6505	6F-0196	2J-3505	
	28 mm (1.12 in)		4J-8844	4J-8843	4T-6506	4T-6505	6F-0196	2J-3505		
	28 mm (1.12 in)		3G-8316	3G-8315	4T-6506	4T-6505	6F-0196	2J-3505		
835	93G,96G		60 mm (2.36 in)	124-7285*	124-7284*			6F-0196	2J-3505	
	22 mm (0.88 in)		3G-8294	3G-8						

Number in parentheses () after the part number indicates the quantity required.

Compactor Sole Plates

Model	Serial Number	Blade Model	Sole Plate	Bolts Per Plate	Nuts Per Plate
814	23K,56D	Straight	4T-3019 (2)	5J-4773 (5)	2J-3506 (5)
814	36S,3YP	Straight	4T-3018 (2)	5J-4773 (4)	2J-3506 (4)
824	2HP	Cushion	4T-8799 (3)	5J-4772 (5)	2J-3505 (5)
824	35G1-222	Straight	7T-3491 (3)	5J-4773 (7)	2J-3506 (7)
824	35G223-Up	Straight	7T-3492 (3)	5J-4773 (7)	2J-3506 (7)
834	14B	Universal	4T-8799 (2)	6F-0196 (7)	2J-3505 (7)
834	36G,96G	Straight	4T-6650 (2)	5J-4772 (8)	2J-3505 (8)
834	36G,96G	Straight	4T-6651 (1)	5J-4772 (9)	2J-3505 (9)
834	64G	Cushion	4T-6645 (2)	5J-4772 (6)	2J-3505 (6)



Landfill Compactor Tip/Blades

Landfill Compactor Traction Tips:

- Forged for maximum strength and equipped with ARM for critical wear areas.
- For use in applications where maximum traction is required, such as frozen or difficult to penetrate materials.



Landfill Compactor Weld-On Plus Tips:

- Provide superior compaction densities, excellent traction, and excellent side hill stability.
- Provides less plugging and lower replacement costs because fewer teeth are required in its widely spaced distribution pattern.
- Lasts longer than chopper blades in high wear conditions.



ARM Chopper Blades:

- Provides good traction and aggressive chopping action in all types of trash.
- Manufactured from heat-treated, DH-2 steel.
- For use in sanitary landfill applications.



Model	Wheel Diameter	Weld-On Plus Tips	ARM Chopper Blade	ARM Chopper Blade Support	
816B,816C		232-0160 (20)	6Y-6766 (20)	2V-6400 (10)	2V-6401 (10)
816B,816C		232-0160 (20)	6Y-6766 (20)	2V-6400 (10)	2V-6401 (10)
826B,826C	40 in	232-0160 (25)	6Y-4321 (24)	2V-6400 (12)	2V-6401 (12)
826B,826C	48 in	232-0160 (25)	6Y-4321 (24)	2V-6400 (12)	2V-6401 (12)
826B,826C	40 in	232-0160 (25)	6Y-4321 (24)	2V-6400 (12)	2V-6401 (12)
826B,826C	48 in	232-0160 (25)	6Y-4321 (24)	2V-6400 (12)	2V-6401 (12)
836		232-0160 (35)	107-3374 (28)	2V-6400 (14)	2V-6401 (14)
836G		232-0160 (35)	107-3374 (28)	2V-6400 (14)	2V-6401 (14)

Ground Engaging Tools — Compactor Feet

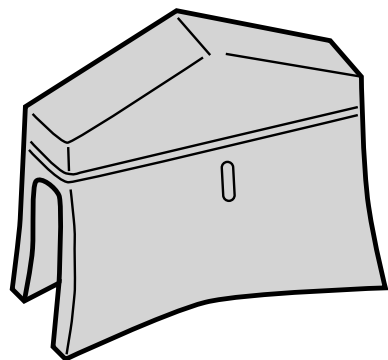
Landfill Compactor Wheel Assemblies

Model	Rim Thickness	Weld-On Plus Tip	Narrow Weld-On Plus Tip	ARM Chopper Blade	
				(lh front and rh rear)	(rh front and lh rear)
816	16 mm (0.625 in)	2Q-1498 (4)		4E-3523 (2)	4E-3524 (2)
826	25 mm (1.000 in)	128-8113 (4)	2Z-9142 (4)*	128-8116 (2)	128-8117 (2)
836	25 mm (1.000 in)	129-2405 (4)		111-8237 (2)	111-8238 (2)
836G	25 mm (1.000 in)	143-5952		189-1584	189-1585
836G	25 mm (1.000 in)	165-4970**			

* Applicable for a narrow wheel width (40"). Only available for machine orders.

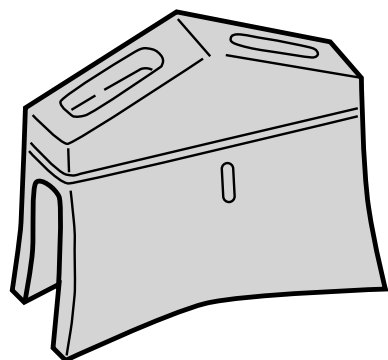
** Includes wheel extension.

Weld-On Soil Compactor Feet



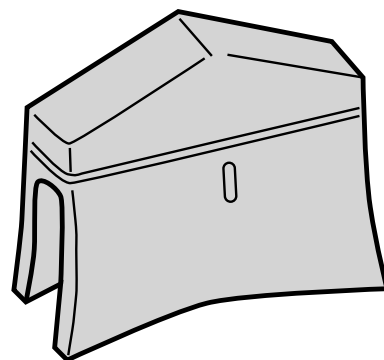
Model	Blade Serial Number	Tamping Foot	Rock Tamping Foot	Base
815	91P		4V-3851	7K-6908
815B	17Z	2V-7053		7K-6908
825C	86X	2V-6628	4V-0668	7K-7071

Bolt-On Soil Compactor Feet



Model	Blade Serial Number	Tamping Foot	Base	Bolts	Nuts	Washers
815	91P	8K-9189	7K-6908	0S-0484 (2)	6B-6684 (2)	5P-8245 (4)
825C	86X	8K-9171	7K-7071	0T-0856 (2)	6B-6682 (2)	5H-1504 (4)
835	44N333-UP	8K-9171	7K-7071	0T-0856 (2)	6B-6682 (2)	5H-1504 (4)

Pin-On Soil Compactor Feet



Model	Blade Serial Number	Tamping Foot	Rock Tamping Foot	Sheepsfoot	Base	Pin	Spring Assembly	Snap Ring
824B	36H	7K-2939	7K-2939		9S-1645	7K-9535	9S-1644	5S-1522
824B,C,G	36H,85X,45N			3S-3992		7K-9937	9S-1644	5S-1522
825B	43N	7K-2939			9S-1645	7K-9535	9S-1644	5S-1522
825C,G	86X,6RN			3S-3992		7K-9937	9S-1644	5S-1522
834	43E	7K-2939		3S-3992	9S-1645	7K-9535	9S-1644	5S-1522
835	44N1-332	7K-2939		3S-3992	9S-1645	7K-9535	9S-1644	5S-1522

Compactor Cleaner Bars

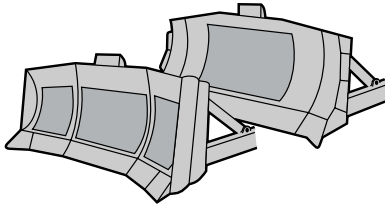
Model	Blade Serial Number	Tamping Foot Cleaner Bar	Rock Tamping Foot Cleaner Bar	Sheepsfoot Cleaner Bar	Landfill Cleaner Bar
815	91P	4S-7928			
815B,F	17Z,1GN	106-204,141-7407, 3G-8250*			
816B,F	15Z, 5FN				7I-3968
824B	36H	3S-3228	3S-3228	4S-7928	
825B	36H,43N	3S-3228**	3S-3228	4S-7928	
825C,825G	86X,6RN	3S-3228**	3G-8250*		
826B	58U				7I-3968
826C	87X				7I-3968
826G	7LH				7I-3968
834	43E	4S-7928	4S-7928	3S-3228	
835	44N	4S-7928	4S-7928	3S-3228	
836					7I-3968

* Replaceable Tip — use 8E-6258 Pin and 8E-6259 Retainer.

** Optional one-way cleaner bar available: front wheel — 9V-5074; rear wheel — 9V-5073.

Ground Engaging Tools — Compactor Wear Plates

Compactor Reinforcing Wear Plates



- Provides extended blade life in highly abrasive or extreme impact conditions.
- Provides a repair or resurface option for worn or damaged moldboards.
- Formed to fit the curve of the blade so they are easily installed.

Model	Serial Number	Item	Plate Thickness	Reinforcing Wear Plate
816	41S,51K	Wear Plate	8 mm (0.31 in)	3J-3141
824	88H	Wear Plate	12 mm (0.47 in)	6J-0164 (2)
		Wear Plate	12 mm (0.47 in)	2J-8523 (4)
824C	2HP,64G	Wear Plate	20 mm (0.79 in)	5J-2663
		Pusher Plate	20 mm (0.79 in)	4J-5622
		Wear Plate	20 mm (0.79 in)	4J-5622
824F	93G	Wear Plate	8 mm (0.31 in)	3J-3141
824G		Wear Plate	20 mm (0.79 in)	5J-2663
825	89X,93G	Wear Plate	8 mm (0.31 in)	3J-3141
826	97X,90K	Wear Plate	8 mm (0.31 in)	3J-3141
834C	64G	Pusher Plate	20 mm (0.79 in)	4J-5622
		Wear Plate	20 mm (0.79 in)	4J-5622
	96G	Wear Plate	8 mm (0.31 in)	3J-3142
835	27K	Wear Plate	8 mm (0.31 in)	3J-3141

ONE SAFE SOURCE

2008-2009



GROUND ENGAGING TOOLS | COMPACT CONSTRUCTION EQUIPMENT

Compact Wheel Loader Buckets

Model	Bucket Type	Bucket Width	Bucket Group		Bucket Assembly	Rated Capacity	Base Edge	Bucket Corners		Rear Wear Plate
			Bolt-on Teeth	Bolt-on Edge				LH	RH	
902	General Purpose	1770 mm (70 in)	150-8368	150-8369	138-8941	0.2 m ³ (0.8 yd ³)	138-8938	9R-5205	9R-5206	152-1096
	Multi-Purpose	1770 mm (70 in)	150-8370	150-8371	138-8912	0.2 m ³ (0.8 yd ³)	138-8938	9R-5205	9R-5206	
	Light Materials	1880 mm (74 in)		152-2005	149-9261	0.3 m ³ (1.3 yd ³)	138-8932	9R-5205	9R-5206	151-5131
	Stone Sieve	1770 mm (70 in)	152-2008	152-2009	148-6412	0.2 m ³ (0.8 yd ³)	160-5334	9R-5205	9R-5206	
	High Dump	1770 mm (70 in)	152-5214	152-1998	150-1917	0.2 m ³ (0.8 yd ³)	138-8938	9R-5205	9R-5206	
	Material Handling Grapple	1880 mm (74 in)		186-0152	184-3268		138-8932			151-5131
906	General Purpose	1880 mm (74 in)	150-8385	150-8386	138-8931	0.25 m ³ (1.0 yd ³)	138-8932	9R-5205	9R-5206	151-5131
	Multi-Purpose	1880 mm (74 in)	150-8387	150-8388	138-8914	0.23 m ³ (0.9 yd ³)	138-8932	9R-5205	9R-5206	
	Light Materials	1940 mm (76 in)		152-2006	147-3152	0.41 m ³ (1.6 yd ³)	152-1051	9R-5205	9R-5206	152-1097
	Stone Sieve	1880 mm (74 in)	152-2010	152-2011	148-5385	0.23 m ³ (0.9 yd ³)	160-5335	9R-5205	9R-5206	
	High Dump	1880 mm (74 in)	152-5215	152-1999	141-4990	0.23 m ³ (0.9 yd ³)	138-8932	9R-5205	9R-5206	
	Side Dump	1880 mm (74 in)	152-2001	152-2002	141-7263	0.23 m ³ (0.9 yd ³)	138-8932	9R-5205	9R-5206	
	Material Handling Grapple	1880 mm (74 in)		186-0152	184-3268		138-8932			151-5131
908	General Purpose	2060 mm (81 in)	150-8389	150-8390	138-8905	0.33 m ³ (1.3 yd ³)	138-8937	9R-5205	9R-5206	152-1098
	Multi-Purpose	2060 mm (81 in)	150-8391	150-8392	138-8916	0.31 m ³ (1.2 yd ³)	147-1040	9R-5205	9R-5206	
	Light Materials	2060 mm (81 in)		152-2007	147-3153	0.51 m ³ (2.0 yd ³)	138-8937	9R-5205	9R-5206	152-1098
	Stone Sieve	2060 mm (81 in)	152-2012	152-2013	148-5386	0.31 m ³ (1.2 yd ³)	138-8937	9R-5205	9R-5206	
	High Dump	2060 mm (81 in)	152-5216	152-2000	141-4992	0.31 m ³ (1.2 yd ³)	138-8937	9R-5205	9R-5206	
	Side Dump	2060 mm (81 in)	152-2003	152-2004	141-7265	0.31 m ³ (1.2 yd ³)	138-8937	9R-5205	9R-5206	
	Material Handling Grapple	2060 mm (81 in)		186-0154	186-0153		138-8937			152-1098

Compact Wheel Loader Tips & Edges

Bolt-On Unitooth

- Improves penetration where breakage is not a problem.
- Tip and adapter are one integrated piece for easy installation and lower initial costs.
- For use in nonabrasive materials.



Model	Unitooth	Bolts	Nuts
902, 906, 908	132-4720 (7)	159-2953 (14)	8T-4778 (14)

Bolt-on Edges

Model	Edges	Bolts	Nuts
902	132-4723	159-2953 (13)	8T-4778 (13)
906	132-4724	159-2953 (13)	8T-4778 (13)
908	132-4725	159-2953 (13)	8T-4778 (13)

Ground Engaging Tools — Mini-Hex

Mini Excavators Buckets

Model	Bucket Type	Bucket Width	Bucket Group	Bucket Assembly	Rated Capacity	Base Edge	Number of Teeth	Bolt-on Uniteeth	Bolts	Nuts	Sidecutters***	
											LH	RH
302.5 303.5	Digging	260 mm (10 in)	176-7283*	179-6704*	0.035 m³ (0.046 yd³)	153-7873	3	135-9390 (3)	159-8839 (6)	8T-4778 (6)	135-9376	135-9377
		260 mm (10 in)	153-7848	153-7849	0.035 m³ (0.046 yd³)	153-7873	3	135-9390 (3)	159-8839 (6)	8T-4778 (6)	135-9376	135-9377
	Digging	300 mm (12 in)	153-7851	153-7852	0.041 m³ (0.053 yd³)	153-7874	3	135-9390 (3)	159-8839 (6)	8T-4778 (6)	135-9376	135-9377
	Digging	400 mm (16 in)	153-7854	153-7855	0.054 m³ (0.070 yd³)	153-7875	3	135-9390 (3)	159-8839 (6)	8T-4778 (6)	135-9376	135-9377
	Digging	457 mm (18 in)	190-7390	190-7392	0.065 m³ (0.085 yd³)	190-7394	3	135-9390 (3)	159-8839 (6)	8T-4778 (6)	135-9376	135-9377
	Digging	500 mm (20 in)	153-7857	153-7858	0.073 m³ (0.095 yd³)	153-7876	4	135-9390 (4)	159-8839 (8)	8T-4778 (8)	135-9376	135-9377
	Digging	600 mm (24 in)	153-7860	153-7861	0.092 m³ (0.120 yd³)	153-7877	4	135-9390 (4)	159-8839 (8)	8T-4778 (8)	135-9376	135-9377
	Ditch Cleaning	800 mm (32 in)		153-7863	0.080 m³ (0.105 yd³)	153-7878 (N/S)						
	Ditch Cleaning	1000 mm (40 in)		153-7865	0.102 m³ (0.133 yd³)	153-7879 (N/S)						
	Ditch Cleaning	1200 mm (47 in)		153-7867	0.116 m³ (0.152 yd³)	153-7880 (N/S)						
301.5 301.6 301.8	Digging	230 mm (9 in)	147-1014	147-1015	0.018 m³ (0.023 yd³)	147-1033 (N/S)	3	135-9380** (3)	8T-4183 (6)	8T-4244 (6)	135-9378	135-9379
	Digging	300 mm (12 in)	147-1018	147-1017	0.018 m³ (0.023 yd³)	147-1034 (N/S)	3	135-9380** (3)	8T-4183 (6)	8T-4244 (6)	135-9378	135-9379
	Digging	400 mm (16 in)	147-1020	147-1021	0.033 m³ (0.043 yd³)	147-1035 (N/S)	3	135-9380** (3)	8T-4183 (6)	8T-4244 (6)	135-9378	135-9379
	Digging	457 mm (18 in)	190-7387	190-7388	0.040 m³ (0.052 yd³)	190-7389 (N/S)	3	135-9380** (3)	8T-4183 (6)	8T-4244 (6)	135-9378	135-9379
	Digging	500 mm (20 in)	147-1023	147-1024	0.045 m³ (0.059 yd³)	147-1036 (N/S)	4	135-9380** (4)	8T-4183 (8)	8T-4244 (8)	135-9378	135-9379
	Digging	600 mm (24 in)	147-1026	147-1027	0.056 m³ (0.073 yd³)	147-1037 (N/S)	4	135-9380** (4)	8T-4183 (8)	8T-4244 (8)	135-9378	135-9379
	Ditch Cleaning	800 mm (32 in)		147-1029	0.044 m³ (0.057 yd³)	147-1038 (N/S)						
	Ditch Cleaning	1000 mm (40 in)		147-1031	0.056 m³ (0.073 yd³)	147-1039 (N/S)						
	Digging	300 mm (12 in)	188-4369*	180-3627*	0.058 m³ (0.076 yd³)	180-3638 (N/S)	3	135-8203 (3)	4F-3656 (6)	4K-0367 (6)	180-3639	180-3640
		300 mm (12 in)	180-3622	180-3627	0.058 m³ (0.076 yd³)	180-3638 (N/S)	3	135-8203 (3)	4F-3656 (6)	4K-0367 (6)	180-3639	180-3640
304.5	Digging	400 mm (16 in)	180-3623	180-3628	0.076 m³ (0.099 yd³)	180-3647 (N/S)	4	135-8203 (4)	4F-3656 (8)	4K-0367 (8)	180-3639	180-3640
	Digging	500 mm (20 in)	180-3624	180-3629	0.104 m³ (0.136 yd³)	180-3648 (N/S)	4	135-8203 (4)	4F-3656 (8)	4K-0367 (8)	180-3639	180-3640
	Digging	600 mm (24 in)	180-3625	180-3630	0.133 m³ (0.174 yd³)	180-3649 (N/S)	4	135-8203 (4)	4F-3656 (8)	4K-0367 (8)	180-3639	180-3640
	Digging	700 mm (28 in)	180-3626	180-3631	0.162 m³ (0.212 yd³)	180-3650 (N/S)	4	135-8203 (4)	4F-3656 (8)	4K-0367 (8)	180-3639	180-3640
	Ditch Cleaning	1000 mm (40 in)		180-1355	0.139 m³ (0.182 yd³)	180-1365 (N/S)						
	Ditch Cleaning	1300 mm (51 in)		180-1356	0.184 m³ (0.241 yd³)	180-1366 (N/S)						
	Ditch Cleaning	1600 mm (63 in)		180-1357	0.229 m³ (0.299 yd³)	180-1367 (N/S)						
	Digging	300 mm (12 in)	171-2759	171-2760	0.049 m³ (0.065 yd³)	174-2141 (N/S)	3	135-9390 (3)	159-8839 (6)	8T-4778 (6)	174-2133	174-2134
	Digging	400 mm (16 in)	171-2761	171-2762	0.065 m³ (0.085 yd³)	174-2152 (N/S)	3	135-9390 (3)	159-8839 (6)	8T-4778 (6)	174-2133	174-2134
	Digging	500 mm (20 in)	171-2763	171-2764	0.089 m³ (0.116 yd³)	174-2154 (N/S)	4	135-9390 (4)	159-8839 (8)	8T-4778 (8)	174-2133	174-2134
303.5	Digging	600 mm (24 in)	171-2767	171-2768	0.113 m³ (0.148 yd³)	174-2154 (N/S)	4	135-9390 (4)	159-8839 (8)	8T-4778 (8)	174-2133	174-2134
	Ditch Cleaning	650 mm (26 in)	171-2769	171-2770	0.126 m³ (0.165 yd³)	174-2155 (N/S)	4	135-9390 (4)	159-8839 (8)	8T-4778 (8)	174-2133	174-2134
	Ditch Cleaning	1000 mm (40 in)		174-2460	0.111 m³ (0.145 yd³)	153-7879 (N/S)						
	Ditch Cleaning	1200 mm (47 in)		174-2461	0.135 m³ (0.177 yd³)	153-7880 (N/S)						
	Ditch Cleaning	1400 mm (55 in)		174-1811	0.159 m³ (0.208 yd³)	173-9770 (N/S)						

* Includes 2 bucket mounting pins, 2 hydraulic fittings, and 4 retaining rings.

*** Service replacement for 135-9380 factory tooth is 138-6410. Use 160-0018 flat head screw.

**** Please reference Information Release Memo (PELJ0617) (GET 0603 infocast) for bolt-on options.

(N/S) — Non serviceable

Skid Steer Loaders/Work Tools



Size	Toothbar	Bucket Assembly	Bucket Arrangement	Bolts	Nuts	Fasteners	Washers
		(GP)	(MP)			Lockwashers	
1525 mm (60 in)	136-8734	165-6152	154-5004	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
1675 mm (66 in)	136-8735	165-6153	154-5008	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
1830 mm (72 in)	136-8736	165-6154	154-5010	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
1980 mm (78 in)	217-4878	199-7721	199-8321	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
2135 mm (84 in)	275-5427	292-9270	293-0139	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)

(GP) – General Purpose
(MP) – Multi-Purpose



Size	Toothbar	Bucket Assembly	Bucket Arrangement	Cutting Edge	Bolts	Nuts	Fasteners	Washers
		(GP)	(MP)				Lockwashers	
1525 mm (60 in)	159-0330	165-6152	154-5004	135-9394	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
1675 mm (66 in)	159-0340	165-6153	154-5008	135-9395	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
1830 mm (72 in)	159-0350	165-6154	154-5010	135-9396	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
1980 mm (78 in)	195-9160	199-7721	199-8321	135-9387	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)
2135 mm (84 in)	264-2084	296-8192	296-8057	195-7124	8S-9093 (2)	2J-3507 (2)	3B-4516 (2)	5P-8250 (2)

(GP) – General Purpose
(MP) – Multi-Purpose

Ground Engaging Tools — Skid Steer Loaders

Skid Steer Loaders/Work Tools

Bucket	Edge Type	Size	Bucket Assembly	Bucket Arrangement	Tooth	Base Edge	Cutting Edge	Cutting Edge Thickness	Bolt	Nut	Screw	Locknut
General Purpose	Base Edge	1525 mm (60 in)	165-6152			149-5435						
	Bolt-on Edge	1525 mm (60 in)	165-6152	152-0224			135-9394	16.0 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Teeth	1525 mm (60 in)	165-6152	152-0223	132-4720		174-7966	16.0 mm (0.63 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Bolt-on Teeth	1525 mm (60 in)	165-6152	152-0223	132-4720		174-7972	19.0 mm (0.75 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Base Edge	1675 mm (66 in)	165-6153			149-5436						
	Bolt-on Edge	1675 mm (66 in)	165-6153	152-0226			135-9395	16.0 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Teeth	1675 mm (66 in)	165-6153	152-0225	132-4720		174-7967	16.0 mm (0.63 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Bolt-on Teeth	1675 mm (66 in)	165-6153	152-0225	132-4720		174-7973	19.0 mm (0.75 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Base Edge	1830 mm (72 in)	165-6154			149-5437						
	Bolt-on Edge	1830 mm (72 in)	165-6154	152-0229			135-9396	16.0 mm (0.63 in)			159-2953 (11)	8T-4778 (11)
	Bolt-on Teeth	1830 mm (72 in)	165-6154	152-0228	132-4720		174-7968	16.0 mm (0.63 in)	4F-3654 (11)	4K-0367 (11)	159-2953 (2)	8T-4778 (2)
	Bolt-on Teeth	1830 mm (72 in)	165-6154	152-0228	132-4720		174-7974	19.0 mm (0.75 in)	4F-3654 (11)	4K-0367 (11)	159-2953 (2)	8T-4778 (2)
Dirt	Base Edge	1370 mm (54 in)	165-6155			149-5434						
	Bolt-on Edge	1370 mm (54 in)	165-6155	152-0230			135-9393	12.7 mm (0.50 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1370 mm (54 in)	165-6155	152-0230			174-7965	16.0 mm (0.63 in)	4F-3654 (6)	4K-0367 (6)		
	Bolt-on Edge	1370 mm (54 in)	165-6155	152-0230			174-7971	19.0 mm (0.75 in)	4F-3654 (6)	4K-0367 (6)		
	Base Edge	1525 mm (60 in)	165-6156			149-5435						
	Bolt-on Edge	1525 mm (60 in)	165-6156	152-0231			135-9394	16.0 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1525 mm (60 in)	165-6156	152-0231			174-7966	16.0 mm (0.63 in)	4F-3654 (6)	4K-0367 (6)		
	Bolt-on Edge	1525 mm (60 in)	165-6156	152-0231			174-7972	19.0 mm (0.75 in)	4F-3654 (6)	4K-0367 (6)		
	Base Edge	1675 mm (66 in)	165-6157			149-5436						
	Bolt-on Edge	1675 mm (66 in)	165-6157	152-0232			135-9395	16.0 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1675 mm (66 in)	165-6157	152-0232			174-7967	16.0 mm (0.63 in)	4F-3654 (6)	4K-0367 (6)		
	Bolt-on Edge	1675 mm (66 in)	165-6157	152-0232			174-7973	19.0 mm (0.75 in)	4F-3654 (6)	4K-0367 (6)		
Utility	Base Edge	1525 mm (60 in)	165-8835			149-5435						
	Bolt-on Edge	1525 mm (60 in)	165-8835	165-8836			135-9394	16.0 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1525 mm (60 in)	165-8835	165-8836			174-7966	16.0 mm (0.63 in)	4F-3654 (6)	4K-0367 (6)		
	Bolt-on Edge	1525 mm (60 in)	165-8835	165-8836			174-7972	19.0 mm (0.75 in)	4F-3654 (6)	4K-0367 (6)		
	Base Edge	1675 mm (66 in)	165-8746			149-5436						
	Bolt-on Edge	1675 mm (66 in)	165-8746	165-8747			135-9395	16.0 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1675 mm (66 in)	165-8746	165-8747			174-7967	16.0 mm (0.63 in)	4F-3654 (6)	4K-0367 (6)		
	Bolt-on Edge	1675 mm (66 in)	165-8746	165-8747			174-7973	19.0 mm (0.75 in)	4F-3654 (6)	4K-0367 (6)		
	Base Edge	1830 mm (72 in)	165-8747			149-5437						
	Bolt-on Edge	1830 mm (72 in)	165-8747	165-8778			135-9396	16.0 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1830 mm (72 in)	165-8747	165-8778			174-7968	16.0 mm (0.63 in)	4F-3654 (6)	4K-0367 (6)		
	Bolt-on Edge	1830 mm (72 in)	165-8747	165-8778			174-7974	19.0 mm (0.75 in)	4F-3654 (6)	4K-0367 (6)		

(Continued)

Skid Steer Loaders/Work Tools (Continued)

Bucket	Edge Type	Size	Bucket Assembly	Bucket Arrangement	Tooth	Base Edge	Cutting Edge	Cutting Edge Thickness	Bolt	Nut	Screw	Locknut
Light Material	Base Edge	1830 mm (72 in)	164-7414			149-5437						
	Bolt-on Edge	1830 mm (72 in)	164-7414	164-7412			135-9396	16.0 mm (0.63 in)			159-2953 (11)	8T-4778 (11)
	Bolt-on Edge	1830 mm (72 in)	164-7414	164-7412			174-7968	16.0 mm (0.63 in)	4F-3654 (11)	4K-0367 (11)		
	Bolt-on Edge	1830 mm (72 in)	164-7414	164-7412			174-7974	19.0 mm (0.75 in)	4F-3654 (11)	4K-0367 (11)		
	Base Edge	1980 mm (78 in)	164-7415			167-7433 †						
	Bolt-on Edge	1980 mm (78 in)	164-7415	164-7413			135-9397	16.0 mm (0.63 in)			159-2953 (11)	8T-4778 (11)
	Bolt-on Edge	1980 mm (78 in)	164-7415	164-7413			174-7969	16.0 mm (0.63 in)	4F-3654 (11)	4K-0367 (11)		
	Bolt-on Edge	1980 mm (78 in)	164-7415	164-7413			174-7975	19.0 mm (0.75 in)	4F-3654 (11)	4K-0367 (11)		

† Discontinued, replaced by 199-7722

Ground Engaging Tools — Skid Steer Loaders

Skid Steer Loaders/Work Tools

Bucket	Edge Type	Size	Bucket Assembly	Bucket Arrangement	Bulldozer Assembly	Clam Assembly	Tooth	Base Edge	Cutting Edge	Cutting Edge Thickness	Bolt	Nut	Screw	Locknut
Multi-Purpose	Base Edge	1525 mm (60 in)	154-5004		159-5345 †A			154-5037						
	Base Edge	1525 mm (60 in)	154-5004	154-5045		149-4232		149-5435						
	Bolt-on Edge	1525 mm (60 in)	154-5004	154-5045					135-9394	16 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Teeth	1525 mm (60 in)	154-5004	154-5045			132-4720		174-7966	16 mm (0.63 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Bolt-on Teeth	1525 mm (60 in)	154-5004	154-5045			132-4720		174-7972	19 mm (0.73 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Base Edge	1675 mm (66 in)	154-5008		159-5346 †B			154-5059						
	Base Edge	1675 mm (66 in)	154-5008	154-5047		154-5053		149-5436						
	Bolt-on Edge	1675 mm (66 in)	154-5008	154-5048					135-9395	16 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Teeth	1675 mm (66 in)	154-5008	154-5048			132-4720		174-7967	16 mm (0.63 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Bolt-on Teeth	1675 mm (66 in)	154-5008	154-5048			132-4720		174-7973	19 mm (0.75 in)	4F-3654 (8)	4K-0367 (8)	159-2953 (2)	8T-4778 (2)
	Base Edge	1830 mm (72 in)	154-5010		154-5080			154-5077						
	Base Edge	1830 mm (72 in)	154-5010	154-5049		154-5070		149-5437						
	Bolt-on Edge	1830 mm (72 in)	154-5010	154-5050					135-9394	16 mm (0.63 in)			159-2953 (11)	8T-4778 (11)
	Bolt-on Teeth	1830 mm (72 in)	154-5010	154-5050			132-4720		174-7968	16 mm (0.63 in)	4F-3654 (11)	4K-0367 (11)	159-2953 (2)	8T-4778 (2)
	Bolt-on Teeth	1830 mm (72 in)	154-5010	154-5050			132-4720		174-7974	19 mm (0.73 in)	4F-3654 (11)	4K-0367 (11)	159-2953 (2)	8T-4778 (2)

† Discontinued, replaced by:

A — 149-3477

B — 154-5063

(Continued)

Skid Steer Loaders/Work Tools (Continued)

Bucket	Edge Type	Size	Bucket Assembly	Bucket Arrangement	Base Edge	Cutting Edge	Cutting Edge Thickness	Bolt	Nut	Screw	Locknut
Industrial Grapple	Base Edge	1525 mm (60 in)	169-8941	157-7223	149-5435						
	Bolt-on Edge	1525 mm (60 in)	157-7223	157-7226		135-9394	16 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1525 mm (60 in)	157-7223	157-7226		174-7966	16 mm (0.63 in)	4F-3654 (8)	4K-0367 (8)		
	Bolt-on Edge	1525 mm (60 in)	157-7223	157-7226		174-7972	19 mm (0.75 in)	4F-3654 (8)	4K-0367 (8)		
	Base Edge	1675 mm (66 in)	169-8942	157-7224	149-5436						
	Bolt-on Edge	1675 mm (66 in)	157-7224	157-7227		135-9395	16 mm (0.63 in)			159-2953 (8)	8T-4778 (8)
	Bolt-on Edge	1675 mm (66 in)	157-7224	157-7227		174-7967	16 mm (0.63 in)	4F-3654 (8)	4K-0367 (8)		
	Bolt-on Edge	1675 mm (66 in)	157-7224	157-7227		174-7973	19 mm (0.75 in)	4F-3654 (8)	4K-0367 (8)		
	Base Edge	1830 mm (72 in)	169-8943	157-7225	149-5437						
	Bolt-on Edge	1830 mm (72 in)	157-7225	157-7226		135-9396	16 mm (0.63 in)			159-2953 (11)	8T-4778 (11)
	Bolt-on Edge	1830 mm (72 in)	157-7225	157-7226		174-7968		4F-3654 (11)	4K-0367 (11)		
	Bolt-on Edge	1830 mm (72 in)	157-7225	157-7226		174-7974		4F-3654 (11)	4K-0367 (11)		

Ground Engaging Tools — Compact Construction Equipment

Bucket Type	Edge Type	Size	Blade GP	Blade Arrangement	Blade Assembly	Cutting Edge	Cutting Edge Length	Bolt	Nut	Screw	Locknut	Washer	End Plate
Angle Dozer	Cutting Edge	1830 mm (72.0 in)		177-1989		135-9396	1893 mm (74.5 in)			159-2953 (6)	8T-4778 (6)		
	Non-metallic Cutting Edge	1830 mm (72.0 in)		177-1989		165-8477		8T-4140 (6)			8T-4778 (6)	165-7095 (6)	
	Cutting Edge	2070 mm (81.5 in)		177-1990		149-5740 †A	2134 mm (84.0 in)			159-2953 (6)	8T-4778 (6)		
	Non-metallic Cutting Edge	2070 mm (81.5 in)		177-1990		165-8478		8T-4140 (6)			8T-4778 (6)	165-7095 (6)	
	Cutting Edge	2320 mm (90.5 in)	186-5671	208-3331 † (N/S)	166-1686 †B	143-3088	1630 mm (64.1 in)	3F-5108 (17)	4K-0367 (17)			5P-8247 (17)	159-0372 (2)
	Cutting Edge	2320 mm (90.5 in)	186-5671	183-1769 † (N/S)	166-1686 †B	143-3088	1630 mm (64.1 in)	3F-5108 (17)	4K-0367 (17)			5P-8247 (17)	159-0372 (2)
	Cutting Edge	2320 mm (90.5 in)	186-5671	169-7646	166-1686 †B	143-3088	1630 mm (64.1 in)	3F-5108 (17)	4K-0367 (17)			5P-8247 (17)	159-0372 (2)
	Cutting Edge	2320 mm (90.5 in)	186-5671	208-3297 † (N/S)	166-1686 †B	143-3088	1630 mm (64.1 in)	3F-5108 (17)	4K-0367 (17)			5P-8247 (17)	159-0372 (2)
	Cutting Edge	2470 mm (94.4 in)	208-2038	208-3277 † (N/S)	166-1687 †C	143-3089	1730 mm (68.0 in)	3F-5108 (17)	4K-0367 (17)			5P-8247 (17)	195-7193 (2)

† Discontinued, replaced by:

A — 195-5124

B — 235-3852

C — 235-3856

(N/S) — Non serviceable

ONE SAFE SOURCE

2008-2009



GROUND ENGAGING TOOLS | EXCAVATORS

Ground Engaging Tools — Excavator Bucket Base Edge Assemblies

Ground Engaging Tools — Excavators

Base Edge Thickness	Bucket Width	Base Edge Assy ¹	No. of Teeth	Adapters (qty)			Tip Size
				(LH)	(CTR)	(RH)	
22 mm (0.87 in)	305 mm (12 in)	121-9162	3	6Y-3224	6Y-3224	6Y-3224	J225
22 mm (0.87 in)	330 mm (13 in)	231-2988	3	6Y-3224	6Y-3224	6Y-3224	J225
22 mm (0.87 in)	457 mm (18 in)	158-3958	3	6Y-3224	6Y-3224	6Y-3224	J225
22 mm (0.87 in)	610 mm (24 in)	153-1558	4	6Y-3224	6Y-3224 (2)	6Y-3224	J225
22 mm (0.87 in)	762 mm (30 in)	153-1583	5	6Y-3224	6Y-3224 (3)	6Y-3224	J225
22 mm (0.87 in)	914 mm (36 in)	153-1585	6	6Y-3224	6Y-3224 (4)	6Y-3224	J225
32 mm (1.25 in)	457 mm (18 in)	226-1311	3	119-3253	119-3253	119-3253	J250
32 mm (1.25 in)	610 mm (24 in)	229-7650	4	119-3253	119-3253 (2)	119-3253	J250
32 mm (1.25 in)	635 mm (25 in)	241-0283	4	119-3253	119-3253 (2)	119-3253	J250
32 mm (1.25 in)	686 mm (27 in)	127-6104	4	119-3253	119-3253 (2)	119-3253	J250
32 mm (1.25 in)	762 mm (30 in)	193-4786	4	119-3253	119-3253 (2)	119-3253	J250
32 mm (1.25 in)	762 mm (30 in)	229-7653	5	119-3253	119-3253 (3)	119-3253	J250
32 mm (1.25 in)	800 mm (31.5 in)	241-0282	5	119-3253	119-3253 (3)	119-3253	J250
32 mm (1.25 in)	813 mm (32 in)	7Y-6664 ²	5	119-3253	119-3253 (3)	119-3253	J250
32 mm (1.25 in)	840 mm (33 in)	127-6106	4	119-3253	119-3253 (2)	119-3253	J250
32 mm (1.25 in)	914 mm (36 in)	106-6857 ²	5	119-3253	119-3253 (3)	119-3253	J250
32 mm (1.25 in)	914 mm (36 in)	190-3332	5	119-3253	119-3253 (3)	119-3253	J250
32 mm (1.25 in)	914 mm (36 in)	229-7656	6	119-3253	119-3253 (4)	119-3253	J250
32 mm (1.25 in)	990 mm (39 in)	127-6108	5	119-3253	119-3253 (3)	119-3253	J250
32 mm (1.25 in)	1067 mm (42 in)	229-7659	7	119-3253	119-3253 (5)	119-3253	J250
32 mm (1.25 in)	1145 mm (45 in)	127-6110	6	119-3253	119-3253 (4)	119-3253	J250
32 mm (1.25 in)	1219 mm (48 in)	229-7662	7	119-3253	119-3253 (5)	119-3253	J250
32 mm (1.25 in)	1295 mm (51 in)	127-6112	6	119-3253	119-3253 (4)	119-3253	J250
35 mm (1.37 in)	559 mm (22 in)	276-5880 ²	3	229-7086	220-9084	229-7085	K80
35 mm (1.37 in)	610 mm (24 in)	279-3909 ²	3	229-7086	220-9084	229-7085	K80
35 mm (1.37 in)	610 mm (24 in)	239-2810	3	220-9086	220-9084	220-9085	K80
35 mm (1.37 in)	610 mm (24 in)	240-9602	3	220-9086	220-9084	220-9085	K80
35 mm (1.37 in)	610 mm (24 in)	279-4080	3	232-2086	220-9084	232-2085	K80
35 mm (1.37 in)	610 mm (24 in)	232-0022 ³	1		220-9084		K80
35 mm (1.37 in)	610 mm (24 in)	253-0132 ³	2		220-9084 (2)		K80
35 mm (1.37 in)	711 mm (28 in)	276-5881 ²	4	229-7086	220-9084 (2)	229-7085	K80
35 mm (1.37 in)	762 mm (30 in)	279-3910 ²	3	229-7086	220-9084	229-7085	K80
35 mm (1.37 in)	762 mm (30 in)	239-2774	4	220-9086	220-9084 (2)	220-9085	K80
35 mm (1.37 in)	762 mm (30 in)	240-9603	4	220-9086	220-9084 (2)	220-9085	K80
35 mm (1.37 in)	762 mm (30 in)	279-4081	4	232-2086	220-9084 (2)	232-2085	K80
35 mm (1.37 in)	762 mm (30 in)	232-0023 ³	2		220-9084 (2)		K80
35 mm (1.37 in)	813 mm (32 in)	279-3911 ²	3	229-7086	220-9084	229-7085	K80
35 mm (1.37 in)	864 mm (34 in)	276-5882 ²	5	229-7086	220-9084 (3)	229-7085	K80
35 mm (1.37 in)	914 mm (36 in)	279-3912 ²	4	229-7086	220-9084 (2)	229-7085	K80
35 mm (1.37 in)	914 mm (36 in)	239-2615	5	220-9086	220-9084 (3)	220-9085	K80
35 mm (1.37 in)	914 mm (36 in)	239-2619	5	220-9086	220-9084 (3)	220-9085	K80
35 mm (1.37 in)	914 mm (36 in)	240-9604	5	220-9086	220-9084 (3)	220-9085	K80
35 mm (1.37 in)	914 mm (36 in)	279-4082	5	232-2086	220-9084 (3)	232-2085	K80
35 mm (1.37 in)	914 mm (36 in)	232-0024 ³	3		220-9084 (3)		K80
35 mm (1.37 in)	1016 mm (40 in)	271-5409 ²	4	229-7086	220-9084 (2)	229-7085	K80
35 mm (1.37 in)	1016 mm (40 in)	276-5883 ²	6	229-7086	220-9084 (4)	229-7085	K80
35 mm (1.37 in)	1067 mm (42 in)	239-2764	5	220-9086	220-9084 (3)	220-9085	K80
35 mm (1.37 in)	1067 mm (42 in)	240-9605	5	220-9086	220-9084 (3)	220-9085	K80
35 mm (1.37 in)	1067 mm (42 in)	279-4083	5	232-2086	220-9084 (3)	232-2085	K80
35 mm (1.37 in)	1067 mm (42 in)	232-0025 ³	3		220-9084 (3)		K80

¹ Consists of base edge and adapters

² Straight corner adapters

³ Upgrade/conversion – no corner adapters

⁴ Spade w/straight corner adapters

⁵ Spade w/angled corner adapters

⁶ Spade upgrade/conversion – no corner adapters

Ground Engaging Tools — Excavator Bucket Base Edge Assemblies

Base Edge Thickness	Bucket Width	Base Edge Assy ¹	No. of Teeth	Adapters (qty)			Tip Size
				(LH)	(CTR)	(RH)	
35 mm (1.37 in)	1118 mm (44 in)	279-3913 ²	4	229-7086	220-9084 (2)	229-7085	K80
35 mm (1.37 in)	1168 mm (46 in)	276-5884 ²	7	229-7086	220-9084 (5)	229-7085	K80
35 mm (1.37 in)	1219 mm (48 in)	271-5410 ²	5	229-7086	220-9084 (3)	229-7085	K80
35 mm (1.37 in)	1219 mm (48 in)	239-2784	6	220-9086	220-9084 (4)	220-9085	K80
35 mm (1.37 in)	1219 mm (48 in)	240-9606	6	220-9086	220-9084 (4)	220-9085	K80
35 mm (1.37 in)	1219 mm (48 in)	279-4084	6	232-2086	220-9084 (4)	232-2085	K80
35 mm (1.37 in)	1219 mm (48 in)	232-0026 ³	4		220-9084 (4)		K80
35 mm (1.37 in)	1321 mm (52 in)	276-5885 ²	8	229-7086	220-9084 (6)	229-7085	K80
35 mm (1.37 in)	1321 mm (52 in)	279-3914 ²	5	229-7086	220-9084 (3)	229-7085	K80
35 mm (1.37 in)	1372 mm (54 in)	240-9607	6	220-9086	220-9084 (4)	220-9085	K80
35 mm (1.37 in)	1372 mm (54 in)	279-4085	7	232-2086	220-9084 (5)	232-2085	K80
35 mm (1.37 in)	1422 mm (56 in)	279-3915 ²	5	229-7086	220-9084 (3)	229-7085	K80
35 mm (1.37 in)	1524 mm (60 in)	292-8978 ²	5	229-7086	220-9084 (3)	229-7085	K80
40 mm (1.57 in)	559 mm (22 in)	276-5890 ²	3	223-8096	220-9094	223-8095	K90
40 mm (1.57 in)	610 mm (24 in)	239-2819	3	220-9096	220-9094	220-9095	K90
40 mm (1.57 in)	610 mm (24 in)	239-2676	3	220-9096	220-9094	220-9095	K90
40 mm (1.57 in)	610 mm (24 in)	227-8740	3	220-9096	220-9094	220-9095	K90
40 mm (1.57 in)	610 mm (24 in)	279-4090	3	232-2096	220-9094	232-2095	K90
40 mm (1.57 in)	610 mm (24 in)	232-0027 ³	1		220-9094		K90
40 mm (1.57 in)	711 mm (28 in)	276-5891 ²	4	223-8096	220-9094 (2)	223-8095	K90
40 mm (1.57 in)	762 mm (30 in)	239-2818	4	220-9096	220-9094 (2)	220-9095	K90
40 mm (1.57 in)	762 mm (30 in)	239-2634	4	220-9096	220-9094 (2)	220-9095	K90
40 mm (1.57 in)	762 mm (30 in)	228-6951	4	220-9096	220-9094 (2)	220-9095	K90
40 mm (1.57 in)	762 mm (30 in)	279-4091	4	232-2096	220-9094 (2)	232-2095	K90
40 mm (1.57 in)	762 mm (30 in)	232-0028 ³	2		220-9094 (2)		K90
40 mm (1.57 in)	864 mm (34 in)	276-5892 ²	5	223-8096	220-9094 (3)	223-8095	K90
40 mm (1.57 in)	914 mm (36 in)	239-2716	5	220-9096	220-9094 (3)	220-9095	K90
40 mm (1.57 in)	914 mm (36 in)	239-2545	5	220-9096	220-9094 (3)	220-9095	K90
40 mm (1.57 in)	914 mm (36 in)	228-6952	5	220-9096	220-9094 (3)	220-9095	K90
40 mm (1.57 in)	914 mm (36 in)	279-4092	5	232-2096	220-9094 (3)	232-2095	K90
40 mm (1.57 in)	914 mm (36 in)	232-0029 ³	3		220-9094 (3)		K90
40 mm (1.57 in)	1016 mm (40 in)	276-5893 ²	5	223-8096	220-9094 (3)	223-8095	K90
40 mm (1.57 in)	1067 mm (42 in)	239-2792	5	220-9096	220-9094 (3)	220-9095	K90
40 mm (1.57 in)	1067 mm (42 in)	239-2642	5	220-9096	220-9094 (3)	220-9095	K90
40 mm (1.57 in)	1067 mm (42 in)	228-6953	5	220-9096	220-9094 (3)	220-9095	K90
40 mm (1.57 in)	1067 mm (42 in)	279-4093	5	232-2096	220-9094 (3)	232-2095	K90
40 mm (1.57 in)	1067 mm (42 in)	232-0030 ³	3		220-9094 (3)		K90
40 mm (1.57 in)	1168 mm (46 in)	276-5894 ²	6	223-8096	220-9094 (4)	223-8095	K90
40 mm (1.57 in)	1219 mm (48 in)	279-3916 ²	4	223-8096	220-9094 (2)	223-8095	K90
40 mm (1.57 in)	1219 mm (48 in)	239-2801	6	220-9096	220-9094 (4)	220-9095	K90
40 mm (1.57 in)	1219 mm (48 in)	239-2650	6	220-9096	220-9094 (4)	220-9095	K90
40 mm (1.57 in)	1219 mm (48 in)	225-6813	6	220-9096	220-9094 (4)	220-9095	K90
40 mm (1.57 in)	1219 mm (48 in)	279-4094	6	232-2096	220-9094 (4)	232-2095	K90
40 mm (1.57 in)	1219 mm (48 in)	238-3199 ³	3		220-9094 (3)		K90
40 mm (1.57 in)	1219 mm (48 in)	232-0031 ³	4		220-9094 (4)		K90
40 mm (1.57 in)	1321 mm (52 in)	276-5895 ²	7	223-8096	220-9094 (5)	223-8095	K90
40 mm (1.57 in)	1372 mm (54 in)	235-2498	6	220-9096	220-9094 (4)	220-9095	K90
40 mm (1.57 in)	1372 mm (54 in)	279-4095	7	232-2096	220-9094 (5)	232-2095	K90
40 mm (1.57 in)	1372 mm (54 in)	232-0032 ³	5		220-9094 (5)		K90
45 mm (1.77 in)	610 mm (24 in)	241-6724	3	220-9106	220-9104	220-9105	K100

¹ Consists of base edge and adapters

² Straight corner adapters

³ Upgrade/conversion – no corner adapters

⁴ Spade w/straight corner adapters

⁵ Spade w/angled corner adapters

⁶ Spade upgrade/conversion – no corner adapters

Ground Engaging Tools — Excavator Bucket Base Edge Assemblies

Base Edge Thickness	Bucket Width	Base Edge Assy ¹	No. of Teeth	Adapters (qty)			Tip Size
				(LH)	(CTR)	(RH)	
45 mm (1.77 in)	610 mm (24 in)	279-4100	3	232-2106	220-9104	232-2105	K100
45 mm (1.77 in)	724 mm (28.5 in)	279-4121 ²	3	232-0106	220-9104	232-0105	K100
45 mm (1.77 in)	762 mm (30 in)	241-6725	3	220-9106	220-9104	220-9105	K100
45 mm (1.77 in)	762 mm (30 in)	279-4101	3	232-2106	220-9104	232-2105	K100
45 mm (1.77 in)	762 mm (30 in)	232-0033 ³	1		220-9104		K100
45 mm (1.77 in)	876 mm (34.5 in)	279-4122 ²	4	232-0106	220-9104 (2)	232-0105	K100
45 mm (1.77 in)	914 mm (36 in)	241-6726	4	220-9106	220-9104 (2)	220-9105	K100
45 mm (1.77 in)	914 mm (36 in)	279-4102	4	232-2106	220-9104 (2)	232-2105	K100
45 mm (1.77 in)	914 mm (36 in)	232-0034 ³	2		220-9104 (2)		K100
45 mm (1.77 in)	1029 mm (40.5 in)	279-4123 ²	5	232-0106	220-9104 (3)	232-0105	K100
45 mm (1.77 in)	1067 mm (42 in)	241-6727	5	220-9106	220-9104 (3)	220-9105	K100
45 mm (1.77 in)	1067 mm (42 in)	279-4103	5	232-2106	220-9104 (3)	232-2105	K100
45 mm (1.77 in)	1067 mm (42 in)	232-0039 ³	3		220-9104 (3)		K100
45 mm (1.77 in)	1181 mm (46.5 in)	279-4124 ²	5	232-0106	220-9104 (3)	232-0105	K100
45 mm (1.77 in)	1219 mm (48 in)	241-6728	5	220-9106	220-9104 (3)	220-9105	K100
45 mm (1.77 in)	1219 mm (48 in)	279-4104	5	232-2106	220-9104 (3)	232-2105	K100
45 mm (1.77 in)	1219 mm (48 in)	232-0035 ³	3		220-9104 (3)		K100
45 mm (1.77 in)	1334 mm (52.5 in)	279-4125 ²	6	232-0106	220-9104 (4)	232-0105	K100
45 mm (1.77 in)	1372 mm (54 in)	241-6729	6	220-9106	220-9104 (4)	220-9105	K100
45 mm (1.77 in)	1372 mm (54 in)	279-4105	6	232-2106	220-9104 (4)	232-2105	K100
45 mm (1.77 in)	1372 mm (54 in)	232-0036 ³	4		220-9104 (4)		K100
45 mm (1.77 in)	1486 mm (58.5 in)	279-4126 ²	7	232-0106	220-9104 (5)	232-0105	K100
45 mm (1.77 in)	1524 mm (60 in)	241-6730	7	220-9106	220-9104 (5)	220-9105	K100
45 mm (1.77 in)	1524 mm (60 in)	279-4106	7	232-2106	220-9104 (5)	232-2105	K100
45 mm (1.77 in)	1524 mm (60 in)	232-0037 ³	5		220-9104 (5)		K100
45 mm (1.77 in)	1676 mm (66 in)	242-1794	7	220-9106	220-9104 (5)	220-9105	K100
45 mm (1.77 in)	1676 mm (66 in)	279-4107	7	232-2106	220-9104 (5)	232-2105	K100
45 mm (1.77 in)	1676 mm (66 in)	232-0038 ³	5		220-9104 (5)		K100
60 mm (2.36 in)	762 mm (30 in)	258-4571	3	232-0116	232-0114	232-0115	K110
60 mm (2.36 in)	762 mm (30 in)	241-6717	3	232-0116	232-0114	232-0115	K110
60 mm (2.36 in)	762 mm (30 in)	279-4110	3	264-2116	232-0114	264-2115	K110
60 mm (2.36 in)	762 mm (30 in)	253-0103 ³	1		232-0114		K110
60 mm (2.36 in)	813 mm (32 in)	279-9956	3	264-2116	232-0114	264-2115	K110
60 mm (2.36 in)	914 mm (36 in)	260-9411 ²	4	232-0114	232-0114 (2)	232-0114	K110
60 mm (2.36 in)	914 mm (36 in)	258-4572	4	232-0116	232-0114 (2)	232-0115	K110
60 mm (2.36 in)	914 mm (36 in)	244-3895	4	232-0116	232-0114 (2)	232-0115	K110
60 mm (2.36 in)	914 mm (36 in)	279-4111	4	264-2116	232-0114 (2)	264-2115	K110
60 mm (2.36 in)	914 mm (36 in)	279-9957	4	264-2116	232-0114 (2)	264-2115	K110
60 mm (2.36 in)	914 mm (36 in)	253-0104 ³	1		232-0114		K110
60 mm (2.36 in)	1054 mm (41.5 in)	260-9413 ²	4	232-0114	232-0114 (2)	232-0114	K110
60 mm (2.36 in)	1067 mm (42 in)	258-4573	4	232-0116	232-0114 (2)	232-0115	K110
60 mm (2.36 in)	1067 mm (42 in)	241-6719	4	232-0116	232-0114 (2)	232-0115	K110
60 mm (2.36 in)	1067 mm (42 in)	279-4112	4	264-2116	232-0114 (2)	264-2115	K110
60 mm (2.36 in)	1067 mm (42 in)	279-9958	4	264-2116	232-0114 (2)	264-2115	K110
60 mm (2.36 in)	1067 mm (42 in)	253-0105 ³	2		232-0114 (2)		K110
60 mm (2.36 in)	1219 mm (48 in)	260-9414 ²	5	232-0114	232-0114 (3)	232-0114	K110
60 mm (2.36 in)	1219 mm (48 in)	258-4574	5	232-0116	232-0114 (3)	232-0115	K110
60 mm (2.36 in)	1219 mm (48 in)	241-6720	5	232-0116	232-0114 (3)	232-0115	K110
60 mm (2.36 in)	1219 mm (48 in)	279-4113	5	264-2116	232-0114 (3)	264-2115	K110
60 mm (2.36 in)	1219 mm (48 in)	279-9959	5	264-2116	232-0114 (3)	264-2115	K110

¹ Consists of base edge and adapters

² Straight corner adapters

³ Upgrade/conversion – no corner adapters

⁴ Spade w/straight corner adapters

⁵ Spade w/angled corner adapters

⁶ Spade upgrade/conversion – no corner adapters

Ground Engaging Tools — Excavator Bucket Base Edge Assemblies

Base Edge Thickness	Bucket Width	Base Edge Assy ¹	No. of Teeth	Adapters (qty)			Tip Size
				(LH)	(CTR)	(RH)	
60 mm (2.36 in)	1219 mm (48 in)	253-0106 ³	3		232-0114 (3)		K110
60 mm (2.36 in)	1219 mm (48 in)	257-1771 ³	3		232-0114 (3)		K110
60 mm (2.36 in)	1372 mm (54 in)	260-9415 ²	6	232-0114	232-0114 (4)	232-0114	K110
60 mm (2.36 in)	1372 mm (54 in)	258-4575	5	232-0116	232-0114 (3)	232-0115	K110
60 mm (2.36 in)	1372 mm (54 in)	241-6721	5	232-0116	232-0114 (3)	232-0115	K110
60 mm (2.36 in)	1372 mm (54 in)	279-4114	5	264-2116	232-0114 (3)	264-2115	K110
60 mm (2.36 in)	1372 mm (54 in)	279-9960	5	264-2116	232-0114 (3)	264-2115	K110
60 mm (2.36 in)	1372 mm (54 in)	253-0107 ³	3		232-0114 (3)		K110
60 mm (2.36 in)	1372 mm (54 in)	253-0108 ³	3		232-0114 (3)		K110
60 mm (2.36 in)	1524 mm (60 in)	260-9416 ²	6	232-0114	232-0114 (4)	232-0114	K110
60 mm (2.36 in)	1524 mm (60 in)	258-4576	6	232-0116	232-0114 (4)	232-0115	K110
60 mm (2.36 in)	1524 mm (60 in)	241-6722	6	232-0116	232-0114 (4)	232-0115	K110
60 mm (2.36 in)	1524 mm (60 in)	279-4115	6	264-2116	232-0114 (4)	264-2115	K110
60 mm (2.36 in)	1524 mm (60 in)	279-9961	6	264-2116	232-0114 (4)	264-2115	K110
60 mm (2.36 in)	1524 mm (60 in)	253-0109 ³	4		232-0114 (4)		K110
60 mm (2.36 in)	1524 mm (60 in)	253-0110 ³	4		232-0114 (4)		K110
60 mm (2.36 in)	1600 mm (63 in)	253-0111 ³	4		232-0114 (4)		K110
60 mm (2.36 in)	1676 mm (66 in)	260-9417 ²	7	232-0114	232-0114 (5)	232-0114	K110
60 mm (2.36 in)	1676 mm (66 in)	258-4577	7	232-0116	232-0114 (5)	232-0115	K110
60 mm (2.36 in)	1676 mm (66 in)	241-6723	7	232-0116	232-0114 (5)	232-0115	K110
60 mm (2.36 in)	1676 mm (66 in)	279-4116	7	264-2116	232-0114 (5)	264-2115	K110
60 mm (2.36 in)	1676 mm (66 in)	253-0112 ³	3		232-0114 (3)		K110
60 mm (2.36 in)	1676 mm (66 in)	253-0113 ³	4		232-0114 (4)		K110
60 mm (2.36 in)	1676 mm (66 in)	253-0114 ³	4		232-0114 (4)		K110
60 mm (2.36 in)	1727 mm (68 in)	304-3114	7	264-2116	232-0114 (5)	264-2115	K110
60 mm (2.36 in)	1727 mm (68 in)	253-0115 ³	4		232-0114 (4)		K110
60 mm (2.36 in)	1727 mm (68 in)	253-0116 ³	4		232-0114 (4)		K110
60 mm (2.36 in)	1829 mm (72 in)	260-9418 ²	7	232-0114	232-0114 (5)	232-0114	K110
60 mm (2.36 in)	1829 mm (72 in)	258-4578	7	232-0116	232-0114 (5)	232-0115	K110
60 mm (2.36 in)	1829 mm (72 in)	244-3889	7	232-0116	232-0114 (5)	232-0115	K110
60 mm (2.36 in)	1829 mm (72 in)	279-4117	7	264-2116	232-0114 (5)	264-2115	K110
60 mm (2.36 in)	1829 mm (72 in)	253-0117 ³	5		232-0114 (5)		K110
60 mm (2.36 in)	1880 mm (74 in)	279-9963	7	264-2116	232-0114 (5)	264-2115	K110
60 mm (2.36 in)	1980 mm (78 in)	260-9419 ²	8	232-0114	232-0114 (6)	232-0114	K110
70 mm (2.76 in)	991 mm (39 in)	279-9971	3	264-2136	232-0130	264-2135	K130
70 mm (2.76 in)	1040 mm (41 in)	253-0126 ³	1		232-0130		K130
70 mm (2.76 in)	1219 mm (48 in)	253-9075	4	232-0132	232-0130 (2)	232-0131	K130
70 mm (2.76 in)	1219 mm (48 in)	279-9972	4	264-2136	232-0130 (2)	264-2135	K130
70 mm (2.76 in)	1219 mm (48 in)	253-0127 ³	2		232-0130 (2)		K130
70 mm (2.76 in)	1372 mm (54 in)	253-9076	4	232-0132	232-0130 (2)	232-0131	K130
70 mm (2.76 in)	1372 mm (54 in)	279-9973	4	264-2136	232-0130 (2)	264-2135	K130
70 mm (2.76 in)	1372 mm (54 in)	253-0128 ³	3		232-0130 (3)		K130
70 mm (2.76 in)	1524 mm (60 in)	253-9077	5	232-0132	232-0130 (3)	232-0131	K130
70 mm (2.76 in)	1524 mm (60 in)	279-9974	5	264-2136	232-0130 (3)	264-2135	K130
70 mm (2.76 in)	1524 mm (60 in)	265-3398 ⁴	4	232-0130	232-0130 (2)	232-0130	K130
70 mm (2.76 in)	1550 mm (61 in)	257-1752 ³	3		232-0130 (3)		K130
70 mm (2.76 in)	1676 mm (66 in)	279-9975	5	264-2136	232-0130 (3)	264-2135	K130
70 mm (2.76 in)	1905 mm (75 in)	257-1753 ³	4		232-0130 (4)		K130
70 mm (2.76 in)	1930 mm (76 in)	265-3400 ⁴	6	232-0130	232-0130 (4)	232-0130	K130
70 mm (2.76 in)	1981 mm (78 in)	279-9976	6	264-2136	232-0130 (4)	264-2135	K130

¹ Consists of base edge and adapters

² Straight corner adapters

³ Upgrade/conversion – no corner adapters

⁴ Spade w/straight corner adapters

⁵ Spade w/angled corner adapters

⁶ Spade upgrade/conversion – no corner adapters

Ground Engaging Tools — Excavator Bucket Base Edge Assemblies

Ground Engaging Tools — Excavators

Base Edge Thickness	Bucket Width	Base Edge Assy ¹	No. of Teeth	Adapters (qty)			Tip Size
				(LH)	(CTR)	(RH)	
70 mm (2.76 in)	1981 mm (78 in)	257-1755 ³	4		232-0130 (4)		K130
80 mm (3.15 in)	1067 mm (42 in)	293-6380	3	264-2156	195-9154	264-2155	K150
80 mm (3.15 in)	1372 mm (54 in)	293-6381	4	264-2156	195-9154 (2)	264-2155	K150
80 mm (3.15 in)	1676 mm (66 in)	293-6382	4	264-2156	195-9154 (2)	264-2155	K150
80 mm (3.15 in)	1778 mm (70 in)	264-2027 ³	3		195-9154 (3)		K150
80 mm (3.15 in)	1981 mm (78 in)	293-6383	5	264-2156	195-9154 (3)	264-2155	K150
80 mm (3.15 in)	2007 mm (79 in)	260-1244	4	195-9156	195-9154 (2)	195-9155	K150
80 mm (3.15 in)	2007 mm (79 in)	260-1158 ⁵	4	195-9156	195-9154 (2)	195-9155	K150
80 mm (3.15 in)	2083 mm (82 in)	264-2035 ⁶	2		195-9154 (2)		K150
80 mm (3.15 in)	2108 mm (83 in)	260-1241	4	195-9156	195-9154 (2)	195-9155	K150
80 mm (3.15 in)	2108 mm (83 in)	264-2031 ³	4		195-9154 (4)		K150
80 mm (3.15 in)	2261 mm (89 in)	264-2043 ⁶	4		195-9154 (4)		K150
80 mm (3.15 in)	2286 mm (90 in)	264-2039 ⁶	3		195-9154 (3)		K150
80 mm (3.15 in)	2438 mm (96 in)	264-2033 ³	5		195-9154 (5)		K150
80 mm (3.15 in)	2464 mm (97 in)	264-2029 ³	3		195-9154 (3)		K150
80 mm (3.15 in)	2464 mm (97 in)	264-2037 ⁶	2		195-9154 (2)		K150
80 mm (3.15 in)	2489 mm (98 in)	264-2041 ⁶	3		195-9154 (3)		K150
80 mm (3.15 in)	2540 mm (100 in)	264-2045 ⁶	4		195-9154 (4)		K150
90 mm (3.54 in)	2311 mm (91 in)	293-6388	6	264-2176	232-2170 (4)	264-2175	K170
90 mm (3.54 in)	2311 mm (91 in)	293-6392 ⁴	5	232-2170	232-2170 (3)	232-2170	K170
90 mm (3.54 in)	2388 mm (94 in)	264-2051 ⁶	4		232-2170 (4)		K170
90 mm (3.54 in)	2438 mm (96 in)	293-6389	6	264-2176	232-2170 (4)	264-2175	K170
90 mm (3.54 in)	2489 mm (98 in)	264-2047 ⁶	3		232-2170 (3)		K170
90 mm (3.54 in)	2489 mm (98 in)	264-2049 ⁶	3		232-2170 (3)		K170

¹ Consists of base edge and adapters

² Straight corner adapters

³ Upgrade/conversion – no corner adapters

⁴ Spade w/straight corner adapters

⁵ Spade w/angled corner adapters

⁶ Spade upgrade/conversion – no corner adapters

Ground Engaging Tools — Excavator Bucket Base Edges

Thickness	Length at Front	Width	Bevel Angle	Part Number
80 mm (3.15 in)	2363 mm (93.0 in)	500 mm (19.7 in)	22.5	119-3174
70 mm (2.76 in)	1999 mm (78.7 in)	380 mm (15.0 in)	22.5	6I-5303
70 mm (2.76 in)	1185 mm (46.7 in)	380 mm (15.0 in)	22.5	100-6198
60 mm (2.36 in)	1954 mm (76.9 in)	380 mm (15.0 in)	22.5	108-1066
50 mm (1.97 in)	1784 mm (70.2 in)	400 mm (15.75 in)	22.5	137-4104
50 mm (1.97 in)	1369 mm (53.9 in)	400 mm (15.75 in)	22.5	137-4101
50 mm (1.97 in)	1646 mm (64.8 in)	325 mm (12.8 in)	22.5	9C-3955
45 mm (1.77 in)	1829 mm (72.0 in)	305 mm (12.0 in)	22.5	135-3164
45 mm (1.77 in)	1829 mm (72.0 in)	305 mm (12.0 in)	22.5	232-2924
45 mm (1.77 in)	1689 mm (66.5 in)	305 mm (12.0 in)	22.5	135-3163
45 mm (1.77 in)	1658 mm (65.3 in)	305 mm (12.0 in)	22.5	127-2317
45 mm (1.77 in)	1226 mm (48.3 in)	305 mm (12.0 in)	22.5	127-2290
40 mm (1.57 in)	1830 mm (72.0 in)	300 mm (11.8 in)	22.5	232-2923
40 mm (1.57 in)	1524 mm (60.0 in)	300 mm (11.8 in)	22.5	227-8203
40 mm (1.57 in)	1484 mm (58.4 in)	300 mm (11.8 in)	22.5	129-1540
40 mm (1.57 in)	1442 mm (56.8 in)	306 mm (12.0 in)	22.5	135-8636
40 mm (1.57 in)	1207 mm (47.5 in)	300 mm (11.8 in)	22.5	129-5715
38 mm (1.50 in)	1727 mm (68.0 in)	306 mm (12.0 in)	22.5	135-8637
38 mm (1.50 in)	1575 mm (62.0 in)	254 mm (10.0 in)	35	5V-0166
38 mm (1.50 in)	1045 mm (41.1 in)	254 mm (10.0 in)	35	8K-0668
36 mm (1.42 in)	1349 mm (53.1 in)	290 mm (11.4 in)	22.5	7I-6713
36 mm (1.42 in)	1054 mm (41.5 in)	290 mm (11.4 in)	22.5	100-4150
32 mm (1.25 in)	1725 mm (67.9 in)	282 mm (11.1 in)	22.5	8R-2662
32 mm (1.25 in)	1676 mm (66.0 in)	305 mm (12.0 in)	22.5	135-3165
32 mm (1.25 in)	1829 mm (72.0 in)	305 mm (12.0 in)	22.5	135-3167
32 mm (1.25 in)	1090 mm (42.9 in)	200 mm (7.88 in)	22.5	086-0814
32 mm (1.25 in)	1000 mm (39.4 in)	200 mm (7.88 in)	22.5	086-0813
32 mm (1.25 in)	920 mm (36.2 in)	200 mm (7.88 in)	22.5	085-9510
32 mm (1.25 in)	821 mm (32.3 in)	200 mm (7.88 in)	22.5	086-0809
32 mm (1.25 in)	700 mm (27.6 in)	200 mm (7.88 in)	22.5	086-0812
32 mm (1.25 in)	600 mm (23.6 in)	200 mm (7.88 in)	22.5	086-0811
25 mm (1.00 in)	1960 mm (77.2 in)	230 mm (9.10 in)	22.5	5W-7957
20 mm (0.79 in)	2269 mm (89.3 in)	200 mm (8.66 in)	22.5	8U-2639
20 mm (0.79 in)	1110 mm (43.7 in)	220 mm (8.66 in)	22.5	7Y-6601

K Series™ Tips

Cat K Series excavator bucket tips use a new vertical retention system that allows quick and easy tip changes. Providing a new locking interface at every tip change to improve retention reliability. Lower profile improves penetration and wear life.



General Duty Tip

- General excavation and loading in moderate impact/abrasion.
- Moderate penetration.
- Symmetric, top and bottom self-sharpening cavities.



Extra Duty Tip

- General excavation and loading w/more wear material.
- Moderate impact, moderate penetration.
- Top self-sharpening cavity.



Penetration Tip

- For harder-to-penetrate, moderate impact, lower abrasion.
- Very good penetration.
- Top rib, bottom cavity to stay sharp.



Penetration Plus Tip

- High impact trenching, excavation and loading.
- Good penetration, stays sharp.
- Symmetric, ribbed top and bottom.



Spike Tip

- For maximum penetration, especially in cohesive material.
- Stays sharp for enhanced wear life.
- Top and bottom rib design.



Double Spike Tip

- For harder-to-penetrate, fracturable materials.
- Very good penetration, stays sharp.
- Use in corner positions with Spike Centers.
- Length matches spike.



Wide Tip

- For easy-to-penetrate trenching applications.
- Low impact.
- Smooth floor trenches.

K Family Identification

To identify tip or adapter family simply measure the distance between the “ears” of the tip in millimeters and round to the nearest 5 mm.

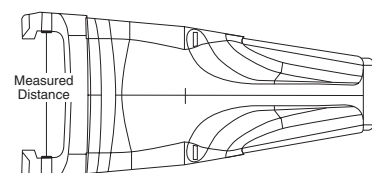
Ex: 80 mm (3.15") = K80

87.4 mm (3.44") = K90

96.1 mm (3.78") = K100

Tip Chart

	K80	K90	K100	K110	K130	K150	K170
General Duty	220-9089	220-9099	220-9109	220-9119	220-9139	229-7159	232-0179
Extra Duty	220-9081	220-9091	220-9101	232-2111	264-2131	264-2151	264-2171
Penetration	220-9082	220-9092	220-9102	220-9112	220-9132	229-7152	232-0172
Penetration Plus	220-9083	220-9093	220-9103	220-9113	220-9133	229-7153	232-0173
Spike	220-9087	220-9097	220-9107	220-9117	220-9137	229-7157	232-0177
Double Spike	220-9088	220-9098	220-9108	220-9118	220-9138	229-7158	232-0178
Wide	222-1080	222-1090	223-8100	223-8110	223-8130	195-5151	223-8170
Retainer	220-9090	220-9090	220-9090	220-9110	220-9130	233-7150	232-0170



Tips

Cat excavator bucket tips are side pinned for excellent tip retention and quick, easy tip changing. The pin hole is located through the tip sides which are the areas of least wear.



Penetration Long Life Tip

- Increases wear life.
- Enhances penetration due to self-sharpening tip.
- Includes ARM strips.



Long Tip

- General duty in low-abrasion applications.



Short Tip

- Provides more strength.
- Use to prevent breakage.



Wide Tip

- Provides less penetration.
- Provides a cleaner floor and less spillage.



Penetration Tip

- Provides better penetration.
- Contains less wear material.

Penetration Plus Tip

- Provides a good combination of strength and wear life.
- For use where penetration and increased wear life are desired.
- For use in most jobs.



Sharp Corner Tip/Sharp Center Tip

- Provides the best penetration.
- Contains the least wear material.



Twin Sharp Tip

- For use for severe digging in rock and frost.
- Use in combination with sharp tips.



Long Sharp Tip

- Provides more wear material than standard sharp tip.
- For use when penetration is the primary concern.



Heavy Duty Long Life Tip

- Contains ARM which is positioned to increase wear life and penetration.
- Not for use in extreme impact applications.



Heavy Duty Long Tip

- Provides more wear material and greater strength than long tip.
- Has a streamlined-profile for better penetration.



Heavy Duty Abrasion Tip

- Contains greater wear material.
- Not for use in high impact applications.



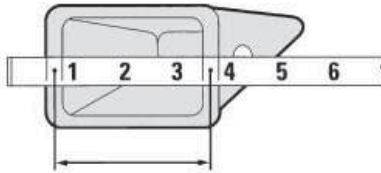
Light Duty Long Tip

- For use in low impact with low to medium abrasiveness.
- Self-sharpening design and symmetrical shape.



Ground Engaging Tools — Excavator Tips — Side Pin Style

J Family Identification



To identify the tip or adapter family, place a tape measure across the back of the tip at the midpoint of the side walls. For example:

76.20 mm (3.0") measurement = J300 Family

88.90 mm (3.5") measurement = J350 Family

139.70 mm (5.5") measurement = J550 Family

In addition, the second and third to last locations in the part number often times refer to the J size.

Example: 9W-8551 = J550 Family

Tip Chart

	J200	J225	J250	J300	J350	J400	J450/J460	J550	J600	J700	J800
Long	1U-3202	6Y-3222	1U-3252	1U-3302	1U-3352	7T-3402	9W-8452	9W-8552	6I-6602	4T-4702	6I-8802
Short		6Y-6221	1U-3251	1U-3301	1U-3351	7T-3401	9W-8451	9W-8551	6I-6601		
Light Duty Long	195-9209		168-1253	168-1301	168-1351	168-1401	168-1451				
Wide	109-9200	186-3010	208-5254	107-3300	107-3350	107-3400	107-3450	107-3550			
Penetration	1U-3209	6Y-8229	9J-4259	9J-4309	9J-4359	6Y-7409	9W-8459	9W-8559	7I-7609	4T-4709	117-6809
Penetration Long Life				125-8309	119-9359	124-7409	116-7459	113-0559	119-9609		
Penetration Plus				183-5300	168-1359	168-1409	159-0459	159-0559	159-0607	171-1709	
Sharp Corner	9W-8208	6Y-7228	9W-8258	9W-8308	9W-2358	6Y-5408	6I-8458	6I-8558	107-8608		
Sharp Center	9W-8209	6Y-7229	9W-8259	9W-8309	9W-2359	6Y-5409	7T-8459	9W-6559	107-8609		
Twin Sharp	135-8208	135-8228	135-8258	135-9308	135-9357	135-9408	138-6458	222-7553	222-7603		
Long Sharp				168-1300	168-1350	159-0400	159-0450	159-0550	159-0600	136-8700	
Heavy Duty Long		8E-4222	9N-4252	9N-4302	9N-4352	8E-4402	9N-4452	9N-4552	7Y-0602	9U-9702	
Heavy Duty Long Life			135-8252	125-8302	135-9352	116-7402	101-9054	101-9055	107-8602	107-2001	117-6802
Heavy Duty Abrasion		6Y-6223	9N-4253	9N-4303	9N-4353	7T-3403	9N-4453	6Y-2553	6I-6603	9U-9703	6I-8803
Heavy Duty Penetration				135-9300	144-1358	135-9400	138-6451	138-6552	135-9600	135-9700	135-9800
Standard Pin	8E-6208										
Standard Retainer	8E-6209										
Heavy Duty Pin		132-4762	132-4763	132-4766	114-0358	116-7408	114-0468*	107-3378	113-9608	113-4708	134-1808
Heavy Duty Retainer Assembly		149-5733	149-5733	149-5733	114-0359	116-7409	107-3469*	107-8559	113-9609	113-4709	134-1809

* Some older adapters have a 19 mm (0.75") pin diameter, instead of the current 22 mm (0.875") pin diameter. For those older adapters which have the 19 mm (0.75") pin diameter, use a 6Y-2527 pin and a 8E-6359 retainer.

Sidecutters

- Increases bucket width and capacity.
- Protects bucket sides.
- Improves sidebar penetration.

Blade Type 1 Sidecutter

- For use in most conditions.



One Piece Sidecutter

- For use in most soil conditions.
- Widens bite width.
- Provides good protection to bucket sides.



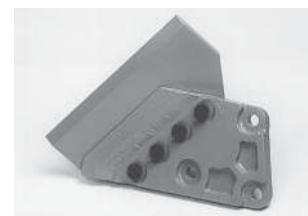
Heavy Duty Sidecutter

- For use in tough digging conditions.
- Contains more wear material and covers more of the sidebar for enhanced protection.
- Profile enhances digging performance.



Combination Blade Sidecutter

- For use in light to moderate conditions.



Tooth Type Sidecutter

- For use in tough conditions.
- Uses the same tips as the cutting edge.



Strike-Off Sidecutter

- For use in all conditions.
- Does not add width to bucket.



Ground Engaging Tools — Excavator Sidecutters

Type	LH	RH	Blade	LH Upper	RH Upper	Bolt	Nut	Washer
307, E70B								
One Piece	153-1647	153-1646				6V-3531 (6)	8T-4131 (6)	
311, 312, 314, E110B, E120B, E140B								
One Piece	7Y-0203	7Y-0204				6V-3531 (8)	8T-4131 (8)	
315, Early M318/320, Early B Linkage								
One Piece	096-4747	096-4748				8T-0664 (8)	7X-0851 (8)	
318, M318/320								
One Piece	7Y-0358	7Y-0357				1D-4635 (6)	2J-3507 (6)	3K-5234 (6)
Strike-off	174-8044	232-2140				1D-4635 (6)	2J-3507 (6)	3K-5234 (6)
Blade	8J-9614	8J-9615				7Y-2146 (6)	2J-3507 (6)	3K-5234 (6)
Combination	8J-9614	8J-9615	4T-2886 (2)			7Y-2146 (6)	2J-3507 (6)	3K-5234 (6)
Blade Hardware						1J-6762 (8)	2J-3506 (8)	
Heavy Duty	232-2148	232-2147				1D-4635 (8)	2J-3507 (8)	3K-5234 (8)
Tooth	8J-4952	8J-4951				7Y-2146 (6)	2J-3507 (6)	3K-5234 (6)
Use J350 Tip (i.e. 1U-3352) + 114-0358 Pin + 114-0359 Retainer with Tooth Sidecutter								
Later B Linkage, C, CB, D, DB, S Linkages								
One Piece	7Y-0358	7Y-0357				1D-4635 (6)	2J-3507 (6)	3K-5234 (6)
Strike-off	174-8044	232-2140		232-2140	174-8044	1D-4635 (10)	2J-3507 (10)	3K-5234 (10)
Blade	8J-9614	8J-9615				7Y-2146 (6)	2J-3507 (6)	3K-5234 (6)
Combination	8J-9614	8J-9615	4T-2886 (2)			7Y-2146 (6)	2J-3507 (6)	3K-5234 (6)
Blade Hardware						1J-6762 (8)	2J-3506 (8)	
Heavy Duty	232-2148	232-2147				1D-4635 (8)	2J-3507 (8)	3K-5234 (8)
Tooth	8J-4952*	8J-4951*				7Y-2146 (6)	2J-3507 (6)	3K-5234 (6)
Use J350 Tip (i.e. 1U-3352) + 114-0358 Pin + 114-0359 Retainer with Tooth Sidecutter								

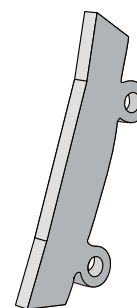
* For D/DB buckets, use 8E-1468/69 plus J450 Tip (i.e. 9W-8452) + 114-0468 Pin + 114-3469 Retainer

Early E, F, G, H Linkages								
Strike-off	8J-5188	8J-5188				1D-4635 (4)	2J-3507 (4)	3K-5234 (4)
Blade	8J-9826	8J-9825				7Y-1136 (10)	2J-3507 (10)	3K-5234 (10)
Combination	8J-9826	8J-9825	4T-6664 (2)			7Y-1136 (10)	2J-3507 (10)	3K-5234 (10)
Blade Hardware						4J-9208 (8)	2J-3507 (8)	
Tooth	8J-4948	8J-4947				7Y-1136 (10)	2J-3507 (10)	3K-5234 (10)
Use J550 Tip (i.e. 9W-8552) + 107-3378 Pin + 107-8554 Retainer with Tooth Sidecutter								
Early J Linkage								
Strike-off	8J-5188	8J-5188				7Y-2146 (4)	2J-3507 (4)	3K-5234 (4)
Blade	8J-9826	8J-9825				1D-4637 (10)	2J-3507 (10)	3K-5234 (10)
Combination	8J-9826	8J-9825	4T-6664 (2)			1D-4637 (10)	2J-3507 (10)	3K-5234 (10)
Blade Hardware						4J-9208 (8)	2J-3507 (8)	
Tooth	8J-4948	8J-4947				1D-4637 (10)	2J-3507 (10)	3K-5234 (10)
Use J550 Tip (i.e. 9W-8552) + 107-3378 Pin + 107-8554 Retainer with Tooth Sidecutter								
Later F, G, HB, TB, UB, V, VB Linkages								
Strike-off	275-5999	275-5998		195-5136	195-5136	7Y-2146 (12)	2J-3507 (12)	3K-5234 (12)
Heavy Duty	256-8691	256-8690				1D-4637 (10)	2J-3507 (10)	3K-5234 (10)
Later J, JB Linkages								
Heavy Duty	238-3170	238-3169				9X-8896 (12)	2J-3507 (12)	3K-5234 (12)

Hex Sidebar Protectors

- Use in rock loading applications.
- Protects bucket sidebar.

Bucket Linkage	Sidebar Thickness	Part Number	Pin	Retainer	Shim Pack
Early B, C, D, S (HDR & R)	35 mm	8J-4143 (2)	9J-8441 (4)	8E-8559 (4)	286-2140 (4)
318, Later B, C, CB, D, DB, S (all) & TB (GP)	35 mm	112-2489 (4)	112-2490 (8)	149-5733 (8)	286-2140 (8)
Early E, F, G, V	35 mm	112-2494 (2)	132-0998 (4)	149-5733 (4)	286-2140 (4)
Later E, F, G, HB, UB, V, VB (all) & TB (HD, HDP & HDR)	35 mm	166-2877 (4)	132-0998 (8)	149-5733 (8)	286-2140 (8)
Early J (MX)	50 mm	1U-0740 (4)	133-0738 (8)	107-8559 (8)	286-2140 (8)
Later J, JB	50 mm	112-2492 (4)	132-1008 (8)	149-5733 (8)	286-2140 (8)
W, WB (Spade Rock)	60, 63 mm	125-0800 (2)	8E-4708 (4)	4T-4707 (4)	



ONE SAFE SOURCE | 2008-2009



GROUND ENGAGING TOOLS | LOADERS

Ground Engaging Tools — Base Edge/Base Edge Assembly

992 Base Edge/Base Edge Assembly

	Type	Thickness	Length	Width @ Corner	Adapters	Adapter Qty	Segments
992G							
218-3418*	Spade	76.2 mm (3.00 in)	4824 mm (189.92 in)	335 mm (13.19 in)	J700	8	Yes
146-8955*	Spade	76.2 mm (3.00 in)	4824 mm (189.92 in)	335 mm (13.19 in)	J700	8	Yes
146-8966	Spade	76.2 mm (3.00 in)	4824 mm (189.92 in)	335 mm (13.19 in)			Yes
247-7241*	Spade	76.2 mm (3.00 in)	4824 mm (189.92 in)	335 mm (13.19 in)	K170	8	Yes
153-5621*	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)	J700	8	Yes
142-5790*	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)	J600	8	Yes
112-9032*	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)	J600	8	Yes
132-7091*	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)	J550	8	Yes
112-9033	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)			Yes
170-1748	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)	BOCE		No
138-4386*	Straight	70 mm (2.76 in)	4824 mm (189.92 in)	541 mm (21.30 in)	J600	8	No
235-1090*	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)	K150	8	Yes
247-7232*	Spade	70 mm (2.76 in)	4824 mm (189.92 in)	335 mm (13.19 in)	K170	8	Yes
132-7091*	Spade	63.5 mm (2.50 in)	4824 mm (189.92 in)	335 mm (13.19 in)	J550	8	Yes
107-6763*b	Spade	70 mm (2.76 in)	4840 mm (190.55 in)	378 mm (14.88 in)	J600	8	Lugs
247-7247*b	Spade	70 mm (2.76 in)	4840 mm (190.55 in)	380 mm (14.96 in)	K150	8	Yes
278-8205*b	Spade	70 mm (2.76 in)	4840 mm (190.55 in)	405 mm (15.94 in)	K150	9	Yes
992C/D							
134-8333*	Spade	76.2 mm (3.00 in)	4824 mm (189.92 in)	430 mm (16.93 in)	J700	8	Yes
257-8870*	Spade	70 mm (2.76 in)	4750 mm (187.01 in)	438 mm (17.24 in)	K150	8	Yes
109-9094*	Spade	70 mm (2.76 in)	4750 mm (187.01 in)	438 mm (17.24 in)	J600	8	Yes
107-8570	Spade	70 mm (2.76 in)	4750 mm (187.01 in)	438 mm (17.24 in)			Yes
257-8859*	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)	K130	8	Yes
257-8857*	Spade	63.5 mm (2.50 in)	4597 mm (180.98 in)	438 mm (17.24 in)	K130	8	No
20-0318*	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)	J700	8	Yes
179-7379*	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)	J600	8	Yes
4E-6462	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)	BOCE		Yes
112-2122*	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)	J550	8	Yes
4E-6464*	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)	J550	8	Yes
9V-0014*	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)	J550	8	No
9V-0005	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	438 mm (17.24 in)			No
112-2121*a	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	332 mm (13.07 in)	J550	8	Yes
9V-3566a	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	332 mm (13.07 in)			Yes
257-1836*	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	332 mm (13.07 in)	K130	8	Yes
9V-0013*a	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	332 mm (13.07 in)	J550	8	No
9V-0006a	Spade	63.5 mm (2.50 in)	4750 mm (187.01 in)	332 mm (13.07 in)			No
142-1416	Straight	63.5 mm (2.50 in)	4750 mm (187.01 in)	695 mm (27.36 in)	BOCE		No
112-2123*	Straight	63.5 mm (2.50 in)	4750 mm (187.01 in)	541 mm (21.30 in)	J550	8	Yes
9U-3846	Straight	63.5 mm (2.50 in)	4750 mm (187.01 in)	541 mm (21.30 in)			Yes
9V-0010*	Straight (F)	63.5 mm (2.50 in)	4750 mm (187.01 in)	541 mm (21.30 in)	J550	8	No
9V-0007	Straight	63.5 mm (2.50 in)	4750 mm (187.01 in)	541 mm (21.30 in)			No
275-2477*	Straight (F)	63.5 mm (2.50 in)	4750 mm (187.01 in)	541 mm (21.30 in)	K130	8	No
208-5326*b	Spade	70 mm (2.76 in)	4840 mm (190.55 in)	454 mm (17.87 in)	J600	8	Yes
250-7577*b	Spade	70 mm (2.76 in)	4840 mm (190.55 in)	454 mm (17.87 in)	K150	8	Yes

* Base edge assembly

a High-lift bucket edge

b High abrasion bucket edge

(F) Designates Flushmount adapters

990 Base Edge/Base Edge Assembly

	Type	Thickness	Length	Width @ Corner	Adapters	Adapter Qty	Segments
990							
145-0795	Spade	76.2 mm (3.00 in)	4610 mm (181.50 in)	533 mm (20.98 in)			No
112-2118*	Spade	63.5 mm (2.50 in)	4450 mm (175.20 in)	355 mm (13.98 in)	J550	8	No
101-9188	Spade	63.5 mm (2.50 in)	4450 mm (175.20 in)	355 mm (13.98 in)			No
151-5980	Spade	63.5 mm (2.50 in)	4450 mm (175.20 in)	355 mm (13.98 in)	BOCE		No
112-2119*	Spade	63.5 mm (2.50 in)	4450 mm (175.20 in)	355 mm (13.98 in)	J550	8	Yes
4E-9915	Spade	63.5 mm (2.50 in)	4450 mm (175.20 in)	355 mm (13.98 in)			Yes
112-2120*	Straight	63.5 mm (2.50 in)	4450 mm (175.20 in)	441 mm (17.36 in)	J550	8	Yes
101-9186	Straight	63.5 mm (2.50 in)	4450 mm (175.20 in)	441 mm (17.36 in)			Yes
111-9048*	Straight	63.5 mm (2.50 in)	4450 mm (175.20 in)	506 mm (19.92 in)	J550	8	No
111-9049	Straight	63.5 mm (2.50 in)	4450 mm (175.20 in)	506 mm (19.92 in)			No
2Q-4246*	Spade	63.5 mm (2.50 in)	4610 mm (181.50 in)	414 mm (16.30 in)	J550	8	Yes
2Q-4247	Spade	63.5 mm (2.50 in)	4610 mm (181.50 in)	414 mm (16.30 in)			Yes
2Q-7059*	Spade	63.5 mm (2.50 in)	4450 mm (175.20 in)	355 mm (13.98 in)	J550	8	Yes
195-5088*	Spade (S)	63.5 mm (2.50 in)	4574 mm (180.08 in)	355 mm (13.98 in)	J550	7	Lugs
255-3759*	Spade	63.5 mm (2.50 in)	4450 mm (175.20 in)	355 mm (13.98 in)	K130	8	Yes
255-3756*	Spade	63.5 mm (2.50 in)	4610 mm (181.50 in)	414 mm (16.30 in)	K130	8	Yes
255-3765*a	Spade (S)	70 mm (2.76 in)	4574 mm (180.08 in)	477 mm (18.78 in)	K150	7	Yes
251-7776*a	Spade (S)	70 mm (2.76 in)	4574 mm (180.08 in)	477 mm (18.78 in)	K150	7	Yes
(w/9 MAWPS bases — no base edge wear plates)							

* Base edge assembly

a High Abrasion bucket edge

(S) = Stepped spade edge (all center adapters)

Ground Engaging Tools — Base Edge/Base Edge Assembly

988 Base Edge/Base Edge Assembly

	Type	Thickness	Length	Width @ Corner	Adapters	Adapter Qty	Segments	BOCE
988B								
3V-0187	Straight	45 mm (1.77 in)	3645 mm (143.50 in)	305 mm (12.01 in)			No	Yes
9V-0232	Straight	50.8 mm (2.00 in)	3645 mm (143.50 in)	330 mm (12.99 in)			No	No
9C-2932	Straight	50.8 mm (2.00 in)	3645 mm (143.50 in)	330 mm (12.99 in)			Yes	Yes
8V-9585	Spade	50.8 mm (2.00 in)	3645 mm (143.50 in)	311 mm (12.24 in)			No	No
8R-4649	Spade	50.8 mm (2.00 in)	3645 mm (143.50 in)	311 mm (12.24 in)			Yes	Yes
4E-0056*	Straight	50.8 mm (2.00 in)	3645 mm (143.50 in)	330 mm (12.99 in)	J460	8	No	N/A
116-7201*	Spade	50.8 mm (2.00 in)	3645 mm (143.50 in)	311 mm (12.24 in)	J460	8	Yes	N/A
116-7206*	Spade	50.8 mm (2.00 in)	3645 mm (143.50 in)	311 mm (12.24 in)	J460	8	No	N/A
256-2934*	Spade	50.8 mm (2.00 in)	3645 mm (143.50 in)	311 mm (12.24 in)	K110	8	Yes	N/A
256-2931*	Straight (F)	50.8 mm (2.00 in)	3645 mm (143.50 in)	330 mm (12.99 in)	K110	8	No	N/A
988F								
4E-8112	Straight	50.8 mm (2.00 in)	3772 mm (148.50 in)	349 mm (13.74 in)			Yes	Yes
2Q-3133	Straight	50.8 mm (2.00 in)	3772 mm (148.50 in)	349 mm (13.74 in)			No	No
4E-7616	Spade (W)	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)			Yes	Yes
9U-4713	Spade	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)			No	No
132-3117	Spade	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)			Yes	Yes
2Q-4344	Spade (S)	50.8 mm (2.00 in)	3980 mm (156.69 in)	354 mm (13.94 in)			Yes	No
116-7204*	Straight	50.8 mm (2.00 in)	3772 mm (148.50 in)	349 mm (13.74 in)	J460	8	Yes	N/A
2Q-3132*	Straight (F)	50.8 mm (2.00 in)	3772 mm (148.50 in)	349 mm (13.74 in)	J460	8	No	N/A
257-1829*	Straight (F)	50.8 mm (2.00 in)	3772 mm (148.50 in)	349 mm (13.74 in)	K110	8	No	N/A
253-0163*	Straight (F)	50.8 mm (2.00 in)	3772 mm (148.50 in)	349 mm (13.74 in)	J460	10	No	N/A
257-1830*	Straight (F)	50.8 mm (2.00 in)	3772 mm (148.50 in)	349 mm (13.74 in)	K110	10	No	N/A
132-3116*	Spade	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)	J460	8	Yes	N/A
133-0820*	Spade	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)	J460	8	No	N/A
133-0818*	Spade	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)	J550	8	Yes	N/A
2Q-7060*	Spade (W)	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)	J460	8	Yes	N/A
256-2938*	Spade	50.8 mm (2.00 in)	3772 mm (148.50 in)	311 mm (12.24 in)	K130	8	Yes	N/A
144-0106*	Spade	50.8 mm (2.00 in)	3822 mm (150.47 in)	304 mm (11.97 in)	J550	8	Yes	N/A
257-1834*	Spade	50.8 mm (2.00 in)	3822 mm (150.47 in)	304 mm (11.97 in)	K130	8	Yes	N/A
2Q-4342*	Spade (S)	50.8 mm (2.00 in)	3980 mm (156.69 in)	354 mm (13.94 in)	J460	8	Yes	N/A
257-1835*	Spade (S)	50.8 mm (2.00 in)	3980 mm (156.69 in)	354 mm (13.94 in)	K130	8	Yes	N/A
2Q-7019*	Spade	63.5 mm (2.50 in)	3862 mm (152.05 in)	314 mm (12.36 in)	J550	7	Yes	N/A
257-1833*	Spade	63.5 mm (2.50 in)	3862 mm (152.05 in)	314 mm (12.36 in)	K130	7	Yes	N/A
988G								
149-5915	Spade	50.8 mm (2.00 in)	3964 mm (156.06 in)	311 mm (12.24 in)			No	Yes
246-2743*	Spade	50.8 mm (2.00 in)	3800 mm (149.61 in)	310 mm (12.20 in)	K110	8	Yes	N/A
156-1040*	Straight	50.8 mm (2.00 in)	3800 mm (149.61 in)	418 mm (16.46 in)	J460	8	Yes	N/A
136-6175*	Spade	50.8 mm (2.00 in)	3800 mm (149.61 in)	310 mm (12.20 in)	J460	8	Yes	N/A
195-0410*	Spade (S)	50.8 mm (2.00 in)	3900 mm (153.54 in)	368 mm (14.49 in)	J460	8	Yes	N/A
257-1831*	Spade (S)	50.8 mm (2.00 in)	3900 mm (153.54 in)	368 mm (14.49 in)	K110	8	Yes	N/A
204-0721*	Straight (F)	50.8 mm (2.00 in)	3900 mm (153.54 in)	510 mm (20.08 in)	J460	8	No	N/A
257-1832*	Straight (F)	50.8 mm (2.00 in)	3900 mm (153.54 in)	510 mm (20.08 in)	K110	8	No	N/A
151-1213*	Spade (S)	50.8 mm (2.00 in)	3980 mm (156.69 in)	354 mm (13.94 in)	J460	8	Yes	N/A
156-6391*	Spade (S)	50.8 mm (2.00 in)	3980 mm (156.69 in)	359 mm (14.13 in)	J460	8	Yes	N/A
186-3282*a	Spade (S)	63.5 mm (2.50 in)	3926 mm (154.57 in)	310 mm (12.20 in)	J550	6	Lugs	N/A
253-9582*a	Spade (S)	63.5 mm (2.50 in)	3926 mm (154.57 in)	390 mm (15.35 in)	K130	7	Yes	N/A
(w/5 MAWPS bases — no base edge wear plates)								

* Base edge assembly

a High Abrasion bucket edge

(W) = Wide nose spade (3 center segments)

Spade = 1 center, 3 RH, 3 LH segments

(S) = Stepped spade edge (all center adapters)

(F) = Flushmount adapters

(Continued)

988 Base Edge/Base Edge Assembly (Continued)

	Type	Thickness	Length	Width @ Corner	Adapters	Adapter Qty	Segments	BOCE
988H								
257-3667	CGS	50 mm (1.97 in)	3695 mm (145.47 in)	400 mm (15.75 in)			Yes	Yes
257-3649*	Straight	50.8 mm (2.00 in)	3800 mm (149.61 in)	318 mm (12.52 in)	K110	8	Yes	N/A
246-2766*	Spade (S)	50.8 mm (2.00 in)	3810 mm (150.00 in)	275 mm (10.83 in)	K110	8	Yes	N/A
246-2746*	Spade (S)	50.8 mm (2.00 in)	3980 mm (156.69 in)	359 mm (14.13 in)	K110	8	Yes	N/A
246-2764*	Spade (S)	50.8 mm (2.00 in)	3980 mm (156.69 in)	360 mm (14.17 in)	K110	8	Yes	N/A
246-2768*	Spade (S)	63.5 mm (2.50 in)	3862 mm (152.05 in)	375 mm (14.76 in)	K130	7	Yes	N/A
257-3695*a	Spade (S)	63.5 mm (2.50 in)	3926 mm (154.57 in)	390 mm (15.35 in)	K130	7	Yes	N/A
253-9582*a	Spade (S)	63.5 mm (2.50 in)	3926 mm (154.57 in)	390 mm (15.35 in)	K130	7	Yes	N/A
(w/5 MAWPS bases — no base edge wear plates)								

* Base edge assembly

a High Abrasion bucket edge

(W) = Wide nose spade (3 center segments)

Spade = 1 center, 3 RH, 3 LH segments

(S) = Stepped spade edge (all center adapters)

(F) = Flushmount adapters

Ground Engaging Tools — Loader Buckets

910-980 Loader Bucket Base Edges & Assemblies (Weld-On System)

Length at Front	Width at End	Thickness	Part Number	Edge Type	Adapters	Adapter Type	Qty	Segments	BOCE
2218.5 mm (87.3 in)	190.5 mm (7.5 in)	19 mm (0.7 in)	5G-5764	Straight				No	No
2328 mm (91.7 in)	190.5 mm (7.5 in)	19 mm (0.7 in)	5G-8526	Straight				No	No
2434 mm (95.8 in)	190.5 mm (7.5 in)	19 mm (0.7 in)	5G-8911*	Straight	J200	F	8	No	No
2434 mm (95.8 in)	190.5 mm (7.5 in)	19 mm (0.7 in)	5G-8912	Straight				No	No
2454 mm (96.6 in)	190.5 mm (7.5 in)	19 mm (0.7 in)	128-1489	Straight				No	No
2076.5 mm (81.8 in)	228.6 mm (9.0 in)	25 mm (1.0 in)	1V-0074*	Straight	J250	F	6a	No	No
2076.5 mm (81.8 in)	228.6 mm (9.0 in)	25 mm (1.0 in)	9K-8471	Straight				No	No
2156 mm (84.9 in)	228.5 mm (9.0 in)	25 mm (1.0 in)	9V-5110	Straight				No	No
2248 mm (88.5 in)	228.6 mm (9.0 in)	25 mm (1.0 in)	9K-8461	Straight				No	No
2286 mm (90.0 in)	228.6 mm (9.0 in)	25 mm (1.0 in)	1V-9077	Straight				No	No
2436.5 mm (95.9 in)	245 mm (9.6 in)	25 mm (1.0 in)	9V-9755*	Straight	J250	F	8	No	No
2438.5 mm (96.0 in)	228.6 mm (9.0 in)	25 mm (1.0 in)	1V-3916	Straight				No	No
2477 mm (97.5 in)	245 mm (9.6 in)	25 mm (1.0 in)	106-3192*	Straight	J250	F	8	No	No
2594 mm (102.1 in)	245 mm (9.6 in)	25 mm (1.0 in)	4E-2482*	Straight				No	No
2594 mm (102.1 in)	245 mm (9.6 in)	25 mm (1.0 in)	4E-2483	St-F	J250	F	8	No	No
2686 mm (105.7 in)	228.6 mm (9.0 in)	25 mm (1.0 in)	1V-3915	Straight				No	No
2731 mm (107.5 in)	245 mm (9.6 in)	25 mm (1.0 in)	9V-9072	St-F				No	No
2731 mm (107.5 in)	245 mm (9.6 in)	25 mm (1.0 in)	9V-9521*	Straight	J250	F	8	No	No
3090 mm (121.7 in)	245 mm (9.6 in)	25 mm (1.0 in)	5V-7416	Straight				No	No
2346 mm (92.4 in)	266.7 mm (10.5 in)	32 mm (1.3 in)	9V-5340	Straight				No	No
2489 mm (98.0 in)	266.7 mm (10.5 in)	32 mm (1.3 in)	9K8472	Straight				No	No
2498 mm (98.3 in)	282 mm (11.1 in)	32 mm (1.3 in)	256-4723*	Straight	K90	F	8	No	No
2552 mm (100.5 in)	266.7 mm (10.5 in)	32 mm (1.3 in)	9V-5327*	Straight	J300	F	8	No	No
2552 mm (100.5 in)	266.7 mm (10.5 in)	32 mm (1.3 in)	9V-5328	Straight				No	No
2583 mm (101.7 in)	282 mm (11.1 in)	32 mm (1.3 in)	8Y-9405*	Straight	J350	F	8	No	No
2825 mm (111.2 in)	282 mm (11.1 in)	32 mm (1.3 in)	6W-4598	St-F				No	No
2825 mm (111.2 in)	282 mm (11.1 in)	32 mm (1.3 in)	6W-4599*	Straight	J300	F	8	No	No
2825 mm (111.2 in)	282 mm (11.1 in)	32 mm (1.3 in)	257-1826*	Straight	K80	F	8	No	No
2921 mm (115.0 in)	266.7 mm (10.5 in)	32 mm (1.3 in)	1V-3917	Straight				No	No
2815 mm (110.8 in)	205 mm (8.1 in)	35 mm (1.4 in)	6W-2973	Spade				No	Yes
2815 mm (110.8 in)	205 mm (8.1 in)	35 mm (1.4 in)	9C-0967	Spade				No	No
2815 mm (110.8 in)	205 mm (8.1 in)	35 mm (1.4 in)	9W-9879*	Spade	J350	B st	8	No	No
2815 mm (110.8 in)	205 mm (8.1 in)	35 mm (1.4 in)	257-1827*	Spade	K90	2 st	8	No	No
2969 mm (116.9 in)	188.6 mm (7.4 in)	35 mm (1.4 in)	141-8823	Spade				No	Yes
2969 mm (116.9 in)	188.6 mm (7.4 in)	35 mm (1.4 in)	141-8824*	Spade	J350	B st	8	No	No
2969 mm (116.9 in)	188.6 mm (7.4 in)	35 mm (1.4 in)	142-9406	Spade				No	No
2969 mm (116.9 in)	188.6 mm (7.4 in)	35 mm (1.4 in)	154-7375*	Spade	J350	2 st	8	Yes	No
2969 mm (116.9 in)	188.6 mm (7.4 in)	35 mm (1.4 in)	257-1828*	Spade	K90	2 st	8	Yes	No
2583 mm (101.7 in)	300 mm (11.8 in)	40 mm (1.6 in)	219-3171	Straight				No	No
2690 mm (105.9 in)	290 mm (11.4 in)	40 mm (1.6 in)	9V-5287	Straight				No	No
2705 mm (106.5 in)	287 mm (11.3 in)	40 mm (1.6 in)	9V-0171	Spade				No	No
2705 mm (106.5 in)	287 mm (11.3 in)	40 mm (1.6 in)	9V-0178*	Spade	J350	B st	7	No	No
2934 mm (115.5 in)	290 mm (11.4 in)	40 mm (1.6 in)	9V-5283	Straight				No	No
2934 mm (115.5 in)	290 mm (11.4 in)	40 mm (1.6 in)	9V-5284*	Straight	J350	F	8	No	No
3085 mm (121.5 in)	262 mm (10.3 in)	40 mm (1.6 in)	9V-0170	Spade				No	No
3085 mm (121.5 in)	262 mm (10.3 in)	40 mm (1.6 in)	9V-0176*	Spade	J350	B st	8	No	No
3085 mm (121.5 in)	262 mm (10.3 in)	40 mm (1.6 in)	257-1825*	Spade	K90	2 st	8	No	No
3128 mm (123.1 in)	300 mm (11.8 in)	40 mm (1.6 in)	6W-5520*	Straight	J350	F	8	No	No

* Base edge assembly

a No end adapters

St-F = Edge notched for Flushmount adapters

F = Flushmount

B st = Bottom strap

2 st = Double strap

BOCE = Bolt-on cutting edge(s)

(Continued)

910-980 Loader Bucket Base Edges & Assemblies (Weld-On System) (Continued)

Length at Front	Width at End	Thickness	Part Number	Edge Type	Adapters	Adapter Type	Qty	Segments	BOCE
3252 mm (128.0 in)	260.5 mm (10.3 in)	40 mm (1.6 in)	148-6915	Spade				Yes	No
3252 mm (128.0 in)	260.5 mm (10.3 in)	40 mm (1.6 in)	148-6914*	Spade	J350	2 st	8	Yes	No
3252 mm (128.0 in)	260.5 mm (10.3 in)	40 mm (1.6 in)	254-4505*	Spade	K90	2 st	8	Yes	No
3252 mm (128.0 in)	260.5 mm (10.3 in)	40 mm (1.6 in)	154-1604	Spade				No	Yes
2705 mm (106.5 in)	287 mm (11.3 in)	45 mm (1.8 in)	6W-2994	Spade				Yes	Yes
2705 mm (106.5 in)	287 mm (11.3 in)	45 mm (1.8 in)	292-3263*	Spade	J460	2 st	7	Yes	No
3085 mm (121.5 in)	262 mm (10.3 in)	45 mm (1.8 in)	6W-2993	Spade				Yes	Yes
3370 mm (132.7 in)	302 mm (11.9 in)	45 mm (1.8 in)	4E-6806*	Spade	J460	2 st	8	Yes	No
3370 mm (132.7 in)	302 mm (11.9 in)	45 mm (1.8 in)	4E-6807*	Spade	J350	B st	8	Yes	No
3370 mm (132.7 in)	302 mm (11.9 in)	45 mm (1.8 in)	8V-9581	Spade				No	No
3370 mm (132.7 in)	302 mm (11.9 in)	45 mm (1.8 in)	9V-0233*	Spade	J350	B st	8	No	No
3370 mm (132.7 in)	302 mm (11.9 in)	45 mm (1.8 in)	257-1824*	Spade	K100	2 st	8	Yes	No
3370 mm (132.7 in)	302 mm (11.9 in)	45 mm (1.8 in)	9V-3561	Spade				Yes	Yes
3410 mm (134.3 in)	305 mm (12.0 in)	45 mm (1.8 in)	8V-6274	Straight				No	No
3492 mm (137.5 in)	264 mm (10.4 in)	45 mm (1.8 in)	113-9942	Spade				Yes	Yes
3492 mm (137.5 in)	264 mm (10.4 in)	45 mm (1.8 in)	123-1396	Spade				No	No
3492 mm (137.5 in)	264 mm (10.4 in)	45 mm (1.8 in)	126-6539*	Spade	J400	2 st	8	Yes	No
3492 mm (137.5 in)	264 mm (10.4 in)	45 mm (1.8 in)	126-6540*	Spade	J400	2 st	8	No	No
3492 mm (137.5 in)	305 mm (12.0 in)	45 mm (1.8 in)	130-4606*	Straight	J400	F	8	No	No
3492 mm (137.5 in)	305 mm (12.0 in)	45 mm (1.8 in)	136-0878	Straight				No	No
3492 mm (137.5 in)	305 mm (12.0 in)	45 mm (1.8 in)	261-8713*	Straight	K100	F	8	No	No
3492 mm (137.5 in)	264 mm (10.4 in)	45 mm (1.8 in)	261-8714*	Spade	K100	2 st	8	No	No
3492 mm (137.5 in)	264 mm (10.4 in)	45 mm (1.8 in)	261-8715*	Spade	K100	2 st	8	Yes	No
2714 mm (106.9 in)	330 mm (13.0 in)	50 mm (2.0 in)	9V0255	Straight				No	No
2714 mm (106.9 in)	330 mm (13.0 in)	50 mm (2.0 in)	137-6264*	Straight	J460	2 st	6	No	No
3492 mm (137.5 in)	264 mm (10.4 in)	50 mm (2.0 in)	134-1747*	Spade	J460	2 st	8	Yes	No
3492 mm (137.5 in)	264 mm (10.4 in)	50 mm (2.0 in)	134-1748	Spade				Yes	No
3492 mm (137.5 in)	264 mm (10.4 in)	50 mm (2.0 in)	260-1385*	Spade	K110	2 st	8	Yes	No
3568 mm (140.5 in)	280 mm (11.0 in)	50 mm (2.0 in)	135-7114*	Straight	J460	2 st	8	Yes	No
3568 mm (140.5 in)	280 mm (11.0 in)	50 mm (2.0 in)	260-1384*	Straight	K110	2 st	8	Yes	No

* Base edge assembly

a No end adapters

St-F = Edge notched for Flushmount adapters

F = Flushmount

B st = Bottom strap

2 st = Double strap

BOCE = Bolt-on cutting edge(s)

Ground Engaging Tools — Loader Buckets

Loader Bucket Straight Base Edges (Bolt-On System)

Length at Front	Width at End	Thickness	Part Number	One Bolt Bucket Corner		Two Bolt Bucket Corner		Adapters (qty)	Segments (y/n)	Cutting Edges (y/n)
				(lh)	(rh)	(lh)	(rh)			
1823 mm (71.8 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	5G-2808	5G-2806	5G-2807			8	n	y
1898 mm (74.7 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	6S-6501	5G-2806	5G-2807			6	n	y
1950 mm (76.8 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	8Y-4738	5G-2806	5G-2807			8	y	y
1950 mm (76.8 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	5G-8467	5G-2806	5G-2807			8	n	y
2075 mm (81.7 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	5G-2809	5G-2806	5G-2807			7	n	y
2150 mm (84.6 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	5G-6133	5G-2806	5G-2807			7	y	y
2264 mm (89.1 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	5G-8763	5G-2806	5G-2807			7	y	y
2330 mm (91.7 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	5G-3477	5G-2806	5G-2807			7	n	y
2366 mm (93.1 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	5G-8342	5G-2806	5G-2807			8	y	y
2406 mm (94.7 in)	190.5 mm (7.5 in)	19 mm (0.75 in)	6S-7291	5G-2806	5G-2807			7	n	n
2018 mm (79.4 in)	245 mm (9.6 in)	25 mm (1.0 in)	6W-2977	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2079 mm (81.9 in)	245 mm (9.6 in)	25 mm (1.0 in)	9V-6571	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2079 mm (81.9 in)	245 mm (9.6 in)	25 mm (1.0 in)	4V-8335	4V-1545	4V-1544	6I-8310	6I-8311	8	n	y
2152 mm (84.7 in)	245 mm (9.6 in)	25 mm (1.0 in)	8Y-8763	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2210 mm (87.0 in)	245 mm (9.6 in)	25 mm (1.0 in)	4V-8850	4V-1545	4V-1544	6I-8310	6I-8311	8	n	y
2210 mm (87.0 in)	245 mm (9.6 in)	25 mm (1.0 in)	9V-6570	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2248 mm (88.5 in)	245 mm (9.6 in)	25 mm (1.0 in)	5V-7437			6I-8310	6I-8311	8	n	y
2248 mm (88.5 in)	245 mm (9.6 in)	25 mm (1.0 in)	8V-7453	4V-1545	4V-1544	6I-8310	6I-8311	8	n	y
2248 mm (88.5 in)	245 mm (9.6 in)	25 mm (1.0 in)	6W-2976	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2370 mm (93.3 in)	245 mm (9.6 in)	25 mm (1.0 in)	5V-4670	4V-1545	4V-1544	6I-8310	6I-8311	8	n	y
2370 mm (93.3 in)	245 mm (9.6 in)	25 mm (1.0 in)	9V-6572	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2408 mm (94.8 in)	245 mm (9.6 in)	25 mm (1.0 in)	6W-2984	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2435 mm (95.9 in)	245 mm (9.6 in)	25 mm (1.0 in)	110-4781	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2524 mm (99.4 in)	245 mm (9.6 in)	25 mm (1.0 in)	4E-0659	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2639 mm (103.9 in)	245 mm (9.6 in)	25 mm (1.0 in)	8V-1825	4V-1545	4V-1544	6I-8310	6I-8311	8	n	y
2639 mm (103.9 in)	245 mm (9.6 in)	25 mm (1.0 in)	6W-2985	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2690 mm (105.9 in)	245 mm (9.6 in)	25 mm (1.0 in)	105-2345	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2723 mm (107.2 in)	245 mm (9.6 in)	25 mm (1.0 in)	110-4712	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2412 mm (95.0 in)	245 mm (9.6 in)	25 mm (1.0 in)	6W-2986	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
2615 mm (103.0 in)	245 mm (9.6 in)	25 mm (1.0 in)	6W-2987	4V-1545	4V-1544	6I-8310	6I-8311	8	y	y
Note: All the above 245 mm wide × 25 mm thick base edges can be equipped with the following bucket corners for upsized adapters. On narrower edges check for segment-tip interference.										
				5V-7395	5V-7396	8E-5302	8E-5303			
2744 mm (108.0 in)	245 mm (9.6 in)	25 mm (1.0 in)	5V-7410			6I-8310	6I-8311	0	n	y
2237 mm (88.1 in)	282 mm (11.1 in)	32 mm (1.3 in)	6W-2978	5V-1784	5V-1783	8E-5301	8E-5300	8	y	y
2268 mm (89.3 in)	282 mm (11.1 in)	32 mm (1.3 in)	4V-4958	5V-1784	5V-1783	8E-5301	8E-5300	8	n	y
2268 mm (89.3 in)	282 mm (11.1 in)	32 mm (1.3 in)	6W-2979	5V-1784	5V-1783	8E-5301	8E-5300	8	y	y
2430 mm (95.7 in)	282 mm (11.1 in)	32 mm (1.3 in)	5V-7263	5V-1784	5V-1783	8E-5301	8E-5300	8	n	y
2474 mm (97.4 in)	282 mm (11.1 in)	32 mm (1.3 in)	4V-3174	5V-1784	5V-1783	8E-5301	8E-5300	8	n	y
2474 mm (97.4 in)	282 mm (11.1 in)	32 mm (1.3 in)	6W-2980	5V-1784	5V-1783	8E-5301	8E-5300	8	y	y
2736 mm (107.7 in)	282 mm (11.1 in)	32 mm (1.3 in)	5V-4696	5V-1784	5V-1783	8E-5301	8E-5300	8	n	y
2736 mm (107.7 in)	282 mm (11.1 in)	32 mm (1.3 in)	9V-6573	5V-1784	5V-1783	8E-5301	8E-5300	8	y	y
2840 mm (111.8 in)	282 mm (11.1 in)	32 mm (1.3 in)	6W-2989	5V-1784	5V-1783	8E-5301	8E-5300	8	y	y
2856 mm (112.4 in)	282 mm (11.1 in)	32 mm (1.3 in)	6W-2990	5V-1784	5V-1783	8E-5301	8E-5300	8	y	y
2886 mm (113.6 in)	282 mm (11.1 in)	32 mm (1.3 in)	141-4847	5V-1784	5V-1783	8E-5301	8E-5300	8	y	y
Note: All the above 282 mm wide × 32 mm thick base edges can be equipped with the following bucket corners for upsized adapters. On narrower edges check for segment-tip interference. (Corners are not dimensionally equal.)										

Loader Bucket Straight Base Edges (Bolt-On System) (Continued)

Length at Front	Width at End	Thickness	Part Number	One Bolt Bucket Corner		Two Bolt Bucket Corner		Adapters (qty)	Segments (y/n)	Cutting Edges (y/n)
				(lh)	(rh)	(lh)	(rh)			
				5V-2773	5V-2772	8E-5321	8E-5320			
2498 mm (98.3 in)	282 mm (11.1 in)	32 mm (1.3 in)	8Y-6263			8E-5321	8E-5320	8	y	y
3040 mm (119.7 in)	282 mm (11.1 in)	32 mm (1.3 in)	7V-0912	5V-2773	5V-2772	8E-5321	8E-5320	0	n	y
2430 mm (95.7 in)	300 mm (11.8 in)	40 mm (1.6 in)	6W-2983	4V-7174	4V-7175	8E-5310	8E-5311	8	y	y
2602 mm (102.4 in)	300 mm (11.8 in)	40 mm (1.6 in)	5V-0600	4V-7174	4V-7175	8E-5310	8E-5311	8	n	y
2602 mm (102.4 in)	300 mm (11.8 in)	40 mm (1.6 in)	6W-2982	4V-7174	4V-7175	8E-5310	8E-5311	8	y	y
2702 mm (106.4 in)	300 mm (11.8 in)	40 mm (1.6 in)	5G-7303	4V-7174	4V-7175	8E-5310	8E-5311	8	n	y
2702 mm (106.4 in)	300 mm (11.8 in)	40 mm (1.6 in)	5G-7304	4V-7174	4V-7175	8E-5310	8E-5311	8	y	y
2846 mm (112.0 in)	300 mm (11.8 in)	40 mm (1.6 in)	4V-9714	4V-7174	4V-7175	8E-5310	8E-5311	8	n	y
2846 mm (112.0 in)	300 mm (11.8 in)	40 mm (1.6 in)	6W-2981	4V-7174	4V-7175	8E-5310	8E-5311	8	y	y
2912 mm (114.6 in)	300 mm (11.8 in)	40 mm (1.6 in)	7V-6844	4V-7174	4V-7175	8E-5310	8E-5311	8	n	y
2925 mm (115.2 in)	300 mm (11.8 in)	40 mm (1.6 in)	7I-3631	4V-7174	4V-7175	8E-5310	8E-5311	8	y	y
3032 mm (119.4 in)	300 mm (11.8 in)	40 mm (1.6 in)	7V-1490	4V-7174	4V-7175	8E-5310	8E-5311	8	n	y
3032 mm (119.4 in)	300 mm (11.8 in)	40 mm (1.6 in)	9V-6575	4V-7174	4V-7175	8E-5310	8E-5311	8	y	y
3200 mm (126.0 in)	300 mm (11.8 in)	40 mm (1.6 in)	7I-3015	4V-7174	4V-7175	8E-5310	8E-5311	8	y	y
3323 mm (130.8 in)	300 mm (11.8 in)	40 mm (1.6 in)	7V-0909	4V-7174	4V-7175	8E-5310	8E-5311	0	n	y
3179 mm (125.2 in)	305 mm (12.0 in)	45 mm (1.8 in)	6W-2991	7V-4180	7V-4181	6I-8250	6I-8249	8	y	y
3315 mm (130.5 in)	305 mm (12.0 in)	45 mm (1.8 in)	7V-4188	7V-4180	7V-4181	6I-8250	6I-8249	8	n	y
3315 mm (130.5 in)	305 mm (12.0 in)	45 mm (1.8 in)	9V-6574	7V-4180	7V-4181	6I-8250	6I-8249	8	y	y
3405 mm (134.1 in)	305 mm (12.0 in)	45 mm (1.8 in)	111-9770	7V-4180	7V-4181	6I-8250	6I-8249	8	y	y
3560 mm (140.2 in)	305 mm (12.0 in)	45 mm (1.8 in)	4E-6085	7V-4180	7V-4181	6I-8250	6I-8249	8	y	y
3607 mm (142.0 in)	305 mm (12.0 in)	45 mm (1.8 in)	193-9015	7V-4180	7V-4181	6I-8250	6I-8249	0	n	y
3687 mm (145.2 in)	305 mm (12.0 in)	45 mm (1.8 in)	9U-3748	7V-4180	7V-4181	6I-8250	6I-8249	8	y	y
3810 mm (150.0 in)	305 mm (12.0 in)	45 mm (1.8 in)	194-0659	7V-4180	7V-4181	6I-8250	6I-8249	0	n	y
3687 mm (145.2 in)	325 mm (12.8 in)	50 mm (2.0 in)	183-5190			6I-8250	6I-8249	8	y	y
3695 mm (145.5 in)	400 mm (15.7 in)	50 mm (2.0 in)	257-3667			6I-8250	6I-8249	8	y	y

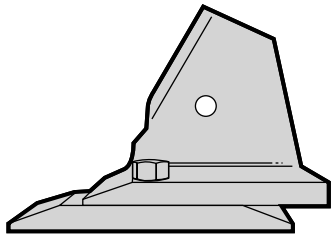
Ground Engaging Tools — Loader Edges

Bolt-On Edges

When penetration is not a problem, use bolt-on cutting edges.

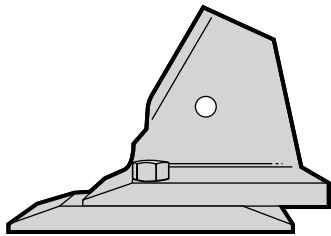
Bolt-on cutting edges:

- Increases base edge life up to five times over an unprotected base edge.
- Are quick and easy to replace.
- Increases bucket capacity.
- Provides smooth floor maintenance capability.
- Are made of DH-2 steel alloy and are hardened to 430-520 Brinell.



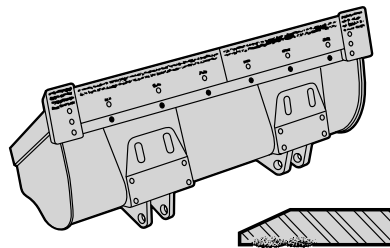
Standard Bolt-On Edges

- Reversible for a second wear life.



Heavy Duty Bolt-On Edges

- Provides at least 50% more wear material than standard bolt-on edges.
- Reversible for a second wear life.



ARM Bolt-On Edges

- Provides three to five times the wear life of standard bolt-on edges.
- For use in low to moderate impact applications where wear rates are high — such as in abrasive materials.

Loader Rock Bucket Bolt-On Cutting Edges

Note: All quantities are (1) unless indicated otherwise

Base Edge Part Number	BOCE Type	LH End (qty)	LH Center (qty)	Center (qty)	RH Center (qty)	RH End (qty)	Hardware		Washer
							Bolt (qty)	Nut (qty)	
4E-6462	Standard	6I-8368	6I-8367	6I-8364	6I-8365	6I-8366	5P-8823 (28)	3K-9770 (28)	4K-0684 (28)
	Heavy Duty	127-7430	127-7432	127-7429	127-7433	127-7431	5P-8823 (28)	3K-9770 (28)	4K-0684 (28)
4E-7616	Standard	101-9032		101-9350		101-9351	6V-6535 (21)	3K-9770 (21)	4K-0684 (21)
	Heavy Duty	107-3544		107-3540		107-3543	6V-6535 (21)	3K-9770 (21)	4K-0684 (21)
	ARM	136-6794		136-6790		136-6793	6V-6535 (21)	3K-9770 (21)	4K-0684 (21)
4E-8112	Standard	102-2184		102-9350		102-2184	6V-6535 (21)	3K-9770 (21)	4K-0684 (21)
	Heavy Duty	107-3541		107-3540		107-3541	6V-6535 (21)	3K-9770 (21)	4K-0684 (21)
	ARM	132-1067		132-1068		132-1067	6V-6535 (21)	3K-9770 (21)	4K-0684 (21)
4E-9915	Standard	162-3296	106-6423	106-6420	106-6421	162-3297	5P-8823 (32)	3K-9770 (32)	4K-0684 (32)
6W-2973	Standard	7T-5964	7T-5961	7T-5962	7T-5963	7T-5960	8T-9079 (18)	3K-9770 (18)	4K-0684 (18)
6W-2993	Standard	4T-9127	4T-9125	4T-9185	4T-9128	4T-9126	6V-6535 (16)	3K-9770 (16)	4K-0684 (16)
6W-2994	Standard	9W-3678		9W-3676		9W-3677	6V-6535 (12)	3K-9770 (12)	4K-0684 (12)
8R-4649	Standard	9W-5732	9W-5731	9W-5733	9W-5736	9W-5735	6V-6535 (25)	3K-9770 (25)	4K-0684 (25)
	Heavy Duty	106-1095	106-1094	106-1096	106-1098	106-1097	6V-6535 (25)	3K-9770 (25)	4K-0684 (25)
	ARM	208-5282	208-5281	208-5283	208-5286	208-5285	6V-6535 (25)	3K-9770 (25)	4K-0684 (25)
9C-2932	Standard	9W-8249		9W-8250		9W-8249	6V-6535 (11)	3K-9770 (11)	4K-0684 (11)
9V-3561	Standard	4T-7143	4T-7145	4T-7141	4T-7144	4T-7142	6V-6535 (18)	3K-9770 (18)	4K-0684 (18)
	Heavy Duty	107-8588	107-8590	107-8586	107-8589	107-8587	6V-6535 (18)	3K-9770 (18)	4K-0684 (18)
101-9186	Standard	106-6378		106-6377 (2)		106-6378	5P-8823 (26)	3K-9770 (26)	4K-0684 (26)
113-9942	Standard	109-9125	109-9124	109-9123	109-9122	109-9121	6V-6535 (25)	3K-9770 (25)	4K-0684 (25)
132-3117	Standard	101-9352		144-1331		101-9351	6V-6535 (21)	3K-9770 (21)	4K-0684 (21)
141-8823	Standard	109-9016	7T-5961	132-1089	7T-5963	109-9017	8T-9079 (18)	3K-9770 (18)	4K-0684 (18)
149-5915	Standard	9W-5732	9W-5731	9W-5733	9W-5736	9W-5735	6V-6535 (28)	3K-9770 (28)	4K-0684 (28)
				+9W-5734					
	Heavy Duty	106-1095	106-1094	106-1096	106-1098	106-1097	6V-6535 (28)	3K-9770 (28)	4K-0684 (28)
				+107-3490					
154-1604	Standard	135-8242	135-8244	135-8240	135-8243	135-8241	8T-9079 (18)	3K-9770 (18)	4K-0684 (18)
151-5980	Standard	162-3296	106-6423	106-6420	106-6421	162-3297	5P-8823 (32)	3K-9770 (32)	4K-0684 (32)
170-1748	Standard	6I-8368	6I-8367	6I-8364	6I-8365	6I-8366	5P-8823 (28)	3K-9770 (28)	4K-0684 (28)
	Heavy Duty	127-7430	127-7432	127-7429	127-7433	127-7431	5P-8823 (28)	3K-9770 (28)	4K-0684 (28)

Ground Engaging Tools — Loader GP Buckets

Loader GP Bucket Bolt-On Cutting Edges & Top Wear Plates

Note: All quantities are (1) unless indicated otherwise

Base Edge Part Number	BOCE Type	Center (qty)	Straight Endbit/End		Angled Endbit		Hardware	
			LH (qty)	RH (qty)	LH (qty)	RH (qty)	Bolt (qty)	Nut (qty)
3V-0187	Standard	4T-6588	4T-6588	4T-6588			4J-9058 (18)	2J-3507 (18)
4E-0659	Standard	8E-4567 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	ARM	135-6728/9	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)
4E-6085	Standard	9W-1375 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	ARM	109-2697 (2)	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)
4V-3174	Standard	1U-0600 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
4V-4958	Standard	1U-0599 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
4V-8335	Standard	1U-0294 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
4V-8850	Standard	1U-0293 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
4V-9714	Standard	1U-2406 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
5G-2808	Standard	4T-2911	4T-2910	4T-2910			4F-7827 (8)	2J-3506 (8)
	Heavy Duty		195-7130	195-7130			4F-7827 (8)	2J-3506 (8)
5G-2809	Standard	4T-8796	4T-2914	4T-2914			4F-7827 (7)	2J-3506 (7)
	Heavy Duty		195-7131	195-7132			4F-7827 (7)	2J-3506 (7)
5G-2395*	Standard		4T-2912	4T-2912			4F-7827 (8)	2J-3506 (8)
5G-3477	Standard	4T-2915	4T-2914	4T-2914			4F-7827 (7)	2J-3506 (7)
	Heavy Duty		195-7135	195-7136			4F-7827 (7)	2J-3506 (7)
5G-6133	Standard	4T-2913	4T-2914	4T-2914			4F-7827 (7)	2J-3506 (7)
	Heavy Duty		195-7133	195-7134			4F-7827 (7)	2J-3506 (7)
5G-7303	Standard	9W-8334 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
5G-7304	Standard	9W-8334 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
5G-8342	Standard	9W-8620	4T-2914	4T-2914			4F-7827 (8)	2J-3506 (8)
	Heavy Duty		195-7137	195-7137			4F-7827 (8)	2J-3506 (8)
5G-8467	Standard	9W-9943	9W-9944	9W-9944			4F-7827 (8)	2J-3506 (8)
5G-8763	Standard	9W-8694	4T-2914	4T-2914			4F-7827 (7)	2J-3506 (7)
	Heavy Duty		195-7139	195-7140			4F-7827 (7)	2J-3506 (7)
5V-0600	Standard	1U-0591 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
5V-4670	Standard	1U-0295 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	ARM	9W-3486/7	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)
5V-4696	Standard	1U-0601 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
	Heavy Duty	132-1034 (2)	132-1033	132-1033			4F-4042 (12)	2J-3507 (12)
	ARM	9W-3492/3	9W-3488	9W-3489			4F-4042 (12)	2J-3507 (12)
5V-7263	Standard	1U-2411 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
5V-7410	Standard	1U-0601 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
	Heavy Duty	132-1034 (2)	132-1033	132-1033			4F-4042 (12)	2J-3507 (12)
	ARM	9W3492/3	9W-3488	9W-3489			4F-4042 (12)	2J-3507 (12)
5V-7437	Standard		1U-1471	1U-1471			1J-5607 (8)	2J-3507 (8)
6S-6500*	Standard	4T-2920	4T-2910	4T-2910			4F-7827 (7)	2J-3506 (7)
6S-6501	Standard		4T-2919	4T-2919			4F-7827 (6)	2J-3506 (6)
6W-2976	Standard	4T-9563 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
6W-2977	Standard	1U-0605 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
6W-2978	Standard	1U-2410 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
6W-2979	Standard	1U-0599 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
6W-2980	Standard	1U-0600 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
6W-2981	Standard	1U-2406 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
6W-2982	Standard	1U-0591 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
6W-2983	Standard	1U-2408 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
6W-2984	Standard	1U-0607 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	ARM	9W-3483 (2)	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)

* Base edge not serviced

(Continued)

Loader GP Bucket Bolt-On Cutting Edges & Top Wear Plates (Continued)

Base Edge Part Number	BOCE Type	Center (qty)	Straight Endbit/End		Angled Endbit		Hardware	
			LH (qty)	RH (qty)	LH (qty)	RH (qty)	Bolt (qty)	Nut (qty)
6W-2985	Standard	1U-0292 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	ARM	9W-3484/5	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)
6W-2986	Standard	1U-2414 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
	Heavy Duty	132-1030 (2)	132-1033	132-1033			4F-4042 (12)	2J-3507 (12)
6W-2987	Standard	1U-2412 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
	Heavy Duty	132-1031 (2)	132-1033	132-1033			4F-4042 (12)	2J-3507 (12)
	ARM	9W-3490/1	9W-3488	9W-3489			4F-4042 (12)	2J-3507 (12)
6W-2988*	Standard	1U-2413 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
	Heavy Duty	132-1032 (2)	132-1033	132-1033			4F-4042 (12)	2J-3507 (12)
6W-2989	Standard	1U-2407 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	135-9532 (2)	100-4044	100-4044			5P-8823 (12)	3K-9770 (12)
6W-2990	Standard	1U-2406 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	100-4045 (2)	100-4044	100-4044			5P-8823 (12)	3K-9770 (12)
	ARM	9W-3479/80	123-0336	123-0337			5P-8823 (12)	3K-9770 (12)
6W-2991	Standard	4T-5273 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
7I-3015	Standard	100-6668 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	140-6823 (2)	167-7430	167-7430			5P-8823 (12)	3K-9770 (12)
	ARM	107-3287/8	123-0336	123-0337			5P-8823 (12)	3K-9770 (12)
	ARM (rev)	229-6944 (2)	208-5343	208-5343			5P-8823 (12)	3K-9770 (12)
	Half Arrow	253-0071 (3)	253-0069	253-0070			5P-8823 (18)	3K-9770 (18)
	HA (arm)	253-0075 (3)	253-0073	253-0074			5P-8823 (18)	3K-9770 (18)
Top Wear Plate for HA Edge		286-1981 (2)	286-1980	286-1979			5P-8361 (8)	
7I-3631	Standard	1U-1909 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	135-9533 (2)	100-4044	100-4044			5P-8823 (12)	3K-9770 (12)
	ARM	107-3282/3	123-0336	123-0337			5P-8823 (12)	3K-9770 (12)
7V-0898*	Standard	1U-2409 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
7V-0909	Standard	1U-0762 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	100-4047 (2)	100-4043	100-4043			5P-8823 (12)	3K-9770 (12)
	ARM	6Y-3271 (2)	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)
	ARM (rev)	208-5344 (2)	208-5177	208-5177			5P-8823 (12)	3K-9770 (12)
7V-0912	Standard	1U-0593 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
7V-1490	Standard	1U-0593 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	100-4046 (2)	100-4044	100-4044			5P-8823 (12)	3K-9770 (12)
	ARM	9W-3477/8	123-0336	123-0337			5P-8823 (12)	3K-9770 (12)
	ARM (rev)	208-5345 (2)	208-5343	208-5343			5P-8823 (12)	3K-9770 (12)
	Half Arrow	253-0079 (3)	253-0077	253-0078			5P-8823 (18)	3K-9770 (18)
	HA (arm)	253-0083 (3)	253-0081	253-0082			5P-8823 (18)	3K-9770 (18)
Top Wear Plate for HA Edge		286-1984 (2)	286-1983	286-1982			5P-8361 (8)	
7V-4188	Standard	1U-0762 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	100-4047 (2)	100-4043	100-4043			5P-8823 (12)	3K-9770 (12)
	ARM	6Y-3271 (2)	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)
	ARM (rev)	208-5344 (2)	208-5177	208-5177			5P-8823 (12)	3K-9770 (12)
	Half Arrow	217-4725 (3)	217-4726	217-4726			5P-8823 (18)	3K-9770 (18)
	HA (arm)	236-7033 (3)	229-6526	229-6526			5P-8823 (18)	3K-9770 (18)
7V-6844	Standard	1U-1909 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	135-9533 (2)	100-4044	100-4044			5P-8823 (12)	3K-9770 (12)
	ARM	107-3282/3	123-0336	123-0337			5P-8823 (12)	3K-9770 (12)
8K-8161*	Standard	1U-1465	1U-1464	1U-1464			1J-5607 (9)	2J-3507 (9)
	Heavy Duty	132-1026	132-1027	132-1027			1J-5607 (9)	2J-3507 (9)
	ARM	9W-3469	9W-3470	9W-3471			1J-5607 (9)	2J-3507 (9)
8V-1825	Standard	1U-0292 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	ARM	9W-3484/5	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)
8V-7453	Standard	4T-9563 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)

* Base edge not serviced

(Continued)

Ground Engaging Tools — Loader GP Buckets

Loader GP Bucket Bolt-On Cutting Edges & Top Wear Plates (Continued)

Base Edge Part Number	BOCE Type	Center (qty)	Straight Endbit/End		Angled Endbit		Hardware	
			LH (qty)	RH (qty)	LH (qty)	RH (qty)	Bolt (qty)	Nut (qty)
8Y-4738	Standard	9W-9943	9W-9944	9W-9944			4F-7827 (8)	2J-3506 (8)
8Y-6263	Standard	8E-5793 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
8Y-8763	Standard	100-6359 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
9U-3748	Standard	104-5841 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	183-5325 (2)	1U-0761	1U-0761			5P-8823 (12)	3K-9770 (12)
	ARM	132-1069/70	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)
9V-6570	Standard	1U-0293 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
9V-6571	Standard	1U-0294 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
9V-6572	Standard	1U-0295 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	ARM	9W-3486/7	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)
9V-6573	Standard	1U-0601 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
	Heavy Duty	132-1034 (2)	132-1033	132-1033			4F-4042 (12)	2J-3507 (12)
	ARM	9W-3492/3	9W-3488	9W-3489			4F-4042 (12)	2J-3507 (12)
9V-6574	Standard	1U-0762 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	100-4047 (2)	100-4043	100-4043			5P-8823 (12)	3K-9770 (12)
	ARM	6Y-3271 (2)	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)
	ARM (rev)	208-5344 (2)	208-5177	208-5177			5P-8823 (12)	3K-9770 (12)
	Half Arrow	217-4725 (3)	217-4726	217-4726			5P-8823 (18)	3K-9770 (18)
	HA (arm)	236-7033 (3)	229-6526	229-6526			5P-8823 (18)	3K-9770 (18)
Top Wear Plate for HA Edge		309-6120 (2)	309-6119	309-6118			5P-8361 (8)	
9V-6575	Standard	1U-0593 (2)	3G-6395	3G-6395	1U-1897	1U-1897	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	100-4046 (2)	100-4044	100-4044			5P-8823 (12)	3K-9770 (12)
	ARM	9W-3477/8	123-0336	123-0337			5P-8823 (12)	3K-9770 (12)
	ARM (rev)	208-5345 (2)	208-5343	208-5343			5P-8823 (12)	3K-9770 (12)
	Half Arrow	253-0079 (3)	253-0077	253-0078			5P-8823 (18)	3K-9770 (18)
	HA (arm)	253-0083 (3)	253-0081	253-0082			5P-8823 (18)	3K-9770 (18)
Top Wear Plate for HA Edge		286-1984 (2)	286-1983	286-1982			5P-8361 (8)	
105-2345	Standard	107-3746 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	Heavy Duty	138-6425 (2)	138-6560	138-6560			1J-5607 (10)	2J-3507 (10)
	ARM	107-3298/9	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)
110-4712	Standard	110-4711 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
	ARM	123-9195/6	9W-3482	9W-3481			1J-5607 (10)	2J-3507 (10)
110-4781	Standard	110-4782 (2)	4T-8091	4T-8091	1U-1896	1U-1896	1J-5607 (10)	2J-3507 (10)
111-9770	Standard	109-9212 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	109-9230 (2)	100-4043	100-4043			5P-8823 (12)	3K-9770 (12)
	ARM	109-9214 (2)	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)
	ARM (rev)	208-5178 (2)	208-5177	208-5177			5P-8823 (12)	3K-9770 (12)
	Half Arrow	217-4727 (3)	217-4726	217-4726			5P-8823 (18)	3K-9770 (18)
	HA (arm)	236-7034 (3)	229-6526	229-6526			5P-8823 (18)	3K-9770 (18)
Top Wear Plate for HA Edge		253-0184 (2)	253-0183	253-0182			5P-8361 (8)	
141-4847	Standard	139-9230 (2)	4T-8101	4T-8101	1U-1898	1U-1898	4F-4042 (12)	2J-3507 (12)
	Heavy Duty	135-9666 (2)	132-1033	132-1033			4F-4042 (12)	2J-3507 (12)
	ARM	138-0672/3	9W-3488	9W-3489			4F-4042 (12)	2J-3507 (12)
183-5190	Standard	104-5841 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	183-5325 (2)	1U-0761	1U-0761			5P-8823 (12)	3K-9770 (12)
	ARM	132-1069/70	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)
193-9015	Standard	4T-6588	4T-6588	4T-6588			8J-2928 (18)	2J-3507 (18)
194-0659	Standard	4T-6589 (2)	1U-0761	1U-0761	1U-0764	1U-0764	8J-2928 (16)	2J-3507 (16)
					End bit hardware		5P-8823 (6)	3K-9770 (6)
257-3667	Standard	104-5841 (2)	1U-0761	1U-0761	1U-0764	1U-0764	5P-8823 (12)	3K-9770 (12)
	Heavy Duty	183-5325 (2)	1U-0761	1U-0761			5P-8823 (12)	3K-9770 (12)
	ARM	132-1069/70	123-0335	123-0334			5P-8823 (12)	3K-9770 (12)

* Base edge not serviced

Bolt-On Segments

Bolt-on segments bolt directly to the bottom of the base edge between adapters.

Bolt-on segments:

- Increase bucket capacity.
- Maintain a smoother work surface.
- Protect the base edge between teeth, eliminating scalloping.
- Increase base edge life up to five times.
- Hardened to 430-520 Brinell.

Standard Bolt-On Segments

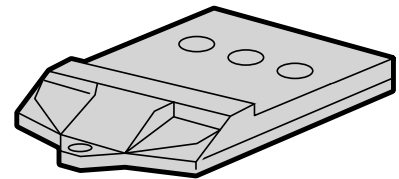
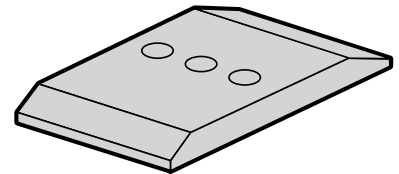
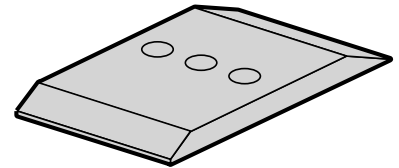
- Reversible for a second wear life.

Heavy Duty Bolt-On Segments

- Provides at least 50% more wear material than standard bolt-on segments.
- Reversible for a second wear life.

Half-Arrow Bolt-On Segments

- Stay sharper and enhance protection of the base edge front and bevel.
- Protects against scalloping of the base edge between adapters.
- Protects against scalloping of the segment.
- Match bottom strap thickness of the shouldered adapters.



Ground Engaging Tools — Segments & Top Wear Plates

992 Segments & Top Wear Plates

Standard (40 mm)	Center	(1)	4T-6760
	RH	(3)	4T-6761
	LH	(3)	4T-6762
Heavy Duty (50 mm)	Center	(1)	107-3530
	RH	(3)	107-3531
	LH	(3)	107-3532
Heavy Duty (60 mm)	Center	(1)	107-6294
	RH	(3)	107-6295
	LH	(3)	107-6296
Half Arrow (60 mm)	Center	(1)	275-5460
	RH	(3)	275-5461
	LH	(3)	275-5462
Half Arrow (75 mm)	Center	(1)	275-5470
	RH	(3)	275-5471
	LH	(3)	275-5472
ARM (40 mm)	Center	(1)	138-0861
	RH	(3)	138-0862
	LH	(3)	138-0863
	Bolts	(28)	5P-8823
	Nuts	(28)	3K-9770
Top Plates++	Center	(1)	195-7096
	RH	(3)	195-7097
	LH	(3)	195-7098
	ARM Center	(1)	195-7246
	ARM RH	(3)	195-7247
	ARM LH	(3)	195-7248

++ Top Plates used with Half Arrow segments.

High Abrasion Bucket Top Plates

8 Tip Edge	Center	(1)	208-5327
	RH	(3)	208-5328
	LH	(3)	208-5329
9 Tip Edge	RH	(4)	235-8777
	LH	(4)	235-8778
	Long Bolts	(14) or (18)	198-1092
	Lug Nuts	(14) or (18)	5P-8362

990 Segments & Top Wear Plates

Standard (40 mm)	Center	(1)	4T-6760
	RH	(3)	4T-6761
	LH	(3)	4T-6762
Heavy Duty (50 mm)	Center	(1)	107-3530
	RH	(3)	107-3531
	LH	(3)	107-3532
Heavy Duty (60 mm)	Center	(1)	107-6294
	RH	(3)	107-6295
	LH	(3)	107-6296
Half Arrow (60 mm)	Center	(1)	275-5460
	RH	(3)	275-5461
	LH	(3)	275-5462
Half Arrow (75 mm)	Center	(1)	275-5470
	RH	(3)	275-5471
	LH	(3)	275-5472
ARM (40 mm)	Center	(1)	138-0861
	RH	(3)	138-0862
	LH	(3)	138-0863
	Bolts	(28)	5P-8823
	Nuts	(28)	3K-9770
Top Plates++	Center	(1)	195-7096
	RH	(3)	195-7097
	LH	(3)	195-7098
	ARM Center	(1)	195-7246
	ARM RH	(3)	195-7247
	ARM LH	(3)	195-7248
	Long Bolts	(14)	198-1092
	Lug Nuts	(14)	5P-8362

++ Top Plates used with Half Arrow segments.

Segments/Top Plates for High Abrasion Bucket

Segments	Center	264-2090
	RH	264-2091
	LH	264-2092
Top Plates	Center	264-2096
	RH	264-2097
	LH	264-2098

Ground Engaging Tools — Segments & Top Wear Plates

988 Segments & Top Wear Plates (8 Adapter Systems)

	988B	988F	988G	988H
Straight Rock	See Note			
Standard (40 mm)	(7) 9W-5734	(7) 101-9435	(7) 101-9435	(7) 101-9435
Heavy Duty (45 mm)	(7) 107-3490	(7) 107-3536	(7) 107-3536	(7) 107-3536
ARM		(7) 138-0865	(7) 138-0865	(7) 138-0865
Half Arrow (45 mm)	(7) 116-7460	(7) 109-9080	(7) 109-9080	(7) 109-9080
Bolts	(21) 6V-6535	(21) 6V-6535	(21) 6V-6535	(21) 6V-6535
Nuts	(21) 3K-9770	(21) 3K-9770	(21) 3K-9770	(21) 3K-9770
Spade Rock	See Note			
Standard (40 mm)	Narrow Nose			
Center	9W-5734	101-9435	101-9435	101-9435
RH	(3) 9W-5737	(3) 101-9436	(3) 101-9436	(3) 101-9436
LH	(3) 9W-5730	(3) 101-9437	(3) 101-9437	(3) 101-9437
	Wide Nose			
Center		(3) 101-9435		
RH		(2) 101-9436		
LH		(2) 101-9437		
Heavy Duty (45 mm)	Narrow Nose			
Center	107-3490	107-3536	107-3536	107-3536
RH	(3) 107-3491	(3) 107-3537	(3) 107-3537	(3) 107-3537
LH	(3) 107-3492	(3) 107-3538	(3) 107-3538	(3) 107-3538
	Wide Nose			
		(3) 107-3536		
		(2) 107-3537		
		(2) 107-3538		
ARM	Narrow Nose			
Center		138-0865	138-0865	138-0865
RH		(3) 138-0866	(3) 138-0866	(3) 138-0866
LH		(3) 138-0867	(3) 138-0867	(3) 138-0867
	Wide Nose			
		(3) 138-0865		
		(2) 138-0866		
		(2) 138-0867		
Half Arrow (45 mm)	Narrow Nose			
Center	116-7460	109-9080	109-9080	109-9080
RH	(3) 116-7461	(3) 109-9081	(3) 109-9081	(3) 109-9081
LH	(3) 116-7462	(3) 109-9082	(3) 109-9082	(3) 109-9082
	Wide Nose			
Center		(3) 109-9080		
RH		(2) 109-9081		
LH		(2) 109-9082		
Bolts	(21) 6V-6535	(21) 6V-6535	(21) 6V-6535	(21) 6V-6535
Nuts	(21) 3K-9770	(21) 3K-9770	(21) 3K-9770	(21) 3K-9770
Top Plates*				
Center	195-7180	195-7180	195-7180	195-7180
RH	195-7181	195-7181	195-7181	195-7181
LH	195-7182	195-7182	195-7182	195-7182
Long Bolts	5P-8361	5P-8361	5P-8361	5P-8361
Lug Nuts	5P-8362	5P-8362	5P-8362	5P-8362

Note: Upsize J550 Heavy Duty adapters may interfere with segments. Use 988B segments to avoid interference.

* Top Plates used with Half Arrow segments.

980 Segments

137-7114...134-7115 Base Edge		
Standard (35 mm)		(7) 9W-5734
Heavy Duty (45 mm)		(7) 107-3490
Half Arrow (45 mm)		(7) 119-7460
ARM (35 mm)		(7) 138-6470
	Bolts	(21) 8T-9079
	Nuts	(21) 3K-9770
4E6807...9V3561 Base Edge		
Standard (30 mm)	Center	4T-3015
	RH	(3) 4T-7139
	LH	(3) 4T-7140
Heavy Duty (45 mm)	Center	107-8582
	RH	(3) 107-8583
	LH	(3) 107-8584
Half Arrow (40 mm)	Center	113-3140
	RH	(3) 113-3141
	LH	(3) 113-3142
	Bolts	(14) 8T-9079
	Nuts	(14) 3K-9770
261-8715...126-6539...260-1385...8R-4649 134-1747...134-1748 Base Edge		
Standard (35 mm)	Center	9W-5734
	RH	(3) 9W-5737
	LH	(3) 9W-5730
Heavy Duty (45 mm)	Center	107-3490
	RH	(3) 107-3491
	LH	(3) 107-3492
Half Arrow (45 mm)	Center	116-7460
	RH	(3) 116-7461
	LH	(3) 116-7462
ARM (35 mm)	Center	138-6470
	RH	(3) 138-6471
	LH	(3) 138-6472
	Bolts	(21) 8T-9079
	Nuts	(21) 3K-9770

Ground Engaging Tools — Segments & Spade Edge Segments

973 Segments

6W-2994 Base Edge		
Standard (30 mm)	Center	(2) 4T-3015
	RH	(2) 4T-9123
	LH	(2) 4T-9124
Heavy Duty (35 mm)	Center	(2) 132-1038
	RH	(2) 132-1039
	LH	(2) 132-1040
	Bolts	(12) 8T-9079
	Nuts	(12) 3K-9770

972/966 Spade Edge Segments

Segments — Rock Bucket 148-6914 & 254-4505 ass'y		
Base Edge		148-6915
Bolt-on Segments — HD	Center	135-9294
	RH	(3) 135-9295
	LH	(3) 135-9296
Bolt-on Half Arrow	Center	135-9544
	RH	(3) 135-9545
	LH	(3) 135-9546
	Bolts	(14) 8T-9079
	Nuts	(14) 3K-9770
Base Edge		6W-2993
Bolt-on Segments	Center	4T-6697
	RH	(3) 4T-9123
	LH	(3) 4T-9124
Bolt-on Segments (HD)	Center	140-6866
	RH	(3) 140-6864
	LH	(3) 140-6863
Bolt-on Segments (ARM)	Center	135-9648
	RH	(3) 135-9649
	LH	(3) 135-9647
	Bolts	(14) 6V-6535
	Nuts	(14) 3K-9770

Loader GP Bucket Bolt-On Segments

Base Edge Part Number	Segment Type								Hardware	
	Standard		Heavy Duty		ARM		Half Arrow			
	Center (qty)	End (qty)	Center (qty)	End (qty)	Center (qty)	End (qty)	Center (qty)	End (qty)	Bolt (qty)	Nut (qty)
4E-0659	8E-4569 (7)								1J-5607 (14)	2J-3507 (14)
4E-6085	4T-6700 (7)		107-8580 (7)				173-7447 (7)		5P-8823 (14)	3K-9770 (14)
4E-6085***	4T-6700 (5)	308-4327 (2)							5P-8823 (14)	3K-9770 (14)
5G-6133	128-2873 (6)								4F-7827 (12)	2J-23506 (12)
5G-7304	4T-6697 (7)		140-6866 (7)		135-9648 (7)				5P-8823 (14)	3K-9770 (14)
5G-8342	128-2873 (7)								4F-7827 (14)	2J-23506 (14)
5G-8763	128-2873 (4)	128-2872 (2)							4F-7827 (12)	2J-23506 (12)
6W-2976	4T-6692 (5)	4T-6693 (2)							1J-5607 (14)	2J-3507 (14)
6W-2977	4T-6691 (7)								1J-5607 (14)	2J-3507 (14)
6W-2978	4T-6692 (7)								4F-4042 (14)	2J-3507 (14)
6W-2979	4T-6692 (5)	4T-6693 (2)							4F-4042 (14)	2J-3507 (14)
6W-2980	4T-6694 (7)		132-1035 (7)						4F-4042 (14)	2J-3507 (14)
6W-2980**	4T-6694 (5)	308-4324 (2)							4F-4042 (14)	2J-3507 (14)
6W-2981	4T-6698 (7)		140-6867 (7)						5P-8823 (14)	3K-9770 (14)
6W-2981**	4T-6698 (5)	308-4323 (2)	140-6867 (5)	310-4065 (2)					5P-8823 (14)	3K-9770 (14)
6W-2982	4T-6697 (7)		140-6866 (7)		135-9648 (7)				5P-8823 (14)	3K-9770 (14)
6W-2982**	4T-6697 (5)	309-1042 (2)							5P-8823 (14)	3K-9770 (14)
6W-2983	4T-6696 (7)		140-6865 (7)						5P-8823 (14)	3K-9770 (14)
6W-2984	4T-6694 (5)	4T-6693 (2)	132-1035 (5)	132-1036 (2)					1J-5607 (14)	2J-3507 (14)
6W-2985	4T-6695 (7)		132-1037 (7)						1J-5607 (14)	2J-3507 (14)
6W-2986	4T-6694 (5)	4T-6693 (2)	132-1035 (5)	132-1036 (2)					1J-5607 (14)	2J-3507 (14)
6W-2987	4T-6694 (5)	4T-6695 (2)	132-1035 (5)	132-1037 (2)					1J-5607 (14)	2J-3507 (14)
6W-2988*	4T-6694 (5)	4T-6695 (2)	132-1035 (5)	132-1037 (2)					1J-5607 (14)	2J-3507 (14)
6W-2989	4T-6698 (7)		140-6867 (7)						5P-8823 (14)	3K-9770 (14)
6W-2989**	4T-6698 (5)	308-4323 (2)	140-6867 (5)	310-4065 (2)					5P-8823 (14)	3K-9770 (14)
6W-2990	4T-6698 (7)		140-6867 (7)						5P-8823 (14)	3K-9770 (14)
6W-2990**	4T-6698 (5)	308-4323 (2)	140-6867 (5)	310-4065 (2)					5P-8823 (14)	3K-9770 (14)
6W-2991	4T-6700 (7)		107-8580 (7)				173-7447 (7)		5P-8823 (14)	3K-9770 (14)
6W-2991**	4T-6700 (5)	308-4327 (2)							5P-8823 (14)	3K-9770 (14)
7I-3015	100-6666 (7)		140-6870 (7)				174-4116 (7)		5P-8823 (14)	3K-9770 (14)
7I-3015**	100-6666 (5)	308-4322 (2)	140-6870 (5)	310-4067 (2)			315-5550 (7)		5P-8823 (14)	3K-9770 (14)
7I-3631	100-6664 (7)		140-6869 (7)						5P-8823 (14)	3K-9770 (14)
8Y-4738	6Y-6362 (7)								4F-7827 (14)	2J-23506 (14)
8Y-6263	4T-6697 (5)	4T-6696 (2)	140-6866 (5)	140-6865 (2)					6V-6535 (14)	3K-9770 (14)
8Y-6263**	4T-6697 (5)	308-4325 (2)	140-6866 (5)	308-4326 (2)					6V-6535 (14)	3K-9770 (14)
8Y-8763	4T-6692 (7)								1J-5607 (14)	2J-3507 (14)
9U-3748	138-6540 (7)		183-5324 (7)						5P-8823 (14)	3K-9770 (14)
9V-6570	4T-6692 (7)								1J-5607 (14)	2J-3507 (14)
9V-6571	4T-6691 (7)								1J-5607 (14)	2J-3507 (14)
9V-6572	4T-6694 (7)		132-1035 (7)						1J-5607 (14)	2J-3507 (14)
9V-6572**	4T-6694 (5)	308-4324 (2)							4F-4042 (14)	2J-3507 (14)
9V-6573	4T-6695 (7)		132-1037 (7)						4F-4042 (14)	2J-3507 (14)
9V-6574	4T-6700 (7)		107-8580 (7)				173-7447 (7)		5P-8823 (14)	3K-9770 (14)
9V-6574**	4T-6700 (5)	308-4327 (2)							5P-8823 (14)	3K-9770 (14)
9V-6575	4T-6699 (7)		140-6868 (7)				174-4114 (7)		5P-8823 (14)	3K-9770 (14)
9V-6575**	4T-6699 (5)	308-3054 (2)	140-6868 (5)	310-4064 (2)			315-5548 (7)		5P-8823 (14)	3K-9770 (14)
10S-2345	4T-6695 (7)		132-1037 (7)						1J-5607 (14)	2J-3507 (14)
110-4712	4T-6695 (7)		132-1037 (7)						1J-5607 (14)	2J-3507 (14)

* Base edge is not serviced

** K Series arrangement

(Continued)

Loader GP Bucket Bolt-On Segments (Continued)

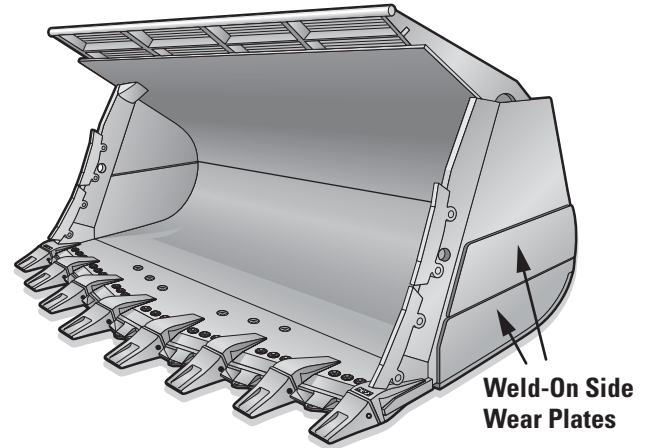
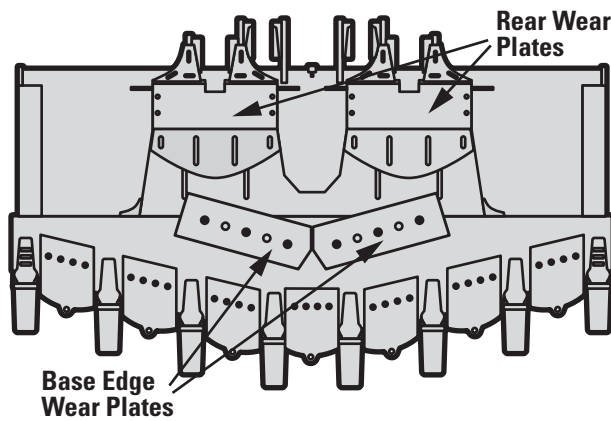
Base Edge Part Number	Segment Type								Hardware	
	Standard		Heavy Duty		ARM		Half Arrow			
	Center (qty)	End (qty)	Center (qty)	End (qty)	Center (qty)	End (qty)	Center (qty)	End (qty)	Bolt (qty)	Nut (qty)
110-4781	4T-6694 (7)		132-1035 (7)						1J-5607 (14)	2J-3507 (14)
110-4781**	4T-6694 (5)	308-4324 (2)							4F-4042 (14)	2J-3507 (14)
111-9770	109-9019 (7)		135-8219 (7)				174-4115 (7)		5P-8823 (14)	3K-9770 (14)
141-4847	140-7601 (7)		132-4715 (7)						4F-4042 (14)	2J-3507 (14)
141-4847**	140-7601 (5)	263-7545 (2)	132-4715 (5)	257-1762 (2)					4F-4042 (14)	2J-3507 (14)
183-5190	138-6540 (7)		183-5324 (7)						5P-8823 (14)	3K-9770 (14)
257-3667	138-6540 (7)		183-5324 (7)						5P-8823 (14)	3K-9770 (14)

* Base edge is not serviced

** K Series arrangement

Wear Plates

Wear plates offer enhanced protection to the base edge, bucket sides, and bucket rear.



Base Edge Wear Plates

- Covers the bottom area of the base edge not protected by segments.
- Extends base edge life.

Heavy Duty Base Edge Wear Plates

- Provides extended base edge life due to a thicker base edge wear plate.

Rear Wear Plates

- Extends life by protecting the rear of the bucket.

Heavy Duty Rear Wear Plates

- Extends life by protecting the rear of the bucket.
- Provides more protection than the standard rear wear plates.

Weld-On Rear Wear Plates

- Extends life by protecting the rear of the bucket.

Weld-On Side Wear Plates

- Protects against bucket side plate wear.

Ground Engaging Tools — Loaders

Model	Bucket Width	Wear Plate Type	Wear Plate Part Number			Edge Thickness	Bolt	Nut	Washer
			(lh)	(ctr)	(rh)				
938F, 938G		Weld-On Rear		9V-4484 (4)		16 mm (0.63 in)			
938G II	2690 mm (105.90 in)	Weld-On Rear		216-4320 (2)		12 mm (0.47 in)			
				217-2928 (2)		10 mm (0.39 in)			
				216-4320 (2)		12 mm (0.47 in)			
				216-5023 (2)		10 mm (0.39 in)			
				216-4320 (2)		12 mm (0.47 in)			
				216-5032 (2)		10 mm (0.39 in)			
				257-3248 (2)		12 mm (0.47 in)			
				216-0220 (2)		10 mm (0.39 in)			
		Rear		9W-6747 (2)		25 mm (0.98 in)	4F-7827 (8)	2J-3506 (8)	5P-8248 (8)
		Rear		9W-6747 (2)		25 mm (0.98 in)	4F-7827 (8)	2J-3506 (8)	5P-8248 (8)
950B, E, F, G		Weld-On Rear		209-6660 (4)		12 mm (0.47 in)			
950G II	2886 mm (113.62 in)	Weld-On Rear		9V-6105 (2)		19 mm (0.75 in)			
955		Rear		9W-6747 (2)		25 mm (0.98 in)	4F-7827 (8)	2J-3506 (8)	5P-8248 (8)
960F, 962G		Rear		9W-6747 (2)		25 mm (0.98 in)	4F-7827 (8)	2J-3506 (8)	5P-8248 (8)
960F	2743 mm (108.0 in)	Weld-On		9V-2899 (4)		10 mm (0.38 in)			
962G II	3035 mm (119.50 in)	Weld-On Rear		150-6918		12 mm (0.47 in)			
963		Rear		150-6903 (2)		20 mm (0.79 in)			
966		Weld-On Rear		9W-6748 (2)		25 mm (0.98 in)	4F-7827 (8)	2J-3506 (8)	5P-8248 (8)
966D, E, F		Rear		9V-6106 (2)		19 mm (0.75 in)	5P-8823 (14)	3K-9770 (14)	
966G, 972G		Rear		9W-6749 (2)		35 mm (1.38 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
966G II	3035 mm (119.49 in)	Weld-On Rear		161-8573 (2)		35 mm (1.38 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
				128-9623 (4)		10 mm (0.39 in)			
				218-2692 (2)		40 mm (1.57 in)			
970F		Rear		9W-6749 (2)		35 mm (1.38 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
970F	3035 mm (119.49 in)	Weld-On Rear		8R-0319 (2)		22 mm (0.87 in)			
				104-5423 (2)		22 mm (0.87 in)			
973		Rear		9W-6750 (2)		35 mm (1.38 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
973C	2714 mm (106.90 in)	Base Edge		225-9338 (6)		13 mm (1.97 in)			
		Weld-On Rear		225-9339 (5)		13 mm			
				204-0040 (3)		8 mm (1.97 in)			
				204-0041		8 mm			
				204-0042		8 mm			
				204-2006		13 mm			
				204-2007					
		Hinge Bracket		204-0043 (4)					
		Side	204-0023		204-0021	20 mm			
		Base Edge	204-0039	204-0037 (3)	204-0038	50 mm (1.97 in)			

Number in parentheses () after the part number indicates the quantity required.

** Use with half arrow segments.

Model	Bucket Width	Wear Plate Type	Wear Plate Part Number			Edge Thickness	Bolt	Nut	Washer
			(lh)	(ctr)	(rh)				
973C (cont.) 977	2714 mm (106.90 in)	Weld-on Rear		7V-0910 (2)		40 mm (1.57 in)			
		Weld-On Rear		9V-6106 (2)		19 mm (0.75 in)	5P-8823 (14)	3K-9770 (14)	
980C, 908F		Rear		9V-6109 (2)		19 mm (0.75 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
				7V-0910 (2)		40 mm (1.57 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
				9W-6750 (2)		35 mm (1.38 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
				109-9215 (2)		35 mm (1.38 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
				4T-2986 (2)		25 mm (2.01 in)	4J-9208 (6)	2J-3507 (6)	5P-8250 (6)
980F, G 980G, 908H	3492 mm (137.50 in)	Heavy Duty Rear		109-9215 (2)		35 mm (1.38 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
		Rear		113-0349 (2)		20 mm (2.01 in)	5J-4773 (8)	2J-3506 (8)	5P-8248 (8)
		Liner-flat		134-1754					
		Liner-Curved		134-1755 (3)					
		Skid Plate		134-1759 (2)					
		Hinge Bracket Plate		134-1756 (4)					
		Out Side Lower Plate		134-1758 (2)					
		Out Side Upper Plate		134-1757 (2)					
		Inner Side		134-1752 (2)					
		Weld-on Rear		194-0658 (2)		25 mm (0.98 in)			
	3810-3607 mm (150-142 in)	Weld-On Bottom Outer		197-6081 (2)		20 mm (0.79 in)			
		Weld-On Bottom Mid		197-6080 (2)		20 mm (0.79 in)			
		Weld-on Rear		238-9709 (2)		30 mm (1.18 in)			
		Weld-On Bottom Outer		216-7202 (4)		20 mm (0.79 in)			
		Weld-On Bottom Mid		216-7198 (2)		20 mm (0.79 in)			
		Hinge Bracket Plate		134-1756 (4)					
		Out Side Lower Plate		202-8669 (2)		16 mm (0.63 in)			
		Out Side Upper Plate		202-8668 (2)		8 mm (0.31 in)			
		Inner Side		202-8667 (2)		8 mm (0.31 in)			
		Liner-flat		202-8670		12 mm (0.47 in)			
988B, 988F 988G, 988H	3645 mm (143.5 in) 3772 mm (148.5 in)	Liner-Curved		202-8672 (3)		12 mm (0.47 in)			
		Skid Plate		202-8672		20 mm (0.79 in)			
		Base Edge	1U-4929		1U-4929	35 mm (1.38 in)	4F-4042 (6)	2J-3507 (6)	5P-8250 (6)
		Base Edge**	7T-9127**		7T-9127**	35 mm (1.38 in)	4F-4042 (6)	2J-3507 (6)	5P-8250 (6)
		Rear		9V-5793 (2)		25 mm (0.98 in)	4J-9058 (8)	2J-3507 (8)	5P-8250 (8)
		Heavy Duty Rear		6Y-3609 (2)		35 mm (1.38 in)	4J-9058 (8)	2J-3507 (8)	5P-8250 (8)
		HEX Bolt Rear		132-4713 (2)		25 mm (0.98 in)	1D-4709 (8)	2J-3507 (8)	5P-8250 (8)
		Weld-On Rear	190-9793	136-6205	190-9793	40 mm (1.57 in)			
		Intermediate	190-9794		190-9794	25 mm (0.98 in)			
		Weld-On Rear	136-6204	136-6205	136-6204	25 mm (0.98 in)			
988G	3687 mm (145.2 in) 3800 mm (149.6 in)	Intermediate	154-6367		154-6367	25 mm (0.98 in)			

Number in parentheses () after the part number indicates the quantity required.
 ** Use with half arrow segments.

Ground Engaging Tools — Loaders

Model	Bucket Width	Wear Plate Type	Wear Plate Part Number			Edge Thickness	Bolt	Nut	Washer
			(lh)	(ctr)	(rh)				
988G, 988H	3862 mm (150.00 in)	Weld-on Rear		255-6712		20 mm (0.79 in)			
				255-6711		16 mm (0.63 in)			
		Heavy Duty Rear		136-6204 (2)		40 mm (1.57 in)			
		Top Wear Plates	195-7098 (2)	195-7096 (2)	195-7097 (2)		5P-8361 (24)	5P-8362 (24)	
		Base Edge Wear		4T-6617			4J-4042 (4)	2J-3507 (4)	5P-8250 (4)
		Liner-flat		240-0285					
		Liner-Curved		240-0284 (3)					
		Skid Plate (RH)		257-3661					
		Skid Plate (LH)		257-3662					
		Out Side Lower Plate		257-3660 (2)					
990	3926 mm (154.60 in)	Out Side Upper Plate		240-7983 (2)					
		Inner Side		240-0286 (2)					
		Base Edge Wear		4T-6540 (2)		35 mm (1.38 in)	4J-9058 (12)	2J-3507 (12)	5P-8250 (12)
		Rear Wear		236-4674					
				236-4675					
				236-4676					
		Weld-on Rear		234-6230 (2)		25 mm (0.98 in)			
		Weld-on Rear		234-6231		25 mm (0.98 in)			
		Base Edge		1U-4933 (2)			4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
		Outer Lower Plates		4E-9889 (2)					
990	4450 mm (175.20 in)	Base Edge	1U-4929		1U-4929	35 mm (1.38 in)	4J-9058 (8)	2J-3507 (8)	5P-8250 (8)
		Base Edge**	6Y-0312**		6Y-0311**	35 mm (1.38 in)	4J-9058 (8)	2J-3507 (8)	5P-8250 (8)
		Heavy Duty Rear		6Y-3573 (2)		35 mm (1.38 in)	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)
		Top Wear Plates (K-Series)	229-7047 (2)	229-7045 (2)	229-7046 (2)			5P-8362 (24)	
		Base Edge		9U-9862 (2)			5P-8138 (12)	2J-3507 (12)	5P-8250 (12)
		Liner-flat		2Q-3647					
		Liner-Curved		2Q-7065 (3)					
		Skid Plate (RH)		2Q-7063					
		Skid Plate (LH)		2Q-7063					
		Out Side Lower Plate		2Q-7071 (2)					
992C, 992D	4574 mm (180.10 in)	Out Side Upper Plate		2Q-7042 (2)					
		Inner Side		2Q-3645					
		Hinge Bracket		2Q-7064 (4)					
		Base Edge	1U-4933		1U-4933	35 mm (1.38 in)	4J-9058 (8)	2J-3507 (8)	5P-8250 (8)
		Base Edge**	6Y-0312**		6Y-0311**	35 mm (1.38 in)	4J-9058 (8)	2J-3507 (8)	5P-8250 (8)
		Rear		6W-0276 (2)		35 mm (1.38 in)	4J-9058 (8)	2J-3507 (8)	5P-8250 (8)
		Heavy Duty Rear		6Y-3610 (2)		45 mm (1.77 in)	4J-9208 (8)	2J-3507 (8)	5P-8250 (8)

Number in parentheses () after the part number indicates the quantity required.

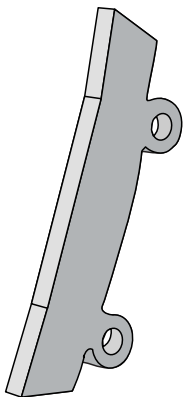
** Use with half arrow segments.

Model	Bucket Width	Wear Plate Type	Wear Plate Part Number			Edge Thickness	Bolt	Nut	Washer
			(lh)	(ctr)	(rh)				
992C, 992D (cont.)	4750 mm (157.0 in)	HEX Bolt Rear		132-4712 (2)		45 mm (1.77 in)	1D-4637 (8)	2J-3507 (8)	5P-8250 (8)
992G	4823 mm (158.9 in)	Base Edge	1U-4933		1U-4933	35 mm (1.38 in)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
		Base Edge**	6Y-0312**		6Y-0311**	35 mm (1.38 in)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
		Weld-On Rear	115-1548	115-1549	115-1548	35 mm (1.38 in)	4J-9058 (6)	2J-3507 (6)	5P-8250 (6)
	4841 mm (155.6 in)	Base Edge	100-6356	100-6357	100-6356	45 mm (1.77 in)	4J-9058 (12)	2J-3507 (12)	5P-8250 (12)
		Weld-On Rear	115-1548	115-1549	115-1548	40 mm (1.57 in)			
994	5640 mm (185.0 in)	Weld-On Side		112-8998		12 mm (0.47 in)			
		Base Edge		103-1833 (3)		75 mm (2.95 in)	5P-8823 (9)	3K-9770 (9)	
		Heavy Duty Rear		8E-3160 (2)		60 mm (2.36 in)	6V-8360 (8)	3K-9770 (8)	4K-0684 (8)
		Rear		100-4015 (2)		75 mm (2.95 in)	6V-8360 (8)	3K-9770 (8)	4K-0684 (8)
		HEX Bolt Rear		132-4714 (2)		75 mm (2.95 in)	1S-8560 (8)	3K-9770 (8)	4K-0684 (8)
	6220 mm (204.0 in)	Weld-On Rear	2A-6724 (2)		2A-6724 (2)	20 mm (0.79 in)			
		Base Edge	103-1835	103-1833	103-1834	75 mm (2.95 in)	5P-8823 (1)	3K-9770 (1)	
		Heavy Duty Rear		8E-3160 (2)		60 mm (2.36 in)	6V-8360 (8)	3K-9770 (8)	4K-0684 (8)
		Rear		100-4015 (2)		75 mm (2.95 in)	6V-8060 (8)	3K-9770 (8)	4K-0684 (8)
		HEX Bolt Rear		132-4714 (2)		75 mm (2.95 in)	1S-8560 (8)	3K-9770 (8)	4K-0684 (8)
		Weld-On Rear	2A-6724 (2)		2A-6724 (2)	20 mm (0.79 in)			

Number in parentheses () after the part number indicates the quantity required.

** Use with half arrow segments.

Sidebar Protectors



- Protects the bucket sides.

Model	Bucket Type	Sidebar Protector	Pin	Retainer Assembly
980F, 980G	Rock	135-8246 (2)	135-9292 (4)	114-0359 (4)
988B, F, G	Rock	9J-9600 (2)	135-9350 (4)	114-0359 (4)
990, 992C, D, 992G	Rock	1U-0740 (2)	133-0738 (4)	107-8559 (4)
966G	Rock	135-8246 (4)	135-9292 (8)	114-0359 (8)
972G	Rock	135-8246 (4)	135-9292 (8)	114-0359 (8)

Bucket Corner Protector

Tip Size	Corner Protector Part Number		Bolt	Nut
	Left Hand	Right Hand		
J250	253-0061	253-0060	4F-4042 (4)	2J-3507 (4)
J300	253-0063	253-0062	8T-9079 (4)	3K-9770 (4)
J350	253-0065	253-0064	6V-6535 (4)	3K-9770 (4)
J400, J460	253-0067	253-0066	5P-8823 (4)	3K-9770 (4)

Tips

Cat loader bucket tips are side pinned for excellent tip retention and quick, easy tip changing. The pin hole is located through the tip sides which are the areas of least wear.

Long Tip

- The best choice for most applications.
- Made of longer wearing DH-3 steel for 988 and 992 sizes.



Short Tip

- Provides more strength.
- Contain less wear material.



Light Duty Long Tip

- For use in low impact with low to medium abrasiveness.
- Self-sharpening design and symmetrical shape.



Penetration Tip

- Provides better penetration.
- Contains less wear material.



Heavy Duty Long Tip

- Contains more wear material than Long Tip.
- Provides greater strength than Long Tip.
- Provides better penetration due to a streamlined-profile.



Heavy Duty Long Life Tip

- Increases wear life 2 to 5 times more than the Heavy Duty Long Tip.
- Provides better productivity because they get sharper as they wear.



Heavy Duty Abrasion Tip

- Contains the greatest amount of wear material.
- Provides good strength.
- Provides good penetration.



Heavy Duty Penetration Tip

- Use in high impact, hard-to-penetrate material.
- Longer wear life.
- Stays sharp.



Tips

	J200	J225	J250	J300	J450/J350	J400	J460	J550	J600	J700	J800
Long	1U-3202	6Y-3222	1U-3252	1U-3302	1U-3352	7T-3402	9W-8452	9W-8552	6I-6602	4T-4702	
Short		6Y-6221	1U-3251	1U-3301	1U-3351	7T-3401	9W-8451	9W-8551	6I-6601		
Abrasion	4T-2203									4T-4703	
Light Duty Long Tip	195-9209		168-1253	168-1301	168-1351	168-1401	168-1451				
Penetration	1U-3209	6Y-8229	9J-4259	9J-4309	9J-4359	6Y-7409	9W-8459	9W-8559	7I-7609	4T-4709	117-6809
Heavy Duty Long		8E-4222	9N-4252	9N-4302	9N-4352	8E-4402	9N-4452	9N-4552	7Y-0602	9U-9702	6I-8802
Heavy Duty Long Life			135-8252	125-8302	135-9352	116-7402	101-9054	101-9055	107-8602	107-2001	
Heavy Duty Abrasion		6Y-6223	9N-4253	9N-4303	9N-4353	7T-3403	9N-4453	6Y-2553	6I-6603	9U-9703	6I-8803
Heavy Duty Penetration				135-9300	144-1358	135-9400	138-6451	138-6552	135-9600	135-9700	135-9800
Pin	8E-6208	132-4762	132-4763	132-4766	114-0358	116-7408	114-0468*	107-3378	113-9608	113-4708	134-1808
Retainer	8E-6209	149-5733	149-5733	149-5733	114-0359	116-7409	107-3469*	107-8559	113-9609	113-4709	134-1809

* Some older models have a 19 mm (0.75") pin diameter, instead of the current 22 mm (0.875") pin diameter. For those older models which have the 19 mm (0.75") pin diameter, use a 6Y-2527 pin and a 8E-6359 retainer.

Bolt-On Unitooth Tips



- Improves penetration where breakage is not a problem.
- Tip and adapter are one integrated piece for easy installation and lower initial costs.
- For use in nonabrasive materials.

Tip Size	Model
J200	910, 931, 914G, 935, IT12, IT14G
J250	916, 920, 924, 926, 928, 930, 936, 938, 939, 941, 943, 951, 953, IT18, IT28
J300*	944, 950, 953B
J300**	950B, 955, 960F, 963
J300***	966C
J350	960F, 966D, 970F, 973, 977

Bolt-On Unitooth Tip Chart

Unitooth Components	J200	J250	J300*	J300**	J300***	J350
Unitooth Center Tip	8J-6207	1U-1857	1U-1877	8E-1637	1U-1877	6Y-0649
Unitooth One Bolt Corner Tip (lh)	1U-1868	1U-1858	1U-1878	1U-1878	1U-1888	1U-1888
Unitooth One Bolt Corner Tip (rh)	1U-1869	1U-1859	1U-1879	1U-1879	1U-1889	1U-1889
Unitooth Two Bolt Corner Tip (lh)		6I-8388	8E-8608	8E-8608	8E-5318	8E-5318
Unitooth Two Bolt Corner Tip (rh)		6I-8389	8E-8609	8E-8609	8E-5319	8E-5319

* 25 mm edge.

** 32 mm edge.

*** 32 mm edge (bigger bolts).

Cat K Series™ Tips

Cat K Series™ excavator bucket tips use a new vertical retention system that allows quick and easy tip changes. Providing a new locking interface at every tip change to improve retention reliability. Lower profile improves penetration and wear life.

Penetration Tip

- For harder-to-penetrate, moderate impact, lower abrasion.
- Very good penetration.
- Top rib, bottom cavity to stay sharp.



Spike Tip

- For maximum penetration, especially in cohesive material.
- Stays sharp for enhanced wear life.
- Top and bottom rib design.



Double Spike Tip

- For harder-to-penetrate, fracturable materials.
- Very good penetration, stays sharp.
- Use in corner positions with Spike Centers.
- Length matches spike.



Wide Tip

- For easy-to-penetrate trenching applications.
- Low impact.
- Smooth floor trenches.



Heavy Penetration

- Recommended for high abrasive and impact conditions, especially shot rock.
- Excellent penetration and wear material, stays sharp.



Heavy Abrasion

- Recommended for high abrasive, moderate impact, easier-to-penetrate materials.
- Excellent wear material, less penetration.



General Duty

- Recommended for general applications in moderate impact and abrasive conditions.
- Good penetration, self-sharpening cavities.



Extra Duty — (plus ARM parts option)

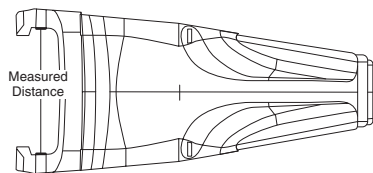
- Recommended for general applications requiring more wear material in moderate impact conditions.
- Good wear material, good penetration.



Penetration — (plus ARM parts option)

- Recommended for harder-to-penetrate, moderate impact, lower abrasive materials.
- Very good penetration, less wear material, stays sharp.





K Family Identification

To identify tip or adapter family simply measure the distance between the “ears” of the tip in millimeters and round to the nearest 5 mm.

Ex: 80 mm (3.15”) = K80

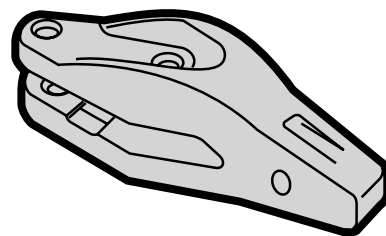
Ex: 87.4 mm (3.44”) = K90

Ex: 96.1 mm (3.78”) = K100

Tip Chart

	K80	K90	K100	K110	K130	K150	K170
Wide	222-1080	222-1090	223-8100	223-8110	223-8130	195-5151	223-8170
Extra Duty	220-9081	220-9091	220-9101	232-2111	264-2131	264-2151	264-2171
Penetration	220-9082	220-9092	220-9102	220-9112	220-9132	229-7152	232-0172
Penetration Plus	220-9083	220-9093	220-9103	220-9113	220-9133	229-7153	232-0173
Spike	220-9087	220-9097	220-9107	220-9117	220-9137	229-7157	232-0177
Double Spike	220-9088	220-9098	220-9108	220-9118	220-9138	229-7158	232-0178
General Duty	220-9089	220-9099	220-9109	220-9119	220-9139	229-7159	232-0179
Heavy Penetration	222-1081	222-1091	223-8101	232-2112	264-2132	264-2152	264-2172
Heavy Abrasion	222-1082	222-1092	223-8102	223-8112	223-8132	229-7156	232-2178
Extra Duty Long Life (ARM)	229-7080	232-0090	232-0100	232-0110	232-2130	232-0150	233-7170
Penetration Long Life (ARM)	229-7081	232-0091	232-0101	232-0111	232-2131	232-0151	233-7171
Retainer	220-9090	220-9090	220-9090	220-9110	220-9130	233-7150	232-0170

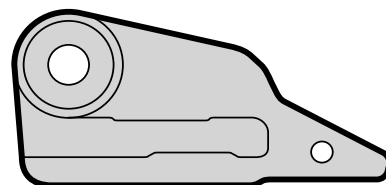
Bolt-On Center Adapters



Tip Size	Model	Edge Thickness	Bolt-On Adapter (center)	Bolt	Nut
J200	938, 939, 914G	19 mm (0.75 in)	9J-4207	5J-4771	2J-3506
	416, 426, 428, 436	20 mm (0.80 in)	8E-2184		
J225	938, 939, 914G	19 mm (0.75 in)	6Y-6227	1J-6762	2J-3506
J250	953, 951, 943, 941, 936, 930, 926, 920, 916, IT28, IT18	25 mm (1.00 in)	1U-0257	8J-2928	8J-2933
J300	944, 950, 953B, 953C	25 mm (1.00 in)	1U-0307	8J-2928	8J-2933
	950B, 950E, 950F, 944	32 mm (1.25 in)	4T-4307	5P-8136	8J-2933
	966C	32 mm (1.25 in)	3G-9307	5P-8361	5P-8362
	966C	32 mm (1.25 in)	3G-5307*	8J-2928	8J-2933
J350	977, 973, 966D, 970F	38 mm (1.50 in)	3G-3357	5P-8361	5P-8362
	963B, 973, 977, 966C	32 mm (1.25 in)	170-0073	6V-8360	5P-8362
	980A, 980B, 980C, 980G, 980F	45 mm (1.75 in)	1U-1357	5P-8361	5P-8362
	980B	45 mm (1.75 in)	3G-2357*	8J-2928	8J-2933
	977	38 mm (1.50 in)	3G-1357*	8J-2928	8J-2933
J400	980C, 980F	45 mm (1.75 in)	6I-9898	5P-8361	5P-8362
J460	988, 980C, 980F	45 mm (1.75 in)	8E-2467	5P-8361	5P-8362
	977, 973, 966D, 970F	38 mm (1.50 in)	8E-3467	5P-8361	5P-8362

* 3-bolt adapter.

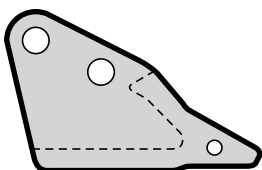
One-Bolt Corner Adapters



Tip Size	Model	Edge Thickness	One-Bolt Adapter		Bolt	Nut
			(lh)	(rh)		
J200	935, 931, 910, IT12	19 mm (0.75 in)	1U-2208	1U-2209	6F-0196	2J-3505
J225	935, 931	19 mm (0.75 in)	6Y-6228	6Y-6229	6F-0196	2J-3505
J250	953, 951, 943, 941, 936, 930, 926, 920, 916, IT28, IT18	25 mm (1.00 in)	3G-4258	3G-4259	4J-9058	8J-2933
J300	944, 950, 950B, 950E, 950F, 960F	25-32 mm (1.00-1.25 in)	3G-4308	3G-4309	6V-6535	5P-8362
	953B, 953C, 963	25-32 mm (1.00-1.25 in)	3G-4308	3G-4309	4J-9058	8J-2933
	966C	32 mm (1.25 in)	3G-8308	3G-8309	5P-8823	5P-8362
J350	960F, 963B, 966D, 966E, 966F	32-38 mm (1.25-1.50 in)	3G-5358	3G-5359	5P-8823	5P-8362
	970F, 973, 977	32-38 mm (1.25-1.50 in)	3G-5358	3G-5359	5P-8823	5P-8362
	980A, 980B, 980C, 980F, 980G	45 mm (1.75 in)	1U-1358	1U-1359	6V-8360	5P-8362
J460	988, 980	45 mm (1.75 in)	8E-2469	8E-2468	6V-8360	5P-8362
	977, 973, 966D	38 mm (1.50 in)	8E-3469	8E-3468	6V-8360	5P-8362

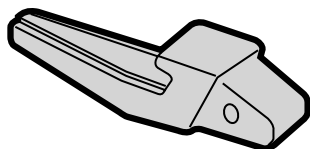
Ground Engaging Tools — Loader Adapters

Two-Bolt Corner Adapters



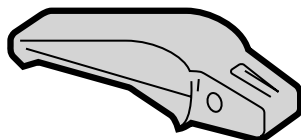
Tip Size	Model	Edge Thickness	Two-Bolt Adapter		Bolt	Bolt	Nut
			(lh)	(rh)			
J250	920, 924F, 926, 928, 928F, 928G	25 mm (1.00 in)	6I-9250	6I-9251	4J-9058	4F-4042	2J-3507
	930, 936, 936E, 936F, 938F	25 mm (1.00 in)	6I-9250	6I-9251	4J-9058	4F-4042	2J-3507
	939, 941, 943, 951, 953	25 mm (1.00 in)	6I-9250	6I-9251	4J-9208	4F-4042	2J-3507
	IT18, IT24F, IT28	25 mm (1.00 in)	6I-9250	6I-9251	4J-9058	4F-4042	2J-3507
J300	944, 950, 953B, 953C, 963	25-32 mm (1.00-1.25 in)	8E-5308	8E-5309	8T-9079	6V-8360	3K-9770
	950B, 950E, 950F, 960F	25-32 mm (1.00-1.25 in)	8E-5308	8E-5309	8T-9079	5P-8823	3K-9770
J350	977, 973, 966, 963	32-38 mm (1.25-1.50 in)	8E-5358	8E-5359	5P-8361	6V-6535	3K-9770
J400/J460	980/988	44 mm (1.75 in)	6I-8244	6I-8243	8T-9079	6V-8360	3K-9770
J460	988	51 mm (2.00 in)	6I-8298	6I-8299	6V-6535	5P-8361	3K-9770

Bottom Strap Adapters



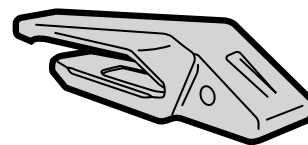
Tip Size	Model	Edge Thickness	Bottom Strap Adapter		
			(lh)	(center)	(rh)
J200	935, 931, 910, IT12, 428, 426, 416	13-19 mm (0.50-0.75 in)	—	8J-7525	—
J250	953, 951, 943, 941, 936, 930, 926, 920, 916, IT28, IT18	25-32 mm (1.00-1.25 in)	—	3G-0169	—
J300	966C, 963, 955, 950	25-32 mm (1.00-1.25 in)	—	9J-8929	—
J350	980, 977, 973, 966D	32-45 mm (1.25-1.75 in)	1U-1352	1U-1350	1U-1351
J350	966D, 966E, 966F	40 mm (1.57 in)	1U-1352	1U-1350	1U-1351
J460	988, 983	45-57 mm (1.75-2.25 in)	8E-5466	8E-5464	8E-5465
J550	992	51-64 mm (2.00-2.50 in)	9J-3664	9J-3662	9J-3663

Flushmount Adapters



Tip Size	Model	Edge Thickness	Flushmount Adapter		
			(lh)	(center)	(rh)
J200	935, 931, 910, IT12, 428, 426, 416	13-25 mm (0.50-1.00 in)	—	4T-1204	—
J250	953, 951, 943, 941, 936, 930, 926, 920, 916, IT28, IT18	19-32 mm (0.75-1.25 in)	—	1U-1254	—
J300	966C, 963, 955, 950	25-38 mm (1.00-1.50 in)	—	1U-1304	—
J350	980, 977, 973, 966D	32-45 mm (1.25-1.75 in)	1U-1356	1U-1354	1U-1355
J400	980	38-51 mm (1.50-2.00 in)	—	107-3404	—
J460	988, 983	45-51 mm (1.75-2.00 in)	8E-0466	8E-0464	8E-0465
J550	990, 992C	51-64 mm (2.00-2.50 in)	3G-4556	3G-4554	3G-4555
	992, 992B	51-64 mm (2.00-2.50 in)	7J-9556	7J-9554	7J-9555

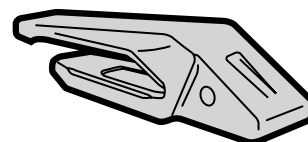
Two-Strap Adapters



Tip Size	Model	Edge Thickness	Two-Strap Adapter		
			(lh)	(center)	(rh)
J450	980, 973*, 966D*	45 mm (1.75 in)	4T-8456	4T-8454	4T-8455
J460	988, 983	51 mm (2.00 in)	8E-3466	8E-3464	8E-3465
	980	45 mm (1.75 in)	8E-2166	8E-2164	8E-2165
J550	990, 992	64 mm (2.50 in)	3G-9496	3G-9494	3G-9495
	988	51 mm (2.00 in)	4T-7556	4T-7554	4T-7555
J600	992	70 mm (2.75 in)	6I-8606	6I-8604	6I-8605
J700	994	76 mm (3.00 in)	4T-4706	4T-4704	4T-4705
	990, 992	64 mm (2.50 in)	9W-9706	9W-9704	9W-9705
	994	100 mm (4.00 in)	100-7416	—	—
J800	994	100 mm (4.00 in)	6I-8804	—	—

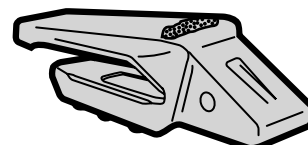
* Requires spade base edge with segment bolt holes.

Heavy Duty Adapters



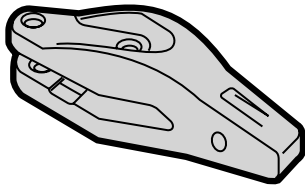
Tip Size	Model	Edge Thickness	Heavy Duty Adapter		
			(lh)	(center)	(rh)
J350	966	40 mm (1.50 in)	135-9356	135-9354	135-9355
	980	45 mm (1.75 in)	113-0356	113-0354	113-0355
J400	980	45 mm (1.75 in)	125-8406	125-8404	125-8405
J460	988	51 mm (2.00 in)	114-0466	114-0464	114-0465
J550	990, 992	63 mm (2.50 in)	107-3556	107-3554	107-3555
	988	51 mm (2.00 in)	138-6556	138-6554	138-6555
J600	992	70 mm (2.75 in)	119-8606	119-8604	119-8605
	990, 992	63 mm (2.50 in)	143-3116	143-3115	143-3114
J700	992	70 mm (2.75 in)	133-0706	133-0704	133-0705
J700	994	100 mm (4.00 in)	—	100-7416	—
	992	70 mm (2.75 in)	133-0706	133-0704	133-0705
	992	76 mm (3.00 in)	171-1706	171-1704	171-1705
J800	994	100 mm (4.00 in)	—	6I-8804	—

Heavy Duty ARM Adapters



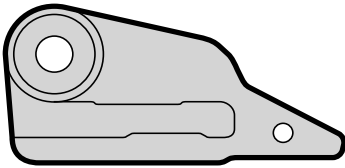
Tip Size	Model	Edge Thickness	Heavy Duty Arm Adapter		
			(lh)	(center)	(rh)
J400	980	45 mm (1.75 in)	125-8409	125-8407	125-8408
J460	988	51 mm (2.00 in)	116-7466	116-7464	116-7465
J550	990, 990	63 mm (2.50 in)	112-2556	112-2554	112-2555
	988	51 mm (2.00 in)	159-0556	159-0554	159-0555
J600	992	70 mm (2.75 in)	119-8606	119-8604	119-8605
	990, 992	63 mm (2.50 in)	186-5386	186-5384	186-5385
J700	992	70 mm (2.75 in)	133-0708	133-0707	133-0709
	994	76 mm (3.00 in)	187-2115	187-2113	187-2114

Upsize Bolt-On Center Adapters



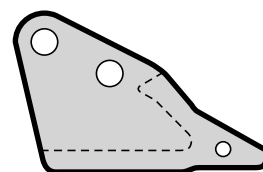
Tip Size	Edge Thickness	Model	Upsize Tip Size	Upsize Bolt-On Adapter (center)	Upsize Bolt	Upsize Nut
J200	19 mm (0.75 in)	910, 914G, 939	J225	6Y-6227	5J-4771	2J-3506
J250	25 mm (1.00 in)	916, 920, 926, 930, 936	J300	1U-0307	8J-2928	8J-2933
	25 mm (1.00 in)	941, 943, 951, 953	J300	1U-0307	8J-2928	8J-2933
	25 mm (1.00 in)	IT18, IT28	J300	1U-0307	8J-2928	8J-2933
J300	32 mm (1.25 in)	966C	J350	3G-7357	6V-8360	5P-8362
J350	38 mm (1.50 in)	966D, 970F, 973, 977	J460	8E-3467	5P-8361	5P-8362
	45 mm (1.75 in)	980	J460	8E-2467	5P-8361	5P-8362
J400	46 mm (1.80 in)	980G	J460	8E-2467	5P-8361	5P-8362

Upsize One-Bolt Corner Adapters



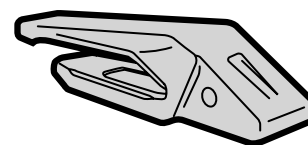
Tip Size	Edge Thickness	Model	Upsize Tip Size	Upsize Bolt-On Adapter		Upsize Bolt	Upsize Nut
				(lh)	(rh)		
J200	19 mm (0.75 in)	910, 914G, 939	J225	6Y-6228	6Y-6229	6F-0196	2J-3505
J250	25 mm (1.00 in)	916, 920, 926, 930, 936	J300	3G-4308	3G-4309	6V-6535	5P-8362
	25 mm (1.00 in)	941, 943, 951, 953	J300	3G-4308	3G-4309	6V-6535	5P-8362
	25 mm (1.00 in)	IT18, IT28	J300	3G-4308	3G-4309	6V-6535	5P-8362
J300	32 mm (1.25 in)	966C	J350	3G-5358	3G-5359	5P-8823	5P-8362
J350	38 mm (1.50 in)	966, 973, 977	J460	8E-3469	8E-3468	5P-8823	6V-8360
	45 mm (1.75 in)	980	J460	8E-2469	8E-2468	6V-8360	5P-8362

Upsize Two-Bolt Corner Adapters



Tip Size	Edge Thickness	Model	Upsize Tip Size	Upsize Two-Bolt Adapter		Upsize Bolt	Upsize Bolt	Upsize Nut
				(lh)	(rh)			
J250	25 mm (1.00 in)	916, 920, 926, 930	J300	8E-5308	8E-5309	8T-9079	6V-8360	3K-9770
	25 mm (1.00 in)	941, 943, 951, 953	J300	8E-5308	8E-5309	8T-9079	6V-8360	3K-9770
J300	32 mm (1.25 in)	950, 953, 955, 963	J350	8E-5358	8E-5359	5P-8361	6V-6535	3K-9770

Upsize Two-Strap Adapters



Tip Size	Edge Thickness	Model	Upsize Tip Size	Upsize Two-Strap Adapter		
				(lh)	(center)	(rh)
J350	45 mm (1.75 in)	980	J450	4T-8456	4T-8454	4T-8455
J350	45 mm (1.75 in)	980	J460	8E-2166	8E-2164	8E-2165
J460	51 mm (2.00 in)	983, 988	J550	4T-7556	4T-7554	4T-7555
J550	64 mm (2.50 in)	992	J700	9W-9706	9W-9704	9W-9705
J600	76 mm (3.00 in)	992	J700	133-0706	133-0704	133-0705
J700	100 mm (4.00 in)	994	J800		6I-8804	

K Series Adapters

Description	Base Edge Thickness											
	K80		K90		K100	K110	K130		K150		K170	
	25 mm	32 mm	32 mm	36 mm	45 mm	50 mm	50 mm	63 mm	63 mm	70 mm	70 mm	76 mm
Adapters												
LDR Two Strap CNTR				222-1094	223-8104	232-2114	232-0134	223-8134	232-0154	195-7154	232-0174	232-2174
LDR Two Strap RH				222-1095	223-8105	232-2115	232-0135	223-8135	232-0155	195-7155	232-0175	232-2175
LDR Two Strap LH				222-1096	223-8106	232-2116	232-0136	223-8136	232-0156	195-7156	232-0176	232-2176
LDR Two Strap Long Life CNTR (ARM)					229-7100	229-7110	232-2134	229-7130	233-7154	232-2150	238-3174	233-7174
LDR Two Strap Long Life RH					229-7101	229-7111	232-2135	229-7131	233-7155	232-2151	238-3175	233-7175
LDR Two Strap Long Life LH					229-7102	229-7112	232-2136	229-7132	233-7156	232-2152	238-3176	233-7176
LDR Flushmount CNTR		229-7084		229-7094	229-7104	232-2117		229-7134		232-2154		
LDR Abrasion CNTR								232-0138		232-0158		
LDR Abrasion Corner								232-0139		232-0159		
LDR Bolt-On CNTR	229-7087	222-1087	223-8097	222-1097	223-8107	232-2110						
LDR Bolt-On Corner RH	222-1088	222-1088	222-1098	229-7098	223-8108	223-8118						
LDR Bolt-On Corner LH	222-1089	222-1089	222-1099	229-7099	223-8109	223-8119						
Models	953	950, 962	963	950, 962, 966, 972, 973	980	988	988	990, 992D	990, 992D	992G	992G	992G

ONE SAFE SOURCE

2008-2009



GROUND ENGAGING TOOLS | MOTOR GRADERS

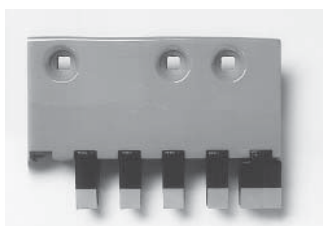
GraderBit™ Systems

The Caterpillar GraderBit™ System is a road maintenance edge that lowers owning and operating costs by increasing productivity, decreasing blade maintenance, and reducing downtime.

The Caterpillar GraderBit System works by using special adapters and graderbits instead of a conventional cutting edge. The adapters are bolted onto the moldboard, and then, the graderbits are secured within the adapter using snap rings. Different combinations of graderbit sizes and types allow you to customize the edge pattern to deliver the best performance in any surface condition, including mining haul roads, public roads, farm roads, logging roads, and even paved roads.

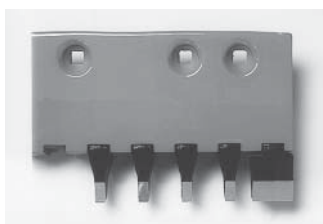
Standard Bit Arrangement

- For use on larger motor graders.
- Good in highly abrasive applications where penetration is not critical.



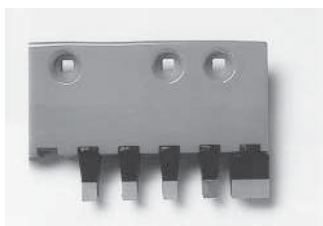
Sharp Bit Arrangement

- For use on smaller motor graders.
- Use where maximum penetration is required.



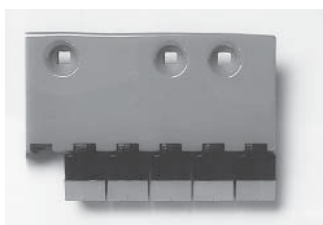
Penetration Bit Arrangement

- Use with midsize motor graders.



Wide Bit Arrangement

- Available in a continuous design with narrow gap adapters.
- May be used on the ends of all grader bit configurations to extend wear life.



Model	Gap Size	Edge Length	GraderBit Arrangement*				Snap Ring Retainer**
			Standard	Sharp	Penetration	Wide	
All	Narrow	0.914 m (3 ft)	6Y-4339 (15)	105-5183 (15)	105-5180 (15)	6Y-4340 (15)	068-4860 (15)
		1.219 m (4 ft)	6Y-4339 (20)	105-5183 (20)	105-5180 (20)	6Y-4340 (20)	068-4860 (15)
14, 16	Wide	0.914 m (3 ft)	6Y-4339 (12)	105-5183 (12)	105-5180 (12)	6Y-4340 (12)	068-4860 (15)
		1.219 m (4 ft)	6Y-4339 (16)	105-5183 (16)	105-5180 (16)	6Y-4340 (16)	068-4860 (15)

* Includes snap ring retainer.

** Uses 1P-1860 snap ring pliers.

GraderBit™ Systems Adapters

Model	Gap Size	Edge Length	Moldboard Length	Adapter Part Number	Bolts	Nuts
14, 16, 140H (¾" bolts), 143H (¾" bolts)	Narrow ¾" bolts	0.914 m (3 ft)	3.05 m (10 ft)	159-0318 (2)	5J-4771 (19)	2J-3506 (19)
			3.35 m (11 ft)	159-0318	5J-4771 (21)	2J-3506 (21)
			3.96 m (13 ft)	159-0318 (3)	5J-4771 (24)	2J-3506 (24)
			4.27 m (14 ft)	159-0318 (2)	5J-4771 (30)	2J-3506 (30)
			4.57 m (15 ft)	159-0318	5J-4771 (28)	2J-3506 (28)
		1.219 m (4 ft)	3.05 m (10 ft)	159-0317	5J-4771 (19)	2J-3506 (19)
			3.35 m (11 ft)	159-0317 (2)	5J-4771 (21)	2J-3506 (21)
			3.66 m (12 ft)	159-0317 (3)	5J-4771 (23)	2J-3506 (23)
			3.96 m (13 ft)	159-0317	5J-4771 (24)	2J-3506 (24)
			4.27 m (14 ft)	159-0317 (2)	5J-4771 (30)	2J-3506 (30)
			4.57 m (15 ft)	159-0317 (3)	5J-4771 (28)	2J-3506 (28)
			4.88 m (16 ft)	159-0317 (4)	5J-4771 (36)	2J-3506 (36)
	Wide ¾" bolts	0.914 m (3 ft)	3.05 m (10 ft)	159-0313 (2)	5J-4771 (19)	2J-3506 (19)
			3.35 m (11 ft)	159-0313	5J-4771 (21)	2J-3506 (21)
			3.96 m (13 ft)	159-0313 (3)	5J-4771 (24)	2J-3506 (24)
			4.27 m (14 ft)	159-0313 (2)	5J-4771 (30)	2J-3506 (30)
			4.57 m (15 ft)	159-0313	5J-4771 (28)	2J-3506 (28)
		1.219 m (4 ft)	3.05 m (10 ft)	159-0314	5J-4771 (19)	2J-3506 (19)
			3.35 m (11 ft)	159-0314 (2)	5J-4771 (21)	2J-3506 (21)
			3.66 m (12 ft)	159-0314 (3)	5J-4771 (23)	2J-3506 (23)
			3.96 m (13 ft)	159-0314	5J-4771 (24)	2J-3506 (24)
			4.27 m (14 ft)	159-0314 (2)	5J-4771 (30)	2J-3506 (30)
			4.57 m (15 ft)	159-0314 (3)	5J-4771 (28)	2J-3506 (28)
			4.88 m (16 ft)	159-0314 (4)	5J-4771 (36)	2J-3506 (36)
All except 14, 16, 140H (⅝" bolts), 143H (⅝" bolts)	Narrow ⅝" bolts	0.914 m (3 ft)	3.05 m (10 ft)	159-0311 (2)	3F-5108 (19)	4K-0367 (19)
			3.35 m (11 ft)	159-0311	3F-5108 (21)	4K-0367 (21)
			3.96 m (13 ft)	159-0311(3)	3F-5108 (24)	4K-0367 (24)
			4.27 m (14 ft)	159-0311 (2)	3F-5108 (30)	4K-0367 (30)
			4.57 m (15 ft)	159-0311	3F-5108 (28)	4K-0367 (28)
		1.219 m (4 ft)	3.05 m (10 ft)	159-0312	3F-5108 (19)	4K-0367 (19)
			3.35 m (11 ft)	159-0312 (2)	3F-5108 (21)	4K-0367 (21)
			3.66 m (12 ft)	159-0312 (3)	3F-5108 (23)	4K-0367 (23)
			3.96 m (13 ft)	159-0312	3F-5108 (24)	4K-0367 (24)
			4.27 m (14 ft)	159-0312 (2)	3F-5108 (30)	4K-0367 (30)
			4.57 m (15 ft)	159-0312 (3)	3F-5108 (28)	4K-0367 (28)
			4.88 m (16 ft)	159-0312 (4)	3F-5108 (36)	4K-0367 (36)
	Wide ⅝" bolts	0.914 m (3 ft)	3.05 m (10 ft)	159-0315 (2)	3F-5108 (19)	4K-0367 (19)
			3.35 m (11 ft)	159-0315	3F-5108 (21)	4K-0367 (21)
			3.96 m (13 ft)	159-0315 (3)	3F-5108 (24)	4K-0367 (24)
			4.27 m (14 ft)	159-0315 (2)	3F-5108 (30)	4K-0367 (30)
			4.57 m (15 ft)	159-0315	3F-5108 (28)	4K-0367 (28)
		1.219 m (4 ft)	3.05 m (10 ft)	159-0316	3F-5108 (19)	4K-0367 (19)
			3.35 m (11 ft)	159-0316 (2)	3F-5108 (21)	4K-0367 (21)
			3.66 m (12 ft)	159-0316 (3)	3F-5108 (23)	4K-0367 (23)
			3.96 m (13 ft)	159-0316	3F-5108 (24)	4K-0367 (24)
			4.27 m (14 ft)	159-0316 (2)	3F-5108 (30)	4K-0367 (30)
			4.57 m (15 ft)	159-0316 (3)	3F-5108 (28)	4K-0367 (28)
			4.88 m (16 ft)	159-0316 (4)	3F-5108 (36)	4K-0367 (36)

Mining Bit Systems

Mining Bit System for larger machines (16H and 24H) in heavy-duty applications like haul road maintenance. The Mining Bits have two separate pieces of carbide for added wear protection. The first is brazed on the face of the bit to reduce wear as the bit moves through the material. The second piece of carbide is inserted into a slot behind the face to protect the bottom of the bit. The Mining Bit also has an angled shank to facilitate proper orientation with respect to the ground — reducing chances for premature wear.

Model	Gap Size	Edge Length	Mining Bit Arrangement*	
			Standard	Wide
16H	Narrow	0.914 m (3 ft)	135-9584 (13)	135-9586
		1.219 m (4 ft)	135-9584 (13)	135-9586
	Wide	0.914 m (3 ft)	135-9584 (13)	135-9586
		1.219 m (4 ft)	135-9584 (13)	135-9586
24H	Wide	0.914 m (3 ft)	178-4094	N/A

* Includes snap ring retainer 178-4092.

Mining Bit System Adapters

Model	Gap Size	Edge Length	Moldboard Length	Adapter Part Number	Bolts	Nuts
16H	Narrow 5/8" bolts	0.914 m (3 ft)	4.267 m (14 ft)	135-9596	3F-5108 (30)	4K-0367 (30)
			4.877 m (16 ft)	135-9596	3F-5108 (36)	4K-0367 (30)
	Wide 5/8" bolts	0.914 m (3 ft)	4.267 m (14 ft)	135-9593	3F-5108 (30)	4K-0367 (30)
			4.877 m (16 ft)	135-9593	3F-5108 (36)	4K-0367 (36)
	Narrow 3/4" bolts	0.914 m (3 ft)	4.267 m (14 ft)	135-9592	5J-4771 (30)	2J-3506 (30)
			4.877 m (16 ft)	135-9592	5J-4771 (36)	2J-3506 (36)
	Wide 3/4" bolts	0.914 m (3 ft)	4.267 m (14 ft)	135-9591	5J-4771 (30)	2J-3506 (30)
			4.877 m (16 ft)	135-9591	5J-4771 (36)	2J-3506 (36)
	Narrow 5/8" bolts	1.219 m (4 ft)	4.267 m (14 ft)	135-9590	3F-5108	4K-0367 (30)
			4.877 m (16 ft)	135-9590	3F-5108	4K-0367 (36)
	Wide 5/8" bolts	1.219 m (4 ft)	4.267 m (14 ft)	135-9589	3F-5108	4K-0367 (30)
			4.877 m (16 ft)	135-9589	3F-5108	4K-0367 (36)
	Narrow 3/4" bolts	1.219 m (4 ft)	4.267 m (14 ft)	135-9588	5J-4771	2J-3506 (30)
			4.877 m (16 ft)	135-9588	5J-4771	2J-3506 (36)
	Wide 3/4" bolts	1.219 m (4 ft)	4.267 m (14 ft)	135-9587	5J-4771	2J-3506 (30)
			4.877 m (16 ft)	135-9587	5J-4771	2J-3506 (36)
24H	Wide 1" bolts	0.914 m (3 ft)	7.315 m (24 ft)	178-4095	1J-3527	2J-3507

Cutting Edges

Caterpillar Motor Grader Cutting Edges are made of DH2 alloy steel, SAE specification high carbon steel, or Tungsten Carbide and are double bevel shaped for improved penetration.

DH2 Through-Hardened Edges are heat treated for longer wear life and greater breakage resistance than surface hardened edges or high carbon steel edges. DH2 Through-Hardened Edges have a lifetime warranty against breakage.

High Carbon Edges are wear resistant and intended for light duty applications.

Tungsten Carbide Edges provide up to twenty times more wear life in low impact, high wear applications.

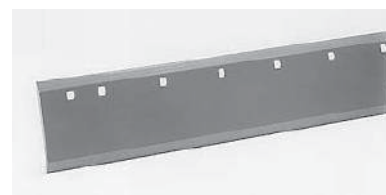
Curved Cutting Edges

- Provides best penetration.
- For use in most construction and finish grading applications.



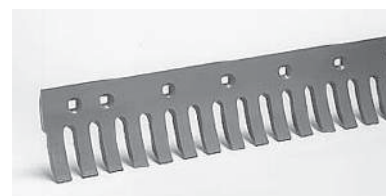
Flat Cutting Edges

- Provide greater strength and more wear material.
- For use with large machines in road maintenance and pioneering applications.



Serrated Cutting Edges

- Provides better penetration of frozen or hard-packed materials.
- For use in gravel raking and spreading applications, as well as other special applications.



Edge Width	Edge Thickness	Edge Length	Edge Type	Steel Type	Bolt Size	Edge Part Number	Bolts	Nuts
121 mm (4.75 in)	19 mm (0.75 in)	0.610 m (2 ft)	Curved	Tungsten Carbide	0.62	207-4695	3F-5108 (5)	4K-0367 (5)
					0.75	208-8863	4F-7827 (5)*	2J-3506 (5)
		0.914 m (3 ft)	Curved	Tungsten Carbide	0.62	208-8862	3F-5108 (7)	4K-0367 (7)
					0.75	217-4698	4F-7827 (7)*	2J-3506 (7)
152 mm (6.00 in)	13 mm (0.50 in)	1.219 m (4 ft)	Curved	DH2	0.62	3G-8016	3F-5108 (9)	4K-0367 (9)
				High Carbon	0.62	9W-2293	3F-5108 (6)	4K-0367 (6)
					0.75	9W-2294	4F-7827 (6)*	2J-3506 (6)
		1.524 m (5 ft)	Curved	DH2	0.62	9J-3862	3F-5108 (11)	4K-0367 (11)
				High Carbon	0.62	9W-2295	3F-5108 (7)	4K-0367 (7)
					0.75	9W-2296	4F-7827 (7)*	2J-3506 (7)
		1.828 m (6 ft)	Curved	DH2	0.62	8D-2786	3F-5108 (13)	4K-0367 (13)
					0.75	9J-3660	4F-7827 (13)*	2J-3506 (13)

* For a 14G Motor Grader, use 5J-4773 bolts.

For a 16G Motor Grader with a 16 ft. blade, use 5F-8933 bolts.

For a 16G Motor Grader without a 16 ft. blade, use 5J-4771 bolts.

For a 24H Motor Grader, use 1J-3527 bolts for the last five bolts on each end of the edge.

Ground Engaging Tools — Motor Grader Cutting Edges

Cutting Edges

Edge Width	Edge Thickness	Edge Length	Edge Type	Steel Type	Bolt Size	Edge Part Number	Bolts	Nuts
152 mm (6.00 in)	13 mm (0.50 in)	1.828 m (6 ft)	Curved	High Carbon	0.62	9W-2297	3F-5108 (8)	4K-0367 (8)
					0.75	9W-2298	4F-7827 (8)*	2J-3506 (8)
		2.133 m (7 ft)	Curved	DH2	0.62	8D-2787	3F-5108 (15)	4K-0367 (15)
					0.75	9J-3659	4F-7827 (15)*	2J-3506 (15)
				High Carbon	0.62	9W-2299	3F-5108 (9)	4K-0367 (9)
					0.75	9W-2300	4F-7827 (9)*	2J-3506 (9)
		2.438 m (8 ft)	Curved	DH2	0.62	8J-7782	3F-5108 (17)	4K-0367 (17)
					0.75	9J-3656	4F-7827 (17)*	2J-3506 (17)
				High Carbon	0.62	9W-2301	3F-5108 (10)	4K-0367 (10)
					0.75	9W-2302	4F-7827 (10)*	2J-3506 (10)
		2.743 m (9 ft)	Curved	High Carbon	0.62	4Z-8968	3F-5108 (11)	4K-0367 (11)
		3.048 m (10 ft)	Curved	High Carbon	0.62	9W-2303	3F-5108 (12)	4K-0367 (12)
					0.75	9W-2304	4F-7827 (12)*	2J-3506 (12)
		3.658 m (12 ft)	Curved	High Carbon	0.62	9W-2305	3F-5108 (13)	4K-0367 (13)
					0.75	9W-2306	4F-7827 (14)*	2J-3506 (14)
		4.267 m (14 ft)	Curved	High Carbon	0.62	9W-2307	3F-5108 (16)	4K-0367 (16)
					0.75	9W-2308	4F-7827 (16)*	2J-3506 (16)
	16 mm (0.62 in)	0.610 m (2 ft)	Curved	DH2	0.62	9W-1835	3F-5108 (4)	4K-0367 (4)
		1.219 m (4 ft)	Curved	High Carbon	0.62	9W-2325	3F-5108 (6)	4K-0367 (6)
					0.75	9W-2326	4F-7827 (6)*	2J-3506 (6)
		1.524 m (5 ft)	Curved	DH2	0.62	7D-4508	3F-5108 (11)	4K-0367 (11)
				High Carbon	0.62	7T-1640	3F-5108 (7)	4K-0367 (7)
					0.75	9W-2327	4F-7827 (7)*	2J-3506 (7)
		1.828 m (6 ft)	Curved	DH2	0.62	5D-9553	3F-5108 (13)	4K-0367 (13)
				High Carbon	0.62	9J-3657	4F-7827 (13)*	2J-3506 (13)
					0.75	7T-1633	3F-5108 (8)	4K-0367 (8)
		2.133 m (7 ft)	Curved	High Carbon	0.62	7T-1637	4F-7827 (8)*	2J-3506 (8)
					0.75	7T-1637	4F-7827 (8)*	2J-3506 (8)
				DH2	0.62	5D-9554	3F-5108 (15)	4K-0367 (15)
		2.438 m (8 ft)	Curved	DH2	0.62	9J-3658	4F-7827 (15)*	2J-3506 (15)
					0.75	9J-3658	4F-7827 (15)*	2J-3506 (15)
				High Carbon	0.62	7T-1645	3F-5108 (9)	4K-0367 (9)
					0.75	7T-1626	4F-7827 (9)*	2J-3506 (9)
		3.353 m (11 ft)	Curved	High Carbon	0.62	8J-4043	3F-5108 (17)	4K-0367 (17)
					0.75	9J-3655	4F-7827 (17)*	2J-3506 (17)
					0.62	7T-1632	3F-5108 (10)	4K-0367 (10)
		3.658 m (12 ft)	Curved	High Carbon	0.62	7T-1629	4F-7827 (10)*	2J-3506 (10)
					0.75	7T-1629	4F-7827 (10)*	2J-3506 (10)
	19 mm (0.75 in)	1.524 m (5 ft)	Curved	DH2	0.62	3G-7966	3F-5108 (11)	4K-0367 (11)
		1.828 m (6 ft)	Curved	DH2	0.62	5D-9556	3F-5108 (13)	4K-0367 (13)
		2.133 m (7 ft)	Curved	DH2	0.62	5D-9557	3F-5108 (15)	4K-0367 (15)
					0.75	4Z-8785	4F-7827 (15)*	2J-3506 (15)
					0.75	4Z-8785	4F-7827 (15)*	2J-3506 (15)
170 mm (6.69 in)	25 mm (1.00 in)	0.610 m (2 ft)	Curved Serrated	Tungsten Carbide	0.62	208-8864	3F-5108 (5)	4K-0367 (5)
					0.75	208-8865	4F-7827 (5)*	2J-3506 (5)
		0.914 m (3 ft)	Curved Serrated	Tungsten Carbide	0.62	217-4696	3F-5108 (7)	4K-0367 (7)
171 mm (6.75 in)	19 mm (0.75 in)	0.610 m (2 ft)	Curved	Tungsten Carbide	0.62	217-4697	4F-7827 (7)*	2J-3506 (7)
					0.75	217-4697	4F-7827 (7)*	2J-3506 (7)
		0.914 m (3 ft)	Curved	Tungsten Carbide	0.62	195-7265	3F-5108 (5)	4K-0367 (5)
					0.75	195-7266	4F-7827 (5)*	2J-3506 (5)
		0.914 m (3 ft)	Curved	Tungsten Carbide	0.62	208-8866	3F-5108 (7)	4K-0367 (7)
					0.75	208-8866	4F-7827 (7)*	2J-3506 (7)
		1.219 m (4 ft)	Curved	Tungsten Carbide	0.62	195-7267	4F-7827 (7)*	2J-3506 (7)
					0.75	208-8866	4F-7827 (9)*	2J-3506 (9)

* For a 14G Motor Grader, use 5J-4773 bolts.

For a 16G Motor Grader with a 16 ft. blade, use 5F-8933 bolts.

For a 16G Motor Grader without a 16 ft. blade, use 5J-4771 bolts.

For a 24H Motor Grader, use 1J-3527 bolts for the last five bolts on each end of the edge.

Cutting Edges

Edge Width	Edge Thickness	Edge Length	Edge Type	Steel Type	Bolt Size	Edge Part Number	Bolts	Nuts
203 mm (8.00 in)	13 mm (0.50 in)	1.219 m (4 ft)	Curved	DH2	0.62	3G-7965	3F-5108 (9)	4K-0367 (9)
					0.75	135-6738	4F-7827 (9)*	2J-3506 (9)
			High Carbon		0.62	9W-2309	3F-5108 (6)	4K-0367 (6)
					0.75	9W-2310	4F-7827 (6)*	2J-3506 (6)
		1.524 m (5 ft)	Curved	DH2	0.62	9J-3863	3F-5108 (11)	4K-0367 (11)
					0.75	134-1779	4F-7827 (11)*	2J-3506 (11)
			High Carbon		0.62	9W-2311	3F-5108 (7)	4K-0367 (7)
					0.75	9W-2312	4F-7827 (7)*	2J-3506 (7)
		1.828 m (6 ft)	Curved	DH2	0.62	8D-2788	3F-5108 (13)	4K-0367 (13)
					0.75	3G-1626	4F-7827 (13)*	2J-3506 (13)
			High Carbon		0.62	9W-2313	3F-5108 (8)	4K-0367 (8)
					0.75	9W-2314	4F-7827 (8)*	2J-3506 (8)
		2.133 m (7 ft)	Curved	DH2	0.62	8D-2789	3F-5108 (15)	4K-0367 (15)
					0.75	3G-1627	4F-7827 (15)*	2J-3506 (15)
			High Carbon		0.62	9W-2315	3F-5108 (9)	4K-0367 (9)
					0.75	9W-2316	4F-7827 (9)*	2J-3506 (9)
		2.438 m (8 ft)	Curved	DH2	0.62	8J-8980	3F-5108 (17)	4K-0367 (17)
					0.75	3G-1628	4F-7827 (17)*	2J-3506 (17)
		2.438 m (8 ft)	Curved	High Carbon	0.62	9W-2317	3F-5108 (10)	4K-0367 (10)
					0.75	9W-2318	4F-7827 (10)*	2J-3506 (10)
		3.048 m (10 ft)	Curved	High Carbon	0.62	9W-2319	3F-5108 (12)	4K-0367 (12)
					0.75	9W-2320	4F-7827 (12)*	2J-3506 (12)
		3.658 m (12 ft)	Curved	High Carbon	0.62	9W-2321	3F-5108 (14)	4K-0367 (14)
					0.75	9W-2322	4F-7827 (14)*	2J-3506 (14)
		4.267 m (14 ft)	Curved	High Carbon	0.62	9W-2323	3F-5108 (16)	4K-0367 (16)
					0.75	9W-2324	4F-7827 (16)*	2J-3506 (16)
	16 mm (0.62 in)	0.610 m (2 ft)	Curved	DH2	0.62	109-3137	3F-5108 (5)	4K-0367 (5)
					0.75	3G-2166	4F-7827 (4)*	2J-3506 (4)
		1.219 m (4 ft)	Curved	DH2	0.62	132-1088	3F-5108 (9)	4K-0367 (9)
					0.75	134-1773	4F-7827 (9)*	2J-3506 (9)
			High Carbon		0.62	9W-2328	3F-5108 (6)	4K-0367 (6)
					0.75	9W-2329	4F-7827 (6)*	2J-3506 (6)
		1.524 m (5 ft)	Curved	DH2	0.62	7D-4509	3F-5108 (11)	4K-0367 (11)
					0.62	7T-1641	3F-5108 (7)	4K-0367 (7)
					0.75	9W-2330	4F-7827 (7)*	2J-3506 (7)
			Flat	DH2	0.62	4T-2967	3F-5108 (11)	4K-0367 (11)
					0.75	4Z-8120	4F-7827 (13)*	2J-3506 (13)
					0.75	4Z-8120	4F-7827 (13)*	2J-3506 (13)
		1.828 m (6 ft)	Curved	DH2	0.62	5D-9562	3F-5108 (13)	4K-0367 (13)
					0.75	9J-7701	4F-7827 (13)*	2J-3506 (13)
					0.62	7T-1636	3F-5108 (8)	4K-0367 (8)
			Flat	DH2	0.62	7T-1639	4F-7827 (8)*	2J-3506 (8)
					0.62	4T-2968	3F-5108 (13)	4K-0367 (13)
					0.75	4T-2971	4F-7827 (13)*	2J-3506 (13)
		2.133 m (7 ft)	Curved	DH2	0.62	5D-9561	3F-5108 (15)	4K-0367 (15)
					0.75	7D-1158	4F-7827 (15)*	2J-3506 (15)
					0.62	7T-1643	3F-5108 (9)	4K-0367 (9)
			Flat	DH2	0.62	7T-1624	4F-7827 (9)*	2J-3506 (9)
					0.62	4T-2969	3F-5108 (15)	4K-0367 (15)
					0.75	4T-2970	4F-7827 (15)*	2J-3506 (15)
		2.438 m (8 ft)	Curved	DH2	0.62	5D-9731	3F-5108 (17)	4K-0367 (17)
					0.75	8J-9821	4F-7827 (17)*	2J-3506 (17)

* For a 14G Motor Grader, use 5J-4773 bolts.

For a 16G Motor Grader with a 16 ft. blade, use 5F-8933 bolts.

For a 16G Motor Grader without a 16 ft. blade, use 5J-4771 bolts.

For a 24H Motor Grader, use 1J-3527 bolts for the last five bolts on each end of the edge.

Ground Engaging Tools — Motor Grader Cutting Edges

Cutting Edges

Edge Width	Edge Thickness	Edge Length	Edge Type	Steel Type	Bolt Size	Edge Part Number	Bolts	Nuts
203 mm (8.00 in)	16 mm (0.62 in)	2.438 m (8 ft)	Curved	High Carbon	0.62	7T-1631	3F-5108 (10)	4K-0367 (10)
					0.75	7T-1628	4F-7827 (10)*	2J-3506 (10)
			Flat	DH2	0.62	4T-2966	3F-5108 (17)	4K-0367 (17)
					0.75	4T-9603	4F-7827 (17)*	2J-3506 (17)
	19 mm (0.75 in)	0.610 m (2 ft)	Curved	DH2	0.62	6G-8623	3F-5108 (4)	4K-0367 (4)
					0.75	3G-2165	4F-7827 (4)*	2J-3506 (4)
			Flat	DH2	0.62	4Z-8129	3F-5108 (11)	4K-0367 (11)
					0.62	4Z-8119	3F-5108 (6)	4K-0367 (6)
		1.219 m (4 ft)	Curved	DH2	0.62	132-1087	3F-5108 (9)	4K-0367 (9)
					0.75	109-3124	4F-7827 (9)*	2J-3506 (9)
				High Carbon	0.62	9W-2338	3F-5108 (6)	4K-0367 (6)
					0.75	9W-2339	4F-7827 (6)*	2J-3506 (6)
			Curved Serrated	DH2	0.62	8D-3428	3F-5108 (9)	4K-0367 (9)
					0.75	8J-8255	4F-7827 (9)*	2J-3506 (9)
				DH2	0.62	9W-6252	3F-5108 (11)	4K-0367 (11)
					0.75	4Z-8131	4F-7827 (7)*	2J-3506 (7)
		1.524 m (5 ft)	Curved	High Carbon	0.62	9W-2340	3F-5108 (7)	4K-0367 (7)
					0.75	9W-2341	4F-7827 (7)*	2J-3506 (7)
			Curved Serrated	DH2	0.62	8D-3429	3F-5108 (11)	4K-0367 (11)
					0.75	8J-8256	4F-7827 (11)*	2J-3506 (11)
			Flat	DH2	0.62	4T-3034	3F-5108 (11)	4K-0367 (11)
					0.62	5D-9558	3F-5108 (13)	4K-0367 (13)
		1.828 m (6 ft)	Curved	DH2	0.75	7D-1576	4F-7827 (13)*	2J-3506 (13)
					0.62	7T-1634	3F-5108 (8)	4K-0367 (8)
				High Carbon	0.75	7T-1638	4F-7827 (8)*	2J-3506 (8)
			Curved Serrated	DH2	0.62	132-1072	3F-5108 (13)	4K-0367 (13)
					0.62	4T-3007	3F-5108 (13)	4K-0367 (13)
			Flat	DH2	0.75	4T-3033	4F-7827 (13)*	2J-3506 (13)
		2.133 m (7 ft)	Curved	DH2	0.62	5D-9559	3F-5108 (15)	4K-0367 (15)
					0.75	7D-1577	4F-7827 (15)*	2J-3506 (15)
				High Carbon	0.62	7T-1623	3F-5108 (9)	4K-0367 (9)
					0.75	7T-1625	4F-7827 (9)*	2J-3506 (9)
			Curved Serrated	DH2	0.62	4Z-9020	3F-5108 (15)	4K-0367 (15)
					0.62	4T-3036	3F-5108 (15)	4K-0367 (15)
		2.438 m (8 ft)	Curved	DH2	0.75	4T-3032	4F-7827 (15)*	2J-3506 (15)
					0.62	5D-9732	3F-5108 (17)	4K-0367 (17)
				High Carbon	0.75	7D-1949	4F-7827 (17)*	2J-3506 (17)
					0.62	7T-1630	3F-5108 (10)	4K-0367 (10)
			Curved Serrated	DH2	0.75	7T-1627	4F-7827 (10)*	2J-3506 (10)
					0.62	132-1073	3F-5108 (17)	4K-0367 (17)
			Flat	DH2	0.62	4T-3035	3F-5108 (17)	4K-0367 (17)
					0.75	4T-3037	4F-7827 (17)*	2J-3506 (17)
	25 mm (1.00 in)	1.219 m (4 ft)	Curved	DH2	0.75	109-3150	4F-7827 (9)*	2J-3506 (9)
			Curved Serrated	DH2	0.75	4T-3512	4F-7827 (9)*	2J-3506 (9)
			Flat	DH2	0.62	135-9692	3F-5108 (11)	4K-0367 (11)
					0.75	4Z-8926	4F-7827 (13)*	2J-3506 (13)
			Flat Serrated	DH2	0.75	7T-3600	4F-7827 (9)*	2J-3506 (9)
		1.524 m (5 ft)	Curved	DH2	0.62	4T-2240	3F-5108 (11)	4K-0367 (11)
			Curved Serrated	DH2	0.75	4T-3511	4F-7827 (11)*	2J-3506 (11)
			Flat	DH2	0.62	7T-3497	3F-5108 (11)	4K-0367 (11)

* For a 14G Motor Grader, use 5J-4773 bolts.

For a 16G Motor Grader with a 16 ft. blade, use 5F-8933 bolts.

For a 16G Motor Grader without a 16 ft. blade, use 5J-4771 bolts.

For a 24H Motor Grader, use 1J-3527 bolts for the last five bolts on each end of the edge.

Cutting Edges

Edge Width	Edge Thickness	Edge Length	Edge Type	Steel Type	Bolt Size	Edge Part Number	Bolts	Nuts
203 mm (8.00 in)	25.0 mm (1.00 in)	1.524 m (5 ft)	Flat Serrated	DH2	0.75	7T-3601	4F-7827 (11)*	2J-3506 (11)
			Curved	DH2	0.62	4T-2244	3F-5108 (13)	4K-0367 (13)
		1.828 m (6 ft)	Flat	DH2	0.75	4T-2231	4F-7827 (13)*	2J-3506 (13)
					0.62	7T-3499	3F-5108 (13)	4K-0367 (13)
		2.133 m (7 ft)	Curved	DH2	0.75	7T-3493	4F-7827 (13)*	2J-3506 (13)
					0.62	4T-2242	3F-5108 (15)	4K-0367 (15)
			Flat	DH2	0.75	4T-2233	4F-7827 (15)*	2J-3506 (15)
					0.62	7T-3498	3F-5108 (15)	4K-0367 (15)
		2.438 m (8 ft)	Curved	DH2	0.75	7T-3494	4F-7827 (15)*	2J-3506 (15)
					0.62	4T-2237	3F-5108 (17)	4K-0367 (17)
			Flat	DH2	0.75	4T-2236	4F-7827 (17)*	2J-3506 (17)
					0.62	7T-3496	3F-5108 (17)	4K-0367 (17)
254 mm (10.00 in)	25.0 mm (1.00 in)	1.219 m (4 ft)	Flat Serrated	DH2	0.75	4T-8800	4F-7827 (9)*	2J-3506 (9)
		1.524 m (5 ft)	Flat Serrated	DH2	0.75	4T-8801	4F-7827 (11)*	2J-3506 (11)
		1.828 m (6 ft)	Flat	DH2	0.75	4T-6502	4F-7827 (13)*	2J-3506 (13)
		2.133 m (7 ft)	Flat	DH2	0.75	4T-6508	4F-7827 (15)*	2J-3506 (15)
			Flat Serrated	DH2	0.75	4Z-8055	4F-7827 (15)*	2J-3506 (15)
		2.438 m (8 ft)	Flat	DH2	0.75	4T-6511	4F-7827 (17)*	2J-3506 (17)
			Flat Serrated	DH2	0.75	4Z-8056	4F-7827 (17)*	2J-3506 (17)
	35.0 mm (1.38 in)	2.133 m (7 ft)	Flat	DH2	0.75	4T-8316	4F-7827 (15)*	2J-3506 (15)
			Flat Serrated	DH2	0.75	4Z-8346	4F-7827 (15)*	2J-3506 (15)
		2.438 m (8 ft)	Flat	DH2	0.75	4T-8317	4F-7827 (17)*	2J-3506 (17)
			Flat Serrated	DH2	0.75	100-4581	4F-7827 (17)*	2J-3506 (17)
	45.0 mm (1.75 in)	2.438 m (8 ft)	Flat	DH2	0.75	104-3628	4F-7827 (17)*	2J-3506 (17)
		2.438 m (8 ft)	Flat Serrated	DH2	0.75	104-3631	4F-7827 (17)*	2J-3506 (17)
280 mm (11.00 in)	25.0 mm (1.00 in)	2.133 m (7 ft)	Flat	DH2	0.75	140-6790	4F-7827 (15)*	2J-3506 (15)
		2.438 m (8 ft)	Flat	DH2	0.75	140-6832	4F-7827 (17)*	2J-3506 (17)
	35.0 mm (1.38 in)	2.438 m (8 ft)	Flat	DH2	0.75	132-1086	4F-7827 (17)*	2J-3506 (17)
305 mm (12.00 in)	35.0 mm (1.38 in)	2.436 m (8 ft)	Flat	DH2	0.75	4Z-9188	4F-7827 (17)*	2J-3506 (17)
330 mm (13.00 in)	28.5 mm (1.18 in)	1.217 m (4 ft)	Flat	DH2	1.00	109-3117	4J-9058 (9)*	2J-3507 (9)
	45.0 mm (1.75 in)	1.217 m (4 ft)	Flat Serrated	DH2	1.00	138-6542	4J-9058 (9)*	2J-3507 (9)
			Flat	DH2	1.00	109-3116	4J-9058 (9)*	2J-3507 (9)
		2.436 m (8 ft)	Flat	DH2	0.75	128-2577	4F-7827 (17)*	2J-3506 (17)
			Flat Serrated	DH2	0.75	134-1778	4F-7827 (17)*	2J-3506 (17)
	60.0 mm (2.38 in)	1.219 m (4 ft)	Flat	DH2	1.00	132-1019	4J-9058 (9)*	2J-3507 (9)
			Flat Serrated	DH2	1.00	132-4753	4J-9058 (9)*	2J-3507 (9)
406 mm (16.00 in)	28.0 mm (1.18 in)	1.219 m (4 ft)	Flat	DH2	1.00	135-9690	4J-9058 (9)*	2J-3507 (9)
	45.0 mm (1.75 in)		Flat	DH2	1.00	138-6440	4J-9058 (9)*	2J-3507 (9)
	60.0 mm (2.38 in)	1.219 m (4 ft)	Flat	DH2	1.00	135-9349	4J-9058 (9)*	2J-3507 (9)
			Flat Serrated	DH2	1.00	135-9796	4J-9058 (9)*	2J-3507 (9)
	75.0 mm (3.00 in)		Flat	DH2	1.00	135-9576	4J-9058 (9)*	2J-3507 (9)
			Flat Serrated	DH2	1.00	135-9797	4J-9058 (9)*	2J-3507 (9)

* For a 14G Motor Grader, use 5J-4773 bolts.

For a 16G Motor Grader with a 16 ft. blade, use 5F-8933 bolts.

For a 16G Motor Grader without a 16 ft. blade, use 5J-4771 bolts.

For a 24H Motor Grader, use 1J-3527 bolts for the last five bolts on each end of the edge.

Ground Engaging Tools — Motor Grader End Bits

Moldboard End Bits



- Designed to protect the end of the moldboard from wear and damage.
- For use in all applications.
- For machines equipped with a power blade arrangement, please refer to the parts book for the applicable moldboard end bits.

Model	Serial Number	Moldboard End Bit (2) Required	Bolts	Nuts
12, 12G	12 (All), 12G (61M1-11715)	7D-2052	3F-5108 (5)	4K-0367 (5)
12G	61M11716-UP	8E-5531	3F-5108 (5)	4K-0367 (5)
12H	All	8E-5531	3F-5108 (5)	4K-0367 (5)
14	All	7D-2083/4	3F-5108 (5)	4K-0367 (5)
14G	96U1-7324	9J-4405/6	4F-7827 (4)	2J-3506 (4)
	96U7325-UP	8E-5529	5J-4773 (5)	2J-3506 (5)
14H	All	8E-5529	5J-4773 (5)	2J-3506 (5)
16	All	9J-4407/8	3F-5108 (4)	4K-0367 (4)
16G	93U1-2777	9D-4880/1	4F-7827 (4)	2J-3506 (4)
	93U2778-UP	8E-5530	1J-6762 (5)*	2J-3506 (5)
16H	All	8E-5530	1J-6762 (5)*	2J-3506 (5)
24H	All	109-3118	1J-3527 (6)	2J-3507 (6)
112	All	7D-2052	3F-5108 (5)	4K-0367 (5)
120	87V1-6134	7D-2052	3F-5108 (5)	4K-0367 (5)
120G	87V6135-UP	8E-5531	3F-5108 (5)	4K-0367 (5)
120H	All	8E-5531	3F-5108 (5)	4K-0367 (5)
130	74V1-2292	7D-2052	3F-5108 (5)	4K-0367 (5)
130G	74V2293-UP	8E-5531	3F-5108 (5)	4K-0367 (5)
135H	All	8E-5531	3F-5108 (5)	4K-0367 (5)
140	72V1-9828	7D-2052	3F-5108 (5)	4K-0367 (5)
140G	72V9829-UP	8E-5531	3F-5108 (5)	4K-0367 (5)
140H (Blades using ¾ bolts)	All with 112-4520 and 112-4521 Blade Groups	8E-5529	5J-4773 (5)	4K-0367 (5)
140H (Blades using ½ bolts)	All with 8X-8011 and 8X-8016 Blade Groups	8E-5531	3F-5108 (5)	2J-3506 (5)
143H (Blades using ¾ bolts)	All with 112-4520 and 112-4521 Blade Groups	8E-5529	5J-4773 (5)	4K-0367 (5)
143H (Blades using ½ bolts)	All with 8X-8011 and 8X-8016 Blade Groups	8E-5531	3F-5108 (5)	2J-3506 (5)
				4K-0367 (5)
160H, 163H	All	8E-5529	5J-4773 (5)	2J-3506 (5)
212	All	9J-4411	3F-5108 (4)	4K-0367 (4)

* Use the larger 5F-8933 bolt when rear moldboard reinforcing plates are used.

Overlay End Bits

- Designed to protect the ends of the cutting edge from excessive wear.
- Curved overlay end bits can be rotated 180° and used on the other end of the moldboard for a second wear life.
- For use on machines used for ditching where cutting edges wear fastest on the outer corners.



Model	Serial Number	Edge Width	Edge Type	Overlay End Bit		Bolts	Nuts
				(lh)	(rh)		
12, 12G	61M1-11715	152 mm (6.00 in)	Curved		6D-1904	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		6D-1948	4F-3658 (5)	4K-0367 (5)
			Flat*	4D-5758	4D-5757	4F-3658 (5)	4K-0367 (5)
12G	61M11716-UP	121 mm (4.75 in)	Curved		135-9345	4F-3657 (5)	4K-0367 (5)
		152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)
12H		121 mm (4.75 in)	Curved		135-9345	4F-3657 (5)	4K-0367 (5)
		152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)
14	early models	203 mm (8.00 in)	Curved		7D-5583	1J-6762 (5)	2J-3506 (5)
	later models	203 mm (8.00 in)	Flat*	4D-5758	4D-5757	4F-3658 (5)	4K-0367 (5)
14G	96U1-7324	203 mm (8.00 in)	Curved		7D-9999	1J-6762 (5)	2J-3506 (5)
	96U7325-UP	203 mm (8.00 in)	Curved		6Y-2805	1J-6762 (5)	2J-3506 (5)
14H		203 mm (8.00 in)	Curved		6Y-2805	1J-6762 (5)	2J-3506 (5)
16	early models	152 mm (6.00 in)	Curved		7D-5582	1J-6762 (5)	2J-3506 (5)
		203 mm (8.00 in)	Curved		7D-5193	4F-3658 (5)	4K-0367 (5)
16G	93U1-2777	203 mm (8.00 in)	Curved		7D-9999	1J-6762 (5)	2J-3506 (5)
	93U2778-UP	203 mm (8.00 in)	Curved		6Y-2805	1J-6762 (5)	2J-3506 (5)
120, 120G	87V1-6135	152 mm (6.00 in)	Curved		6D-1904	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		6D-1948	4F-3658 (5)	4K-0367 (5)
			Flat*	4D-5758	4D-5757	4F-3658 (5)	4K-0367 (5)
120G	87V6135-UP	121 mm (4.75 in)	Curved		135-9345	4F-3657 (5)	4K-0367 (5)
		152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)
120H		121 mm (4.75 in)	Curved		135-9345	4F-3657 (5)	4K-0367 (5)
		152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)
130, 130G	74V1-2292	152 mm (6.00 in)	Curved		6D-1904	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		6D-1948	4F-3658 (5)	4K-0367 (5)
			Flat*	4D-5758	4D-5757	4F-3658 (5)	4K-0367 (5)
130G	74V2293-UP	121 mm (4.75 in)	Curved		135-9345	4F-3657 (5)	4K-0367 (5)
		152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)
135H		121 mm (4.75 in)	Curved		135-9345	4F-3657 (5)	4K-0367 (5)
		152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)

* Flat overlay end bits must be used with flat edges.

** Applicable for blade group numbers 8X-8011 and 8X-8016.

+ Applicable for blade group numbers 112-4520 and 112-4521.

Ground Engaging Tools — Motor Grader End Bits

Overlay End Bits

Model	Serial Number	Edge Width	Edge Type	Overlay End Bit		Bolts	Nuts
				(lh)	(rh)		
140, 140G	72V1-9828	152 mm (6.00 in)	Curved		6D-1904	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		6D-1948	4F-3658 (5)	4K-0367 (5)
			Flat*	4D-5758	4D-5757	4F-3658 (5)	4K-0367 (5)
140G	72V9829-UP	152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)
140H**, 143H**		121 mm (4.75 in)	Curved		135-9345	4F-3657 (5)	4K-0367 (5)
		152 mm (6.00 in)	Curved		9W-1767	4F-3658 (5)	4K-0367 (5)
		203 mm (8.00 in)	Curved		9W-1768	4F-3658 (5)	4K-0367 (5)
140H+, 143H+		203 mm (8.00 in)	Curved		6Y-2805	1J-6762 (5)	2J-3506 (5)
160H, 163H		203 mm (8.00 in)	Curved		6Y-2805	1J-6762 (5)	2J-3506 (5)

* Flat overlay end bits must be used with flat edges.

** Applicable for blade group numbers 8X-8011 and 8X-8016.

+ Applicable for blade group numbers 112-4520 and 112-4521.

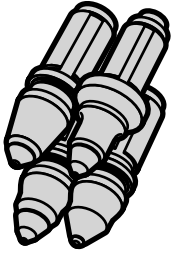
ONE SAFE SOURCE

2008-2009



GROUND ENGAGING TOOLS | PAVING PRODUCTS

Profiler/Road Reclaimer



- Caterpillar cutter bits are designed for optimum performance in a variety of materials.
- Proprietary carbide tips provide longer life and lower operational costs.

Item			
Blocks/Holders	Part Number		
Holder – Breakaway Reclaimer (¾")	6R-3927		
Holder – Dual Bit Stabilizer (1")	113-0313		
Holder – Heavy Duty Breakaway Cold Planer/Reclaimer (¾")	151-9941		
Holder – Heavy Duty Weld-On Cold Planer (¾")	113-0328		
Holder – Quick Change (7/8")	117-3887		
Holder – Standard Weld-On Reclaimer (¾")	7R-6187		
Holder – Weld-On Cold Planer (¾")	9U-9617		
Holder – Weld-On Reclaimer/Stabilizer (7/8")	117-4076		
Mounting Block (For use with Weld-On Holders)	8T-4084		
Mounting Block – Breakaway (For use with 6R-3927 Holder)	6R-3926		
Mounting Block – Heavy Duty Breakaway (For use with 151-9941 Holder)	169-1412		
Mounting Block – Standard Reclaimer (For use with 7R-6187 Holder)	077-2848		
Holder – Quick Change (For use with 077-4018/077-2820)	107-3343		
Soil Stabilizer Tools	Part Number	LH Part Number	RH Part Number
Chopper Tools – Carbide Face		077-7343	077-4727
Chopper Tools – Hardened Steel		077-2775	077-2776
Quick Change Tools – Carbide Face	077-4018		
Quick Change Tools – Hardened Steel	077-2820		
Quick Change Tools – Holder	077-2807		
Straight Tool	077-2774		
Straight Tool Holder	077-2789		
Cutter Bits	Part Number	Pallet Quantity (2,000)	
Asphalt Bit – Low Horse Power (¾" Shank)	222-7571	222-7578	
Asphalt Bit – Heavy Duty (¾" Shank)	140-2864	144-1238	
Asphalt Bit – Heavy Duty – Washered (¾" Shank)	222-7570	222-7579	
Asphalt Bit – Full Bodied – Washered (¾" Shank)	238-3191	238-3182	
Concrete Bit – Low Horse Power (¾" Shank)	227-7340		
Concrete Bit (¾" Shank)	149-5763	144-1236	
Asphalt and Soil Stabilizer Bit (7/8" Shank)	117-3884		
Asphalt and Soil Stabilizer Bit – Carbide Face (7/8" Shank)	117-3885		
Soil Stabilizer Bit (7/8" Shank)	195-7244		
Stabilizer Bit (1" Shank for use with 113-0313 Dual Holder)	113-0312		
Washer – Hardened	8C-1856		
Specialty Tools	Part Number		
Installation/Removal Tool	8T-4474		
Punch	104-8591		

ONE SAFE SOURCE

2008-2009



GROUND ENGAGING TOOLS | RIPPERS/SCARIFIERS

Large Rippers

For large rippers, there are two types of tips available — centerline and penetration. Both types of tips have a center rib for strength and sharpness, in addition to being forged from DH-3 steel for added strength and wear resistance. Available in several lengths to meet various applications.

Centerline Ripper Tips

- Offers good penetration and more wear material.
- Can be flipped for maximum performance.

Penetration Ripper Tips

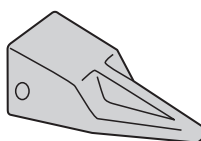
- Offer better initial penetration.
- Penetration tips should be installed with the rib up.

ARM Ripper Tips

- Offers increased wear life, and enhanced penetration and productivity.
- ARM Ripper Tips should not be used in severe impact conditions.

Sharp Tips

- Enhanced initial penetration in hard to penetrate materials like limestone and caliche applications.



Model	Centerline			ARM Centerline Intermediate	Penetration			ARM Penetration Intermediate	Sharp Limestone	Sharp Centerline ARM
	Long	Intermediate	Short		Long	Intermediate	Short			
D8L, D8, D8N D8R, D8K, D8T	114-0453	9W-2452	9W-2451	8E-5770		4T-5452	4T-5451	8E-5771		
D9, D9N, D9H D9R MS, D9T MS	114-0453	9W-2452	9W-2451	8E-5770		4T-5452	4T-5451	8E-5771		
D9L, D9R SS*, D9T SS	8E-8503	4T-4502	4T-4501	8E-5774	4T-5503	4T-5502	4T-5501	8E-5772	159-0377	201-3502
D10, D10N, D10R D10T	8E-8503	4T-4502	4T-4501	8E-5774	4T-5503	4T-5502	4T-5501	8E-5772	159-0377	201-3502
D11 MS	8E-8503	4T-4502	4T-4501	8E-5774	4T-5503	4T-5502	4T-5501	8E-5772	159-0377	201-3502
D11 SS		9W-4552	9W-4551	122-2552		6Y-3552		135-9552		

* Applicable for serial numbers 8BL1000-UP and 7TL753-UP.

MS – Multi-Shank

SS – Single Shank

Shank Protectors and Pin/Retainers

Model	Shank Protector			Counterbored Ripper Shank				Non-Counterbored Pin Assy.
				Non-reusable		Reusable		
	Standard	Sharp	Extended	Pin	Ret. Assy.	Pin	Retainer	
D8, D8N, D8R, D8L	6J-8814	8E-1848	132-4716			6Y-3394	8E-4743	4T-2479+ 6J-8814++
D9, D9N, D9R, D9H	6J-8814	8E-1848	132-4716			6Y-3394	8E-4743	4T-2479+ 6J-8814++
D9L (1 pin protector)		6Y-9704						102-9062
D9L (2 pin protector) D9R SS*, D9T SS		9W-8365	132-1014	6Y-1204	6Y-1202	6Y-3909	4T-4707	102-9062
D10, D10R SS, D10T SS, D10T MS		6Y-8960	132-1015	6Y-1204	6Y-1202	6Y-3909	4T-4707	102-9062
D10R MS, D10N		9W-8365	132-1014	6Y-1204	6Y-1202	6Y-3909	4T-4707	102-9062
D11 MS		6Y-8960	132-1015	6Y-1204	6Y-1202	6Y-3909	4T-4707	102-9062
D11 SS		9N-4621	132-1016	9N-4245	6Y-1205	8E-2229	8E-2230	6Y-2443
D10 (1 pin protector)	3G-9514	6Y-9704						102-9062

* Applicable for serial numbers 8BL1000-UP and 7TL753-UP.

+ Top protector hole.

++ Lower protector hole.

MS – Multi-Shank

SS – Single Shank

Shank Repair/Conversion Parts

Model	Adapter	Nose
D8L, D8, D8N, D8R, D8K	8E-8418	9U-9694
D9, D9N, D9R, D9H	8E-8418	9U-9694
D9L (1 pin protector)	1U-3630	103-8114
D9L, D9R HD (2 pin protector)	103-8115	107-3361
D10 (1 pin protector)	1U-3630	103-8114
D10 (2 pin protector)	103-8115	107-3361
D11 MS (1 pin protector)	1U-3630	103-8114
D11 MS (2 pin protector)	103-8115	107-3361
D11 SS	104-9279	

MS – Multi-Shank

SS – Single Shank

Ground Engaging Tools — Ripper/Scarifier Tips

Small Rippers and Scarifiers

For small rippers and scarifiers, there are two types of tips available — centerline and penetration. Both types of tips have a center rib for strength and sharpness, in addition to being forged from DH-3 steel for added strength and wear resistance. Available in several lengths to meet various applications.



Centerline Ripper Tips

- Offers good penetration and more wear material.
- Can be flipped for maximum performance.



Penetration Ripper Tips

- Offers better initial penetration.
- Penetration tips should be installed with the rib up.

Sharp Ripper Tips

Model	Centerline Long	Penetration Long	Sharp	Arm	Pin	Retainer
No. 3, 931, 933, 939, D4C, D5C 135H, 120H	1U-3202*	1U-3209*	9W-8209		8E-6208	8E-6209
No. 4, 963, 955, 951, 941, 12, 14, 130, 140, 143H, 160H, 163, D5M, D5N	6Y-0352	6Y-0309	9W-7309	168-1309	136-8308	114-0359
943, 953, D3G, D4G, D5G		9J-4259*	9W-8259		132-4763	149-5733
No. 5, No. 6, 963, 973, 977, 983, No. 7, 16, 24H, D6M, D6N, D6R, D7R	6Y-0352	6Y-0359		159-0355 Centerline 159-0356 Penetration	114-0358	114-0359

* DH-2 Steel.

Replacement Parts for Scarifiers

Components	V-Block (Rear Notched)	V-Block (Front Notched)	Straight Block (Rear Notched)	No. 6 (Non-Current)
Shank				
Standard	5B-0947	195-7218	195-7219	6K-5704*
Long		7D-4501		
Tips				
General Purpose (DH-2)	195-7234*	195-7234*	195-7234*	
High Temperature (DH-3)	6Y-5230**	6Y-5230**	6Y-5230**	5K-0450*
High Abrasion (ARM)	143-3074**	143-3074**	143-3074**	143-3074**

* Uses DH-2 Steel.

** Use 6B-3260 tool for driving scarifier tips off shanks.

ONE SAFE SOURCE

2008-2009



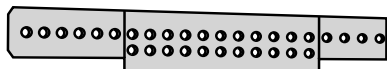
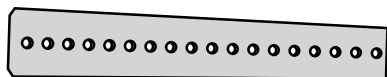
GROUND ENGAGING TOOLS | SCRAPERS

Ground Engaging Tools — Scraper Cutting Edges

Scraper Cutting Edges

There's a complete line of scraper cutting edges, providing the right combination of edge thickness and arrangement to match practically any job condition.

All edges are rolled from DH-2 steel and through-hardened for strength and wear resistance. Two types are available:



Level Cut Arrangement

- For finish work or very high impact conditions where stinger breakage is a problem.

Stinger Arrangement

- The standard configuration of cutting edge on most scrapers. Provides good penetration and efficient flow of material into the bowl.

Model	Thickness	Stinger Arrangement		Changes for Level Cut		Bolts	Nuts
		Center	Ends	Center	Ends		
613, 613C	22 mm (0.88 in)	4T-6611	4T-6613 (2)		b	4F-7827 (15)	2J-3506 (15)
615 (46Z1-1342, 47Z1-1339)	22 mm (0.88 in)	7T-5104	7T-5105 (2)		b	5J-2409 (13)	2J-3505 (13)
	22 mm (0.88 in)	9W-5807	9W-5810		9W-5806 (2)	4J-9058 (17)	2J-3507 (17)
621B, 621E, 621F, 627B, 627E, 627F	22 mm (0.88 in)	4T-6568	4T-6612 (2)	a		3J-2801 (14)	2J-3507 (14)
	28 mm (1.12 in)	4T-2896	4T-6380 (2)		4T-2894 (2)	3J-2801 (14)	2J-3507 (14)
623B, 623E, 623F, J619, J621	22 mm (0.88 in)	4T-2887	4T-6612 (2)	4T-6620		4F-4042 (20)	2J-3507 (20)
	28 mm (1.12 in)	4T-2895	4T-6380 (2)	a		4F-4042 (20)	2J-3507 (20)
631D, 631E, 637D, 637E	22 mm (0.88 in)	4T-6566	4T-6614 (2)	a		4F-4042 (16)	2J-3507 (16)
	28 mm (1.12 in)	4T-3444	4T-6378 (2)	a		4F-4042 (16)	2J-3507 (16)
	35 mm (1.38 in)	9J-4369	9W-6092 (2)		7J-0225 (2)	4F-4042 (16)	2J-3507 (16)
	41 mm (1.62 in)	9J-5899	7J-2959 (2)	a		4F-4042 (16)	2J-3507 (16)
633D, 639	28 mm (1.12 in)	4T-3428	4T-2899 (2)	a		4F-4042 (17)	2J-3507 (17)
	35 mm (1.38 in)	9J-1111	9J-1109 (2)	a		4F-4042 (17)	2J-3507 (17)
651B, 657B	35 mm (1.38 in)	7J-1551	7J-0225 (2)	7J-0226		4J-9058 (34)	2J-3507 (17)
	41 mm (1.62 in)	7J-2977	7J-2978 (2)	7J-2981		4J-9058 (34)	2J-3507 (17)
651E (88Z146-UP)	35 mm (1.38 in)	9W-4901	9W-4902	a		4J-9058 (48)	2J-3507 (48)
	35 mm (1.38 in)	9W-4505	9W-4399 (2)	a		6V-6535 (29)*	3K-9770 (29)
	41 mm (1.62 in)	9W-4394	9W-4509 (2)	a		6V-6535 (29)*	3K-9770 (29)
	45 mm (1.75 in)	9W-9701	9W-9702	a		4J-9058 (48)	2J-3507 (48)
651F, 657F	35 mm (1.38 in)	9W-4901	9W-4902	a		4J-9058 (48)	2J-3507 (48)
	45 mm (1.75 in)	9W-9701	9W-9702	a		4J-9058 (48)	2J-3507 (48)
657E (86Z241-UP, 6MB91-UP)	35 mm (1.38 in)	9W-4901	9W-4902	a		4J-9058 (48)	2J-3507 (48)
	35 mm (1.38 in)	9W-4505	9W-4399 (2)	a		6V-6535 (29)*	3K-9770 (29)
	41 mm (1.62 in)	9W-4394	9W-4509 (2)	a		6V-6535 (29)*	3K-9770 (29)
	45 mm (1.75 in)	9W-9701	9W-9702	a		4J-9058 (48)	2J-3507 (48)

a – Reposition center section.

b – Reposition end sections.

* Requires 4K-0684.

Router Bits

Router Bits are used on all scrapers to protect the lower corners of the bowl. They are made of DH-2 steel and through-hardened for extra strength and wear resistance. Three types are available:

Standard Router Bits

- Recommended for most applications. Reversible for added life and value.

Heavy Duty Router Bits

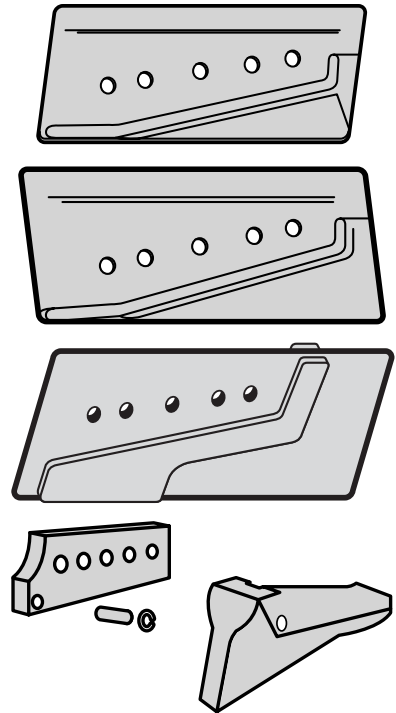
- Have 45% more wear material than standard router bits and are reversible. To avoid possible damage to the bowl, they should not be used in high impact conditions.

Level Cut Bits

- Level cut end bits are used for clean-up or finishing type work with elevating scrapers. They clean-up windrows by extending further forward to keep material in front of the center cutting edge.

Quick Change Router Bits

- Designed to reduce downtime in abrasive conditions. Pinned onto supports which bolt to the bowl.



Model	Std.	Heavy Duty	Level Cut	Quick-Change				Bolts	Nuts	Washers
				Support	Bit	Pin	Retain.			
613, 613B	9F-1831*							a	4K-0367 (3)	
613C	4T-4336	9W-4903**						8S-9092 (3)	4K-0367 (3)	5P-8247 (3)
615, 621, 623, 627	4J-8665							1D-4637 (5)	2J-3507 (5)	5P-8250 (5)
615, 621, 623, 627			220-9150					1D-4709 (5)	2J-3507 (5)	
631, 633, 637	4J-8665	7J-3023++		4T-0051	4T-0054	4T-0055	1U-2405	4F-4042 (5)	2J-3507 (5)	5P-8250 (5)
631, 633, 637			220-9150					1D-4709 (5)	2J-3507 (5)	
639, 651B, 657B	4J-8665	7J-3023++		4T-0051	4T-0054	4T-0055	1U-2405	4F-4042 (5)	2J-3507 (5)	5P-8250 (5)
639, 651B, 657B			220-9150					1D-4709 (5)	2J-3507 (5)	
651E (88Z146-UP)		7J-3023		4T-0051	4T-0054	4T-0055	1U-2405	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
651E (88Z146-UP)			220-9150					1D-4709 (5)	2J-3507 (5)	
651E (88Z1-145)	4T-0668			4T-1512	4T-1514	8E-6358	8E-6359	5P-8823 (5)+	3K-9770 (5)	4K-0684 (5)
651E (88Z1-145)			220-9150					1D-4709 (5)	2J-3507 (5)	
651F, 657F		7J-3023		4T-0051	4T-0054	4T-0055	1U-2405	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
651F, 657F			220-9150					1D-4709 (5)	2J-3507 (5)	
657E (86Z241-UP, 6MB91-UP)		7J-3023		4T-0051	4T-0054	4T-0055	1U-2405	4J-9058 (5)	2J-3507 (5)	5P-8250 (5)
657E (86Z241-UP, 6MB91-UP)			220-9150					1D-4709 (5)	2J-3507 (5)	
657E (86Z1-240, 6MB1-90)	4T-0668			4T-1512	4T-1514	8E-6358	8E-6359	5P-8823 (5)+	3K-9770 (5)	4K-0684 (5)
657E (86Z1-240, 6MB1-90)			220-9150					1D-4709 (5)	2J-3507 (5)	

a – 613 and 613B require one 1B-4367 bolt and two 8S-9092 bolts per router bit.

* 9J-4414 (LH) and 9J-4413 (RH) end bits are also available for finishing and cleaning operations.

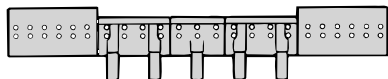
** Clean up or two position router bit.

+ Uses 6V-6535 bolts rather than 5P-8823 with quick-change.

++ Uses 4J-9058 bolts.

Ground Engaging Tools — Scraper Cutting Edges and Tips

Integrated Tooth Cutting Edges



- Improves penetration in compacted soils.
- Consists of three center edge sections with cast-in adapters and two standard end sections.
- Replaceable tips provide low operating costs in abrasive conditions.

Model	Center Tooth Edge	End Tooth Edge	Cutting Edge Ends	Bolts	Nuts
623	1U-1901 (1)	1U-1902 (2)	4T-6612 (2)	3J-2801 (10)* 4F-4042 (20)	2J-3507 (30)
633, 639	9J-1108 (1)	9J-1107 (2)	9J-1109 (2)**	4F-4042 (34)	2J-3507 (34)

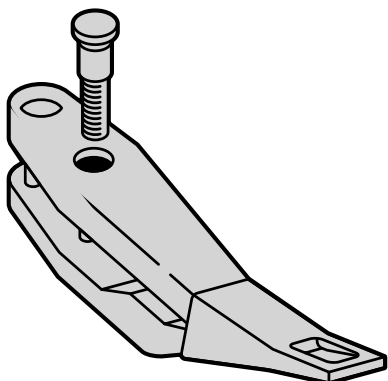
* For use on 4T-6612 Cutting Edge (5 per end).

** Applicable for serial number 19W only. For serial number 86H, use 8J-3137 (2) cutting edge ends.

Integrated Tooth Cutting Edge Tips

Model	Number of Teeth	Short	Long	Penetration	Wide	Sharp	Heavy Duty Long	Heavy Duty Abrasion	Pin	Retainer Assembly
623	5	1U-3301	1U-3302	9J-4309	107-3300	9W-8309	9N-4302	9N-4303	107-3308	8E-6259
633, 639	5	1U-3351	1U-3352	9J-4359	107-3350	9W-2359	9N-4352	9N-4353	8E-6358	8E-6359

Bolt-On Adapters



- Improves penetration in compacted soils.
- Provides an easily replaceable tooth option for machines that change applications frequently and may not need teeth on all jobs.
- Installs over the center section in the stinger configuration.

Model	Adapter	Bolts	Nuts	Washers
613	9J-8455	5F-8933 (2)	2J-3506 (2)	
615 (47Z1-1339)	4T-5805	1J-0849 (2)	2J-3505 (2)	
615 (47Z1340-UP)	9J-2307	1J-3527 (2)	2J-3507 (2)	5P-8250 (2)
J619, J621, 623, 633, 639	9W-9971*	1J-4947 (2)	2J-3507 (2)	5P-8250 (2)

* Recommended for use only with 9W-9972 notched center edge. Use 8J-3137 end edges with 86H models. Use 9J-1109 end edges with 19W models.

Bolt-On Adapter Tips

Model	Number of Teeth	Short	Long	Penetration	Wide	Sharp	Heavy Duty Long	Heavy Duty Abrasion	Pin	Retainer Assembly
613	4	1U-3251	1U-3252	9J-4259	107-3300	9W-8309	9N-4252	9N-4253	8E-6258	8E-6259
615 (47Z1-1339)	5	1U-3301	1U-3302	9J-4309	107-3300	9W-8309	9N-4302	9N-4303	107-3308	8E-6259
615 (47Z1340-UP)	4	1U-3301	1U-3302	9J-4309	107-3300	9W-8309	9N-4302	9N-4303	107-3308	8E-6259
J619, J621, 623, 633, 639	5	1U-3351	1U-3352	9J-4359	107-3350	9W-2359	9N-4352	9N-4353	8E-6358	8E-6359

ARM Cutting Edges

In addition to our standard cutting edges, your dealer now has a full line of ARM Cutting Edges for Scrapers. These include ARM Center C/E, ARM End Edge, ARM Router Bits, and ARM Serrated Center C/E.

Bowlside Protector — Pin-On

Model	Protector	Qty.	Pin	Qty.	Retainer	Qty.	Adapter Plate	Qty.
620, 630 650 Series	8J-4143	2	9J-8441	4	8E-5559	4	152-0034	2

Bowlside Protector — Bolt-On

Model	Protector	Qty.	Bolt	Qty.	Nut	Qty.	Adapter Plate	Qty.
620, 630 650 Series	232-0048	2	1J-4948	8	2J-3507	8	232-0049	2

Ground Engaging Tools — Elevating Scraper Parts

Elevating Scraper Parts

Model	613	613B	613C	615	615C	615D	615G
Chain Assembly			2T-0104	2T-0072 239-8147	2T-0072 2T-3038 239-8147	8I-2435	216-6925
61 Link Assembly	2T-0104	2T-0104					
80 Link Assembly	9J-0115	9J-0115					
Link Assembly —							
Outside (with pins)	2T-1133	2T-1133	2T-1133	2T-0290	2T-0290		8J-7675
Inside	2T-1134	2T-1134	2T-1134	2T-0075	2T-0075		3G-3392
Offset (with pin)	2T-0076	2T-0076	2T-0076	2T-0076	2T-0076		3G-3393
Flight	2T-1136	2T-1136	2T-1136	2T-0073	2T-0073		8J-7672
Lock Pin	2T-1137	2T-1137	2T-1137	2T-1137	2T-1137	6J-8873	6J-8873
Link Pin	2T-1138	2T-1138	2T-1138	2T-1609	2T-1609		8J-7791
Roller	2T-3963	2T-3963	2T-3963		5J-3708		5J-3708
Bushing					216-6927		216-6927
Flight Link		6J-0560					
Flight Assembly	2T-0679 2T-3883 8J-4174	2T-0679 2T-3883 8J-4174	2T-0679	2T-3893	2T-3893	8I-2113	217-9042
Sprocket	2T-2623 9J-1653	2T-2744 9J-1653	2T-0704 2T-2623	2T-0249 2T-2259	2T-0249 2T-2259	8I-2192	216-6900
Idler Group			2T-3964				
Small					2T-0046		
Medium					2T-0047		
Large					2T-0048		
Roller Group					215-4459		215-4459
Idler					2T-0242		2T-0242

Elevating Scraper Parts (Continued)

Model	623	623B	623E	623F	623G	631B	633
Chain Assembly	2T-3038	3G-3391	3G-3391 2T-3038	2T-3038	2T-3038		
Link Assembly —							
Outside (with pins)		8J-7675	8J-7675		8J-7675		
Inside	3G-3392		3G-3392		3G-3392	6J-0556	8J-0556
Offset (with pin)	3G-3393	3G-3393	3G-3393		3G-3393		6J-3621
Flight	8J-7672	8J-7672	8J-7672		8J-7672		
Lock Pin	6J-8873	6J-8873	6J-8873	6J-8873	6J-8873		6J-8873
Link Pin	8J-7791	8J-7791	8J-7791		8J-7791	6J-0557	6J-0557
Roller	5J-3708	5J-3708	5J-3708		5J-3708	7J-4320	7J-4320
Bushing	216-6927	216-6927	216-6927		216-6927		
Flight Link							6J-0560
Flight Assembly	2T-3883	8J-7122	8J-7122 2T-3883	2T-3883	2T-3883		
Sprocket	2T-2891	8J-6544	2T-2891 8J-6544	2T-2891	2T-2891	7J-9382	7J-9382
Idler Group	3G-0960		2T-0046 3G-1086				
Upper			3G-0960				
Small		2T-0046					
Medium		3G-0960					
Large		3G-1086					
Roller Group		8J-6562	8J-6562		215-4459		
Idler		8J-6561	8J-6561			7J-1384	7J-1384

(Continued)

Ground Engaging Tools — Elevating Scraper Parts

Elevating Scraper Parts (Continued)

Model	633B	633C	633D	633E	639D	639E	J619
Chain Assembly			8J-3059	2T-3762	9J-9920	9J-9920	
Link Assembly —							
Outside (with pins)							8J-7675
Inside	6J-0556		8J-3221	6J-0556 8J-3221	8J-3221	8J-3221	3G-3392
Offset (with pin)							5J-3710
Offset (without pin)			8J-4340	8J-4340	8J-4340	8J-4340	
Flight							9J-5187
Lock Pin	6J-8873		6J-0555	6J-0555	6J-0555	6J-0555	6J-8873
Link Pin	6J-0557	6J-0557	8J-3217	8J-3217	8J-3217	8J-3217	8J-7791
Roller	7J-4320		7J-4320 7J-7507	7J-4320 7J-7507	7J-4320 7J-7507	7J-4320 7J-7507	5J-3708
Bushing							216-6927
Flat Link —							
Sidebar Link			8J-3218 8J-3219	8J-3218 8J-3219	8J-3218 8J-3219	8J-3218 8J-3219	
Flight Link —	6J-0560	6J-0560					
Outside Link			8J-3220	8J-3220	8J-3220	8J-3220	
Inside Link			8J-3222	8J-3222	8J-3222	8J-3222	
Flight Assembly			9J-1587	8I-1272	9J-1587	9J-1587	
Sprocket	7J-9382		7J-9382	7J-9382	7J-9382	7J-9382	6J-5070
Idler Group			9J-1035	9J-1035	9J-1035	9J-1035	
Roller Assembly			7J-1184	7J-1184	7J-1184	7J-1184	
Idler Assembly			9J-1513	9J-1513	9J-1513	9J-1513	
Roller Group				2T-3972 2T-3973 8I-1643			
Idler		7J-1384	7J-1384				

Elevating Scraper Parts (Continued)

Model	J621	950
Chain Assembly	3G-5327	
Link Assembly —		
Outside (with pins)	8J-7675	
Inside	3G-3392	
Flight	8J-7672	
Lock Pin	6J-8873	8J-2746
Link Pin	8J-7791	8J-2743
Roller	5J-3708	
Bushing	216-6927	
Sprocket	6J-5070	

Elevating Scraper Parts Kits

Model	613C	615, 615C	623E, 623F, 623G
To receive all Part Kit quantities, order Part Kit number in bold.			
Parts Kit	217-4880 (1)	217-4882 (1)	217-4884 (1)
Components:			
Chain Assembly	2T-0104 (2)	2T-0072 (2)	2T-3038 (2)
Sprockets	2T-2623 (2)	2T-0249 (2)	2T-2891 (2)
Bolts	1A-8537 (16)	0S-1756 (8) 3B-2968 (8)	0S-1756 (16)
Nuts	4K-0367 (16)	2J-3506 (16)	2J-3506 (16)
Washers	5P-8247 (16)	5P-8248 (16)	5P-8248 (32)
Bolts	0S-1603 (120)	0S-1576 (144)	0S-1576 (120)
Nuts	6B-6684 (120)	6B-6683 (144)	6B-6683 (120)
Washers	5P-8245 (240)	5P-8247 (288)	5P-8247 (240)
Parts Kit	217-4881* (1)	217-4883* (1)	217-4885* (1)
Components:			
Flight Assembly	2T-0679 (15)	2T-3893 (18)	2T-3883 (15)

* NOTE: Hardware not included. Hardware for flight assemblies included in appropriate chain and sprocket kits listed above.

Ground Engaging Tools — Plastic Auger Groups

Plastic Auger Groups — Models: 621F, 621G, 627F, 627G

Part Number	Description	Qty.	Hardware	Part Number	Qty.
144-5723	Cutting Edge	1	Bolt	4F-4042	3
			Nut	6V-8190	3
108-0424	Wear Plate	6			
108-0423	Liner — Upper	1	Washer	146-5795	94*
			Plug	146-5796	94*
108-0421	Liner — Middle	4			
108-0418	Liner — Lower	1			
108-0413	Shoe — Tungsten Carbide	38	Bolt — Plow	4F-3654	76
			Nut — Full	7X-0448	76
108-0412	Shoe — Nickel	38	Bolt — Plow	4F-3654	76
			Nut — Full	7X-0448	76
108-0410	Shoe — Std.	38	Bolt — Plow	4F-3654	76
			Nut — Full	7X-0448	76

* Washer, Plug and Total Quantity apply to all Liners.

Plastic Auger Groups — Models: 631E, 631G, 637E, 637G

Part Number	Description	Qty.	Hardware	Part Number	Qty.
144-5723	Cutting Edge	1	Bolt	4F-4042	3
			Nut	6V-8190	3
150-2658	Wear Plate	8			
150-2661	Liner	1	Washer	146-5795	46*
			Plug	146-5796	46*
108-0431	Liner — Upper	1			
108-0430	Liner — Middle	3			
108-0427	Liner — Lower	1			
150-2663	Shoe — Std.	52	Bolt — Plow	4F-3654	104
			Nut — Full	7X-0448	104
150-2665	Shoe — Nickel Alloy	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84
150-2667	Shoe — Tungsten Carbide	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84

* Washer, Plug and Total Quantity apply to all Liners.

Plastic Auger Groups — Models: 651E, 657E

Part Number	Description	Qty.	Hardware	Part Number	Qty.
144-5723	Cutting Edge	1	Bolt	4F-4042	3
			Nut	2J-3507	3
150-2658	Wear Plate	8			
1Q-6649	Liner — Lower	1	Washer	146-5795	69*
			Plug	146-5796	69*
1Q-6654	Liner — Plastic	2			
1Q-6656	Liner — Plastic	2			
150-2663	Shoe — Std.	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84
150-2665	Shoe — Nickel	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84
150-2667	Shoe — Tungsten Carbide	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84

* Washer, Plug and Total Quantity apply to all Liners.

NOTE: **Difference between Plastic and Steel Augers:** Steel Augers use multiple steel wear plates.

Steel Auger Groups — Models: 621F, 621G, 629F, 629G

Part Number	Description	Qty.	Hardware	Part Number	Qty.
144-5723	Cutting Edge	1	Bolt	4F-4042	3
			Nut	6V-8190	3
108-0424	Wear Plate	37			
108-0420	Liner — Top	1	Washer	146-5795	34*
			Plug	146-5796	34*
108-0419	Liner — Middle	1			
108-0418	Liner — Lower	1			
108-0413	Shoe — Tungsten Carbide	38	Bolt — Plow	4F-3654	76
			Nut — Full	7X-0448	76
108-0412	Shoe — Nickel Alloy	38	Bolt — Plow	4F-3654	76
			Nut — Full	7X-0448	76
108-0410	Shoe — Std.	38	Bolt — Plow	4F-3654	76
			Nut — Full	7X-0448	76

* Washer, Plug and Total Quantity apply to all Liners.

Steel Auger Groups — Models: 631E, 631G, 637E, 637G

Part Number	Description	Qty.	Hardware	Part Number	Qty.
144-5723	Cutting Edge	1	Bolt	4F-4042	3
			Nut	6V-8190	3
150-2628	Wear Plate	42			
108-0429	Liner — Top	1	Washer	146-5795	46*
			Plug	146-5796	46*
108-0428	Liner — Middle	4			
108-0427	Liner — Lower	1			
150-2663	Shoe — Std.	52	Bolt — Plow	4F-3654	104
			Nut — Full	7X-0448	104
150-2665	Shoe — Nickel Alloy	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84
150-2667	Shoe — Tungsten Carbide	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84

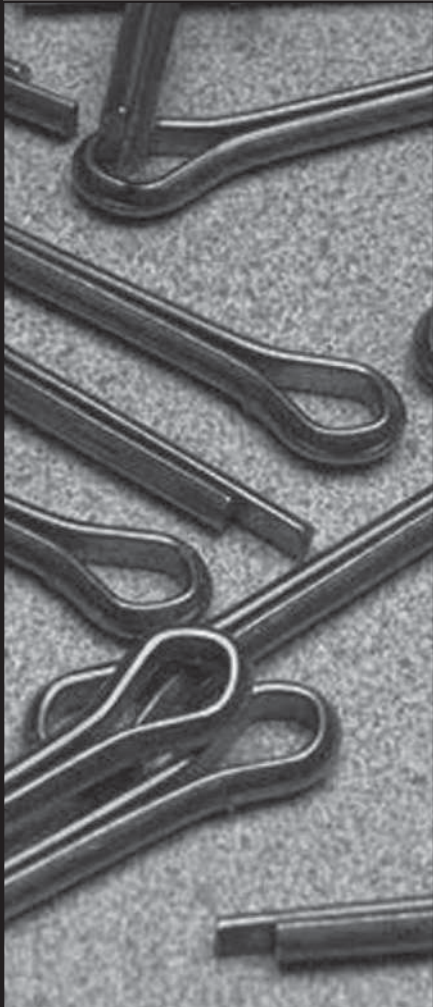
* Washer, Plug and Total Quantity apply to all Liners.

Steel Auger Groups — Models: 651E, 657E

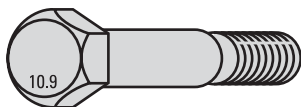
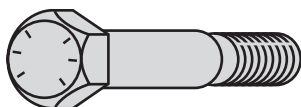
Part Number	Description	Qty.	Hardware	Part Number	Qty.
144-5723	Cutting Edge	1	Bolt	4F-4042	3
			Nut	2J-3507	3
150-2658	Wear Plate	47			
1Q-6649	Liner — Lower	1	Washer	146-5795	46*
			Plug	146-5796	46*
1Q-6653	Liner — Plastic	4			
150-2663	Shoe — Std.	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84
150-2665	Shoe — Nickel	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84
150-2667	Shoe — Tungsten Carbide	42	Bolt — Plow	4F-3654	84
			Nut — Full	7X-0448	84

* Washer, Plug and Total Quantity apply to all Liners.

NOTE: **Difference between Plastic and Steel Augers:** Steel Augers use multiple steel wear plates.

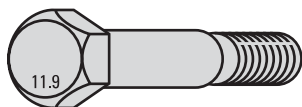
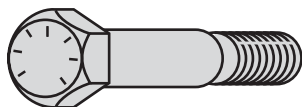


Hex Head Bolts



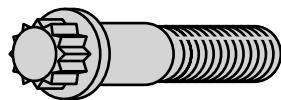
- Designed with smooth rolled threads for better clamp load, shear resistance and resistance to stripping.
- Made of fine grain steel for a more uniform micro-structure, resulting in improved toughness and fracture resistance.
- Inch Bolts
 - Meet or exceed SAE Grade 8 specifications for tensile strength and proof load, minimum tensile strength of 150,000 psi.
 - Have 20% higher head height than SAE specifications for longer wear life, easier gripping and less slippage.
 - Marked with 6 radial dashes on the bolt head.
- Metric Bolts
 - Meet or exceed ISO Class 10.9 specifications for tensile strength and proof load, minimum tensile strength of 1040 mPa (150,000 psi).
 - Marked with 10.9 on the bolt head.
- Bolt Coatings
 - Phosphate and Oil coating provides better clamp loads and torque retention.
 - Zinc plating provides better long term corrosion resistance.

High Strength Hex Head Bolts



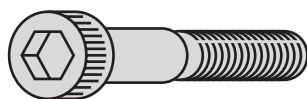
- Thread design and steel — similar to HEX Head Bolts
- Inch Bolts
 - Have 20% higher head height than SAE specifications for longer wear life, easier gripping and less slippage
 - Exceed SAE Grade 8 specifications for tensile strength and proof load, minimum tensile strength of 170,000 psi
 - Marked with seven radial dashes on the bolt head
- Metric Bolts
 - Exceed ISO 10.9 specifications for tensile strength and proof load, minimum tensile strength of 1170 mPa (170,000 psi)
 - Marked with 11.9 on the bolt head
- Coatings — similar to HEX Head Bolts.

12 Point Head Bolts



- Designed with smooth rolled threads for better clamp load, shear resistance, and resistance to stripping.
- Made of fine grain steel for a more uniform micro-structure, resulting in improved toughness and fracture resistance.
- Exceeds SAE Grade 8 specifications for tensile strength and proof load, minimum tensile strength of 1170 mPa (170,000 psi)
- For use in restricted clearance applications.

Hex Socket Head Screw Bolts

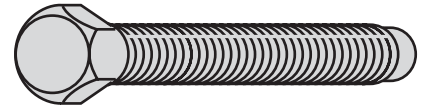


- Designed with smooth rolled threads for better clamp load, shear resistance, and resistance to stripping.
- Made of fine grain steel for a more uniform micro-structure, resulting in improved toughness and fracture resistance.
- Exceeds SAE Grade 8 specifications for tensile strength and proof load, minimum tensile strength of 1170 mPa (170,000 psi)
- For use in restricted clearance applications.



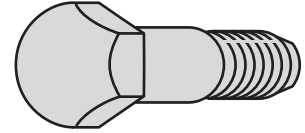
Hex Head Forcing Bolts

- Designed with smooth rolled threads for better clamp load, shear resistance, and strip resistance.
- Made of fine grain steel for a more uniform micro-structure, resulting in improved toughness and fracture resistance.



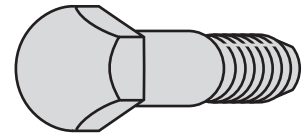
Track Bolts and Split Master Link Bolts

- High dome Hex head for longer wear life and reusability.
- Exceeds SAE Grade 8 specifications for tensile strength and proof load, minimum tensile strength 170,000 psi.
- Special induction heat treat process provides Rockwell C37-42 hardness.



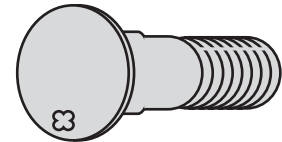
High Strength Track Bolts

- Similar high dome Hex head as standard Track Bolts.
- Exceeds SAE Grade 8 specifications for tensile strength and proof load, minimum tensile strength 180,000 psi.
- Special induction heat treat process provides Rockwell C39-43 hardness.



Cutting Edge Bolts

- Dome shaped head for added strength and wear resistance.
- Exceeds SAE Grade 8 specifications for tensile strength and proof load, minimum tensile strength of 150,000 psi.
- Special induction heat treat process provides Rockwell C33-39 minimum.

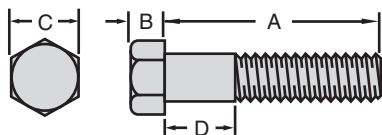


Hardware



Bolts

Hex Head Bolts/Inch/Coarse Thread UNC/Phosphate & Oil Coated



Hardware

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
1/4-20	3/8 in	0.19 in	0.44 in	0.06 in	OS-1613
	1/2 in	0.19 in	0.44 in	0.06 in	OS-1614
	5/8 in	0.19 in	0.44 in	0.13 in	2A-0762
	3/4 in	0.19 in	0.44 in	0.13 in	OS-1615
	7/8 in	0.19 in	0.44 in	0.13 in	4F-7957
	1 in	0.19 in	0.44 in	0.13 in	OS-1616
	1 1/8 in	0.19 in	0.44 in	0.37 in	9F-6580
	1 1/4 in	0.19 in	0.44 in	0.13 in	7B-2742
	1 3/8 in	0.19 in	0.44 in	0.63 in	2A-5546
	1 1/2 in	0.19 in	0.44 in	0.25 in	9F-7022
	1 5/8 in	0.19 in	0.44 in	0.87 in	7B-8167
	1 3/4 in	0.19 in	0.44 in	1.00 in	1B-2713
	2 in	0.19 in	0.44 in	1.13 in	8B-2377
	2 1/4 in	0.19 in	0.44 in	1.37 in	1D-4533
	2 1/2 in	0.19 in	0.44 in	1.75 in	1B-2714
	2 3/4 in	0.19 in	0.44 in	2.00 in	2A-4781
	3 in	0.19 in	0.44 in	2.00 in	4B-9365
	3 1/4 in	0.19 in	0.44 in	2.50 in	8F-8178
	3 1/2 in	0.19 in	0.44 in	2.75 in	3B-8695
	3 3/4 in	0.19 in	0.44 in	3.00 in	8F-6302
	4 in	0.19 in	0.44 in	3.25 in	8S-4710
	4 1/2 in	0.19 in	0.44 in	3.75 in	8S-4711
	4 3/4 in	0.19 in	0.44 in	4.00 in	4L-3776
	5 in	0.19 in	0.44 in	4.25 in	1B-2716
	5 1/2 in	0.19 in	0.44 in	4.50 in	1B-2717
	6 in	0.19 in	0.44 in	5.25 in	1B-2718
	6 1/2 in	0.19 in	0.44 in	5.50 in	4N-1761
	Nut				9S-8750
	Washer				5P-0537
5/16-18	1/2 in	0.24 in	0.50 in	0.06 in	1C-0569
	5/8 in	0.24 in	0.50 in	0.13 in	2H-3755
	3/4 in	0.24 in	0.50 in	0.13 in	OS-1617
	7/8 in	0.24 in	0.50 in	0.13 in	2B-2695
	1 in	0.24 in	0.50 in	0.13 in	OS-1618
	1 1/8 in	0.24 in	0.50 in	0.25 in	4B-3388
	1 1/4 in	0.24 in	0.50 in	0.37 in	1B-7182
	1 3/8 in	0.24 in	0.50 in	0.50 in	1B-2790
	1 1/2 in	0.24 in	0.50 in	0.09 in	1A-9579
	1 5/8 in	0.24 in	0.50 in	0.75 in	1H-5514
	1 3/4 in	0.24 in	0.50 in	0.87 in	1B-9575
	2 in	0.24 in	0.50 in	1.13 in	2B-2694
	2 1/4 in	0.24 in	0.50 in	1.37 in	1D-4538
	2 1/2 in	0.24 in	0.50 in	1.63 in	1D-4539
	2 3/4 in	0.24 in	0.50 in	1.87 in	1D-4540
	3 in	0.24 in	0.50 in	2.13 in	1D-4541
	3 1/4 in	0.24 in	0.50 in	2.25 in	1F-5842
	3 1/2 in	0.24 in	0.50 in	2.63 in	1F-4111

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
5/16-18	3 3/4 in	0.24 in	0.50 in	2.75 in	4B-0831
	4 in	0.24 in	0.50 in	3.00 in	4B-3903
	4 1/4 in	0.24 in	0.50 in	3.37 in	8H-8769
	4 1/2 in	0.24 in	0.50 in	3.63 in	3H-5932
	4 3/4 in	0.24 in	0.50 in	3.87 in	3H-3243
	5 in	0.24 in	0.50 in	4.13 in	1F-6296
	5 1/2 in	0.24 in	0.50 in	4.63 in	5L-1761
	5 3/4 in	0.24 in	0.50 in	4.87 in	8M-1865
	6 in	0.24 in	0.50 in	5.13 in	5P-0059
	6 1/2 in	0.24 in	0.50 in	5.37 in	4F-3508
	Nut				5S-0003
	Washer				9M-1974
3/8-16	1/2 in	0.29 in	0.56 in	0.09 in	4F-4879
	5/8 in	0.29 in	0.56 in	0.09 in	OT-0102
	3/4 in	0.29 in	0.56 in	0.13 in	OS-0509
	7/8 in	0.29 in	0.56 in	0.13 in	OL-1351
	1 in	0.29 in	0.56 in	0.13 in	OS-1594
	1 1/8 in	0.29 in	0.56 in	0.31 in	1A-2029
	1 1/4 in	0.29 in	0.56 in	0.25 in	OS-1588
	1 3/8 in	0.29 in	0.56 in	0.37 in	3B-1915
	1 1/2 in	0.29 in	0.56 in	0.37 in	OS-1591
	1 5/8 in	0.29 in	0.56 in	0.87 in	2A-4639
	1 3/4 in	0.29 in	0.56 in	0.75 in	OS-1571
	1 7/8 in	0.29 in	0.56 in	1.06 in	1C-2251
	2 in	0.29 in	0.56 in	1.00 in	OS-1590
	2 1/4 in	0.29 in	0.56 in	1.25 in	OL-2070
	2 1/2 in	0.29 in	0.56 in	1.50 in	OL-1143
	2 3/4 in	0.29 in	0.56 in	1.75 in	OT-0573
	3 in	0.29 in	0.56 in	2.00 in	OS-1619
	3 1/4 in	0.29 in	0.56 in	2.25 in	OL-1352
	3 1/2 in	0.29 in	0.56 in	2.50 in	OT-0065
	3 3/4 in	0.29 in	0.56 in	2.50 in	OS-1608
	4 in	0.29 in	0.56 in	3.00 in	8S-9191
	4 1/4 in	0.29 in	0.56 in	3.25 in	OT-0055
	4 1/2 in	0.29 in	0.56 in	3.25 in	1A-5964
	4 3/4 in	0.29 in	0.56 in	3.75 in	1A-5183
	5 in	0.29 in	0.56 in	4.00 in	5B-9603
	5 1/4 in	0.29 in	0.56 in	4.25 in	5B-2638
	5 1/2 in	0.29 in	0.56 in	4.50 in	5F-4899
	5 3/4 in	0.29 in	0.56 in	4.75 in	7F-3425
	6 in	0.29 in	0.56 in	4.87 in	1D-4706
	6 1/4 in	0.29 in	0.56 in	4.75 in	8F-8544
	6 1/2 in	0.29 in	0.56 in	5.25 in	4F-0411
	7 in	0.29 in	0.56 in	5.75 in	9F-8999
	7 1/2 in	0.29 in	0.56 in	6.25 in	6B-1557
	8 in	0.29 in	0.56 in	6.75 in	8F-6350
	8 1/2 in	0.29 in	0.56 in	7.25 in	9F-2773

* High strength bolt.

Hex Head Bolts/Inch/Coarse Thread UNC/Phosphate & Oil Coated

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
3/16-16	9 in	0.29 in	0.56 in	7.75 in	5F-6044
	9 1/2 in	0.29 in	0.56 in	8.25 in	4H-3283
	11 in	0.29 in	0.56 in	9.75 in	5P-1415
	12 in	0.29 in	0.56 in	11.00 in	7M-1202
	Nut				9S-8752
	Washer				5M-2894
7/16-14	3/4 in	0.34 in	0.69 in	0.19 in	5P-0060
	7/8 in	0.34 in	0.69 in	0.13 in	3L-0526
	1 in	0.34 in	0.69 in	0.13 in	0T-0318
	1 1/8 in	0.34 in	0.69 in	0.13 in	4F-8965
	1 1/4 in	0.34 in	0.69 in	0.13 in	0T-0320
	1 3/8 in	0.34 in	0.69 in	0.25 in	3H-5368
	1 1/2 in	0.34 in	0.69 in	0.37 in	0T-0772
	1 3/4 in	0.34 in	0.69 in	0.63 in	0T-0768
	2 in	0.34 in	0.69 in	0.87 in	0T-0319
	2 1/4 in	0.34 in	0.69 in	1.13 in	1D-4707
	2 1/2 in	0.34 in	0.69 in	1.37 in	1D-4703
	2 3/4 in	0.34 in	0.69 in	1.63 in	1D-4556
	3 in	0.34 in	0.69 in	1.87 in	4F-5192
	3 1/4 in	0.34 in	0.69 in	2.13 in	3B-8428
	3 1/2 in	0.34 in	0.69 in	2.37 in	7F-8698
	3 3/4 in	0.34 in	0.69 in	2.63 in	9F-2491
	4 in	0.34 in	0.69 in	2.87 in	4F-7226
	4 1/4 in	0.34 in	0.69 in	3.13 in	2J-5907
	4 1/2 in	0.34 in	0.69 in	3.25 in	4B-7220
	4 3/4 in	0.34 in	0.69 in	3.63 in	7H-3472
	5 in	0.34 in	0.69 in	3.75 in	5B-5059
	5 1/2 in	0.34 in	0.69 in	4.37 in	8F-4197
	6 in	0.34 in	0.69 in	4.87 in	8F-6419
	6 1/2 in	0.34 in	0.69 in	5.13 in	3L-0742
	7 in	0.34 in	0.69 in	5.63 in	7H-7209
	7 1/2 in	0.34 in	0.69 in	6.13 in	2L-7442
	8 in	0.34 in	0.69 in	6.62 in	4L-7925
	9 in	0.34 in	0.69 in	7.63 in	4L-7926
	11 in	0.34 in	0.69 in	9.63 in	3L-4317
	Nut				3S-1546
	Washer				5P-8244
1/2-13	1/2 in	0.39 in	0.75 in	0.06 in	1K-6705
	3/4 in	0.39 in	0.75 in	0.13 in	0S-1620
	7/8 in	0.39 in	0.75 in	0.28 in	2H-3855
	1 in	0.39 in	0.75 in	0.13 in	0S-1621
	1 1/8 in	0.39 in	0.75 in	0.13 in	6H-1717
	1 1/4 in	0.39 in	0.75 in	0.31 in	0S-1595
	1 3/8 in	0.39 in	0.75 in	0.44 in	7B-3235
	1 1/2 in	0.39 in	0.75 in	0.25 in	0S-1585
	1 3/4 in	0.39 in	0.75 in	0.44 in	0S-1587
	2 in	0.39 in	0.75 in	0.75 in	1A-1460
	2 1/4 in	0.39 in	0.75 in	1.00 in	9X-8873
	2 1/2 in	0.39 in	0.75 in	1.00 in	2B-0947*
	2 3/4 in	0.39 in	0.75 in	1.25 in	9S-1366
	3 in	0.39 in	0.75 in	1.50 in	1A-5822
	3 1/2 in	0.39 in	0.75 in	1.75 in	9X-8874
5/8-12	3 in	0.39 in	0.75 in	1.75 in	0L-1329*
	3 1/4 in	0.39 in	0.75 in	2.00 in	0V-0375
	3 1/2 in	0.39 in	0.75 in	2.25 in	9X-8875
	3 3/4 in	0.39 in	0.75 in	2.25 in	1D-4566*
	4 in	0.39 in	0.75 in	2.50 in	1B-2886
	4 1/4 in	0.39 in	0.75 in	2.75 in	0S-1573
	4 1/2 in	0.39 in	0.75 in	3.00 in	1D-4569
	4 3/4 in	0.39 in	0.75 in	3.25 in	8S-9089
	5 in	0.39 in	0.75 in	3.50 in	9X-8876
	5 1/4 in	0.39 in	0.75 in	3.50 in	2B-2006*
	5 1/2 in	0.39 in	0.75 in	3.75 in	9X-8877
	5 3/4 in	0.39 in	0.75 in	3.75 in	2H-6488*
	6 in	0.39 in	0.75 in	4.00 in	9X-8878
	6 1/4 in	0.39 in	0.75 in	4.00 in	6F-5282*
	6 1/2 in	0.39 in	0.75 in	4.25 in	9X-8879
	6 3/4 in	0.39 in	0.75 in	4.25 in	1D-4572*
	7 in	0.39 in	0.75 in	4.50 in	8F-8804
	7 1/4 in	0.39 in	0.75 in	4.75 in	1D-4574
	7 1/2 in	0.39 in	0.75 in	4.75 in	9H-8260
	7 3/4 in	0.39 in	0.75 in	5.00 in	2A-1531
	8 in	0.39 in	0.75 in	5.50 in	1A-7669
	8 1/4 in	0.39 in	0.75 in	6.00 in	1A-0168
	8 1/2 in	0.39 in	0.75 in	6.50 in	9S-1374
	8 3/4 in	0.39 in	0.75 in	7.00 in	1B-3573
	9 in	0.39 in	0.75 in	7.50 in	6M-9613
	10 in	0.39 in	0.75 in	8.50 in	6F-5281
	10 1/2 in	0.39 in	0.75 in	9.00 in	8M-0139*
	11 in	0.39 in	0.75 in	9.50 in	8S-3887
	11 1/2 in	0.39 in	0.75 in	10.00 in	5P-5421*
	13 in	0.39 in	0.75 in	11.50 in	8S-6212*
	14 in	0.39 in	0.75 in	12.50 in	5M-7900*
	Nut				1F-7958
	Washer				5P-8245
3/4-10	1 in	0.43 in	0.87 in	0.12 in	3K-3379
	1 1/4 in	0.43 in	0.87 in	0.16 in	8S-4732
	1 3/8 in	0.43 in	0.87 in	0.17 in	4B-8519
	1 1/2 in	0.43 in	0.87 in	0.16 in	8S-4733
	2 in	0.43 in	0.87 in	1.13 in	8S-4735
	2 1/4 in	0.43 in	0.87 in	1.63 in	8S-4736
	2 1/2 in	0.43 in	0.87 in	2.13 in	8S-4737
	3 in	0.43 in	0.87 in	2.63 in	8S-4738
	3 1/4 in	0.43 in	0.87 in	3.13 in	8S-4739
	4 in	0.43 in	0.87 in	3.63 in	8S-4740
	4 1/2 in	0.43 in	0.87 in	4.13 in	8S-4741
	5 in	0.43 in	0.87 in	4.63 in	8S-4742
	6 in	0.43 in	0.87 in	6.38 in	9H-9129
	Nut				5P-0539
	Washer				5P-8246
1 1/2-8	3/4 in	0.48 in	0.94 in	0.06 in	1H-9456
	1 in	0.48 in	0.94 in	0.19 in	0S-1624
	1 1/8 in	0.48 in	0.94 in	0.28 in	7S-9372
	1 1/4 in	0.48 in	0.94 in	0.19 in	0S-1592

* High strength bolt.

Bolts

Hex Head Bolts/Inch/Coarse Thread UNC/Phosphate & Oil Coated

Hardware

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
½-11	1 ¾ in	0.48 in	0.94 in	0.19 in	4B-4043
	1 ½ in	0.48 in	0.94 in	0.19 in	OS-1566
	1 ¾ in	0.48 in	0.94 in	0.25 in	OS-1589
	2 in	0.48 in	0.94 in	0.50 in	9X-8880
	2 in	0.48 in	0.94 in	0.50 in	1A-1135*
	2 ¼ in	0.48 in	0.94 in	0.75 in	9X-8881
	2 ¼ in	0.48 in	0.94 in	0.75 in	8S-9092*
	2 ½ in	0.48 in	0.94 in	0.63 in	9X-8882
	2 ½ in	0.48 in	0.94 in	0.63 in	OS-1625*
	2 ¾ in	0.48 in	0.94 in	1.25 in	9X-8883
	2 ¾ in	0.48 in	0.94 in	1.25 in	1A-8537*
	3 in	0.48 in	0.94 in	1.50 in	1B-4367
	3 ¼ in	0.48 in	0.94 in	1.75 in	1D-4585
	3 ½ in	0.48 in	0.94 in	2.00 in	1D-4586
	3 ¾ in	0.48 in	0.94 in	2.25 in	OL-1169
	4 in	0.48 in	0.94 in	2.50 in	OS-1569
	4 ¼ in	0.48 in	0.94 in	2.75 in	1D-4588
	4 ½ in	0.48 in	0.94 in	3.00 in	1A-8651
	4 ¾ in	0.48 in	0.94 in	3.25 in	1D-4590
	5 in	0.48 in	0.94 in	3.50 in	1A-5405
	5 ¼ in	0.48 in	0.94 in	3.75 in	9X-8884
	5 ¼ in	0.48 in	0.94 in	3.75 in	7S-3224*
	5 ½ in	0.48 in	0.94 in	4.00 in	1D-4593
	6 in	0.48 in	0.94 in	4.50 in	1D-4595
	6 ¼ in	0.48 in	0.94 in	4.50 in	5D-9514
	6 ½ in	0.48 in	0.94 in	4.75 in	1D-4597
	7 in	0.48 in	0.94 in	5.25 in	1D-4599
	7 ½ in	0.48 in	0.94 in	5.75 in	1D-4600
	8 in	0.48 in	0.94 in	6.25 in	1B-7709
	8 ½ in	0.48 in	0.94 in	6.75 in	1D-4601
	9 in	0.48 in	0.94 in	7.25 in	2H-3756
	9 ½ in	0.48 in	0.94 in	7.75 in	1D-4602
	11 ½ in	0.48 in	0.94 in	9.75 in	5P-4624
	Nut				4K-0367
	Washer				5P-8247
¾-10	1 in	0.58 in	1.13 in	0.31 in	7H-2069
	1 ¼ in	0.58 in	1.13 in	0.31 in	OS-1583
	1 ½ in	0.58 in	1.13 in	0.31 in	OS-1626
	1 ¾ in	0.58 in	1.13 in	0.31 in	1A-0458
	2 in	0.58 in	1.13 in	0.31 in	OL-1178
	2 ¼ in	0.58 in	1.13 in	0.50 in	9X-8885
	2 ¼ in	0.58 in	1.13 in	0.50 in	2A-1538*
	2 ½ in	0.58 in	1.13 in	0.75 in	1A-8063
	2 ¾ in	0.58 in	1.13 in	1.00 in	9X-8886
	2 ¾ in	0.58 in	1.13 in	1.00 in	1D-4608*
	3 in	0.58 in	1.13 in	1.25 in	9X-8887
	3 in	0.58 in	1.13 in	1.25 in	1D-4609*
	3 ¼ in	0.58 in	1.13 in	1.50 in	9X-8888
	3 ¼ in	0.58 in	1.13 in	1.50 in	1D-4610*
	3 ½ in	0.58 in	1.13 in	1.75 in	9X-8889
	3 ½ in	0.58 in	1.13 in	1.75 in	3B-2968*
	3 ¾ in	0.58 in	1.13 in	2.00 in	7F-5227

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
¾-10	4 in	0.58 in	1.13 in	2.25 in	1D-4612
	4 ¼ in	0.58 in	1.13 in	2.50 in	OS-1756
	4 ½ in	0.58 in	1.13 in	2.75 in	OS-1627
	4 ¾ in	0.58 in	1.13 in	3.00 in	3B-6753
	5 in	0.58 in	1.13 in	3.25 in	1D-4614
	5 ¼ in	0.58 in	1.13 in	3.50 in	6V-8199
	5 ½ in	0.58 in	1.13 in	3.75 in	1D-4615
	5 ¾ in	0.58 in	1.13 in	4.00 in	6K-1330
	6 in	0.58 in	1.13 in	4.25 in	1D-4616
	6 ¼ in	0.58 in	1.13 in	4.25 in	1D-4617
	6 ½ in	0.58 in	1.13 in	4.50 in	2B-1015
	7 in	0.58 in	1.13 in	5.00 in	1D-4620
	7 ½ in	0.58 in	1.13 in	5.50 in	1D-4621
	8 in	0.58 in	1.13 in	6.00 in	1D-4622
	8 ½ in	0.58 in	1.13 in	6.50 in	1D-4623
	9 in	0.58 in	1.13 in	7.00 in	1D-4624
	9 ½ in	0.58 in	1.13 in	7.50 in	5J-1702
	10 in	0.58 in	1.13 in	8.00 in	8F-4225
	11 ½ in	0.58 in	1.13 in	9.50 in	4J-7945
	13 in	0.58 in	1.13 in	11.00 in	031-9099
	Nut				2J-3506
	Washer				5P-8248
¾-9	1 ½ in	0.67 in	1.31 in	0.25 in	OT-0690
	1 ¾ in	0.67 in	1.31 in	0.37 in	2H-3757
	2 in	0.67 in	1.31 in	0.37 in	9X-8890
	2 in	0.67 in	1.31 in	0.37 in	OS-1973*
	2 ¼ in	0.67 in	1.31 in	0.37 in	9F-9522
	2 ½ in	0.67 in	1.31 in	0.50 in	1D-4625
	2 ¾ in	0.67 in	1.31 in	0.75 in	9X-8891
	2 ¾ in	0.67 in	1.31 in	0.75 in	1D-4626*
	3 in	0.67 in	1.31 in	1.00 in	1D-4627
	3 ¼ in	0.67 in	1.31 in	1.25 in	9X-8892
	3 ¼ in	0.67 in	1.31 in	1.25 in	1D-4628*
	3 ½ in	0.67 in	1.31 in	1.50 in	9X-8893
	3 ½ in	0.67 in	1.31 in	1.50 in	1D-4629*
	3 ¾ in	0.67 in	1.31 in	1.75 in	9X-8894
	3 ¾ in	0.67 in	1.31 in	1.75 in	2H-3856*
	4 in	0.67 in	1.31 in	2.00 in	9X-8895
	4 in	0.67 in	1.31 in	2.00 in	1D-4630*
	4 ¼ in	0.67 in	1.31 in	2.25 in	1D-4631
	4 ½ in	0.67 in	1.31 in	2.50 in	1A-5576
	4 ¾ in	0.67 in	1.31 in	2.75 in	4J-8622
¾-8	5 in	0.67 in	1.31 in	3.00 in	9S-1351
	5 ½ in	0.67 in	1.31 in	3.50 in	1D-4634
	6 in	0.67 in	1.31 in	3.75 in	9S-1322
	6 ½ in	0.67 in	1.31 in	4.25 in	6J-1536
	7 in	0.67 in	1.31 in	4.75 in	1D-5976
	7 ½ in	0.67 in	1.31 in	5.25 in	1K-9422
	8 in	0.67 in	1.31 in	5.75 in	1D-6259
	8 ½ in	0.67 in	1.31 in	6.25 in	3K-7127
	9 in	0.67 in	1.31 in	6.75 in	6K-8739
	9 ½ in	0.67 in	1.31 in	7.25 in	1D-6260

* High strength bolt.

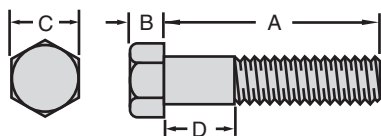
Hex Head Bolts/Inch/Coarse Thread UNC/Phosphate & Oil Coated

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number	Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
½-9	10 in	0.67 in	1.31 in	7.75 in	2B-2391	1 ½-7	4 in	0.72 in	1.69 in	0.63 in	3N-1614
	11 in	0.67 in	1.31 in	8.75 in	3K-3112		4 ¼ in	0.72 in	1.69 in	1.75 in	5J-1572
	12 ½ in	0.67 in	1.31 in	10.25 in	4D-8317		4 ½ in	0.72 in	1.69 in	2.00 in	5M-0544
	14 in	0.67 in	1.31 in	11.75 in	3K-0581		5 ¼ in	0.72 in	1.69 in	3.00 in	6J-1551
	15 in	0.67 in	1.31 in	12.75 in	3K-3183		6 in	0.72 in	1.69 in	3.50 in	8H-5727
	16 in	0.67 in	1.31 in	13.75 in	3K-6552		6 ½ in	0.72 in	1.69 in	3.75 in	8F-4486
	Nut				2J-3505		Nut				4J-5977
	Washer				5P-8249		Washer				3S-1349
1-8	1 ¼ in	0.71 in	1.50 in	0.31 in	8S-4767	1 ¼-7	2 ½ in	0.81 in	1.87 in	0.44 in	3F-6353
	1 ½ in	0.71 in	1.50 in	0.31 in	0V-0450		3 in	0.81 in	1.87 in	0.44 in	3R-2299
	1 ¾ in	0.71 in	1.50 in	0.37 in	1J-7370		3 ¼ in	0.81 in	1.87 in	0.50 in	1J-5484
	2 in	0.71 in	1.50 in	0.75 in	1J-5257		3 ½ in	0.81 in	1.87 in	0.75 in	2B-1955
	2 ¼ in	0.71 in	1.50 in	0.25 in	8S-9093		4 in	0.81 in	1.87 in	1.25 in	2H-3758
	2 ½ in	0.71 in	1.50 in	0.50 in	1D-4635		4 ¼ in	0.81 in	1.87 in	1.50 in	1S-6560
	2 ¾ in	0.71 in	1.50 in	0.50 in	9S-1363		4 ½ in	0.81 in	1.87 in	1.75 in	3R-2300
	3 in	0.71 in	1.50 in	0.75 in	1D-4709		4 ¾ in	0.81 in	1.87 in	2.00 in	8F-1156
	3 ¼ in	0.71 in	1.50 in	1.00 in	1D-4637		5 in	0.81 in	1.87 in	2.25 in	2H-1618
	3 ½ in	0.71 in	1.50 in	1.25 in	1D-4638		5 ½ in	0.81 in	1.87 in	2.75 in	1B-2721
	3 ¾ in	0.71 in	1.50 in	1.50 in	8H-5772		6 in	0.81 in	1.87 in	3.25 in	2H-1537
	4 in	0.71 in	1.50 in	1.75 in	9X-8896		6 ½ in	0.81 in	1.87 in	3.50 in	6H-1628
	4 in	0.71 in	1.50 in	1.75 in	1D-4639*		7 in	0.81 in	1.87 in	4.00 in	6V-2624
	4 ¼ in	0.71 in	1.50 in	2.00 in	9X-8897		8 in	0.81 in	1.87 in	5.00 in	3F-9025
	4 ½ in	0.71 in	1.50 in	2.00 in	1D-4640*		8 ½ in	0.81 in	1.87 in	5.50 in	1J-6775
	4 ¾ in	0.71 in	1.50 in	2.25 in	1D-4641		9 in	0.81 in	1.87 in	6.00 in	1K-9418
	4 ¾ in	0.71 in	1.50 in	2.50 in	2A-1420		9 ½ in	0.81 in	1.87 in	6.50 in	1K-9420
	5 in	0.71 in	1.50 in	2.75 in	9X-8898		10 in	0.81 in	1.87 in	7.00 in	1D-4649
	5 in	0.71 in	1.50 in	2.75 in	1D-4642*		10 ½ in	0.81 in	1.87 in	7.50 in	6B-0388
	5 ½ in	0.71 in	1.50 in	3.25 in	1D-4643		11 in	0.81 in	1.87 in	8.25 in	1K-9415
	6 in	0.71 in	1.50 in	3.75 in	9F-6936		13 in	0.81 in	1.87 in	10.50 in	1K-4378
	6 ½ in	0.71 in	1.50 in	4.00 in	5B-5473		14 in	0.81 in	1.87 in	11.00 in	6V-1734
	7 in	0.71 in	1.50 in	4.50 in	5F-9338		15 in	0.81 in	1.87 in	12.00 in	031-0213
	7 ½ in	0.71 in	1.50 in	5.00 in	2B-7218		Nut				3K-9770
	8 in	0.71 in	1.50 in	5.50 in	1D-4644		Washer				4K-0684
	8 ½ in	0.71 in	1.50 in	6.00 in	1D-4645	1 ½-6	3 ½ in	0.97 in	2.25 in	0.40 in	3J-1805
	9 in	0.71 in	1.50 in	6.50 in	1D-4646		4 in	0.97 in	2.25 in	0.50 in	6V-8970
	9 ½ in	0.71 in	1.50 in	7.00 in	1D-4647		4 ½ in	0.97 in	2.25 in	1.00 in	6V-8536
	10 in	0.71 in	1.50 in	7.50 in	2J-8348		4 ¾ in	0.97 in	2.25 in	1.25 in	138-8455
	10 ½ in	0.71 in	1.50 in	8.00 in	8F-6453		5 in	0.97 in	2.25 in	1.75 in	1K-9414
	11 in	0.71 in	1.50 in	8.50 in	8K-5130		6 in	0.97 in	2.25 in	2.50 in	131-2627
	11 ½ in	0.71 in	1.50 in	9.00 in	7K-4363		7 in	0.97 in	2.25 in	2.50 in	4R-9112
	12 in	0.71 in	1.50 in	10.50 in	2H-4010		9 in	0.97 in	2.25 in	5.50 in	6V-7977
	13 in	0.71 in	1.50 in	10.50 in	6J-4081		11 ½ in	0.97 in	2.25 in	7.50 in	6V-0659
	14 in	0.71 in	1.50 in	10.50 in	6M-2001		12 ½ in	0.97 in	2.25 in	9.00 in	127-4840
	15 in	0.71 in	1.50 in	13.50 in	2H-4011		Nut				9S-8216
	16 in	0.71 in	1.50 in	14.00 in	6M-1029		Washer				3S-6162
	Nut				2J-3507						
	Washer				5P-8250						
1 ½-7	2 in	0.72 in	1.69 in	0.25 in	3J-8281						
	2 ½ in	0.72 in	1.69 in	1.00 in	7J-7222						
	2 ¾ in	0.72 in	1.69 in	0.44 in	2K-2037						
	3 in	0.72 in	1.69 in	0.50 in	1J-2814						
	3 ½ in	0.72 in	1.69 in	1.00 in	1J-2175						

* High strength bolt.

Bolts

Hex Head Bolts/Inch/Fine Thread UNF/Phosphate & Oil Coated



Hardware

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
¼-28	½ in	0.19 in	0.44 in	0.09 in	6F-7027
	⅝ in	0.19 in	0.44 in	0.08 in	0S-1570
	¾ in	0.19 in	0.44 in	0.08 in	0T-0284
	⅞ in	0.19 in	0.44 in	0.08 in	0L-1340
	1 in	0.19 in	0.44 in	0.25 in	0S-1597
	1 ⅛ in	0.19 in	0.44 in	0.37 in	0L-1590
	1 ¼ in	0.19 in	0.44 in	0.13 in	4B-2152
	1 ½ in	0.19 in	0.44 in	0.75 in	5F-4475
	1 ¾ in	0.19 in	0.44 in	1.00 in	2D-7563
	2 in	0.19 in	0.44 in	1.25 in	4B-8701
	2 ¼ in	0.19 in	0.44 in	1.50 in	2B-8593
	2 ½ in	0.19 in	0.44 in	1.50 in	1A-9919
	3 in	0.19 in	0.44 in	2.25 in	8S-4712
	3 ½ in	0.19 in	0.44 in	2.75 in	8S-4713
	4 in	0.19 in	0.44 in	3.25 in	8S-4714
	4 ½ in	0.19 in	0.44 in	3.75 in	8S-4715
	5 in	0.19 in	0.44 in	4.25 in	8S-4716
	Nut				9S-8748
	Washer				5P-0537
⅝-24	½ in	0.24 in	0.50 in	0.09 in	2F-2093
	⅝ in	0.24 in	0.50 in	0.13 in	2H-3737
	¾ in	0.24 in	0.50 in	0.13 in	1A-2343
	⅞ in	0.24 in	0.50 in	0.09 in	4B-9883
	1 in	0.24 in	0.50 in	0.13 in	2H-3738
	1 ⅛ in	0.24 in	0.50 in	0.66 in	6H-0187
	1 ¼ in	0.24 in	0.50 in	0.37 in	1B-1293
	1 ⅝ in	0.24 in	0.50 in	0.50 in	2A-1371
	1 ¾ in	0.24 in	0.50 in	0.63 in	1B-0581
	2 in	0.24 in	0.50 in	0.87 in	2H-3708
	2 ¼ in	0.24 in	0.50 in	1.13 in	1H-5403
	2 ½ in	0.24 in	0.50 in	1.37 in	2H-3739
	2 ¾ in	0.24 in	0.50 in	1.63 in	8S-4717
	3 in	0.24 in	0.50 in	1.87 in	4B-1028
	3 ¼ in	0.24 in	0.50 in	2.13 in	8S-4718
	3 ½ in	0.24 in	0.50 in	2.37 in	7F-0938
	3 ¾ in	0.24 in	0.50 in	2.63 in	8S-4719
	4 in	0.24 in	0.50 in	3.13 in	8S-4720
	4 ½ in	0.24 in	0.50 in	3.63 in	8S-4721
	5 in	0.24 in	0.50 in	4.13 in	8S-4722
	Nut				9S-8751
	Washer				9M-1974
¾-24	½ in	0.29 in	0.56 in	0.09 in	0L-1138
	⅝ in	0.29 in	0.56 in	0.09 in	0T-0642
	¾ in	0.29 in	0.56 in	0.13 in	0L-0472
	⅞ in	0.29 in	0.56 in	0.09 in	0T-0703
	1 in	0.29 in	0.56 in	0.19 in	6F-7030
	1 ⅛ in	0.29 in	0.56 in	0.13 in	5B-2208

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
¾-24	1 ¼ in	0.29 in	0.56 in	0.25 in	1A-2209
	1 ⅝ in	0.29 in	0.56 in	0.37 in	2A-4996
	1 ½ in	0.29 in	0.56 in	0.50 in	0T-0924
	1 ¾ in	0.29 in	0.56 in	0.75 in	0L-0478
	2 in	0.29 in	0.56 in	1.00 in	0S-1748
	2 ¼ in	0.29 in	0.56 in	1.25 in	0L-0639
	2 ½ in	0.29 in	0.56 in	1.50 in	0L-1648
	2 ¾ in	0.29 in	0.56 in	1.75 in	0L-0139
	3 in	0.29 in	0.56 in	2.00 in	6F-7031
	3 ¼ in	0.29 in	0.56 in	2.25 in	0S-1605
	3 ½ in	0.29 in	0.56 in	2.50 in	1B-3680
	4 in	0.29 in	0.56 in	3.00 in	0T-0513
	4 ¼ in	0.29 in	0.56 in	3.25 in	1B-5082
	4 ½ in	0.29 in	0.56 in	3.50 in	6F-8425
	5 in	0.29 in	0.56 in	4.00 in	1A-2116
	5 ½ in	0.29 in	0.56 in	4.50 in	5B-6579
	6 in	0.29 in	0.56 in	5.00 in	6F-4736
	6 ½ in	0.29 in	0.56 in	5.25 in	03S-2353
	8 in	0.29 in	0.56 in	6.75 in	4H-5883
	Nut				3S-2713
	Washer				5M-2894
7/16-20	1 in	0.34 in	0.69 in	0.13 in	0T-0840
	1 ¼ in	0.34 in	0.69 in	0.13 in	0T-0244
	1 ½ in	0.34 in	0.69 in	0.37 in	8S-4723
	1 ¾ in	0.34 in	0.69 in	0.63 in	1A-4350
	2 in	0.34 in	0.69 in	0.87 in	0T-0489
	2 ¼ in	0.34 in	0.69 in	1.13 in	8S-4724
	2 ½ in	0.34 in	0.69 in	1.37 in	1B-0572
	2 ¾ in	0.34 in	0.69 in	1.63 in	8S-4725
	3 in	0.34 in	0.69 in	1.87 in	8S-4726
	3 ¼ in	0.34 in	0.63 in	1.75 in	5D-4085
	3 ½ in	0.34 in	0.69 in	2.37 in	1J-6298
	3 ¾ in	0.34 in	0.69 in	2.63 in	8S-4727
	4 in	0.34 in	0.69 in	2.87 in	8S-4728
	4 ½ in	0.34 in	0.69 in	3.37 in	8S-4729
	5 in	0.34 in	0.69 in	3.87 in	8S-4730
	6 in	0.34 in	0.69 in	4.87 in	8S-4731
	9 in	0.34 in	0.69 in	7.63 in	2L-4523
	Nut				9S-8905
	Washer				5P-8244
½-20	¾ in	0.39 in	0.75 in	0.13 in	6F-7032
	⅞ in	0.39 in	0.75 in	0.13 in	0T-0598
	1 in	0.39 in	0.75 in	0.13 in	0S-1629
	1 ¼ in	0.39 in	0.75 in	0.13 in	0S-1593
	1 ⅝ in	0.39 in	0.75 in	0.13 in	4K-7502
	1 ½ in	0.39 in	0.75 in	0.25 in	0S-1603
	1 ¾ in	0.39 in	0.75 in	0.50 in	0S-1584

* High strength bolt.

Hex Head Bolts/Inch/Fine Thread UNF/Phosphate & Oil Coated

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number	Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
½-20	2 in	0.39 in	0.75 in	0.75 in	OS-1579	¾-18	3 ¾ in	0.48 in	0.94 in	2.25 in	OS-2353
	2 ¼ in	0.39 in	0.75 in	1.00 in	OS-0484		4 in	0.48 in	0.94 in	2.50 in	OV-0459
	2 ½ in	0.39 in	0.75 in	1.25 in	OS-1604		4 ¼ in	0.48 in	0.94 in	2.75 in	OV-0523
	2 ¾ in	0.39 in	0.75 in	1.50 in	OS-1599		4 ½ in	0.48 in	0.94 in	3.00 in	OT-0857
	3 in	0.39 in	0.75 in	1.75 in	OL-1732		4 ¾ in	0.48 in	0.94 in	3.25 in	1A-3203
	3 ¼ in	0.39 in	0.75 in	2.00 in	OL-1558		5 in	0.48 in	0.94 in	3.50 in	6F-7024
	3 ½ in	0.39 in	0.75 in	2.25 in	OL-2315		5 ½ in	0.48 in	0.94 in	4.00 in	2A-2814
	3 ¾ in	0.39 in	0.75 in	2.50 in	1A-1952		5 ¾ in	0.48 in	0.94 in	4.25 in	1B-7538
	4 in	0.39 in	0.75 in	2.75 in	OL-1559		6 in	0.48 in	0.94 in	4.50 in	2B-6030
	4 ¼ in	0.39 in	0.75 in	3.00 in	6F-7033		7 in	0.48 in	0.94 in	5.25 in	1B-3623
	4 ½ in	0.39 in	0.75 in	3.25 in	1A-3046		7 ½ in	0.48 in	0.94 in	5.75 in	7H-5569
	4 ¾ in	0.39 in	0.75 in	3.50 in	OL-0557		8 in	0.48 in	0.94 in	6.25 in	8S-4753
	5 in	0.39 in	0.75 in	3.75 in	1B-1422		8 ½ in	0.48 in	0.94 in	6.75 in	6V-1873
	5 ½ in	0.39 in	0.75 in	4.25 in	3H-1097		11 in	0.48 in	0.94 in	9.25 in	5K-7144
	5 ¾ in	0.39 in	0.75 in	4.50 in	5M-9979		12 in	0.48 in	0.94 in	10.25 in	6K-0953
	6 in	0.39 in	0.75 in	4.75 in	9F-1595		Nut				6B-6683
	6 ½ in	0.39 in	0.75 in	5.00 in	2H-3747		Washer				5P-8247
	7 in	0.39 in	0.75 in	3.37 in	3H-1930	¾-16	1 ¼ in	0.58 in	1.13 in	0.19 in	2H-3740
	7 ½ in	0.39 in	0.75 in	6.00 in	2H-3748		1 ½ in	0.58 in	1.13 in	0.19 in	2H-3725
	8 in	0.39 in	0.75 in	6.50 in	1A-3967		1 ¾ in	0.58 in	1.13 in	0.19 in	1A-0075
	Nut				6B-6684		2 in	0.58 in	1.13 in	0.25 in	9S-1362
	Washer				5P-8245		2 ¼ in	0.58 in	1.13 in	0.50 in	OS-1897
⅝-18	1 ¼ in	0.43 in	0.87 in	0.13 in	8S-4743		2 ½ in	0.58 in	1.13 in	0.75 in	OT-0856
	1 ⅝ in	0.43 in	0.87 in	0.13 in	8S-4761		2 ¾ in	0.58 in	1.13 in	1.00 in	8F-3152
	1 ½ in	0.43 in	0.87 in	0.13 in	8S-4744		3 in	0.58 in	1.13 in	1.25 in	OS-1575
	1 ¾ in	0.43 in	0.87 in	0.38 in	8S-4762		3 ¼ in	0.58 in	1.13 in	1.50 in	6B-5310
	2 in	0.43 in	0.87 in	0.63 in	8S-4745		3 ½ in	0.58 in	1.13 in	1.75 in	9S-1364
	2 ¼ in	0.43 in	0.87 in	0.88 in	8S-4763		3 ¾ in	0.58 in	1.13 in	2.00 in	1A-3103
	2 ½ in	0.43 in	0.87 in	1.13 in	8S-4746		4 in	0.58 in	1.13 in	2.25 in	OL-1328
	2 ¾ in	0.43 in	0.87 in	1.38 in	8S-4764		4 ¼ in	0.58 in	1.13 in	2.50 in	1D-3419
	3 in	0.43 in	0.87 in	1.38 in	6S-0753		4 ¾ in	0.58 in	1.13 in	3.00 in	7B-5163
	3 ½ in	0.43 in	0.87 in	2.13 in	8S-4747		5 in	0.58 in	1.13 in	3.25 in	OS-1607
	3 ¾ in	0.43 in	0.87 in	2.38 in	2S-1216		5 ½ in	0.58 in	1.13 in	3.75 in	8F-6123
	4 in	0.43 in	0.87 in	2.63 in	8S-4748		6 in	0.58 in	1.13 in	4.25 in	7B-4436
	4 ½ in	0.43 in	0.87 in	3.13 in	8S-4749		6 ½ in	0.58 in	1.13 in	4.50 in	6F-7901
	5 in	0.43 in	0.87 in	3.63 in	8S-4750		7 in	0.58 in	1.13 in	5.00 in	2H-3749
	5 ½ in	0.43 in	0.87 in	4.13 in	8S-4751		7 ½ in	0.58 in	1.13 in	5.50 in	2H-3750
	6 in	0.43 in	0.87 in	4.63 in	8S-4752		8 in	0.58 in	1.13 in	6.00 in	4F-0925
	Nut				5P-0540		8 ½ in	0.58 in	1.13 in	6.50 in	8S-4766
	Washer				5P-8246		9 in	0.58 in	1.13 in	7.00 in	7F-1926
¾-18	1 in	0.48 in	0.94 in	0.19 in	6F-7316		9 ½ in	0.58 in	1.13 in	7.50 in	8B-7943
	1 ¼ in	0.48 in	0.94 in	0.19 in	1A-4273		10 in	0.58 in	1.13 in	8.00 in	2K-2813
	1 ⅝ in	0.48 in	0.94 in	0.19 in	4H-4033		11 in	0.58 in	1.13 in	9.00 in	5P-8288
	1 ½ in	0.48 in	0.94 in	0.19 in	2L-1701		11 ½ in	0.58 in	1.13 in	9.50 in	2P-9845
	1 ¾ in	0.48 in	0.94 in	0.25 in	5B-0841		Nut				6B-6682
	2 in	0.48 in	0.94 in	0.50 in	OS-1576		Washer				5P-8248
	2 ¼ in	0.48 in	0.94 in	0.75 in	OS-1577	¾-14	1 ½ in	0.67 in	1.31 in	0.25 in	8S-4754
	2 ½ in	0.48 in	0.94 in	1.00 in	OS-1600		1 ¾ in	0.67 in	1.31 in	0.25 in	8F-7496
	2 ¾ in	0.48 in	0.94 in	1.25 in	OS-1601		2 in	0.67 in	1.31 in	0.25 in	2H-3854
	3 in	0.48 in	0.94 in	1.50 in	8B-5144		2 ¼ in	0.67 in	1.31 in	0.25 in	6F-7035
	3 ¼ in	0.48 in	0.94 in	1.75 in	OS-2318		2 ½ in	0.67 in	1.31 in	0.50 in	1D-5873
	3 ½ in	0.48 in	0.94 in	2.00 in	OS-1602		2 ¾ in	0.67 in	1.31 in	0.75 in	OS-1596

* High strength bolt.

Bolts

Hex Head Bolts/Inch/Fine Thread UNF/Phosphate & Oil Coated

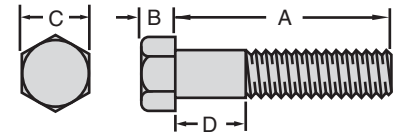
Hardware

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
7/8-14	3 in	0.67 in	1.31 in	1.00 in	6F-7036
	3 1/4 in	0.67 in	1.31 in	1.25 in	2H-3741
	3 1/2 in	0.67 in	1.31 in	1.50 in	1A-0224
	3 3/4 in	0.67 in	1.31 in	1.75 in	0L-2090*
	4 in	0.67 in	1.31 in	2.00 in	0T-0603
	4 1/4 in	0.67 in	1.31 in	2.25 in	1D-3848
	4 1/2 in	0.67 in	1.31 in	2.50 in	4H-8340
	5 in	0.67 in	1.31 in	3.00 in	1D-6089
	5 1/2 in	0.67 in	1.31 in	3.50 in	0S-1606
	6 in	0.67 in	1.31 in	4.00 in	7F-6100
	6 1/2 in	0.67 in	1.31 in	4.25 in	6F-4991
	7 in	0.67 in	1.31 in	4.75 in	4F-6426
	7 1/2 in	0.67 in	1.31 in	5.25 in	2K-1747
	8 in	0.67 in	1.31 in	5.75 in	7F-0479
	9 in	0.67 in	1.31 in	6.75 in	2L-1091
	11 in	0.67 in	1.31 in	8.75 in	3B-4978
	11 1/2 in	0.67 in	1.31 in	9.25 in	4B-7572
	Nut				1A-5666
	Washer				5P-8249
1-14	1 1/2 in	0.71 in	1.50 in	0.13 in	8S-4755
	1 3/4 in	0.71 in	1.50 in	0.13 in	8S-4756
	2 in	0.71 in	1.50 in	0.25 in	2H-3743
	2 1/4 in	0.71 in	1.50 in	0.25 in	2H-3744
	2 1/2 in	0.71 in	1.50 in	0.25 in	5B-9385
	2 3/4 in	0.71 in	1.50 in	0.50 in	2H-3745
	3 in	0.71 in	1.50 in	0.75 in	6B-9194
	3 1/4 in	0.71 in	1.50 in	1.00 in	6F-7037
	3 1/2 in	0.71 in	1.50 in	1.25 in	9S-1368
	3 3/4 in	0.71 in	1.50 in	1.50 in	9S-1367
	4 in	0.71 in	1.50 in	1.75 in	1F-7464*
	4 1/2 in	0.71 in	1.50 in	2.25 in	0V-0269
	4 3/4 in	0.71 in	1.50 in	2.50 in	7B-7181
	5 in	0.71 in	1.50 in	2.75 in	2H-3746
	5 1/2 in	0.71 in	1.50 in	3.25 in	8F-6124
	6 in	0.71 in	1.50 in	3.75 in	3F-6645
	6 1/2 in	0.71 in	1.50 in	4.00 in	7F-4283
	7 in	0.71 in	1.50 in	4.50 in	5F-6932
	7 1/2 in	0.71 in	1.50 in	5.00 in	2H-0637
	8 in	0.71 in	1.50 in	5.50 in	8S-4757
	8 1/2 in	0.71 in	1.50 in	6.00 in	3J-5981
	9 in	0.71 in	1.50 in	6.50 in	9F-8122
	9 1/2 in	1.50 in	0.39 in	7.00 in	5F-7136
	10 in	0.71 in	1.50 in	7.50 in	1L-8586
	Nut				1A-1935
	Washer				5P-8250
1 1/8-12	2 1/4 in	0.72 in	1.69 in	0.31 in	1A-2208
	2 1/2 in	0.72 in	1.69 in	0.50 in	2H-3751
	3 1/4 in	0.72 in	1.69 in	2.00 in	8B-0477
	4 in	0.72 in	1.69 in	1.50 in	8F-3895
	4 1/2 in	0.72 in	1.69 in	2.00 in	8H-4040
	5 in	0.72 in	1.69 in	2.50 in	7B-9215
	5 1/2 in	0.72 in	1.69 in	3.00 in	4B-5219
	6 in	0.72 in	1.69 in	3.50 in	2D-3424

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
1 1/8-12	6 1/2 in	0.72 in	1.69 in	3.75 in	3B-5752
	7 in	0.72 in	1.69 in	4.25 in	2D-8930
	7 1/2 in	0.72 in	1.69 in	4.75 in	9M-3742
	8 in	0.72 in	1.69 in	5.25 in	1S-3647
	9 in	0.72 in	1.69 in	6.25 in	2M-3530
	Nut				3S-1356
	Washer				3S-1349
	2 1/4 in	0.81 in	1.87 in	0.25 in	7B-2289
	3 in	0.81 in	1.87 in	0.25 in	7F-6112
	3 1/2 in	0.81 in	1.87 in	0.75 in	2K-0439
1 1/4-12	4 in	0.81 in	1.87 in	1.25 in	5P-2663
	4 1/4 in	0.81 in	1.87 in	2.00 in	7B-8791
	5 1/2 in	0.81 in	1.87 in	2.75 in	2J-2555
	6 in	0.81 in	1.87 in	3.25 in	5H-1649
	6 1/2 in	0.81 in	1.87 in	3.50 in	4H-6511
	7 1/2 in	0.81 in	1.87 in	4.50 in	7F-9464
	8 in	0.81 in	1.87 in	5.00 in	4J-0924
	8 1/2 in	0.81 in	1.87 in	5.50 in	5F-9339
	9 1/2 in	0.81 in	1.87 in	6.50 in	3S-7079
	10 in	0.81 in	1.87 in	7.00 in	4H-8009
	11 1/2 in	0.81 in	1.87 in	8.38 in	6F-4438
	12 in	0.81 in	1.87 in	9.00 in	7H-3579
	13 in	0.81 in	1.87 in	10.88 in	4H-2400
	Nut				7H-7539
	Washer				4K-0684
1 1/2-12	3 in	0.97 in	2.25 in	0.25 in	7X-3305
	3 3/4 in	0.97 in	2.25 in	0.50 in	1J-2921
	4 in	0.97 in	2.25 in	0.75 in	8F-5535
	4 1/2 in	0.97 in	2.25 in	1.25 in	1F-6762
	5 in	0.97 in	2.25 in	1.75 in	5P-9402
	6 in	0.97 in	2.25 in	2.75 in	5F-9891
	7 in	0.97 in	2.25 in	3.50 in	8F-1692
	8 in	0.97 in	2.25 in	4.50 in	2D-7687
	9 in	0.97 in	2.25 in	5.50 in	5F-3492
	10 in	0.97 in	2.25 in	7.48 in	5P-9384
	Nut				8H-3390
	Washer				3S-6162
	8 in	0.97 in	3.00 in	1.75 in	5R-8907

* High strength bolt.

Hex Head Bolts/Inch/Coarse Thread UNC/Zinc Plated



Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
1/4-20	1/2 in	0.19 in	0.44 in	0.06 in	5S-7349
	5/8 in	0.19 in	0.44 in	0.13 in	8T-9364
	3/4 in	0.19 in	0.44 in	0.13 in	4M-5281
	7/8 in	0.19 in	0.44 in	0.13 in	1H-3337
	1 in	0.19 in	0.44 in	0.13 in	8T-8908
	1 1/8 in	0.19 in	0.44 in	0.37 in	6D-2928
	1 1/4 in	0.19 in	0.44 in	0.13 in	7X-2501
	1 1/2 in	0.19 in	0.44 in	0.25 in	4M-5282
	1 3/4 in	0.19 in	0.44 in	1.00 in	5P-2675
	2 in	0.19 in	0.44 in	1.13 in	8T-9367
	2 1/4 in	0.19 in	0.44 in	1.37 in	8T-9368
	2 1/2 in	0.19 in	0.44 in	1.75 in	7X-0264
	2 3/4 in	0.19 in	0.44 in	2.00 in	7X-0265
	3 in	0.19 in	0.44 in	2.00 in	7X-0266
	3 1/4 in	0.19 in	0.44 in	2.50 in	7X-0267
	3 1/2 in	0.19 in	0.44 in	2.75 in	7X-0268
	3 3/4 in	0.19 in	0.44 in	3.00 in	8C-3793
	4 in	0.19 in	0.44 in	3.25 in	7X-0269
	5 in	0.19 in	0.44 in	4.25 in	8T-8909
	5 1/2 in	0.19 in	0.44 in	4.50 in	7X-0271
	Nut				6V-8185
	Washer				8T-4205
5/16-18	1/2 in	0.24 in	0.50 in	0.06 in	8T-5391
	5/8 in	0.24 in	0.50 in	0.13 in	5K-0906
	3/4 in	0.24 in	0.50 in	0.13 in	4M-0061
	7/8 in	0.24 in	0.50 in	0.13 in	8T-9043
	1 in	0.24 in	0.50 in	0.13 in	4M-6425
	1 1/8 in	0.24 in	0.50 in	0.25 in	6V-5782
	1 1/4 in	0.24 in	0.50 in	0.37 in	6V-8918
	1 1/2 in	0.24 in	0.50 in	0.09 in	8C-3121
	1 3/4 in	0.24 in	0.50 in	0.87 in	7X-0440
	2 in	0.24 in	0.50 in	1.13 in	8T-8911
	2 1/4 in	0.24 in	0.50 in	1.37 in	8T-8912
	2 1/2 in	0.24 in	0.50 in	1.63 in	5P-2955
	2 3/4 in	0.24 in	0.50 in	1.87 in	7X-0274
	3 in	0.24 in	0.50 in	2.13 in	4M-6424
	3 1/4 in	0.24 in	0.50 in	2.25 in	7X-0275
	3 1/2 in	0.24 in	0.50 in	2.63 in	7X-0276
	3 3/4 in	0.24 in	0.50 in	2.75 in	7X-0277
	4 in	0.24 in	0.50 in	3.00 in	7X-0278
	4 3/4 in	0.24 in	0.50 in	3.87 in	7X-0279
	5 in	0.24 in	0.50 in	4.13 in	7X-0280
	5 1/2 in	0.24 in	0.50 in	4.63 in	7X-0281
	6 1/2 in	0.24 in	0.50 in	5.37 in	7X-0282
	Nut				6V-8189
	Washer				8T-4224
3/16-16	1/2 in	0.29 in	0.56 in	0.09 in	8T-9371

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
3/8-16	5/8 in	0.29 in	0.56 in	0.09 in	5P-8167
	3/4 in	0.29 in	0.56 in	0.13 in	5M-3062
	7/8 in	0.29 in	0.56 in	0.13 in	5S-7379
	1 in	0.29 in	0.56 in	0.13 in	4L-6454
	1 1/8 in	0.29 in	0.56 in	0.31 in	8T-2502
	1 1/4 in	0.29 in	0.56 in	0.25 in	9B-7237
	1 1/2 in	0.29 in	0.56 in	0.37 in	4L-9337
	1 3/4 in	0.29 in	0.56 in	0.75 in	5S-7383
	2 in	0.29 in	0.56 in	1.00 in	8T-2501
	2 1/4 in	0.29 in	0.56 in	1.25 in	8T-9377
	2 1/2 in	0.29 in	0.56 in	1.50 in	4L-6459
	2 3/4 in	0.29 in	0.56 in	1.75 in	8T-9101
	3 in	0.29 in	0.56 in	2.00 in	8T-7008
	3 1/4 in	0.29 in	0.56 in	2.25 in	8T-8915
	3 1/2 in	0.29 in	0.56 in	2.50 in	7X-0290
	3 3/4 in	0.29 in	0.56 in	2.50 in	7X-0291
	4 in	0.29 in	0.56 in	3.00 in	8T-9378
	4 1/4 in	0.29 in	0.56 in	3.25 in	8T-9379
	4 1/2 in	0.29 in	0.56 in	3.25 in	7X-0292
	4 3/4 in	0.29 in	0.56 in	3.75 in	7X-0293
	5 in	0.29 in	0.56 in	4.00 in	7X-0294
	5 1/4 in	0.29 in	0.56 in	4.25 in	7X-0295
	5 1/2 in	0.29 in	0.56 in	4.50 in	7X-0296
	5 3/4 in	0.29 in	0.56 in	4.75 in	7X-0297
	6 in	0.29 in	0.56 in	4.87 in	8C-7323
	6 1/2 in	0.29 in	0.56 in	5.25 in	7X-0300
	7 in	0.29 in	0.56 in	5.75 in	7X-0301
	7 1/2 in	0.29 in	0.56 in	6.25 in	7X-0302
	8 in	0.29 in	0.56 in	6.75 in	7X-0303
	8 1/2 in	0.29 in	0.56 in	7.25 in	7X-0304
	9 in	0.29 in	0.56 in	7.75 in	7X-0305
	9 1/2 in	0.29 in	0.56 in	8.25 in	4H-3283
	Nut				6V-8801
	Washer				8T-4896
7/16-14	3/4 in	0.34 in	0.69 in	0.19 in	7X-0307
	7/8 in	0.34 in	0.69 in	0.13 in	7X-0272
	1 in	0.34 in	0.69 in	0.13 in	8T-9380
	1 1/8 in	0.34 in	0.69 in	0.13 in	8T-6973
	1 1/4 in	0.34 in	0.69 in	0.13 in	8T-9382
	1 1/2 in	0.34 in	0.69 in	0.37 in	8T-8916
	1 3/4 in	0.34 in	0.69 in	0.63 in	8C-6877
	2 in	0.34 in	0.69 in	0.87 in	7X-0310
	2 1/4 in	0.34 in	0.69 in	1.13 in	7X-0311
	2 1/2 in	0.34 in	0.69 in	1.37 in	7X-0312
	2 3/4 in	0.34 in	0.69 in	1.63 in	7X-0313
	3 in	0.34 in	0.69 in	1.87 in	7X-0314
	3 1/4 in	0.34 in	0.69 in	2.13 in	7X-0315

Bolts

Hex Head Bolts/Inch/Coarse Thread UNC/Zinc Plated

Hardware

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
⅜-14	3 ½ in	0.34 in	0.69 in	2.37 in	7X-0316
	3 ¾ in	0.34 in	0.69 in	2.63 in	7X-0317
	4 in	0.34 in	0.69 in	2.87 in	7X-0318
	4 ¼ in	0.34 in	0.69 in	3.13 in	7X-0319
	4 ¾ in	0.34 in	0.69 in	3.63 in	7H-3472
	5 in	0.34 in	0.69 in	3.75 in	7X-0320
	5 ½ in	0.34 in	0.69 in	4.37 in	7X-0321
	6 in	0.34 in	0.69 in	4.87 in	7X-0322
	Nut				7X-0447
	Washer				8T-5360
½-13	¾ in	0.39 in	0.75 in	0.13 in	8T-9383
	⅞ in	0.39 in	0.75 in	0.28 in	8T-9384
	1 in	0.39 in	0.75 in	0.13 in	5P-2228
	1 ⅛ in	0.39 in	0.75 in	0.13 in	5C-6565
	1 ¼ in	0.39 in	0.75 in	0.31 in	8T-8917
	1 ½ in	0.39 in	0.75 in	0.25 in	5P-2566
	1 ¾ in	0.39 in	0.75 in	0.44 in	8T-8919
	2 in	0.39 in	0.75 in	0.75 in	8T-4835
	2 ¼ in	0.39 in	0.75 in	1.00 in	5P-2424
	2 ½ in	0.39 in	0.75 in	1.25 in	7X-0325
	2 ¾ in	0.39 in	0.75 in	1.50 in	8T-9389
	3 in	0.39 in	0.75 in	1.75 in	7X-0326
	3 ¼ in	0.39 in	0.75 in	2.00 in	8T-8920
	3 ½ in	0.39 in	0.75 in	2.25 in	7X-0328
	3 ¾ in	0.39 in	0.75 in	2.50 in	8T-9391
	4 in	0.39 in	0.75 in	2.75 in	6V-4432
	4 ¼ in	0.39 in	0.75 in	3.00 in	7X-0331
	4 ½ in	0.39 in	0.75 in	3.25 in	7X-0332
	4 ¾ in	0.39 in	0.75 in	3.50 in	7X-0333
	5 in	0.39 in	0.75 in	3.75 in	7X-0334
	5 ¼ in	0.39 in	0.75 in	4.00 in	7X-0335
	5 ½ in	0.39 in	0.75 in	4.25 in	7X-0336
	5 ¾ in	0.39 in	0.75 in	4.50 in	7X-0337
	6 in	0.39 in	0.75 in	4.75 in	7X-0338
	6 ½ in	0.39 in	0.75 in	5.00 in	7X-0340
	7 in	0.39 in	0.75 in	5.50 in	7X-0341
	7 ½ in	0.39 in	0.75 in	6.00 in	8T-9392
	8 ½ in	0.39 in	0.75 in	7.00 in	7X-0471
	Nut				6V-8188
	Washer				8T-4223
⅝-12	2 in	0.43 in	0.87 in	0.63 in	8S-4734
⅞-11	1 in	0.48 in	0.94 in	0.19 in	5C-6266
	1 ¼ in	0.48 in	0.94 in	0.19 in	7X-0343
	1 ½ in	0.48 in	0.94 in	0.19 in	8T-9393
	1 ¾ in	0.48 in	0.94 in	0.25 in	7X-0345
	2 ¼ in	0.48 in	0.94 in	0.75 in	7X-0347
	2 ½ in	0.48 in	0.94 in	0.63 in	8T-6871
	2 ¾ in	0.48 in	0.94 in	1.25 in	8C-6362
	3 in	0.48 in	0.94 in	1.50 in	7X-0349
	3 ¼ in	0.48 in	0.94 in	1.75 in	8T-9396
	3 ½ in	0.48 in	0.94 in	2.00 in	7X-0350
	3 ¾ in	0.48 in	0.94 in	2.25 in	7X-0351

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
⅞-11	4 in	0.48 in	0.94 in	2.50 in	7X-0352
	4 ¼ in	0.48 in	0.94 in	2.75 in	7X-0353
	4 ½ in	0.48 in	0.94 in	3.00 in	7X-0354
	4 ¾ in	0.48 in	0.94 in	3.25 in	7X-0355
	5 in	0.48 in	0.94 in	3.50 in	7X-0356
	5 ¼ in	0.48 in	0.94 in	3.75 in	7X-0357
	5 ½ in	0.48 in	0.94 in	4.00 in	7X-0358
	6 in	0.48 in	0.94 in	4.50 in	7X-0359
	6 ½ in	0.48 in	0.94 in	4.75 in	7X-0361
	7 in	0.48 in	0.94 in	5.25 in	7X-0362
	8 in	0.48 in	0.94 in	6.25 in	7X-0363
	8 ½ in	0.48 in	0.94 in	6.75 in	7X-0364
	9 ½ in	0.48 in	0.94 in	7.75 in	7X-7890
	Nut				7X-0448
	Washer				8T-4122
¾-10	1 ¼ in	0.58 in	1.13 in	0.31 in	8T-9397
	1 ½ in	0.58 in	1.13 in	0.31 in	7X-0365
	1 ¾ in	0.58 in	1.13 in	0.31 in	8T-9398
	2 in	0.58 in	1.13 in	0.31 in	7X-0366
	2 ¼ in	0.58 in	1.13 in	0.50 in	8T-9399
	2 ½ in	0.58 in	1.13 in	0.75 in	8T-8924
	2 ¾ in	0.57 in	1.13 in	1.00 in	8C-6857
	3 in	0.58 in	1.13 in	1.25 in	7X-0368
	3 ¼ in	0.58 in	1.13 in	1.50 in	7X-0369
	3 ½ in	0.58 in	1.13 in	1.75 in	7X-0370
	3 ¾ in	0.58 in	1.13 in	2.00 in	7X-0371
	4 in	0.58 in	1.13 in	2.25 in	8C-8842
	4 ¼ in	0.58 in	1.13 in	2.50 in	7X-0372
	4 ½ in	0.58 in	1.13 in	2.75 in	8T-9311
	4 ¾ in	0.58 in	1.13 in	3.00 in	8T-8925
	5 in	0.58 in	1.13 in	3.25 in	7X-0375
	5 ½ in	0.58 in	1.13 in	3.75 in	7X-0373
	5 ¾ in	0.58 in	1.13 in	4.00 in	7X-0374
	6 in	0.58 in	1.13 in	4.25 in	8T-9312
	6 ½ in	0.58 in	1.13 in	4.50 in	7X-0377
	7 in	0.58 in	1.13 in	5.00 in	8T-9313
	7 ½ in	0.58 in	1.13 in	5.50 in	1J-8930
	8 in	0.58 in	1.13 in	6.00 in	5P-4135
	8 ½ in	0.58 in	1.13 in	6.50 in	7X-0378
	9 in	0.58 in	1.13 in	7.00 in	7X-3179
	10 in	0.58 in	1.13 in	8.00 in	8F-4225
	Nut				6V-8182
	Washer				8T-4994
⅝-9	1 ½ in	0.67 in	1.31 in	0.25 in	7X-0379
	1 ¾ in	0.67 in	1.31 in	0.37 in	7X-0380
	2 in	0.67 in	1.31 in	0.37 in	7X-0381
	2 ¼ in	0.67 in	1.31 in	0.37 in	7X-0382
	2 ½ in	0.67 in	1.31 in	0.50 in	8T-9400
	2 ¾ in	0.67 in	1.31 in	0.75 in	7X-0383
	3 in	0.67 in	1.31 in	1.00 in	7X-0384
	3 ¼ in	0.67 in	1.31 in	1.25 in	7X-0385
	3 ½ in	0.67 in	1.31 in	1.50 in	7X-0386

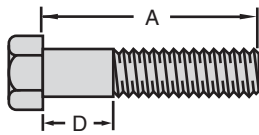
Hex Head Bolts/Inch/Coarse Thread UNC/Zinc Plated

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
¾-9	3 ¾ in	0.67 in	1.31 in	1.75 in	7X-0453
	4 in	0.67 in	1.31 in	2.00 in	7X-0387
	4 ¼ in	0.67 in	1.31 in	2.25 in	7X-0455
	4 ½ in	0.67 in	1.31 in	2.50 in	7X-0388
	4 ¾ in	0.67 in	1.31 in	2.75 in	7X-0389
	5 in	0.67 in	1.31 in	3.00 in	7X-0390
	5 ½ in	0.67 in	1.31 in	3.50 in	7X-0391
	6 in	0.67 in	1.31 in	3.75 in	7X-0392
	6 ½ in	0.67 in	1.31 in	4.25 in	7X-0393
	7 in	0.67 in	1.31 in	4.75 in	7X-0394
	8 in	0.67 in	1.31 in	5.75 in	7X-0395
	8 ½ in	0.67 in	1.31 in	6.25 in	7X-0396
	9 in	0.67 in	1.31 in	6.75 in	7X-0397
	10 in	0.67 in	1.31 in	7.75 in	7X-0398
	Nut				7X-0449
	Washer				8C-6913
1-8	1 ¼ in	0.71 in	1.50 in	0.31 in	7X-0399
	1 ½ in	0.71 in	1.50 in	0.31 in	7X-0400
	1 ¾ in	0.71 in	1.50 in	0.37 in	7X-0401
	2 in	0.71 in	1.50 in	0.75 in	7X-0402
	2 ¼ in	0.71 in	1.50 in	0.25 in	7X-0403
	2 ½ in	0.71 in	1.50 in	0.50 in	7X-0404
	2 ¾ in	0.71 in	1.50 in	0.50 in	7X-0405
	3 in	0.71 in	1.50 in	0.75 in	7X-0406
	3 ¼ in	0.71 in	1.50 in	1.00 in	7X-0407
	3 ½ in	0.71 in	1.50 in	1.25 in	7X-0408
	3 ¾ in	0.71 in	1.50 in	1.50 in	8T-8927
	4 in	0.71 in	1.50 in	1.75 in	7X-0410
	4 ¼ in	0.71 in	1.50 in	2.00 in	7X-0411
	4 ½ in	0.71 in	1.50 in	2.25 in	8C-8843
	4 ¾ in	0.71 in	1.50 in	2.50 in	7X-0412
	5 in	0.71 in	1.50 in	2.75 in	8C-8844
	5 ½ in	0.71 in	1.50 in	3.25 in	7X-0443
	6 in	0.71 in	1.50 in	3.75 in	1J-5929
	6 ½ in	0.71 in	1.50 in	4.00 in	7X-0444
	7 in	0.71 in	1.50 in	4.50 in	7X-0413
	7 ½ in	0.71 in	1.50 in	5.00 in	7X-0414
	8 in	0.71 in	1.50 in	5.50 in	7X-0415
	8 ½ in	0.71 in	1.50 in	6.00 in	7X-0416
	9 in	0.71 in	1.50 in	6.50 in	7X-0417
	9 ½ in	0.71 in	1.50 in	7.00 in	7X-0418
	10 in	0.71 in	1.50 in	7.50 in	7X-0419
	Nut				6V-8190
	Washer				8T-5361
1 ½-7	2 in	0.72 in	1.69 in	0.25 in	7X-0420
	3 in	0.72 in	1.69 in	0.50 in	7X-0421
	3 ½ in	0.72 in	1.69 in	1.00 in	7X-0422
	4 ½ in	0.72 in	1.69 in	2.00 in	7X-0423
	5 ¼ in	0.72 in	1.69 in	3.00 in	7X-0424
	6 in	0.72 in	1.69 in	3.50 in	7X-0425
	6 ½ in	0.72 in	1.69 in	3.75 in	7X-0426
	Nut				7X-0450

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
1 ⅝-7	Washer				7X-0531
1 ¼-7	3 ½ in	0.81 in	1.87 in	0.75 in	7X-0427
	4 in	0.81 in	1.87 in	1.25 in	7X-0428
	4 ½ in	0.81 in	1.87 in	1.75 in	7X-0429
	5 in	0.81 in	1.87 in	2.25 in	7X-0445
	5 ½ in	0.81 in	1.87 in	2.75 in	7X-0430
	6 in	0.81 in	1.87 in	3.25 in	7X-0431
	6 ½ in	0.81 in	1.87 in	3.50 in	7X-0432
	7 in	0.81 in	1.87 in	4.00 in	7X-0433
	8 in	0.81 in	1.87 in	5.00 in	7X-0434
	8 ½ in	0.81 in	1.87 in	5.50 in	7X-0435
	9 in	0.81 in	1.87 in	6.00 in	7X-0436
	9 ½ in	0.81 in	1.87 in	6.50 in	7X-0437
	Nut				7X-0451
	Washer				7X-0533
1 ½-6	3 ½ in	0.97 in	2.25 in	0.40 in	7X-0438
	4 ½ in	0.97 in	2.25 in	1.25 in	138-8455
	5 in	0.97 in	2.25 in	1.75 in	7X-0439
	6 in	0.97 in	2.25 in	2.50 in	131-2627
	Nut				7X-0452

Bolts

Self-Locking Bolts/Inch/Coarse Thread UNC

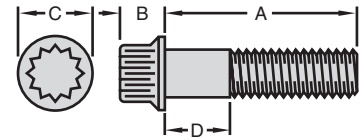


Hardware

Thread Size (in - TPI)	A Bolt Length	D Grip Length	Part Number
¼-20	⅝ in	0.06 in	032-5691
	½ in	0.06 in	031-0214
	⅜ in	0.13 in	031-0215
	¾ in	0.13 in	031-0216
	⅞ in	0.10 in	031-0217
	1 in	0.13 in	031-5085
	1 ⅛ in	0.37 in	6V-7634
	1 ¼ in	0.13 in	6V-6845
	4 in	3.25 in	3J-8919
⅜-18	½ in	0.06 in	032-5473
	⅝ in	0.13 in	030-2135
	¾ in	0.13 in	031-4630
	1 in	0.13 in	034-4160
	1 ¼ in	0.37 in	031-2701
	1 ½ in	0.09 in	6V-4414
	1 ⅝ in	0.87 in	1N-7543
	2 in	1.13 in	6V-9665
	2 ¼ in	1.37 in	6V-2664
	2 ½ in	1.63 in	6V-0825
	3 in	2.13 in	6V-3314
¾-16	½ in	0.09 in	031-0218
	⅝ in	0.13 in	6K-4936
	¾ in	0.13 in	5K-9107
	⅞ in	0.13 in	030-8535
	1 in	0.13 in	5D-0353
	1 ⅛ in	0.31 in	034-3557
	1 ¼ in	0.25 in	2J-3118
	1 ½ in	0.50 in	030-8537
	1 ¾ in	0.75 in	031-0219
	2 in	1.00 in	5D-9844
	2 ¼ in	1.25 in	5P-8048
	2 ½ in	1.50 in	031-0220
	3 in	2.00 in	5K-5552
	3 ½ in	2.50 in	6V-8819
⅞-14	¾ in	0.13 in	7K-0734
	1 in	0.13 in	034-0106
	1 ¼ in	0.13 in	031-2523
	1 ½ in	0.37 in	5P-8282
	2 in	0.87 in	5P-8864
½-13	¾ in	0.13 in	031-0221
	⅞ in	0.13 in	6K-5718
	1 in	0.13 in	6K-7917
	1 ⅛ in	0.13 in	5K-8454
	1 ¼ in	0.31 in	030-8538
	1 ½ in	0.25 in	5K-7143
	1 ¾ in	0.44 in	031-0223
	2 in	0.75 in	6V-0314
	2 ¼ in	1.00 in	030-9620

Thread Size (in - TPI)	A Bolt Length	D Grip Length	Part Number
½-13	2 ¾ in	1.50 in	034-0172
	3 ¼ in	2.00 in	5P-8091
¾-11	1 in	0.19 in	5K-7138
	1 ¼ in	0.13 in	6K-0138
	1 ½ in	0.19 in	030-7335
	1 ¾ in	0.25 in	7K-4370
	2 in	0.50 in	6K-0137
	2 ¼ in	0.75 in	5P-7034
	2 ½ in	0.63 in	5P-9118
	2 ¾ in	1.25 in	6V-1997
	3 in	1.50 in	032-0676
	3 ¾ in	2.25 in	5P-7782
¾-10	1 ¼ in	0.31 in	031-2712
	1 ½ in	0.31 in	031-9253
	1 ¾ in	0.31 in	031-0224
	2 in	0.31 in	031-0225
	2 ¼ in	0.50 in	5P-3882
	2 ½ in	0.75 in	6K-1304
	3 in	1.25 in	5P-6712
	3 ½ in	1.75 in	6V-1684
	4 ½ in	2.75 in	5P-1910
¾-9	2 ½ in	0.50 in	5P-7688
1-8	2 ¾ in	0.50 in	5P-7783
	3 ½ in	1.25 in	7K-9272
	5 ½ in	3.25 in	032-0679
1 ⅞-7	3 ½ in	1.00 in	7J-9897

12 Point Head Bolts/Inch/Coarse & Fine Thread

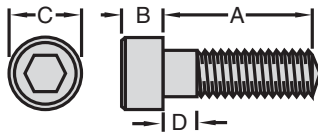


Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
Coarse Thread					
¼-20	⅞ in	0.27 in	0.38 in	0.11 in	9S-5033
⅝-18	¾ in	0.31 in	0.47 in	0.11 in	1T-0416
	1 in	0.31 in	0.47 in	0.11 in	1T-0414
	1 ¼ in	0.31 in	0.47 in	0.11 in	6L-4783
	1 ½ in	0.31 in	0.47 in	0.11 in	8M-8162
	1 ½ in	0.31 in	0.47 in	0.63 in	2N-7517
	1 ¾ in	0.31 in	0.47 in	0.63 in	6L-4784
	2 ½ in	0.31 in	0.47 in	1.13 in	3S-4346
	3 in	0.31 in	0.47 in	1.63 in	2S-5818
	3 ½ in	0.31 in	0.47 in	2.25 in	2S-0629
	4 ½ in	0.31 in	0.47 in	3.25 in	9M-4288
	5 in	0.31 in	0.47 in	3.63 in	9M-4289
	5 ½ in	0.31 in	0.47 in	4.25 in	1S-9810
	6 in	0.31 in	0.47 in	4.63 in	1S-9811
	6 ½ in	0.31 in	0.47 in	5.25 in	4S-5845
¾-16	¾ in	0.38 in	0.56 in	0.25 in	1T-0822
	1 in	0.38 in	0.56 in	0.25 in	1T-0765
	1 ⅞ in	0.38 in	0.56 in	0.50 in	4D-5239
	1 ¼ in	0.38 in	0.56 in	0.25 in	1T-0720
	2 in	0.38 in	0.56 in	0.50 in	3S-1307
	2 ¼ in	0.38 in	0.56 in	1.00 in	3S-0127
	2 ¾ in	0.38 in	0.56 in	1.50 in	2S-3567
	3 in	0.38 in	0.56 in	1.50 in	4S-9002
	3 ¾ in	0.38 in	0.56 in	2.50 in	8M-2518
⅞-14	1 ½ in	0.44 in	0.66 in	0.14 in	6K-3771
	2 ¼ in	0.44 in	0.66 in	0.63 in	6K-3772
½-13	1 in	0.50 in	0.75 in	0.16 in	9M-6590
	1 ¼ in	0.50 in	0.75 in	0.16 in	8M-2530
	1 ½ in	0.50 in	0.75 in	0.16 in	4K-5175
	2 in	0.50 in	0.75 in	0.16 in	5J-5793
	2 ¼ in	0.50 in	0.75 in	0.75 in	6J-2515
	2 ½ in	0.50 in	0.75 in	1.00 in	7K-6058
	2 ¾ in	0.50 in	0.75 in	0.75 in	9S-9739
	3 ½ in	0.50 in	0.75 in	1.50 in	5J-5794
⅝-11	4 ½ in	0.50 in	0.75 in	3.00 in	8D-0648
	⅞ in	0.62 in	0.94 in	0.19 in	1S-9808
	1 in	0.62 in	0.94 in	0.19 in	9S-8889
	1 ¼ in	0.62 in	0.94 in	0.19 in	8S-2332
	2 in	0.62 in	0.94 in	0.19 in	8S-2331
	2 ¼ in	0.62 in	0.94 in	0.50 in	6M-9149
	2 ½ in	0.62 in	0.94 in	0.75 in	031-1382
	3 in	0.62 in	0.94 in	1.25 in	031-3185
	3 ¼ in	0.62 in	0.94 in	1.50 in	6J-3913
¾-10	3 ½ in	0.62 in	0.94 in	1.50 in	7K-3116
	1 ½ in	0.75 in	1.13 in	0.25 in	6J-3991
	1 ¾ in	0.75 in	1.13 in	0.19 in	6M-8796

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
Fine Thread					
⅝-24	¾ in	0.31 in	0.47 in	0.08 in	5D-8269
¾-24	⅝ in	0.38 in	0.56 in	0.08 in	1T-0510
	1 in	0.38 in	0.56 in	0.08 in	1T-0417
	1 ¼ in	0.38 in	0.56 in	0.08 in	1T-0448
	1 ¾ in	0.38 in	0.56 in	0.50 in	1T-0954
	2 ½ in	0.38 in	0.56 in	1.00 in	5K-4451
⅞-20	2 ¾ in	0.44 in	0.66 in	1.25 in	5J-7820
½-20	3 in	0.50 in	0.75 in	1.50 in	8S-0509
⅝-18	1 in	0.62 in	0.94 in	0.19 in	9S-8890
	2 ½ in	0.62 in	0.94 in	0.75 in	9S-8891
	3 in	0.62 in	0.94 in	0.75 in	2P-1956
¾-16	3 ¼ in	0.75 in	1.13 in	1.00 in	9S-8892
⅞-14	2 ½ in	0.88 in	1.31 in	0.16 in	2N-5014
1-14	2 ½ in	1.00 in	1.50 in	0.75 in	2N-5006
	4 in	1.00 in	1.50 in	1.00 in	9S-8893

Bolts

Hex Socket Head Screw Bolts/Inch/Coarse & Fine Thread



Hardware

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
Coarse Thread					
No. 4-40	⅜ in	0.11 in	0.19 in	0.05 in	2S-9255
No. 8-32	½ in	0.16 in	0.27 in	0.06 in	6D-3897
	¾ in	0.16 in	0.27 in	0.06 in	7D-5473
	1 in	0.16 in	0.27 in	0.06 in	9M-4704
No. 10-24	½ in	0.19 in	0.31 in	0.08 in	5S-2671
	⅝ in	0.19 in	0.31 in	0.08 in	2H-0191
	¾ in	0.19 in	0.31 in	0.08 in	3L-2540
	⅞ in	0.19 in	0.31 in	0.08 in	9F-1707
	1 ¼ in	0.19 in	0.31 in	0.38 in	7L-0688
	1 ½ in	0.19 in	0.31 in	0.38 in	5J-1714
	1 ¾ in	0.19 in	0.31 in	0.88 in	2N-0402
	¾ in	0.25 in	0.38 in	0.11 in	7J-0637
	½ in	0.25 in	0.38 in	0.11 in	8H-0708
¼-20	⅝ in	0.25 in	0.38 in	0.11 in	8H-3128
	¾ in	0.25 in	0.38 in	0.11 in	8H-3127
	⅞ in	0.25 in	0.38 in	0.11 in	6L-5897
	1 in	0.25 in	0.38 in	0.11 in	8H-0707
	1 ¼ in	0.25 in	0.38 in	0.09 in	4L-7124
	1 ½ in	0.25 in	0.38 in	0.50 in	2H-3764
	1 ¾ in	0.25 in	0.38 in	0.50 in	5L-9018
	2 in	0.25 in	0.38 in	1.00 in	6L-1596
	2 ¼ in	0.25 in	0.38 in	1.00 in	6L-5551
	2 ½ in	0.25 in	0.38 in	1.50 in	6H-3958
	2 ¾ in	0.25 in	0.38 in	1.50 in	6J-2819
	¾ in	0.31 in	0.47 in	0.11 in	9F-5975
	1 in	0.31 in	0.47 in	0.11 in	1T-0284
	1 ¼ in	0.31 in	0.47 in	0.11 in	9F-6641
⅝-18	1 ½ in	0.31 in	0.47 in	0.11 in	5J-5314
	1 ¾ in	0.31 in	0.47 in	0.63 in	7S-6701
	2 in	0.31 in	0.47 in	0.63 in	9S-7381
	2 ¾ in	0.31 in	0.47 in	1.63 in	2L-1352
	3 ½ in	0.31 in	0.47 in	2.25 in	9S-7382
	¾ in	0.38 in	0.56 in	0.25 in	1L-0509
	⅞ in	0.38 in	0.56 in	0.25 in	4S-5565
¾-16	1 in	0.38 in	0.56 in	0.25 in	2D-4534
	1 ¼ in	0.38 in	0.56 in	0.25 in	2J-5245
	1 ½ in	0.38 in	0.56 in	0.25 in	4D-3120
	1 ¾ in	0.38 in	0.56 in	0.50 in	5S-2586
	2 in	0.38 in	0.56 in	0.50 in	1L-8793
	2 ¼ in	0.38 in	0.56 in	1.00 in	2L-3793
	2 ½ in	0.38 in	0.56 in	1.00 in	1Y-7574
	2 ¾ in	0.38 in	0.56 in	1.50 in	2K-6073
	3 ¼ in	0.38 in	0.56 in	2.00 in	4B-3835
	4 in	0.38 in	0.56 in	2.50 in	3B-7614
	5 in	0.38 in	0.56 in	3.50 in	8L-3837
	6 in	0.38 in	0.56 in	4.50 in	2D-8992

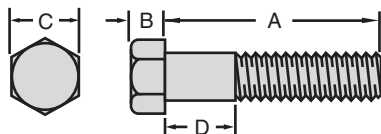
Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
⅞-14	⅞ in	0.44 in	0.66 in	0.14 in	4J-1096
	1 ¼ in	0.44 in	0.66 in	0.14 in	7B-7525
	2 in	0.44 in	0.66 in	0.63 in	2N-0412
	2 ½ in	0.44 in	0.66 in	1.13 in	3J-4567
½-13	½ in	0.50 in	0.75 in	0.16 in	021-7916
	¾ in	0.50 in	0.75 in	0.16 in	013-8289
	1 in	0.50 in	0.75 in	0.16 in	5H-4893
	1 ¼ in	0.50 in	0.75 in	0.16 in	5F-8807
	1 ½ in	0.50 in	0.75 in	0.16 in	3F-7147
	1 ¾ in	0.50 in	0.75 in	0.16 in	5S-2256
	2 in	0.50 in	0.75 in	0.19 in	8B-7997
	2 ¼ in	0.50 in	0.75 in	0.75 in	2L-0041
	2 ½ in	0.50 in	0.75 in	0.75 in	8B-7979
	2 ¾ in	0.50 in	0.75 in	0.75 in	5S-2389
	3 in	0.50 in	0.75 in	1.50 in	4L-8515
	3 ¼ in	0.50 in	0.75 in	1.50 in	6D-0119
	3 ½ in	0.50 in	0.75 in	1.50 in	8B-7998
	5 in	0.50 in	0.75 in	3.00 in	5S-2388
⅜-11	6 in	0.50 in	0.75 in	4.50 in	8L-4612
	7 in	0.50 in	0.75 in	5.25 in	7L-0654
	1 ¼ in	0.62 in	0.94 in	0.19 in	5S-2201
	2 in	0.62 in	0.94 in	0.19 in	5S-2457
	3 in	0.62 in	0.94 in	0.75 in	4D-0242
	4 in	0.62 in	0.94 in	2.25 in	8L-4743
¾-10	4 ½ in	0.62 in	0.94 in	2.25 in	6H-3959
	5 ½ in	0.62 in	0.94 in	3.75 in	7L-8304
	1 ½ in	0.75 in	1.12 in	0.20 in	7L-9787
	1 ¾ in	0.75 in	1.12 in	0.20 in	5F-5321
	2 ½ in	0.75 in	1.12 in	0.20 in	2N-6170
⅞-9	3 ¼ in	0.75 in	1.12 in	1.00 in	2N-1746
	3 ½ in	0.75 in	1.12 in	1.00 in	9S-4920
	2 ½ in	0.88 in	1.31 in	0.22 in	8L-4638
	4 in	0.88 in	1.31 in	1.00 in	8L-9299
1-8	4 ½ in	0.88 in	1.31 in	3.00 in	8L-4717
	2 ½ in	1.00 in	1.50 in	0.25 in	8L-6059
	3 in	1.00 in	1.50 in	0.25 in	7L-9198
¾-8	5 in	1.00 in	1.50 in	2.00 in	8L-3745
Fine Thread					
No. 10-32	⅝ in	0.19 in	0.31 in	0.06 in	3K-6168
	⅞ in	0.19 in	0.31 in	0.06 in	8H-4959
¼-28	½ in	0.25 in	0.38 in	0.08 in	2K-8407
	⅝ in	0.25 in	0.38 in	0.08 in	021-7941
	¾ in	0.25 in	0.38 in	0.08 in	3H-1392
	⅞ in	0.25 in	0.38 in	0.08 in	8S-1571
⅝-24	¾ in	0.31 in	0.47 in	0.08 in	3F-8156
¾-24	¾ in	0.38 in	0.56 in	0.08 in	013-8253
	⅞ in	0.38 in	0.56 in	0.08 in	4L-1507

Hex Socket Head Screw Bolts/Inch/Coarse & Fine Thread

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
¾-24	1 in	0.38 in	0.56 in	0.08 in	5L-4183
	1 ¼ in	0.38 in	0.56 in	0.08 in	1T-0131
	1 ½ in	0.38 in	0.56 in	0.19 in	5L-8894
	1 ¾ in	0.38 in	0.56 in	0.50 in	013-8257
	2 in	0.38 in	0.56 in	0.50 in	013-8258
	2 ¼ in	0.38 in	0.56 in	1.00 in	013-8259
	5 ¾ in	0.38 in	0.56 in	4.75 in	8J-1582
⅞-20	½ in	0.44 in	0.66 in	0.11 in	8S-2696
	1 ¾ in	0.44 in	0.66 in	0.11 in	8F-1948
½-20	½ in	0.50 in	0.75 in	0.11 in	021-7956
	¾ in	0.50 in	0.75 in	0.11 in	013-8306
	1 in	0.50 in	0.75 in	0.11 in	013-8307
	1 ¼ in	0.50 in	0.75 in	0.11 in	1F-1375
	1 ½ in	0.50 in	0.75 in	0.11 in	8F-0069
	1 ¾ in	0.50 in	0.75 in	0.11 in	013-8310
	2 in	0.50 in	0.75 in	0.11 in	2H-3763
	2 ¼ in	0.50 in	0.75 in	0.75 in	013-8312
	3 in	0.50 in	0.75 in	1.50 in	013-8315
⅝-18	2 ¼ in	0.62 in	0.94 in	0.11 in	9S-9078
¾-16	2 in	0.75 in	1.12 in	0.13 in	061-8718

Bolts

Hex Head Bolts/Metric/Coarse Thread UNC/Phosphate & Oil Coated



Hardware

Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M6 × 1.00	12 mm	4 mm	10 mm	2 mm	8T-0639
	16 mm	4 mm	10 mm	3 mm	6V-8837
	20 mm	4 mm	10 mm	3 mm	6V-8214
	25 mm	4 mm	10 mm	3 mm	6V-8490
	30 mm	4 mm	10 mm	12 mm	8T-0640
	35 mm	4 mm	10 mm	17 mm	6V-2315
	40 mm	4 mm	10 mm	22 mm	2W-9499
	45 mm	4 mm	10 mm	6 mm	6V-7728
	50 mm	4 mm	10 mm	33 mm	8T-0275
	60 mm	4 mm	10 mm	42 mm	8T-5066
	70 mm	4 mm	10 mm	52 mm	6V-8359
	80 mm	4 mm	10 mm	62 mm	6V-9798
	Nut				6V-8225
	Washer				9X-8267
M8 × 1.25	12 mm	6 mm	13 mm	3 mm	6V-2316
	16 mm	6 mm	13 mm	3 mm	6V-5215
	20 mm	6 mm	13 mm	3 mm	6V-5217
	25 mm	6 mm	13 mm	3 mm	6V-3940
	30 mm	6 mm	13 mm	8 mm	6V-2317
	35 mm	6 mm	13 mm	13 mm	6V-5218
	40 mm	6 mm	13 mm	18 mm	6V-5219
	45 mm	6 mm	13 mm	23 mm	8T-0276
	50 mm	6 mm	13 mm	28 mm	6V-3918
	60 mm	6 mm	13 mm	38 mm	8T-0100
	70 mm	6 mm	13 mm	48 mm	5P-8347
	80 mm	6 mm	13 mm	58 mm	6V-5221
	90 mm	6 mm	13 mm	68 mm	8T-0292
	100 mm	6 mm	13 mm	78 mm	6V-5223
	110 mm	6 mm	13 mm	88 mm	6V-3821
	120 mm	6 mm	13 mm	98 mm	6V-9607
	130 mm	6 mm	13 mm	108 mm	7X-0457
	140 mm	6 mm	13 mm	112 mm	7X-0870
	150 mm	6 mm	13 mm	122 mm	8C-4984
	Nut				5P-7970
	Washer				9M-1974
M10 × 1.50	12 mm	7 mm	16 mm	5 mm	6V-8084
	16 mm	7 mm	16 mm	3 mm	6V-8212
	20 mm	7 mm	16 mm	5 mm	6V-6317
	25 mm	7 mm	16 mm	5 mm	6V-4248
	30 mm	7 mm	16 mm	5 mm	6V-1820
	35 mm	7 mm	16 mm	5 mm	6V-3822
	40 mm	7 mm	16 mm	14 mm	6V-5842
	45 mm	7 mm	16 mm	19 mm	6V-5843
	50 mm	7 mm	16 mm	24 mm	6V-4249
	60 mm	7 mm	16 mm	34 mm	6V-5230
	70 mm	7 mm	16 mm	44 mm	6V-7981
	80 mm	7 mm	16 mm	54 mm	8T-0643

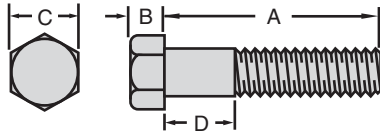
Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M10 × 1.50	90 mm	7 mm	16 mm	64 mm	8T-0644
	100 mm	7 mm	16 mm	74 mm	6V-1819
	110 mm	7 mm	16 mm	78 mm	8T-0355
	120 mm	7 mm	16 mm	94 mm	8T-5030
	140 mm	7 mm	16 mm	108 mm	8C-2926
	150 mm	7 mm	16 mm	118 mm	8T-9085
	160 mm	7 mm	16 mm	128 mm	8T-0356
	180 mm	7 mm	16 mm	148 mm	8T-7950
	200 mm	7 mm	16 mm	168 mm	8T-6854
	Nut				2Y-5829
	Washer				6V-5839
M12 × 1.75	16 mm	8 mm	18 mm	5 mm	6V-8177
	20 mm	8 mm	18 mm	5 mm	8T-0293
	25 mm	8 mm	18 mm	5 mm	6A-5591
	30 mm	8 mm	18 mm	5 mm	6V-3668
	35 mm	8 mm	18 mm	5 mm	6V-8675
	40 mm	8 mm	18 mm	5 mm	6V-8197
	45 mm	8 mm	18 mm	15 mm	6V-5684
	50 mm	8 mm	18 mm	20 mm	6V-7673
	60 mm	8 mm	18 mm	30 mm	6V-3823
	70 mm	8 mm	18 mm	40 mm	6V-8336
	80 mm	8 mm	18 mm	50 mm	6V-5696
	90 mm	8 mm	18 mm	60 mm	8T-0372
	100 mm	8 mm	18 mm	70 mm	8T-0106
	110 mm	8 mm	18 mm	80 mm	8T-0646
	120 mm	8 mm	18 mm	90 mm	6V-8004
	140 mm	8 mm	18 mm	104 mm	7X-0909
	150 mm	8 mm	18 mm	114 mm	8T-5044
	160 mm	8 mm	18 mm	124 mm	8T-0162
	180 mm	8 mm	18 mm	144 mm	8T-6991
	200 mm	8 mm	18 mm	147 mm	8C-3226
	Nut				6V-8149
	Washer				5P-8245
M14 × 2.00	20 mm	9 mm	21 mm	6 mm	8T-0373
	25 mm	9 mm	21 mm	6 mm	8T-0296
	30 mm	9 mm	21 mm	6 mm	8T-0297
	35 mm	9 mm	21 mm	6 mm	6V-8550
	45 mm	9 mm	21 mm	6 mm	8T-0226
	50 mm	9 mm	21 mm	16 mm	6V-5685
	60 mm	9 mm	21 mm	26 mm	8T-3666
	80 mm	9 mm	21 mm	46 mm	8T-3653
	90 mm	9 mm	21 mm	56 mm	8C-0537
	100 mm	9 mm	21 mm	66 mm	8T-0298
	Nut				139-6366
M16 × 2.00	25 mm	10 mm	24 mm	4 mm	6V-5224
	30 mm	10 mm	24 mm	3 mm	8T-0299
	35 mm	10 mm	24 mm	4 mm	6V-5844

Hex Head Bolts/Metric/Coarse Thread UNC/Phosphate & Oil Coated

Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M16 × 2.00	40 mm	10 mm	24 mm	5 mm	6V-4429
	45 mm	10 mm	24 mm	5 mm	8T-0375
	50 mm	10 mm	24 mm	12 mm	6V-5686
	60 mm	10 mm	24 mm	22 mm	6V-3303
	70 mm	10 mm	24 mm	32 mm	8T-0357
	80 mm	10 mm	24 mm	42 mm	8T-0281
	90 mm	10 mm	24 mm	52 mm	8T-0358
	100 mm	10 mm	24 mm	62 mm	8T-0207
	110 mm	10 mm	24 mm	72 mm	8T-0649
	120 mm	10 mm	24 mm	82 mm	8T-0282
	130 mm	10 mm	24 mm	86 mm	8T-0359
	140 mm	10 mm	24 mm	96 mm	6V-7675
	150 mm	10 mm	24 mm	106 mm	6V-8154
	160 mm	10 mm	24 mm	116 mm	8T-0650
	180 mm	10 mm	24 mm	136 mm	8T-5002
	Nut				8T-1757
	Washer				9X-8268
M20 × 2.50	30 mm	13 mm	30 mm	4 mm	8T-0651
	35 mm	13 mm	30 mm	4 mm	8T-0300
	40 mm	13 mm	30 mm	5 mm	6V-7729
	45 mm	13 mm	30 mm	6 mm	8T-0652
	50 mm	13 mm	30 mm	4 mm	6V-3531
	60 mm	13 mm	30 mm	14 mm	6V-3532
	70 mm	13 mm	30 mm	24 mm	6V-5845
	80 mm	13 mm	30 mm	34 mm	6V-3669
	90 mm	13 mm	30 mm	44 mm	8T-0360
	100 mm	13 mm	30 mm	54 mm	6V-9667
	110 mm	13 mm	30 mm	64 mm	8T-0362
	120 mm	13 mm	30 mm	74 mm	8T-0070
	130 mm	13 mm	30 mm	78 mm	8T-0655
	140 mm	13 mm	30 mm	88 mm	6V-9167
	150 mm	13 mm	30 mm	98 mm	8T-0656
	160 mm	13 mm	30 mm	108 mm	8T-0657
	180 mm	13 mm	30 mm	128 mm	8T-0658
	200 mm	13 mm	30 mm	148 mm	6V-8569
	Nut				6V-7742
	Washer				8T-3282
M24 × 3.00	35 mm	15 mm	36 mm	8 mm	8T-0662
	40 mm	15 mm	36 mm	8 mm	8T-0661
	45 mm	15 mm	36 mm	8 mm	8T-0663
	50 mm	15 mm	36 mm	8 mm	6V-9199
	70 mm	15 mm	36 mm	8 mm	8T-0664
	80 mm	15 mm	36 mm	26 mm	6V-8133
	90 mm	15 mm	36 mm	36 mm	8T-0666
	100 mm	15 mm	36 mm	46 mm	8T-0667
	110 mm	15 mm	36 mm	56 mm	8T-0668
	120 mm	15 mm	36 mm	66 mm	6V-8132
	130 mm	15 mm	36 mm	70 mm	8T-0669
	140 mm	15 mm	36 mm	80 mm	8T-0670
	150 mm	15 mm	36 mm	90 mm	8T-0671
	160 mm	15 mm	36 mm	100 mm	8T-0672
	180 mm	15 mm	36 mm	120 mm	8T-0674
Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M24 × 3.00	200 mm	15 mm	36 mm	140 mm	6V-8198
	Nut				7X-0851
	Washer				6V-8237
M30 × 3.50	80 mm	19 mm	46 mm	14 mm	8C-3222
	90 mm	19 mm	46 mm	24 mm	8C-3411
	100 mm	19 mm	46 mm	34 mm	8T-0368
	110 mm	19 mm	46 mm	44 mm	8T-0283
	120 mm	19 mm	46 mm	54 mm	8T-0369
	140 mm	19 mm	46 mm	68 mm	8T-0370
	160 mm	19 mm	46 mm	88 mm	8C-3236
	180 mm	19 mm	46 mm	108 mm	8T-6624
	Nut				8T-1583
	Washer				9X-8399

Bolts

Hex Head Bolts/Metric/Coarse Thread UNC/Zinc Plated



Hardware

Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M6 × 1.00	12 mm	4 mm	10 mm	2 mm	8T-4171
	16 mm	4 mm	10 mm	3 mm	5C-9553
	20 mm	4 mm	10 mm	3 mm	8T-4138
	25 mm	4 mm	10 mm	2 mm	6V-7357
	30 mm	4 mm	10 mm	12 mm	8T-4971
	35 mm	4 mm	10 mm	17 mm	7X-2533
	40 mm	4 mm	10 mm	22 mm	8C-8451
	45 mm	4 mm	10 mm	6 mm	8T-2947
	50 mm	4 mm	10 mm	32 mm	7X-2534
	60 mm	4 mm	10 mm	42 mm	7X-2535
	70 mm	4 mm	10 mm	52 mm	8T-3844
	80 mm	4 mm	10 mm	62 mm	8T-6974
	Nut				5C-2890
	Washer				9X-8256
M8 × 1.25	12 mm	6 mm	13 mm	3 mm	8T-4199
	16 mm	6 mm	13 mm	3 mm	8T-4200
	20 mm	6 mm	13 mm	3 mm	8T-4189
	25 mm	6 mm	13 mm	3 mm	8T-4908
	30 mm	6 mm	13 mm	8 mm	8T-7547
	35 mm	6 mm	13 mm	13 mm	7X-2537
	40 mm	6 mm	13 mm	3 mm	8T-4197
	45 mm	6 mm	13 mm	23 mm	7X-0818
	50 mm	6 mm	13 mm	28 mm	8T-6912
	60 mm	6 mm	13 mm	38 mm	8T-6869
	70 mm	6 mm	13 mm	48 mm	8T-6870
	80 mm	6 mm	13 mm	58 mm	8T-3647
	90 mm	6 mm	13 mm	68 mm	8T-4177
	100 mm	6 mm	13 mm	78 mm	7X-2538
	110 mm	6 mm	13 mm	88 mm	7X-2539
	120 mm	6 mm	13 mm	98 mm	7X-2540
	130 mm	6 mm	13 mm	108 mm	108-2989
	140 mm	6 mm	13 mm	112 mm	7X-2541
	150 mm	6 mm	13 mm	122 mm	7X-2542
	160 mm	6 mm	13 mm	128 mm	8T-7352
	Nut				5C-7261
	Washer				8T-4224
M10 × 1.50	12 mm	7 mm	16 mm	5 mm	7X-2621
	16 mm	7 mm	16 mm	5 mm	8T-4191
	20 mm	7 mm	16 mm	5 mm	8T-4137
	25 mm	7 mm	16 mm	5 mm	8T-4136
	30 mm	7 mm	16 mm	5 mm	8T-4195
	35 mm	7 mm	16 mm	5 mm	8T-4196
	40 mm	7 mm	16 mm	14 mm	8T-4186
	45 mm	7 mm	16 mm	19 mm	8T-4182
	50 mm	7 mm	16 mm	24 mm	8T-4185
	60 mm	7 mm	16 mm	34 mm	8T-6466
	70 mm	7 mm	16 mm	44 mm	8T-5005

Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M10 × 1.50	80 mm	7 mm	16 mm	54 mm	8T-4172
	90 mm	7 mm	16 mm	64 mm	8T-4178
	100 mm	7 mm	16 mm	74 mm	8T-4198
	110 mm	7 mm	16 mm	84 mm	8T-6685
	120 mm	7 mm	16 mm	94 mm	7X-2543
	130 mm	7 mm	16 mm	98 mm	8T-5436
	140 mm	7 mm	16 mm	108 mm	7X-2544
	150 mm	7 mm	16 mm	118 mm	7X-2545
	160 mm	7 mm	16 mm	128 mm	8T-6408
	180 mm	7 mm	16 mm	148 mm	7X-2546
	200 mm	7 mm	16 mm	168 mm	7X-2547
	Nut				8T-4133
	Washer				8T-4121
M12 × 1.75	16 mm	8 mm	18 mm	5 mm	7X-2548
	20 mm	8 mm	18 mm	5 mm	8T-4179
	25 mm	8 mm	18 mm	5 mm	8T-4192
	30 mm	8 mm	18 mm	5 mm	8T-4139
	35 mm	8 mm	18 mm	5 mm	8T-4956
	40 mm	8 mm	18 mm	5 mm	8T-4183
	45 mm	8 mm	18 mm	15 mm	8T-4184
	50 mm	8 mm	18 mm	20 mm	8T-4194
	60 mm	8 mm	18 mm	30 mm	8T-4910
	70 mm	8 mm	18 mm	40 mm	8T-4648
	80 mm	8 mm	18 mm	50 mm	8T-6868
	90 mm	8 mm	18 mm	60 mm	8T-4176
	100 mm	8 mm	18 mm	70 mm	7X-2549
	110 mm	8 mm	18 mm	80 mm	7X-2550
	120 mm	8 mm	18 mm	90 mm	8T-5041
	130 mm	8 mm	18 mm	94 mm	8T-5001
	140 mm	8 mm	18 mm	104 mm	8T-5412
	150 mm	8 mm	18 mm	114 mm	8T-5092
	160 mm	8 mm	18 mm	124 mm	8T-7930
	180 mm	8 mm	18 mm	144 mm	8T-7929
	200 mm	8 mm	18 mm	147 mm	7X-2551
	Nut				8T-4244
	Washer				8T-4223
M16 × 2.00	25 mm	10 mm	24 mm	4 mm	8T-4190
	30 mm	10 mm	24 mm	3 mm	7X-2552
	35 mm	10 mm	24 mm	4 mm	8T-4779
	40 mm	10 mm	24 mm	5 mm	7X-2553
	45 mm	10 mm	24 mm	5 mm	8T-7338
	50 mm	10 mm	24 mm	12 mm	8T-4193
	60 mm	10 mm	24 mm	22 mm	8T-4140
	70 mm	10 mm	24 mm	32 mm	7X-2554
	80 mm	10 mm	24 mm	42 mm	7X-2555
	90 mm	10 mm	24 mm	52 mm	8T-4175
	100 mm	10 mm	24 mm	56 mm	7X-2556

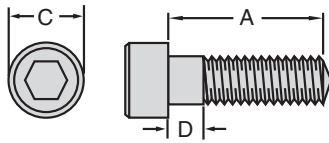
Hex Head Bolts/Metric/Coarse Thread UNC/Zinc Plated

Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M16 × 2.00	110 mm	10 mm	24 mm	72 mm	8T-4173
	120 mm	10 mm	24 mm	82 mm	8T-4174
	130 mm	10 mm	24 mm	86 mm	7X-2475
	140 mm	10 mm	24 mm	96 mm	7X-2557
	150 mm	10 mm	24 mm	106 mm	7X-2558
	160 mm	10 mm	24 mm	116 mm	7X-2559
	180 mm	10 mm	24 mm	136 mm	8T-6385
	200 mm	10 mm	24 mm	156 mm	8T-6383
	Nut				8T-4132
	Washer				8T-4122
M20 × 2.50	30 mm	13 mm	30 mm	4 mm	8T-4780
	35 mm	13 mm	30 mm	4 mm	7X-2561
	40 mm	13 mm	30 mm	5 mm	8T-5460
	45 mm	13 mm	30 mm	6 mm	7X-2562
	50 mm	13 mm	30 mm	4 mm	8T-6430
	60 mm	13 mm	30 mm	14 mm	7X-2563
	70 mm	13 mm	30 mm	24 mm	8T-4141
	80 mm	13 mm	30 mm	34 mm	8T-4187
	90 mm	13 mm	30 mm	44 mm	7X-2564
	100 mm	30 mm	30 mm	54 mm	7X-2565
	110 mm	13 mm	30 mm	64 mm	7X-2566
	120 mm	13 mm	30 mm	74 mm	8T-6381
	130 mm	13 mm	30 mm	78 mm	7X-2532
	140 mm	13 mm	30 mm	88 mm	8C-8478
	150 mm	13 mm	30 mm	98 mm	8T-4170
	160 mm	13 mm	30 mm	108 mm	7X-2488
	180 mm	13 mm	30 mm	128 mm	7X-2568
	200 mm	13 mm	30 mm	148 mm	7X-2569
	Nut				8T-4131
	Washer				8T-4123
M24 × 3.00	35 mm	15 mm	36 mm	8 mm	7X-2572
	40 mm	15 mm	36 mm	8 mm	7X-2573
	45 mm	15 mm	36 mm	8 mm	7X-2574
	50 mm	15 mm	36 mm	8 mm	8T-5379
	60 mm	15 mm	36 mm	8 mm	7X-2575
	70 mm	15 mm	36 mm	8 mm	7X-2576
	80 mm	15 mm	36 mm	26 mm	8T-5878
	90 mm	15 mm	36 mm	36 mm	7X-2577
	100 mm	15 mm	36 mm	46 mm	7X-2489
	110 mm	15 mm	36 mm	56 mm	7X-2454
	120 mm	15 mm	36 mm	66 mm	8T-0363
	130 mm	15 mm	36 mm	70 mm	8T-6380
	140 mm	15 mm	36 mm	80 mm	8T-4649
	150 mm	15 mm	36 mm	90 mm	8C-3290
	160 mm	15 mm	36 mm	100 mm	7X-2567
	180 mm	15 mm	36 mm	120 mm	7X-2465
	200 mm	15 mm	36 mm	140 mm	7X-2578
	Nut				8T-4001
	Washer				8T-4167
M30 × 3.50	50 mm	19 mm	46 mm	9 mm	9X-2199
	80 mm	19 mm	46 mm	14 mm	8C-8723

Thread Size (dia × pitch)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
M30 × 3.50	90 mm	19 mm	46 mm	24 mm	7X-2580
	100 mm	19 mm	46 mm	34 mm	7X-2581
	110 mm	19 mm	46 mm	44 mm	7X-2582
	120 mm	19 mm	46 mm	54 mm	7X-2583
	140 mm	19 mm	46 mm	68 mm	7X-2584
	160 mm	19 mm	46 mm	88 mm	7X-2585
	180 mm	19 mm	46 mm	108 mm	7X-2586
	Nut				8C-8722
	Washer				9X-8258

Bolts

Hex Socket Head Screw Bolts/Metric/Coarse Thread UNC



Hardware

Thread Size (dia × pitch)	A Bolt Length	C Head Width	D Grip Length	Part Number
M3 × 0.50	6 mm	6 mm	2 mm	8C-6365
	20 mm	6 mm	2 mm	8T-9006
M4 × 0.70	6 mm	7 mm	2 mm	095-0640
	10 mm	7 mm	2 mm	095-0641
	16 mm	7 mm	1 mm	8T-9405
	20 mm	7 mm	1 mm	8C-4982
	45 mm	7 mm	25 mm	101-4306
	65 mm	7 mm	51 mm	107-3198
M5 × 0.80	8 mm	9 mm	2 mm	096-5968
	10 mm	9 mm	2 mm	099-0822
	12 mm	9 mm	2 mm	099-2374
	14 mm	9 mm	2 mm	8C-6364
	16 mm	9 mm	2 mm	8C-8580
	20 mm	9 mm	2 mm	096-4833
	25 mm	9 mm	2 mm	096-5969
	35 mm	9 mm	13 mm	8T-6699
	40 mm	9 mm	18 mm	8T-0266
	45 mm	9 mm	23 mm	8T-3283
	50 mm	9 mm	28 mm	095-0642
	70 mm	9 mm	48 mm	9X-2536
M6 × 1.00	10 mm	10 mm	5 mm	9X-6153
	12 mm	10 mm	3 mm	8T-0267
	16 mm	10 mm	3 mm	6V-5683
	20 mm	10 mm	3 mm	8T-0269
	25 mm	10 mm	3 mm	3T-0849
	30 mm	10 mm	3 mm	8T-8442
	35 mm	10 mm	11 mm	1R-5396
	40 mm	10 mm	16 mm	6V-8653
	45 mm	10 mm	21 mm	8C-6965
	50 mm	10 mm	32 mm	8T-9534
	55 mm	10 mm	37 mm	095-0645
	60 mm	10 mm	36 mm	8T-2396
	65 mm	10 mm	41 mm	8T-2922
	70 mm	10 mm	46 mm	9X-2537
	80 mm	10 mm	56 mm	102-7364
	90 mm	10 mm	66 mm	8T-2397
M8 × 1.25	16 mm	13 mm	4 mm	6V-8202
	20 mm	13 mm	4 mm	8T-1158
	25 mm	13 mm	4 mm	5A-3604
	30 mm	13 mm	4 mm	6V-5192
	35 mm	13 mm	4 mm	6V-8337
	45 mm	13 mm	17 mm	8T-0338
	50 mm	13 mm	22 mm	3E-8025
	55 mm	13 mm	33 mm	9X-6154
	60 mm	13 mm	38 mm	8T-9535
	65 mm	13 mm	37 mm	096-0187
	70 mm	13 mm	42 mm	6V-8213

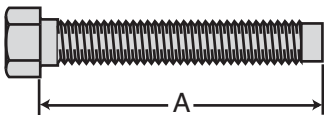
Thread Size (dia × pitch)	A Bolt Length	C Head Width	D Grip Length	Part Number
M8 × 1.25	80 mm	13 mm	58 mm	6V-5196
	90 mm	13 mm	62 mm	8T-2394
	100 mm	13 mm	72 mm	102-7365
	110 mm	13 mm	82 mm	8T-0339
	130 mm	13 mm	102 mm	3E-8006
	200 mm	13 mm	172 mm	9X-8269
M10 × 1.50	16 mm	16 mm	5 mm	096-4835
	20 mm	16 mm	5 mm	6V-3938
	25 mm	16 mm	5 mm	8T-1159
	30 mm	16 mm	3 mm	9X-6032
	35 mm	16 mm	5 mm	8T-0271
	40 mm	16 mm	8 mm	8T-9515
	45 mm	16 mm	13 mm	8T-2223
	50 mm	16 mm	18 mm	8T-1160
	55 mm	16 mm	29 mm	095-0655
	60 mm	16 mm	28 mm	8T-0341
	65 mm	16 mm	33 mm	8T-2392
	70 mm	16 mm	38 mm	095-0658
	80 mm	16 mm	48 mm	8T-0342
	90 mm	16 mm	58 mm	9X-2158
	100 mm	16 mm	68 mm	8T-7586
	110 mm	16 mm	78 mm	8T-0272
	120 mm	16 mm	88 mm	096-1331
	130 mm	16 mm	98 mm	086-2369
	150 mm	16 mm	118 mm	3E-8028
	220 mm	16 mm	194 mm	095-0665
M12 × 1.75	20 mm	18 mm	5 mm	8T-9080
	25 mm	18 mm	5 mm	8T-8441
	30 mm	18 mm	5 mm	8T-3957
	35 mm	18 mm	5 mm	6V-8200
	40 mm	18 mm	5 mm	8T-0273
	45 mm	18 mm	5 mm	095-0670
	50 mm	18 mm	5 mm	8T-7811
	55 mm	18 mm	19 mm	8T-0343
	60 mm	18 mm	24 mm	095-0673
	65 mm	18 mm	35 mm	095-0674
	70 mm	18 mm	34 mm	3E-6910
	80 mm	18 mm	44 mm	8C-8729
	90 mm	18 mm	54 mm	3E-8007
	100 mm	18 mm	64 mm	7X-2436
	110 mm	18 mm	74 mm	095-9804
	120 mm	18 mm	84 mm	8C-3413
M16 × 2.00	130 mm	18 mm	94 mm	7X-2607
	140 mm	18 mm	104 mm	8T-7058
	180 mm	18 mm	144 mm	3E-6911
	220 mm	18 mm	184 mm	8C-4980
	25 mm	24 mm	6 mm	3E-6923

Hex Socket Head Screw Bolts/Metric/Coarse Thread UNC

Thread Size (dia × pitch)	A Bolt Length	C Head Width	D Grip Length	Part Number
M16 × 2.00	30 mm	24 mm	6 mm	8T-0439
	35 mm	24 mm	6 mm	8T-6594
	40 mm	24 mm	6 mm	8T-4944
	45 mm	24 mm	6 mm	6V-8201
	50 mm	24 mm	6 mm	8T-0348
	55 mm	24 mm	17 mm	095-0700
	60 mm	24 mm	6 mm	8T-2393
	65 mm	24 mm	21 mm	8T-0349
	70 mm	24 mm	26 mm	8T-1447
	80 mm	24 mm	36 mm	095-9806
	90 mm	24 mm	46 mm	3E-8008
	100 mm	24 mm	56 mm	095-0705
	110 mm	24 mm	66 mm	095-0706
	120 mm	24 mm	76 mm	095-0707
	140 mm	24 mm	96 mm	096-0008
	160 mm	24 mm	116 mm	8C-7587
	180 mm	24 mm	136 mm	102-2562
	200 mm	24 mm	156 mm	7Y-5243
	260 mm	24 mm	216 mm	7Y-5244
M20 × 2.50	45 mm	30 mm	8 mm	7Y-5221
	50 mm	30 mm	8 mm	8T-5042
	55 mm	30 mm	8 mm	8T-6593
	60 mm	30 mm	8 mm	7Y-5241
	70 mm	30 mm	8 mm	7Y-5217
M20 × 2.50	80 mm	30 mm	28 mm	7Y-5216
	90 mm	30 mm	38 mm	9X-2404
	150 mm	30 mm	98 mm	113-7430
	240 mm	30 mm	196 mm	102-2563
	300 mm	30 mm	256 mm	102-2564
M24 × 3.00	90 mm	36 mm	30 mm	7Y-5215
	100 mm	36 mm	40 mm	7Y-5239
	110 mm	36 mm	50 mm	9X-8480
	130 mm	36 mm	70 mm	9X-8915

Bolts

Forcing Bolts/Inch/Fine Thread UNF

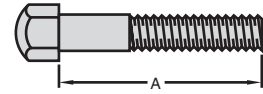


Thread Size (in - TPI)	A Length	Grip Length	Part Number
7/8-14	5 3/8 in	0.33 in	5P-5265
1-14	6 15/16 in	0.97 in	5P-8715
1 1/2-12	2 7/8 in	0.33 in	6V-0187
1 1/2-12	4 3/4 in	0.33 in	5P-5264

Forcing Bolts/Metric/Coarse Thread UNC

Thread Size (dia × pitch)	A Length	Grip Length	Part Number
M24 × 3.0	190 mm	13 mm	136-1978

Track Bolts/Inch



Model	Thread Size (in - TPI)	A Bolt Length	Part Number
307, E70, E70B	½-20	35.0 mm (1.38 in)	102-8072
307, PM465	½-20	38.1 mm (1.50 in)	3A-9605
D3, D4, 931	½-20	38.1 mm (1.50 in)	8H-7504
931C, 933C, 935C, 941 D3, D4, D4B, D3C, D4C, D3G, D4G 215, TR225B, AP1050 PR450, SF350	⅝-18	41.4 mm (1.63 in)	4K-7038
AP650B, BG225C, AP1050B, BG245C	⅝-18	50.8 mm (2.00 in)	8S-4745
D5C*, 561, D4, D5, D6 941, 943, 951, 953, 955, 977, 205, 211, 213, 215, 215SA, 219, 225 PR750, PR1000, PM565 SF500, TR500	⅝-18	51.0 mm (2.01 in)	7H-3597
D5N, D5M, D5C, D5H, D4H 953, 939, 939C	⅝-18	55.1 mm (2.17 in)	9G-3110
D6, D7, 572 955, 963, 977 215SA, 219, 225, 225SA 229, 231, 235, FB227	¾-16	54.8 mm (2.16 in)	1S-1859

* Use with "9K" links

Model	Thread Size (in - TPI)	A Bolt Length	Part Number
D7, D8, 571, 572 973, 977, 235, 583	¾-16	61.2 mm (2.41 in)	7H-3598
D6N, D7H, D6R, D6H, D6M, D5H 517, 527, FB227, D6HD	¾-16	60.9 mm (2.40 in)	6V-1792
D7R, D7H, D8 973, 983, 235	⅞-14	67.5 mm (2.66 in)	7H-3599
D8T/R/N, D8L, 583R, 578	⅞-14	87.1 mm (3.43 in)	6V-1723
235	⅞-14	71.1 mm (2.80 in)	5P-4028
D9, 594, 245**	1-14	74.6 mm (2.94 in)	2M-5657
245	1-14	78.9 mm (3.11 in)	3T-6308
D9T/R/N	1-14	89.9 mm (3.54 in)	6T-2638
D9L, 589	1-14	96.7 mm (3.81 in)	6V-1726
D10	1 ⅛-12	106.9 mm (4.21 in)	5P-3868
D10T/R/N	1 ⅛-12	96.0 mm (3.78 in)	7T-1000
5130	1 ⅜-12	120.1 mm (4.73 in)	6I-8648
D11RN, 5130	1 ⅜-12	109.2 mm (4.30 in)	6T-8853

** Use with "8K" links

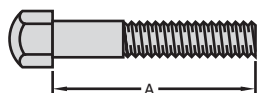
Track Bolts/Inch/Self Cleaning Shoes

Model	Thread Size (in - TPI)	A Bolt Length	Part Number
D3G, D4G, D3C, D4C, D4	⅞-18	41.1 mm (1.62 in)	4K-7038
	⅞-18	76.2 mm (3.00 in)	5A-3187
D5H, D5N, D5M, D4H	⅝-18	55.1 mm (2.17 in)	9G-3110
	⅝-18	89.9 mm (3.54 in)	3T-3884
D4, D5	⅝-18	84.0 mm (3.31 in)	5A-4104
	⅝-18	51.0 mm (2.01 in)	7H-3597
D6N, D6M, D5H	¾-16	91.9 mm (3.62 in)	107-0718
D7H, D6R, D6H, D6N, D6M, D5H	¾-16	60.9 mm (2.40 in)	6V-1792

Model	Thread Size (in - TPI)	A Bolt Length	Part Number
D7H, D6R, D6H	¾-16	104.9 mm (4.13 in)	6T-2162
D6	¾-16	54.8 mm (2.16 in)	1S-1859
	¾-16	99.0 mm (3.90 in)	5A-7524
D7	¾-16	104.1 mm (4.10 in)	5P-1028
	¾-16	61.2 mm (2.41 in)	7H-3598
D7R/H	⅞-14	67.5 mm (2.66 in)	7H-3599
	⅞-14	109.9 mm (4.33 in)	116-8145

Bolts

Track Bolts/Metric



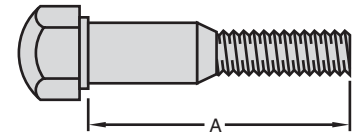
Model	Thread Size (dia × pitch)	A Bolt Length	Part Number
308, 307B	M14 × 1.50	35 mm	136-2401
311, 312, 313, 314 E110, E110B, E120, E120B	M16 × 1.50	46 mm	4I-7538
E140	M16 × 1.50	55 mm	096-1043
E180	M18 × 1.50	58 mm	093-0262
315, 317, 318, 319, 320, 321, 322 E200B, E240B, E240C	M20 × 1.50	55 mm	9W-3619
317, 318, 319, 320, 321, 322, 320S, 325	M20 × 1.50	63 mm	6Y-0846
E240, E300	M20 × 1.50	63 mm	093-0266
E300B, EL300	M20 × 1.50	70 mm	093-0265
330, 345, 350 D6R SystemOne™	M22 × 1.50	67 mm	6Y-9024
350	M22 × 1.50	73 mm	143-4891
E450	M22 × 1.50	78 mm	093-0268
E650	M24 × 1.50	81 mm	093-0271
345B	M24 × 1.50	67 mm	150-4741
365B	M27 × 2.00	78 mm	144-0805
375, 5080	M27 × 2.00	90 mm	6Y-7432
385B, 5090	M30 × 2.00	90 mm	174-0221

Track Bolts/Metric/Self Cleaning Shoes

Model	Thread Size (dia × pitch)	A Bolt Length	Part Number
311, 312, 313, 314 E110, E110B, E120, E120B, E140	M16 × 1.50	108	093-0261
	M16 × 1.50	68	093-0259
E180*	M18 × 1.50	90	093-0264
315, 317, 318, 319, 321, 320, 322 E200B, E240B, E240C	M20 × 1.50	55	9W-3619
	M20 × 1.50	80	8E-9349
E240*	M20 × 1.50	108	096-0551
325	M20 × 1.50	63	6Y-0846
	M20 × 1.50	110	6Y-5686
330	M22 × 1.50	67	6Y-0924
	M22 × 1.50	110	5Q-3253

* Only one bolt length used.

Split Master Link Bolts/Inch



Model	Thread Size (in - TPI)	A Bolt Length	Part Number
D3, D3C, D4C, D3G, D4G 935C, 933C, 931C PM465, AP1050, PR450 SF350, TR225B	9/16-18	76.2 mm (3.00 in)	5A-3187
AP650B, BG225C AP1050B, BG245C	9/16-18	88.9 mm (3.50 in)	8S-4747
D5N, D5M, D4H, D5H D5G, D5C, 939C, 953	5/8-18	67 mm (2.64 in)	3T-8601
D5N, D5M, D4H D5G, D5C, 939C	5/8-18	83 mm (3.27 in)	9G-8592
D5H, 953	5/8-18	91 mm (3.58 in)	3T-8580
D5C*, D4, D5, D6, 561 941, 943, 951, 953, 955, 977	5/8-18	88.9 mm (3.50 in)	3P-2274
D6N, D6M, D5H, 517	3/4-16	99 mm (3.90 in)	107-0719
	3/4-16	74 mm (2.91 in)	106-1642
D7H	3/4-16	80 mm (3.15 in)	6V-1793
D7H, D6, 963, 955	3/4-16	105 mm (4.13 in)	9S-1838
D7, 571, 572, 973, 977	3/4-16	113 mm (4.45 in)	2P-9670
D7R/H, 973	7/8-14	116 mm (4.57 in)	9W-9058

* Use with "9K" links.

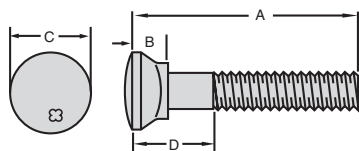
Split Master Link Bolts/Inch/Self Cleaning Shoes

Model	Thread Size (in - TPI)	A Bolt Length	Part Number
D3G, D4G, D3C, D4C	9/16-18	109 mm (4.29 in)	5P-4683
	9/16-18	76.2 mm (3.00 in)	5A-3187
D5N, D5M, D4H	5/8-18	83 mm (3.27 in)	9G-8592
D5N, D5M, D4H, D5H	5/8-18	102 mm (4.02 in)	3T-3889
D5H	5/8-18	91 mm (3.58 in)	3T-8580
D4, D5	5/8-18	88.9 mm (3.50 in)	3P-2274
	5/8-18	117.5 mm (4.63 in)	5P-0569
D6R/H, D6, D7	3/4-16	139 mm (5.47 in)	3P-1111
	3/4-16	105 mm (4.13 in)	9S-1838

Model	Thread Size (in - TPI)	A Bolt Length	Part Number
D7R/H	7/8-14	87 mm (3.43 in)	6V-1723
D8T/R/N, D8L, 583R, 578	7/8-14	96 mm (3.78 in)	6V-1724
	7/8-14	129 mm (5.08 in)	6V-1725
D8, 983, 583	7/8-14	123.04 mm (4.84 in)	8S-0395
D9T/R/N, D9L, 589	1-14	148 mm (5.83 in)	6V-1728
	1-14	123 mm (4.84 in)	7T-2283
D9, 594	1-14	141.27 mm (5.56 in)	8S-1723
D10T/R/N	1 1/8-12	164 mm (6.46 in)	7T-0998
	1 1/8-12	134 mm (5.28 in)	7T-0999
D10	1 1/8-12	168 mm (6.61 in)	5P-8222
D11R/N	1 3/8-12	183 mm (7.20 in)	6T-8520
D11R/N	1 3/8-12	153 mm (6.02 in)	6T-8521

Bolts

Cutting Edge Bolts/Inch/Coarse Thread



Hardware

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
3/8-16	2 in	0.31 in	0.67 in	1.00 in	4F-4048
	Nut				9S-8752
1/2-13	1 1/4 in	0.44 in	0.89 in	0.50 in	4F-3647
	1 1/2 in	0.44 in	0.89 in	0.63 in	4F-3646
	1 3/4 in	0.44 in	0.89 in	0.63 in	4F-3648
	2 in	0.44 in	0.89 in	0.75 in	4F-3649
	2 1/4 in	0.44 in	0.89 in	1.00 in	4F-3650
	2 1/2 in	0.44 in	0.89 in	1.25 in	4F-3651
	2 3/4 in	0.44 in	0.89 in	1.50 in	4F-3652
	3 in	0.44 in	0.89 in	1.75 in	4F-3662
	3 1/2 in	0.45 in	0.89 in	2.25 in	4F-3663
	5 in	0.44 in	0.89 in	3.75 in	4F-4043
	Nut				1F-7958
5/8-11	1 1/2 in	0.54 in	1.04 in	0.63 in	4F-3664
	1 3/4 in	0.54 in	1.04 in	0.63 in	4F-3653
	2 in	0.54 in	1.04 in	0.75 in	4F-3654
	2 1/4 in	0.54 in	1.04 in	1.25 in	3F-5108
	2 1/2 in	0.54 in	1.04 in	1.00 in	4F-3656
	2 3/4 in	0.54 in	1.04 in	1.25 in	4F-3657
	3 in	0.54 in	1.04 in	1.50 in	4F-3658
	3 1/2 in	0.54 in	1.04 in	2.00 in	4F-3665
	3 3/4 in	0.54 in	1.04 in	2.25 in	4F-0391
	4 in	0.54 in	1.04 in	2.50 in	4F-3671
	Nut				4K-0367
3/4-10	2 in	0.63 in	1.20 in	0.75 in	4F-3672
	2 1/4 in	0.63 in	1.20 in	1.00 in	4F-7827
	2 1/2 in	0.63 in	1.20 in	1.19 in	5J-4773
	2 3/4 in	—	—	1.50 in	5J-4771
	3 1/8 in	0.63 in	1.20 in	1.38 in	1J-6762
	3 3/4 in	0.63 in	1.20 in	2.00 in	5F-8933
	4 1/4 in	0.63 in	1.20 in	2.50 in	1J-0962
	4 5/8 in	0.63 in	1.20 in	2.88 in	1J-6761
	Nut				2J-3506
7/8-9	2 1/2 in	0.74 in	1.41 in	1.36 in	5J-4772
	2 3/4 in	0.74 in	1.41 in	1.50 in	6F-0196
	3 in	0.74 in	1.41 in	1.25 in	5J-2409
	3 1/4 in	0.74 in	1.41 in	2.44 in	8J-2935
	3 1/2 in	0.74 in	1.41 in	1.75 in	2J-2548
	4 1/4 in	0.74 in	1.41 in	2.50 in	2J-5458
	4 5/8 in	0.74 in	1.41 in	2.63 in	1J-0849
	Nut				2J-3505
1-8	2 1/2 in	0.81 in	1.60 in	1.31 in	3J-2801
	2 3/4 in	0.81 in	1.60 in	1.50 in	1J-5607
	3 in	0.81 in	1.60 in	1.75 in	4F-4042
	3 1/4 in	0.81 in	1.60 in	1.91 in	4J-9058
	3 1/2 in	0.81 in	1.60 in	2.19 in	4J-9208
	3 3/4 in	0.81 in	1.60 in	2.69 in	8J-2928

Thread Size (in - TPI)	A Bolt Length	B Head Height	C Head Width	D Grip Length	Part Number
1-8	3 3/4 in	0.81 in	1.60 in	1.50 in	1J-4948
	4 in	0.81 in	1.60 in	2.95 in	5P-8136
	4 1/2 in	0.81 in	1.60 in	2.25 in	1J-3527
	5 1/4 in	0.81 in	1.60 in	3.00 in	1J-4947
	Nut				2J-3507
1 1/4-7	3 3/8 in	1.06 in	2.03 in	1.65 in	8T-9079
	3 3/4 in	1.06 in	2.03 in	2.28 in	6V-6535
	4 1/8 in	1.02 in	2.01 in	2.28 in	5P-8823
	4 1/2 in	1.06 in	2.03 in	2.28 in	6V-8360
	4 15/16 in	1.06 in	2.03 in	2.28 in	5P-8361
	Nut				3K-9770

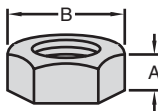
Maintenance Tips For Cutting Edge Hardware

1. Clean all surfaces of rust, paint, nicks, and burrs.
2. Install bolts first in the center and work out toward the edge.
3. Tighten all bolts to the specified torque (see chart below for specifications).
4. Set bolt heads firmly into the edge countersink using a heavy hammer.
Safety glasses **MUST** be worn when striking bolt heads.
5. Tighten all bolts again to the specified torque.

Thread Size (in - TPI)	(ft lb)	Torque (N•m)	Size
$\frac{5}{8}$	200 $\pm$ 30	270 $\pm$ 40	16 mm
$\frac{3}{4}$	350 $\pm$ 45	475 $\pm$ 60	19 mm
$\frac{7}{8}$	550 $\pm$ 65	750 $\pm$ 90	22 mm
1	825 $\pm$ 110	1125 $\pm$ 150	25 mm
1 $\frac{1}{4}$	1,350 $\pm$ 220	1850 $\pm$ 300	32 mm

Nuts

Nuts/Hex Head/Inch



- Made of fine grain steel.
- Designed with a washer-faced surface.
- Provides a tensile strength comparable to SAE Grade 8 bolt.
- Hardened nuts marked with 6 lines, dashes, or dots for identification.

Coarse Thread UNC/Phosphate & Oil Coated/Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¼-20	0.22 in	⅞ in	9S-8750
⅜-18	0.27 in	½ in	5S-0003
½-16	0.39 in	⅝ in	9S-8752
⅞-14	0.38 in	1⅛ in	3S-1546
1-13	0.44 in	¾ in	1F-7958
1⅜-12	0.48 in	⅞ in	5P-0539
1½-11	0.55 in	1⅝ in	4K-0367

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¾-10	0.64 in	1 ⅙ in	2J-3506
⅞-9	0.75 in	1 ⅝ in	2J-3505
1-8	0.86 in	1 ½ in	2J-3507
1 ⅙-7	0.97 in	1 11⁄16 in	4J-5977
1 ¼-7	1.06 in	1 ⅞ in	3K-9770
1 ⅜-6	1.17 in	2 ⅙ in	9M-3770
1 ½-6	1.28 in	2 ¼ in	9S-8216

Coarse Thread UNC/Zinc Plated/Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¼-20	0.22 in	⅞ in	6V-8185
⅜-18	0.27 in	½ in	6V-8189
½-16	0.33 in	⅝ in	6V-8801
⅞-14	0.37 in	1⅛ in	7X-0447
1-13	0.44 in	¾ in	6V-8188
1½-11	0.55 in	1⅝ in	7X-0448

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¾-10	0.64 in	1 ⅙ in	6V-8182
⅞-9	0.75 in	1 ⅝ in	7X-0449
1-8	0.86 in	1 ½ in	6V-8190
1 ⅙-7	0.97 in	1 11⁄16 in	7X-0450
1 ¼-7	1.06 in	1 ⅞ in	7X-0451
1 ½-6	1.28 in	2 ¼ in	7X-0452

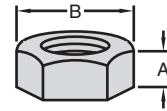
Fine Thread UNF/Phosphate & Oil Coated/Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¼-28	0.22 in	⅞ in	9S-8748
⅜-24	0.27 in	½ in	9S-8751
½-24	0.39 in	⅝ in	3S-2713
⅞-20	0.38 in	1⅛ in	9S-8905
1-20	0.44 in	¾ in	6B-6684
1⅜-18	0.48 in	⅞ in	5P-0540
1½-18	0.55 in	1⅝ in	6B-6683

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¾-16	0.64 in	1 ⅙ in	6B-6682
⅞-14	0.75 in	1 ⅝ in	1A-5666
1-14	0.86 in	1 ½ in	1A-1935
1 ⅙-12	0.97 in	1 11⁄16 in	3S-1356
1 ¼-12	1.06 in	1 ⅞ in	7H-7539
1 ⅜-12	1.17 in	2 in	2M-0400
1 ½-12	1.28 in	1 ⅝ in	8H-3390

Self-Locking Nuts/Hex Head/Inch

- Made of fine grain steel.
- Resist loosening under vibration.
- Provides a tensile strength comparable with SAE Grade 8 bolts.
- Resist loosening under vibration.



Coarse Thread UNC/Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¼-20	0.23 in	⅞ in	2D-6235
⅝-18	0.27 in	½ in	031-4155
¾-16	0.33 in	⅝ in	2K-4973
7⁄16-14	0.38 in	11⁄16 in	6V-5729
½-13	0.44 in	¾ in	1K-6872
⅝-12	0.50 in	⅞ in	034-9954

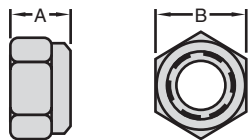
Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
⅝-11	0.55 in	1⅝ in	3K-2889
¾-10	0.64 in	1 ⅞ in	1K-6870
⅞-9	0.75 in	1 ⅝ in	6K-0545
1-8	0.86 in	1 ½ in	6K-3632
1 ⅛-7	0.97 in	1 11⁄16 in	8D-9513
1 ¼-7	1.06 in	1 ¾ in	2J-5997

Fine Thread UNF/Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¼-28	0.23 in	⅞ in	2L-9038
⅝-24	0.27 in	½ in	3D-8752
½-20	0.44 in	¾ in	2K-0564
⅝-18	0.50 in	⅞ in	054-5448
¾-18	0.55 in	1⅝ in	2K-4821
¾-16	0.64 in	1 ⅞ in	2K-0337

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
7⁄16-14	0.75 in	1 ⅝ in	5D-1986
1-14	0.86 in	1 ½ in	2K-7471
1 ⅛-12	0.97 in	1 11⁄16 in	3D-4904
1 ¼-12	1.06 in	1 ¾ in	2K-7468
1 ½-12	1.28 in	2 ¼ in	5M-6667

Self-Locking Nuts/Hex Head/Inch/Plastic Insert



- Resist loosening under vibration.

Coarse Thread/UNC/Zinc Plated/Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
¼-20	0.31 in	⅞ in	3E-9865
⅝-18	0.34 in	½ in	3E-9860
¾-16	0.45 in	⅝ in	3K-6060
½-13	0.59 in	¾ in	9X-0941

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
⅝-11	0.75 in	⅞ in	3E-9861
¾-10	0.88 in	1 ⅛ in	3E-9862
⅞-9	0.98 in	1 ¼ in	3E-9863

Coarse Thread/UNC/Zinc Plated/Non Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
No. 6-32	0.18 in	⅝ in	7D-6922
No. 8-32	0.23 in	11/32 in	6D-5801
No. 10-24	0.25 in	¾ in	031-0249
¼-20	0.31 in	⅞ in	7H-8909
⅝-18	0.34 in	½ in	2R-0504

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
⅝-16	0.37 in	11/16 in	9T-2730
½-13	0.59 in	¾ in	2H-3788
⅝-11	0.75 in	⅞ in	2H-3789
¾-10	0.88 in	1 ⅛ in	2H-3790

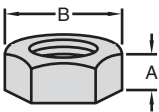
Fine Thread UNF/Zinc Plated/Non Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
No. 10-32	0.25 in	¾ in	4L-1250
¼-28	0.31 in	⅞ in	3F-7674
⅝-24	0.34 in	½ in	3F-2617

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
⅝-24	0.18 in	⅝ in	2F-8616
⅞-20	0.45 in	11/16 in	139-4187
½-20	0.59 in	¾ in	2M-2570

Hex Jam Nuts/Hex Head/Inch

- Designed with a chamfered and washer-faced surface.
- For use in locking other nuts to prevent loosening.



Coarse Thread UNC/Non Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
1/4-20	0.16 in	7/16 in	1B-4427
5/16-18	0.19 in	1/2 in	5B-3180
3/8-16	0.22 in	9/16 in	1B-2578
7/16-14	0.25 in	11/16 in	1L-9048
1/2-13	0.31 in	3/4 in	3H-3680

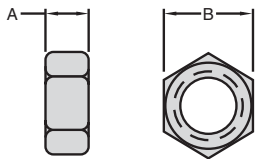
Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
9/16-12	0.31 in	7/8 in	8S-5151
5/8-11	0.38 in	15/16 in	1D-5118
3/4-10	0.42 in	1 1/8 in	1D-5119
7/8-9	0.48 in	1 5/16 in	5P-0541
1-8	0.55 in	1 1/2 in	1D-6306

Fine Thread UNF/Non Hardened

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
1/4-28	0.16 in	7/16 in	9M-1311
5/16-24	0.19 in	1/2 in	4F-2294
3/8-24	0.22 in	9/16 in	2A-5351
7/16-20	0.25 in	11/16 in	5B-3254

Thread Size (in - TPI)	A Nut Height	B Nut Width	Part Number
3/4-16	0.42 in	1 1/8 in	1D-5120
7/8-14	0.48 in	1 5/16 in	1D-5121
1-14	0.55 in	1 1/2 in	2H-3786

Nuts/Hex Head/Metric



- Made of fine grain steel.
- Designed with a washer-faced surface.
- Provides a proof load comparable to 10.9 metric bolt.

Hardware

Coarse Thread UNC/Phosphate & Oil Coated/Hardened

Thread Size (dia × pitch)	A Nut Height	B Nut Width	Part Number
M6 × 1.00	5.05 mm	10 mm	6V-8225
M8 × 1.25	6.40 mm	13 mm	5P-7970
M10 × 1.50	8.22 mm	16 mm	2Y-5829
M12 × 1.75	10.64 mm	18 mm	6V-8149

Thread Size (dia × pitch)	A Nut Height	B Nut Width	Part Number
M16 × 2.00	14.45 mm	24 mm	8T-1757
M20 × 2.50	18.00 mm	30 mm	6V-7742
M24 × 3.00	21.50 mm	36 mm	7X-0851
M30 × 3.50	24.95 mm	46 mm	8T-1583

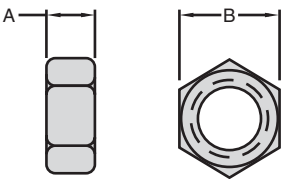
Coarse Thread UNC/Zinc Plated/Hardened

Thread Size (dia × pitch)	A Nut Height	B Nut Width	Part Number
M6 × 1.00	5.05 mm	10 mm	5C-2890
M8 × 1.25	6.40 mm	13 mm	5C-7261
M10 × 1.50	8.22 mm	16 mm	8T-4133
M12 × 1.75	10.64 mm	18 mm	8T-4244

Thread Size (dia × pitch)	A Nut Height	B Nut Width	Part Number
M16 × 2.00	14.45 mm	24 mm	8T-4132
M20 × 2.50	18.00 mm	30 mm	8T-4131
M24 × 3.00	21.50 mm	36 mm	8T-4001
M30 × 3.50	24.95 mm	46 mm	8C-8722

Self-Locking Nuts/Hex Head/Metric

- Made of fine grain steel.
- Designed with a washer-faced surface.
- Provides a proof load comparable to 10.9 metric bolt.
- Resists loosening under vibration.



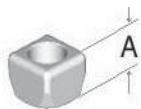
Coarse Thread UNC/Hardened

Thread Size (dia × pitch)	A Height	B Width	Part Number
M6 × 1.00	5.90 mm	10 mm	6V-7743
M8 × 1.25	7.10 mm	13 mm	6V-9189
M10 × 1.50	9.00 mm	16 mm	6V-7744
M12 × 1.75	11.60 mm	18 mm	6V-7687
M16 × 2.00	15.20 mm	24 mm	8T-4778
M20 × 2.50	22.15 mm	30 mm	6V-7688
M24 × 3.00	26.35 mm	36 mm	6V-7676
M30 × 3.50	30.00 mm	46 mm	8T-5065

Nuts

Track Nuts

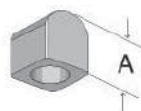
Inch



Model	Thread Size (in - TPI)	A Nut Height	Part Number
D3, 931	$\frac{1}{2}$ -20	15.2 mm (0.60 in)	6S-3419
D4	$\frac{1}{2}$ -20	14.2 mm (0.56 in)	8H-5724
307, PM465	$\frac{1}{2}$ -20	16.0 mm (0.63 in)	117-8885
307, E70, E70B	$\frac{1}{2}$ -20	12.9 mm (0.51 in)	102-8073
D3, D3B, D3C, D4C, D4B, D4 D3G, D4G, 215, 931, 933, 935, 941 PR450, PM 565, AP650B, AP1050, BG225C, BG245C SF350, TR225B	$\frac{9}{16}$ -18	18.2 mm (0.72 in)	7K-2017
D4, 941	$\frac{9}{16}$ -18	15.4 mm (0.61 in)	7H-3606
D5N, D5M, D5G, D5C, D4, D5, D6, 561, 939, 941, 943, 951 953, 955, 977 205, 211, 213, 215, 215SA, 219, 225 PR750, PR1000, SF500, TR500	$\frac{5}{8}$ -18	18.2 mm (0.72 in)	1M-1408
D6N, D6M, D5H, D6R/H, D7H, 517, 527, D6, D7, D8, 955, 936, 973, 977 571, 572, 583 215SA, 219, 225, 225SA, FB227, 229, 231, 235	$\frac{3}{4}$ -16	18.2 mm (0.72 in)	1S-1860
973, 235	$\frac{7}{8}$ -14	23.8 mm (0.94 in)	7T-9825
D7R/H D8, 983, 583	$\frac{7}{8}$ -14	23.6 mm (0.93 in)	2S-2140
D9, 594, 245	1-14	25.4 mm (1.00 in)	1S-6421
245 *	1-14	25.4 mm (1.00 in)	2V-0250

* Use with "8K" links.

Inch



Model	Thread Size (in - TPI)	A Nut Height	Part Number
D8T/R/N, D8L, 583R, 578	$\frac{7}{8}$ -14	35.0 mm (1.38 in)	7G-6442
D9T/R/N	1-14	39.8 mm (1.57 in)	7G-0434
D10, D10T/R/N, 5110B	1 $\frac{1}{8}$ -12	43.6 mm (1.72 in)	5P-8221
D11R/N, 5130	1 $\frac{1}{8}$ -12	45.9 mm (1.81 in)	3T-6292

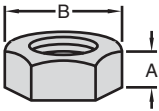
Metric



Model	Thread Size (dia × pitch)	A Nut Height	Part Number
308, 307B	M14 × 1.50	14 mm	136-2404
311, 312, 313, 314, E110, E110B, E120B, E120	M16 × 1.50	16 mm	5I-6125
E140	M16 × 1.50	22 mm	093-0319
E180, EL180	M18 × 1.50	22 mm	093-0320
315, 317, 318, 319, 320, 321, 322, 325, 320S, E200B, EL200B, E240B, EL240B, E240C, EL240C	M20 × 1.50	21 mm	9W-3361
E240, EL240, E300B, E300, EL300, EL300B	M20 × 1.50	27 mm	093-0321
330, 345, 350 D6R SystemOne™	M22 × 1.50	22 mm	9W-4381
E450	M22 × 1.50	29 mm	096-0586
345B	M24 × 1.50	24 mm	150-4742
E650	M24 × 1.50	29 mm	093-0323
365B	M27 × 2.00	27 mm	144-0806
375, 5080	M27 × 2.00	38.5 mm	6Y-7433
385B, 5090B	M30 × 2.00	38.5 mm	174-0222

Cutting Edge Nuts

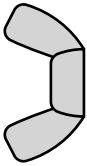
Thread Size (in - TPI)	A Height	B Width	Part Number
½-20	0.44 in	¾ in	6B-6684
⅝-11	0.55 in	15⁄16 in	1D-4720
⅝-11	0.55 in	15⁄16 in	4K-0367
¾-10	0.64 in	1 ⅙ in	2J-3506
¾-16	0.64 in	1 ⅙ in	6B-6682
7⁄8-9	0.75 in	1 ⅝ in	2J-3505
1-8	0.86 in	1 ½ in	2J-3507
1 ¼-7	1.06 in	1 ⅞ in	3K-9770



Wing Nuts/Inch/Coarse Thread UNC/Zinc Plated

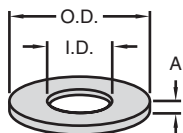
- Install and remove by hand.

Thread Size (in - TPI)	Part Number
10-24	6F-6898
10-32	033-3658
¼-20	1F-1739
⅝-18	3B-0723
¾-16	2B-9498
¾-24	7B-8839



Washers

Washers/Flat/Inch



- Compatible with SAE Grade 5/Grade 8 and above bolts.

Phosphate and Oil Coated/Hardened

Bolt Diameter	Inside Diameter	Outside Diameter	A Thickness	Part Number
¼ in	0.28 in	0.56 in	0.08 in	5P-0537
⅜ in	0.34 in	0.62 in	0.08 in	9M-1974
½ in	0.39 in	0.72 in	0.09 in	5M-2894
⅞ in	0.50 in	0.88 in	0.09 in	5P-8244
1 in	0.53 in	1.00 in	0.12 in	5P-8245
1 ⅛ in	0.62 in	1.14 in	0.12 in	5P-8246
1 ¼ in	0.67 in	1.26 in	0.14 in	5P-8247

Bolt Diameter	Inside Diameter	Outside Diameter	A Thickness	Part Number
¾ in	0.79 in	1.44 in	0.14 in	5P-8248
7/8 in	0.94 in	1.62 in	0.16 in	5P-8249
1 in	1.09 in	1.94 in	0.20 in	5P-8250
1 ⅝ in	1.19 in	2.06 in	0.25 in	3S-1349
1 ¾ in	1.31 in	2.12 in	0.25 in	4K-0684
1 ½ in	1.59 in	2.62 in	0.25 in	3S-6162

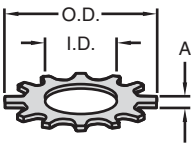
Zinc Plated/Hardened

Bolt Diameter	Inside Diameter	Outside Diameter	A Thickness	Part Number
¼ in	0.28 in	0.56 in	0.08 in	8T-4205
⅜ in	0.34 in	0.62 in	0.08 in	8T-4224
½ in	0.41 in	0.72 in	0.09 in	8T-4896
⅞ in	0.47 in	0.88 in	0.09 in	8T-5360
1 in	0.53 in	1.00 in	0.12 in	8T-4223
1 ⅛ in	0.66 in	1.25 in	0.14 in	8T-4122

Bolt Diameter	Inside Diameter	Outside Diameter	A Thickness	Part Number
¾ in	0.78 in	1.44 in	0.14 in	8T-4994
7/8 in	0.94 in	1.62 in	0.16 in	8C-6913
1 in	1.09 in	1.94 in	0.20 in	8T-5361
1 ⅝ in	1.22 in	2.06 in	0.25 in	7X-0531
1 ¾ in	1.34 in	2.19 in	0.25 in	7X-0533
1 ½ in	1.59 in	2.64 in	0.25 in	7X-0537

Lock Washers/External Tooth/Inch

- Provides “spring” action to keep assembly under tension.
- Resists corrosion due to zinc plated finish.



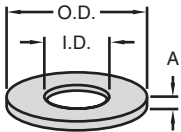
Zinc Plated/Non-Hardened

Bolt Diameter	Inside Diameter	Outside Diameter	A Thickness	Part Number
No. 6	0.15 in	0.31 in	0.02 in	5H-6555
No. 8	0.17 in	0.38 in	0.02 in	1H-4393
No. 10	0.20 in	0.40 in	0.02 in	9F-8125
¼ in	0.26 in	0.50 in	0.03 in	1H-3338

Bolt Diameter	Inside Diameter	Outside Diameter	A Thickness	Part Number
⅝ in	0.33 in	0.59 in	0.03 in	7H-3937
¾ in	0.39 in	0.69 in	0.04 in	4D-1326
7/16 in	0.46 in	0.75 in	0.04 in	7F-6998
½ in	0.52 in	0.89 in	0.04 in	3J-4818

Washers

Washers/Flat/Metric



- Compatible with ISO property class 8.8, 10.9, 11.9, 12.9.

Phosphate and Oil Coated/Hardened

Bolt Diameter (mm)	Inside Diameter	Outside Diameter	A Thickness	Part Number
M6	6.60 mm	12.00 mm	2.00 mm	9X-8267
M8	8.80 mm	16.00 mm	2.00 mm	9M-1974
M10	11.00 mm	21.00 mm	2.50 mm	6V-5839
M12	13.50 mm	25.50 mm	3.00 mm	5P-8245
M14	15.50 mm	29.00 mm	3.00 mm	5P-8246

Bolt Diameter (mm)	Inside Diameter	Outside Diameter	A Thickness	Part Number
M16	17.50 mm	30.00 mm	3.50 mm	9X-8268
M20	22.00 mm	35.00 mm	3.50 mm	8T-3282
M24	26.00 mm	44.00 mm	4.00 mm	6V-8237
M30	33.00 mm	56.00 mm	6.00 mm	9X-8399

Zinc Plated/Hardened

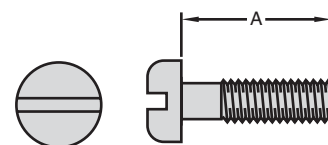
Bolt Diameter (mm)	Inside Diameter	Outside Diameter	A Thickness	Part Number
M6	6.60 mm	12.00 mm	2.00 mm	9X-8256
M8	8.80 mm	16.00 mm	2.00 mm	8T-4224
M10	11.00 mm	21.00 mm	2.50 mm	8T4121
M12	13.50 mm	25.50 mm	3.00 mm	8T-4223

Bolt Diameter (mm)	Inside Diameter	Outside Diameter	A Thickness	Part Number
M16	17.50 mm	30.00 mm	3.50 mm	9X-8257
M20	22.00 mm	35.00 mm	3.50 mm	8T-4123
M24	26.00 mm	44.00 mm	4.00 mm	8T-4167
M30	33.00 mm	56.00 mm	6.00 mm	9X-8258

Hardware

Pan Head/Machine Screws/Inch

- Made of steel and finished with a zinc plating.
- Conforms to ANSI B18.6.3 standard.

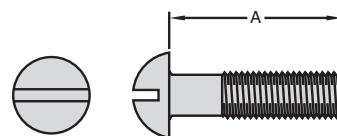


Thread Size (in - TPI)	A Screw Length	Part Number
No. 6-32	$\frac{3}{8}$ in	2N-3474
	$\frac{1}{2}$ in	2N-3475
	$\frac{3}{4}$ in	2N-3476
	1 in	030-8838
	1 $\frac{1}{4}$ in	2N-3477
	1 $\frac{1}{2}$ in	033-4815
No. 8-32	$\frac{3}{4}$ in	7S-4338
	1 $\frac{1}{4}$ in	6V-7697
	1 $\frac{1}{2}$ in	7S-1198
	2 in	5S-9105

Thread Size (in - TPI)	A Screw Length	Part Number
No. 10-24	$\frac{3}{8}$ in	2N-3478
	$\frac{1}{2}$ in	2N-3479
	$\frac{3}{4}$ in	2N-3480
	1 $\frac{1}{4}$ in	2N-3162
	1 $\frac{1}{2}$ in	2N-7456
	$\frac{1}{4}$ -20	030-9614
$\frac{1}{4}$ -20	$\frac{3}{8}$ in	030-9614
	$\frac{5}{8}$ in	3K-6881
	$\frac{3}{4}$ in	2Y-1020
	1 in	7H-1246

Round Head/Machine Screws/Inch

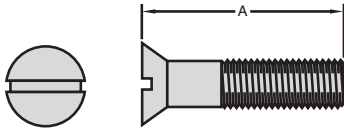
- Made of steel and finished with a zinc plating.
- Conforms to ANSI B18.6.3 standard.



Thread Size (in - TPI)	A Screw Length	Part Number
No. 6-32	$\frac{1}{4}$ in	4B-1218
	$\frac{3}{8}$ in	5S-7348
	$\frac{1}{2}$ in	4B-9762
	1 $\frac{1}{4}$ in	010-0744
	1 $\frac{1}{2}$ in	010-0746
	$\frac{1}{4}$ in	9B-7242
No. 8-32	$\frac{3}{8}$ in	4B-1220
	$\frac{1}{2}$ in	4B-1221
	$\frac{3}{4}$ in	5M-6668
	1 in	3K-8106
	$\frac{1}{4}$ in	4B-1226

Thread Size (in - TPI)	A Screw Length	Part Number
No. 10-24	$\frac{1}{4}$ in	4B-1226
	$\frac{3}{8}$ in	4B-1227
	$\frac{1}{2}$ in	4B-1229
	$\frac{3}{4}$ in	4B-1232
	1 $\frac{1}{4}$ in	4B-1234
	1 $\frac{1}{2}$ in	011-0508
	2 in	032-8924
	$\frac{1}{4}$ in	4B-1226

Flat Head/Machine Screws/Inch/Coarse Thread



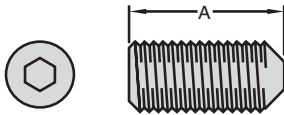
- Made of steel and finished with a zinc plating.
- Conforms to ANSI B18.6.3 standard.

Thread Size (in - TPI)	A Screw Length	Part Number
No. 10-24	3/8 in	4B-1293
	1/2 in	4B-1273
	5/8 in	4B-1274
	3/4 in	2H-6120
	1 in	1H-8456
	1 1/4 in	5P-5583
	1 1/2 in	8T-9514
	1 3/4 in	5P-5582
No. 6-32	3/8 in	5D-0853
	1/2 in	7K-3435

Thread Size (in - TPI)	A Screw Length	Part Number
No. 6-32	3/4 in	2D-6327
No. 8-32	1/2 in	4B-1268
	5/8 in	4B-1269
	3/4 in	4B-1270
	1 in	2M-5139
1/4-20	3/8 in	4B-1284
	1 in	4B-1285
	1 1/4 in	1H-8294
	1 1/2 in	1H-8298
	1 3/4 in	4B-1286
5/16-18	1/2 in	4B-1286

Thread Size (in - TPI)	A Screw Length	Part Number
5/16-18	1 1/4 in	1H-8293
	1 1/2 in	1H-8658
	1 3/4 in	5P-0399
3/8-16	3/4 in	1H-8296
	1 in	4B-1291
	1 1/4 in	5B-7431
	1 1/2 in	8F-6987
	1 3/4 in	8H-9579

Cup Point/Set Screws/Inch/Coarse Thread UNC



- Heat treated with a black oxide finish.

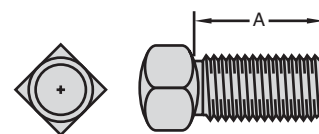
Thread Size (in - TPI)	A Screw Length	Part Number
No. 10-24	1/4 in	5B-9324
	3/8 in	8C-8430
	1/2 in	4B-3627
1/4-20	1/4 in	4B-9806
	3/8 in	010-2570
	1/2 in	4B-9808
	5/8 in	1K-6979
	3/4 in	010-2573
	1 in	010-3575
5/16-18	1/4 in	010-2580

Thread Size (in - TPI)	A Screw Length	Part Number
5/16-18	3/8 in	8B-7179
	1/2 in	010-2582
	3/4 in	5P-2556
	1 in	2H-3907
3/8-16	1/4 in	010-2591
	3/8 in	2F-5326
	1/2 in	3B-8601
	5/8 in	2F-5325
	3/4 in	3H-8430
	1 in	010-2597

Thread Size (in - TPI)	A Screw Length	Part Number
1/2-13	1/2 in	010-2615
	3/8 in	010-2616
	3/4 in	4B-1771
	1 in	2H-3906

Square Head/Set Screws/Inch/Coarse Thread UNC

- Made of case-hardened steel with a full square head.



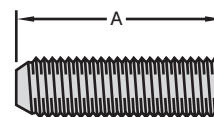
Thread Size (in - TPI)	A Screw Length	Part Number
¼-20	¾ in	4B-3565
	½ in	4B-3566
	1 in	4B-3569
⅝-18	½ in	4B-3570
	⅝ in	4B-3571
¾-16	½ in	4B-3572
	⅝ in	4B-3573
	¾ in	4B-3574
	⅞ in	4B-4994
	1 in	4B-3575

Thread Size (in - TPI)	A Screw Length	Part Number
⅝-16	1 ¼ in	4B-3576
	1 ½ in	4B-3577
	1 ¾ in	2H-3881
½-13	¾ in	4B-3580
	⅞ in	4B-3581
	1 in	4B-3582
	1 ¼ in	4B-3583
	1 ½ in	4B-3584
	1 ¾ in	4B-3585
	2 in	4B-3586

Thread Size (in - TPI)	A Screw Length	Part Number
⅝-11	1 ½ in	4B-3594
	1 ¾ in	4B-3595
	2 in	4B-3596
	2 ½ in	4B-3598
	3 in	4B-3599
¾-10	1 ½ in	4B-3601
	1 ¾ in	4B-3602
	2 in	4B-3603
	2 ½ in	4B-3604
	3 in	4B-3605

Taper Lock/Studs/Inch/Coarse Thread UNC

- Heat treated with a direct-hardening process.
- Hardened to Rockwell C 33-39.
- Designed with a taper point for a plug tap.
- Meet SAE grade 8 strength requirements.

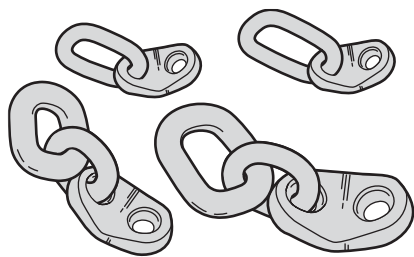


Thread Size (in - TPI)	A Screw Length	Part Number
¾-16	1 ⅞ in	2M-1538
	1 ¾ in	2M-4779
	2 in	1J-8668
	2 ⅞ in	4M-2743
	2 ¾ in	8M-1871
	2 ½ in	3M-0496
	2 ⅜ in	7S-6719
	2 ⅝ in	9M-3296
	3 ⅞ in	2M-8411
	3 ⅝ in	2M-2488
½-13	4 in	6L-4428
	1 ⅞ in	8M-8778

Thread Size (in - TPI)	A Screw Length	Part Number
½-13	1 ¾ in	2D-8153
	2 in	3D-0490
	2 ⅞ in	5M-1932
	2 ¾ in	2D-8154
	2 ½ in	4J-6925
	2 ⅜ in	3D-0472
	2 ⅝ in	3D-6627
	3 ⅞ in	2D-8426
	3 ⅝ in	2D-8155
	4 in	3D-0471
⅝-11	2 ⅞ in	3D-4639
	2 ¾ in	2D-8822

Thread Size (in - TPI)	A Screw Length	Part Number
⅝-11	2 ⅞ in	2D-5238
	2 ⅜ in	4D-4823
	2 ⅝ in	6L-7655
	3 ⅞ in	3J-8154
	3 ⅝ in	3D-5963
	4 in	5P-3887
¾-10	2 ⅞ in	4D-6579
	2 ⅜ in	2D-8369
	2 ⅝ in	4D-6578
	3 ⅞ in	4D-7246
	3 ⅝ in	5J-6796
	4 in	2P-1303

Link Brackets

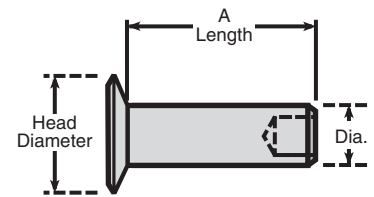


- Used to remove or install large components such as excavator swing gears (provides acceptable method of attaching hoist to component).
- 9U-6502 Link Bracket is used specifically to remove and install swing gear and bearing assembly on 5130 and 5230 Mining Excavators.
- All link brackets meet ANSI Standards for lifting devices.
- Bolts directly onto swing bearing/gear or other component (always use Grade 8 bolts to attach link bracket to component).
- Requires less clearance than standard eye bolt and makes placement/alignment of swing gear/bearing much faster and simpler.
- Used for any general purpose lifting where bracket can be attached to component.
- These link brackets are 100% proof tested at two times the working load limit. They comply with the requirements of ANSI/ASME B30.9:1984 as noted on the Certificate of Proof Test contained with each piece.

Part Number	Bolt Size	Working Load Limit	Minimum Bolt Torque
163-6455	36 mm	5448 kg (12,000 lb)	2700 N·m (2,000 lb ft)
138-7576	30 mm (1 ¼ in)	4000 kg (9,000 lb)	1300 N·m (1,300 lb ft)
138-7574	¾ in	4000 kg (9,000 lb)	360 N·m (265 lb ft)
138-7575	½ in	1800 kg (4,000 lb)	95 N·m (70 lb ft)
138-7573	¾ in	1000 kg (2,250 lb)	43 N·m (32 lb ft)

Rivets/Flat Head/Countersunk Shank/Inch

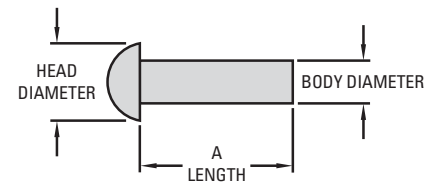
Body Diameter	A Length	Head Diameter	Part Number	Material
$\frac{5}{32}$ in	$\frac{5}{16}$ in	$\frac{3}{8}$ in	6B-4284	Steel
$\frac{3}{16}$ in	$\frac{9}{32}$ in	$\frac{3}{8}$ in	7B-5048	Brass
$\frac{3}{16}$ in	$\frac{5}{16}$ in	$\frac{3}{8}$ in	7B-5050	Brass
$\frac{3}{16}$ in	$\frac{3}{8}$ in	$\frac{3}{8}$ in	7B-5054	Brass
$\frac{3}{16}$ in	$\frac{13}{32}$ in	$\frac{3}{8}$ in	7B-5056	Brass
$\frac{3}{16}$ in	$\frac{15}{32}$ in	$\frac{3}{8}$ in	7B-5060	Brass
$\frac{3}{16}$ in	$\frac{1}{2}$ in	$\frac{3}{8}$ in	7B-5062	Brass
$\frac{3}{16}$ in	$\frac{17}{32}$ in	$\frac{3}{8}$ in	6B-1985	Steel
$\frac{3}{16}$ in	$\frac{17}{32}$ in	$\frac{3}{8}$ in	7B-5064	Brass
$\frac{3}{16}$ in	$\frac{19}{32}$ in	$\frac{3}{8}$ in	6B-4594	Steel
$\frac{3}{16}$ in	$\frac{19}{32}$ in	$\frac{3}{8}$ in	7B-5068	Brass
$\frac{3}{16}$ in	$\frac{19}{32}$ in	$\frac{3}{8}$ in	7B-5068	Brass
$\frac{3}{16}$ in	$\frac{19}{32}$ in	$\frac{3}{8}$ in	7B-5068	Brass
$\frac{3}{16}$ in	$\frac{3}{4}$ in	$\frac{3}{8}$ in	6B-1369	Steel



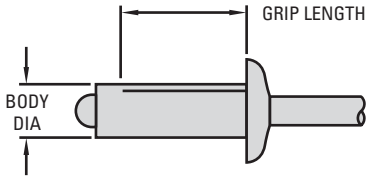
Rivets/Button Head/Solid Shank/Inch

- Made of cold-formed steel.
- Meets ANSI B18.1.1 requirements.

Body Diameter	A Length	Head Diameter	Part Number
$\frac{1}{8}$ in	$\frac{1}{4}$ in	0.23 in	4B-4304
$\frac{1}{8}$ in	$\frac{3}{8}$ in	0.23 in	4B-4306
$\frac{1}{8}$ in	$\frac{1}{2}$ in	0.23 in	4B-4307
$\frac{3}{16}$ in	$\frac{3}{8}$ in	0.34 in	4B-4310
$\frac{3}{16}$ in	$\frac{1}{2}$ in	0.34 in	4B-4311
$\frac{3}{16}$ in	$\frac{5}{8}$ in	0.34 in	4B-4312
$\frac{3}{16}$ in	$\frac{3}{4}$ in	0.34 in	4B-4314
$\frac{3}{16}$ in	$\frac{7}{8}$ in	0.34 in	1J-6280
$\frac{3}{16}$ in	1 in	0.34 in	4B-4315
$\frac{1}{4}$ in	$\frac{3}{8}$ in	0.45 in	4B-4319
$\frac{1}{4}$ in	$\frac{1}{2}$ in	0.45 in	4B-4320
$\frac{1}{4}$ in	$\frac{5}{8}$ in	0.45 in	4B-4321
$\frac{1}{4}$ in	$\frac{3}{4}$ in	0.45 in	4B-4322
$\frac{1}{4}$ in	$\frac{7}{8}$ in	0.56 in	1F-3577
$\frac{1}{4}$ in	1 $\frac{1}{8}$ in	0.45 in	4B-4325
$\frac{5}{16}$ in	$\frac{5}{8}$ in	0.56 in	4B-4334
$\frac{5}{16}$ in	$\frac{3}{4}$ in	0.56 in	4B-4335
$\frac{5}{16}$ in	$\frac{7}{8}$ in	0.56 in	4B-4336
$\frac{5}{16}$ in	1 in	0.56 in	4B-4337
$\frac{3}{8}$ in	$\frac{3}{4}$ in	0.67 in	4B-4343
$\frac{3}{8}$ in	$\frac{7}{8}$ in	0.67 in	4B-4344
$\frac{3}{8}$ in	1 in	0.67 in	4B-4345
$\frac{3}{8}$ in	1 $\frac{1}{8}$ in	0.67 in	4B-4346
$\frac{3}{8}$ in	1 $\frac{1}{4}$ in	0.67 in	4B-4347



Rivets/Blind/Inch

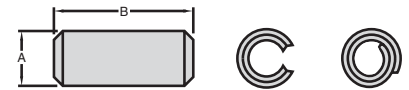


- Contains an open-end and a steel mandrel.

Body Diameter	Grip Length	Part Number
1⁄8 in	3⁄8 - 1⁄2 in	6K-3273
1⁄8 in	1⁄8 - 3⁄16 in	7K-6536
1⁄8 in	1⁄16 - 1⁄8 in	8L-7905
1⁄8 in	5⁄16 - 3⁄8 in	9M-5731
5⁄32 in	1⁄4 - 3⁄8 in	034-7044
5⁄32 in	1⁄8 - 1⁄4 in	2N-2258
3⁄16 in	3⁄8 - 1⁄2 in	033-9412
3⁄16 in	1⁄2 - 5⁄8 in	4D-6716
3⁄16 in	1⁄4 - 3⁄8 in	9M-5732
3⁄16 in	1⁄8 - 1⁄4 in	9M-5733

Spring Pins/Roll Pin/Inch

- Contains a chamfered end for easy installation.
- Made of heat-treated steel.

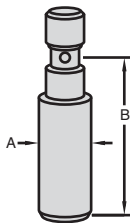


A Diameter	B Pin Length	Part Number
$\frac{1}{16}$ in	$\frac{1}{4}$ in	8S-7499
	$\frac{3}{8}$ in	1L-5316
	$\frac{1}{2}$ in	8S-3157
	$\frac{3}{4}$ in	2L-4911
$\frac{3}{32}$ in	$\frac{1}{2}$ in	3H-1118
	$\frac{5}{8}$ in	2K-3455
	$\frac{3}{4}$ in	2L-5894
	1 in	5M-8009
	1 $\frac{1}{4}$ in	032-8870
$\frac{1}{8}$ in	$\frac{1}{2}$ in	3H-9675
	$\frac{5}{8}$ in	4H-1641
	$\frac{3}{4}$ in	3K-4897
	1 in	8T-0277
$\frac{5}{32}$ in	1 $\frac{1}{4}$ in	2K-8467
	$\frac{3}{8}$ in	8L-6565
	$\frac{1}{2}$ in	1T-0099
	$\frac{3}{4}$ in	2L-5893
	1 in	5H-9839
$\frac{3}{16}$ in	1 $\frac{1}{2}$ in	6V-3259
	$\frac{1}{2}$ in	5H-8985
	$\frac{5}{8}$ in	2K-5986
	$\frac{3}{4}$ in	4H-8380
	1 in	6H-3956
	1 $\frac{1}{4}$ in	1H-1200
	1 $\frac{1}{2}$ in	4H-3119

A Diameter	B Pin Length	Part Number
$\frac{3}{16}$ in	1 $\frac{3}{4}$ in	1J-5799
$\frac{1}{4}$ in	$\frac{1}{2}$ in	6B-6863
	$\frac{5}{8}$ in	3H-2617
	$\frac{3}{4}$ in	7M-5130
	1 in	5H-3182
	1 $\frac{1}{4}$ in	5H-3193
	1 $\frac{1}{2}$ in	2L-1699
	1 $\frac{3}{4}$ in	4H-4737
	2 in	4H-6996
	2 $\frac{1}{2}$ in	1J-5353
	3 in	2K-1594
$\frac{5}{16}$ in	$\frac{3}{4}$ in	4H-1440
	1 in	1T-0550
	1 $\frac{1}{2}$ in	2H-9445
	1 $\frac{3}{4}$ in	5M-1179
	2 in	2M-3521
$\frac{3}{8}$ in	3 in	1T-0068
	$\frac{5}{8}$ in	8T-5089
	$\frac{3}{4}$ in	2L-3650
	1 in	5J-3941
	1 $\frac{1}{4}$ in	2J-5850
	1 $\frac{1}{2}$ in	5L-5711
	2 in	1J-8136
$\frac{1}{2}$ in	3 in	045-7012
	$\frac{3}{4}$ in	7K-6820

A Diameter	B Pin Length	Part Number
$\frac{1}{2}$ in	1 in	1N-5981
	1 $\frac{1}{4}$ in	2K-9062
	1 $\frac{1}{2}$ in	5H-4905
	2 $\frac{1}{2}$ in	2K-8078
	3 in	027-3873
	3 $\frac{1}{2}$ in	031-0255
	4 in	8C-8513

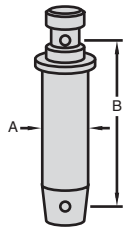
Drawbar and Clevis Pins/Type I



TYPE 1

A Diameter	Pin Hole Diameter	B Length	Part Number
1 ½ in	²⁵ / ₆₄ in	9 ⁷ / ₈ in	5H-8812
2 in	²⁵ / ₆₄ in	8 ³ / ₈ in	9S-8184
2 in	²⁵ / ₆₄ in	9 ³ / ₈ in	2R-0179
2 ¹⁵ / ₆₄ in	²⁵ / ₆₄ in	10 ³ / ₈ in	1H-4106

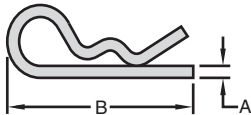
Drawbar and Clevis Pins/Type II



TYPE 2

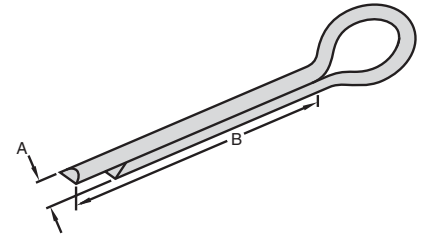
A Diameter	Pin Hole Diameter	B Length	Part Number
1 ½ in	²⁵ / ₆₄ in	7 in	7F-9549
1 ½ in	²⁵ / ₆₄ in	8 in	7F-9544
1 ³⁵ / ₆₄ in	²⁵ / ₆₄ in	9 in	7F-9541
1 ¾ in	²⁵ / ₆₄ in	8 in	7F-9547
1 ¾ in	²⁵ / ₆₄ in	12 in	5H-2209
2 in	²⁵ / ₆₄ in	10 ½ in	2M-0093

Locking Pins/Inch/Steel



A Diameter	Pin Hole Diameter	B Length	Part Number
³ / ₃₂ in	¹ / ₄ - ¹ / ₂ in	1.62 in	5P-0372
³ / ₃₂ in	¹ / ₂ in	2.00 in	008-3843
¹ / ₈ in	¹ / ₂ - ³ / ₄ in	1.75 in	6S-6646
¹ / ₈ in	⁵ / ₈ - ⁷ / ₈ in	2.50 in	8S-6377
³ / ₃₂ in	⁵ / ₈ - ⁷ / ₈ in	3.00 in	5P-0370
³ / ₁₆ in	³ / ₄ - ¹¹ / ₁₆ in	3.75 in	5P-8837

Cotter Pins/Inch/Zinc Plated Steel



A Diameter	B Pin Length	Part Number
$\frac{1}{16}$ in	$\frac{3}{4}$ in	3B-4605
	1 $\frac{1}{4}$ in	3B-4606
	1 $\frac{1}{2}$ in	010-3365
$\frac{3}{32}$ in	$\frac{1}{2}$ in	3B-4607
	$\frac{3}{4}$ in	1S-0685*
	1 in	3B-4611
	1 in	6F-3465*
	1 $\frac{1}{4}$ in	3B-4612
	1 $\frac{1}{2}$ in	3B-5312
	1 $\frac{3}{4}$ in	2H-3862
	2 in	010-3378
$\frac{1}{8}$ in	$\frac{1}{2}$ in	3B-4613
	$\frac{3}{4}$ in	3B-4615
	1 in	3B-4617
	1 $\frac{1}{4}$ in	3B-4618
	1 $\frac{1}{4}$ in	6F-5264*
	1 $\frac{1}{2}$ in	5H-9456*
	1 $\frac{3}{4}$ in	6H-5800*
	2 in	3B-4621
	2 in	7F-2002*
	2 $\frac{1}{4}$ in	3B-4622
	2 $\frac{1}{2}$ in	8B-9264
$\frac{5}{64}$ in	1 in	1S-1083*
	1 $\frac{1}{4}$ in	9M-6505*
$\frac{3}{32}$ in	1 $\frac{1}{4}$ in	3B-4624
	1 $\frac{1}{2}$ in	3B-5301
	1 $\frac{3}{4}$ in	7B-1331

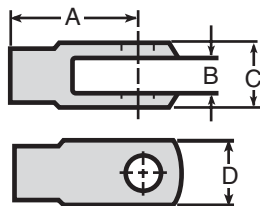
A Diameter	B Pin Length	Part Number
$\frac{5}{32}$ in	2 in	2H-3768
	2 $\frac{1}{4}$ in	010-3401
	2 $\frac{3}{4}$ in	3B-4625
$\frac{3}{16}$ in	1 in	3B-4627
	1 $\frac{1}{4}$ in	3B-4628
	1 $\frac{1}{2}$ in	3B-4629
	2 in	3B-4631
	2 $\frac{1}{4}$ in	3B-5302
	2 $\frac{1}{2}$ in	3B-4632
	2 $\frac{3}{4}$ in	3B-4633
	3 in	3B-4634
	4 in	3B-4636
	4 in	3B-4636
$\frac{1}{4}$ in	1 in	2H-3769
	1 $\frac{1}{4}$ in	3B-4637
	1 $\frac{1}{2}$ in	3B-5313
	1 $\frac{3}{4}$ in	3B-4639
	2 in	3B-4640
	2 $\frac{1}{4}$ in	3B-5303
	2 $\frac{1}{2}$ in	3B-4641
	3 in	3B-5328
	3 $\frac{1}{2}$ in	3B-4643
	4 in	8T-1459
$\frac{5}{16}$ in	4 $\frac{1}{2}$ in	4D-8002
	1 in	3B-6705
	1 $\frac{1}{4}$ in	2H-3770
	1 $\frac{1}{2}$ in	2H-3771
$\frac{3}{8}$ in	2 in	3B-5314

A Diameter	B Pin Length	Part Number
$\frac{5}{16}$ in	2 $\frac{1}{4}$ in	3B-5315
	2 $\frac{1}{2}$ in	3B-5316
	3 in	3B-5317
	3 $\frac{1}{2}$ in	2H-3772
	4 in	2H-3773
	4 $\frac{1}{2}$ in	3F-8357
$\frac{3}{8}$ in	5 in	2H-3774
	1 $\frac{1}{4}$ in	1S-0686
	1 $\frac{1}{2}$ in	3B-4644
	1 $\frac{3}{4}$ in	3B-4645
	2 in	3B-4646
	2 $\frac{1}{2}$ in	3B-4647
	2 $\frac{3}{4}$ in	3B-5319
	3 in	3B-5320
	3 $\frac{1}{2}$ in	3B-5322
	4 in	3B-5329
$\frac{1}{2}$ in	4 $\frac{1}{2}$ in	4J-1888
	2 in	3B-5323
	2 $\frac{1}{2}$ in	3B-5324
	2 $\frac{3}{4}$ in	3B-5325
	3 in	2H-3775
	3 $\frac{1}{2}$ in	3B-5326
$\frac{5}{8}$ in	5 in	1J-2920
	5 $\frac{1}{2}$ in	3J-2985
$\frac{3}{4}$ in	3 in	3B-5327

* Double head cotter pin.

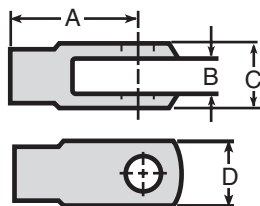
Rod Ends

Yoke-Type Rod End/Inch



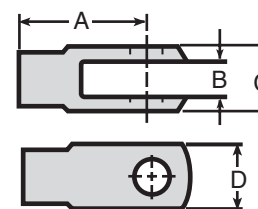
Diameter	A Length To Pin Hole	B Gap Size	C Height	D Width	Part Number	Nut	Pin Assy.	Clevis Pin	Retain. Clip	Retain. Pin	Cotter Pin
¼ in	26.2 in	7.10 in	15.90 in	12.70 in	2M-4036	5L-4426		4B-3057			3B-4607
¼ in	50.8 in	7.10 in	15.90 in	12.70 in	8B-3768	5L-4426		4B-3057			3B-4607
⅝ in	30.2 in	8.70 in	19.00 in	15.00 in	3D-9609	1B-4202		1A-2457			3B-4609
⅝ in	57.0 in	8.70 in	18.00 in	15.00 in	010-4037	1B-4202		1A-2457			3B-4609
¾ in	34.9 in	11.10 in	22.20 in	17.50 in	1M-1341	1B-4203	8T-8932				
¾ in	34.9 in	11.10 in	22.20 in	17.50 in	1M-1341	1B-4203		1B-0676			3B-4615
¾ in	63.5 in	11.10 in	22.20 in	17.50 in	1A-9252	1B-4203		1B-0676			3B-4615
½ in	46.0 in	14.30 in	28.60 in	23.90 in	2M-8340	9S-5585		8B-1419		6S-6646	
½ in	46.0 in	14.30 in	28.60 in	23.90 in	2M-8340	9S-5585		8B-1419			3B-4617
½ in	76.2 in	14.30 in	28.60 in	23.90 in	6F-7010	9S-5585		8B-1419		6S-6646	
½ in	76.2 in	14.30 in	28.60 in	23.90 in	6F-7010	9S-5585		8B-1419			3B-4617
⅝ in	57.9 in	17.50 in	34.90 in	30.20 in	4M-7930	5D-3183		9S-1315			3B-4617
⅝ in	125.4 in	17.50 in	34.90 in	30.20 in	9S-1314	5D-3183		9S-1315			3B-4617

Yoke-Type Rod End/Metric



Diameter (mm)	A Length To Pin Hole	B Gap Size	C Height	D Width	Part Number	Nut	Pin Assy.	Clevis Pin	Retain. Clip	Retain. Pin	Cotter Pin
M6	36.0 mm	6.0 mm	12.0 mm	12.0 mm	8T-4742	5C-2890	8T-4744	8T-6904	8T-6902		
M10	40.0 mm	10.0 mm	20.0 mm	20.0 mm	8T-4815	8T-4133	8T-4743	9R-2806	9R-2807		
M10-LH	60.0 mm	10.0 mm	20.0 mm	20.0 mm	8C-6955	9X-2065	8T-5381	9R-2806	9R-2807		
M10	60.0 mm	10.0 mm	20.0 mm	20.0 mm	8T-5063	8T-4133	8T-5381	9R-2806	9R-2807		
M12	48.0 mm	12.2 mm	24.0 mm	24.0 mm	8C-3393	8T-4244	8C-3394	8T-6905	8T-6903		
M12	48.0 mm	12.2 mm	24.0 mm	24.0 mm	8C-3393	8T-4244		7X-3161		6S-6646	3B-4615
M12-LH	72.0 mm	12.0 mm	24.0 mm	24.0 mm	7X-0858	8T-4244	8T-5382	8T-6905	8T-6903		
M12-LH	72.0 mm	12.0 mm	24.0 mm	24.0 mm	7X-0858	8T-4244		7X-3161		6S-6646	3B-4615
M12	72.0 mm	12.0 mm	24.0 mm	24.0 mm	8T-4650	8T-4244	8T-5382	8T-6905	8T-6903		
M12	72.0 mm	12.0 mm	24.0 mm	24.0 mm	8T-4650	8T-4244		7X-3161		6S-6646	3B-4615

Yoke-Type Rod End/Jump Sizes/Metric

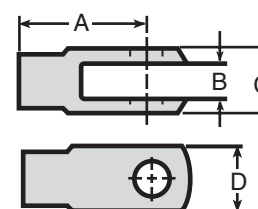


Diameter (mm)	A Length To Pin Hole	B Gap Size	C Height	D Width	Part Number	Nut	Pin Assy.	Clevis Pin	Retain. Clip	Retain. Pin	Cotter Pin
M10**	40.0 mm	10.0 mm	20.0 mm	20.0 mm	3E-3826	8T-4133		1B-0676		6S-6646	3B-4615
M10*	40.0 mm	10.0 mm	20.0 mm	20.0 mm	8T-5921	8T-4133					

* 6.0 mm bore.

** 9.5 mm bore.

Yoke-Type Rod End/Forged/Metric



Diameter (mm)	A Length To Pin Hole	B Gap Size	C Height	D Width	Part Number	Nut	Pin Assy.	Clevis Pin	Retain. Clip	Retain. Pin	Cotter Pin
M6*	45.0 mm	7.1 mm	15.9 mm	13.0 mm	7X-2496	5C-2890		7X-2618			3B-4607
M10**	34.9 mm	11.1 mm	22.2 mm	17.5 mm	8T-4968	8T-4133		1B-0676		6S-6646	3B-7615
M10**	63.5 mm	11.1 mm	22.2 mm	17.5 mm	8T-3988	8T-4133		1B-0676		6S-6646	3B-7615
M12***	46.4 mm	14.3 mm	28.6 mm	23.9 mm	7X-7660	8T-4244		8B-1419			3B-4617

* External thread.

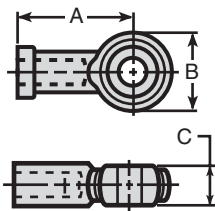
** 9.5 mm bore.

*** 12.7 mm bore.

Rod Ends

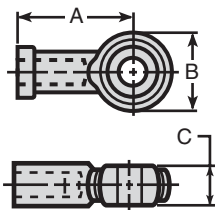
Hardware

Spherical Rod End/Inch



Diameter	A Length To Pin Hole	B Diameter	C Height	Part Number
¼ in	1.33 in	0.89 in	0.37 in	6L-7751
⅝ in	1.37 in	1.02 in	0.44 in	7H-3641
¾ in	1.64 in	1.13 in	0.50 in	4D-4064
½ in	2.12 in	1.39 in	0.63 in	4D-4065

Spherical Rod End/Metric

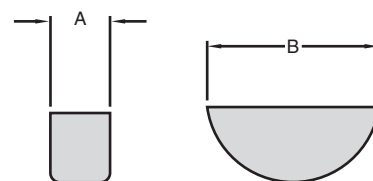


Diameter (mm)	A Length To Pin Hole	B Diameter	C Height	Part Number
M6	29.0 mm	22.0 mm	9.0 mm	8C-3111
M8	35.0 mm	26.0 mm	12.0 mm	7X-7915
M10	42.0 mm	30.0 mm	14.0 mm	8T-6431
M12	49.0 mm	34.0 mm	19.0 mm	8C-3392
M16	63.0 mm	42.0 mm	21.0 mm	9R-4760

Woodruff Keys

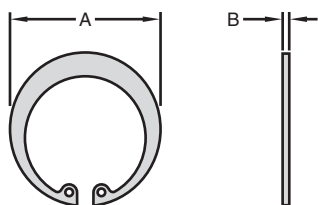
- Made of medium carbon steel and machined to a smooth finish.

A Thickness	B Diameter	SAE Number	Part Number
$\frac{1}{16}$ in	$\frac{5}{16}$ in	206	4F-2291
$\frac{1}{16}$ in	$\frac{3}{8}$ in	211	3B-2098
$\frac{1}{16}$ in	$\frac{1}{2}$ in	1	1F-3130
$\frac{3}{32}$ in	$\frac{5}{16}$ in	207	8B-9318
$\frac{3}{32}$ in	$\frac{3}{8}$ in	212	1B-8735
$\frac{3}{32}$ in	$\frac{1}{2}$ in	2	1B-8701
$\frac{3}{32}$ in	$\frac{5}{8}$ in	4	1B-8703
$\frac{1}{8}$ in	$\frac{3}{8}$ in	213	5H-2532
$\frac{1}{8}$ in	$\frac{1}{2}$ in	3	1B-8702
$\frac{1}{8}$ in	$\frac{5}{8}$ in	5	1B-8704
$\frac{1}{8}$ in	$\frac{3}{4}$ in	7	1B-8706
$\frac{5}{32}$ in	$\frac{5}{8}$ in	6	1B-8705
$\frac{5}{32}$ in	$\frac{3}{4}$ in	8	1B-8707
$\frac{5}{32}$ in	$\frac{7}{8}$ in	10	1B-8709
$\frac{3}{16}$ in	$\frac{3}{4}$ in	9	1B-8708
$\frac{3}{16}$ in	$\frac{7}{8}$ in	11	1B-8710
$\frac{3}{16}$ in	1 in	13	1B-8712
$\frac{3}{16}$ in	1 $\frac{1}{8}$ in	16	1B-8715
$\frac{7}{32}$ in	1 in	14	3K-4723
$\frac{1}{4}$ in	$\frac{3}{4}$ in	91	2B-9373
$\frac{1}{4}$ in	$\frac{7}{8}$ in	A	1B-8736
$\frac{1}{4}$ in	1 in	15	1B-8714
$\frac{1}{4}$ in	1 $\frac{1}{8}$ in	18	1B-8716
$\frac{1}{4}$ in	1 $\frac{1}{4}$ in	21	1B-8719
$\frac{1}{4}$ in	1 $\frac{3}{8}$ in	22	1B-8720
$\frac{1}{4}$ in	1 $\frac{1}{2}$ in	24	1B-8722
$\frac{5}{16}$ in	1 in	B	1H-6627
$\frac{5}{16}$ in	1 $\frac{1}{8}$ in	C	1B-8737
$\frac{5}{16}$ in	1 $\frac{1}{4}$ in	D	1B-8738
$\frac{5}{16}$ in	1 $\frac{3}{8}$ in	23	1B-8721
$\frac{5}{16}$ in	1 $\frac{1}{2}$ in	25	1B-8723
$\frac{3}{8}$ in	1 $\frac{1}{4}$ in	E	1B-8739
$\frac{3}{8}$ in	1 $\frac{3}{8}$ in	F	1B-8740
$\frac{3}{8}$ in	1 $\frac{1}{2}$ in	G	1B-8741
$\frac{3}{8}$ in	2 $\frac{3}{4}$ in	T	1B-8743



Snap Rings

Snap Rings/Internal/Inch



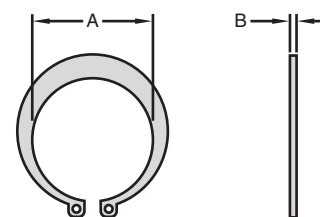
- Made of tempered carbon steel.

Bore Diameter	A Free Diameter	B Thickness	Part Number
0.44 in	0.48 in	0.025 in	3D-8358
0.50 in	0.55 in	0.035 in	1S-1638
0.56 in	0.62 in	0.035 in	2R-1256
0.69 in	0.76 in	0.035 in	1H-4142
0.75 in	0.83 in	0.035 in	2M-8191
0.81 in	0.90 in	0.042 in	5S-4455
0.88 in	0.97 in	0.042 in	2L-6726
0.90 in	1.00 in	0.042 in	4L-1466
1.00 in	1.11 in	0.042 in	4D-1322
1.12 in	1.25 in	0.050 in	5S-1522
1.25 in	1.39 in	0.050 in	2D-6398
1.38 in	1.53 in	0.050 in	1L-3768
1.44 in	1.60 in	0.050 in	2H-1142
1.50 in	1.66 in	0.062 in	8N-7294
1.56 in	1.73 in	0.062 in	3K-9879
1.65 in	1.83 in	0.062 in	2R-1230
1.81 in	2.01 in	0.062 in	2D-5826
1.85 in	2.05 in	0.078 in	1L-8490
2.05 in	2.28 in	0.078 in	6J-7855
2.31 in	2.54 in	0.078 in	2D-6648
2.44 in	2.70 in	0.078 in	6L-8797
2.50 in	2.77 in	0.078 in	4D-1736
2.75 in	3.05 in	0.093 in	6K-3531
2.83 in	3.12 in	0.093 in	2H-5549
3.00 in	3.33 in	0.093 in	2R-1236
3.16 in	3.52 in	0.109 in	1K-6985
3.25 in	3.62 in	0.109 in	8J-7636
3.50 in	3.89 in	0.109 in	3D-8341
3.56 in	3.94 in	0.109 in	1J-6472
3.88 in	4.29 in	0.109 in	9M-9935
4.00 in	4.42 in	0.109 in	7M-2275
4.33 in	4.76 in	0.109 in	5L-4751
4.72 in	5.21 in	0.109 in	067-3161
5.00 in	5.49 in	0.109 in	2L-0043
6.00 in	6.62 in	0.125 in	5L-4756
7.00 in	7.72 in	0.156 in	1L-7388
7.50 in	8.27 in	0.187 in	7F-6021

Snap Rings/External/Inch

- Made of tempered carbon steel.

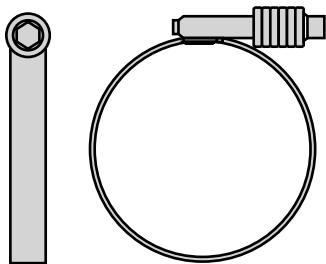
Shaft Diameter	A Free Diameter	B Thickness	Part Number
0.25 in	0.22 in	0.025 in	6H-5829
0.38 in	0.34 in	0.025 in	9M-7611
0.44 in	0.40 in	0.025 in	4H-0094
0.47 in	0.43 in	0.025 in	6L-3801
0.56 in	0.52 in	0.035 in	3D-2975
0.59 in	0.55 in	0.035 in	2L-8509
0.62 in	0.58 in	0.035 in	8F-4610
0.75 in	0.69 in	0.042 in	2J-6356
0.81 in	0.75 in	0.042 in	9F-5444
0.94 in	0.87 in	0.042 in	6H-6109
0.98 in	0.91 in	0.042 in	1L-8497
1.00 in	0.93 in	0.042 in	001-5600
1.06 in	0.98 in	0.050 in	3K-8276
1.12 in	1.04 in	0.050 in	5L-4019
1.19 in	1.10 in	0.050 in	4M-5285
1.25 in	1.16 in	0.050 in	2M-4287
1.31 in	1.21 in	0.050 in	4D-8309
1.38 in	1.27 in	0.050 in	1J-6474
1.56 in	1.45 in	0.062 in	2L-6965
1.62 in	1.50 in	0.062 in	9L-2336
1.69 in	1.56 in	0.062 in	5L-2931
1.77 in	1.64 in	0.062 in	2J-7550
1.81 in	1.68 in	0.062 in	5K-9106
1.88 in	1.74 in	0.062 in	1K-6995
1.97 in	1.82 in	0.062 in	077-9687
2.12 in	1.96 in	0.078 in	1K-6984
2.16 in	1.99 in	0.078 in	4K-4284
2.50 in	2.31 in	0.078 in	5K-4627
2.56 in	2.38 in	0.078 in	6S-1753
2.62 in	2.43 in	0.078 in	1K-6992
2.75 in	2.54 in	0.093 in	5J-3864
2.94 in	2.72 in	0.093 in	7J-6580
3.16 in	2.92 in	0.093 in	1N-8620
3.35 in	3.09 in	0.093 in	9S-4368
3.50 in	3.24 in	0.109 in	5L-4753
3.62 in	3.35 in	0.109 in	7J-6525
4.00 in	3.70 in	0.109 in	8F-1959
4.25 in	3.99 in	0.109 in	1N-5410
4.38 in	4.11 in	0.109 in	5H-5012
4.75 in	4.46 in	0.109 in	2L-0049
5.75 in	5.40 in	0.125 in	5L-8579
6.25 in	5.87 in	0.156 in	2L-0044



Hose Clamps

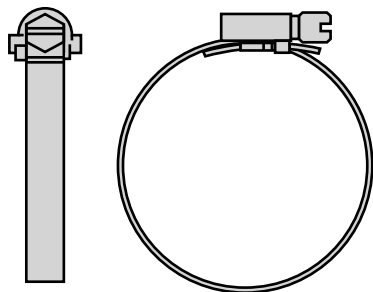
Hose Clamps/Constant Tension

Hardware



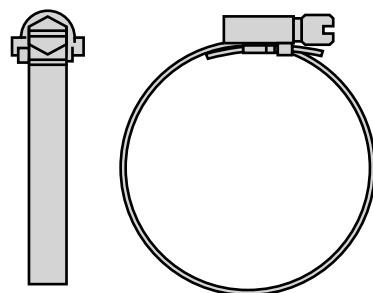
Working Diameter		Part Number
1 1/4-2 1/8 in	32-54 mm	8T-4983
1 3/4-2 5/8 in	45-67 mm	8T-6703
2 1/4-3 1/8 in	57-79 mm	8T-4984
2 3/4-3 5/8 in	70-92 mm	8T-6675
3 1/4-4 1/8 in	83-105 mm	8T-4985
4 1/4-5 1/8 in	108-130 mm	8T-4986
5 1/4-6 1/8 in	133-156 mm	8T-4987
6 1/4-7 1/8 in	159-181 mm	8T-4988
7 1/4-8 1/8 in	184-206 mm	8T-4989
8 1/4-9 1/8 in	210-232 mm	8T-4990

Hose Clamps



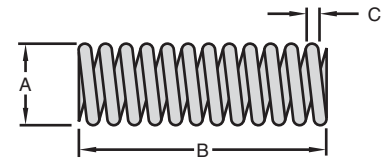
Working Diameter		Part Number
7/32-5/8 in	6-16 mm	1P-4278
9/16-1 1/16 in	16-27 mm	5D-1026
1 5/16-1 3/4 in	24-45 mm	9M-7958
1 3/8-2 1/2 in	40-64 mm	9M-0164
2 3/16-3 1/2 in	65-89 mm	9M-7959
3 5/16-4 1/4 in	89-108 mm	9M-6738

Hose Clamps/Heavy Duty



Working Diameter		Part Number
1 1/4-2 in	32-51 mm	5P-2230
1 3/4-2 5/8 in	45-67 mm	5P-0597
2 1/8-4 1/8 in	54-105 mm	5P-0598
4-6 1/8 in	102-156 mm	5P-0599
6-9 in	156-229 mm	5P-0600

Springs/Compression



A Outside Diameter	B Length	C Wire Diameter	Part Number
¼ in	⅝ in	0.031 in	9N-1747
	¾ in	0.031 in	9L-9522
	½ in	0.031 in	091-7106
	⅞ in	0.031 in	3G-0670
	¾ in	0.031 in	7V-3827
	1⅜ in	0.031 in	090-5957
	1 in	0.063 in	4T-7794
	1⅙ in	0.063 in	1V-8784
	1½ in	0.031 in	9N-4049
	2¼ in	0.031 in	9N-1622
	2⅜ in	0.063 in	8J-9273
⅜ in	½ in	0.031 in	6B-3364
	⅞ in	0.063 in	7M-3801
	⅝ in	0.031 in	7M-7446
	¾ in	0.031 in	3K-7217
	⅞ in	0.063 in	4K-8350
	1⅝ in	0.031 in	9S-1347
	1 in	0.031 in	1V-9969
	1⅙ in	0.031 in	9L-6422
	1¼ in	0.031 in	3N-6233
	1½ in	0.031 in	5B-1890
	1⅝ in	0.031 in	6N-8793
	1¾ in	0.031 in	2V-3457
	1⅞ in	0.063 in	6P-4993
	2⅙ in	0.063 in	7N-0426
	2¼ in	0.031 in	2L-4403
	2½ in	0.031 in	7F-7276
	2⅞ in	0.094 in	2H-5062
	3⅙ in	0.094 in	1P-9602
	3⅝ in	0.094 in	7B-9411
	3⅞ in	0.094 in	4M-5912
	4 in	0.031 in	034-3705
	⅝ in	0.031 in	6F-0967
	1 in	0.031 in	5K-3918
	1¼ in	0.031 in	5F-7464
	1½ in	0.063 in	6Y-0172
	1⅞ in	0.031 in	3C-0585
	1¾ in	0.125 in	3G-7402
	1⅞ in	0.063 in	9M-1986
	2 in	0.031 in	7M-7244
	2¼ in	0.063 in	0L-1466
	2½ in	0.063 in	6P-7701
	2⅞ in	0.031 in	3N-5738
	3¼ in	0.031 in	0L-1142
	3⅝ in	0.063 in	5B-1952
	3⅞ in	0.094 in	5J-9605
	4¼ in	0.063 in	5B-8858

A Outside Diameter	B Length	C Wire Diameter	Part Number
½ in	4 ¾ in	0.063 in	5M-6110
	4 ⅞ in	0.094 in	3T-7584
	5 ⅝ in	0.094 in	6T-1318
	5 ⅞ in	0.094 in	9S-9876
⅝ in	¾ in	0.094 in	1K-7039
	½ in	0.063 in	6T-8234
	⅝ in	0.031 in	9N-6249
	1 in	0.188 in	6B-3416
	1⅙ in	0.094 in	6S-8736
	1¼ in	0.094 in	9M-3091
	1½ in	0.063 in	5B-3754
	1⅜ in	0.063 in	3F-8845
	1⅞ in	0.094 in	4F-9503
	2 in	0.094 in	9W-1467
	2⅙ in	0.063 in	2P-5700
	2¼ in	0.063 in	5J-1787
	2½ in	0.063 in	2F-5889
	2¾ in	0.063 in	4F-6145
	3⅙ in	0.094 in	4J-4051
	3¼ in	0.063 in	1W-6077
	3⅝ in	0.125 in	3P-7566
	3⅞ in	0.063 in	6P-9784
	3¾ in	0.125 in	4T-4033
	4⅞ in	0.094 in	2P-4498
	4½ in	0.125 in	9T-1676
	⅞ in	0.031 in	4T-2684
	1 in	0.125 in	6F-4294
	1⅙ in	0.031 in	3N-7848
	1½ in	0.094 in	7M-3496
	1⅞ in	0.125 in	5F-2201
	2 in	0.063 in	5F-9035
	2¼ in	0.094 in	7G-5378
	2⅞ in	0.125 in	9S-8237
	2½ in	0.125 in	1K-4476
	2⅞ in	0.125 in	3D-2777
	2⅞ in	0.063 in	8F-3398
	3 in	0.156 in	1K-9105
	3⅙ in	0.094 in	6H-1649
	3⅝ in	0.094 in	5H-7473
	3⅞ in	0.094 in	1U-1067
	3⅞ in	0.063 in	2H-6117
	4 in	0.125 in	1S-5646
	4¼ in	0.094 in	9F-6092
	4½ in	0.031 in	9T-8208
	4⅞ in	0.094 in	2S-6538
⅞ in	⅞ in	0.063 in	3P-8042
	1⅝ in	0.063 in	9P-9211

Springs

Springs/Compression

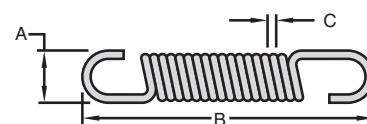
Hardware

A Outside Diameter	B Length	C Wire Diameter	Part Number
¾ in	1 ⅜ in	0.094 in	8J-6080
	2 in	0.094 in	9S-8632
	2 ⅜ in	0.094 in	9H-4204
	2 ⅞ in	0.125 in	4M-6012
	2 7⁄8 in	0.125 in	1W-9860
	3 in	0.125 in	5N-3015
	3 ½ in	0.125 in	3P-0246
	3 ¾ in	0.125 in	1W-2208
	3 ½ in	0.125 in	9L-9243
	4 ¾ in	0.063 in	5M-6111
	4 ½ in	0.094 in	6K-4302
	4 ⅝ in	0.125 in	6B-8809
	5 ⅜ in	0.156 in	4D-7637
	5 ½ in	0.094 in	7M-1405
	5 ⅝ in	0.156 in	5D-6293
	5 ⅞ in	0.094 in	4H-1221
	6 ⅞ in	0.125 in	4D-9469
	7 ¼ in	0.125 in	7D-6198
1 in	⅝ in	0.063 in	9T-1699
	7⁄8 in	0.125 in	7W-2110
	1 in	0.094 in	7V-0444
	1 ⅛ in	0.094 in	9P-8308
	1 ¼ in	0.094 in	6T-7221
	1 ⅜ in	0.094 in	7J-0736
	1 ½ in	0.125 in	1P-0620
	1 ⅝ in	0.063 in	4N-5663
	1 ¾ in	0.125 in	1S-7592
	1 7⁄8 in	0.063 in	9F-1993
	2 in	0.094 in	2S-8398
	2 ⅛ in	0.125 in	9T-2168
	2 ¼ in	0.156 in	8H-9488
	2 ⅜ in	0.094 in	2J-0075
	2 ½ in	0.125 in	7W-7700
	2 ⅝ in	0.125 in	3V-5498
	2 ¾ in	0.094 in	8J-3819
	2 7⁄8 in	0.125 in	6L-2084
	3 in	0.094 in	4J-7066
	3 ⅛ in	0.094 in	5J-3719
	3 ¼ in	0.094 in	8J-1705
	3 ⅜ in	0.188 in	039-8820
	3 ½ in	0.156 in	9T-1848
	3 ¾ in	0.094 in	5J-3419
	4 in	0.063 in	4B-4910
	4 ⅛ in	0.063 in	1L-1098
	4 ¼ in	0.156 in	6L-4173
	4 ½ in	0.156 in	9J-5002
	4 ¾ in	0.094 in	8J-6728
	4 7⁄8 in	0.125 in	5M-5526
	5 in	0.063 in	3L-4521
	5 ¼ in	0.094 in	8J-5839
	5 ⅜ in	0.188 in	8M-1955
	5 ½ in	0.188 in	6N-1320

A Outside Diameter	B Length	C Wire Diameter	Part Number
1 in	5 ⅝ in	0.156 in	4M-0804
	6 ⅛ in	0.156 in	2S-2760
	6 ¼ in	0.094 in	4F-6446
	6 ½ in	0.125 in	6D-0314
	6 7⁄8 in	0.125 in	5M-7884

Springs/Extension

A Outside Diameter	B Length	C Wire Diameter	Part Number
$\frac{5}{16}$ in	1 in	0.094 in	039-9138
	1 $\frac{1}{4}$ in	0.035 in	7F-7613
	1 $\frac{7}{16}$ in	0.031 in	1A-3540
	1 $\frac{11}{16}$ in	0.031 in	3C-0481
	2 $\frac{13}{32}$ in	0.031 in	038-8415
$\frac{3}{8}$ in	1 $\frac{1}{2}$ in	0.063 in	1A-1376
	1 $\frac{5}{8}$ in	0.063 in	7L-4563
	4 $\frac{9}{32}$ in	0.047 in	5H-4291
$\frac{1}{2}$ in	1 $\frac{1}{4}$ in	0.063 in	8L-8491
	1 $\frac{1}{2}$ in	0.063 in	090-3006
	2 in	0.063 in	1A-0302
$\frac{9}{16}$ in	1 $\frac{5}{8}$ in	0.063 in	5M-9708
	4 $\frac{1}{4}$ in	0.063 in	2R-0416
$\frac{5}{8}$ in	1 $\frac{3}{8}$ in	0.063 in	9F-0965
	2 $\frac{1}{8}$ in	0.063 in	001-2809
	2 $\frac{7}{8}$ in	0.031 in	001-2810
	4 in	0.063 in	001-2811
$1\frac{1}{16}$ in	4 in	0.094 in	1D-1313
	6 in	0.094 in	7D-5289
$\frac{3}{4}$ in	2 $\frac{5}{32}$ in	0.063 in	1A-8189
$\frac{7}{8}$ in	3 $\frac{3}{4}$ in	0.094 in	1F-4449
$\frac{7}{8}$ in	2 in	0.094 in	2D-9871
	2 $\frac{1}{4}$ in	0.125 in	8L-5917
	3 $\frac{1}{8}$ in	0.125 in	5G-1684
	3 $\frac{1}{4}$ in	0.094 in	8Y-4581
	3 $\frac{13}{16}$ in	0.094 in	9S-1312
	4 in	0.125 in	7G-1251
1 in	4 in	0.094 in	009-2445
	5 $\frac{1}{8}$ in	0.094 in	035-7877
	5 $\frac{3}{8}$ in	0.156 in	038-2805
1 $\frac{3}{16}$ in	5 $\frac{5}{32}$ in	0.156 in	9P-9185
	5 $\frac{3}{8}$ in	0.125 in	091-7882
	6 $\frac{1}{2}$ in	0.156 in	091-7881



Hardware Bin Kits

Thirteen different Hardware Bin Kits are available for customers who want to stock hardware bins for their service departments and/or service vehicles with various quantities of popular sizes of Cat bolts, nuts and washers. Kits available:

Part Number	Thread	Coating	Contains	Pieces	Bolt Head
3E-6640	Inch - Course	Phos. & Oil	59 Part Numbers	1735	Hex
3E-9420	Inch - Course	Phos. & Oil	38 Part Numbers	1975	Hex
3E-9421	Inch - Fine	Phos. & Oil	38 Part Numbers	1650	Hex
3E-9422	Metric - Coarse	Phos. & Oil	38 Part Numbers	1580	Hex
222-9998	Inch - Coarse	Zinc Dich.	59 Part Numbers	2175	Hex
222-9999	Inch - Coarse	Zinc Dich.	38 Part Numbers	1520	Hex
223-0000	Metric - Coarse	Phos. & Oil	56 Part Numbers	1965	Hex
223-0001	Metric - Coarse	Zinc Dich.	56 Part Numbers	1985	Hex
223-0002	Metric - Coarse	Zinc Dich.	38 Part Numbers	1510	Hex
223-0003	Inch - Coarse	Phos. & Oil	38 Part Numbers	1420	Socket
223-0004	Metric - Coarse	Phos. & Oil	38 Part Numbers	1420	Socket
222-9996	Inch - Coarse	Phos. & Oil	38 Part Numbers	1420	12-Point
222-9997	Inch - Fine	Phos. & Oil	40 Part Numbers	1570	12-Point

Hardware Shop/Field Kits

Five different Hardware Shop/Field Kits are available for small repair shops or field service vehicles. Kits contain assortments of popular sizes of Cat bolts with matching washers and nuts, in phosphate and oil coatings. The hardware is packaged in a rugged metal box with hinged metal cover and latch. Inch Hardware Kits come in two sizes, small and large, depending on the quantity of hardware in the kit. Kits available:

Part Number	Thread	Coating	Size	Contains	Pieces
178-2207	Inch - Fine	Phos. & Oil	Large	24 Part Numbers	476
178-2208	Inch - Fine	Phos. & Oil	Small	29 Part Numbers	894
178-2209	Inch - Coarse	Phos. & Oil	Small	27 Part Numbers	502
178-2210	Inch - Coarse	Phos. & Oil	Large	34 Part Numbers	936
178-2211	Metric - Coarse	Phos. & Oil	Small	32 Part Numbers	630

Convenient Hardware Packages

- Hardware packaged in resealable plastic clamshell packages
- Product includes inch and metric bolts, nuts, washers, hose clamps, cable ties, electrical fuses, and cotter pins
- Smaller easy-to-use packages offer convenience for the service technician



Retail Package Part No.	Description	Consists of:	
		Retail Pkg. Qty.	Bulk Part No.
247-0188	¼-20 × ½ in Hex Head Bolt	50	0S-1614
247-0189	¼-20 × ¾ in Hex Head Bolt	50	0S-1615
247-0190	¼-20 × 1 in Hex Head Bolt	50	0S-1616
247-0191	¼-20 × 1 ¼ in Hex Head Bolt	50	7B-2742
247-0192	¼-20 × 1 ½ in Hex Head Bolt	25	9F-7022
247-0193	¼-20 × 1 ¾ in Hex Head Bolt	25	1B-2713
247-0194	¼-20 × 2 in Hex Head Bolt	25	8B-2377
247-0195	¼-20 × 2 ¼ in Hex Head Bolt	25	1D-4533
247-0196	¼-20 × 2 ½ in Hex Head Bolt	25	1B-2714
247-0197	¼-20 × 2 ¾ in Hex Head Bolt	25	2A-4781
247-0198	¼-20 × 3 in Hex Head Bolt	25	4B-9365
247-0199	¼ in Hard Washer	25	5P-0537
247-0200	¼ in Lock Washer	100	3B-4504
247-0201	¼-20 Full Nut	50	9S-8750
247-0202	⅜-18 × ½ in Hex Head Bolt	50	1C-0569
247-0203	⅜-18 × ¾ in Hex Head Bolt	50	0S-1617
247-0204	⅜-18 × 1 in Hex Head Bolt	25	0S-1618
247-0205	⅜-18 × 1 ¼ in Hex Head Bolt	25	1B-7182
247-0206	⅜-18 × 1 ½ in Hex Head Bolt	25	1A-9579
247-0207	⅜-18 × 1 ¾ in Hex Head Bolt	25	1B-9575
247-0208	⅜-18 × 2 in Hex Head Bolt	25	2B-2694
247-0209	⅜-18 × 2 ¼ in Hex Head Bolt	25	1D-4538
247-0210	⅜-18 × 2 ½ in Hex Head Bolt	25	1D-4539
247-0211	⅜-18 × 2 ¾ in Hex Head Bolt	25	1D-4540
247-0212	⅜-18 × 3 in Hex Head Bolt	10	1D-4541
247-0213	⅜ in Hard Washer	25	9M-1974
247-0214	⅜ in Lock Washer	100	3B-4505
247-0215	⅜-18 Full Nut	50	5S-0003
247-0216	⅝-16 × ½ in Hex Head Bolt	50	4F-4879
247-0217	⅝-16 × ¾ in Hex Head Bolt	25	0S-0509
247-0218	⅝-16 × 1 in Hex Head Bolt	25	0S-1594
247-0219	⅝-16 × 1 ¼ in Hex Head Bolt	25	0S-1588
247-0220	⅝-16 × 1 ½ in Hex Head Bolt	25	0S-1591
247-0221	⅝-16 × 1 ¾ in Hex Head Bolt	25	0S-1571
247-0222	⅝-16 × 2 in Hex Head Bolt	25	0S-1590
247-0223	⅝-16 × 2 ¼ in Hex Head Bolt	10	0L-2070
247-0224	⅝-16 × 2 ½ in Hex Head Bolt	10	0L-1143
247-0225	⅝-16 × 2 ¾ in Hex Head Bolt	10	0T-0573
247-0226	⅝-16 × 3 in Hex Head Bolt	10	0S-1619
247-0227	⅝ in Hard Washer	25	5M-2894
247-0228	⅝ in Lock Washer	100	3B-4506
247-0229	⅝-16 Full Nut	50	9S-8752
247-0230	½-13 × ½ in Hex Head Bolt	25	1K-6705

Retail Package Part No.	Description	Consists of:	
		Retail Pkg. Qty.	Bulk Part No.
247-0231	½-13 × ¾ in Hex Head Bolt	25	0S-1620
247-0232	½-13 × 1 in Hex Head Bolt	25	0S-1621
247-0233	½-13 × 1 ¼ in Hex Head Bolt	10	0S-1595
247-0234	½-13 × 1 ½ in Hex Head Bolt	10	0S-1585
247-0235	½-13 × 1 ¾ in Hex Head Bolt	10	0S-1587
247-0236	½-13 × 2 in Hex Head Bolt	10	1A-1460
247-0237	½-13 × 2 ¼ in Hex Head Bolt	5	2B-0947
247-0238	½-13 × 2 ½ in Hex Head Bolt	5	9S-1366
247-0239	½-13 × 2 ¾ in Hex Head Bolt	5	1A-5822
247-0240	½-13 × 3 in Hex Head Bolt	5	0L-1329
247-0241	½ in Hard Washer	25	5P-8245
247-0242	½ in Lock Washer	50	3B-4508
247-0243	½-13 Full Nut	25	1F-7958
247-0244	⅞-11 × ¾ in Hex Head Bolt	10	1H-9456
247-0245	⅞-11 × 1 in Hex Head Bolt	10	0S-1624
247-0246	⅞-11 × 1 ¼ in Hex Head Bolt	10	0S-1592
247-0247	⅞-11 × 1 ½ in Hex Head Bolt	5	0S-1566
247-0248	⅞-11 × 1 ¾ in Hex Head Bolt	5	0S-1589
247-0249	⅞-11 × 2 in Hex Head Bolt	5	1A-1135
247-0250	⅞-11 × 2 ¼ in Hex Head Bolt	5	8S-9092
247-0251	⅞-11 × 2 ½ in Hex Head Bolt	5	0S-1625
247-0252	⅞-11 × 2 ¾ in Hex Head Bolt	5	1A-8537
247-0253	⅞-11 × 3 in Hex Head Bolt	5	1B-4367
247-0254	⅞ in Hard Washer	10	5P-8247
247-0255	⅞ in Lock Washer	25	3B-4510
247-0256	⅞-11 Full Nut	10	4K-0367
247-0583	M6 × 1, 12 mm	50	8T-0639
247-0584	M6 × 1, 16 mm	50	6V-8837
247-0585	M6 × 1, 20 mm	50	6V-8214
247-0586	M6 × 1, 25 mm	50	6V-8490
247-0587	M6 × 1, 30 mm	25	8T-0640
247-0588	M6 × 1, 35 mm	50	6V-2315
247-0589	M6 × 1, 40 mm	25	2W-9499
247-0590	M6 × 1, 45 mm	25	6V-7728
247-0591	M6 × 1, 50 mm	25	8T-0275
247-0592	M6 Washer	50	9X-8267
247-0593	M6 × 1, Hex Nut	50	6V-8225
247-0594	M8 × 1.25, 16 mm	50	6V-5215
247-0595	M8 × 1.25, 20 mm	50	6V-5217
247-0596	M8 × 1.25, 25 mm	25	6V-3940
247-0597	M8 × 1.25, 30 mm	25	6V-2317
247-0598	M8 × 1.25, 35 mm	25	6V-5218
247-0599	M8 × 1.25, 40 mm	25	6V-5219

Convenient Hardware Packages

Convenient Hardware Packages

Hardware

Retail Package Part No.	Description	Consists of:	
		Retail Pkg. Qty.	Bulk Part No.
247-0600	M8 × 1.25, 45 mm	25	8T-0276
247-0601	M8 × 1.25, 50 mm	25	6V-3918
247-0602	M8 × 1.25, 60 mm	10	8T-0100
247-0603	M8 × 1.25, 70 mm	10	5P-8347
247-0604	M8 Washer	25	9M-1974
247-0605	M8 × 1.25, Hex Nut	50	5P-7970
247-0606	M10 × 1.5, 20 mm	25	6V-6317
247-0607	M10 × 1.5, 25 mm	25	6V-4248
247-0608	M10 × 1.5, 30 mm	25	6V-1820
247-0609	M10 × 1.5, 35 mm	25	6V-3822
247-0610	M10 × 1.5, 40 mm	10	6V-5842
247-0611	M10 × 1.5, 45 mm	10	6V-5843
247-0612	M10 × 1.5, 50 mm	10	6V-4249
247-0613	M10 × 1.5, 60 mm	10	6V-5230
247-0614	M10 × 1.5, 65 mm	10	8T-5035
247-0615	M10 × 1.5, 70 mm	10	6V-7981
247-0616	M10 Washer	25	6V-5839
247-0617	M10 × 1.50, Hex Nut	25	2Y-5829
247-0618	M12 × 1.75, 20 mm	10	8T-0293
247-0619	M12 × 1.75, 25 mm	25	6A-5591
247-0620	M12 × 1.75, 30 mm	10	6V-3668
247-0621	M12 × 1.75, 35 mm	10	6V-8675
247-0622	M12 × 1.75, 40 mm	10	6V-8197
247-0623	M12 × 1.75, 45 mm	10	6V-5684
247-0624	M12 × 1.75, 50 mm	10	6V-7673
247-0625	M12 × 1.75, 60 mm	5	6V-3823
247-0626	M12 Washer	25	5P-8245
247-0627	M12 × 1.75, Hex Nut	25	6V-8149
247-0698	Hose Clamp 54 mm — 105 mm	2	5P-0598
247-0699	Hose Clamp 60 mm — 82 mm	2	5P-4868
247-0700	Hose Clamp 45 mm — 67 mm	2	5P-0597
247-0701	Hose Clamp 16 mm — 27 mm	5	5D-1026
247-0702	Hose Clamp 6 mm — 16 mm	6	1P-4278
247-0703	Hose Clamp 108 mm — 130 mm	2	5P-1717
247-0717	Cotter Pin ⅛ in × 1 in Lg	50	3B-4617
247-0718	Cotter Pin ⅛ in × ¾ in Lg	50	3B-4615
247-0719	Cotter Pin ⅜ in × ½ in Lg	50	3B-4607
247-0720	Cotter Pin ⅛ in × 2 in Lg	50	3B-4621
247-0721	Cotter Pin ⅛ in × 1 ¼ in Lg	50	3B-4618
247-0749	Fuse (10 Amp)	5	3K-8782
247-0750	Fuse (15 Amp)	5	8M-8948
247-0751	Fuse (20 Amp)	5	8M-0456
247-0752	Mini Fuse (10 Amp)	5	113-8490
247-0753	Mini Fuse (15 Amp)	5	113-8491
247-0754	Mini Fuse (20 Amp)	5	113-8492
247-0755	Mini Fuse (25 Amp)	5	113-8493
247-0762	Cable Strap 170.2 mm (6.7 in) long 4.9 mm (0.194 in) wide	20	3S-2093
247-0763	Cable Strap 355.6 mm (14 in) long 4.9 mm (0.194 in) wide	10	6K-0806
247-0764	Cable Strap 355.6 mm (14 in) long 7.9 mm (0.310 in) wide	10	7K-1181

Check-a-Thread

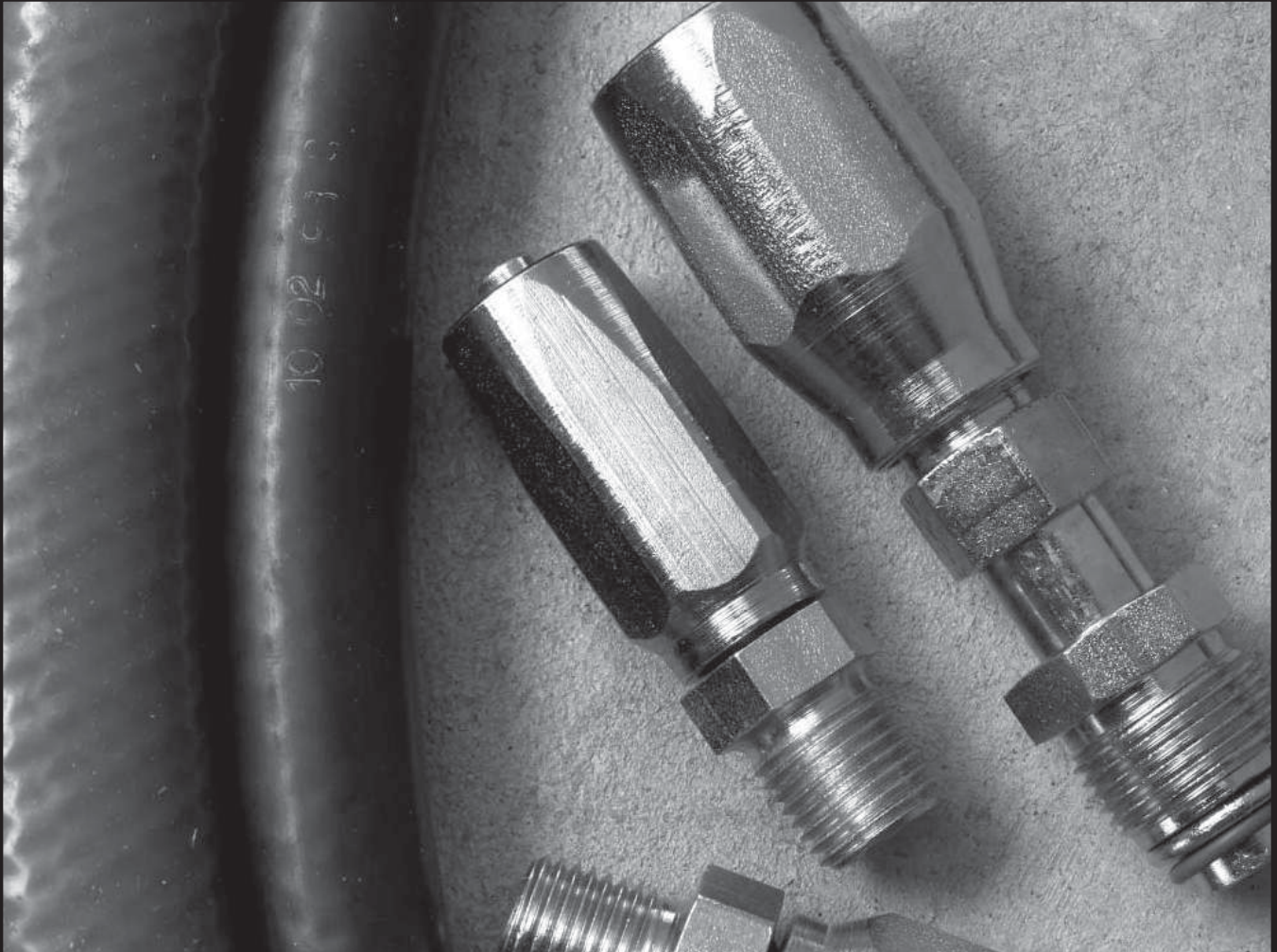
- Quickly identifies hardware thread diameter and pitch
- Four holes on mounting base for easy attachment to retail parts counter, service shop tool crib, or field service truck

Dimensions (L × H × W)	609 mm (24 in) × 101 mm (4 in) × 76 mm (3 in)
Metric	
Media literature number	250-6866
Range	16 mm-2.0 to 4 mm-0.7
No. of bolt sizes	15
Inch	
Media literature number	250-6865
Range	¾-16 to #6-32
No. of bolt sizes	21
Sheet metal/wood screw sizes	5



ONE SAFE SOURCE

2008-2009



HOSE AND COUPLINGS

One-Wire Braid Hose — Fabric Covered (556)



- Exceeds the requirements of SAE 100R5. Note: Sold by the inch.

Part Number	Hose I.D.	Hose Dash Size	Hose O.D.	Min. Burst Press.	Max. Work. Press.	Min. Bend Radius ¹
9X-2362	4.8 mm (0.188 in)	-4	13.2 mm (0.52 in)	82 738 kPa (12,000 psi)	20 685 kPa (3,000 psi)	76 mm (3.00 in)
9X-2363	6.4 mm (0.250 in)	-5	14.7 mm (0.58 in)	82 738 kPa (12,000 psi)	20 685 kPa (3,000 psi)	86 mm (3.39 in)
9X-2364	7.9 mm (0.313 in)	-6	17.3 mm (0.68 in)	62 053 kPa (9,000 psi)	15 514 kPa (2,250 psi)	102 mm (4.00 in)
9X-2365	10.3 mm (0.406 in)	-8	19.6 mm (0.77 in)	55 159 kPa (8,000 psi)	13 790 kPa (2,000 psi)	117 mm (4.61 in)
9X-2366	12.7 mm (0.500 in)	-10	23.4 mm (0.92 in)	48 264 kPa (7,000 psi)	12 066 kPa (1,750 psi)	140 mm (5.50 in)
9X-2367	15.9 mm (0.625 in)	-12	27.4 mm (1.08 in)	41 369 kPa (6,000 psi)	10 343 kPa (1,500 psi)	165 mm (6.50 in)
9X-2368	22.2 mm (0.875 in)	-16	31.2 mm (1.23 in)	22 064 kPa (3,200 psi)	5516 kPa (800 psi)	187 mm (7.36 in)
9X-2369	28.6 mm (1.125 in)	-20	38.1 mm (1.50 in)	17 237 kPa (2,500 psi)	4310 kPa (625 psi)	229 mm (9.00 in)
9X-2370	34.9 mm (1.375 in)	-24	44.5 mm (1.75 in)	13 790 kPa (2,000 psi)	3448 kPa (5,000 psi)	267 mm (10.50 in)

Construction: Synthetic rubber tube, textile inner braid, high tensile steel wire braid reinforcement, textile braid cover.

Application: Medium pressure service with petroleum base hydraulic fluids, water-glycol and water-oil fire resistant hydraulic fluids, water, crude and fuel oils, not oil, diesel fuels, anti-freeze solutions, air. D.O.T. FMVSS 106 All Air Brake Approved.

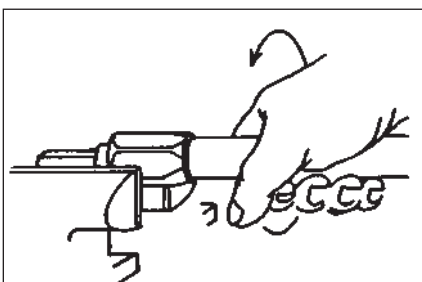
Temperature Range: -40° C to +70° C (-40° F to +158° F) for air and anti-freeze solutions. -40° C to +85° C (-40° F to +185° F) for water glycol and water-oil fire resistant hydraulic fluids, water, crude and fuel oils, hot oil, and diesel fuels. -29° C to +120° C (-20° F to +250° F) for all other applications. Usage at temperatures exceeding +120° C (+200° F) is based on reduced working pressure.

Couplings: Screw-type reusable, non-skive type, see Reusable Couplings (556, 1130) section. For related assembly equipment and tooling, see Tooling section.

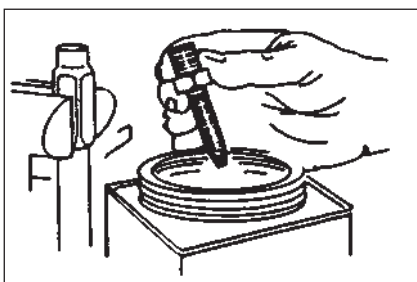
Note: Hose cover does not need to be removed before attaching couplings.

¹ Centerline of Hose

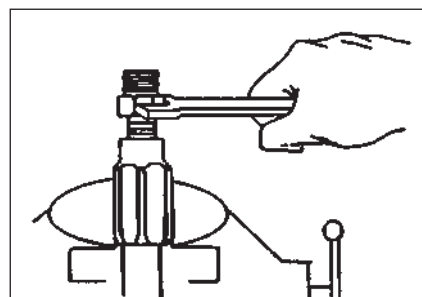
Assembly Instructions



Place socket in vise. Thread hose counterclockwise into socket until hose bottoms. Back off 1/2 turn.



Oil nipple threads and inside of hose with heavy oil. Caution: Do not oil hose cover.



Thread nipple clockwise into socket until nipple hex shoulders against socket.

Engine and Air Brake Hose (1130)

- Exceeds the requirements of SAE J1402. Note: Sold by the inch.



Part Number	Hose I.D.	Hose Dash Size	Hose O.D.	Min. Burst Press.	Max. Work. Press.	Min. Bend Radius ¹
9X-2371	4.8 mm (0.188 in)	-4	13.2 mm (0.52 in)	41 369 kPa (6,000 psi)	10 343 kPa (1,500 psi)	19 mm (0.75 in)
9X-2372	6.4 mm (0.250 in)	-5	14.7 mm (0.58 in)	41 369 kPa (6,000 psi)	10 343 kPa (1,500 psi)	25 mm (1.00 in)
9X-2373	7.9 mm (0.313 in)	-6	17.3 mm (0.68 in)	41 369 kPa (6,000 psi)	10 343 kPa (1,500 psi)	32 mm (1.25 in)
9X-2374	10.3 mm (0.406 in)	-8	19.6 mm (0.77 in)	34 474 kPa (5,000 psi)	8619 kPa (1,250 psi)	44 mm (1.75 in)
9X-2375	12.7 mm (0.500 in)	-10	23.4 mm (0.92 in)	27 580 kPa (4,000 psi)	6895 kPa (1,000 psi)	57 mm (2.25 in)
9X-2376	15.9 mm (0.625 in)	-12	27.4 mm (1.08 in)	20 685 kPa (3,000 psi)	5172 kPa (750 psi)	70 mm (2.75 in)
9X-2377	22.2 mm (0.875 in)	-16	31.2 mm (1.23 in)	11 032 kPa (1,600 psi)	2758 kPa (400 psi)	89 mm (3.50 in)
9X-2378	28.6 mm (1.125 in)	-20	38.1 mm (1.50 in)	8274 kPa (1,200 psi)	2069 kPa (300 psi)	114 mm (4.50 in)
9X-2379	34.9 mm (1.375 in)	-24	44.5 mm (1.75 in)	6895 kPa (1,000 psi)	1724 kPa (250 psi)	191 mm (7.50 in)

Construction: Synthetic rubber tube, textile inner braid, high tensile steel wire braid reinforcement, textile braid cover.

Application: Air, engine oil, water, lubricating oils, diesel fuel, petroleum base hydraulic oils D.O.T. FMVSS 106 All Air Brake approved. U.S. Coast Guard 46CFR56.60-25C approved.

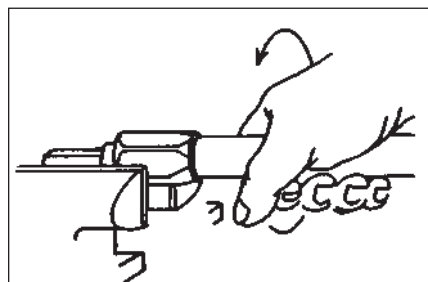
Temperature Range: -40° C to +70° C (-40° F to +158° F) for air. -40° C to +85° C (-40° F to +185° F) for water based fluids. -40° C to +135° C (-40° F to +275° F) for all other applications.

Couplings: Screw-type reusable, non-skive type, see Reusable Couplings (556, 1130) section. For related assembly equipment and tooling, see Tooling section.

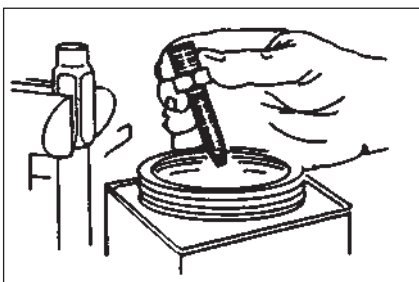
Note: Hose cover does not need to be removed before attaching couplings.

¹ Centerline of Hose

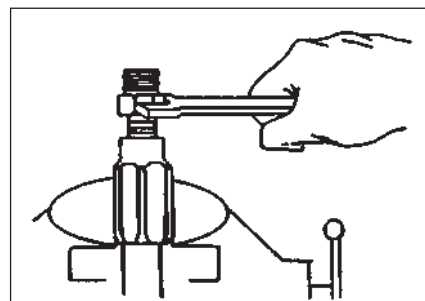
Assembly Instructions



Place socket in vise. Thread hose counterclockwise into socket until hose bottoms. Back off 1/2 turn.

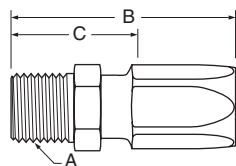


Oil nipple threads and inside of hose with heavy oil. Caution: Do not oil hose cover.



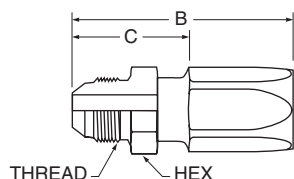
Thread nipple clockwise into socket until nipple hex shoulders against socket.

NPTF Male



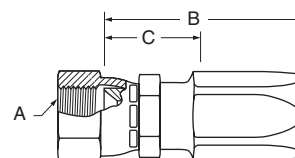
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor
1L-3664	4.8 mm (0.188 in)	-4	1/8 - 27	-2	43 mm (1.69 in)	24 mm (0.94 in)
1L-2287	4.8 mm (0.188 in)	-4	1/4 - 18	-4	47 mm (1.85 in)	28 mm (1.10 in)
9X-3807	6.4 mm (0.250 in)	-5	1/8 - 27	-2	45 mm (1.77 in)	25 mm (0.98 in)
9X-3808	6.4 mm (0.250 in)	-5	1/4 - 18	-4	50 mm (1.97 in)	30 mm (1.18 in)
9X-3809	7.9 mm (0.313 in)	-6	1/4 - 18	-4	54 mm (2.13 in)	31 mm (1.22 in)
9X-3810	7.9 mm (0.313 in)	-6	3/8 - 18	-6	54 mm (2.13 in)	31 mm (1.22 in)
1L-1699	10.3 mm (0.406 in)	-8	3/8 - 18	-6	63 mm (2.48 in)	34 mm (1.34 in)
9X-3812	10.3 mm (0.406 in)	-8	1/2 - 14	-8	69 mm (2.72 in)	40 mm (1.57 in)
9X-3813	12.7 mm (0.500 in)	-10	1/2 - 14	-8	73 mm (2.87 in)	40 mm (1.57 in)
9X-3814	12.7 mm (0.500 in)	-10	3/4 - 14	-12	75 mm (2.95 in)	42 mm (1.65 in)
9X-3815	15.9 mm (0.625 in)	-12	3/4 - 14	-12	82 mm (3.23 in)	42 mm (1.65 in)
9X-3816	22.2 mm (0.875 in)	-16	3/4 - 14	-12	71 mm (2.80 in)	39 mm (1.54 in)
1L-1480	22.2 mm (0.875 in)	-16	1 - 11 1/2	-16	76 mm (2.99 in)	44 mm (1.73 in)
3L-3870	28.6 mm (1.125 in)	-20	1 1/4 - 11 1/2	-20	82 mm (3.23 in)	48 mm (1.89 in)
1L-0767	34.9 mm (1.375 in)	-24	1 1/2 - 11 1/2	-24	88 mm (3.46 in)	52 mm (2.05 in)

JIC 37° Male



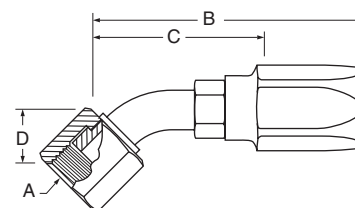
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor
068-0601	7.9 mm (0.313 in)	-6	9/16 - 18	-6	54 mm (2.13 in)	31 mm (1.22 in)
068-0554	10.3 mm (0.406 in)	-8	3/4 - 16	-8	66 mm (2.60 in)	36 mm (1.42 in)
9X-3947	22.2 mm (0.875 in)	-16	1 5/16 - 12	-16	75 mm (2.95 in)	45 mm (1.77 in)

JIC 37° Female Swivel



Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor
001-6285	4.8 mm (0.188 in)	-4	$\frac{7}{16}$ - 20	-4	41 mm (1.61 in)	25 mm (0.98 in)
9X-3821	6.4 mm (0.250 in)	-5	$\frac{7}{16}$ - 20	-4	44 mm (1.73 in)	24 mm (0.94 in)
053-2295	6.4 mm (0.250 in)	-5	$\frac{1}{2}$ - 20	-5	54 mm (2.13 in)	35 mm (1.36 in)
9X-3823	6.4 mm (0.250 in)	-5	$\frac{9}{16}$ - 18	-6	47 mm (1.85 in)	28 mm (1.10 in)
001-6286	7.9 mm (0.313 in)	-6	$\frac{9}{16}$ - 18	-6	50 mm (1.97 in)	27 mm (1.06 in)
001-6287	10.3 mm (0.406 in)	-8	$\frac{3}{4}$ - 16	-8	62 mm (2.44 in)	30 mm (1.18 in)
9X-3826	12.7 mm (0.500 in)	-10	$\frac{3}{4}$ - 16	-8	65 mm (2.56 in)	32 mm (1.26 in)
061-6746	12.7 mm (0.500 in)	-10	$\frac{7}{8}$ - 14	-10	66 mm (2.60 in)	33 mm (1.30 in)
9X-3957	12.7 mm (0.500 in)	-10	$1\frac{1}{16}$ - 12	-12	65 mm (2.56 in)	34 mm (1.34 in)
5P-7759	15.9 mm (0.625 in)	-12	$\frac{7}{8}$ - 14	-10	73 mm (2.87 in)	38 mm (1.50 in)
001-6289	15.9 mm (0.625 in)	-12	$1\frac{1}{16}$ - 12	-12	66 mm (2.60 in)	34 mm (1.34 in)
9X-3830	22.2 mm (0.875 in)	-16	$1\frac{1}{16}$ - 12	-16	66 mm (2.60 in)	34 mm (1.34 in)
3L-9762	28.6 mm (1.125 in)	-20	$1\frac{1}{2}$ - 12	-20	74 mm (2.91 in)	40 mm (1.57 in)
9X-3832	34.9 mm (1.375 in)	-24	$1\frac{1}{2}$ - 12	-24	81 mm (3.19 in)	44 mm (1.73 in)

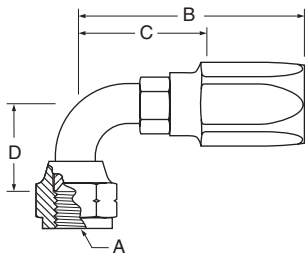
JIC 37° Female Swivel — 45° Elbow



Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop
9X-3854	4.8 mm (0.188 in)	-4	$\frac{7}{16}$ - 20	-4	47 mm (1.85 in)	28 mm (1.10 in)	8 mm (0.31 in)
9X-3855	6.4 mm (0.250 in)	-5	$\frac{1}{2}$ - 20	-5	53 mm (2.09 in)	33 mm (1.30 in)	9 mm (0.35 in)
068-0599	7.9 mm (0.313 in)	-6	$\frac{9}{16}$ - 18	-6	57 mm (2.24 in)	35 mm (1.38 in)	10 mm (0.39 in)
9X-3857	7.9 mm (0.313 in)	-6	$\frac{3}{4}$ - 16	-8	68 mm (2.68 in)	44 mm (1.73 in)	14 mm (0.55 in)
068-2859	10.3 mm (0.406 in)	-8	$\frac{3}{4}$ - 16	-8	76 mm (2.99 in)	48 mm (1.89 in)	14 mm (0.55 in)
9X-3859	12.7 mm (0.500 in)	-10	$\frac{7}{8}$ - 14	-10	85 mm (3.35 in)	54 mm (2.13 in)	16 mm (0.63 in)
9X-3860	15.9 mm (0.625 in)	-12	$1\frac{1}{16}$ - 12	-12	96 mm (3.78 in)	62 mm (2.44 in)	20 mm (0.79 in)
9X-3861	22.2 mm (0.875 in)	-16	$1\frac{1}{16}$ - 12	-16	94 mm (3.70 in)	64 mm (2.52 in)	23 mm (0.91 in)

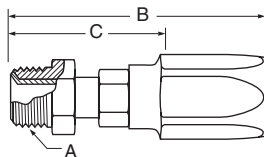
Hose and Couplings — Couplings

JIC 37° Female Swivel — 90° Elbow



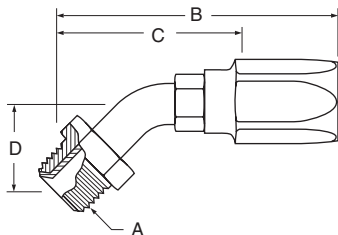
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop
9X-3870	4.8 mm (0.188 in)	-4	$\frac{7}{16}$ - 20	-4	44 mm (1.73 in)	25 mm (0.98 in)	46 mm (1.81 in)
068-0589	4.8 mm (0.188 in)	-4	$\frac{7}{16}$ - 20	-4	44 mm (1.73 in)	25 mm (0.98 in)	17 mm (0.67 in)
9X-3863	6.4 mm (0.250 in)	-5	$\frac{1}{2}$ - 20	-5	50 mm (1.97 in)	30 mm (1.18 in)	18 mm (0.71 in)
9X-3871	6.4 mm (0.250 in)	-5	$\frac{1}{2}$ - 20	-5	50 mm (1.97 in)	30 mm (1.18 in)	45 mm (1.77 in)
032-4872	7.9 mm (0.313 in)	-6	$\frac{9}{16}$ - 18	-6	54 mm (2.13 in)	31 mm (1.22 in)	55 mm (2.17 in)
068-0009	7.9 mm (0.313 in)	-6	$\frac{9}{16}$ - 18	-6	56 mm (2.20 in)	35 mm (1.38 in)	22 mm (0.87 in)
068-0556	10.3 mm (0.406 in)	-8	$\frac{3}{4}$ - 16	-8	72 mm (2.83 in)	45 mm (1.77 in)	28 mm (1.10 in)
111-7666	10.3 mm (0.406 in)	-8	$\frac{3}{4}$ - 16	-8	74 mm (2.91 in)	47 mm (1.85 in)	62 mm (2.44 in)
9X-3874	12.7 mm (0.500 in)	-10	$\frac{7}{8}$ - 14	-10	83 mm (3.27 in)	52 mm (2.05 in)	65 mm (2.56 in)
053-2141	12.7 mm (0.500 in)	-10	$\frac{7}{8}$ - 14	-10	81 mm (3.19 in)	50 mm (1.97 in)	31 mm (1.22 in)
9X-3867	15.9 mm (0.625 in)	-12	1 $\frac{1}{16}$ - 12	-12	99 mm (3.90 in)	61 mm (2.40 in)	46 mm (1.81 in)
9X-3875	15.9 mm (0.625 in)	-12	1 $\frac{1}{16}$ - 12	-12	96 mm (3.78 in)	58 mm (2.28 in)	95 mm (3.74 in)
9X-3868	22.2 mm (0.875 in)	-16	1 $\frac{1}{16}$ - 12	-16	94 mm (3.70 in)	64 mm (2.52 in)	54 mm (2.13 in)
9X-3876	22.2 mm (0.875 in)	-16	1 $\frac{1}{16}$ - 12	-16	90 mm (3.54 in)	60 mm (2.36 in)	110 mm (4.33 in)
9X-3869	28.6 mm (1.125 in)	-20	1 $\frac{1}{8}$ - 12	-20	102 mm (4.02 in)	67 mm (2.64 in)	60 mm (2.36 in)

SAE 45° Inverted Flare Male Swivel



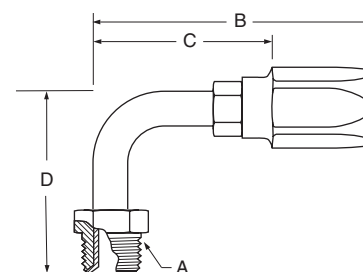
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor
9X-3852	4.8 mm (0.188 in)	-4	$\frac{7}{16}$ - 24	-4	62 mm (2.44 in)	43 mm (1.69 in)
9X-3853	7.9 mm (0.313 in)	-6	$\frac{5}{8}$ - 18	-6	69 mm (2.72 in)	46 mm (1.81 in)
9X-3956	10.3 mm (0.406 in)	-8	$\frac{3}{4}$ - 18	-8	80 mm (3.15 in)	50 mm (1.97 in)

SAE Inverted Flare Male Swivel — 45° Elbow



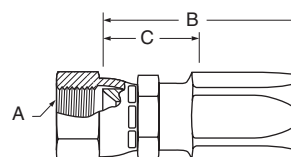
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop
9X-3877	7.9 mm (0.313 in)	-6	$\frac{5}{8}$ - 18	-6	76 mm (2.99 in)	53 mm (2.09 in)	24 mm (0.94 in)

SAE Inverted Flare Male Swivel — 90° Elbow



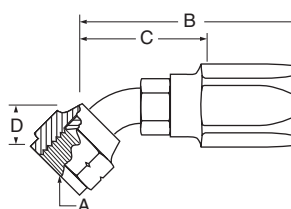
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop
9X-3878	7.9 mm (0.313 in)	-6	$\frac{5}{8}$ - 18	-6	67 mm (2.64 in)	44 mm (1.73 in)	43 mm (1.69 in)

SAE 45° Female Swivel



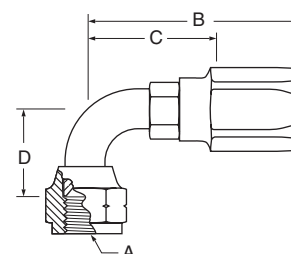
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor
061-8863	7.9 mm (0.313 in)	-6	$\frac{5}{8}$ - 18	-6	51 mm (2.01 in)	28 mm (1.10 in)
053-1788	15.9 mm (0.625 in)	-12	1 $\frac{1}{8}$ - 14	-12	74 mm (2.91 in)	37 mm (1.46 in)

SAE 45° Female Swivel — 45° Elbow



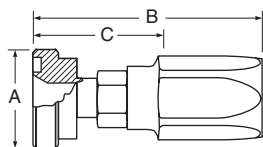
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop
9X-3879	7.9 mm (0.313 in)	-6	$\frac{5}{8}$ - 18	-6	57 mm (2.24 in)	35 mm (1.38 in)	10 mm (0.39 in)

SAE 45° Female Swivel — 90° Elbow



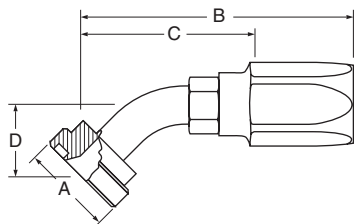
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop
9X-3880	7.9 mm (0.313 in)	-6	$\frac{5}{8}$ - 18	-6	56 mm (2.20 in)	35 mm (1.38 in)	22 mm (0.87 in)

SAE Code 61 Flange



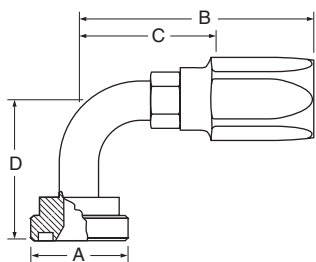
Part Number	Hose I.D.	Hose Dash Size	A Head Size	A Flange Dash Size	B Length	C Cut-Off Factor	O-Ring Seal
9X-3840	15.9 mm (0.625 in)	-12	38.1 mm (1.50 in)	-12	81 mm (3.19 in)	41 mm (1.61 in)	4J-5267
9X-3841	22.2 mm (0.875 in)	-16	44.5 mm (1.75 in)	-16	70 mm (2.76 in)	38 mm (1.50 in)	4J-0520
9X-3842	28.6 mm (1.125 in)	-20	50.8 mm (2.00 in)	-20	91 mm (3.58 in)	56 mm (2.20 in)	4J-0522
9X-3843	34.9 mm (1.375 in)	-24	60.3 mm (2.37 in)	-24	102 mm (4.02 in)	65 mm (2.56 in)	4J-0524

SAE Code 61 Flange — 45° Elbow



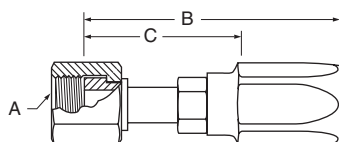
Part Number	Hose I.D.	Hose Dash Size	A Head Size	A Flange Dash Size	B Length	C Cut-Off Factor	D Drop	O-Ring Seal
9X-3844	15.9 mm (0.625 in)	-12	38.1 mm (1.50 in)	-12	102 mm (4.02 in)	64 mm (2.52 in)	25 mm (0.98 in)	4J-5267
9X-3845	22.2 mm (0.875 in)	-16	44.5 mm (1.75 in)	-16	95 mm (3.74 in)	65 mm (2.56 in)	27 mm (1.06 in)	4J-0520
9X-3846	28.6 mm (1.125 in)	-20	50.8 mm (2.00 in)	-20	104 mm (4.09 in)	72 mm (2.83 in)	29 mm (1.14 in)	4J-0522
9X-3847	34.9 mm (1.375 in)	-24	60.3 mm (2.37 in)	-24	111 mm (4.37 in)	76 mm (2.99 in)	29 mm (1.14 in)	4J-0524

SAE Code 61 Flange — 90° Elbow



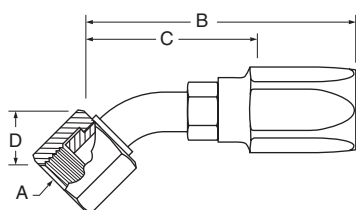
Part Number	Hose I.D.	Hose Dash Size	A Head Size	A Flange Dash Size	B Length	C Cut-Off Factor	D Drop	O-Ring Seal
9X-3848	15.9 mm (0.625 in)	-12	38.1 mm (1.50 in)	-12	95 mm (3.74 in)	58 mm (2.28 in)	54 mm (2.13 in)	4J-5267
9X-3849	22.2 mm (0.875 in)	-16	44.5 mm (1.75 in)	-16	90 mm (3.54 in)	58 mm (2.28 in)	60 mm (2.36 in)	4J-0520
9X-3850	28.6 mm (1.125 in)	-20	50.8 mm (2.00 in)	-20	102 mm (4.02 in)	67 mm (2.64 in)	64 mm (2.52 in)	4J-0522
9X-3851	34.9 mm (1.375 in)	-24	60.3 mm (2.37 in)	-24	112 mm (4.41 in)	75 mm (2.95 in)	70 mm (2.76 in)	4J-0524

ORFS Female Swivel



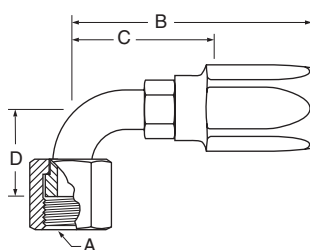
Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	O-Ring Seal
9X-3881	4.8 mm (0.188 in)	-4	$\frac{9}{16}$ - 18	-4	54 mm (2.13 in)	36 mm (1.42 in)	4J-5477
7X-1463	7.9 mm (0.313 in)	-6	$1\frac{1}{16}$ - 16	-6	64 mm (2.52 in)	42 mm (1.65 in)	6V-8397
9X-3882	10.3 mm (0.406 in)	-8	$1\frac{3}{16}$ - 16	-8	78 mm (3.07 in)	51 mm (2.01 in)	6V-8398
9X-3883	12.7 mm (0.500 in)	-10	1 - 14	-10	84 mm (3.31 in)	53 mm (2.09 in)	7J-9108
9X-3884	15.9 mm (0.625 in)	-12	$1\frac{3}{16}$ - 12	-12	95 mm (3.74 in)	57 mm (2.24 in)	6V-9746
9X-3885	22.2 mm (0.875 in)	-16	$1\frac{7}{16}$ - 12	-16	86 mm (3.39 in)	56 mm (2.20 in)	5K-9090

ORFS Female Swivel — 45° Elbow



Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop	O-Ring Seal
9X-3886	4.8 mm (0.188 in)	-4	$\frac{9}{16}$ - 18	-4	54 mm (2.13 in)	39 mm (1.54 in)	10 mm (0.39 in)	4J-5477
9X-3887	7.9 mm (0.313 in)	-6	$1\frac{1}{16}$ - 16	-6	64 mm (2.52 in)	43 mm (1.69 in)	11 mm (0.43 in)	6V-8397
9X-3888	10.3 mm (0.406 in)	-8	$1\frac{3}{16}$ - 16	-8	81 mm (3.19 in)	53 mm (2.09 in)	15 mm (0.59 in)	6V-8398
9X-3889	12.7 mm (0.500 in)	-10	1 - 14	-10	88 mm (3.46 in)	57 mm (2.24 in)	17 mm (0.67 in)	7J-9108
9X-3890	15.9 mm (0.625 in)	-12	$1\frac{3}{16}$ - 12	-12	98 mm (3.86 in)	59 mm (2.32 in)	21 mm (0.83 in)	6V-9746
9X-3891	22.2 mm (0.875 in)	-16	$1\frac{7}{16}$ - 12	-16	102 mm (4.02 in)	72 mm (2.83 in)	24 mm (0.94 in)	5K-9090

ORFS Female Swivel — 90° Elbow



Part Number	Hose I.D.	Hose Dash Size	A Thread Size	A Thread Dash Size	B Length	C Cut-Off Factor	D Drop	O-Ring Seal
9X-3892	4.8 mm (0.188 in)	-4	$\frac{9}{16}$ - 18	-4	50 mm (1.97 in)	39 mm (1.54 in)	20 mm (0.79 in)	4J-5477
9X-3898	4.8 mm (0.188 in)	-4	$\frac{9}{16}$ - 18	-4	50 mm (1.97 in)	44 mm (1.73 in)	46 mm (1.81 in)	4J-5477
9X-3893	7.9 mm (0.313 in)	-6	$1\frac{1}{16}$ - 16	-6	61 mm (2.40 in)	39 mm (1.54 in)	23 mm (0.91 in)	6V-8397
9X-3899	7.9 mm (0.313 in)	-6	$1\frac{1}{16}$ - 16	-6	63 mm (2.48 in)	42 mm (1.65 in)	54 mm (2.13 in)	6V-8397
9X-3894	10.3 mm (0.406 in)	-8	$1\frac{3}{16}$ - 16	-8	74 mm (2.91 in)	46 mm (1.81 in)	29 mm (1.14 in)	6V-8398
9X-3900	10.3 mm (0.406 in)	-8	$1\frac{3}{16}$ - 16	-8	75 mm (2.95 in)	48 mm (1.89 in)	64 mm (2.52 in)	6V-8398
9X-3895	12.7 mm (0.500 in)	-10	1 - 14	-10	80 mm (3.15 in)	49 mm (1.93 in)	32 mm (1.26 in)	7J-9108
9X-3901	12.7 mm (0.500 in)	-10	1 - 14	-10	83 mm (3.27 in)	52 mm (2.05 in)	70 mm (2.76 in)	7J-9108
9X-3896	15.9 mm (0.625 in)	-12	$1\frac{3}{16}$ - 12	-12	95 mm (3.74 in)	57 mm (2.24 in)	48 mm (1.89 in)	6V-9746
9X-3902	15.9 mm (0.625 in)	-12	$1\frac{3}{16}$ - 12	-12	96 mm (3.78 in)	58 mm (2.28 in)	96 mm (3.78 in)	6V-9746
9X-3897	22.2 mm (0.875 in)	-16	$1\frac{7}{16}$ - 12	-16	101 mm (3.98 in)	70 mm (2.76 in)	56 mm (2.20 in)	5K-9090
9X-3903	22.2 mm (0.875 in)	-16	$1\frac{7}{16}$ - 12	-16	90 mm (3.54 in)	60 mm (2.36 in)	114 mm (4.49 in)	5K-9090

Hose and Couplings — Specialty Hoses

Heater Hose — Standard (515)

CATERPILLAR® Heater Hose



- Meets the requirements of SAE J20R3. Note: Sold by the centimeter.

Part Number	Hose I.D.	Hose Dash Size	Hose O.D.	Min. Burst Press.	Max. Work. Press.
5P-0767	15.9 mm (0.625 in)	-10	23.9 mm (0.94 in)	1750 kPa (254 psi)	437 kPa (63 psi)
5P-0765	19.0 mm (0.750 in)	-12	26.9 mm (1.06 in)	1400 kPa (203 psi)	350 kPa (51 psi)
8I-1362	25.4 mm (1.000 in)	-16	33.8 mm (1.33 in)	1200 kPa (174 psi)	300 kPa (44 psi)

Heater Hose — High Temperature (1543)

CATERPILLAR® Heater Hose



- Meets the requirements of SAE 20R3 Silicone. Note: Sold by the centimeter.

Part Number	Hose I.D.	Hose Dash Size	Hose O.D.	Min. Burst Press.	Max. Work. Press.
6V-8843	15.9 mm (0.625 in)	-10	22.8 mm (0.90 in)	1750 kPa (254 psi)	441 kPa (64 psi)
8T-9543	19.1 mm (0.750 in)	-12	27.0 mm (1.06 in)	1400 kPa (203 psi)	350 kPa (51 psi)

Air Brake Hose (662)

CATERPILLAR® Air Brake Hose



- Meets the requirements of SAE J1402. Note: Sold by the centimeter.

Part Number	Hose I.D.	Hose Dash Size	Hose O.D.	Min. Burst Press.	Max. Work. Press.
5P-0720	6.4 mm (0.250 in)	-4	15.9 mm (0.63 in)	6300 kPa (914 psi)	1400 kPa (203 psi)
5P-0721	9.5 mm (0.375 in)	-6	19.1 mm (0.75 in)	6300 kPa (914 psi)	1400 kPa (203 psi)
5P-1300	11.1 mm (0.438 in)	-7	20.6 mm (0.81 in)	6300 kPa (914 psi)	1400 kPa (203 psi)
5P-0722	12.7 mm (0.500 in)	-8	20.6 mm (0.81 in)	6300 kPa (914 psi)	1400 kPa (203 psi)

APPLICATION: Air only. Approved for use on vehicles by meeting D.O.T. FMVSS 106.

Radiator Hose (642)

- Meets the requirements of SAE J20R1. Note: Sold by the centimeter.

CATERPILLAR® Radiator Hose



Part Number	Hose I.D.	Hose Dash Size	Hose O.D.	Min. Burst Press.	Max. Work. Press.
5P-1251	25.4 mm (1.000 in)	-16	39.6 mm (1.56 in)	3910 kPa (567 psi)	980 kPa (142 psi)
5P-1252	28.6 mm (1.125 in)	-18	42.8 mm (1.69 in)	3780 kPa (548 psi)	945 kPa (137 psi)
5P-1253	31.8 mm (1.250 in)	-20	46.0 mm (1.81 in)	3500 kPa (508 psi)	875 kPa (127 psi)
5P-1254	33.3 mm (1.313 in)	-21	47.5 mm (1.87 in)	3500 kPa (508 psi)	875 kPa (127 psi)
5P-1255	34.9 mm (1.375 in)	-22	49.1 mm (1.93 in)	3360 kPa (487 psi)	840 kPa (122 psi)
5P-0763	38.1 mm (1.500 in)	-24	52.3 mm (2.06 in)	3150 kPa (457 psi)	784 kPa (114 psi)
5P-1256	41.3 mm (1.625 in)	-26	55.5 mm (2.19 in)	2800 kPa (406 psi)	700 kPa (102 psi)
5P-1257	44.5 mm (1.750 in)	-28	58.7 mm (2.31 in)	2800 kPa (406 psi)	700 kPa (102 psi)
5P-1258	47.6 mm (1.875 in)	-30	61.8 mm (2.43 in)	2520 kPa (365 psi)	630 kPa (91 psi)
5P-1259	50.8 mm (2.000 in)	-32	65.0 mm (2.56 in)	2450 kPa (355 psi)	616 kPa (89 psi)
5P-1260	57.2 mm (2.250 in)	-36	71.4 mm (2.81 in)	2450 kPa (355 psi)	616 kPa (89 psi)
5P-1261	60.3 mm (2.375 in)	-38	74.5 mm (2.93 in)	2240 kPa (325 psi)	560 kPa (81 psi)
5P-1262	63.5 mm (2.500 in)	-40	77.7 mm (3.06 in)	2100 kPa (305 psi)	525 kPa (76 psi)
5P-1263	69.9 mm (2.750 in)	-44	84.1 mm (3.31 in)	1680 kPa (244 psi)	420 kPa (61 psi)
5P-1264	73 mm (2.875 in)	-46	87.2 mm (3.43 in)	1680 kPa (244 psi)	420 kPa (61 psi)
5P-1265	76.2 mm (3.000 in)	-48	90.4 mm (3.56 in)	1680 kPa (244 psi)	420 kPa (61 psi)
5P-1266	82.6 mm (3.250 in)	-52	96.8 mm (3.81 in)	1400 kPa (203 psi)	350 kPa (51 psi)
5P-0764	88.9 mm (3.500 in)	-56	103.1 mm (4.06 in)	1400 kPa (203 psi)	350 kPa (51 psi)
5P-1267	95.3 mm (3.750 in)	-60	109.5 mm (4.31 in)	1120 kPa (162 psi)	280 kPa (41 psi)
5P-1268	101.6 mm (4.000 in)	-64	115.8 mm (4.56 in)	1050 kPa (152 psi)	266 kPa (39 psi)
7X-7895	108 mm (4.250 in)	-68	122.2 mm (4.81 in)	840 kPa (122 psi)	210 kPa (30 psi)
5P-1269	114.3 mm (4.500 in)	-72	128.5 mm (5.06 in)	840 kPa (122 psi)	210 kPa (30 psi)
5P-1270	127 mm (5.000 in)	-80	141.2 mm (5.56 in)	700 kPa (102 psi)	175 kPa (25 psi)

Hydraulic Return Hose (661)

- Note: Sold by the centimeter.

CATERPILLAR® Hydraulic Return Hose



Part Number	Hose I.D.	Hose Dash Size	Hose O.D.	Min. Burst Press.	Max. Work. Press.
5P-2094	25.4 mm (1.000 in)	-16	41.1 mm (1.62 in)	5800 kPa (841 psi)	1450 kPa (210 psi)
8C-7304	28.6 mm (1.125 in)	-18	44.2 mm (1.74 in)	5800 kPa (841 psi)	1450 kPa (210 psi)
5P-6412	31.8 mm (1.250 in)	-20	47.7 mm (1.88 in)	5800 kPa (841 psi)	1450 kPa (210 psi)
5P-1291	38.1 mm (1.500 in)	-24	53.8 mm (2.12 in)	5800 kPa (841 psi)	1450 kPa (210 psi)
5P-1292	44.5 mm (1.750 in)	-28	60.4 mm (2.38 in)	5400 kPa (783 psi)	1350 kPa (196 psi)
5P-1293	50.8 mm (2.000 in)	-32	65.0 mm (2.56 in)	5400 kPa (783 psi)	1350 kPa (196 psi)
5P-1294	57.2 mm (2.250 in)	-36	72.9 mm (2.87 in)	4200 kPa (609 psi)	1050 kPa (152 psi)
5P-1295	63.5 mm (2.500 in)	-40	79.2 mm (3.12 in)	4200 kPa (609 psi)	1050 kPa (152 psi)
7X-7893	76.2 mm (3.000 in)	-48	91.9 mm (3.62 in)	4200 kPa (609 psi)	1050 kPa (152 psi)
7X-7894	82.6 mm (3.250 in)	-52	98.5 mm (3.88 in)	4200 kPa (609 psi)	1050 kPa (152 psi)
5P-1296	88.9 mm (3.500 in)	-56	104.6 mm (4.12 in)	4200 kPa (609 psi)	1050 kPa (152 psi)
8T-2917	101.6 mm (4.000 in)	-64	119.4 mm (4.70 in)	2800 kPa (406 psi)	700 kPa (102 psi)

APPLICATION: Low temperature, straight connections where band clamps are required.

ATAAC Engine — Hump Hoses & Clamps (1543)



ATAAC Hump Hose — Features & Benefits

- Custom made to fit your Cat Engine Application
- Specifically designed for high ATAAC temperatures 200° C (392° F) & high air pressures 300 kPa.
- 5 plies of silicone coating for resistance to high temperatures.
- Constant tension clamps provide superior clamping.

ATAAC Hump Hose — Straight

ATAAC Hump Hose- Straight Part #	Hose ID Internal Dimension	Recommended Constant Tension Clamp With Liner Part #	Clamp Effective Diameter
7E-8630	101.6 mm (4 in)	9X-2201	118-95 mm (4.6-3.7 in)
177-0581	76.2 mm (3 in)	144-0367	92-70 mm (3.6-2.8 in)
109-5352	63.2 mm (2.5 in)	8T-4984	79-57 mm (3.1-2.2 in)

ATAAC Hump Hose — Reducer

ATAAC Hump Hose- Reducer Part #	1st Hose Reducer ID Internal Dimension	2nd Hose Reducer ID Internal Dimension	Recommended Constant Tension Clamp with Liner Part #	Clamp Effective Diameter	
				1st ID	2nd ID
7E-8629	101.6 mm (4 in)	76.2 mm (3 in)	9X-2201	118-95 mm (4.6-3.7 in)	92-70 mm (3.6-2.8 in)
211-9060	88.9 mm (3.5 in)	76.2 mm (3 in)	8T-4985	105-83 mm (4.1-3.3 in)	92-70 mm (3.6-2.8 in)
159-2829	76.2 mm (3 in)	63.5 mm (2.5 in)	144-0367	92-70 mm (3.6-2.8 in)	79-57 mm (3.1-2.2 in)

For each ATAAC connection you will use 4 clamps and 1 Hump Hose.

ONE SAFE SOURCE

2008-2009



OPERATOR ENVIRONMENT

Cat® Work Lights

When you're working against the clock, Cat® Work Lights help turn night into day and increase productivity of both machines and operators in a wide range of applications. Premium Cat Work Lights are designed to meet the demanding vibration levels of both large and small machines, offering long life and low maintenance costs. Well-lit work areas also increase operator safety and performance. Lights are adaptable to Caterpillar and other machines in your fleet, and can be retrofitted to older machines as well...all at prices designed to fit any operating budget.

Count on highly reliable Cat Work Lights to light up your jobsite — and make time work for you.

High Intensity Gas Discharge (HID) Lights



High Intensity Gas Discharge Work Lights from Caterpillar increase productivity of both machines and operators in high-hour (6,000 to 10,000 hr.), around-the-clock or extended night operations. Cat HID Work Lights are built to handle tough jobs efficiently, producing the equivalent of several halogen lights with the same wattage for exterior floodlighting. HID lights generate less heat, resist vibration and shock better, use less power consumption, and last longer than halogen lights. Your operators will work more safely and efficiently in a work area widely illuminated by the "daylight" color that Cat HID Work Lights produce. Mounting and electrical connections are the same as halogens.

- Life expectancy six to 10 times that of halogen lamps
- Two times more light than a halogen lamp
- Bulb can be serviced
- Light color close to true daylight
- Safety of internal ballast

High Efficiency 5" × 5" HID Bright Lights*				
Part Number	Lens	Mounting	Volts	Connector
277-0467	Flood	Suspended	24	Integral DT
277-0468	Flood	Vertical	24	Integral DT

* These new lights have the same light output as their 70-watt counterparts, but have half the amperage draw which reduces alternator loading. A new reflector design and higher temperature arc increase light output.

5" × 5" HID Lights				
Part Number	Lens	Mounting	Volts	Connector
283-8145	Flood	Suspended	24	Pigtail DT
283-8144	Flood	Vertical	24	Pigtail DT
283-9273	Flood	Vertical	12	Pigtail DT
283-9272	Flood	Suspended	12	Pigtail DT
290-8120	Low Beam	Suspended	24	Pigtail DT
290-8117	Low Beam	Vertical	24	Pigtail DT
290-8119	High Beam	Suspended	24	Pigtail DT
290-8118	High Beam	Vertical	24	Pigtail DT

3" × 3" HID Lights				
Part Number	Lens	Mounting	Volts	Connector
286-3077	Long Range	Suspended	24	Integral DT
289-3820	Flood	Suspended	24	Integral DT
290-7525	Flood	Suspended	12	Integral DT
269-4800	Flood	Vertical	24	Integral DT
290-7526	Flood	Vertical	12	Integral DT
289-3828	Trapezoid	Suspended	24	Integral DT

Shock-Resistant Halogen Lights

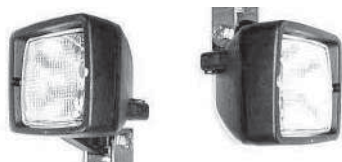
Versatile Cat Shock-Resistant Halogen Lights offer up to 10 times improvement in bulb life versus non shock-resistant lights, contributing to lower operating costs in applications with high vibration where current bulb life is short. These lights are environmentally sealed and meet Caterpillar design specifications for resistance to water spray, water dunk and vibration.



5" x 5" Shock-resistant Halogen Lights					
Part Number	Lens	Mounting	Volts	Connector	Mounting Bracket
227-5978	Flood	Suspended	24	Integral DT	Yes
171-2065	Flood	Suspended	24	Pigtail DT	No
164-7600	Flood	Vertical	24	Integral DT	Yes
147-0319	Flood	Suspended	24	Integral DT	No
162-3294	Flood	Vertical	24	Pigtail DT	No
153-2073	Flood	Vertical	24	Integral DT	No
171-2066	Low Beam	Suspended	24	Pigtail DT	No
164-7595	Low Beam	Vertical	24	Integral DT	Yes
164-7598	Low Beam	Suspended	24	Integral DT	Yes
161-3509	Low Beam	Vertical	24	Integral DT	No
161-0908	Low Beam	Suspended	24	Integral DT	No
168-1953	Low Beam	Vertical	24	Pigtail DT	No
227-5979	High Beam	Suspended	24	Integral DT	Yes
164-7599	High Beam	Vertical	24	Integral DT	Yes
180-1300	High Beam	Vertical	24	Integral DT	No
171-2067	High Beam	Vertical	24	Pigtail DT	No
168-1960	High Beam	Suspended	24	Pigtail DT	No
157-0305	High Beam	Suspended	24	Integral DT	No
257-3168	Red	Vertical	24	Integral DT	No
257-3171	Amber	Vertical	24	Integral DT	No

3" x 3" Shock-resistant Halogen Lights				
Part Number	Lens	Mounting	Volts	Connector
212-9347	Wide-range Flood	Vertical	12	Integral DT
214-2968	Wide-range Flood	Suspended	12	Integral DT
254-8155	Wide-range Flood	Suspended	24	Integral DT
272-6641	Wide-range Flood	Vertical	24	Integral DT
214-2969	Long-range Flood	Suspended	12	Integral DT
219-6486	Long-range Flood	Vertical	24	Integral DT
290-5760	Long-range Flood	Vertical	12	Integral DT

Value Priced Flood Lights (Non-Machine Applications)



- Environmentally sealed and meets Caterpillar design specifications for resistance to water spray, water dunk, and vibration.

3" x 3" Value Priced Halogen Lights				
Part Number	Lens	Mounting	Volts	Connector
234-4323 10 x 25 mm bracket, weld stud	Wide-range Flood	Vertical	24	Integral DT
234-4325 10 x 25 mm bracket, weld stud	Wide-range Flood	Suspended	24	Integral DT
234-4327 10 x 25 mm bracket, weld stud	Wide-range Flood	Vertical	12	Integral DT
234-4328 10 x 25 mm bracket, weld stud	Wide-range Flood	Suspended	12	Integral DT
201-1423 bracket has 10 mm hole, no stud	Wide-range Flood	Suspended	12	Pigtail DT
201-1422 10 x 25 mm bracket, weld stud	Long-range Flood	Suspended	24	Integral DT
234-4324 10 x 25 mm bracket, weld stud	Long-range Flood	Vertical	24	Integral DT
234-4326 10 x 25 mm bracket, weld stud	Long-range Flood	Suspended	24	Integral DT
234-4329 10 x 25 mm bracket, weld stud	Long-range Flood	Suspended	12	Integral DT

Light Emitting Diode (LED) Signal Lights



Designed for long life and lower maintenance costs than incandescent signal light bulbs, Cat LED Signal Lights have a demonstrated life of 25,000 hours — that's 500 times the life of an incandescent signal bulb. LED signal lights use no filaments, so they resist high vibration, and they can be retrofitted to any 24-volt application. LED signal lights meet Cat design specifications for resistance to water spray, water dunk and vibration, and are permanently sealed with sonic welded lenses and potted circuitry.

LED Signal Lights					
Part Number	Lens Color	Description	Mounting	Volts	Mounting Connector
135-0427	Amber	Front Turn & Park	Rectangular	24	Pigtail DT
135-0428	Amber	Front Turn & Park	Round	24	Pigtail DT
199-3368	Amber	Turn	Rectangular	24	Pigtail DT
135-0426	Red	Stop and Tail	Rectangular	24	Pigtail DT
143-2014	Red	Stop and Tail	Round	24	Pigtail DT
232-6136	Red/Amber	Stop/Tail/Turn	Rectangular	24	Pigtail DT
269-8907	Red/Amber	Stop/Tail/Turn	Round	24	Integral Ampseal
252-7165	Clear	Stop/Tail/Turn	Rectangular	24	Pigtail DT

Rotating Beacons and Strobes

Cat Rotating Beacons use a halogen bulb on a rotating base. Strobes are warning beacons, which use electronics to emit light using a gas tube. As with other Caterpillar® lights, the beacons and strobes are designed to withstand high-vibration conditions and increase safety on any jobsite.



Rotating Beacon and Strobe Lights (Amber)				
Part Number	Description	Volts	Base	Connector
118-1227*	Rotating	12	3-Bolt	Screw Terminal
128-6985	Rotating	12	Magnetic	Cigarette Lighter
130-7580	Rotating	12	3-Bolt	Cigarette Lighter
108-1029	Rotating	24	Magnetic	Cigarette Lighter
235-3937	Rotating	24	3-Bolt	Pigtail DT
140-3668	Strobe	12/24	Magnetic	Cigarette Lighter
284-3757	Strobe	12/24	3-Bolt	Pigtail DT
289-3335**	Blue Lens — Beacon			

* shock resistant

** lens only for any rotating light listed

Sealed Beam Electrical Lamps

Item	Voltage	ANSI Number	Wattage	Part Number
Dual Head Lamp	24	4579	80/60	1M-5899
Flood Lamp	6	4078	50	1M-5896
Flood Lamp	12	4478	60	2M-4168
Flood Lamp	24	H4815	90	8T-9886
Flood Lamp	24	4578	60	1M-5898
Flood Lamp	24	4490A	50	110-3239
Flood Lamp (Halogen)	24	H4578	60	9W-1281
Flood Lamp (Screw Terminal)	12	4410	35	2P-7469
Flood Lamp (Screw Terminal)	24	4752	60	6N-7987
Fog Lamp	24	4402A	50	7G-9319
Head Lamp	12	7780	60	2M-4169
Head Lamp	24	4880	60	1M-5928
Head Lamp (Halogen)	24	H4880	60	9W-1280
Head Lamp (Screw Terminal)	24	4750	60	7N-7682
Hi/Lo Lamp	6	4031	45/35	1M-5897
Hi/Lo Lamp	12	4431	45/35	1H-7027
High Head Lamp	24	4814	90	5S-5149
High Head Lamp (Halogen)	24	H4814	90	8T-8753
Low Head Lamp	24	4813	90	5S-5150
Low Head Lamp (Halogen)	24	H4813	90	8T-8752
Spot Lamp	12	4416	30	069-2999
Spot Lamp	24	4505	50	7T-1371
Stop Lamp	24	4752R	60	7X-6220
Stop Lamp	24	4825R	50/18	6N-7982



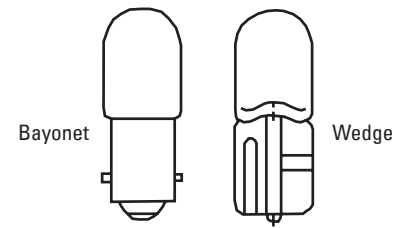
Miniature Electrical Lamps



Item	Voltage	ANSI Number	Part Number
Miniature Electrical Lamp	6	63	9B-3117
Miniature Electrical Lamp	6	1154	8M-7119
Miniature Electrical Lamp	12	53	8M-6176
Miniature Electrical Lamp	12	67	9W-2471
Miniature Electrical Lamp	12	93	1S-4168
Miniature Electrical Lamp	12	194	122-7137
Miniature Electrical Lamp	12	--	084-4375
Miniature Electrical Lamp	12	--	3C-4883
Miniature Electrical Lamp	12	464	107-1983
Miniature Electrical Lamp	12	631	7M-9957
Miniature Electrical Lamp	12	1156	5M-8034
Miniature Electrical Lamp	12	1157	7S-1800
Miniature Electrical Lamp	12	1816	8L-9801
Miniature Electrical Lamp	12	1895	5D-0284
Miniature Electrical Lamp	12	7528	084-4348
Miniature Electrical Lamp	14	194A	118-5075
Miniature Electrical Lamp	24	--	7N-9967
Miniature Electrical Lamp	24	265	7X-2058
Miniature Electrical Lamp	24	307	8J-4863
Miniature Electrical Lamp	24	356	5D-0019
Miniature Electrical Lamp	24	456	5D-1708
Miniature Electrical Lamp	24	459	9D-4185
Miniature Electrical Lamp	24	623	2D-1959
Miniature Electrical Lamp	24	624	7N-1996
Miniature Electrical Lamp	24	657	110-2079
Miniature Electrical Lamp	24	1251	3H-2691
Miniature Electrical Lamp	24	1309	9K-9140
Miniature Electrical Lamp	24	1495	9W-2111
Miniature Electrical Lamp	24	1638	8T-9749
Miniature Electrical Lamp	24	1662	034-2535
Miniature Electrical Lamp	24	1683	7H-2976
Miniature Electrical Lamp	24	1820	8D-1429
Miniature Electrical Lamp	24	1873	7N-5876
Miniature Electrical Lamp	24	2232	7N-9943
Miniature Electrical Lamp	24	2841	115-1748
Miniature Electrical Lamp	24	623R	9S-3335
Miniature Electrical Lamp	24	2661	100-3245
Miniature Electrical Lamp	24	7839B	3E-8825
Miniature Electrical Lamp	24	13498	9X-4493
Miniature Electrical Lamp	24	13499	9X-4492
Miniature Electrical Lamp	28	311	7D-8855
Miniature Electrical Lamp	28	327	3N-5719
Miniature Electrical Lamp	28	757	123-9294

LED Bulbs

Care has to be taken when selecting LED indicators as a replacement for incandescent bulbs. LEDs do not operate like incandescent bulbs and will not work with diagnostic drivers and can possibly glow when powered by electronic controls due to leakage current. LED indicators do not have over-voltage protection circuitry so care has to be taken when used with other electrical devices (i.e. solenoids).



Part Number	Volts	Base Type	Base Size	Bulb Size	Color	MSCD	Polarity	Notes
153-5042	24	Bayonet	A-1	T-3 1/4	Amber	2000	Bi-Polar	7-Cluster
163-1876	24	Wedge	W-2	T-3 1/4	Red	2500	Bi-Polar	Single/Diffuser
163-1878	24	Wedge	W-2	T-3 1/4	Amber	2000	Bi-Polar	7-Cluster
163-1879	24	Wedge	W-2	T-3 1/4	Green	2000	Bi-Polar	Single/Diffuser
163-1882	24	Bayonet	A-1	T-3 1/4	Red	2500	Bi-Polar	Single/Diffuser
163-1883	24	Bayonet	A-1	T-3 1/4	Amber	2000	Bi-Polar	7-Cluster
163-1884	24	Bayonet	A-1	T-3 1/4	Green	2000	Bi-Polar	Single/Diffuser
163-1885	24	Bayonet	A-1	T-3 1/4	Blue	150	Bi-Polar	Single/Diffuser
163-6508	24	Wedge	W-2	T-3 1/4	White	3000	Bi-Polar	7-Cluster
163-6509	24	Bayonet	A-1	T-3 1/4	White	3000	Bi-Polar	7-Cluster
165-5674	24	Bi-Pin		T-3 1/4	White	900	Polar	Single
171-1033	24	Bayonet	B-2	G-6	Red	5000	Bi-Polar	7-Cluster
188-3447	8	Wedge	W-2	T-3 1/4	White	1560	Bi-Polar	Single

Stop/Tail Lamps



Item	Voltage	Body Assy.	Style
Stop/Tail	12	9X-8196	Rectangular
Stop/Tail	12	092-2992	Rectangular
Stop/Tail	24	107-4401	Rectangular
Stop/Tail	24	130-3452	Rectangular
Stop/Tail	24	130-3453	Rectangular
Stop/Tail	24	8C-6207	Round
Stop/Tail	24	7M-7147	Round
Stop/Tail	24	9G-4358	Round
Stop/Tail	24	9G-8556	Round
Stop/Tail	24	3E-6467	Rectangular
Stop/Tail	24	9X-1404	Rectangular
Turn	12	3E-9346	Rectangular
Turn	12	9X-8242	Rectangular
Turn	24	107-4402	Rectangular
Turn	24	162-2073	Rectangular
Turn	24	3E-6466	Rectangular
Turn	24	7X-6066	Rectangular
Turn	24	9X-1406	Rectangular
Turn	24	7T-7818	Round
Turn	24	9D-4073	Round
Turn	24	9G-4357	Round
Turn/Park	24	129-5688	Rectangular
Turn/Park	24	3E-7741	Rectangular
Payload	24	8T-9683	Round
Payload	24	8T-9684	Round
Compartment	24	101-0461	Rectangular
Compartment	24	171-5672	Rectangular
Position	24	162-5402	Rectangular
Position	24	9X-1407	Rectangular
Service Indicator	24	107-2282	Rectangular
Service Indicator	24	125-6794	Rectangular

Dash Lamps



- Allow operators to read gauges at night.
- For use with miniature electrical lamps.

Item	Voltage	Wire Length	Body Assy.	Bulb
Dash Lamp	6	152 - 610 mm (36,701 in)	6N-8355	9B-3117
Dash Lamp	12	152 - 610 mm (36,701 in)	6N-8355	7M-9957
Dash Lamp	24	152 - 610 mm (36,701 in)	6N-8355	3H-2691

Cat Comfort Seats

Cat Comfort Seats are designed and tested to provide optimum reliability and comfort for the Cat machine operator. Designed for rugged use, Cat Comfort Seats are built to last 10,000 hours, with proper maintenance.

Features and benefits:

- Eight seat adjustments accommodate all operator weights and sizes.
- Backrest extension (available on some models) provides superior upper back support.
- Thick, contoured back cushion with side bolsters limits side-to-side movement on slopes or in rough terrain.
- An adjustable lumbar support distributes pressure over a broad area for added back support.
- The reclining mechanism has cast gears for long life.
- Adjustable armrests can be flipped up and out of the way when not in use.
- Thick, contoured seat cushion features angle adjustment and rolled front edges for reduced leg pressure.
- Cushions are upholstered with rip-resistant materials using a special fusing process for long wear and sleek appearance.
- Cushions are comfortable, waterproof, washable and replaceable. Seat covers are not needed.
- Adjustment levers are located at the front of the seat within easy reach.
- Seat belts automatically lock into position, but still allow for operator movement without cinching.
- Extra long seat belts are available to accommodate all operator sizes.
- Seats with three-point seat belts (shoulder restraint) are available for some Off-Highway Trucks.
- A second shock absorber can be added to the air suspension for increased operator comfort in demanding applications.
- Heated seats (available for some models) provide extra comfort on cold days.
- Heated cushion conversion kits are available for most unheated seat models.

The following tables list available part numbers by product model and serial number prefix to order for a complete, fully assembled Cat Comfort Seat. Typical field installation time is 30 minutes to two hours.

All seats are operator seats, unless otherwise specified as companion seats. Companion seats are available for some Off-Highway Truck models, as noted.

All seats include a two-point seat belt, unless otherwise specified. Seats with a three-point seat belt are available for some Off-Highway Truck models.

Caterpillar recommends that all old seat mounting hardware be replaced with new hardware when installing a new seat. Consult SIS for the required mounting hardware part numbers.



Articulated Trucks

All seats have gray fabric upholstery and an air suspension.

Model	Serial Numbers	Part Number
725	AFX, W8E	200-3173
730	AGF, B1W, B1M, W8F, W8G	
735	AWR, W8H	
740	AZZ, AXM, B1R, B1P, W8J, W8K	
D350	All	
D400	1MD, 8TF	

Compactors

All seats have an air suspension.

Model	Serial Numbers	Special Notes	Upholstery	Part Number
815F	97Z		Gray Fabric	200-3174
815F	BYN, 1GN, 2BS, BKL		Gray Fabric	219-8096
816F	5FN, BMR, BZR			
824C	64G			
825G	6RN		Gray Fabric	191-2996
825H	AZW, ZER			
826G	7LN, AYH	Machine does not have floor-mounted controls.	Gray Fabric	191-2996
		Machine has floor-mounted controls.	Gray Fabric	200-3174
826H	AWF, ZDR	Machine does not have floor-mounted controls.	Gray Fabric	191-2996
		Machine has floor-mounted controls.	Gray Fabric	200-3174
834B	7BR, 92Z		Gray Fabric	200-3174
836 S/W	7FR, 3RL, 8DZ		Gray Fabric	219-8091
			Black Vinyl	219-8092
836G S/W	7MZ, BRL		Gray Fabric	200-3174
836H	BXD, XTR, XKE		Gray Fabric	219-8091

Integrated Toolcarriers

All seats have an air suspension.

Model	Serial Numbers	Upholstery	Heat	Part Number
IT14G	1WN, 8ZM, KZN, FWL	Gray Fabric	No	219-8096
IT28G	9AR, DBT, WAC, EWF, 8CR	Gray Fabric	No	219-8096
IT38G	1CW, CSX, JAN, 7BS	Gray Fabric	No	219-8096
			Yes	248-6194
IT62G	C5C, 6PS, AYA, AKP, BBE	Gray Fabric	No	219-8096
			Yes	248-6194
IT62H	M5G	Gray Fabric	No	219-8094
		Black Vinyl	No	219-8095

Motor Graders

Model	Serial Numbers	Upholstery	Suspension	Heat	Part Number
12H	AMZ, 125, CBK, 5ZM, 4ER, XZJ, 2LR, 2GS, 4XM, 2WR, 8MN	Brown Fabric	Air	No	200-3814
14H	7WJ, ASE		Mechanical	No	302-8814
14M	All Serial Numbers	Gray Fabric	Air	No	238-6683
				Yes	241-1077
			Mechanical	No	243-6740
16H	ATS, 6ZJ, 3JR	Black Vinyl	Mechanical		302-8813
16M	All Serial Numbers	Gray Fabric	Air	No	238-6683
				Yes	241-1077
			Mechanical	No	243-6740
24H	7KK	Brown Fabric	Air		224-2678
24M	All Serial Numbers	Gray Fabric	Air	No	238-6683
				Yes	241-1077
			Mechanical	No	243-6740
120H	ALZ, 124, CAF, 4MK, 2AN, 6YN, 3GR, 6TM, 5FM, 9FN, ADG, 6NM, 9YR	Brown Fabric	Air	No	200-3814
135H	3YK, BDJ, 8ZG, 8WN, CBC, AMX				
140H	2ZK, 9ZN, 9TN, 3FR, APM, 126, CCA, 8KM, 3AS, 8JM, 5HM, XZH		Mechanical	No	302-8814
143H	APN, 1AL				
160H	3HR, 6WM, 2HS, 9JM, 2FM, XZK, ASD, CCP, 9EJ, 3GM	Black Vinyl	Mechanical	No	302-8813
163H	5AK, ARL				
120M	All Serial Numbers	Gray Fabric	Air	No	238-6683
140M				Yes	241-1077
160M			Mechanical	No	243-6740

Off Highway Trucks

All seats have gray fabric upholstery.

Model	Serial Numbers	Seat Type	Seat Belt Type	Suspension Type	Part Number	Special Note
769D	5SS, BBB, 5TR	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 1
			Three Point Restraint	Air	228-3351	See NOTE 3
770	BZZ	Operator Seat	Three Point Restraint	Air	240-8716	
771D	BCA, 6JR, 6YS	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 1
			Three Point Restraint	Air	228-3351	See NOTE 3
772	RLB, 59X, 10S, 11S, 80S	Operator Seat	Three Point Restraint	Air	240-8716	
773D	7ER, 7FZ, 7CS, BGL	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 1
773E	BDA	Operator Seat	Three Point Restraint	Air	228-3351	See NOTE 3
773F	EED	Operator Seat	Three Point Restraint	Air	240-8716	
775D	6KR, 8AS	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 1
775E	BEC	Operator Seat	Three Point Restraint	Air	228-3351	See NOTE 3
775F	DLS	Operator Seat	Three Point Restraint	Air	240-8716	
776C	2TK	Operator Seat	Two Point Restraint	Mechanical	180-7310	See NOTE 1
776D	5ER, AFS	Operator Seat	Three Point Restraint	Air	228-3351	See NOTE 3
777C	8JL, 4XJ	Operator Seat	Two Point Restraint	Mechanical	180-7310	See NOTE 1
777D	6XZ, AGY, AGC, DCB, 2YW, 3PR, FKR	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 1
			Three Point Restraint		228-3351	See NOTE 3
777F	JRP	Operator Seat	Three Point Restraint	Air	240-8716	
784B	5RK	Operator Seat	Two Point Restraint	Mechanical	180-7310	See NOTE 2
			Three Point Restraint	Air	252-9713	See NOTE 4
784C	2PZ	Operator Seat	Two Point Restraint	Air	224-2677	See NOTE 2
		Companion Seat	Two Point Restraint	Air	224-2677	
785B	6HK	Operator Seat	Two Point Restraint	Mechanical	180-7310	See NOTE 2
			Three Point Restraint	Air	252-9713	See NOTE 4
		Companion Seat	Two Point Restraint	Air	224-2677	
785C	1HW, APX, 5AZ	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 2
			Three Point Restraint	Air	228-3351	See NOTE 4
		Companion Seat	Two Point Restraint	Air	224-2677	
789B	7EK	Operator Seat	Two Point Restraint	Mechanical	180-7310	See NOTE 2
			Three Point Restraint	Air	252-9713	See NOTE 4
		Companion	Two Point Restraint	Air	224-2677	
789C	2BW	Operator Seat	Three Point Restraint	Air	228-3351	See NOTE 4
		Companion Seat	Two Point Restraint	Air	224-2677	
793B	1HL	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 2
				Mechanical	180-7310	See NOTE 2
			Three Point Restraint	Air	252-9713	See NOTE 4
		Companion Seat	Two Point Restraint	Air	224-2677	
793C	CBR, ATY	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 2
			Three Point Restraint	Air	228-3351	See NOTE 4
			Two Point Restraint	Mechanical	180-7310	See NOTE 2
		Companion Seat	Two Point Restraint	Air	224-2677	
	4AR, 4GZ	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 2
			Three Point Restraint	Mechanical	180-7310	See NOTE 2
			Two Point Restraint	Air	252-9713	See NOTE 4
		Companion Seat	Two Point Restraint	Air	224-2677	
793D	FDB	Operator Seat	Two Point Restraint	Air	200-3172	See NOTE 2
			Three Point Restraint	Air	228-3351	See NOTE 4
		Companion Seat	Two Point Restraint	Air	224-2677	
797	5YW	Operator Seat	Two Point Restraint	Air	228-3351	See NOTE 5
			Three Point Restraint	Air	244-2803	See NOTE 4
		Companion Seat	Two Point Restraint	Air	224-2677	
797B	JSM	Operator Seat	Two Point Restraint	Air	219-8093	
			Three Point Restraint	Air	244-2803	
		Companion Seat	Two Point Restraint	Air	224-2677	

NOTE 1 — If the original seat was an 8Y-6907, 164-5661 or 157-8144 (identified by orange handles on the front seat controls and orange switches on the left side of the seat) **or** if the original seat was a previous series of Cat seat (Cost Value, Corporate or Contour series) **or** if the original seat was a Cat Comfort Seat with a three-point restraint, a new riser must be installed with the new Cat Comfort Seat with two-point restraint. Order part number 137-8474 in addition to the specified seat.

NOTE 2 — If the original seat was an 8Y-6907, 164-5661 or 157-8144 (identified by orange handles on the front seat controls and orange switches on the left side of the seat) **or** if the original seat was a Cat Comfort Seat with a three-point restraint, a new riser must be installed with the new Cat Comfort Seat with two-point restraint. Order part number 144-4125 in addition to the specified seat.

If the original seat was a previous series of Cat seat (Cost Value, Corporate or Contour series), a new riser must be installed with the new Cat Comfort Seat. Order part number 144-4185 in addition to the specified seat.

NOTE 3 — If the original seat had a two-point restraint, a new riser must be installed with the new Cat Comfort Seat with three-point restraint. Order part number 153-4001 in addition to the specified seat.

NOTE 4 — If the original seat had a two-point restraint, a new riser must be installed with the new Cat Comfort Seat with three-point restraint. Order part number 144-4185 in addition to the specified seat.

NOTE 5 — If the original seat was an 8Y-6907, 164-5661 or 157-8144 (identified by orange handles on the front seat controls and orange switches on the left side of the seat) **or** if the original seat was a Cat Comfort Seat with a three-point restraint, a new riser must be installed with the new Cat Comfort Seat with two-point restraint. Order part number 173-4570 in addition to the specified seat.

Pipelayers

All seats have a mechanical suspension.

Model	Serial Numbers	Upholstery	Part Number
561N	CPH	Gray Fabric	160-7186
		Black Vinyl	159-2950
572R	DSC, 2HZ, AAC	Black Vinyl	159-2950
583R	2XS		
583T	CMX		
587R	BXL		
587T	FAT		

Scrapers

All seats feature a low back design and an air suspension equipped with dual adjustable shocks.

Model	Serial Numbers	Upholstery	Part Number
613G	DBJ, DBE	Gray Fabric	300-5533
615G	All Serial Numbers	Gray Fabric	284-5895
621G	DBB, ANG, CEN, ALP, CEP, DBX		
623G	AWB, DBC, CES, ARW, CEW, DBY		
627G	DBD, AXF, AYK, CEX, CEZ, DBZ		
631G	AWK, CLR, CMT, AXZ		
633G	All Serial Numbers		
637G	CEH, AWE, CEJ, CEM, AYN, AXT		
651G	All Serial Numbers		
657G	GER, W1E, W1F, A4G, W1B, W1C		

Track-Type Tractors

Model	Serial Numbers	Upholstery	Suspension	Part Number
D3G	JTD, FFF, CFC, ZDN, BYR, JMH, CFF, CLB, CXT, CKA, LLL	Black Vinyl	Air	261-7533
		Gray Fabric	Air	261-7484
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D4G	MMM, HYD, FDC, RRR, CFN, TLX	Black Vinyl	Air	261-7533
		Gray Fabric	Air	261-7484
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D5G	JFL, FDH, WGB, DKT, CLW, RKG, RSC, CLF, FDW, YYY, WWW	Black Vinyl	Air	261-7533
		Gray Fabric	Air	261-7484
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D5M	3CR, 3DR, 4BR, 4JS, 5ES, 5FS, 6AS, 6GN, 7LR	Gray Fabric	Air	200-3174
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D5N	AGG, CFH, AKD, CKT	Gray Fabric	Air	200-3174
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D6H	6JJ, 2TJ, 1KD, 8FC, 3YG, 5HF, 4GG, 4RC, 7ED, 7PC, 4LG, 2KD, 8KB, 1FJ, 3ED, 3ZF, 8YC, 6CF, 4YF, 5KK, 2BL, 7ZK, 9KJ, 9LK, 8SK, 3YJ, 2DK, 6CK, 1YL, 2TL, 8ZJ, 8KK, 9RK, 6FC	Brown Fabric	Air	220-8634
			Mechanical	159-2951
		Black Vinyl	Mechanical	159-2950
D6M	2RN, 2YS, 3WN, 4GS, 4HS, 4JN, 5NR, 5WR, 6LR, 9ZM	Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Air	231-4581
D6N	NEB, LPS, ERH, DJY, ERL, ALR, CCG, CBJ, ALH, CBF, DFX, CCK, AKM, CBL, ALY, CCS, JAH, DJA, JAL, DFL	Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Mechanical	159-2950
D6R	SNK, DHL, DJG, HCD, GMT, TBC, JEK, GJB, JDL, LFM, EXL, AFM, BPM, BLT, BNL, DMP, 7KN, 9MN, 7DR, 8LN, 4HN, 7AR, AFD, ACJ, BPP, AEM, BRJ, BLE, BMK, 2YN, 9ZS, 2HM, 6FR, HKE, RFC, 5LN, 7GR, 9BM, 5RR, 9PN, 8TM, 4TR, AGM, CAD, BMJ, BPS, AEP, DAE, BRE, AAX, FDT, BMY, BRZ, 4MN, 6MR, 4JR, 4WR, ADE, BNC, BPZ, 6JN, 8XN, 6HR, 6GR, 3ZN, 1RW, 4FM, 5PR, MRT, DPS, EXW, WRG, DMK, LGP, HDC, MTJ, WCB, DLM, JHB, SMC, PEZ, LAY, GCT, LAE, KLM, SKL, LBD, RAY, KJL, LKJ, WFH, ZEB	Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Brown Fabric	Air	220-8634
			Mechanical	159-2951
		Black Vinyl	Mechanical	159-2950
			Mechanical	159-2950
D7H	80Z, 5WB, 4FG, 3XG, 82Z, 5BF, 2RG, 79Z, 4AB, 77Z, 2SB	Brown Fabric	Air	220-8634
			Mechanical	159-2951
		Black Vinyl	Mechanical	159-2950
D7R	4SR, ADW, RES, BPK, AFG, BNM, AEC, BRM, ACS, BRP, AGN, BPT, 3DN, 6ER, 2EN, 5MR, CBZ, 2HR, 3ZR, ABJ, BNK, KDY, 9HM	Gray Fabric	Mechanical	160-7186
			Air	200-3174
		Brown Fabric	Mechanical	159-2951
			Air	220-8634
		Black Vinyl	Mechanical	159-2950
D8N	1XJ, 5TJ, 7TK, 9TC	Brown Fabric	Air	220-8634
			Mechanical	159-2951
		Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Mechanical	159-2950

(Continued)

Track-Type Tractors (Continued)

Model	Serial Numbers	Upholstery	Suspension	Part Number
D8R	AKA, 7XM, 9EM, 6YZ	Brown Fabric	Air	220-8634
			Mechanical	159-2951
		Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Mechanical	159-2950
D8T	J8B, KPZ	Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Mechanical	159-2950
D9N	6XJ, 5FJ, 1JD	Brown Fabric	Air	220-8634
			Mechanical	159-2951
		Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Mechanical	159-2950
D9R	WDM, 7TL, 8BL, JJB, ACL, ABK	Brown Fabric	Air	220-8634
			Mechanical	159-2951
		Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Mechanical	159-2950
D9T	RJS	Gray Fabric	Air	200-3174
			Mechanical	160-7186
		Black Vinyl	Mechanical	159-2950
D10N	3SK, 2YD	Brown Fabric	Air	220-8634
		Gray Fabric	Air	200-3174
		Brown Fabric	Mechanical	159-2951
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D10R	3KR, AKT	Brown Fabric	Air	220-8634
		Gray Fabric	Air	200-3174
		Brown Fabric	Mechanical	159-2951
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D10T	RJG	Gray Fabric	Air	200-3174
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D11N	74Z, 4HK	Brown Fabric	Air	220-8634
		Gray Fabric	Air	200-3174
		Brown Fabric	Mechanical	159-2951
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D11R	9TR, AAF, 9XR, 7PZ, 8ZR	Brown Fabric	Air	220-8634
		Gray Fabric	Air	200-3174
		Brown Fabric	Mechanical	159-2951
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186
D11T	GEB, RAL, TPB, DDD	Gray Fabric	Air	200-3174
		Black Vinyl	Mechanical	159-2950
		Gray Fabric	Mechanical	160-7186

Wheel Dozers

All seats have an air suspension.

Model	Serial Numbers	Upholstery	Part Number
814F	BXG, BGF, 9DM	Gray Fabric	219-8096
824G	4SN	Gray Fabric	191-2996
		Black Vinyl	219-8092
824H	ZFL, ASX	Gray Fabric	191-2996
834G	6GZ, BPC	Gray Fabric	200-3174
834H	XTJ, BTX, XDC		
844	BBN, 2KZ	Gray Fabric	219-8090
844H	BTW		
854G	AMP, A4W, 1JW		
854K	221		

Wheel Loaders

All seats have an air suspension. Heated seats feature a high back seat design. Unheated seats have a standard seat back with seat back extension design.

Model	Serial Numbers	Upholstery	Special Notes	Heat	Part Number
914G	7ZM, PDF, 9WM	Gray Fabric		No	219-8096
924G	DFZ, RTA, WGX, DDA, RBB, WMB, 9SW, AAN, 3PZ, 6YW, AAB, 3DZ, EEB	Gray Fabric		No	219-8096
				Yes	248-6194
928G	DJD, WLG, 6XR, 7SR	Gray Fabric		No	219-8096
				Yes	248-6194
930G	TWR, TFW	Gray Fabric		No	219-8096
938G	8RS, CRD, RTB, PHN, B9Y, 4YS, 9HS, 6WS	Gray Fabric		No	219-8096
				Yes	248-6194
950G	5MW, 4BS, 2JS, 6NS, AXX, BAA, AYL, AYS, AXR, AYB, AYD, 3JW, 8JW, 5FW	Gray Fabric	Machine does not have seat mounted controls.	No	219-8096
			Machine has right hand seat-mounted controls and narrow left armrest.	No	219-8094
			Machine has left and right hand seat-mounted controls and a wide left armrest.	No	191-2996
			Machine has right hand seat-mounted controls and narrow left armrest.	Yes	248-6194
			Machine has left and right hand seat-mounted controls and a wide left armrest.	Yes	248-6193
		Black Vinyl	Machine has right hand seat-mounted controls and narrow left armrest.	No	219-8092
			Machine has left and right hand seat-mounted controls and a wide left armrest.	No	219-8095
950H	J5J, K5K, M1G, N1A	Gray Fabric		No	219-8094
				Yes	248-6193
		Black Vinyl		No	219-8095
962G	6HW, AXS, AYE, AYG, BDP, AXY, BAD, BAB, BAC, 5AS, 3BS, 5RS, 4PW, 6EW, 7BW	Gray Fabric	Machine does not have seat mounted controls.	No	219-8096
			Machine has right hand seat-mounted controls and narrow left armrest.	Yes	248-6194
			Machine has left and right hand seat-mounted controls and a wide left armrest.	No	191-2996
			Machine has right hand seat-mounted controls and narrow left armrest.	No	219-8094
			Machine has left and right hand seat-mounted controls and a wide left armrest.	Yes	248-6193
		Black Vinyl	Machine has right hand seat-mounted controls and narrow left armrest.	No	219-8092
			Machine has left and right hand seat-mounted controls and a wide left armrest.	No	219-8095

Wheel Loaders (Continued)

962H	J6J, K6K, M3G, N4A	Gray Fabric	Machine does not have seat mounted controls.	No	219-8096
			Machine has right hand seat-mounted controls and narrow left armrest.	No	219-8094
			Machine has left and right hand seat-mounted controls and a wide left armrest.	Yes	248-6193
		Black Vinyl	Seat has left and right hand seat-mounted controls and a wide left armrest.	No	219-8095
966F	8BG, 1SL, 4YG, 3FK, 7HL, 3XJ, 9YJ, 6FJ, 6ML	Gray Fabric		No	219-8096
966G	3SW, 3PW, 8XW, 3ZS, 9RS, AAH, ANT, AWY, AWZ, HDH, ANZ, AXJ, AXL	Gray Fabric	Machine does not have seat mounted controls.	No	219-8096
			Machine has right hand seat-mounted controls and narrow left armrest.	Yes	248-6194
			Machine has left and right hand seat-mounted controls and a wide left armrest.	No	191-2996
			Machine has right hand seat-mounted controls and narrow left armrest.	No	219-8094
			Machine has left and right hand seat-mounted controls and a wide left armrest.	Yes	248-6193
		Black Vinyl	Machine has right hand seat-mounted controls and narrow left armrest.	No	219-8092
			Machine has left and right hand seat-mounted controls and a wide left armrest.		219-8095
966H	FMW, A6D, A6G, A6J	Gray Fabric		No	219-8094
				Yes	248-6193
		Black Vinyl		No	219-8095
970F	7PL, 7SK, 9JK	Gray Fabric		No	219-8096
972G	TLA, 7LS, 1EW, AAW, 8TS, ANY, AXC, AXE, AWP, AXN, AXP, 4WW, 6AW, 9GW	Gray Fabric	Machine does not have seat mounted controls.	No	219-8096
			Seat has right hand seat-mounted controls and narrow left armrest.	Yes	248-6194
			Seat has left and right hand seat-mounted controls and a wide left armrest.	No	191-2996
			Seat has right hand seat-mounted controls and narrow left armrest.	No	219-8094
			Seat has left and right hand seat-mounted controls and a wide left armrest.	Yes	248-6193
		Black Vinyl	Seat has right hand seat-mounted controls and narrow left armrest.	No	219-8092
			Seat has left and right hand seat-mounted controls and a wide left armrest.	No	219-8095
972H	A7J, A7D, A7G	Gray Fabric		No	219-8094
				Yes	248-6193
		Black Vinyl		No	219-8095
80F	5XJ, 8JN, 4RN, 8CJ, 3HK	Gray Fabric		No	219-8096
980G	TLB, 2KR, 9CM, 2SR, AWH, AXG, AYT	Gray Fabric	Machine does not have seat mounted controls.	No	219-8096
			Seat has right hand seat-mounted controls and narrow left armrest.	Yes	248-6194
			Seat has left and right hand seat-mounted controls and a wide left armrest.	No	191-2996
			Seat has right hand seat-mounted controls and narrow left armrest.	No	219-8094
			Seat has left and right hand seat-mounted controls and a wide left armrest.	Yes	248-6193
		Black Vinyl	Seat has right hand seat-mounted controls and narrow left armrest.	No	219-8092
			Seat has left and right hand seat-mounted controls and a wide left armrest.	No	219-8095
980H	MKP, HPC, XMP, JMS, MHG, A8J	Gray Fabric		No	219-8094
				Yes	248-6193
		Black Vinyl		No	219-8095

(Continued)

Wheel Loaders (Continued)

988B	50W, 62Y	Gray Fabric		No	219-8091
988F	2ZR	Gray Fabric		No	200-3174
988G	1NZ, 2TW, BNH	Gray Fabric		No	200-3174
988H	440, BXY, 409	Gray Fabric	Seat has right hand seat-mounted controls and narrow left armrest.	No	219-8091
					200-3174
990	4FR, BCR, 7HK	Gray Fabric		No	219-8090
990H	BWX	Gray Fabric		No	219-8090
992C	49Z, 42X	Gray Fabric		No	219-8090
992D	7MJ	Gray Fabric		No	219-8090
992G	ADZ, AZX, 7HR	Gray Fabric		No	219-8090
994F	442	Gray Fabric		No	219-8090
994G	8FR	Gray Fabric		No	219-8090

Cat® Radios and Accessories

Just as you do with any other part or component, you should consider the durability of a radio. A car radio isn't going to be durable enough to withstand the vibrations and other extremes where you work. Instead, select one that is designed to take abuse.

Caterpillar offers a line of rugged radios and accessories that can withstand the toughest applications in machines, on-highway trucks, boats or private sector use. Cat radios and accessories also are designed to withstand both hot and cold temperature extremes.

You can choose from five models, from a robust receiver to a unit that includes a CD, theft lock and an integrated satellite tuner. All models provide the following features and benefits:

- Exceed shock and vibration standard SAE J1455
- Withstand temperatures from -40° to 85° C (-40° to 185° F)
- Weather band
- Worldwide frequency compatible tuner



AM/FM Receiver

Part Number 200-5729

Caterpillar offers five models, beginning with the basic AM/FM receiver.

Features:

- Total Power (RMS) 72 (18x4)
- LED lighted display
- Quartz clock
- 6 AM and 12 FM presets
- Auto preset memory
- Scan
- Seek Up/Down
- Worldwide frequency compatible tuner
- Weather band

AM/FM Receiver with CD

Part Number 241-4936

This model has the following radio and CD features:

- Total Power (RMS) 72 (18x4)
- LED lighted display
- Quartz clock
- 6 AM and 12 FM presets
- Auto preset memory
- Scan
- Seek Up/Down
- Worldwide frequency compatible tuner
- Weather band
- Displays elapsed time and track
- Next/previous track
- Fast forward/reverse
- Anti-shock floating mechanism
- Track, scan, search and repeat
- Auto-loading mechanism



Deluxe AM/FM Receiver with CD

Part Number 284-8953

This model has the following radio and CD features:

- Total Power (RMS) 68 (17x4)
- MP3 playback
- LED backlighting
- 6 AM presets and 18 FM presets
- Auto-store memory
- Seek/scan tuning
- Preset scan
- Alarm clock
- Worldwide frequency compatible tuner
- Weather band
- Anti-shock floating mechanism
- Track, scan, search and repeat
- Track pause
- Random track play
- Fast forward/reverse
- Next/previous track
- Ignition off load and eject





Deluxe AM/FM Receiver with CD and XM Satellite Radio

Part Number 284-8954

In addition to the integrated XM satellite radio, this model also has the following features:

- Total Power (RMS) 68 (17x4)
- MP3 playback
- LED backlighting
- 6 AM presets and 18 FM presets
- Auto-store memory
- Seek/scan tuning
- Preset scan
- Alarm clock
- Worldwide frequency compatible tuner
- Weather band
- Anti-shock floating mechanism
- Track, scan, search and repeat
- Track pause
- Random track play
- Fast forward/reverse
- Next/previous track
- Ignition off load and eject



Deluxe AM/FM Receiver with CD and SIRIUS Satellite Radio

Part Number 284-8955

In addition to the integrated Sirius satellite radio, this model also has the following features:

- Total Power (RMS) 68 (17x4)
- MP3 playback
- LED backlighting
- 6 AM presets and 18 FM presets
- Auto-store memory
- Seek/scan tuning
- Preset scan
- Alarm clock
- Worldwide frequency compatible tuner
- Weather band
- Anti-shock floating mechanism
- Track, scan, search and repeat
- Track pause
- Random track play
- Fast forward/reverse
- Next/previous track
- Ignition off load and eject

Installation Kits

Mounting Kit — Cat radio ready machines

Cat Radio ready machines come with speakers, antenna, radio mounting, harness connector and 24 volt to 12 volt connector. The following parts are needed to complete the install:

- 200-5728 harness
- 4E1411 bushing 20 mm (0.79 in) or 241-4939 bushing 28 mm (1.1 in)

Mounting Kit — Non radio ready Cat and competitive machines

Part Number 136-3643

- Kit consist is:
 - One mounting shell 106-8142
 - One bracket 275-2138
 - One rubber bushing 4E-1411
 - Four screws 100-2881
 - Four washers 6V-7699
 - Four lock washers 3B-4503
 - Four cable straps 3S-2093
 - Two speakers 106-8154
 - One harness 200-5728
 - One harness 106-8153
 - One antenna 8E-1118
 - One coax cable 1525 mm (60 in) 8R-6111
 - One machine screw 4M-8478
 - One 2H-7152 nut
 - One 4E-1411 bushing



Adapter Harnesses



Part Number	Manufacturer	Model
106-8153	Non-radio ready machine — Cat or competitor	Plugs into the Deutsch connector end of the 200-5728 harness. This is a Deutsch connector to wire harness that can be used in wiring in a Cat radio into a non-radio ready Cat or competitive machine.
279-9662	Freightliner On-highway trucks	Freightliner — All medium duty COE June 1986-2003. Conventional 1986-2003, Columbia and Century class to 2003.
279-9663	Kenworth and Peterbilt On-highway trucks	Kenworth: COE K100E series. All conventional models built after March 1988 — February 2005. Peterbilt: All medium duty COE Midranger, all medium duty conventional 330, COE models built after October 1986, conventional models built after October 1986, conventional model, premium sound, from February 2000.
279-9664	Kenworth and Peterbilt On-highway trucks	Kenworth: All medium duty conventional T300 and T2000. Peterbilt: 387 (except Concert Class).
279-9665	International On-highway trucks	International: 2600-8300 series medium duty, 9000 series conventional Pro Sleeper from June 1994.
279-9666	Mack On-highway truck	Mack: COE model MH, RD, RM and DMM models built after November 1992. Mack: CH and CL series Vision.
279-9667	Volvo and White/GMC On-highway trucks	Volvo: FE models built after February 1993. White/GMC: models built after September 1992.
279-9668	Sterling On-highway trucks	Sterling: 1999-2001 models.
279-9669	Western Star On-highway trucks	Western Star: Conventional models built after December 1991.
279-9767	Western Star On-highway trucks	Western Star: Constellation series models built after June 1997.

Antennas — Flexible



Part Number 8E-1118

Flexible rubber mast

- Antenna mast length is 355 mm (14 in) with 1/2-20 connector. Antenna can be adjusted from 0 to 90 degrees in mounting base.

Antennas — Wire Whip



Part Number 9W-3072

Wire whip with spring

- Antenna mast length is 668 mm (26 in) with 1/2-20 connector. Antenna can be adjusted from 0 to 90 degrees in mounting base.

Antennas — Satellite

Part Number 284-9055

Mirror Mount

- Needed with 284-8954 XM or 284-8955 SIRIUS radios

Part Number 307-2245

Rooftop Mount

- Needed with 284-8954 XM or 284-8955 SIRIUS radios

Speakers — Round



Part Number 174-3722

133 mm (5.25 in) coaxial

- Mounting: Recessed opening
- Impedance: 4 Ohms
- Power: 80 Watts
- Frequency response: 40 Hz to 22 KHz
- Speaker cover included

Part Number 168-8772

133 mm (5.25 in) coaxial

- Mounting: Recessed opening
- Impedance: 4 Ohms
- Power: 60 Watts
- Frequency response: 75 Hz to 20 kHz
- Speaker cover 101-3055 required

Speakers — Rectangular



Part Number 106-8154

186 × 128 mm (5⁵/₈ × 3³/₈ in) two speaker with internal crossover

- Impedance: 6 Ohms
- Power: 75 Watts
- Frequency response: 90 Hz to 20 kHz

Coax Cable

Part Number	Length	Connector
Radio connector to antenna connector		
101-2640	1000 mm (39.4 in)	1/2-20
109-8981	1200 mm (47.3 in)	1/2-20
8R-6111	1525 mm (60 in)	1/2-20
199-3387	1800 mm (71 in)	1/2-20
9W-3073	2670 mm (105 in)	1/2-20
162-7264	3500 mm (138 in)	1/2-20
117-2932	4080 mm (160.6 in)	1/2-20
110-6391	4280 mm (168.5 in)	1/2-20
Radio connector to 90 degree antenna connector		
9U-8746	500 mm (19.7 in)	1/2-20
146-3722	650 mm (25.6 in)	1/2-20

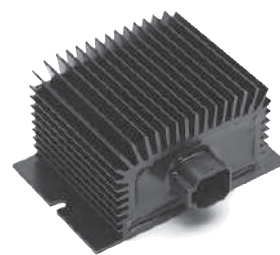


Converters — 24 Volts to 12 Volts

Part Number 205-4285

5 amp continuous/7 amp intermittent

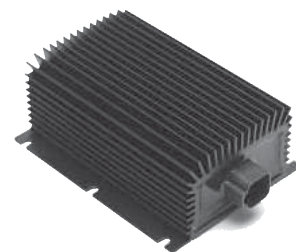
- Used to reduce machine 24 volts to 12 volts. When the radio is wired to one (of the two batteries in series) the battery never gets a full charge, which can result in pre-mature battery failure.



Part Number 209-0381

10 amp continuous/15 amp intermittent

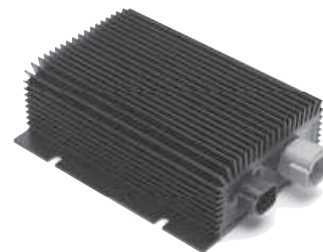
- Used to reduce machine 24 volts to 12 volts. When the radio is wired to one (of the two batteries in series) the battery never gets a full charge, which can result in pre-mature battery failure.



Part Number 239-3902

15 amp continuous/20 amp intermittent

- Used to reduce machine 24 volts to 12 volts. When the radio is wired to one (of the two batteries in series) the battery never gets a full charge, which can result in pre-mature battery failure.



Cat® Air Conditioning Kits



Improve operator comfort and boost productivity

Caterpillar® air conditioning kits provide an effective retrofit solution to combat the heat.

Right Fit — Each kit is made for your Cat® machine and contains parts to install a highly efficient R134A system in the cab.

Durable — All parts are heavy-duty and made to withstand harsh operating environments and severe vibration.

Easy Installation — Quickly install components with easy-to-follow installation instructions.

Good Value — Each part is covered under the Caterpillar New Parts Warranty.

Machine Type	Model	AC Kit	Serial Number Breakdown						
Track-Type Tractor	D6R	192-1508	1RW	2HM	2YN	3ZN	4FM	4HN	4JR
		192-1508	4MN	5LN	6JN	6MR	7GR	7KN	8LN
		192-1508	8TM	8XN	9BM	9MN	9PN	9ZS	
	D7R	192-1509	2EN	2HR	3DN	5ZK	9HM		
	D8R	192-1510	7XM	9EM					
Wheel Loader	826C	*232-7901	87C						
	908	+232-7906	8BS						
	938G	192-1513	4YS	6WS	9HS				
	950B	*232-7901	22Z						
	950G	192-1512	2JS	3JW	4BS	5FW	8JW		
	962G	192-1512	3BS	4PW	5AS	6EW	7BW		
	966D	*232-7901	99Y						
	966G	192-5373	3PW	3SW	3ZS	8XW	9RS	AAH	
	972G	192-5373	1EW	4WW	6AW	7LS	9GW	AAW	
Compact Wheel Loader	980C	*232-7901	63X						
Off-Road Truck	906	+*232-7905	6ZS						
	768C	232-7900	02X						
	769C		01X						
	772B		64W						
	773B		63W						
Integrated Tool Carrier	IT38G	192-1513	1CW	7BS					
	IT62G	192-1512	6PS	AKP					

Table Notes:

* Incomplete kit. Additional parts required.

+ Combined AC/Heater Kit

Cat® Air Conditioning Kits (Continued)

Machine Type	Model	AC Kit	Serial Number Breakdown						
Motor Grader	12G	192-7424	61M7711-up						
	120G	192-7424	87V5734-up						
	12H	192-1511	2GS	2LR	2WR	4XM	8MN		
	120H	192-5372	2AN	4MK	6NM	6YN	9YR		
	130G	192-7424	74V2059-up						
	135H	192-5372	3YK						
	140G	192-7424	72V4231-up						
	140H	192-1511	2ZK	3AS	8KM	9TN	9ZN		
	160H	192-1511	2HS	3GM	6WM	9EJ			
Telehandler	TH62	+*232-7910							
	TH63								
	TH82								
	TH83								
	TH103								
	TH220B	217-5973	SLA						
	TH330B		SLB						
	TH340B		SLC						
	TH350B		SLD						
	TH360B		SLE						
	TH460B		SLF						
	TH560B		SLG						
Skid Steer Loader	242	266-9213 +266-9199	CMB						
	246	266-9207 +266-9194	5SZ						
	236	266-9216 +266-9189	4YZ						
	252		FDG						
	262		CED						
Multi-Terrain Loader	257	266-9213 +266-9199	CMM						
	277	266-9216	CNC						
	287	+266-9189	CNY						

Table Notes:

* Incomplete kit. Additional parts required.

+ Combined AC/Heater Kit

Windshield Wipers



Item	Voltage	Wipe Angle	Length	Part Number
Windshield Wiper Blade			260 mm (10.24 in)	6V-8255**
Windshield Wiper Blade			330 mm (12.90 in)	123-4355**
Windshield Wiper Blade			330 mm (12.9 in)	128-5040**
Windshield Wiper Blade			350 mm (13.78 in)	6V-5849**
Windshield Wiper Blade			400 mm (15.75 in)	6V-5851**
Windshield Wiper Blade			450 mm (17.72 in)	6V-5853**
Windshield Wiper Blade			450 mm (17.70 in)	4I-6839**
Windshield Wiper Blade			500 mm (19.68 in)	5C-8811**
Windshield Wiper Blade			500 mm (19.68 in)	161-7524****
Windshield Wiper Blade			503 mm (19.80 in)	6V-6543***
Windshield Wiper Blade			508 mm (20.00 in)	8T-6450
Windshield Wiper Blade (No Blade Holder)			559 mm (22.00 in)	2V-2248
Windshield Wiper Blade			560 mm (22.00 in)	6W-3924**
Windshield Wiper Blade			560 mm (22.00 in)	6C-8434**
Windshield Wiper Blade			600 mm (23.62 in)	101-0745
Windshield Wiper Blade			600 mm (23.62 in)	6V-6864***
Windshield Wiper Blade			700 mm (27.56 in)	6V-7419***
Windshield Wiper Blade (No Blade Holder)			203 mm (8.00 in)	4K-0353
Windshield Wiper Blade			254 mm (10.00 in)	5P-5345*
Windshield Wiper Blade			305 mm (12.00 in)	5P-5378*
Windshield Wiper Blade			356 mm (14.00 in)	9D-1242*
Windshield Wiper Blade (No Blade Holder)			406 mm (16.00 in)	8K-6289
Windshield Wiper Blade (No Blade Holder)			457 mm (18.00 in)	4K-1077
Windshield Wiper Blade (No Blade Holder)			508 mm (20.00 in)	5K-1028
Windshield Wiper Group	12	55°	25 mm (1.00 in)	7T-1033
Windshield Wiper Group	24	55°	25 mm (1.00 in)	6T-7293
Windshield Wiper Group	24	68°	25 mm (1.00 in)	6T-7295
Windshield Wiper Group	24	68°	51 mm (2.00 in)	6T-7296
Windshield Wiper Group	24	85°	25 mm (1.00 in)	6T-7297
Windshield Wiper Group	24	85°	51 mm (2.00 in)	6T-7299
Windshield Wiper Group	24	93°	51 mm (2.00 in)	6T-7300
Windshield Wiper Group	24	108°	25 mm (1.00 in)	6T-7301

* Wiper Arm included

** Hook Type Arm

*** Saddle Type Arm

**** Screw Type Arm

Wiper Blades may be adaptable to on-highway trucks

Mud Flaps

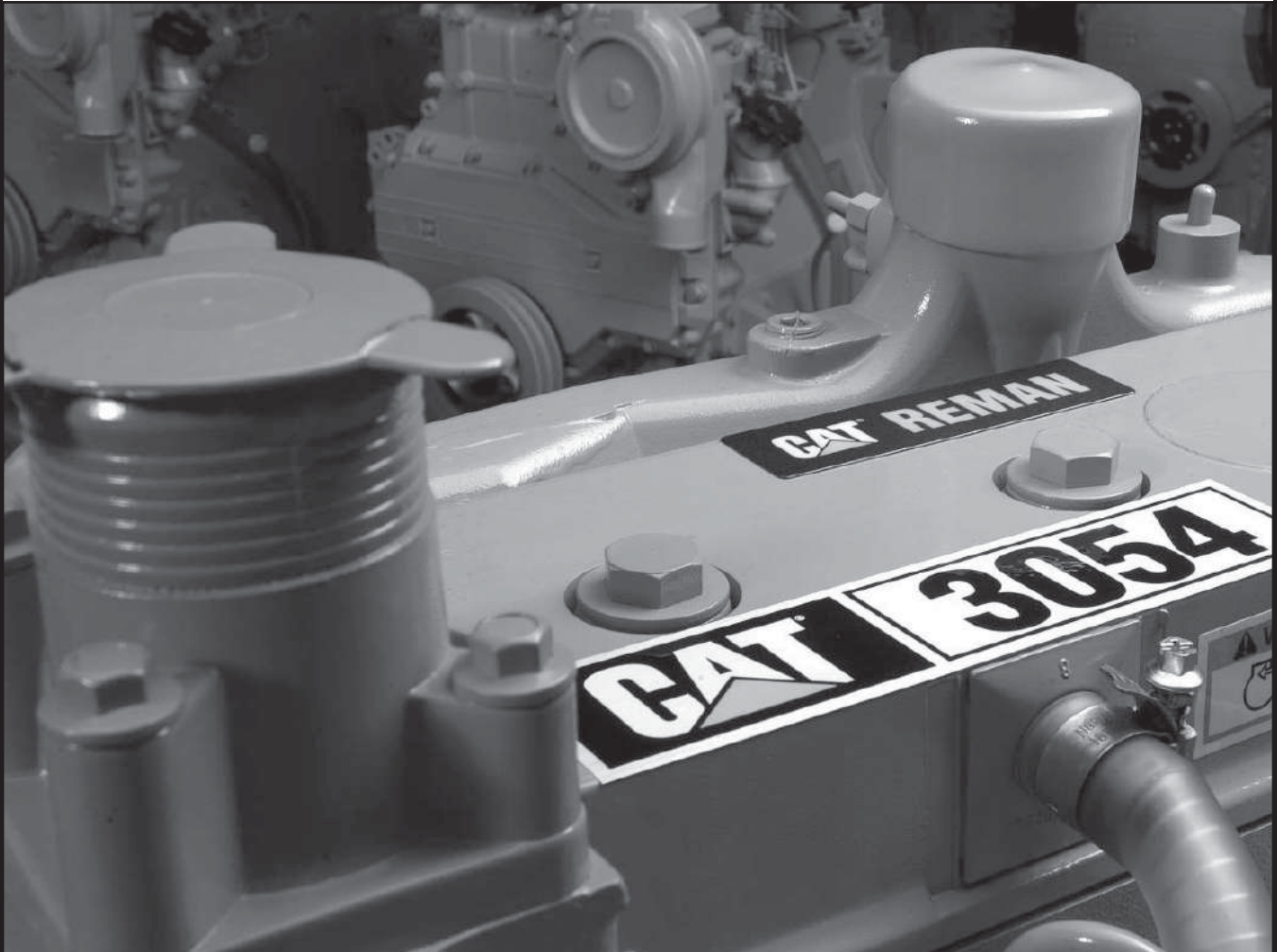
- Reduces water spray.



Item	Model	Size	Part Number
Cat Diesel Power Mud Flap (Black With Yellow Lettering)	613, 613B, 613C	609 × 846 mm (24 × 33.5 in)	9J-9125
Cat Diesel Power Mud Flap (Black With Yellow Lettering)	615, 615C	762 × 1028 mm (30 × 40.5 in)	9J-7485
Cat Mud Flap (Black With Yellow Lettering)	On-Highway Trucks	304 × 457 mm (12 × 18 in)	9U-7309
Cat Mud Flap (Black With Yellow Lettering)	On-Highway Trucks	508 × 353 mm (20 × 14 in)	9U-7310
Cat Diesel Power Mud Flap (White With Black Lettering)	On-Highway Trucks	610 × 355 mm (24 × 14 in)	7X-2983
Cat Diesel Power Mud Flap (White With Black Lettering)	On-Highway Trucks	610 × 914 mm (24 × 36 in)	7X-2984
Cat Diesel Power Mud Flap (Black With Yellow Lettering)	On-Highway Trucks	610 × 355 mm (24 × 14 in)	7X-2982
Cat Diesel Power Mud Flap (Black With Yellow Lettering)	On-Highway Trucks	610 × 762 mm (24 × 30 in)	154-6564
Cat Diesel Power Mud Flap (Black With Yellow Lettering)	On-Highway Trucks	610 × 914 mm (24 × 36 in)	7X-2986
Spray Guard Rain Flap Skirt	On-Highway Trucks	152 × 1219 mm (6 × 48 in)	6V-3352
Black Rubber Fiber Mud Flap	Pickups, Campers, Trailers, Vans	610 × 355 mm (24 × 14 in)	5P-0774
Black Rubber Fiber Mud Flap	631B, 631C	610 × 355 mm (24 × 14 in)	7J-6214
Black Rubber Fiber Mud Flap	988B, 988F, 988G	610 × 355 mm (24 × 14 in)	8J-2962
Black Rubber Fiber Mud Flap	785, 785B, 785C, 789C, 793B, 793C	612 × 600 mm (24 × 23.5 in)	105-4727
Black Rubber Fiber Mud Flap	Large On-Highway Trucks	610 × 914 mm (24 × 36 in)	2P-8549
Black Rubber Fiber Mud Flap	777, 777B, 777C, 777D	965 × 1220 mm (38 × 48 in)	6G-3361
Black Rubber Fiber Mud Flap	777, 777B, 777C, 777D, 785C	1225 × 300 mm (48 × 12 in)	8W-6062
Black Rubber Fiber Mud Flap	785, 785C	1250 × 330 mm (49 × 13 in)	5T-5987
Black Rubber Fiber Mud Flap	785, 785C	1250 × 872 mm (49 × 34.5 in)	5T-5986
Black Rubber Fiber Mud Flap	797	1490 × 1000 mm (58.5 × 39.5 in)	153-7963
Black Rubber Fiber Mud Flap	785, 785C, 789, 789C	1524 × 453 mm (60 × 18 in)	5T-5988
Black Rubber Fiber Mud Flap	785, 785C, 789, 789C	1524 × 1003 mm (60 × 39.5 in)	5T-5989
Black Rubber Fiber Mud Flap	793B, 793C	1700 × 250 mm (67 × 10 in)	8X-5064
Black Rubber Fiber Mud Flap	789, 789C, 793B, 793C, 797	1790 × 520 mm (70.5 × 20.5 in)	5T-7275
Black Rubber Fiber Mud Flap	793B, 793C	1790 × 600 mm (70.5 × 23.5 in)	8X-5063
Black Rubber Fiber Mud Flap	789, 789C, 793B, 793C, 797	1790 × 1000 mm (70.5 × 39.5 in)	5T-7274
White Anti-Sail Mud Flap	Pickups, Campers, Trailers, Vans	610 × 355 mm (24 × 14 in)	7X-2983
White Anti-Sail Mud Flap	Large On-Highway Trucks	610 × 914 mm (24 × 36 in)	7X-2984

ONE SAFE SOURCE

2008-2009



REMANUFACTURED PRODUCTS

Remanufactured Products for Engines

Remanufactured Products

Sales Model	Air Compressors	Alternators	Camshafts & Camshaft Kits	Connecting Rods	Crankshafts (Undersize)	Crankshafts (UTN)	Cylinder Head Groups	Cylinder Packs	Dampers	Electronic Control Units	Engines	Flywheels	Fuel Nozzles/Unit Injectors	Fuel Pumps & Governors	Fuel Transfer Pumps	Fuel/Air Ratio Controls	Lifters	Long Blocks	Oil Coolers	Oil Pumps	Radiators	Rocker Arms	Short Blocks	Starters	Turbochargers/Cartridges	Variable Valve Actuators	Water Pumps
1100 Series			●	●			●						●						●					●			●
1600 Series	●	●		●	●	●	●									●			●					●	●		●
3000 Series		●			●		●							●										●	●		
1.1 Series	●	●	●	●	●	●	●	●		●	●	●	●	●	●			●	●	●		●	●	●	●		●
3126 HEUI	●	●	●	●	●	●	●	●		●	●	●	●	●	●			●	●	●		●	●	●	●		●
3176/3196	●	●	●	●	●	●	●	●		●	●	●	●					●	●	●		●	●	●	●		●
3200 Series	●	●	●	●	●	●	●			●	●		●	●				●	●			●	●	●	●		●
3300 Series	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●		●	●	●	●	●	●	●	●		●
3406/3456	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●		●	●	●	●	●	●	●	●		●
C Series	●	●	●	●	●	●	●	●		●	●	●	●					●	●	●		●	●	●	●		●
C Series (ACERT)	●	●	●	●	●	●	●	●		●		●	●	●				●	●	●	●	●	●	●	●	●	●
3408/3412	●	●	●	●	●	●	●	●		●	●		●	●	●	●		●	●	●	●	●	●	●	●		●
300 Series	●	●	●	●	●	●	●	●		●			●	●	●	●	●		●	●	●	●		●	●		●
3500 Series	●	●	●	●	●	●	●	●	●	●	●		●	●	●		●		●	●	●	●	●	●	●		●
3600 Series			●	●			●		●	●			●	●			●		●	●	●	●		●	●		●

Machine Family	Drive Train Components											Hydraulic Components						Other
	Axle Housings/Spindles	Brake Bands	Brake Shoes	Drive Shaft	Final Drive & Brake Group	Final Drive Carriers	LMS Drives	Reaction Hubs	Steering Clutch & Brake Groups	Torque Converters	Transmissions	Hydraulic Cylinder Rods	Hydraulic Cylinders (Barrels)	Hydraulic Pumps & Motors	Non-Engine Gear Pump	Pump & Motor Components	Vane Cartridges	Solid Tires
Articulated Truck			●							●	●	●	●	●	●		●	
Backhoe Loader												●	●	●				
Forest Products	●											●	●	●	●		●	
Hydraulic Excavator	– Small HEX											●	●	●		●		
	– Medium HEX											●	●	●		●		
	– Large HEX						●					●	●	●				
Integrated Toolcarrier												●	●	●	●		●	
Motor Grader			●							●	●	●	●	●	●	●	●	
OHT	– Quarry & Construction	●	●	●	●	●		●		●	●	●	●	●	●		●	
	– Large Mining Trucks	●	●	●	●	●		●		●	●	●	●	●	●			
Paving Products				●										●	●			
Skid Steer Loader														●				
Telehandlers												●	●	●				
Track-Type Loader		●						●				●	●	●		●	●	
Track-Type Tractor	– Small TTT	●	●					●				●	●	●	●		●	
	– Medium TTT	●	●		●			●	●	●	●	●	●	●	●		●	
	– Large TTT		●		●			●	●	●	●	●	●	●	●		●	
	– Pipelayers	●	●		●			●	●	●		●	●	●	●		●	
Underground Products	– Load, Haul, Dump				●						●							
	– Articulated Truck				●					●	●	●	●	●	●	●	●	
Wheel Loaders	– Small WL	●										●	●	●	●		●	●
	– Medium WL	●		●	●						●	●	●	●	●		●	
	– Large WL	●	●	●	●	●		●		●	●	●	●	●	●	●	●	
	– Wheel Tractors	●		●	●			●		●	●	●	●	●	●		●	
Wheel Tractor Scraper	●		●					●		●	●	●	●	●	●		●	

ONE SAFE SOURCE

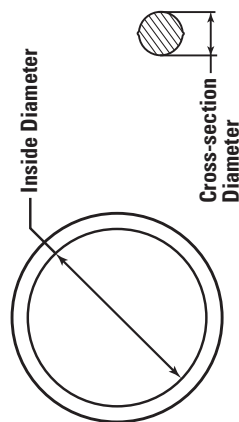
2008-2009



SEALS

Seals

O-Ring



- Meet or exceed industry standards.
- Available in SAE A5568 (Dash) sizes as well as custom sizes used on Cat equipment.
- Available for different fluids, temperatures and pressures.
- Consistently meet stringent dimensional tolerances.
- Offer superior resistance to seal compression set for leak free performance.

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
1.000 mm	6.000 mm			107-7642									
1.020 mm	10.030 mm									6V-3693			
1.090 mm	45.000 mm				6V-1556								
1.090 mm	64.060 mm				6V-1555								
1.170 mm	10.410 mm			189-3769									
1.350 mm	11.630 mm								1P-8116				
1.400 mm	6.700 mm								085-8219				
1.400 mm	25.630 mm				9X-7430								
1.420 mm	3.990 mm												
1.420 mm	4.470 mm			5P-9262		9X-7379			5P-6458				
1.420 mm	4.700 mm	901							7M-0105			3S-2912	
1.500 mm	4.500 mm									3E-4288			
1.500 mm	5.000 mm			8C-3131									
1.500 mm	6.500 mm								8U-1766	3E-4289			
1.500 mm	7.500 mm								177-2645				
1.500 mm	8.000 mm									3E-4296			
1.500 mm	8.200 mm				8C-3076					8T-7876			
1.500 mm	8.500 mm			192-7111									
1.500 mm	9.000 mm								123-2341				
1.500 mm	9.500 mm								147-4214				
1.500 mm	10.000 mm			8U-5942						3E-4297			
1.500 mm	11.500 mm								71-2750				
1.500 mm	12.000 mm			9X-7377									
1.500 mm	13.500 mm								41-0754				
1.500 mm	17.000 mm				8C-3106								
1.500 mm	17.500 mm								112-0034				
1.500 mm	19.500 mm								122-7776				
1.500 mm	52.000 mm			175-0054									
1.570 mm	12.700 mm								5D-0834				
1.570 mm	15.880 mm								4M-6582				
1.570 mm	31.040 mm							2M-8663					

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
1.590 mm	10.720 mm								8M-8544				
1.590 mm	12.700 mm			2T-2893									
1.600 mm	3.200 mm			192-7110					146-6730				
1.600 mm	9.500 mm							2T-2677					
1.600 mm	12.100 mm				107-7640								
1.600 mm	12.500 mm				8C-3133								
1.600 mm	13.100 mm								8C-3097				
1.600 mm	14.000 mm			8C-3132									
1.600 mm	25.100 mm								8C-3102				
1.600 mm	27.100 mm								8C-3101				
1.600 mm	29.100 mm									186-0128			
1.630 mm	6.070 mm	902	8T-9587	5P-7812	109-9685	109-0093				4J-7533			
1.630 mm	6.070 mm	902		163-4565									
1.630 mm	7.650 mm	903	8K-0001	5P-7813	108-5803					7J-0204	1N-6001		
1.650 mm	14.500 mm				8C-3082								
1.780 mm	1.780 mm	004											
1.780 mm	2.570 mm	005		8C-3095						085-7537			
1.780 mm	2.900 mm	006											
1.780 mm	3.680 mm	007		6V-3685		150-4651			6H-9691				
1.780 mm	4.470 mm	008							3H-0442			8M-8468	8T-2360
1.780 mm	4.470 mm	008							8F-7219	2Y-2271			
1.780 mm	5.280 mm	009			107-3116					6V-5722			
1.780 mm	6.070 mm	010		9N-1756					8F-9538	3G-1209		8M-5250	8T-2361
1.780 mm	6.400 mm								2D-6392	6V-5586		3L-6768	1P-7363
1.780 mm	7.650 mm	011		061-7538	9X-7680	9X-7380				147-6603			
1.780 mm	7.650 mm	011							5F-9144	3E-6760			
1.780 mm	7.650 mm	011								8C-3085			
1.780 mm	9.250 mm	012	6D-7128	5P-8942	153-4907					4J-5477			
1.780 mm	9.250 mm	012		8L-2779	033-6039				1H-1023	161-6154		5H-8853	
1.780 mm	10.820 mm	013		033-5879	9X-7409	9X-7381				6V-8397			
1.780 mm	10.820 mm	013			3E-6780				6M-5062	095-1750		7X-4800	126-6514
1.780 mm	12.420 mm	014	180-8424	033-6033	6V-5758	9X-7408							
1.780 mm	12.420 mm	014							4K-2039	161-6149			126-6515
1.780 mm	13.340 mm					117-2983				6V-8398			
1.780 mm	14.000 mm	015			033-6043	9X-7382			008-5593				
1.780 mm	15.600 mm	016	6V-5138	8L-2746	6V-5142				5L-4758	095-1751		5P-6620	126-6516
1.780 mm	15.720 mm			136-7226	152-2938				4D-2297	8C-3086			
1.780 mm	17.170 mm	017		2P-2975	135-2652	9X-7383				7J-9108			
									8T-6447	6V-8399			

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
1.780 mm	17.170 mm	017							1S-8947				
1.780 mm	18.770 mm	018		5P-9757	9X-7681				8M-8997	9X-7454			
1.780 mm	18.770 mm	018								8C-3087			
1.780 mm	18.940 mm									6V-9746			
1.780 mm	20.340 mm	019							2Y-2272				
1.780 mm	20.350 mm	019		033-6044	5E-9816					6V-6580			
1.780 mm	21.950 mm	020		5P-5599					030-4605	8J-2413			061-8341
1.780 mm	23.520 mm	021		106-9586	8C-3093								
1.780 mm	23.520 mm	021							8C-3098	8C-3088			
1.780 mm	23.660 mm									5K-9090			
1.780 mm	25.120 mm	022		175-3135	8T-9529				5L-4759				
1.780 mm	25.120 mm	022		6V-9178									
1.780 mm	26.700 mm	023		033-6032	136-3377	9X-7384			077-3241	005-8592			
1.780 mm	28.300 mm	024		5P-5600					003-8137	4K-4986			
1.780 mm	29.870 mm	025		9X-7734					6V-0894	2Y-2347		5P-6436	
1.780 mm	30.010 mm									6V-8400			
1.780 mm	31.470 mm	026			8C-0563				8F-0212	085-7538			
1.780 mm	33.050 mm	027		5P-5601					5D-6539	8T-4827			
1.780 mm	34.650 mm	028		5P-9658	9X-7431				5D-6543	5K-5221		5P-4932	
1.780 mm	37.820 mm	029		7X-4782									
1.780 mm	37.980 mm									8T-0315			
1.780 mm	41.000 mm	030							3J-9015	5K-6526			
1.780 mm	44.170 mm	031		5E-8767					3P-1979	5K-0227		5P-7914	
1.780 mm	47.350 mm	032		5E-8768						5K-0216		5P-8907	
1.780 mm	50.520 mm	033							6V-0895				
1.780 mm	53.700 mm	034							5P-9939			3P-5859	
1.780 mm	60.050 mm	036							077-5843	095-1753			
1.780 mm	63.220 mm	037		7X-4745								3P-0815	
1.780 mm	69.570 mm	039								113-7820		2P-5820	
1.780 mm	72.750 mm	040								9J-5686			
1.780 mm	75.920 mm	041		6V-3865					032-9714				
1.780 mm	78.560 mm											5P-3114	
1.780 mm	79.000 mm								142-6218				
1.780 mm	82.270 mm	042		6V-5778					5P-2931				
1.780 mm	88.620 mm	043	8T-2944	8T-6717					5P-3881				
1.780 mm	94.970 mm	044		5E-8769					7X-9372				
1.780 mm	101.320 mm	045		6V-1320					7X-5494			8T-2572	
1.780 mm	107.670 mm	046								9X-7357			

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
1.780 mm	120.370 mm	048							8C-5237				
1.780 mm	124.400 mm			9X-7365									
1.780 mm	126.720 mm	049		3E-6799									
1.780 mm	133.070 mm	050		6V-1934						13I-3716		5P-4969	
1.780 mm	142.340 mm											5P-9650	
1.780 mm	193.370 mm											9S-6929	
1.780 mm	228.830 mm											1S-7390	
1.780 mm	271.830 mm								6V-1919	124-0623			
1.800 mm	7.000 mm												
1.800 mm	14.500 mm			128-4004									
1.830 mm	8.920 mm	904	6V-9027	6V-5048	033-5853	9X-7378				3J-7354			
1.830 mm	10.520 mm	905		5P-7814	137-6667					1J-9671	7L-3348		
1.830 mm	10.520 mm	905			109-3206								
1.880 mm	7.980 mm									6V-5324			
1.900 mm	2.800 mm								095-1508	095-1571			
1.900 mm	3.800 mm								095-1509	7Y-5280			
1.900 mm	4.800 mm								095-1510	095-1572			
1.900 mm	5.800 mm								3T-7528	095-1573			
1.900 mm	6.800 mm								095-1511	095-1574			
1.900 mm	7.800 mm			103-8254					095-1512	095-1575			
1.900 mm	8.800 mm								095-1513	095-1576			
1.900 mm	9.800 mm				189-9763				095-1514	095-1578			
1.900 mm	16.760 mm											6V-6921	
1.980 mm	11.890 mm	906	6V-3250	6V-5049	033-6042					3J-1907	7L-6385		
1.980 mm	11.890 mm	906		109-2333	153-4906								
2.000 mm	6.000 mm			9X-4626									
2.000 mm	7.000 mm									187-1979			
2.000 mm	7.500 mm				8T-9528								
2.000 mm	9.000 mm			9X-4617									
2.000 mm	9.500 mm							8U-5928					
2.000 mm	10.000 mm			187-8567						9T-4057			
2.000 mm	10.500 mm				135-3437								
2.000 mm	12.000 mm								123-2342	3E-4298			
2.000 mm	14.000 mm								8T-0116				
2.000 mm	15.000 mm			3E-6749						122-9250			
2.000 mm	16.000 mm			173-8277				121-8112					
2.000 mm	17.000 mm				3E-6769								
2.000 mm	20.000 mm									3E-6761			

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
2.000 mm	30.000 mm								092-2304				
2.000 mm	30.200 mm			9X-4618									
2.000 mm	32.000 mm							8U-4125					
2.000 mm	36.000 mm			192-7121				117-1495					
2.000 mm	50.000 mm												
2.000 mm	57.000 mm			125-3193									
2.000 mm	63.500 mm								71-2749				
2.000 mm	66.500 mm							130-7114					
2.000 mm	74.500 mm								116-3682				
2.000 mm	78.000 mm			192-7120									
2.000 mm	80.000 mm			8T-9525									
2.000 mm	84.000 mm								107-6279				
2.000 mm	84.500 mm								165-9448				
2.000 mm	103.000 mm								191-7604				
2.000 mm	149.500 mm								177-2553				
2.000 mm	160.000 mm								196-4670				
2.100 mm	9.400 mm									6V-9028			
2.100 mm	11.400 mm									6V-6560			
2.100 mm	13.400 mm									8T-6850			
2.100 mm	15.400 mm									8T-7524			
2.100 mm	17.400 mm									8T-7877			
2.100 mm	19.400 mm									6V-7970			
2.200 mm	9.600 mm				9X-7317								
2.210 mm	16.360 mm	908	6V-6609	8L-2786	033-6028	112-5282			9X-7745	124-9346			
2.380 mm	22.220 mm			2T-2894									
2.390 mm	8.970 mm									4P-9041			
2.390 mm	31.420 mm								179-0793				
2.400 mm	9.300 mm			8T-9521									
2.400 mm	9.800 mm								112-0033	095-1577			
2.400 mm	10.800 mm								095-1515	095-1579			
2.400 mm	11.800 mm								095-1516	095-1580			
2.400 mm	12.300 mm			8T-9522						095-1581			
2.400 mm	12.700 mm			2T-2679									
2.400 mm	13.800 mm								095-1517	095-1582			
2.400 mm	13.800 mm								095-1517				
2.400 mm	14.800 mm			103-8255					095-1518	095-1583			
2.400 mm	15.300 mm			8U-3473									
2.400 mm	15.800 mm								095-1519	095-1584			

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
2.400 mm	16.300 mm				117-8766				123-2343	3E-4299			
2.400 mm	17.800 mm									095-1585			
2.400 mm	18.300 mm			8T-9523	117-8764								
2.400 mm	19.300 mm			9X-4619									
2.400 mm	19.800 mm								095-1521	095-1586			
2.400 mm	20.300 mm									3E-6762			
2.400 mm	20.800 mm				109-1294				095-1522	095-1587			119-5458
2.400 mm	21.800 mm								095-1524	095-1590			
2.400 mm	25.300 mm								123-2345	3E-6763			
2.400 mm	27.300 mm			9X-4625									
2.400 mm	27.700 mm											9X-4614	
2.400 mm	39.700 mm											8C-0626	
2.400 mm	52.600 mm									189-2624			
2.400 mm	67.600 mm								8T-6716				
2.460 mm	19.180 mm	910	6V-3251	136-7227	152-2939	114-4427				2M-9780	7L-2224		
2.460 mm	19.180 mm			6V-4589	033-6027								
2.500 mm	5.000 mm									170-5716			
2.500 mm	7.000 mm				174-5057								
2.500 mm	8.000 mm				174-5056								
2.500 mm	25.000 mm									118-2725			
2.500 mm	26.000 mm									113-0308			
2.500 mm	27.500 mm									133-9279			
2.500 mm	32.000 mm									9X-7447			
2.500 mm	33.000 mm									3E-6764			
2.500 mm	86.000 mm				117-8765								
2.500 mm	90.000 mm			192-5166									
2.500 mm	107.000 mm				8C-3083								
2.500 mm	140.000 mm								8C-3057				
2.500 mm	195.000 mm				3E-6770								
2.620 mm	4.420 mm	106											
2.620 mm	5.230 mm	107								8J-1699			
2.620 mm	6.020 mm	108		9X-7676					8B-7216	5P-4933			
2.620 mm	7.590 mm	109		032-8970					8J-8343	5P-5874			
2.620 mm	9.190 mm	110		6V-4365	107-3118				4J-2506	6J-3134			
2.620 mm	9.800 mm								6F-5559	4J-5309		8M-8157	
2.620 mm	10.770 mm	111		8L-2777	109-3204				7W-3983				
2.620 mm	12.370 mm	112		032-9313	126-7524				5H-6005	4J-9535		8M-5127	
2.620 mm	13.940 mm	113		3P-0647	6V-8350	132-2072			8F-9206	7Y-5219		8M-5251	
									6F-4855	4J-5268		8M-4437	

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
2.620 mm	13.940 mm	113				117-1385							
2.620 mm	15.540 mm	114		061-8639	107-3117	118-5068			8F-3469	5J-2974	7L-2180	8M-5260	
2.620 mm	15.540 mm	114		112-3102						122-8352			
2.620 mm	17.120 mm	115		6J-2245	6V-8351				6F-6672	4J-5351		8M-4438	
2.620 mm	17.960 mm									6V-5325			
2.620 mm	18.720 mm	116		7L-9061	109-3203				7F-8607	6V-3922		8M-5253	
2.620 mm	20.300 mm	117		5P-9186	033-6041				4M-8303	5P-3108		8M-4389	
2.620 mm	20.300 mm	117										8M-4389	
2.620 mm	21.890 mm	118		5P-8356	3E-6786				9H-6761	7J-9933		8M-8283	
2.620 mm	23.470 mm	119		033-6034	6V-8352				4D-9986	6V-5326		9X-4609	
2.620 mm	25.070 mm	120		5P-3456	6V-6339				3D-4245	6V-5556		1S-7462	6V-8958
2.620 mm	26.640 mm	121		6V-6228					1M-1077	7E-4846		8M-4431	
2.620 mm	26.640 mm	121							3D-2992	085-7539			
2.620 mm	28.240 mm	122		5P-7530	6V-4591				2K-8199	099-8232		8M-8514	
2.620 mm	29.820 mm	123		7X-4744					3S-9233	6V-8978		8M-1112	
2.620 mm	31.420 mm	124		9X-3979	3E-6787				2S-4663				
2.620 mm	31.420 mm	124		8T-5452	9X-7722								
2.620 mm	31.720 mm									096-3044			
2.620 mm	32.990 mm	125		3E-6747	6V-3550				2K-8198	6V-8218		8M-8515	
2.620 mm	32.990 mm	125			9X-7418								
2.620 mm	34.590 mm	126	9X-7545	6V-4367	166-2903				5M-2057	096-6100			
2.620 mm	34.590 mm	126			3E-6767					096-6100			
2.620 mm	36.170 mm	127		5P-8065	9X-7735	107-9570			6J-2419	7E-4847			
2.620 mm	36.170 mm	127								6V-5393			
2.620 mm	36.540 mm				131-3719								
2.620 mm	37.770 mm	128		8C-0624	6V-7323				4D-3107	6V-5391		6F-0249	
2.620 mm	39.340 mm	129		6V-5143	6V-1250				5P-8215	1R-5318			
2.620 mm	39.340 mm	129		7X-8592									
2.620 mm	40.940 mm	130		3E-6788					9X-7684	6V-5597			
2.620 mm	42.520 mm	131		9X-7432			4J-8268		4L-7711	085-7540			
2.620 mm	44.120 mm	132		3E-6790					2D-0598	5P-2568	8C-4949		
2.620 mm	45.690 mm	133		8C-3078					7D-9749	3E-6771			
2.620 mm	47.290 mm	134							032-9882				
2.620 mm	48.900 mm	135		6V-8676					3D-2898				
2.620 mm	50.470 mm	136		8C-3079					8C-3080				
2.620 mm	52.070 mm	137			6E-5412				005-8593				
2.620 mm	53.640 mm	138	8C-5196	6V-5100					3D-7805				
2.620 mm	55.240 mm	139		6V-3832	135-2655		5J-1808		004-1963				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
2.620 mm	56.820 mm	140		144-7338		144-7339				7Y-5269			
2.620 mm	58.420 mm	141		5P-5756					7J-2036	119-7843		3S-4489	
2.620 mm	59.990 mm	142		009-2061					8T-7000				
2.620 mm	61.600 mm	143		6D-7889					8S-0768				
2.620 mm	63.170 mm	144		009-2062					8C-3081				
2.620 mm	63.200 mm		8T-2929										
2.620 mm	64.770 mm	145		5P-5757	180-2391			117-7273				5S-4548	
2.620 mm	66.340 mm	146							5M-6509	131-3715			
2.620 mm	67.940 mm	147							107-4057			129-5701	
2.620 mm	67.940 mm	147							109-7412				
2.620 mm	69.520 mm	148							004-1964				
2.620 mm	71.120 mm	149							3K-4025				
2.620 mm	72.690 mm	150		8C-5197					5P-0908				
2.620 mm	75.870 mm	151		5E-8770					7R-8872	119-7844			
2.620 mm	79.380 mm					107-5769			1P-8362				
2.620 mm	82.220 mm	152		8C-3089	6V-3551				5P-3863	5P-2569			
2.620 mm	88.570 mm	153	8T-6340	6V-3834	136-3378				6V-2483				
2.620 mm	92.410 mm			185-3241									
2.620 mm	93.120 mm									140-7969			
2.620 mm	94.620 mm	154	7X-4752		107-3119	185-3503			4F-4097				
2.620 mm	97.800 mm			7X-4804									
2.620 mm	101.270 mm	155		6D-7146	107-3120				3K-0715				
2.620 mm	101.270 mm	155	9X-7549		133-6578					8T-5049			
2.620 mm	107.620 mm	156								1T-1068			
2.620 mm	113.970 mm	157		6V-7350					6S-3002				
2.620 mm	120.320 mm	158	117-3036	5E-8771						9X-7566			
2.620 mm	126.670 mm	159	9X-7697	117-8801					7J-6285				
2.620 mm	126.670 mm	159		9X-7422					7J-6285				
2.620 mm	126.670 mm	159		169-7442									
2.620 mm	131.200 mm									133-0128			
2.620 mm	133.020 mm	160							2P-1692				
2.620 mm	139.370 mm	161							5J-3886	117-7282			
2.620 mm	139.370 mm	161							5J-3886				
2.620 mm	145.720 mm	162		176-1378						9X-7358			
2.620 mm	152.070 mm	163		9X-4576					5P-3864				
2.620 mm	158.420 mm	164		9X-7286					8T-6404	119-7845			
2.620 mm	164.800 mm		4S-7762							9X-7391			
2.620 mm	171.120 mm	166							9D-8042				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
2.620 mm	177.470 mm	167							5P-5397				
2.620 mm	183.820 mm	168							9X-7725				
2.620 mm	190.170 mm	169		9X-7295					9X-7683				
2.620 mm	202.870 mm	171			9X-7410					125-4194		7X-4799	
2.620 mm	209.220 mm	172							162-9997				
2.620 mm	215.570 mm	173							161-4102				
2.620 mm	234.620 mm	176		107-3114									
2.620 mm	240.970 mm								190-8501				
2.620 mm	247.320 mm	178		154-8741									
2.620 mm	249.500 mm								8C-5175				
2.620 mm	260.000 mm								8C-5177				
2.620 mm	269.400 mm								8C-5176				
2.620 mm	287.910 mm								065-2793				
2.620 mm	330.890 mm		194-3087										
2.650 mm	145.720 mm									8U-2543			
2.650 mm	183.800 mm									125-4189			
2.660 mm	9.870 mm									173-5549			
2.700 mm	13.600 mm								8T-0117				
2.720 mm	19.300 mm								006-2992				
2.800 mm	22.700 mm									8T-7878			
2.800 mm	23.700 mm									8T-7525			
2.800 mm	29.700 mm									8T-7526			
2.800 mm	38.700 mm									8C-5193			
2.950 mm	21.920 mm	911							9X-7692				
2.950 mm	23.470 mm	912	6V-5063	6V-5050	033-6036					3D-2824	7L-3385		
2.950 mm	26.590 mm	914		6V-1903	033-6038	119-5155				4K-1388			
2.950 mm	29.740 mm	916	6V-5064	5P-7701	9X-7712				9X-7744	7M-8485	7L-2229		
3.000 mm	9.000 mm			132-4240									
3.000 mm	19.000 mm			2T-2695									
3.000 mm	19.500 mm			150-7732									
3.000 mm	23.000 mm												
3.000 mm	24.000 mm								133-4771	5W-9413			
3.000 mm	26.200 mm									118-3131			
3.000 mm	34.000 mm									179-9013			
3.000 mm	36.500 mm			9X-4621									
3.000 mm	37.460 mm		6V-5065	5P-7815						2S-4078	7L-3386		
3.000 mm	37.470 mm				183-2317								
3.000 mm	41.000 mm							2T-2692					

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.000 mm	43.690 mm	924	8C-0562	5P-7816	108-5806					6K-6307	1N-6002		
3.000 mm	49.000 mm								121-8117				
3.000 mm	50.000 mm			9X-4616				2T-2691					
3.000 mm	51.000 mm												
3.000 mm	53.100 mm	928	8T-2928	9X-3978									
3.000 mm	54.000 mm				174-5055								
3.000 mm	54.500 mm				175-6715								
3.000 mm	56.000 mm									122-9251			
3.000 mm	59.360 mm	932		5P-7817						030-4606			
3.000 mm	60.000 mm									118-3128			
3.000 mm	64.000 mm									122-9252			
3.000 mm	70.000 mm			128-4005									
3.000 mm	79.500 mm								30-5546				
3.000 mm	84.000 mm							125-7005					
3.000 mm	84.500 mm			9X-4622									
3.000 mm	85.000 mm				177-0344								
3.000 mm	92.000 mm								109-5698				
3.000 mm	96.000 mm							113-7822					
3.000 mm	97.000 mm			121-9907									
3.000 mm	98.000 mm								121-8094				
3.000 mm	102.000 mm								179-3560				
3.000 mm	104.000 mm							118-3122					
3.000 mm	105.000 mm			8T-9526									
3.000 mm	108.860 mm									138-2676			
3.000 mm	115.000 mm							125-9701					
3.000 mm	120.000 mm									140-0226			
3.000 mm	128.000 mm							118-2720					
3.000 mm	130.000 mm							135-7935					
3.000 mm	144.500 mm			192-5167									
3.000 mm	150.000 mm								109-5700				
3.000 mm	179.000 mm			192-5168									
3.000 mm	179.500 mm								107-5665				
3.000 mm	190.000 mm			132-4423									
3.000 mm	192.000 mm			167-1829									
3.000 mm	200.000 mm									109-5693			
3.000 mm	205.000 mm							8U-5927					
3.000 mm	210.000 mm								109-5694				
3.000 mm	220.000 mm								109-5701				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.000 mm	224.000 mm								121-8132				
3.000 mm	280.000 mm								109-5706				
3.000 mm	315.000 mm								109-5705				
3.000 mm	335.000 mm								133-4769				
3.000 mm	360.000 mm								109-5695				
3.000 mm	420.000 mm								145-6735				
3.000 mm	420.000 mm								145-5935				
3.100 mm	24.400 mm								095-1657	095-1696			
3.100 mm	29.400 mm								095-1658	095-1698			
3.100 mm	34.400 mm								095-1659	095-1700			
3.100 mm	39.400 mm				109-1296					095-1701			
3.100 mm	44.400 mm									095-1703			
3.100 mm	49.400 mm								095-1662	095-1704			
3.100 mm	49.400 mm								3A-9280				
3.100 mm	54.400 mm								095-1663	095-1705			
3.100 mm	59.400 mm									095-1706			
3.100 mm	64.400 mm									095-1707			
3.100 mm	69.400 mm									095-1708			
3.100 mm	74.400 mm									095-1709			
3.100 mm	79.400 mm			193-1736						095-1710			
3.100 mm	84.400 mm								8T-3338	095-1711			
3.100 mm	89.400 mm									095-1712			
3.100 mm	94.400 mm			096-3944					095-1671	095-1713			
3.100 mm	99.400 mm									095-1714			
3.100 mm	104.400 mm								095-1673	095-1715			
3.100 mm	109.400 mm								095-1674	095-1716			
3.100 mm	114.400 mm								095-1675	095-1717			
3.100 mm	119.400 mm								095-1676	095-1718			
3.100 mm	124.400 mm								095-1678	095-1719			
3.100 mm	129.400 mm									095-1720			
3.100 mm	134.400 mm								095-1679	095-1721			
3.100 mm	139.400 mm								095-1680	095-1722			
3.100 mm	144.400 mm								095-1681	095-1723			
3.100 mm	152.500 mm									107-6986			
3.100 mm	160.000 mm									095-7384			
3.100 mm	174.000 mm									095-7383			
3.100 mm	190.000 mm									096-4377			
3.100 mm	259.300 mm								6V-8101				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.100 mm	363.680 mm								3F-8948				
3.150 mm	30.000 mm			8T-9524									
3.180 mm	21.820 mm								179-0794				
3.180 mm	34.110 mm								4D-5256				
3.180 mm	49.230 mm								4F-2709				
3.180 mm	200.020 mm								3F-8333				
3.180 mm	323.850 mm										4S-5805		
3.180 mm	377.820 mm									002-6962			
3.180 mm	419.100 mm										4S-5804		
3.250 mm	114.000 mm									140-0180			
3.250 mm	168.740 mm									140-0236			
3.300 mm	31.750 mm								4F-2928				
3.300 mm	66.680 mm								3F-3759				
3.300 mm	74.630 mm								4F-3408				
3.300 mm	106.380 mm								4F-9174				
3.300 mm	195.280 mm								4F-2410				
3.400 mm	285.600 mm								177-8740				
3.500 mm	21.700 mm								096-0034	095-1589			5 -4115
3.500 mm	22.100 mm								095-1525	095-1591			
3.500 mm	23.700 mm				190-7674				095-1526	095-1592			
3.500 mm	24.700 mm								095-1527	095-1593			
3.500 mm	25.700 mm								095-1528	095-1594			
3.500 mm	25.700 mm									095-1595			
3.500 mm	28.700 mm								095-1530	095-1596			
3.500 mm	29.700 mm								095-1531	095-1597			
3.500 mm	30.700 mm								095-1532	095-1598			
3.500 mm	31.700 mm								095-1533	095-1599			103-8173
3.500 mm	33.700 mm								095-1534	095-1600			
3.500 mm	34.700 mm								8T-2148	095-1601			
3.500 mm	35.700 mm								095-1536	095-1602			
3.500 mm	37.700 mm				190-7673				095-1537	095-1603			
3.500 mm	38.700 mm								095-1538	096-5572			
3.500 mm	39.700 mm								095-1539	095-1604			
3.500 mm	40.700 mm								095-1540	095-1605			
3.500 mm	41.700 mm								095-1541	095-1606			
3.500 mm	43.700 mm									095-1607			
3.500 mm	44.700 mm								095-1543	095-1608			
3.500 mm	45.700 mm								095-1544	095-1609			

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.500 mm	47.700 mm									095-1610			
3.500 mm	48.000 mm				177-0343								
3.500 mm	48.700 mm								095-1545	095-1611			
3.500 mm	49.700 mm								095-1547	095-1613			
3.500 mm	84.600 mm											8C-5212	
3.500 mm	89.600 mm											8C-5213	
3.500 mm	94.600 mm											8C-5214	
3.530 mm	5.940 mm	202		6V-4366					2H-5001	9J-6491		8M-8281	
3.530 mm	7.520 mm	203		137-8101						6V-5555			
3.530 mm	9.120 mm	204		7X-4805	6V-3548				2J-6274	6V-0913			
3.530 mm	10.690 mm	205		119-9443									
3.530 mm	10.690 mm	205		6V-5759									
3.530 mm	12.290 mm	206		5P-0840					2M-4453	5P-6300		8M-4447	
3.530 mm	13.210 mm											5M-1868	
3.530 mm	13.870 mm	207		125-1372					3H-3385			8M-8282	
3.530 mm	13.870 mm	207										5P-9557	
3.530 mm	15.470 mm	208	8C-0504	5P-5598					2J-0157	6J-1038		8M-4448	
3.530 mm	17.040 mm	209		5P-8119									
3.530 mm	18.640 mm	210	5P-3148	5P-6718		169-7487			5F-7054	4J-5140		8M-4435	
3.530 mm	18.660 mm								8U-6426				
3.530 mm	20.220 mm	211		061-7539		9X-7385			1H-8171	008-2103			
3.530 mm	21.820 mm	212		3P-1156		112-3132			3H-0107	4J-8996		8M-4445	
3.530 mm	23.390 mm	213		6V-3683	109-3207				5H-2767			8M-4446	035-0273
3.530 mm	24.990 mm	214		117-8803	109-3205				5F-1678	4J-5267		8M-4988	
3.530 mm	24.990 mm	214		3P-1155									
3.530 mm	25.400 mm									141-7454			
3.530 mm	26.570 mm	215		5P-8118					4F-8946	180-8722		8M-4432	
3.530 mm	26.570 mm	215								7X-1550			
3.530 mm	28.170 mm	216		061-9458		121-0145			2H-3932	4J-8997		8M-5248	
3.530 mm	29.740 mm	217		165-4854					4F-9029	6V-0357		8M-4433	
3.530 mm	29.740 mm	217		5P-8883						6V-0357			
3.530 mm	31.340 mm	218		5P-8210	134-5691				6F-6673	4J-0519		8M-5254	
3.530 mm	32.920 mm	219		5P-8066	170-5715				4F-7391	4J-0520		8M-4987	
3.530 mm	32.920 mm	219			9X-7557								
3.530 mm	34.520 mm	220	7L-4774	5P-4268	3E-6766				3H-1461	4J-0521		8M-5249	
3.530 mm	36.090 mm	221		6V-5266	9X-7419				5F-9657	4J-8998		1S-9799	
3.530 mm	37.690 mm	222		061-7540	191-2962	118-7214			4F-7952	4J-0522	7L-2175	8M-4986	
3.530 mm	39.270 mm								2J-1826				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.530 mm	40.870 mm	223		061-8561	061-8561	118-8586			6F-0711	4J-5573		8M-4992	
3.530 mm	40.870 mm	223			194-9584				099-0187				
3.530 mm	40.870 mm	223			8J-8725								
3.530 mm	44.040 mm	224	8T-9588	8J-4351	5P-1480	129-1653			1H-9696	4J-0523		8M-4443	
3.530 mm	47.220 mm	225	8T-1702	061-9455					7F-8267	4J-0524		8M-5661	
3.530 mm	50.390 mm	226		5P-8211					5F-8000	4J-0525		8M-4436	
3.530 mm	50.390 mm	226		6V-6756									
3.530 mm	53.570 mm	227		061-9456	8C-3077				7F-8268	4J-0526		8M-5010	
3.530 mm	53.570 mm	227		124-1858									
3.530 mm	53.970 mm												
3.530 mm	55.600 mm												
3.530 mm	56.740 mm	228	8T-1703	6V-4368		112-1577			137-3623				
3.530 mm	59.920 mm	229		5P-4892					8F-6711	4J-0527		8M-4390	
3.530 mm	59.920 mm	229							1H-8720	4J-0528		1S-2174	
3.530 mm	63.090 mm	230		061-9457					175-7894				
3.530 mm	65.070 mm								1H-5728	3P-0439		8M-4395	
3.530 mm	66.270 mm	231		6J-2244		118-8708			5B-4399				
3.530 mm	66.270 mm	231				118-8706			8F-8882	3E-6730		8M-5252	
3.530 mm	69.440 mm	232	167-4407	033-6031	8T-0568	112-1574							
3.530 mm	69.440 mm	232							175-7895	6J-2680		9M-7539	
3.530 mm	72.620 mm	233		6V-1179					5H-8848				
3.530 mm	75.790 mm	234		5P-4889					6H-3977	149-0231			
3.530 mm	75.790 mm	234							175-7896			5M-3038	
3.530 mm	78.970 mm	235		153-1157	170-7098				1H-7339				
3.530 mm	78.970 mm	235							2H-6184	3E-6732			
3.530 mm	82.140 mm	236	8C-3073	6V-1196	170-4821				175-7897				
3.530 mm	85.320 mm	237	8C-3072	124-1859					2H-3931	6V-6707		6L-9965	
3.530 mm	85.320 mm	237		6V-8001					2H-6338	117-1266		2P-3538	
3.530 mm	88.490 mm	238		6V-8002						2H-6338			
3.530 mm	88.490 mm	238							2H-4145	6R-0365		3S-1427	
3.530 mm	91.670 mm	239		131-3718					175-7898				
3.530 mm	92.080 mm								8H-7521	3E-6735		2M-2561	
3.530 mm	94.840 mm	240		3E-6773						5D-6618			
3.530 mm	98.020 mm	241		6V-1197					1H-8128	5P-6302		5K-1770	
3.530 mm	98.020 mm	241							175-7900	9X-4611		9M-9936	
3.530 mm	101.190 mm	242		6V-6353					2H-3934				
3.530 mm	104.370 mm	243		5D-5957					1H-6227			2S-2182	
3.530 mm	107.540 mm	244		3E-6785					4M-0189			7M-9909	
3.530 mm									2H-3928		7L-3313	8S-5654	

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.530 mm	110.720 mm	245		6V-5053					4H-9105	3E-6703		9M-9729	
3.530 mm	110.720 mm	245		8T-9527					175-7902				
3.530 mm	113.890 mm	246		9X-7287					5H-6734	190-3011			
3.530 mm	117.070 mm	247		5D-5958					2J-8163			5P-1705	
3.530 mm	120.240 mm	248		125-9794					5F-3144	175-7903	7L-2211	8M-5255	
3.530 mm	123.420 mm	249		6V-8260					5F-3999			7M-6637	
3.530 mm	126.590 mm	250		9X-7371					5F-3106	031-4392		4S-5898	
3.530 mm	126.590 mm	250							175-7904		7L-4090		
3.530 mm	129.770 mm	251		130-0229					3F-5792			5P-3457	
3.530 mm	129.770 mm	251		5P-8286									
3.530 mm	132.940 mm	252		6V-7351					175-7905			9N-1619	
3.530 mm	132.940 mm	252							2H-9247				
3.530 mm	136.120 mm	253		6V-1195					2H-3935			9N-2693	
3.530 mm	139.290 mm	254							8F-9516	190-3010		8M-5007	
3.530 mm	142.470 mm	255		161-8068		129-1609			2D-8009			6V-1904	
3.530 mm	145.640 mm	256	6V-3428		6V-3549				5H-3252	6J-5541			
3.530 mm	148.820 mm	257		161-8069		129-1610			2K-8257			3S-5135	
3.530 mm	151.990 mm	258		6V-5553	170-7106				8F-8733	7D-9014	2L-1778	5D-4311	
3.530 mm	158.340 mm	259		6V-3319					2K-4472		7L-3380	8M-4704	
3.530 mm	158.340 mm	259										6V-3689	
3.530 mm	164.690 mm	260		6V-7681	175-5077				6F-4718			1S-4974	
3.530 mm	171.040 mm	261		5P-8428	170-4825				9F-1399	061-9729		2S-4071	
3.530 mm	177.390 mm	262		6V-1902					2K-2939		7L-2181	5S-4554	
3.530 mm	183.740 mm	263		6V-3907	175-5088				4H-6520		7L-3314	1S-6119	
3.530 mm	190.090 mm	264	6V-5098			149-5461			3J-0634	5J-2383			
3.530 mm	196.440 mm	265	8T-2921						1H-8278	126-4003	8L-5189		
3.530 mm	202.790 mm	266							1J-2176	7Y-4277		9M-9545	
3.530 mm	204.000 mm	266								9C-3493			
3.530 mm	209.140 mm	267				122-3771			9M-5024	7Y-4294		9N-2694	
3.530 mm	214.300 mm								2M-0340				
3.530 mm	215.490 mm	268		156-5198		122-3772			4K-6804				
3.530 mm	221.840 mm	269							8F-5900				
3.530 mm	226.000 mm								116-7830				
3.530 mm	228.190 mm	270		6V-3684					8F-6230				
3.530 mm	230.670 mm											146-7311	
3.530 mm	234.540 mm	271							1T-0132			8L-3017	
3.530 mm	238.230 mm											146-7312	
3.530 mm	240.890 mm	272							2D-9572	126-4002		9N-1609	

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.530 mm	247.240 mm	273							5S-3676				
3.530 mm	253.590 mm	274							5H-4909			7D-1979	
3.530 mm	266.290 mm	275							8J-8879				
3.530 mm	269.880 mm								9H-5548				
3.530 mm	278.990 mm	276							2R-0239				
3.530 mm	281.940 mm									5D-4187			
3.530 mm	282.370 mm								6V-7991				
3.530 mm	285.800 mm									4D-5497			
3.530 mm	291.690 mm	277							5P-2545			9N-1520	
3.530 mm	298.450 mm								9X-7686				
3.530 mm	304.390 mm	278		165-4852					2D-6533				
3.530 mm	307.570 mm			5P-9035									
3.530 mm	316.870 mm								5P-2861			6V-2406	
3.530 mm	317.910 mm												
3.530 mm	323.440 mm									5J-1086			
3.530 mm	329.790 mm	279							4D-6695			9N-1552	
3.530 mm	340.990 mm								171-9375				
3.530 mm	345.000 mm								116-5897				
3.530 mm	351.000 mm								171-9298				
3.530 mm	355.190 mm	280		5D-5959					4S-5879			9N-1562	
3.530 mm	367.890 mm								6D-0692				
3.530 mm	380.590 mm	281							4D-1577				
3.530 mm	385.340 mm			6V-5058					8D-2714				
3.530 mm	399.800 mm								5P-9147				
3.530 mm	405.260 mm	282							7S-8561				
3.530 mm	412.340 mm								2P-3628				
3.530 mm	413.490 mm								7Y-1455				
3.530 mm	430.660 mm	283							4S-5924				
3.530 mm	454.910 mm								7X-1548				
3.530 mm	470.000 mm								8C-5240				
3.530 mm	481.460 mm								2D-6507				
3.530 mm	484.860 mm								6W-4310				
3.530 mm	500.740 mm								136-2967				
3.530 mm	523.470 mm								7D-7519				
3.530 mm	535.500 mm								6V-6204				
3.530 mm	552.040 mm								4D-0449			9X-7550	
3.530 mm	570.000 mm												
3.530 mm	576.480 mm								7Y-0640				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
3.530 mm	606.020 mm								7D-5868				
3.530 mm	669.000 mm								129-9124				
3.530 mm	698.090 mm								6D-1355				
3.530 mm	749.000 mm								5P-4076				
3.530 mm	1108.000 mm											150-8791	
3.550 mm	155.000 mm				129-5426								
3.550 mm	185.000 mm								123-2003				
3.600 mm	24.600 mm			3E-6775									
3.960 mm	11.130 mm								4F-5675			1H-3748	
3.960 mm	14.270 mm											3H-2387	
3.960 mm	22.220 mm								4F-5676				
3.960 mm	25.400 mm							8B-6015					
3.960 mm	38.1 mm											3H-2389	
3.960 mm	76.2 mm											4D-6773	
3.960 mm	88.04 mm											7H-0538	
3.960 mm	117.480 mm								7F-6268				
4.000 mm	38.000 mm							121-7687					
4.000 mm	45.000 mm			121-8116									
4.000 mm	65.000 mm									114-8837			
4.000 mm	75.000 mm									112-6921			
4.000 mm	76.000 mm									125-7001			
4.000 mm	80.000 mm									135-7940			
4.000 mm	95.000 mm								165-8066			3E-6752	
4.000 mm	102.000 mm									112-6920			
4.000 mm	112.000 mm									118-2718			
4.000 mm	140.000 mm								9X-7440				
4.000 mm	150.000 mm								111-7052				
4.000 mm	160.000 mm								109-5704				
4.000 mm	165.000 mm								141-0749				
4.000 mm	172.000 mm								8C-3058				
4.000 mm	330.000 mm								109-5707				
4.000 mm	375.000 mm								109-5703				
4.000 mm	530.000 mm								133-4767				
4.000 mm	595.000 mm								109-5692				
4.290 mm	9.520 mm								7B-0305				
4.300 mm	9.530 mm											3S-5496	
4.300 mm	9.530 mm											3S-5496	
4.310 mm	140.200 mm		142-7072	142-6217									

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
4.310 mm	140.200 mm		6V-5121	3E-6777									
4.310 mm	140.200 mm			3E-6777									
4.310 mm	141.000 mm					110-2220							
4.390 mm	42.880 mm								7B-6868				
4.390 mm	101.600 mm								7B-2125				
4.390 mm	113.800 mm		3S-3977										
4.390 mm	117.100 mm		5S-6670										
4.700 mm	357.380 mm												
4.780 mm	7.920 mm								4F-5291				
4.780 mm	25.400 mm								2A-3307				
4.780 mm	73.020 mm								2A-3854				
4.780 mm	76.200 mm								3F-9141				
4.780 mm	83.950 mm								5B-3323				
4.780 mm	93.680 mm										3H-2726		
4.780 mm	107.920 mm								5B-4484				
4.780 mm	169.880 mm								1Y-6637				
4.780 mm	193.680 mm								3F-8774				
4.780 mm	219.080 mm								7F-7151				
4.780 mm	249.220 mm								7B-5716				
4.780 mm	290.530 mm								9F-3384				
4.780 mm	320.680 mm								7F-2094				
4.780 mm	469.900 mm								7F-2093				
4.880 mm	84.070 mm								4F-2411				
4.880 mm	112.730 mm								6F-8509				
4.880 mm	133.800 mm		6H-6998						4F-7471				
4.880 mm	139.800 mm		3S-3978										
4.880 mm	152.400 mm		6L-7812										
4.880 mm	165.100 mm		6L-7815									5P-4360	
4.880 mm	175.000 mm		7N-2046									5P-4361	
5.000 mm	120.000 mm									13S-7933			
5.000 mm	205.000 mm								8C-3059				
5.000 mm	248.000 mm								133-4768				
5.000 mm	780.000 mm								109-5699				
5.000 mm	820.000 mm								109-5696				
5.000 mm	900.000 mm								109-5697				
5.260 mm	445.500 mm			8T-0115									
5.330 mm	7.140 mm			4G-4972								3H-2388	
5.330 mm	12.070 mm	310		8S-5011					3H-4970			1S-7104	

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
5.330 mm	15.240 mm	312		6V-3955					5H-8038			8M-4990	
5.330 mm	18.420 mm	314	6V-5061	6V-3348					3B-8453			1S-0004	
5.330 mm	19.300 mm											9M-4618	
5.330 mm	19.990 mm	315		5P-8870					9H-4557				
5.330 mm	21.590 mm	316	6V-5062	2N-3350					6H-5672			9H-6067	
5.330 mm	23.160 mm	317	7L-4773	5P-9890	032-8969	114-2687			8F-4994			9M-4849	
5.330 mm	23.160 mm	317		112-3540									
5.330 mm	24.770 mm	318	8T-0280	6V-4430					8B-4967			8M-5266	
5.330 mm	24.770 mm	318		6V-4480									
5.330 mm	27.940 mm	320		3P-0648					5H-7370			8M-4991	
5.330 mm	31.120 mm	322	7L-6580	6V-5134					4F-5607			5H-7153	
5.330 mm	32.690 mm	323							5M-7423				
5.330 mm	34.290 mm	324	5P-7204	6V-3830					5M-5860	5P-5316		1S-9544	
5.330 mm	37.470 mm	325	6V-9769	5P-8068		109-0078	3S-6538		4F-7389	5L-2727		9M-7002	
5.330 mm	40.640 mm	326	6L-7817	5P-5846		109-0072			2H-3927	8S-5953		9M-9647	
5.330 mm	43.820 mm	327	2N-5749	8C-5230		109-0073			4F-8824			2S-2251	
5.330 mm	43.820 mm	327										8S-4190	
5.330 mm	46.200 mm											9M-2610	
5.330 mm	46.990 mm	328	6V-1585	8C-3107		112-3258			4F-9653	9S-8307		6L-1648	
5.330 mm	46.990 mm	328										7S-3206	
5.330 mm	50.160 mm	329	5S-1105	3P-0650		109-0076	2H-3088		5K-5959			6L-1651	
5.330 mm	50.170 mm	329	171-4358	113-5304									
5.330 mm	53.340 mm	330	2N-5243	6V-3831		112-3260			4F-7390				
5.330 mm	56.520 mm	331	2N-0475	109-2332		110-7752			3H-2652	7S-4001		6L-1650	
5.330 mm	56.520 mm	331		3P-0649									
5.330 mm	59.690 mm	332		3P-0651		112-3259			6F-8146	099-4780		6L-9284	
5.330 mm	62.870 mm	333	8T-1919	3P-0657		112-1102			2H-2665	2R-0039		6L-1649	
5.330 mm	66.040 mm	334		3P-0656					2H-3933			8H-1607	
5.330 mm	69.220 mm	335		3P-0653		109-0075			7F-2122	006-8352		8M-4989	
5.330 mm	72.390 mm	336	6V-1454	3P-0655		110-7753			5F-3092			9M-4218	
5.330 mm	75.570 mm	337		6V-5051		109-0092			7H-2444				
5.330 mm	78.740 mm	338		6V-3833		109-0079			9F-4446		7L-2174	1M-6036	
5.330 mm	81.920 mm	339		6V-5656					4L-9564	5D-1597		6L-5359	
5.330 mm	85.090 mm	340	6V-5066	3P-0654					8H-2046			9M-4217	
5.330 mm	88.270 mm	341		6V-0973		112-8186			1H-0474				
5.330 mm	91.440 mm	342		5P-7818		109-0074			5F-0149			9X-7727	
5.330 mm	94.620 mm	343		6V-4315					5H-8624				
5.330 mm	97.790 mm	344	6V-5139	5S-9134		109-0080			9M-2092			6V-5188	

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
5.330 mm	100.970 mm	345		6V-3908		109-0077			4F-7387	9X-7458	7L-2197	4H-3243	
5.330 mm	104.140 mm	346		6V-5052					1J-2859				
5.330 mm	107.320 mm	347	6V-5504	6V-5101					9F-7283			1S-1225	
5.330 mm	110.490 mm	348		7D-7111					1S-7408				
5.330 mm	113.670 mm	349	6V-5140	5P-8872		112-1580			5H-5672			8S-5655	
5.330 mm	116.840 mm	350	6V-5067	8C-3103					5P-4326				
5.330 mm	120.020 mm	351		5P-8940					1P-9005				
5.330 mm	123.190 mm	352	8T-2903	7X-1547		109-0081			2S-8439				
5.330 mm	123.900 mm											107-3185	
5.330 mm	126.360 mm								068-9002				
5.330 mm	129.540 mm	354	6V-5068	6V-4314	170-7103				8J-1688				
5.330 mm	132.720 mm	355							5P-1979				
5.330 mm	135.890 mm	356		9X-7562	170-7105				9X-7375				
5.330 mm	139.070 mm	357	6V-6809	6V-5054					9M-3786			3S-1219	
5.330 mm	142.240 mm	358		6V-3835					6D-9157				
5.330 mm	145.420 mm	359							3S-1223				
5.330 mm	148.590 mm	360							6V-5657				
5.330 mm	151.770 mm	361		6V-5055	170-4823				7J-8956				
5.330 mm	158.120 mm	362		6V-4297					8T-6444			8C-3091	
5.330 mm	164.470 mm	363			170-4824				8J-1665			7S-8758	
5.330 mm	170.820 mm	364								5P-7593			
5.330 mm	177.170 mm	365		109-7411			107-6280		8T-7568			9X-7704	
5.330 mm	183.520 mm	366		6V-5102					5K-1787				
5.330 mm	189.860 mm	367							3F-1547				
5.330 mm	196.220 mm	368		6V-3349					5M-7142				
5.330 mm	199.390 mm									8J-4386			
5.330 mm	202.570 mm	369	6V-7703	177-6911					9M-5894				
5.330 mm	208.920 mm	370		5P-8429					4N-1230				
5.330 mm	211.190 mm					134-5958							
5.330 mm	215.270 mm	371							5P-3092				
5.330 mm	221.620 mm	372		6V-5141		134-5959			5H-4081	1U-3174			
5.330 mm	227.970 mm	373								5P-5374		5D-9344	
5.330 mm	234.320 mm	374		6V-5375									
5.330 mm	240.670 mm	375		6V-7701						5P-2235		5P-8105	
5.330 mm	253.360 mm	377							8L-9241				
5.330 mm	266.070 mm	378		5P-8871					3S-3074	109-5702		5P-5819	
5.330 mm	266.070 mm	378		174-3357								5P-5819	
5.330 mm	270.210 mm											2W-2073	

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
5.330 mm	278.770 mm	379		6V-5554						5P-2236			
5.330 mm	287.000 mm			8C-9023									
5.330 mm	291.470 mm	380		6V-5057					2M-1309				
5.330 mm	300.420 mm									130-9108			
5.330 mm	304.170 mm	381		159-8802		158-6563				6V-3263			
5.330 mm	310.130 mm								5H-4082				
5.330 mm	317.240 mm			6V-7702									
5.330 mm	325.000 mm		1W-0115										
5.330 mm	329.570 mm	382		9X-7688					7S-8554				
5.330 mm	335.000 mm			6V-3602									
5.330 mm	342.900 mm								2M-3818				
5.330 mm	350.420 mm									130-9109			
5.330 mm	354.970 mm	383		8C-3828					6V-1175				
5.330 mm	355.190 mm									4T-4128			
5.330 mm	371.420 mm									130-9110			
5.330 mm	372.000 mm			8T-0098									
5.330 mm	380.370 mm	384		118-7536					2M-3340				
5.330 mm	383.600 mm			9X-7428									
5.330 mm	390.000 mm			6V-4244									
5.330 mm	399.420 mm								7S-4571				
5.330 mm	405.300 mm								5M-6200				
5.330 mm	411.480 mm								5M-7329				
5.330 mm	415.000 mm			6V-9670									
5.330 mm	421.700 mm			8T-8883									
5.330 mm	422.000 mm								144-8299				
5.330 mm	430.660 mm	386							5P-9806			9L-5650	
5.330 mm	440.690 mm								6M-5218				
5.330 mm	456.060 mm	387		6V-5059					2R-0098				
5.330 mm	481.410 mm	388							8D-4771				
5.330 mm	494.660 mm			6V-5043					9H-0846				
5.330 mm	514.650 mm								9M-5892				
5.330 mm	532.210 mm	390							4H-6730				
5.330 mm	548.640 mm											8S-6251	
5.330 mm	557.610 mm	391							9H-3360				
5.330 mm	558.000 mm		156-5197										
5.330 mm	582.680 mm	392							3D-8422				
5.330 mm	608.100 mm								8T-3013				
5.330 mm	621.000 mm		154-9416										

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
5.330 mm	633.480 mm	394							9H-6832				
5.330 mm	643.380 mm								8D-5096				
5.330 mm	684.280 mm								5D-7523				
5.330 mm	736.600 mm			159-8752					2D-6506				
5.330 mm	760.000 mm								5P-4057				
5.330 mm	786.760 mm								3D-3295				
5.330 mm	795.000 mm											186-3712	
5.330 mm	843.000 mm											5P-9519	
5.330 mm	870.000 mm											143-8729	
5.330 mm	920.000 mm											111-1503	
5.330 mm	940.000 mm											6V-6557	
5.330 mm	1146.000 mm											113-1700	
5.330 mm	1180.000 mm							8U-5059				152-0985	
5.340 mm	136.500 mm								144-0618				
5.340 mm	380.000 mm								121-8140				
5.500 mm	32.000 mm									140-7651			
5.600 mm	130.000 mm												
5.700 mm	45.600 mm											8C-0627	
5.700 mm	49.600 mm								095-1546	095-1612			
5.700 mm	51.600 mm								096-0121	095-1614			
5.700 mm	52.600 mm									095-1615			
5.700 mm	54.600 mm								8T-6346	095-1616			
5.700 mm	55.600 mm									095-1617			
5.700 mm	57.600 mm									095-1618			
5.700 mm	59.600 mm								095-1549	095-1619			
5.700 mm	61.600 mm									095-1620			
5.700 mm	64.600 mm								095-1550	095-1621			
5.700 mm	69.600 mm								095-1551	095-1622			
5.700 mm	74.600 mm								095-1552				
5.700 mm	79.600 mm								095-1553	095-1623			
5.700 mm	84.600 mm								095-1554	095-1624			
5.700 mm	89.600 mm								095-1555	095-1625			
5.700 mm	94.600 mm								095-1556	095-1626			
5.700 mm	99.600 mm								095-1557	095-1627			
5.700 mm	104.600 mm								096-7041	095-8859			
5.700 mm	109.600 mm								095-1558	095-1628			
5.700 mm	111.600 mm								132-3056	095-1629			
5.700 mm	111.600 mm								095-1559				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
5.700 mm	114.600 mm								095-1560	095-1630			
5.700 mm	119.600 mm								096-0071	095-1631			
5.700 mm	124.600 mm								095-1561	096-5382			
5.700 mm	129.600 mm								095-1562	095-1632			
5.700 mm	139.600 mm								095-1563	095-1633			
5.700 mm	144.600 mm								095-1564	095-1634			
5.700 mm	149.300 mm								095-1682	095-1724			
5.700 mm	149.600 mm									095-1635			
5.700 mm	150.000 mm									140-7663			
5.700 mm	154.300 mm								096-4921	095-1725			
5.700 mm	159.300 mm								095-1683	095-1726			
5.700 mm	164.300 mm									095-1727			
5.700 mm	169.300 mm								095-1684	095-1728			
5.700 mm	174.300 mm									095-1729			
5.700 mm	179.300 mm								095-1685	095-1730			
5.700 mm	184.300 mm								095-1686				
5.700 mm	189.300 mm								095-1687	095-1731			
5.700 mm	194.300 mm								095-1688				
5.700 mm	199.300 mm								095-1689	095-1732			
5.700 mm	204.300 mm							148-4642					
5.700 mm	209.300 mm								7U-3263	095-1733			
5.700 mm	209.300 mm								095-1690				
5.700 mm	214.000 mm					169-4833							
5.700 mm	219.300 mm								095-1691	095-1734			
5.700 mm	226.000 mm					162-7473							
5.700 mm	229.300 mm								095-1692	095-1735			
5.700 mm	249.300 mm								095-1693	095-1736			
5.700 mm	259.300 mm									095-1737			
5.700 mm	270.000 mm					169-4834							
5.700 mm	279.300 mm								095-1694	095-1738			
5.700 mm	289.300 mm			9X-4623				136-2942					
5.700 mm	299.300 mm								095-1695	095-1739			
5.700 mm	399.300 mm								7U-7852				
5.840 mm	60.650 mm								6V-2699				
5.840 mm	72.390 mm								6V-2701			8T-2272	
5.840 mm	81.400 mm								6V-2700				
5.840 mm	87.800 mm								6V-2698				
5.840 mm	113.660 mm								6V-2475				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
5.840 mm	384.180 mm								1F-9142				
6.220 mm	49.230 mm								2B-8293				
6.220 mm	92.720 mm						6S-3284					3N-3095	
6.220 mm	128.230 mm						3S-0302					8L-5520	
6.220 mm	143.520 mm						5K-5129					3N-3097	
6.220 mm	154.500 mm						5K-1075					8L-5517	
6.350 mm	28.580 mm								6F-6600				
6.350 mm	40.490 mm								1A-2298				
6.350 mm	53.980 mm		6L-7816				6B-7021						
6.350 mm	60.960 mm								7F-9134				
6.350 mm	350.800 mm								4L-3579				
6.480 mm	139.700 mm								7B-2123				
6.940 mm	93.000 mm									138-2675			
6.980 mm	32.920 mm											9F-0096	
6.980 mm	116.840 mm											9M-8788	
6.980 mm	120.020 mm											3H-0976	
6.980 mm	126.360 mm											2M-5173	
6.980 mm	139.060 mm											6H-1995	
6.980 mm	148.590 mm											5D-6642	
6.980 mm	151.760 mm											6L-5473	
6.980 mm	164.460 mm											7M-6952	
6.980 mm	202.560 mm											6L-5360	
6.980 mm	227.960 mm											2S-2966	
6.990 mm	12.700 mm								3B-7363				
6.990 mm	31.120 mm		8C-5209						4H-1860			6L-4905	
6.990 mm	37.460 mm								7H-9959				
6.990 mm	42.800 mm								8S-0530				
6.990 mm	46.990 mm								1M-3548				
6.990 mm	56.520 mm			5P-6861					7D-1195			4M-0142	
6.990 mm	61.600 mm								5P-8432				
6.990 mm	64.260 mm								1T-0136				
6.990 mm	69.220 mm								1M-0556			4M-0141	
6.990 mm	75.560 mm								5H-2824			5H-9205	
6.990 mm	81.000 mm					125-4641						4L-8337	
6.990 mm	81.920 mm		7L-7459	5P-5700									
6.990 mm	85.090 mm								2A-3676				
6.990 mm	88.260 mm			130-5694		125-4642			6K-9149			5S-1188	
6.990 mm	91.440 mm								5S-0982				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
6.990 mm	94.610 mm											5H-7704	
6.990 mm	94.620 mm		7L-7460	6V-3917									
6.990 mm	100.960 mm			6V-2695								5H-1039	
6.990 mm	104.140 mm											8H-7469	
6.990 mm	107.310 mm			6V-5166								6H-1871	
6.990 mm	113.660 mm											7S-1156	
6.990 mm	113.670 mm	425							114-9275				
6.990 mm	116.840 mm	426		170-5941					9S-3888	107-6259			
6.990 mm	120.020 mm	427	7L-2031										
6.990 mm	123.190 mm	428		5S-6760						6F-0671			
6.990 mm	126.370 mm	429	6L-9405	6V-5103					8F-4469				
6.990 mm	132.720 mm	431							5H-9524				
6.990 mm	135.890 mm	432		3E-6751					4F-7507				
6.990 mm	139.070 mm	433	6V-5373	6V-5167					5H-6733	143-4637			
6.990 mm	148.590 mm	436		5P-8861					5P-3620	003-2770			
6.990 mm	151.770 mm	437		5P-8862					8H-0273	6H-4162			
6.990 mm	158.120 mm	438				112-1579			5L-5032				
6.990 mm	164.470 mm	439		6V-3968	170-7100				2H-6124				
6.990 mm	164.470 mm	439		135-6950									
6.990 mm	170.820 mm	440	5P-6619						2D-1692	006-8350			
6.990 mm	177.170 mm	441		6V-5095					4F-9652			5D-7665	
6.990 mm	183.520 mm	442		7X-4810					2D-1690				
6.990 mm	189.860 mm	443							5F-6222				
6.990 mm	199.260 mm								2M-0338				
6.990 mm	202.560 mm	445		3P-0658					2D-1691				
6.990 mm	208.900 mm			170-4822									
6.990 mm	210.900 mm												
6.990 mm	215.260 mm	446							161-4511				
6.990 mm	218.500 mm			6V-3603					4F-7388		2N-6037	6V-1905	
6.990 mm	224.790 mm												
6.990 mm	227.960 mm	447							4D-6548				
6.990 mm	240.660 mm								1J-2890		7L-2176		
6.990 mm	253.370 mm	449							1M-9015		1N-6000		
6.990 mm	266.070 mm	450			175-5086				3E-6794				
6.990 mm	268.440 mm			9X-7442					8F-8861				
6.990 mm	278.760 mm	451							5P-3487				
6.990 mm	287.410 mm								2H-6340				
6.990 mm	291.460 mm	452							129-3719				
6.990 mm									8H-8257				

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
6.990 mm	304.160 mm								4M-0661				
6.990 mm	304.200 mm		1W-0118										
6.990 mm	310.130 mm								4M-0737				
6.990 mm	316.860 mm	454	8T-9047	6V-3967					4D-4508				
6.990 mm	329.560 mm	455							5M-4454				
6.990 mm	342.270 mm	456		6V-6638					5P-9217				
6.990 mm	342.390 mm								177-0448				
6.990 mm	354.960 mm	457							4J-1253				
6.990 mm	367.670 mm	458							6V-5862				
6.990 mm	380.360 mm	449							8F-9960				
6.990 mm	386.240 mm			137-4349									
6.990 mm	393.070 mm	450							5P-4342				
6.990 mm	405.260 mm	451							8F-6498				
6.990 mm	417.960 mm	452		137-4350					4D-4503				
6.990 mm	430.660 mm	453							3S-9896				
6.990 mm	446.800 mm								149-2695				
6.990 mm	468.760 mm	456							8T-4811				
6.990 mm	481.460 mm	457							5D-1071				
6.990 mm	494.160 mm	458		6V-5060					2D-8363				
6.990 mm	520.070 mm								5P-2587				
6.990 mm	532.260 mm	460							3D-8241				
6.990 mm	564.500 mm											143-6387	
6.990 mm	582.680 mm	462							2D-8364				
6.990 mm	608.080 mm	473							5D-6428				
7.000 mm	79.000 mm							118-3125					
7.000 mm	89.000 mm							125-9697					
7.000 mm	97.500 mm									140-0178			
7.000 mm	99.000 mm							118-2722					
7.000 mm	102.250 mm									140-0194			
7.000 mm	106.000 mm							135-7937					
7.000 mm	145.400 mm								2Y-8252				
7.000 mm	158.120 mm									140-0240			
7.000 mm	234.300 mm				175-5075								
7.160 mm	18.470 mm			139-6123								5P-2428	
7.980 mm	76.960 mm										1L-7548		
8.000 mm	216.200 mm								8T-6690				
8.400 mm	149.500 mm							113-2073					
8.400 mm	154.500 mm									095-1636			

(Continued)

O-Ring (Continued)

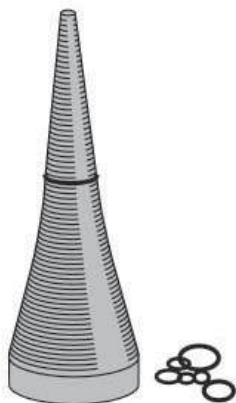
Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
8.400 mm	164.500 mm									095-1637			
8.400 mm	176.400 mm									095-1638			
8.400 mm	179.500 mm									095-1639			
8.400 mm	184.500 mm									095-1640			
8.400 mm	189.500 mm								095-1565				
8.400 mm	194.500 mm									095-1641			
8.400 mm	199.500 mm								095-1566	096-0035			
8.400 mm	209.500 mm									099-4846			
8.400 mm	214.500 mm								095-1567				
8.400 mm	229.500 mm									096-0036			
8.400 mm	234.500 mm									095-1642			
8.400 mm	239.500 mm									096-2163			
8.400 mm	249.500 mm								095-1568	095-1643			
8.400 mm	264.500 mm									096-0037			
8.400 mm	284.500 mm								095-1569	095-1644			
8.400 mm	289.500 mm												
8.400 mm	319.500 mm								095-1570	096-2162			
8.400 mm	384.500 mm	473											
8.400 mm	384.500 mm								095-1570				
8.480 mm	78.380 mm								095-1570				
8.640 mm	100.790 mm								3H-4066			8F-6149	
8.790 mm	28.170 mm								5H-4196				
8.790 mm	37.340 mm								8F-2691				
9.000 mm	80.000 mm							093-1341					
9.000 mm	96.000 mm							093-1342					
9.470 mm	48.340 mm						8P-7003					7T-4087	
9.470 mm	60.340 mm						6P-8912					7T-1094	
9.470 mm	66.090 mm						1M-3097					2S-2181	
9.470 mm	70.340 mm						8P-0021					7T-1093	
9.470 mm	76.340 mm						8H-2262					9M-9730	
9.470 mm	92.280 mm						8H-2265					8S-5653	
9.470 mm	102.340 mm						6H-1309					3P-1847	
9.470 mm	127.740 mm											5P-2499	
9.520 mm	70.100 mm								1H-7683				
9.520 mm	196.850 mm								3K-1516				
10.000 mm	124.700 mm							107-9976					
10.000 mm	140.000 mm							093-1344					
10.000 mm	155.000 mm							093-1345					

(Continued)

O-Ring (Continued)

Cross Section Dia.	Seal Inside Dia.	Dash Size	EPDM (70)	Fluoro-Carbon (75)	Fluoro-Carbon (90)	HNBR (72)	NBR Nitrile (60)	NBR Nitrile (70)	NBR Nitrile (75)	NBR Nitrile (90)	Poly-Acrylic (75)	Silicone (70)	Urethane (90)
10.000 mm	175.000 mm							093-1349					
10.000 mm	200.000 mm							093-1347					
10.000 mm	230.000 mm							101-2154					
11.430 mm	300.610 mm						9M-6097						
11.430 mm	326.000 mm						4V-4884						
12.700 mm	147.470 mm											3N-0801	
12.700 mm	147.470 mm											5P-3401	
12.700 mm	164.470 mm						7M-0475						
12.700 mm	184.950 mm						2M-0344					3N-0759	
12.700 mm	224.900 mm						1M-9011					5P-1606	
12.700 mm	232.800 mm											9W-6612	
12.700 mm	262.690 mm						4K-0173						
12.700 mm	265.000 mm						4M-0660					5P-1608	
12.700 mm	280.030 mm						7T-2457						
12.700 mm	280.030 mm						7T-2457						
12.700 mm	317.130 mm						4M-0736					3P-1849	
12.700 mm	341.750 mm								6V-2361				
12.700 mm	353.000 mm								6V-2362				
12.700 mm	364.030 mm											9W-5976	
12.700 mm	424.650 mm											9W-6613	
12.700 mm	498.630 mm											5P-8403	
12.700 mm	660.390 mm											6V-2305	
12.700 mm	820.580 mm											6Y-8213	
14.280 mm	650.000 mm						9J-0818						
15.880 mm	600.000 mm						6A-4503						
15.880 mm	660.400 mm						5P-3228						
15.880 mm	751.840 mm						8J-3699						

O-Ring Measuring Cone



- Designed to measure SAE industry standard O-Ring dimensions by cross section and dash size.
- Made of high impact, yellow plastic with 65 steps indicating the varying inside diameters.
- Contains a round base with five industry standard O-Ring cross section diameters cut into the edge.
- Makes finding the correct O-Ring replacement easier and faster.

Item	Part Number
O-Ring Measuring Cone	9U-5155

O-Ring Seal Kits



- Include frequently used O-Ring sizes, reducing the need to order individual seals.
- Come in individual compartments with a rugged plastic container that latches shut for protection.
- Exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.

Kit Part Number	Seal Type	Contents	Application(s)
270-1528	O-Ring Seal	32 Sizes, 570 Seals Nitrile, 90 Duro	SAE STOR Fittings, SAE ORFS Fittings, SAE Code 61 Flanges, SAE Code 62 Flanges
270-1539	O-Ring Seal	8 Sizes, 120 Seals Nitrile, 90 Duro	SAE ORFS Fittings
270-1545	O-Ring Seal	6 Sizes, 60 Seals Nitrile, 90 Duro	SAE Code 61 Flanges, SAE Code 62 Flanges
270-1535	Rectangular Seal	9 Sizes, 80 Seals Nitrile, 90 Duro	Cat Flanges
270-1537	O-Ring Seal	10 Sizes, 125 Seals Nitrile, 90 Duro	Metric STOR (ISO 6149)
271-0459	O-Ring Seal	8 Sizes, 40 Seals FRM, 90 Duro	SAE ORFS Fittings
271-0460	O-Ring Seal	13 Sizes, 65 Seals FKM, 90 Duro	SAE STOR Fittings

Designed for specialty applications

Kit Part Number	Seal Type	Contents	Application(s)
270-1540	O-Ring Seal	12 Sizes, 150 Seals	Air-Conditioning Fittings (R134 Compatible)
270-1533	O-Ring Seal	32 Sizes, 149 Seals Silicone, 70 Duro	Low-Pressure, High Temperature Applications

Cat Resealable O-Ring Packaging

- 67 different O-Ring packages to match the most common types of hydraulic adapters and hose fittings.
- Convenient, contamination-free poly bag that is resealable.
- Cat seals exceed SAE and other seal specifications, ensuring longer life and lower costs per hour.



Individual O-Ring Part Number	Adapter/Hose Fitting Size	Description	Material*	Package Part Number	Package Quantity
4J-7533	Dash 02	SAE Straight Thread O-Ring Seal	NBR	275-1082	10
7J-0204	Dash 03, 4 & 5	SAE Straight Thread O-Ring Seal	NBR	275-1080	10
3J-7354	Dash 04	SAE Straight Thread O-Ring Seal	NBR	275-1079	10
1J-9671	Dash 05	SAE Straight Thread O-Ring Seal	NBR	275-1097	10
3J-1907	Dash 06	SAE Straight Thread O-Ring Seal	NBR	275-1094	10
3K-0360	Dash 08	SAE Straight Thread O-Ring Seal	NBR	275-1089	10
2M-9780	Dash 10	SAE Straight Thread O-Ring Seal	NBR	275-1088	10
3D-2824	Dash 12	SAE Straight Thread O-Ring Seal	NBR	275-1102	8
4K-1388	Dash 14	SAE Straight Thread O-Ring Seal	NBR	275-1101	8
7M-8485	Dash 16	SAE Straight Thread O-Ring Seal	NBR	275-1104	7
2S-4078	Dash 20	SAE Straight Thread O-Ring Seal	NBR	275-1107	6
6K-6307	Dash 24	SAE Straight Thread O-Ring Seal	NBR	275-1093	5
30-4606	Dash 32	SAE Straight Thread O-Ring Seal	NBR	275-1096	4
1P-3702	--	D-Ring Seal	NBR	275-1110	6
1P-3703	--	D-Ring Seal	NBR	275-1114	5
1P-3704	--	D-Ring Seal	NBR	275-1123	4
1P-3705	--	D-Ring Seal	NBR	275-1120	4
1P-3706	--	D-Ring Seal	NBR	275-1126	3
1P-3707	--	D-Ring Seal	NBR	275-1125	3
1P-3700	--	D-Ring Seal	NBR	275-1078	7
1P-3708	--	D-Ring Seal	NBR	275-1081	3
1P-3709	--	D-Ring Seal	NBR	275-1086	2
4J-5140	Dash 08	SAE Code 61/62 Flange Seal	NBR	275-1103	8
4J-5267	Dash 12	SAE Code 61/62 Flange Seal	NBR	275-1105	7
4J-0520	Dash 16	SAE Code 61/62 Flange Seal	NBR	275-1109	6
4J-0522	Dash 20	SAE Code 61/62 Flange Seal	NBR	275-1115	5
4J-0524	Dash 24	SAE Code 61/62 Flange Seal	NBR	275-1122	4
4J-0527	Dash 32	SAE Code 61/62 Flange Seal	NBR	275-1118	4
4J-5477	Dash 03, 4 & 5	SAE O-Ring Face Seal	NBR	275-1095	10
6V-8397	Dash 06	SAE O-Ring Face Seal	NBR	275-1092	10
6V-8398	Dash 08	SAE O-Ring Face Seal	NBR	275-1090	10
7J-9108	Dash 10	SAE O-Ring Face Seal	NBR	275-1087	10
6V-9746	Dash 12 & 14	SAE O-Ring Face Seal	NBR	275-1085	10
5K-9090	Dash 16	SAE O-Ring Face Seal	NBR	275-1084	10
6V-8400	Dash 20	SAE O-Ring Face Seal	NBR	275-1083	10
8T-0315	Dash 24	SAE O-Ring Face Seal	NBR	275-1091	8
8T-7876	M10	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1098	10
6V-9028	M12	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1099	10
6V-6560	M14	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1100	10
8T-6850	M16	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1106	10
8T-7524	M18	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1108	10

* NBR = Standard Nitrile
FKM = Fluorocarbon

(Continued)

Cat Resealable O-Ring Packaging (Continued)

Individual O-Ring Part Number	Adapter/Hose Fitting Size	Description	Material*	Package Part Number	Package Quantity
8T-7877	M20	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1111	10
6V-7970	M22	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1112	10
8T-7878	M26	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1113	8
8T-7525	M27	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1116	8
8T-7526	M33	ISO (Metric) Straight Thread O-Ring Seal	NBR	275-1117	7
228-7088	Dash 03, 4 & 5	SAE O-Ring Face Seal	FKM	275-1119	7
228-7089	Dash 06	SAE O-Ring Face Seal	FKM	275-1121	6
228-7090	Dash 08	SAE O-Ring Face Seal	FKM	275-1124	6
228-7091	Dash 10	SAE O-Ring Face Seal	FKM	275-1127	5
228-7092	Dash 12 & 14	SAE O-Ring Face Seal	FKM	275-8954	5
228-7093	Dash 16	SAE O-Ring Face Seal	FKM	275-8955	4
228-7094	Dash 20	SAE O-Ring Face Seal	FKM	275-8956	4
228-7095	Dash 24	SAE O-Ring Face Seal	FKM	275-8957	3
238-5078	Dash 02	SAE Straight Thread O-Ring Seal	FKM	275-8958	7
238-5079	Dash 03	SAE Straight Thread O-Ring Seal	FKM	275-8959	7
214-7566	Dash 04	SAE Straight Thread O-Ring Seal	FKM	275-8960	6
214-7567	Dash 05	SAE Straight Thread O-Ring Seal	FKM	275-8961	6
214-7568	Dash 06	SAE Straight Thread O-Ring Seal	FKM	276-3625	6
238-5080	Dash 08	SAE Straight Thread O-Ring Seal	FKM	276-3626	5
238-5081	Dash 10	SAE Straight Thread O-Ring Seal	FKM	276-3627	4
238-5082	Dash 12	SAE Straight Thread O-Ring Seal	FKM	276-3628	3
238-5083	Dash 14	SAE Straight Thread O-Ring Seal	FKM	276-3629	3
238-5084	Dash 16	SAE Straight Thread O-Ring Seal	FKM	276-3630	3
228-7096	Dash 20	SAE Straight Thread O-Ring Seal	FKM	276-3631	3
238-5086	Dash 24	SAE Straight Thread O-Ring Seal	FKM	276-3632	2
228-7097	Dash 32	SAE Straight Thread O-Ring Seal	FKM	276-3633	2

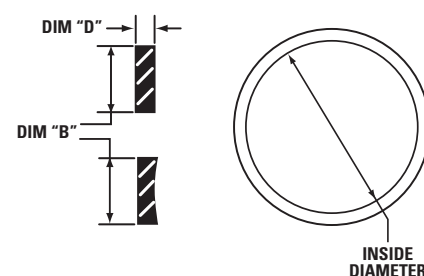
* NBR = Standard Nitrile
FKM = Fluorocarbon

Material	Hardness	Temp.	Compatible With	Applications	Not Compatible With
Ethylene Propylene Diene Modified (70) (EPDM)	70 Durometer	-55° – 135° C -67° – 275° F	Alcohols Automotive brake fluids Hot, cold water Ketones Ozone and sunlight Phosphate ester fluids Silicone fluids Some dilute acids Steam (200 Degree C max) Steam (400 Degree F max)	Effluent cooled engine cooling systems	Aromatic fuels Diester lubricants Petroleum fluids
Fluorocarbon (75) (FKM)	75 Durometer	-40° – 175° C -40° – 350° F	Diester lubricants Halogenated hydrocarbons (above 100 Deg. C) Highly resistant to compression set Petroleum fluids Phosphate ester fluids Silicone fluids Some acids	High temperature applications requiring resistance to air, fuels, lubricants and hydraulic fluids	Amines Brake fluids Engine Coolant Fire Resistant Fluids Ketones Steam Water
Fluorocarbon (90) (FKM)	90 Durometer	-40° – 175° C -40° – 350° F	Diester lubricants Halogenated hydrocarbons (above 100 Deg. C) Highly resistant to compression set Petroleum fluids Phosphate ester fluids Silicone fluids Some acids	High pressure, high temperature applications requiring resistance to air, fuels, lubricants and hydraulic fluids ORFS, STORS seals	Amines Brake fluids Engine Coolant Fire Resistant Fluids Ketones Steam Water
Highly Saturated Nitrile (78) (HNBR)	78 Durometer	-40° – 121° C -40° – 275° F	Abrasion resistant Diesel fuels Diester lubricants Ozone Petroleum oils, greases Refrigerant HFC - 134a (Non-Freon) Silicone fluids Steam Water base engine coolants	Automotive air conditioner seals High temperature flex boot seals High temperature power steering seals Higher temperature hydraulic seals Middle cylinder liner seals	Aromatic and oxygenated gasolines Automotive and aircraft brake fluids Chlorinated hydrocarbons Ethers Ketones Phosphate ester fluids
Nitrile (60)	60 Durometer	-40° – 100° C -40° – 212° F	Alpha-Olefin base synthetic lubricants Ethylene Glycol Petroleum base lubricants Silicone oils and greases Water, water base engine coolants	Ambient temperature fuel handling High and low pressure LPG service Hydraulic fluids Power steering seals Radiator thermostat seals	Automotive and aircraft brake fluids High levels of ozone Ketones Phosphate ester fluids UV Light

Seals

Material	Hardness	Temp.	Compatible With	Applications	Not Compatible With
Nitrile (70)	70 Durometer	-40° – 100° C -40° – 212° F	Alpha-Olefin base synthetic lubricants Ethylene Glycol Hydrocarbon fuels Petroleum base lubricants Silicone oils and greases Water, water base engine coolants	Ambient temperature fuel handling High and low pressure LPG service Hydraulic fluids Power steering seals Radiator thermostat seals	Acetone Automotive and aircraft brake fluids Chlorinated hydrocarbons High levels of ozone Ketones Nitro hydrocarbons Phosphate ester fluids Strong acids UV light
Nitrile (90)	90 Durometer	-40° – 100° C -40° – 212° F	Abrasion resistant Alpha-Olefin base synthetic lubricants Ethylene Glycol Hydrocarbon fuels Petroleum base lubricants Silicone oils and greases Water, water base engine coolants ORFS, STORS seals	Ambient temperature fuel handling High and low pressure LPG service Hydraulic fluids (to 10,335 kPa/1,500 psi) Power steering seals Radiator thermostat seals	Automotive and aircraft brake fluids High levels of ozone Ketones Phosphate ester fluids Strong acids UV light
Polyacrylic (75) (ACM)	75 Durometer	-12° – 135° C +10° – 275° F	Excellent resistance to oxidation Excellent resistance to ozone Excellent resistance to sunlight & UV light Petroleum base fluids Transmission fluids Type "R" power steering fluid	Power steering seals Transmissions	Aromatic hydrocarbons Brake fluids Chlorinated hydrocarbons Ethylene Glycol Methanol Other alcohols Phosphate ester fluids Water or steam
Silicone (70)	70 Durometer	-46° – 150° C -50° – 300° F	Air Diacetone alcohol Ethylene glycol Extreme high/low temperatures High aniline point oil Iso-butyl alcohol Ozone & UV light Polyglycol	Electrical system seals High temperature air seals High temperature static grease seals	Acetone Aromatic hydrocarbons EP oil Fuel oil Gasoline Ketones Low aniline point oils Petroleum oils Steam & hot water
Urethane (90)	90 Durometer	-40° – 93° C -40° – 200° F	Ozone Petroleum base lubricants and hydraulic fluids/fuels UV light	Brake seals Hydraulic cylinder seals	Water Water base hydraulic fluids

Backup Rings



Dash Size	Dimension "B" Radial Height	Ring Inside Diameter	Dimension "D" Axial Width	Part Number	Material Type
	1.00 mm	11.00 mm	0.60 mm	115-6880	PTFE 55 (Duro Hardness)
	1.10 mm	7.30 mm	0.70 mm	115-9530	Plastic
	1.22 mm	6.60 mm	1.30 mm	147-6604	PTFE 65 (Duro Hardness)
		8.20 mm	1.30 mm	147-6605	PTFE 65 (Duro Hardness)
		196.83 mm	3.02 mm	126-4040	PTFE 65 (Duro Hardness)
		241.30 mm	3.02 mm	126-4004	PTFE 65 (Duro Hardness)
	1.26 mm	12.57 mm	1.55 mm	156-2850	PTFE 60 (Duro Hardness)
	1.27 mm	32.20 mm	1.24 mm	085-7530	PTFE 55 (Duro Hardness)
	1.35 mm	5.94 mm	1.23 mm	126-5984	Plastic
		6.30 mm	1.42 mm	4T-5070	PTFE 65 (Duro Hardness)
		6.75 mm	1.23 mm	126-5985	Plastic
		7.90 mm	1.42 mm	4T-5071	PTFE 65 (Duro Hardness)
-011	1.35 mm	8.31 mm	1.19 mm	187-3513	Nitrile Rubber 90 (Duro Hardness)
	1.35 mm	8.31 mm	1.23 mm	3E-6017	PTFE 65 (Duro Hardness)
		9.72 mm	1.23 mm	6E-0381	PTFE 55 (Duro Hardness)
		9.90 mm	1.23 mm	030-0167	PTFE 65 (Duro Hardness)
		9.91 mm	1.23 mm	109-6925	Plastic
		11.56 mm	0.74 mm	179-7257	PTFE 65 (Duro Hardness)
		13.16 mm	0.74 mm	161-6161	PTFE 65 (Duro Hardness)
		13.16 mm	1.22 mm	100-7000	PTFE 55 (Duro Hardness)
		13.16 mm	1.22 mm	6V-6923	PTFE 55 (Duro Hardness)
		13.16 mm	1.23 mm	109-6926	Plastic
		14.73 mm	0.74 mm	169-1616	PTFE 65 (Duro Hardness)
		14.73 mm	1.22 mm	6V-6924	PTFE 55 (Duro Hardness)
		16.33 mm	0.74 mm	169-1617	PTFE 65 (Duro Hardness)
		16.33 mm	0.74 mm	161-6160	Plastic
		16.33 mm	1.23 mm	109-6927	Plastic
		21.08 mm	1.23 mm	4T-4953	Plastic
		22.68 mm	1.25 mm	9T-1243	PTFE 55 (Duro Hardness)
		24.38 mm	1.23 mm	9T-4518	PTFE 65 (Duro Hardness)
-022	1.35 mm	25.68 mm	1.19 mm	115-9864	Nitrile Rubber 90 (Duro Hardness)
-023	1.35 mm	27.43 mm	1.19 mm	115-9865	Nitrile Rubber 90 (Duro Hardness)
	1.40 mm	9.20 mm	0.50 mm	117-0355	PTFE 55 (Duro Hardness)
		11.10 mm	0.71 mm	187-0541	PTFE 65 (Duro Hardness)
		11.20 mm	0.50 mm	117-0357	PTFE 55 (Duro Hardness)
		12.74 mm	0.69 mm	185-2327	PTFE 65 (Duro Hardness)
	1.40 mm	13.20 mm	0.70 mm	192-7118	PTFE 55 (Duro Hardness)
		15.20 mm	0.50 mm	117-0353	PTFE 55 (Duro Hardness)
		16.00 mm	0.69 mm	9J-6367	PTFE 60 (Duro Hardness)
		28.40 mm	1.40 mm	179-4177	Plastic
		36.20 mm	1.40 mm	179-4178	Plastic
	1.45 mm	11.40 mm	1.00 mm	149-4076	Plastic
		13.00 mm	1.00 mm	149-4077	Plastic
		13.10 mm	1.40 mm	179-4176	Plastic

(Continued)

Seals/Backup Rings

Backup Rings (Continued)

Dash Size	Dimension "B" Radial Height	Ring Inside Diameter	Dimension "D" Axial Width	Part Number	Material Type
	1.50 mm	10.00 mm	1.00 mm	117-0356	PTFE 55 (Duro Hardness)
	1.60 mm	6.25 mm	1.23 mm	186-2488	PTFE 65 (Duro Hardness)
		11.00 mm	1.23 mm	186-2487	PTFE 65 (Duro Hardness)
	1.75 mm	24.50 mm	0.60 mm	180-7460	PTFE 65 (Duro Hardness)
	1.90 mm	26.20 mm	0.60 mm	180-7459	PTFE 65 (Duro Hardness)
	1.99 mm	11.27 mm	1.52 mm	6E-0382	PTFE 55 (Duro Hardness)
	2.00 mm	26.00 mm	1.52 mm	6E-5662	PTFE 65 (Duro Hardness)
		29.20 mm	1.52 mm	6E-5663	PTFE 65 (Duro Hardness)
	2.10 mm	21.80 mm	1.00 mm	115-7764	PTFE 55 (Duro Hardness)
	2.18 mm	9.91 mm	1.23 mm	117-3584	PTFE 55 (Duro Hardness)
		11.48 mm	1.23 mm	117-3581	PTFE 55 (Duro Hardness)
		14.64 mm	1.23 mm	9T-1862	Plastic
		14.65 mm	1.23 mm	101-1983	PTFE 65 (Duro Hardness)
		15.47 mm	1.22 mm	9T-3342	Plastic
		16.26 mm	0.74 mm	194-3871	PTFE 65 (Duro Hardness)
		17.40 mm	1.52 mm	4T-5072	PTFE 65 (Duro Hardness)
		17.83 mm	0.74 mm	194-3872	PTFE 65 (Duro Hardness)
		19.43 mm	0.74 mm	194-3873	PTFE 65 (Duro Hardness)
-117	2.18 mm	21.11 mm	1.19 mm	5P-7857	Nitrile Rubber 90 (Duro Hardness)
	2.18 mm	22.30 mm	1.52 mm	4T-5073	PTFE 65 (Duro Hardness)
		23.88 mm	1.52 mm	4T-6977	PTFE 65 (Duro Hardness)
-119	2.18 mm	24.28 mm	1.19 mm	5P-7858	Nitrile Rubber 90 (Duro Hardness)
	2.18 mm	25.48 mm	1.52 mm	4T-5074	PTFE 65 (Duro Hardness)
-121	2.18 mm	27.46 mm	1.19 mm	183-9524	Nitrile Rubber 90 (Duro Hardness)
	2.18 mm	29.08 mm	1.23 mm	1U-4835	PTFE 55 (Duro Hardness)
-123	2.18 mm	30.63 mm	1.19 mm	183-9525	Nitrile Rubber 90 (Duro Hardness)
	2.18 mm	36.63 mm	1.52 mm	4T-5075	PTFE 65 (Duro Hardness)
		44.50 mm	1.52 mm	6E-5418	PTFE 65 (Duro Hardness)
		47.67 mm	1.52 mm	6E-5417	PTFE 65 (Duro Hardness)
		48.08 mm	1.19 mm	183-9523	Nitrile Rubber 90 (Duro Hardness)
		52.45 mm	1.52 mm	6E-5416	PTFE 55 (Duro Hardness)
-164	2.18 mm	159.21 mm	1.14 mm	177-1812	Nitrile Rubber 90 (Duro Hardness)
	2.20 mm	30.60 mm	1.50 mm	193-4727	PTFE 55 (Duro Hardness)
	2.21 mm	31.83 mm	1.57 mm	9T-1558	PTFE 65 (Duro Hardness)
	2.40 mm	35.20 mm	1.00 mm	179-9014	PTFE 65 (Duro Hardness)
		127.73 mm	1.09 mm	173-3237	PTFE 65 (Duro Hardness)
	2.44 mm	328.05 mm	0.00 mm	122-0440	Urethane 90 (Duro Hardness)
	2.45 mm	22.20 mm	1.40 mm	192-7114	PTFE 55 (Duro Hardness)
	2.58 mm	35.88 mm	1.22 mm	170-2415	PTFE 65 (Duro Hardness)
		76.55 mm	1.09 mm	175-7908	PTFE 65 (Duro Hardness)
		114.41 mm	1.09 mm	175-7914	PTFE 65 (Duro Hardness)
		120.76 mm	1.09 mm	175-7915	PTFE 65 (Duro Hardness)
	2.65 mm	16.30 mm	1.23 mm	3G-5233	PTFE 65 (Duro Hardness)
	2.68 mm	63.0 mm	1.40 mm	180-5049	Plastic
	2.77 mm	41.35 mm	1.57 mm	8J-5472	PTFE 55 (Duro Hardness)
		44.53 mm	1.58 mm	8J-3817	PTFE 55 (Duro Hardness)
	2.90 mm	75.92 mm	1.09 mm	8J-2574	Urethane 90 (Duro Hardness)
		134.30 mm	1.09 mm	8C-3847	Nylon
		183.40 mm	1.00 mm	4T-3107	Urethane 90 (Duro Hardness)
		208.60 mm	1.00 mm	1U-1101	Urethane 90 (Duro Hardness)
		259.20 mm	1.00 mm	3G-6857	Urethane 90 (Duro Hardness)
		271.80 mm	1.09 mm	9X-4596	Urethane 90 (Duro Hardness)
	2.98 mm	22.40 mm	1.27 mm	179-0795	PTFE 65 (Duro Hardness)
-228	3.00 mm	57.71 mm	1.09 mm	9X-7552	Nitrile Rubber 90 (Duro Hardness)

(Continued)

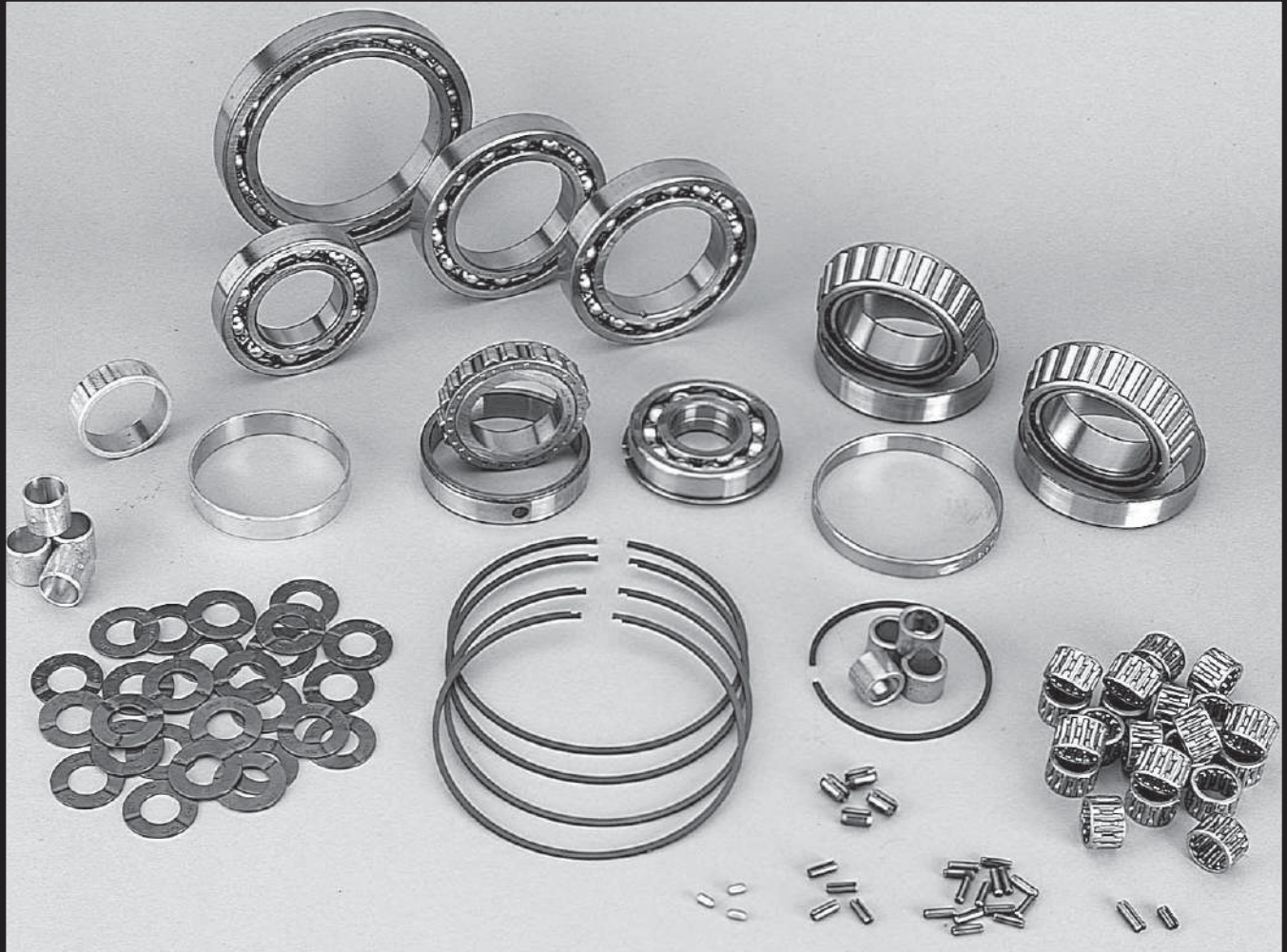
Backup Rings (Continued)

Dash Size	Dimension "B" Radial Height	Ring Inside Diameter	Dimension "D" Axial Width	Part Number	Material Type
-263	3.00 mm	84.61 mm	1.09 mm	5P-3235	Nitrile Rubber 90 (Duro Hardness)
	3.00 mm	99.70 mm	1.09 mm	168-2271	Urethane 90 (Duro Hardness)
		114.00 mm	3.00 mm	144-0243	Nylon
-265	3.00 mm	197.31 mm	1.09 mm	5J-6444	Nitrile Rubber 90 (Duro Hardness)
	3.02 mm	27.38 mm	1.23 mm	9T-3340	Plastic
		19.45 mm	1.23 mm	183-8068	PTFE 65 (Duro Hardness)
		25.81 mm	1.22 mm	9T-0118	PTFE 55 (Duro Hardness)
		41.28 mm	1.57 mm	4T-5076	PTFE 65 (Duro Hardness)
		44.48 mm	1.52 mm	3G-9725	Nylon
		45.00 mm	1.22 mm	6V-6793	PTFE 60 (Duro Hardness)
		104.83 mm	1.17 mm	6D-6783	PTFE 55 (Duro Hardness)
	3.10 mm	79.8 mm	4.60 mm	125-7002	Plastic
		127.00 mm	1.25 mm	111-8817	PTFE 55 (Duro Hardness)
	3.92 mm	131.46 mm	1.52 mm	148-6560	PTFE 65 (Duro Hardness)
		156.86 mm	1.52 mm	149-2092	PTFE 65 (Duro Hardness)
	4.01 mm	258.63 mm	1.73 mm	7X-4757	Nylon
	4.10 mm	48.00 mm	1.30 mm	195-2996	Nitrile Rubber 90 (Duro Hardness)
	4.12 mm	150.51 mm	1.52 mm	162-7209	PTFE 60 (Duro Hardness)
		169.56 mm	2.02 mm	162-7210	PTFE 60 (Duro Hardness)
	4.17 mm	169.57 mm	1.78 mm	8J-1666	Nylon
	4.22 mm	200.91 mm	1.78 mm	8J-8827	Nylon
	4.30 mm	129.91 mm	1.52 mm	8J-1689	Urethane 90 (Duro Hardness)
		174.25 mm	1.50 mm	1U-1738	Urethane 90 (Duro Hardness)
		224.75 mm	1.52 mm	1U-3173	Urethane 90 (Duro Hardness)
		243.75 mm	1.52 mm	1U-3307	Urethane 90 (Duro Hardness)
		256.40 mm	1.52 mm	1U-1770	Urethane 90 (Duro Hardness)
		281.70 mm	1.50 mm	1U-1626	Urethane 90 (Duro Hardness)
		300.64 mm	1.50 mm	8T-6926	Urethane 90 (Duro Hardness)
		307.00 mm	1.52 mm	1U-3383	Urethane 90 (Duro Hardness)
		312.40 mm	1.50 mm	121-4161	Nitrile Rubber 90 (Duro Hardness)
	4.30 mm	352.00 mm	1.52 mm	4T-4127	Urethane 90 (Duro Hardness)
		415.50 mm	1.52 mm	151-8413	Urethane 90 (Duro Hardness)
	4.32 mm	199.52 mm	1.52 mm	3G-3747	Urethane 90 (Duro Hardness)
	4.35 mm	205.65 mm	2.44 mm	108-0122	Urethane 90 (Duro Hardness)
		265.52 mm	2.44 mm	108-0129	Urethane 90 (Duro Hardness)
	4.60 mm	118.20 mm	1.50 mm	9X-7279	Urethane 90 (Duro Hardness)
-346	4.65 mm	105.49 mm	1.65 mm	8J-3752	Nitrile Rubber 90 (Duro Hardness)
	4.65 mm	111.84 mm	1.52 mm	9X-7278	Urethane 90 (Duro Hardness)
		167.28 mm	1.52 mm	9X-7273	Urethane 90 (Duro Hardness)
		338.80 mm	1.52 mm	9X-4595	Urethane 90 (Duro Hardness)
	4.75 mm	127.00 mm	2.75 mm	184-0844	PTFE 65 (Duro Hardness)
	4.76 mm	140.49 mm	2.44 mm	184-0843	PTFE 65 (Duro Hardness)
	5.00 mm	35.00 mm	3.00 mm	153-8586	PTFE 55 (Duro Hardness)
		40.00 mm	3.00 mm	153-8584	PTFE 55 (Duro Hardness)
		140.00 mm	2.50 mm	111-8816	PTFE 55 (Duro Hardness)
	5.40 mm	450.00 mm	2.40 mm	149-2696	Urethane 90 (Duro Hardness)
	5.80 mm	170.00 mm	2.50 mm	180-5050	Plastic
-440	6.00 mm	172.06 mm	2.61 mm	065-7978	Nitrile Rubber 90 (Duro Hardness)
	6.00 mm	353.20 mm	2.45 mm	4T-5929	Urethane 90 (Duro Hardness)
	6.23 mm	220.89 mm	2.40 mm	3E-6783	Urethane 90 (Duro Hardness)
		227.20 mm	2.40 mm	3E-6784	Urethane 90 (Duro Hardness)
	6.25 mm	239.20 mm	2.40 mm	121-4160	Nitrile Rubber 90 (Duro Hardness)
		315.48 mm	2.44 mm	120-5350	Urethane 90 (Duro Hardness)
	6.40 mm	265.00 mm	2.40 mm	3E-6795	Urethane 90 (Duro Hardness)

(Continued)

Backup Rings (Continued)

Dash Size	Dimension "B" Radial Height	Ring Inside Diameter	Dimension "D" Axial Width	Part Number	Material Type
	7.06 mm	56.69 mm	2.82 mm	170-6712	PTFE 65 (Duro Hardness)
	8.45 mm	63.68 mm	4.00 mm	8C-9140	Urethane 90 (Duro Hardness)
	9.09 mm	101.19 mm	4.27 mm	7J-3864	Urethane 90 (Duro Hardness)
		126.59 mm	4.27 mm	9J-2548	Urethane 90 (Duro Hardness)
		139.29 mm	4.27 mm	8J-9450	Urethane 90 (Duro Hardness)
		154.86 mm	4.27 mm	7J-3866	Urethane 90 (Duro Hardness)
		183.75 mm	4.27 mm	4T-4804	Urethane 90 (Duro Hardness)
		190.09 mm	4.27 mm	7J-3867	Urethane 90 (Duro Hardness)
		196.45 mm	4.27 mm	121-4166	Urethane 90 (Duro Hardness)
		215.49 mm	4.27 mm	8J-9916	Urethane 90 (Duro Hardness)
		221.85 mm	4.27 mm	6E-0251	Urethane 90 (Duro Hardness)
		266.29 mm	4.27 mm	4T-4807	Urethane 90 (Duro Hardness)
		279.02 mm	4.27 mm	115-4699	Urethane 90 (Duro Hardness)
	9.16 mm	292.45 mm	3.90 mm	121-4164	Urethane 90 (Duro Hardness)
		317.85 mm	3.90 mm	115-2136	Urethane 90 (Duro Hardness)
	10.08 mm	164.69 mm	5.64 mm	9J-1186	Urethane 90 (Duro Hardness)
	11.43 mm	129.72 mm	3.05 mm	3G-6536	Nylon
	14.25 mm	238.28 mm	3.05 mm	7J-9062	Nylon



Kit Definition

- A group of parts engineered for specific applications, packaged together, and ordered as a single part number.

Service & Repair Kits

Engine Gasket Kits

- Service repair kits designed for rebuild or repair of Caterpillar engines
- Kits contain all “soft” parts required for the specific rebuild or repair
- Primary components are gaskets and seals

Power Train Bearing Kits & Gasket Kits

- Service repair kits designed for rebuild and repair of Caterpillar transmissions, differentials, torque converters, and wheel/final drives
- Kits contain internal wear components such as bearings, thrust discs, and bushings
- Differential and wheel/final drive kits contain the necessary gaskets and seals
- Corresponding gasket kits are available for transmission and torque converter bearing kits

Hydraulic Seal Kits

- Service repair kits designed for rebuild or re-sealing of Caterpillar hydraulic cylinders
- Kits contain various seals and wear rings
- Kits are available in standard and 0.030 inch honed oversize

Finding Service & Repair Kits

It is not possible to list all kits and their usage because:

- Engine gasket kits are engine arrangement and serial number specific
- Power Train bearing and gasket kits are vehicle PIN specific. Transmissions and torque converters are arrangement and serial number specific, also.
- Hydraulic Cylinder seal kits are cylinder group and engineering change level specific
- Component changes lead to frequent updates to kit consists and kit part numbers

Sources to find up to date kit part numbers for specific applications:

- Service Information System (SIS)
 - Engine gasket kits
 - Power Train bearing and gasket kits
 - Hydraulic Cylinder seal kits
- Engine Technical Marketing Information (TMI)
 - Engine gasket kits
 - Power Train bearing and gasket kits (in TMI host version only)
- Hydraulic Information System (HIS)
 - Hydraulic Cylinder seal kits

Engine Gasket Kits

Upper Structure Area

- Multiple Cylinder Head
- Single Cylinder Head
- Single Fuel Injector*
- Exhaust Manifold
- Turbocharger and Lines Install
- Aftercooler and Lines Install

Cylinder Block & Oil Pan Area

- Single Cylinder Liner
- Oil Pump Install
- Central and Lower Structure

Front Cover and Housing Area

- Front Structure

Rear Cover and Housing Area

- Rear Structure

Fuel System and Lines Area

- Fuel System

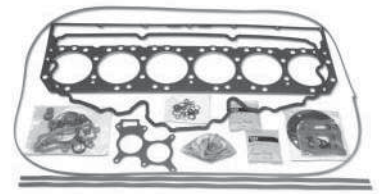
Water Pump Gasket Kits

- Water Pump Install
- Auxiliary Water Pump Install
- Water Pump Rebuild
- Auxiliary Water Pump Rebuild

Accessory Groups

- Oil Cooler and Lines Install
- Water Lines Group Install
- Expansion Tank/Heat Exchanger Install
- Air Compressor Install
- BrakeSaver Gasket

* Injector seals are not included in Cylinder Head Kits.
See Jan 2000 Service Letter SEBD6731-00.



Power Train Kits



Power Train Bearing Kits

- Powershift Transmission
- Direct Drive Transmission
- Bevel & Gear
- Output Transfer Gear
- Torque Converter
- Differential & Gear
- Final Drive
- Wheel/Final Drive/Brake
- Final Drive & Wheel
- Planetary & Axle
- Front Wheel & Brake

Power Train Gasket Kits

- Transmission Parts & Case
- Planetary Transmission
- Transmission Hydraulic Control
- Bevel/Input Transfer Gear
- Output Transfer Gear
- Transmission Manifold & Screen
- Transmission Pump
- Transmission Filter
- Power Train Oil System
- Transmission Overhaul
- Hydrostatic Case Gp
- Hydrostatic Control
- Hydrostatic Case & Lines
- Power Control Valve Cylinder
- Replenishment Valve
- HPCU Overhaul
- Torque Converter

Hydraulic Kits



Hydraulic Cylinder Seal Kits

- Standard Size
- Oversize 0.76 mm (0.030 in)



Cat® Tires

As a Caterpillar machine owner, you understand the importance of tires to the performance of every machine you operate. That's why we focus on offering a tire line that allows you to work efficiently in almost every application.

Cat Quality

The renowned Caterpillar quality is achieved by ensuring the performance and durability of every component in every piece of equipment. Tires are no exception. You understand the challenging conditions and work requirements facing your skid steer loaders, backhoe loaders, and telehandlers. As the interface between the unpredictable terrain and the machine, you know that tires play a key role in overall productivity.

They must be stable, yet agile; and durable, yet economical. This section details Caterpillar's expanded line of tires which reflects extensive research and engineering expertise that only Caterpillar and our dealers can deliver to you.

Premium Conventional Tires



Caterpillar Premium Conventional tires are engineered to deliver the trademark Cat durability — which says a lot. Skid steer sizes are equipped with the industry's deepest tread depth, thickest side wall (on a premium conventional model), and heaviest rim guard. Cat tires outperform the competition.

Advantages

- Self-cleaning, open tread design for reduced maintenance time
- Extra large, tapered lugs for traction in slippery conditions and maximum wear life
- Dual side wall construction for puncture and tear protection
- An advanced blend of natural and synthetic rubber and a reinforced bead area for maximum wear life
- Heavy rim guard reduces potential for damage to tire bead and wheel flange

Applications: Highly Recommended

- Dry Soil
- Snow

Applications: Recommended

- Rock & Shale
- Quarries
- Rocky Soil
- Wet Soil
- Sandy Soil

					Inflated Dimensions			Load Specifications @ 5 mph				
Part Number	Tire Width	Wheel Diameter	Tire Style	Ply Rating	Rim Width	Section Width	Outside Diameter	Maximum Inflation	Suggested Inflation	Maximum Load	Tire Weight	Tread Depth
Skid Steer Loaders												
238-7740	7.00 in	15.00 in	NHS	6	5.50 in	8.00 in	29.90 in	60.00 psi	--	34.00 lb	34.00 lb	0.55 in
185-9932	10.00 in	16.50 in	NHS	8	8.25 in	10.70 in	30.90 in	60.00 psi	45.00 psi	52.50 lb	52.50 lb	0.75 in
185-9933	12.00 in	16.50 in	NHS	10	9.75 in	12.30 in	33.00 in	65.00 psi	45.00 psi	77.50 lb	77.50 lb	0.83 in
Backhoe Loaders												
216-9111	12.50 in	18.00 in	--	10	9.00 in	12.00 in	38.80 in	46.00 psi	40.00 psi	85.00 lb	85.00 lb	0.98 in
216-9112	18.40 in	26.00 in	--	12	16.00 in	18.80 in	55.80 in	32.00 psi	28.00 psi	217.00 lb	217.00 lb	1.10 in
216-9113	16.90 in	28.00 in	--	12	15.00 in	17.40 in	54.60 in	38.00 psi	33.00 psi	187.00 lb	187.00 lb	1.06 in
Telehandlers												
208-8513	13.00 in	24.00 in	TG NHS	12	9.00 in	14.20 in	54.82 in	65.00 psi	58.00 psi	161.00 lb	161.00 lb	0.91 in
208-8512	15.00 in	25.00 in	TG NHS	12	12.00 in	16.74 in	51.82 in	58.00 psi	54.00 psi	195.00 lb	195.00 lb	1.10 in
208-8514	14.00 in	24.00 in	TG NHS	12	9.00 in	15.39 in	54.82 in	62.00 psi	54.00 psi	203.00 lb	203.00 lb	0.98 in
208-8515	14.00 in	24.00 in	TG NHS	16	9.00 in	15.39 in	54.82 in	80.00 psi	73.00 psi	225.00 lb	225.00 lb	0.98 in

Low Side Wall (LSW) Tires

For applications in rough terrain, Cat LSW technology offers a smooth, stable ride; exceptional puncture resistance; and run flat capability on skid steer loader sizes. The strength of the side wall is the key to this tire's performance. It is achieved by combining a lower profile, considerably thicker side wall, and a unique flange and bead design. The bead resists becoming unseated from the flange after a puncture as it does with most premium conventional tires, thus reducing costly downtime.

Advantages

- Self-cleaning, open tread design for reduced maintenance time
- Extra large, tapered lugs for traction in slippery conditions and maximum wear life
- An advanced blend of natural and synthetic rubber and a reinforced bead area for maximum wear life
- Exceptional stability for confident mobility on uneven work surfaces
- Reduced impact and side wall damage due to the heaviest and largest rim guard in the industry and extra rubber that makes the side wall up to three times heavier than other tires
- LSW technology allows work to continue even when tire goes flat, reducing costly downtime (skid steer only)
- Higher carcass strength for greater resistance to impact failures and other abusive treatment

Applications: Highly Recommended

- Gravel
- Dry Soil
- Snow

Applications: Recommended

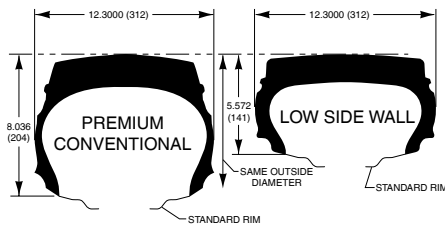
- Sand Stone
- Rock & Shale
- Quarries
- Rocky Soil
- Wet Soil



Tires

				Inflated Dimensions			Load Spec @ 5 mph				
Part Number	Tire Width	Wheel Diameter	Ply Rating	Rim Width	Section Width	Outside Diameter	Maximum Inflation	Suggested Inflation	Maximum Load	Tire Weight	Tread Depth
Skid Steer											
185-9934	10.40 in	20.50 in	10	8.50 in	10.20 in	31.20 in	60.00 psi	45.00 psi	4,140.00 lb	57.50 lb	0.75 in
185-9935	12.00 in	21.50 in	10	9.75 in	11.80 in	33.50 in	45.00 psi	45.00 psi	5,600.00 lb	77.40 lb	0.83 in
Telehandler											
208-8662	13.00 in	33.50 in	12	10.00 in	13.00 in	51.90 in	45.00 psi	45.00 psi	12,300.00 lb	168.00 lb	0.91 in

Premium Conventional vs. Low Side Wall



The premium conventional tire is a rugged design that competes head to head with Galaxy's Beefy Baby and Goodyear's IT 323. Low Side Wall (LSW) tires can be used in more demanding applications where tire punctures are more frequent or terrain is rutted or uneven which should help improve skid steer operation. The Low Side Wall (LSW) tire offers increased stability and improved handling on demanding terrain, but most importantly, on skid steers it allows the operator to operate the skid steer after a tire is punctured. The advantage of the LSW is the strength of the sidewall. The bead doesn't have a tendency to unseat from the flange like conventional tires. The tire can be repaired at the end of the day's shift, thereby, avoiding any downtime.

The sidewall cross-section of the LSW is over two times thicker than the industry premium conventional tire side wall thickness.

A skid steer loader will not lose ground clearance when LSW tire assemblies are installed. The outside diameter of the Caterpillar LSW tire assembly and the Caterpillar premium conventional tire assembly are the same. The outside diameters of the rear premium conventional tire (shown below) is 33.0 inches and the same 33.0 inch diameter is shown in a low side wall tire on the front of the skid steer.

Premium conventional (PC) and low side wall (LSW) tire assembly diameters always remain the same, only the wheel diameter (rim) changes.

Premium Conventional Flotation Tires



For work in soft terrain, such as at a nursery, in sand, or some landscape sites, use Cat Premium Conventional Flotation tires. A new industry trend, the flotation design can replace the use of tracks in some applications. Cat Premium Conventional Flotation tires are constructed with the same rugged durability as Cat Premium Conventional tires, but are engineered specifically to create less ground pressure.

The flotation tire design incorporates the traditional lug pattern with a wider footprint to provide a lower ground pressure.

Tire assembly diameter is either 31 or 33 inches, depending on the machine model. The wheel bolt holes are an eight hole pattern on an eight inch bolt circle. This wheel design has an outset of 1.75 inches.

The flotation tires are designed to stay within the larger bucket widths of the Caterpillar machines (66 inch bucket use for 216, 226, 28, 232, and 242 Models or 72 inch bucket use for 236, 246, 248, 252, and 262 Models.)

The Caterpillar flotation tire is made like the premium conventional tire, except the tire width is 15.5 inches instead of 10 or 12 inches.

Advantages

- Self-cleaning, open tread design for reduced maintenance time
- Extra large, tapered lugs for traction in slippery conditions and maximum wear life
- Dual side wall construction for puncture and tear protection
- An advanced blend of natural and synthetic rubber and a reinforced bead area for maximum wear life
- Heavy rim guard reduces potential for damage to tire bead and wheel flange
- Wider footprint for better load distribution
- Stable ride in soft terrain without sinking
- Heavier, 12-ply rating for greater load carrying capacity

(Continued)

Premium Conventional Flotation Tires (Continued)

Applications: Highly Recommended

- Wet Soil
- Sandy Soil
- Mud

Applications: Recommended

- Rocky Soil
- Dry Soil
- Snow

						Inflated Dimensions			Load Spec @ 5 mph				
Part Number	Tire Assembly Diameter	Tire Width	Wheel Diameter	Tire Style	Ply Rating	Rim Width	Section Width	Outside Diameter	Maximum Inflation	Suggested Inflation	Maximum Load	Tire Weight	Tread Depth
Skid Steer													
199-5436	31.00 in	15.50 in	16.50 in	NHS	8	12.00 in	15.00 in	31.00 in	35.00 psi	30.00 psi	4,479.99 lb	62.00 lb	0.75 in
199-5440	33.00 in	15.50 in	16.50 in	NHS	12	12.00 in	15.00 in	31.00 in	55.00 psi	45.00 psi	6,490.00 lb	85.00 lb	0.83 in

Extreme Duty Pneumatic

The Extreme Duty (XD) Pneumatic design is tough through and through. From the deep tread and ultra heavy side walls to the extra large rim guard, the XD equips your skid steer to maneuver effectively in the most extreme applications. In fact, the features that make the XD so tough also make it 26 percent heavier. Concrete and demolition, quarries, and asphalt recycling jobs are just some of the rigorous environments where the XD is the clear choice.

Advantages

- 14 ply rating enhances tear and puncture resistance
- 40 percent deeper tread depth than Premium Conventional model ensures long tire life on rough terrain
- Less void between the tread lugs reduces wear by spreading it across a larger surface area
- Superior carcass strength allows the tire to bear up to 1,300 lbs more than competitive models

Applications: Highly Recommended

- Asphalt
- Bricks
- Sand Stone
- Rock & Shale
- Quarries
- Rocky Soil

Applications: Recommended

- Concrete
- Scrap Yard
- Gravel
- Dry Soil
- Wet Soil



				Inflated Dimensions			Load Spec @ 5 mph					
Part Number	Tire Width	Wheel Diameter	Tire Style	Ply Rating	Rim Width	Section Width	Outside Diameter	Maximum Inflation	Suggested Inflation	Maximum Load	Tire Weight	Tread Depth
Skid Steer												
222-3962	10.00 in	16.50 in	NHS	10	8.25 in	10.40 in	30.60 in	75.00 psi	40.00 psi	4,339.99 lb	81.00 lb	1.38 in
222-3963	12.00 in	16.50 in	NHS	14	9.75 in	12.30 in	32.70 in	90.00 psi	50.00 psi	5,600.00 lb	105.00 lb	1.38 in

Extreme Duty Solid

Sold as assembly only



Cat Extreme Duty Solid tires perform on the toughest applications, especially smooth and hard improved surfaces such as concrete or asphalt. As its name suggests, this is a solid, molded tire with no filler. It improves productivity and profit, because it eliminates the downtime and repair costs associated with punctures and tears.

Advantages

- Three times longer wear than pneumatics and filled tires
- Solid tire means no flats
- Higher load carrying capacity than pneumatics

Applications: Highly Recommended

- Concrete

Applications: Recommended

- Glass
- Asphalt
- Bricks
- Scrap Yard
- Sand Stone

			Inflated Dimensions			Load Spec @ 5 mph			
Part Number	Tire Width	Wheel Diameter	Rim Width	Section Width	Outside Diameter	Rubber Thickness	Maximum Load	Tire Weight	Tread Depth
Skid Steer									
187-1279	5.00 in	7.00 in	7.00 in	7.38 in	31.00 in	5.10 in	4,690.00 lb	198.00 lb	1.50 in
187-3230	6.00 in	8.00 in	8.00 in	9.38 in	33.00 in	6.15 in	7,040.00 lb	263.00 lb	1.50 in

Extreme Duty Solid Flexport

Sold as assembly only



This solid tire runs on unimproved surfaces with an improved ride without sacrificing the strength of a solid. Its innovative design features Flexport, a series of holes molded through the outer ring of the side wall. These ports result in greater tire flexibility for a more cushioned ride than solid tires. They also serve as a means of absorbing shock that would have otherwise been transferred to the machine and the operator.

NOTE: A 31 × 6 × 10 solid tire replaces a 10 × 16.5 pneumatic tire and a 33 × 6 × 11 solid tire replaces a 12 × 16.5 pneumatic tire.

Advantages

- Tread depth delivers excellent traction
- Less lops than pneumatic tires
- Long-wearing tread compound resists cutting and chunking
- Extremely stable on improved and unimproved surfaces
- Solid means no flats
- Conditions and maximum wear life

Applications: Highly Recommended

- Glass
- Asphalt
- Bricks
- Scrap Yard
- Gravel

Applications: Recommended

- Concrete
- Sand Stone
- Rock & Shale
- Quarries
- Rocky Soil

(Continued)

Extreme Duty Solid Flexport (Continued)

Sold as assembly only

Part Number	Tire Width	Wheel Diameter	Tire Assembly Diameter	Side	Rim Width	Section Width	Outside Diameter	Rubber Thickness	Maximum Load	Tire Weight	Tread Depth
Skid Steer											
226-3734	6.00 in	11.00 in	33.00 in	Left/Right	10.50 in	11.00 in	33.00 in	6.20 in	8,980.00 lb	275.00 lb	2.30 in
226-3735	6.00 in	11.00 in	33.00 in	Left/Right	10.50 in	11.00 in	33.00 in	6.20 in	8,980.00 lb	275.00 lb	2.30 in
226-3736	6.00 in	10.00 in	31.00 in	Left/Right	9.00 in	10.00 in	31.00 in	6.30 in	7,530.00 lb	230.00 lb	2.00 in
226-3737	6.00 in	10.00 in	31.00 in	Left/Right	9.00 in	10.00 in	31.00 in	6.30 in	7,530.00 lb	230.00 lb	2.00 in
Integrated Toolcarrier/Wheel Loaders											
265-7591	9.00 in	20.50 in	59.00 in	Left/Right	20.50 in	20.50 in	59.00 in	9.00 in	--	1,796.00 lb	--

Non-Marking Extreme Duty Solid Flexport

Sold as assembly only

This solid, non-marking tire runs on unimproved surfaces with an improved ride without sacrificing the strength of a solid. Its innovative design features Flexport, a series of holes molded through the outer ring of the side wall. These ports result in greater tire flexibility for a more cushioned ride than solid tires. They also serve as a means of absorbing shock that would have otherwise been transferred to the machine and the operator. These tires can be used on concrete, stone, indoor floor material, driveways, and walkways. They are ideal for landscaping, snow plowing, concrete and indoor applications. The non-marking tire compound requires very little tire mark cleanup. One disadvantage of this tire compound is it may reduce durability and wear life.

NOTE: A 31 × 6 × 10 solid tire replaces a 10 × 16.5 pneumatic tire and a 33 × 6 × 11 solid tire replaces a 12 × 16.5 pneumatic tire.

Advantages

- Tread depth delivers excellent traction
- Less lops than pneumatic tires
- Tread compound resists cutting and chunking
- Extremely stable on improved and unimproved surfaces
- Solid means no flats
- Extra large, tapered lugs for traction in slippery conditions and maximum wear life
- Non-marking tire compound reduces or eliminates tire mark cleanup

Applications: Highly Recommended

- Concrete
- Stone
- Indoor Floor Material
- Driveways and Walkways
- Glass
- Asphalt
- Gravel

Applications: Recommended

- Rock & Shale
- Quarries
- Rocky Soil



				Inflated Dimensions						
Part Number	Tire Width	Wheel Diameter	Side	Rim Width	Section Width	Outside Diameter	Rubber Thickness	Maximum Load	Tire Weight	Tread Depth
Skid Steer										
250-2275	6.00 in	10.00 in	Right	9.00 in	10.00 in	31.00 in	6.30 in	7,530.00 lb	230.00 lb	2.00 in
250-2276	6.00 in	10.00 in	Left	9.00 in	10.00 in	31.00 in	6.30 in	7,530.00 lb	230.00 lb	2.00 in
250-2277	6.00 in	11.00 in	Right	10.50 in	11.00 in	33.00 in	6.20 in	8,980.00 lb	275.00 lb	2.30 in

(Continued)

Non-Marking Extreme Duty Solid Flexport (Continued)

Sold as assembly only

				Inflated Dimensions						
Part Number	Tire Width	Wheel Diameter	Side	Rim Width	Section Width	Outside Diameter	Rubber Thickness	Maximum Load	Tire Weight	Tread Depth
Skid Steer (Continued)										
250-2278	6.00 in	11.00 in	Left	10.50 in	11.00 in	33.00 in	6.20 in	8,980.00 lb	275.00 lb	2.30 in

Mounted Assemblies



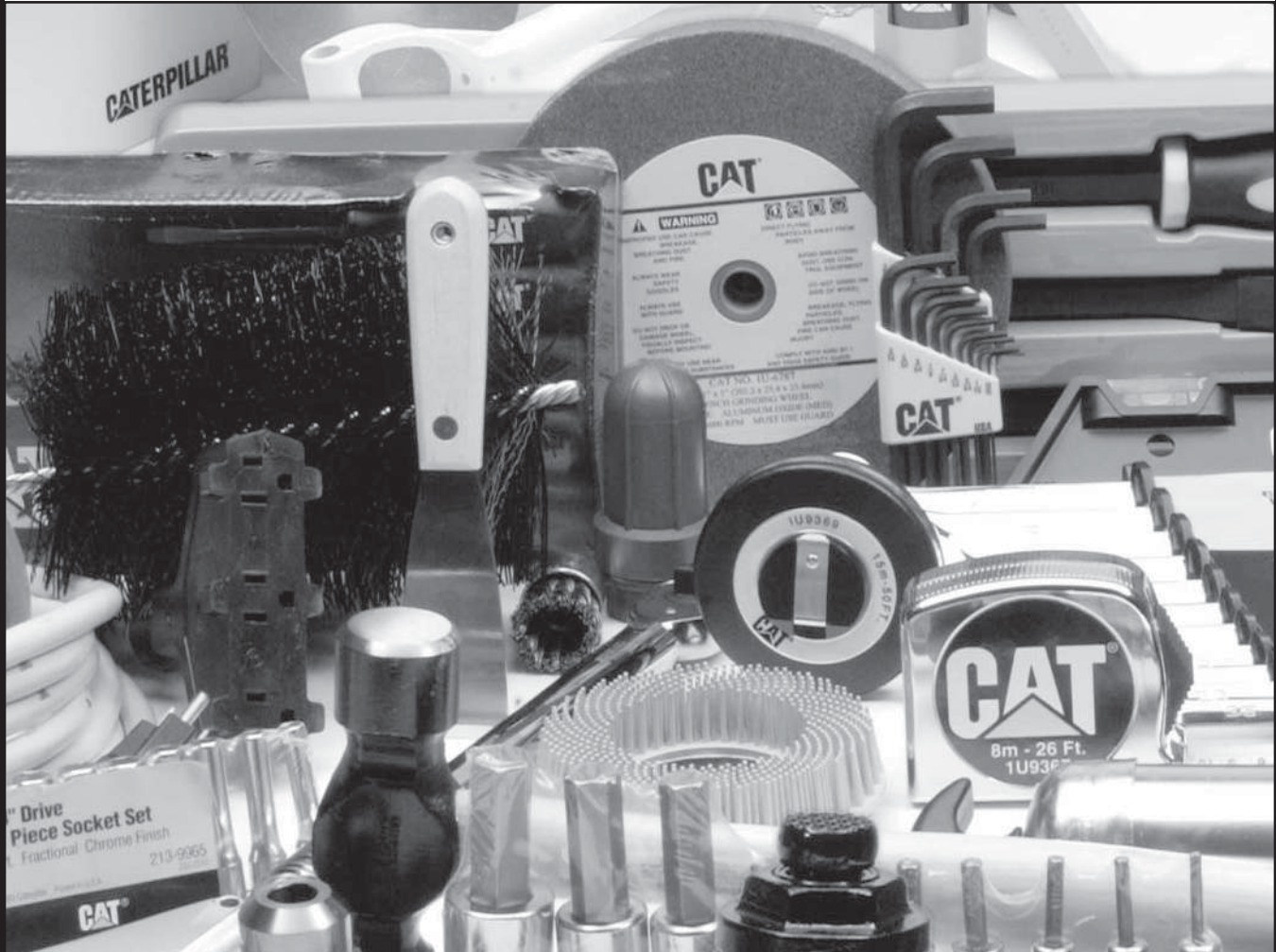
Cat tires enhance productivity with design innovations — and with the valuable option of purchasing your tires complete as mounted assemblies. This allows installation of the highest performance tires with the least amount of downtime and expense. It is an especially beneficial strategy for emergency field repairs. So you're back to work — and more productive — in no time.

Advantages

- A perfect, airtight fit
- Assurance of no bent rim flanges, wallowed bolt holes, or distorted pilot holes from previous
- Compliance with OEM specifications

ONE SAFE SOURCE

2008-2009



SHOP SUPPLIES AND HAND TOOLS

154-9315 Thread File Group



Model: 311, 312, 312B, 315B, and 318B Excavators (Grenoble Version)
SMCS Code: 4050-006, 0671

- Used to renew damaged external threads on any diameter shaft (right or left handed)
- Cross-cut and thread proportional to thread pitch (helps eliminate file skipping or jumping out of fine pitches)
- Each file has eight separate pitches
- Makes thread repairs without using a thread die
- Red plastic handle protects hands
- Each file is individually packaged in a plastic tube
- Carrying pouch keeps files together
- Files can also be ordered separately

Reference

REN1113 Service Manual, 312B Excavators Machine Systems Disassembly and Assembly
SEN6139 Service Manual, 311 and 312 Excavators Machine Systems Disassembly and Assembly

Part Number	Description	Pitch
154-9316	Metric Thread File	0.75, 1.00, 1.25, 1.50, 1.75, 2.00, and 3.00
154-9317	Inch Thread File	11, 12, 13, 14, 16, 18, 20, and 24 tpi
154-9318	Inch Thread File	9, 10, 12, 16, 20, 27, 28, and 32 tpi
154-9319	Pipe Thread File	8, 10, 11 ½, 14, 16, 18, 24, and 27 tpi
160-1749	Roll-up Pouch	--

Cap and Plug Kit 276-7018

- Protects against damage, dirt, moisture and corrosion during storage, shipping and repair
- Tapered caps/plugs are designed to plug multiple inner diameters and cap multiple outside diameters
- Three individual plastic boxes all found in one kit to keep caps/plugs organized and clean



Part Number	Index Description	Quantity
276-7018	Cap and Plug Complete Kit	1
Cap and Plug Kit Consists of:		
9U-7090	Cap/Plug — Tapered	3
9U-7091	Cap/Plug — Tapered	3
9U-7067	Cap/Plug — Tapered	20
9U-7068	Cap/Plug — Tapered	20
9U-7069	Cap/Plug — Tapered	20
9U-7070	Cap/Plug — Tapered	20
9U-7071	Cap/Plug — Tapered	20
9U-7073	Cap/Plug — Tapered	15
9U-7074	Cap/Plug — Tapered	15
9U-7075	Cap/Plug — Tapered	15
9U-7076	Cap/Plug — Tapered	15
9U-7077	Cap/Plug — Tapered	15
9U-7078	Cap/Plug — Tapered	15
9U-7079	Cap/Plug — Tapered	8
9U-7080	Cap/Plug — Tapered	8
9U-7081	Cap/Plug — Tapered	8
9U-7082	Cap/Plug — Tapered	4
9U-7085	Cap/Plug — Tapered	8
9U-7087	Cap/Plug — Tapered	4
9U-7088	Cap/Plug — Tapered	4
9U-7089	Cap/Plug — Tapered	3
276-0747	Cap — Plug	20
276-0748	Cap — Plug	15
276-0749	Cap — Plug	15
276-0750	Cap — Plug	15
276-0751	Cap — Plug	8
276-0752	Cap — Plug	8
276-0753	Cap — Plug	8
276-0754	Cap — Plug	4
276-0755	Cap — Plug	3
276-0756	Cap — Plug	3
276-0757	Cap — Plug	3
276-0731	Cap — Plug	20
276-0740	Cap — Plug	20
276-0741	Cap — Plug	20
276-0742	Cap — Plug	20
276-0743	Cap — Plug	20
276-0744	Cap — Plug	20
276-0745	Cap — Plug	20
276-0746	Cap — Plug	20
7E-8716	Plug — Protective	8

For our complete offering of caps and plugs please see the Cat Shop Supplies and Hand Tools Catalog PECJ0003.

Heavy-duty Contractor and Industrial Application Extension Cords



- Designed for heavy-duty use by contractors and industrial applications
- Outer jacket protects against rough handling and extreme weather conditions
- Provides superior resistance to sunlight, ozone, cracking, oils chemicals, and moisture
- All cords have Cat logo printed on cord
- All extension cords are UL (Underwriters Laboratory) listed and meet OSHA (Office of Safety and Health Administration) requirements
- All plugs and outlets are NEMA (National Electrical Manufacturers Association) designated — 5-15P plug and 5-15R outlet

Part Number	Length	Material	Outlet	Wire Size	Rating ¹	Voltage Rating	Operating Temperature
241-8522	25 ft	All-weather Vinyl	Single	12 Gauge, 3 Conductor	SJTOW	300 Volts	-35 to 60° C (-31 to 140° F)
241-8529	50 ft						
241-8530	100 ft						
243-1874	25 ft	All-weather Vinyl	Triple	12 Gauge, 3 Conductor	SJTOW	300 Volts	-35 to 60° C (-31 to 140° F)
243-1875	50 ft						
243-1876	100 ft						
243-1877	25 ft	All-weather Vinyl	Triple	10 Gauge, 3 Conductor	SJTOW	300 Volts	-35 to 60° C (-31 to 140° F)
243-1878	50 ft						
243-1879	100 ft						

¹ (S) Hard Surface, Flexible Cord, General Use; (J) 300 Volt cord or smaller; (E) Elastic Synthetic Rubber, Good Low Temperature Cord; (W) Watertight Cord; (O) Oil Resistant; (A) Low Temperature Rated; (T) Thermo Grade Plastic

179-7053 Triple-Tap Extension Cord

Warranty: Manufacturer’s



- 120 Volt/60 Hz reel extension cord is 15.2 m (50 ft) long, made from 16/3 wire with a built-in 10 amp circuit breaker
- Case is made from shatter resistant ABS plastic
- Two year warranty on workmanship and material defects
- UL Approved

Lantern Battery

Warranty: Manufacturer's

- Offers dependable high performance for portable lighting uses
- Recommended for all industrial lanterns



Part Number	Description	Package Quantity
1U-9547	Lantern Battery, Spring Terminal, 6 Volt	12

Industrial Batteries

Warranty: Manufacturer's

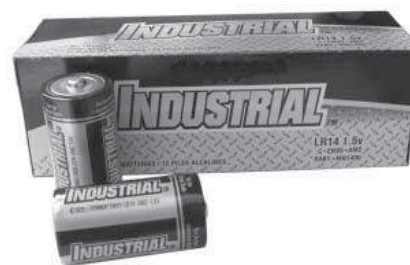
Alkaline

- Top-of-the-line for maximum service life
- Best for use in high-drain, continuous use situations

Heavy-Duty

- Ideally suited for normal industrial use

Size	Alkaline	Pkg. Qty.	Heavy-Duty	Pkg. Qty.
C, 1.5 Volt	1U-9531	72	1U-9536	72
D, 1.5 Volt	1U-9532	72	1U-9537	72
AA, 1.5 Volt	1U-9533	96	1U-9538	96
9 Volt	1U-9534	72	1U-9539	72
AAA, 1.5 Volt	1U-9535	96	--	--
AAAA, 1.5 Volt	245-3224	6	--	--

**141-1655 Inspection Light**

Warranty: Manufacturer's

- Molded in Lexan®, designed to stand up to almost any punishment
- Lightweight, super compact light source
- Water-tight to 609.6 m (2,000 ft)
- Shock proof, corrosion proof
- Economical, 30-hour long life lamp module
- Handy shirt clip
- Includes two AA batteries
- Includes 90° light bender
- Service Part: 4C-6741 Replacement Lamp Module (Qty. 12)



238-8244 Pen Light, White LED

269-3123 Pen Light, Blue LED

Warranty: Manufacturer's



European Union Compliant, CE marked

- Made from tempered aircraft aluminum
- 100,00 hour lifetime, hi-intensity light emitting diode (LED) bulb
- Batteries last up to 60 hours
- Includes 3 AAAA batteries
- Handy shirt clip
- Push end of pen light to momentarily illuminate or twist end clockwise for constant "on"
- Waterproof

Flashlight Bulbs

Warranty: Manufacturer's

- Ultra high intensity Krypton
- Use for increased brightness and visibility
- Built with integral lens providing an even distribution of light with excellent focusing characteristics
- Use with alkaline batteries for best economy

Part Number	Description	Application
4C-9464	Bulb	2 Cell C and D Flashlights
4C-9465	Bulb	3 Cell C and D Flashlights
4C-9466	Bulb	4 Cell C and D Flashlights
Special Flashlight Bulbs		
4C-9463	Mini MagLite (Qty. 2)	--
4C-9470	Halogen Replacement Bulb	--
4C-6741	Lamp Module (Qty. 12)	--

285-1145 Combination Padlock

- Cat part number engraved on side of padlock

Part Number	Combination Type	Lock Mechanism	Width	Shackle Diameter	Horizontal Shackle Clearance	Vertical Shackle Clearance
285-1145	Resettable	4-digit Dialing	50.8 mm (2 in)	7.94 mm ($\frac{5}{16}$ in)	25.4 mm (1 in)	25.4 mm (1 in)



285-1146 Combination Padlock

- Cat part number engraved on back of padlock

Part Number	Combination Type	Lock Mechanism	Width	Shackle Diameter	Horizontal Shackle Clearance	Vertical Shackle Clearance
285-1146	Fixed	3-digit Dialing	47.63 mm (1 $\frac{7}{8}$ in)	7.14 mm ($\frac{9}{32}$ in)	20.64 mm ($\frac{13}{16}$ in)	19 mm ($\frac{3}{4}$ in)



285-1147 High Security Brass Padlock

- Lock body and shackle black with Cat logo on both sides of bumper, Cat part number on side of bumper

Part Number	Number of Pin Tumblers	Width	Shackle Diameter	Horizontal Shackle Clearance	Vertical Shackle Clearance
285-1147	5	44.45 mm (1 $\frac{3}{4}$ in)	7.14 mm ($\frac{9}{32}$ in)	20.64 mm ($\frac{13}{16}$ in)	22.26 mm ($\frac{7}{8}$ in)



285-1148 High Security Brass Padlock

- Lock body and shackle black with Cat logo on both sides of bumper, Cat part number on side of bumper

Part Number	Package Quantity	Number of Pin Tumblers	Width	Shackle Diameter	Horizontal Shackle Clearance	Vertical Shackle Clearance
285-1148	2	5	44.45 mm (1 $\frac{3}{4}$ in)	7.14 mm ($\frac{9}{32}$ in)	20.64 mm ($\frac{13}{16}$ in)	22.26 mm ($\frac{7}{8}$ in)



285-1149 High Security Brass Padlock



- Lock body and shackle black with Cat logo on both sides of bumper, Cat part number on side of bumper

Part Number	Number of Pin Tumblers	Width	Shackle Diameter	Horizontal Shackle Clearance	Vertical Shackle Clearance
285-1149	5	44.45 mm (1 3/4 in)	7.14 mm (5/32 in)	20.64 mm (13/16 in)	63.5 mm (2 1/2 in)

285-1150 High Security Brass Padlock



- Lock body and shackle black with Cat logo on both sides of bumper, Cat part number on side of bumper

Part Number	Package Quantity	Number of Pin Tumblers	Width	Shackle Diameter	Horizontal Shackle Clearance	Vertical Shackle Clearance
285-1150	4	5	44.45 mm (1 3/4 in)	7.14 mm (5/32 in)	20.64 mm (13/16 in)	63.5 mm (2 1/2 in)

245-5836 Oil Absorbent Pads

- Exclusive “micro-webs” absorbs up to 100% more oil than other leading melt-blown oil absorbents
- Improved absorbency means more liquid pickup, with less product, which can result in lower costs for the user
- Very little lint to minimize contamination
- One bale picks up an average of 25 gallons of oil
- Comes as one bale of 50, 43.2 × 48.3 cm (17 × 19 in) pads
- Supplier-branded product

Absorbent Socks

Warranty: Manufacturer's



- Tubular absorbent socks absorb and contain leaks and spills around machinery (hydraulic oil, coolants, non-aggressive fluids, water, and even hazardous fluids, such as PCB oils and solvents)
- Superior diking and damming capability (hugs the floor, creating an effective barrier or dike that holds back fluids, in emergency situations, even after total absorption)
- Used primarily for everyday housekeeping around machines that leak, seep, or spill fluids
- Fits snugly against machine bases and wrap-around corners, keeping work area safe and dry
- Fine-grade vermiculite filler (non-biodegradable) quickly soaks up leaks and drips
- Durable, stitch-bonded polypropylene skin improves strength
- Self-contained, no messy cleanup (no loose absorbents to spread, sweep, scatter, shovel, or track around)
- Reusable for water spills only
- Meets OSHA regulation 29 CFR 1910.22(a)(2) for dry and clean workplace floors
- Material Safety Data Sheets (MSDS) available
- Supplier-branded product

Reference

NELG5036

Part Number	Quantity/Box	Absorption/Box	Absorption/Sock	Size	Shipping Weight
235-0844	40	113 L (30 gal)	2.8 L (0.7 gal)	75 mm (3 in) diameter × 121 cm (48 in) long	23 kg (50 lb)
254-3969	8	57 L (15 gal)	6.8 L (1.8 gal)	75 mm (3 in) diameter × 3 m (10 ft) long	11 kg (24 lb)

Absorbent Pillows

Warranty: Manufacturer's

- Absorbent pillow soaks up small to medium-size spills of oil and other non-aggressive fluids (works best once a spill has been contained)
- Fast, effective way to control leaks
- Use only as many as required (pillow's large surface area and superior wicking ability speeds cleanup time)
- High absorption/fast-wicking cellulose fibers begin to work when pillow contacts liquid and continue until fully saturated
- Strong, polypropylene cover will not tear when handling
- Easy cleanup (simply pick up and place into proper disposal container)
- Meets OSHA regulation 29 CFR 1910.22(a)(2) for dry and clean workplace floors
- Material Safety Data Sheets (MSDS) available
- Supplier-branded product

(Continued)

Absorbent Pillows (Continued)

Warranty: Manufacturer's

Reference

NELG5036



Part Number	Quantity/Box	Absorption/Box	Absorption/Sock	Size	Shipping Weight
235-0845	40	76 L (20 gal)	1.9 L (64 oz)	25 × 25 × 5 cm (10 × 10 × 2 in)	10 kg (23 lb)
193-0768	14	53 L (14 gal)	3.7 L (1 gal)	51 × 20 × 3.8 cm (20 × 8 × 1.5 in)	6.8 L (15 lb)

Heavyweight Absorbent Material for Most Oil, Water-Based Fluids, and Chemicals

Warranty: Manufacturer's

Absorbs the following fluids and chemicals:

Acetone, Acetonitrile, Aluminum Salts, Ammonium Hydroxide, Barium Salts, Benzyl Alcohol, Boric Acid, Butanol, Calcium Chloride, Carbon Disulfide, Carbon Tetrachloride, Chloroform, Cupric Chloride, Cyclohexanone, Dichloromethane, Diethylamine, Dimethylformamide, Ethyl Acetate, Formaldehyde, Gasoline, Glycol Ether, Hexane, Hydrazine, Anhydrous, Hydrochloric Acid (37%), Hydrogen Peroxide (30%), Hydrofluoric Acid (48%), Isopropanol, Jet Fuel (JP-5), Kerosene, Methanol, Methyl Ethyl Ketone, Mineral Oil, Mineral Spirits, Naphtha, Nitric Acid (70%), Nitric Acid fuming (90%), Nitrobenzene, Perchloroethylene, Phenol, Potassium Hydroxide 50%, Propylene Glycol, Sodium Hydroxide (50%), Styrene, Sulfuric Acid (50%), Sulfuric Acid (98%), Tetrachloroethylene, Tetrahydrofuran, Thionyl Chloride, Toluene, 1, 1, 1-Trichloroethane, Trichloroethylene, Triethylamine, Turpentine, Water

- Heavyweight, gray, absorbent material designed to absorb chemicals, solvents, oils, coolants, petroleum products, water, water-based fluids, and even acids and bases
- Multiple uses in maintenance, repair, and operating (MRO) areas; cover areas prone to overspray and spills, leaving a cleaner, safer work area; ideal for heavy, concentrated machine leaks and large, spreading spills; keep floors and walk areas safer by absorbing leaks, spills, drips, and overspray
- Dark gray color hides dirt and grime of foot traffic
- Thin profile slides into hard-to-reach areas
- Made from flame-resistant material which can be used around spark-prone areas, such as welding or grinding equipment
- Material will not degrade or have a chemical reaction to a wide variety of chemicals and strong solvents
- Absorbs 10 times its weight, reducing material purchase and disposal costs
- Dimple design helps absorb more liquid in less time (material retains liquid, even when fully saturated)
- Roll material cuts easily with scissors or razor knife — easily shaped to fit virtually any area
- Material: 100% polypropylene
- Multiple layers are held together with thermal bond points for added strength and durability — will not fall apart or leave behind residue, even when fully saturated
- 235-0848 is packaged in convenient, easy-to-carry dispenser box
- Meets OSHA regulation 29 CFR 1910.22(a)(2) for dry and clean workplace floors
- Material Safety Data Sheets (MSDS) available
- Supplier-branded product unless otherwise indicated

(Continued)

Heavyweight Absorbent Material for Most Oil, Water-Based Fluids, and Chemicals (Continued)

Warranty: Manufacturer's

**261-0114**

Part Number	Description	Quantity/ Box	Absorption/ Box/Roll	Absorption/Pad	Size	Ply	Shipping Weight
235-0847	Absorbent Roll	1 Roll	155 L (41 gal)	--	76 cm (30 in) wide, 46 m (150 ft) long, perforated to 25 cm (10 in) × 38 cm (15 in)	8	14 kg (30 lb)
261-0114	Absorbent Mat	1 Roll	53.06 L (14 gal)	--	76.2 cm (30 in) wide, 15.25 m (50 ft) long	8	5 kg (11 lb)
307-9919	Absorbent Pad	100 Pads	80 L (21 gal)	798 ml (27 oz)	43 × 48 cm (15 in × 19 in)	3	8 kg (17 lb)
307-9920	Absorbent Pad	100 Pads	91 L (24 gal)	917 ml (31 oz)	41 × 51 cm (16 in × 20 in)	8	9 kg (19 lb)
307-9922	Absorbent Pad	100 Pads	80 L (21 gal)	798 ml (27 oz)	43 × 48 cm (17 in × 19 in)	3	8 kg (17 lb)
307-9925	Absorbent Roll	1 Roll	163 L (43 gal)	--	96 cm (38 in) wide, 44 m (144 ft) long	3	15 kg (34 lb)
307-9927	Absorbent Roll	1 Roll	163 L (43 gal)	--	96 cm (38 in) wide, 44 m (144 ft) long, perforated every 25 cm (10 in)	3	15 kg (34 lb)

261-0115 High-Visibility Yellow Mat

Warranty: Manufacturer's

- Absorbs oils, coolants, solvents and water
- Ideal for any leak-, spill-, or drip-prone areas
- Absorbs a wide range of chemicals without degrading or causing a dangerous chemical reaction
- Comes with a variety of socks and pillows along with a roll of universal mat
- Low profile — slides into hard-to-reach areas
- Supplier-branded product
- High-visibility yellow color alerts workers to potential dangers where work or repairs are taking place
- Flame-resistant — safe for spark prone areas such as welding robots



Part Number	Absorbent Capacity	Length	Width	Weight	Material	Ply
261-0115	125 Ls (33 gal) per Bag	46 m (150 ft)	61 cm (24 in)	10.9 kg (24 lb)	100% Polypropylene	8

Oil-Only Absorbent Material

Warranty: Manufacturer's



- Heavyweight, white, absorbent material used for spill cleanup and everyday maintenance absorption of non-flammable petroleum products and petroleum-based fluids, such as oil, gasoline, kerosene, diesel fuel, solvents, etc.
- Absorbs petroleum-based fluids only — ideal for situations where water absorption is not necessary
- Roll material works great for factory floors saturated with oils or other petroleum-based fluids
- Less expensive than a universal absorbent (ideal for oil-only spills or drips)
- Material will not degrade or have a chemical reaction to petroleum-based fluids
- Absorbs 10 times its weight, reducing material purchase and disposal costs
- Dimple design helps absorb more liquid in less time (material retains liquid even when fully saturated)
- Roll material cuts easily with scissors or razor knife — easily shaped to fit virtually any area
- Material: 100% polypropylene
- Multiple layers are held together with thermal bond points for added strength and durability — will not fall apart or leave behind residue, even when fully saturated
- Material can be incinerated with less than 0.1% ash while producing 21,000 Btu/lb
- Meets OSHA regulation 29 CFR 1910.22(a)(2) for dry and clean workplace floors
- Material Safety Data Sheets (MSDS) available
- Supplier-branded product unless otherwise indicated

Part Number	Description	Quantity/Box	Absorption/Box/Roll	Absorption/Pad	Size	Shipping Weight	Ply	Color
235-0850	Oil-Only Absorbent Roll	1 roll	155 L (41 gal)	--	76 cm (30 in) wide 46 m (150 ft) long	14 kg (30 lb)	8	White
307-9921	Oil-Only Absorbent Pad	50 Pads	45 L (12 gal)	917 ml (31 oz)	41 × 51 cm (16 × 20 in)	4 kg (9 lb)	8	White
307-9923	Oil-Only Absorbent Pad	100 Pads	76 L (20 gal)	739 ml (25 oz)	43 × 48 cm (17 × 19 in)	8 kg (17 lb)	3	White
307-9924	Oil-Only Absorbent Roll	1 Roll	151 L (40 gal)	--	96 cm (38 in) wide, 44 m (144 ft) long	15 kg (34 lb)	3	White
307-9926	Oil-Only Absorbent Roll	1 Roll	151 L (40 gal)	--	96 cm (38 in) wide, 44 m (144 ft) long	15 kg (34 lb)	3	White
307-9928	Oil-Only Absorbent Pad	100 Pads	76 L (20 gal)	739 ml (25 oz)	43 × 48 cm (17 × 19 in)	8 kg (17 lb)	3	White

235-0849 Lightweight Absorbent Roll

Warranty: Manufacturer's

- Lightweight, gray, absorbent mat designed to cover areas prone to overspray and spills, leaving a cleaner, safer work area
- Ideal for light machine overspray and small, annoying leaks of oils, coolants, solvents, and water
- Great for day-to-day housekeeping and repair work
- Cross roll perforations — easily and quickly tear to any size sheet, as small as 25 × 61 cm (10 × 24 in)
- Works well in narrow walkways
- Multiple layers are held together with thermal bond points for added strength and durability — will not fall apart or leave behind residue
- Absorbs 10 times its weight, reducing purchase and disposal costs
- Dark gray color hides dirt and grime
- Dimple design absorbs more liquid in less time and greater liquid retention holds liquid even when roll is saturated
- Meets OSHA regulation 29 CFR 1910.22(a)(2) for dry and clean workplace floors
- Material Safety Data Sheets (MSDS) available
- Supplier-branded product



Part Number	Quantity/Box	Absorption/Box	Size	Material	Ply	Shipping Weight
235-0849	1 Roll	125 L (33 gal)	61 cm (24 in) wide by 91 m (300 ft) long	100% Polypropylene	8	11 kg (23 lb)

254-3422 Wipers

- Designed to outperform rags with Hydroknit technology in lightweight wiper
- Reinforced for extra scrubbing and cleaning power
- Leaves no residue
- Good on grease and oil, adhesive cleaning and cable lubricant removal
- Good for applying thinners and solvents

Part Number	Size	Color	Qty.
254-3422	23.1 × 42.7 cm (9.1 × 16.8 in)	White	126 Wipers per Box, 10 Boxes per Case

265-2256 Low Lint Task Wipers

- For lab environments where clean rooms require low lint
- Excellent for surface wiping in clean manufacturing environments — fuel systems, hydraulics, diagnostic equipment and precision instruments
- Continuous filament rayon/polyester spun-like blend for cloth-like feel
- Excellent absorption rate and capacity
- Solvent resistant
- Double wrapped in anti-stat packaging

Part Number	Size	Color	Qty.
265-2256	20.3 × 20.3 cm (8 × 8 in)	White	100 Wipers per Pack, 3 Packs per Case

267-6532 Manufactured Rags

- HydroKnit fast-absorbing material — highly absorbent
- Cleans up oil, grime, and solvents
- Good for applying thinner and solvents
- Pound for pound absorbs more oil and water than shop rags
- Use with 1U-5432 Paper Wiper Dispenser

Part Number	Size	Color	Qty.
267-6532	31.8 × 36.6 cm (12.5 × 14.4 in)	White	76 Wipers per Bundle, 12 Bundles per Case

Manufactured Pop-up Rags

- HydroKnit fast-absorbing material — highly absorbent
- Reinforced for heavy maintenance cleaning and long-lasting performance that also reduces waste
- Cleans up oil, grime, and solvents
- Good for applying thinner and solvents
- Pound for pound absorbs more oil and water than shop rags
- Packaged in sturdy corrugated pop-up dispenser cartons
- Can also use with 269-3368 Dispenser

(Continued)

Manufactured Pop-up Rags (Continued)

Part Number	Wiper Size	Color	Qty.
267-6535	23.1 × 42.7 cm (9.1 × 16.8 in)	White	100 Rags per Carton, 10 Cartons per Case
267-6536	23.1 × 42.7 cm (9.1 × 16.8 in)	Blue	100 Rags per Carton, 10 Cartons per Case

263-0892 Hard Roll Towels

- Towels compressed on roll so more towels fit in same space — no sacrifice in performance, change roll less often
- Material: paper



Part Number	Size	Color	Quantity
263-0892	20.3 cm × 304.8 cm (8 in × 1,000 ft) Roll	White	12

162-5791 Shop Towel

- Excellent absorbency
- Perfect to use on grease or oil
- Low-lint, 100% polypropylene construction
- Good for cleaning and disinfecting surface
- Stands up well to spirits and solvents
- Use with 1U-5432 Paper Wiper Dispenser



Part Number	Size	Qty.
162-5791	30.7 × 42.7 cm (12.1 × 16.8 in)	180 per Box

263-0884 Paper Cups

- Two-piece construction with tightly rolled rim
- Fully wax coated inside and out with a satin finish

Part Number	Capacity	Qty.
263-0884	238.8 ml (8 oz)	2,000 per Case

1U-7427 Engine Cover

- Protects engine from dirt and debris
- Can be used as drop cloth or dust cover
- Affordable and disposable

Part Number	Size	Qty.
1U-7427	122 × 183 cm (48 × 72 in)	50 Sheets per Case

Seat Covers

- These seat covers drape over the seats and are disposable when the job is finished.
- They are produced from a specially formulated resin that has a built-in stretch to help prevent tool punctures and rips.
- These covers are made of a clear non-slip surface on both sides that helps hold it in place while providing safe usage.

Part Number	Description
274-7454	Roll of 250 Seat Covers
274-7455	Case of 250 Seat Covers

Wall Mount Dispenser

- Space Saver wall dispenser mounts with ease to accommodate the seat cover rolls
- This dispenser will help keep your interior protection products clean and easy to reach

Part Number	Description
274-7458	Seat Cover Roll Dispenser



Floor Cover

Interior service soils are the single most frequent complaint by service customers. Help keep the inside clean with these floor covers that stay in place. These covers have a high absorption paper on top and a plastic bottom that won't soak through

Part Number	Description
274-7456	Case of 500 Floor Covers



Steering Wheel Covers

The see-thru steering wheel cover protects your customers' steering wheel from oily prints. It is elasticized on both sides providing protection for the wheel and the customers, hands. Impervious to grease, these afford maximum protection for the wheel.

Part Number	Description
274-7457	Case of 500 Covers



150-1578 First Aid Kit



- Small, portable kit for service trucks, tool boxes, or for personal use in family home, car, camper, or boat
- Soft shell case made of water resistant nylon
- Uses "Book Style" construction with zippered internal compartments (makes it easy to access items)

150-1578 Consists of:		
Description	Size	Quantity
Water Resistant Nylon Container	190.5 × 38.1 × 107.95 mm (7.5 × 1.5 × 4.25 in)	1
Scissors	102 mm (4.0 in)	1
Tweezers	76.2 mm (3 in)	1
First Aid Booklet		1
Band-aids	19.05 × 76.2 mm (0.75 × 3 in)	20
Alcohol Swabs		4
Wet Wipes		4
Sting Stop Swabs		2
Antiseptic Swabs		12
Adhesive Tape	2.3 m × 12.7 mm (2.5 yd × 0.5 in)	1
Sterile Gauze Pads	50.8 × 50.8 mm (2 × 2 in)	4
Sterile Gauze Pads	101.6 × 101.6 mm (4 × 4 in)	2
Sterile Abdominal Pad	127 × 228.6 mm (5 × 9 in)	1
Sterile Pressure Bandage	50.8 mm (2 in)	1
Conform Gauze Roll	4.57 m × 50.8 mm (5 yd × 2 in)	1
Triangular Bandage		1
Safety Pins		6
Vinyl Gloves		1 Pair
Acetaminophen		1 (2 per Pack)

Part Number	Description
150-1578	First Aid Kit

150-1579 First Aid Kit

- Small, portable kit for service trucks, tool boxes, or for personal use in family home, car, camper, or boat
- Soft shell case made of water resistant nylon
- Uses “Book Style” construction with zippered internal compartments (makes it easy to access items)



150-1579 Consists of:		
Water Resistant Nylon Container	228.6 × 76.2 × 127 mm (9 × 3 × 5 in)	1
Scissors	152.4 mm (6 in)	1
Stainless Steel Splinter Forceps	114 mm (4.5 in)	1
First Aid Booklet		1
Cloth Band-aids	22.2 × 76.2 mm (0.87 × 3 in)	10
Finger Tip Band-aids		5
Knuckle Band-aids		5
Alcohol Swabs		18
Wet Wipes		6
Sting Stop Swabs		6
Antiseptic Swabs		16
Adhesive Tape	4.6 m × 12.7 mm (5 yd × 1 in)	1
Sterile Gauze Pads	50.8 × 50.8 (2 × 2 in)	8
Sterile Gauze Pads	101.6 × 101.6 mm (4 × 4 in)	2
Sterile Abdominal Pad	127 × 228.6 mm (5 × 9 in)	2
Sterile Pressure Bandage	101.6 mm (4 in)	1
Conform Gauze Roll	4.57 m × 50.8 mm (5 yd × 2 in)	2
Triangular Bandage		1
Safety Pins		6
Vinyl Gloves		1 Pair
Multi-purpose Pad	431.8 × 609.6 mm (17 × 24 in)	1
Tensor Bandage	50.8 mm (2 in)	1
Instant Cold Pack (in box)	1016 × 152.4 mm (4 × 6 in)	1
Emergency Mylar Blanket		1

Part Number	Description
150-1579	First Aid Kit

First Aid Kits, 25 and 50-person

- Kits for your safety and first aid requirements
- Comply with OSHA 1910.151 for industry, and OSHA 1926.50 for construction
- 163-0798 contains supplies for 25 people; 163-0799 contains supplies for 50 people
- Soft shell case

Contents	163-0798 25-person	163-0799 50-person
Adhesive Strips, ¾ in × 3 in	50	100
Adhesive Tape Roll, ½ in × 5 yd	1	1
Alcohol Wipes	10	20
Ammonia Inhalants	3	3
Instant Cold Pack	1	1
Combine Pad, 5 in × 9 in	1	1
Sterile Cotton, ½ oz Roll	1	1
Disposable Gloves	1 Pair	2 Pair
Eye Irrigate Solution, 1 oz Bottle	1	1
Eye Pads, oval, 1.75 in × 2.5 in	2	4
Gauze Pads, 4 in	2	4
Gauze Pads, 3 in	4	8
First Aid Cream, ⅞ oz	1	2
Sting Relief Pads	3	3
Triangular Bandage	1	1
Gauze Bandage, 2 in × 5 yd	2	2
Gauze Bandage, 4 in × 5 yd	--	1
Elastic Bandage, 2 in	--	1
Scissors	1	1
Tweezers	1	1

Part Number	Description
163-0798	25-Person First Aid Kit
163-0799	50-Person First Aid Kit

4C-9619 First Aid Blanket

Warranty: Manufacturer's



- Flame retardant, durable 90% wool, 10% nylon, gray blanket
- Dimensions: 157 cm × 203 cm (62 in × 80 in)
- Fluorescent, Rocket Red pouch with built-in carrying handle
- Made of nylon, vinyl-coated on both sides
- A must in case of emergency

Part Number	Description	Dimensions
4C-9619	First Aid Blanket	157 × 203 cm (62 × 80 in)

239-1090 Disposable Foam Plugs

European Union Compliant, CE marked

- Tapered disposable plug for excellent fit
- Light comfortable foam
- Smooth surface to repel dirt
- Excellent protection at NRR29
- Package quantity: 1



239-1089 Reusable Uncorded Plugs

European Union Compliant, CE marked

- Super-soft washable reusable plugs
- Flip-top case included
- Non-toxic FDA-approved material
- Excellent protection at NRR28
- Package quantity: 1



Disposable Plugs

European Union Compliant, CE marked

- Bell-shaped polyurethane foam for maximum comfort
- Smooth soil-resistant skin
- Noise reduction rating: 33dB
- Color: neon



Shop Supplies and Hand Tools

Part Number	Description	Qty.
260-4783	Uncorded Disposable Plugs	200 per Box/10 boxes per Case
260-4785	Corded Disposable Plugs	100 per Box/10 boxes per Case

237-8092 Corded Disposable Foam Plugs

European Union Compliant, CE marked

- Tapered disposable plug for excellent fit
- Light comfortable foam
- Smooth surface to repel dirt
- Corded for long wear and cost savings
- Excellent protection at NRR29
- Package quantity: 1



Rad Band and Replacement Plugs



European Union Compliant, CE marked

- High-density construction, lightweight and durable
- Non-toxic FDA approved material earplugs
- Comfortable and cool on hot days
- Noise reduction rating: 23 dB
- Engineered angled earplug for maximum sound protection and comfort
- Package quantity: 1

Part Number	Description
233-8585	Rad Band
233-8586	Replacement Plugs

233-8588 Performance Kit



European Union Compliant, CE marked

Part Number	Description	Package Quantity
Consists of:		
233-8580	Glasses	1
233-8587	Ear Muffs	1

233-8587 Silencer Ear Muffs



European Union Compliant, CE marked

- Comfortable adjustable padded headband
- Soft foam padded earcups — comfortable when wearing with glasses
- Rugged and lightweight
- Dielectric
- Excellent protection at NRR26

4C-6581 Ear Muffs

European Union Compliant, CE marked

- Hard hat-mounted ear muffs feature large, lightweight ear cups that attach to a variety of hard hats for convenience
- Recommended for moderately high noise situations (up to 95 dBA TWA)
- Noise reduction rating: 23 dB
- Package quantity: 2 pair muffs
- C.S.A.



239-1088 Multipositional Ear Muff

European Union Compliant, CE marked

- Adjustable steel headband
- Foam filled ear cushions with a soft breathable surface
- Package quantity: 1



239-1085 Wraparound Safety Glasses

European Union Compliant, CE marked

- Visitor disposable safety glasses
- Can be worn over prescription glasses
- 99.9% UVA and UVB protection
- Meets or exceeds all ANSI, CSA, and CE specifications
- Package quantity: 1



Safety Glasses

European Union Compliant, CE marked

- Polycarbonate lens
- Universal bridge, plastic frame
- Meet ANSI Z87.1-1979



Part Number	Package Quantity	Lens Type	Frame Color	Size	Lens Features
4C-8093	10	Clear	Mocha	54	Eye Brow and Side Shield
4C-4120	10	Clear	Mocha	58	Eye Brow and Side Shield
4C-8351	10	Gray	Mocha	58	Eye Brow and Side Shield

Safety Glasses

**European Union Compliant, CE marked**

- Sporty wraparound look
- Soft non-slip rubber nosepiece
- Adjustable temple length
- Full UVA and UVB protection
- Meets or exceeds all ANSI, CSA, and CE specifications
- Package quantity: 1

Part Number	Lens Type
233-8576	Clear (packaged for retail)
233-8577	Clear
233-8578	Gray (packaged for retail)
233-8579	Gray

Safety Glasses

**European Union Compliant, CE marked**

- 5-position ratchet and 4-position telescoping temples
- Soft non-slip rubber nosepiece
- Anti-scratch hard-coated lenses
- 99.9% UVA and UVB protection
- Ventilation between lens and frame
- Meets or exceeds all ANSI, CSA, and CE specifications
- Package quantity: 1

Part Number	Lens Type
233-8580	Gray (packaged for retail)
249-7265	Clear (packaged for industrial; 12 per package)

Safety Glasses

**European Union Compliant, CE marked**

- 5-position ratchet and 4-position telescoping temples
- Stylish one-piece lens with shields
- Hard-coated lenses
- 99.9% UVA and UVB protection
- Meets or exceeds all ANSI, CSA, and CE specifications
- Package quantity: 1

Part Number	Lens Type	Frame
239-1079	Clear	Black
239-1082	Clear	Yellow/black
239-1083	Gray	Black
239-1084	Gray	Yellow/black
233-8581	Blue	Mirror-black
233-8582	Blue	Mirror-yellow/black

Aviator-Style Safety Glasses

- Popular aviator-style frames with clear or gray tinted polycarbonate lenses and side shields
- Fold-flat frame design has 58 mm (2.3 in) lens size and 150 mm (6 in) temple length
- Nose pad is adjustable and constructed of soft, pliable PVC
- Side shields are permanently attached
- Temples are made of brass alloy for easy adjustment
- Impact resistant lenses meet ANSI Z87.1-1989
- Package quantity: 1 pair

Part Number	Frame Color	Lens Tint
262-4864	Black	Gray
263-0858	Gold	Clear
263-0868	Black	Clear



263-0866 Zircon-Style Safety Glasses

- Zircon-style safety glasses feature a contoured impact resistant polycarbonate lens
- Dark green tinted lens absorbs 99% of harmful UV rays
- Meets ANSI Z87.1-2003 impact standards
- Package quantity: 1 pair



262-4861 Universal Clip-On Safety Shields

- Provide optimal lateral coverage on medium to large frames with lens measuring 42 to 51 mm (1.65 to 2 in) in height
- Semicircle configuration provides enhanced coverage that shields eye from impact and airborne foreign bodies
- Patented design allows simple attachment or removal without tools in less than one minute
- Easily replaces most original equipment side shields
- Each universal side shield dispensing unit contains 20 pair of side shields and 20 care and mounting instructions to assist and inform first time users
- Dispensing units can be placed at strategic locations for convenience of employees or visitors
- Made from molded high-impact polycarbonate
- OSHA compliant and meets ANSI Z87.1-2003
- UV shield barrier protects against harmful UV radiation
- Package quantity: 20 pair



233-8584 Safety Goggles**European Union Compliant, CE marked**

- Provides excellent ventilation and indirect protection
- Fits over most prescription eyewear
- Clear optical-grade polycarbonate lens
- Adjustable headband
- Meets or exceeds all ANSI, CSA, and CE specifications
- Package quantity: 1

233-8583 Safety Goggles**European Union Compliant, CE marked**

- Perforated goggle with excellent ventilation and protection
- Fits over most prescription eyewear
- Clear optical-grade polycarbonate lens
- Adjustable headband
- Meets or exceeds all ANSI, CSA, and CE specifications
- Package quantity: 1

Safety Glasses

- 9.75 base lens provide excellent optics and protection
- Gel nosepiece allows for all day comfort
- 4-position telescoping temples for superior fit
- All lens are hard coated for scratch resistance
- Meets ANSI Z87.1 + standards and protects against 99% harmful UV rays

Part Number	Lens Tint	Package Quantity
Industrial Packaging		
307-3013	Clear	12 per Package
307-3014	Smoke	12 per Package
307-3015	Indoor/Outdoor	12 per Package
307-3016	Amber	12 per Package

Part Number	Lens Tint	Package Quantity
Retail Packaging (Clamshell)		
308-6368	Clear	Clamshell
308-6369	Smoke	Clamshell
308-6370	Indoor/Outdoor	Clamshell
308-6372	Amber	Clamshell

Safety Glasses

- Polarized lens provides superior glare control
- 5-position ratchet plus 4-position telescoping temples for superior fit
- Ventilation channel between lens and frame helps reduce fogging
- Meets ANSI Z87.1 + standards and protects against 99% harmful UV rays

Part Number	Package Quantity	Lens Type
Industrial Packaging		
309-4932	12 per package	Polarized
Retail Packaging (Clamshell)		
309-4934	Clamshell	Polarized



Safety Glasses

- Rubber tipped temples for comfortable fit
- Soft rubber nosepiece
- Tough polycarbonate lens provides superior protection
- Meets ANSI Z87.1 + standards and protects against 99% harmful UV rays

Part Number	Package Quantity	Lens Tint
Industrial Packaging		
307-3017	12 per package	Clear
307-3018	12 per package	Smoke
307-3019	12 per package	Indoor/Outdoor
Retail Packaging (Clamshell)		
308-6373	Clamshell	Clear
308-6374	Clamshell	Smoke
308-6376	Clamshell	Indoor/Outdoor



Safety Glasses

- Rubber tipped temples for comfortable fit
- Lightweight, popular style frame
- Tough, polycarbonate lens provides superior protection
- Meets ANSI Z87.1 + standards and protects against 99% harmful UV rays



Part Number	Package Quantity	Lens Tint
Industrial Packaging		
307-3020	12 per Package	Clear
307-3021	12 per Package	Smoke
307-3022	12 per Package	Indoor/Outdoor
307-3023	12 per Package	Amber

Part Number	Package Quantity	Lens Tint
Retail Packaging (Clamshell)		
308-6377	Clamshell	Clear
308-6378	Clamshell	Smoke
308-6379	Clamshell	Indoor/Outdoor
308-6380	Clamshell	Amber

Safety Glasses



- Sleek, sporty style frame
- Soft, rubber temples provide superior comfort
- Rubber nosepiece allows for all day comfort
- Comes standard with neck cord
- Meets ANSI Z87.1 + standards and protects against 99% harmful UV rays

Part Number	Package Quantity	Lens Tint
Industrial Packaging		
307-3027	12 per Package	Smoke
307-3025	12 per Package	Indoor/Outdoor
308-6385	12 per Package	Smoke
Retail Packaging (Clamshell)		
308-6384	Clamshell	Clear
308-6386	Clamshell	Smoke
308-6390	Clamshell	Indoor/Outdoor

Safety Glasses



Bi Focal Safety Glass

- Magnification diopter molded into lens
- Soft, rubber nosepiece
- Cushioned, non-slip rubber temple pads
- Meets ANSI Z87.1 + standards and protects against 99% harmful UV rays

Part Number	Package Quantity	Lens Type
Industrial Packaging		
308-6391	12 per Package	Clear 1.0
308-6393	12 per Package	Clear 1.5
309-2454	12 per Package	Clear 2.0
309-2456	12 per Package	Clear 2.5
309-2458	12 per Package	Clear 3.0

Part Number	Package Quantity	Lens Type
Retail Packaging (Clamshell)		
308-6392	Clamshell	Clear 1.0
309-2455	Clamshell	Clear 2.0
309-2457	Clamshell	Clear 2.5
309-2459	Clamshell	Clear 3.0
310-4016	Clamshell	Clear 1.5

Safety Glasses



- Sleek, sporty, lightweight wraparound frame
- Gel nosepiece allows for all day comfort
- High gloss painted frame
- Comes standard with neck cord
- Cushioned, non-slip rubber temple pads
- Meets ANSI Z87.1 + standards and protects against 99% harmful UV rays

Part Number	Package Quantity	Lens Tint
Industrial Packaging		
307-3024	12 per Package	Clear
307-3028	12 per Package	Indoor/Outdoor
308-6385	12 per Package	Smoke
Retail Packaging (Clamshell)		
308-6381	Clamshell	Clear
308-6382	Clamshell	Smoke
308-6383	Clamshell	Indoor/Outdoor

263-0867 All-purpose Wipers

- Cleaning tissues for safety glasses
- Pop-up style box
- Size: 127 × 203 mm (5 × 8 in) wipers
- Quantity: 300 tissues per box, 60 boxes per case



239-1086 Lens Cleaning Towelettes

European Union Compliant, CE marked

- Excellent disposable moisturized towels for lens cleaning
- Can be used on plastic, glass and polycarbonate lenses, face shields, and goggles
- Towelettes are pre-moistened with anti-fog, anti-static formula
- Individually foil wrapped towelettes are great for service trucks and tool boxes
- Dispenser features pull out bottom for easy dispensing and built in tab for hanging
- Each dispenser contains (100) 127 mm × 203 mm (5 in × 8 in) towelettes



239-1087 Lens Cleaning Station

European Union Compliant, CE marked

- May be used on safety glasses, face shields, goggles, and full face respirators
- Economical lens cleaning station provide lens cleaning needs in shop or office
- Promotes proper lens cleaning, extending life of safety glasses
- Specially formulated solution cleans greasy and oily glasses while providing an anti-fog/anti-static coating
- Low lint non-abrasive tissues leave lenses clear and streak free
- Easily mounted on wall or table top
- Each station contains 8 oz. anti-fog/anti-static solution and 600 low lint, non-abrasive tissues



Hard Hats

Warranty: Manufacturer's

**European Union Compliant, CE marked**

- Replaces canceled 173-1941 Protective Hard Hat, White and 173-1942 Protective Hard Hat, Yellow
- High density, polyethylene protective hard hats with Cat logo
- Self-sizing, four-point suspension with brow pad
- Rain trough brim provides extra protection against snow, rain, dust, and dirt
- Accessory slots provide attachment points for earmuffs, face shields, flashlights, etc
- 239-4964 and 239-4966 meets or exceeds ANSI Z89.1-1997 Standard for Industrial Head Protection, Type 1, Class E, helmet requirements
- 239-4965 and 239-4967 meets or exceeds EN 397:1995 Amendment (A1 2000 Standard) for Industrial Safety Helmets, Optional Classes -20 degrees C, 440 VAC requirements

Part Number	Description	Version	Color
239-4964	Hard Hat	U.S. Version (ANSI standard)	White
239-4965	Hard Hat	European Version (EN standard)	White
239-4966	Hard Hat	U.S. Version (ANSI standard)	Yellow
239-4967	Hard Hat	European Version (EN standard)	Yellow

1U-8091 Hard Hat Winter Liner**European Union Compliant, CE marked**

- Wear with 239-4964, 239-4965, 239-4966, and 239-4967 Hard Hats
- Dark blue cotton twill with fleece lining
- Comes with a Velcro chin strap fastener
- Will work with other similar hard hats

Safety Vests**262-9301 Lime Green Mesh Safety Vest**

- Non-reflective, lime green color
- Single front hook and loop closure with black cloth binding
- One size fits all
- Material: 100% polyester mesh
- Conforms to OSHA standards

262-9176 Orange Mesh Safety Vest

- Non-reflective, dayglow orange color
- Single front hook and loop closure
- Elastic side straps —19 mm (0.75 in) × 20 cm (8 in)
- One size fits all
- Material: 100% polyester mesh
- Conforms to OSHA standards

Tyvek Coveralls

- White coveralls with zipper front
- For general maintenance work, fiberglass handling, spray painting, and sand blasting
- Offers splash protection against many liquids
- Lightweight and soft
- Strong, whether wet or dry
- Resistant to abrasion, tears, and punctures
- 100% Polyethylene construction
- Unaffected by most chemicals
- Blocks out 99.9% of all dry particulate down to 0.5 microns

Part Number	Size	Qty.
267-8539	Large	1
267-8540	Medium	1
267-8541	Small	1
267-8542	X Large	1
267-8543	XX Large	1
267-8544	XXX Large	1
267-8545	XXXX Large	1



Rain Jackets and Pants

- Made with a 0.35 mm (0.014 in) PVC exterior laminated to a polyester interior [PVC is a synthetic thermoplastic elastomer (TPE) which provides excellent ozone and weather resistance]
- Double-lapped heat-welded construction
- Non-conductive hardware
- Meets California Proposition 65

Rain Jacket

- Yellow rain jacket with a detachable hood and two patch pockets
- Full snap front
- Inner storm fly prevents rain and debris from penetrating front opening
- Corduroy collar
- Raglan sleeves for maximum mobility (a raglan sleeve is attached to a garment body at a 45 degree angle helping it to stretch from neckline to underarm)
- Take-up snaps at cuff
- Back yoke ventilation

Rain Pants

- Yellow rain pants with fly front overall and pockets with flaps
- Fabric/elastic suspender and elastic waist band
- Take-up snaps at ankle



Part Number	Chest Size	Waist Size	Size
Rain Jacket			
311-2983	Medium, 101.6-106.68 cm (40-42 in)	--	--
311-2984	Large, 111.76-116.84 cm (44-46 in)	--	--
311-2985	X Large, 121.92-127 cm (48-50 in)	--	--
Rain Pants			
311-2986	--	Medium, 91.44-96.52 cm (36-38 in)	--
311-2987	--	Large, 101.6-106.68 cm (40-42 in)	--
311-2988	--	X Large, 111.76-116.84 cm (44-46 in)	--
2 Piece Suits			
311-2979	--	--	Medium
311-2980	--	--	Large
311-2981	--	--	X Large

Utility Gloves

Warranty: Manufacturer's



- Help protect from heat, cold, nicks, cuts, and bruises
- Split-palm design ensures long life in high-wear areas
- Hidden seam design eliminates snagging
- Tough spandex top material resists snags
- Snug, comfort fit assures greater dexterity
- NOT flame-proof or fire retardant
- Machine washable, air dry (Do NOT machine dry)
- 6 pair per package

Part Number	Size
276-0491	Medium
276-0492	Large
276-0493	Extra Large
276-0494	XX Large

Impact Gloves

Warranty: Manufacturer's



- Design features improved dexterity and glove life
- Compression-molded Airprene knuckle and index finger protection
- Seamless index finger for great fingertip control
- Streamlined thermal plastic rubber (TPR) hook and loop fastening on cuff
- Split palm design puts 1 mm material in all high wear areas
- 3 mm gel palm padding reduces vibrations
- NOT flame-proof or fire retardant
- Machine washable, air dry (do NOT machine dry)
- 6 pair per package

Part Number	Size
276-0499	Medium
276-0500	Large
276-0501	Extra Large
276-0502	XX Large

Insulated Gloves

Warranty: Manufacturer's



- Improved thermal protection
- Waterproof glove insert to keep hands dry
- Unique combination of Velboa and micro fleece layer closest to skin for warmth
- Neoprene cuff design with streamlined thermal plastic rubber (TPR) hook and loop fastening
- Compression-molded neoprene knuckle and index finger protection
- Durable synthetic leather palm
- NOT flame-proof or fire retardant
- Machine washable, air dry (do NOT machine dry)
- 6 pair per package

Part Number	Size
276-0495	Medium
276-0496	Large
276-0497	Extra Large
276-0498	XX Large

Fingerless Gloves

Warranty: Manufacturer's

- Protect hands while having full fingertip access
- Palm padding of 3 mm shock-absorbing gel
- Hidden seam design eliminates snagging
- Tough spandex top material resists snags
- Snug, comfort fit assures greater dexterity
- NOT flame-proof or fire retardant
- Machine washable, air dry (do NOT machine dry)
- 6 pair per package

Part Number	Size
276-0487	Medium
276-0488	Large
276-0489	Extra Large
276-0490	XX Large



Unlined Grain Leather Driver's Gloves

- For drivers, utility and warehouse workers
- Gunn cut pattern
- Keystone thumb
- Pull-strap closure

Part Number	Size	Qty.
282-9528	Medium	Single Pair
282-9529	Large	Single Pair
282-9530	Extra Large	Single Pair
246-5142	Medium	Bulk — 12 Pair
246-5144	Large	Bulk — 12 Pair
246-5146	Extra Large	Bulk — 12 Pair



Lined Leather Driver's Gloves

- For drivers, utility and warehouse workers
- Extra warmth
- Elastic shirred back holds glove securely to hand
- Gunn cut pattern

Part Number	Size	Qty.
246-5151	Medium	Single Pair
246-5149	Large	Single Pair
246-5147	Extra Large	Single Pair
246-5152	Medium	Bulk — 12 Pair
246-5150	Large	Bulk — 12 Pair
246-5148	Extra Large	Bulk — 12 Pair



Split Leather Driver's Gloves

- For drivers, utility and warehouse workers; light welding
- Elastic shirred back holds glove securely to hand
- Gunn cut pattern

Part Number	Size	Qty.
246-5153	Large	Single Pair
246-5154	Large	Bulk — 12 pair

Split Leather Palm Gloves

- For tough rugged jobs
- Full leather index finger
- Lined palm and leather tips
- Gauntlet cuff style
- Elastic on back with knuckle strap

Part Number	Size	Qty.
246-5155	Large	Single Pair
246-5156	Large	Bulk — 12 Pair

268-8795 Split Leather Palm Gloves

- Grain leather palm with palm patch
- Gunn cut
- Water-proof safety cuff
- Wing thumb
- Full leather index finger and tips with elastic
- Size: Men's large

Split Cowhide Palm Gloves

- For medium- to heavy-duty work
- Gunn cut pattern
- Full leather index finger
- Wing thumb

Part Number	Size	Qty.
282-9531	Medium	Single Pair
282-9532	Large	Single Pair
282-9533	Extra Large	Single Pair
246-5160	Medium	Bulk — 12 Pair
246-5158	Large	Bulk — 12 Pair
246-5162	Extra Large	Bulk — 12 Pair

**246-5163 Traditional All-purpose Gloves**

- For general work
- Cotton blend
- Knit wrist cuff
- Plastic dots on inner side and back of index finger

Part Number	Size	Qty.	Color
246-5163	Large	Bulk — 12 Pair	Gray

**Jersey Gloves**

- For general purpose use
- Soft knit fabric
- Stretch to provide excellent fit

Part Number	Size	Qty.
246-5165	Large	Single Pair
246-5166	Large	Bulk — 12 Pair



Fleeced Gloves



- For outside work
- Knit wrist cuff
- Double layer of fabric
- Added warmth

Part Number	Size	Qty.
246-5167	Large	Single Pair
246-5168	Large	Bulk — 12 Pair

246-5169 Reversible Gloves



- For work where grip is important
- String knit glove
- Black dots on both sides
- Knit wrist

Part Number	Size	Qty.
246-5169	Large	Bulk — 12 Pair

Leather Welding Gloves

- One piece back fully welted
- Color: gold

Part Number	Size	Qty.
185-0153	Medium	Bulk — 12 Pair
247-4447	Large	Single Pair
247-6410	Large	Bulk — 12 Pair

Chemical-resistant Nitrile Gloves

- Protect against cuts, abrasions, punctures, and snags
- Embossed texture improves grip
- Will not swell or weaken like rubber or neoprene in solvents and fats

NOTE: When using gloves as Personal Protection Equipment (PPE), always consult the Material Safety Data Sheet (MSDS) for the chemical that is being handled for the most appropriate glove.



Part Number	Size	Qty.	Application	Chemical Resistance
4C-5522	9	Bulk — 6 Pair	Chemical Handling Acids, Solvents, Caustics Oils, Grease, Degreasing Machine operations using cutting oil, metal fabrication	Sodium Hydroxide, Freon, Xylene, Hydro-chloric Acid, Stoddard Solvent, Potassium Hydroxide, Perchloroethylene, Phosphoric Acid
4C-5523	10	Bulk — 6 Pair	Chemical Handling Acids, Solvents, Caustics Oils, Grease, Degreasing Better protection than 4C-5522 due to thickness.	Sodium Hydroxide, Freon, Xylene, Hydro-chloric Acid, Stoddard Solvent, Potassium Hydroxide, Perchloroethylene, Phosphoric Acid

246-5164 Neoprene-coated Gloves

- For working with acids, solvents, oils, caustics and greases
- High cut resistance compared to rubber and vinyl
- Good from 46° C to 149° C (-50° F to 300° F)
- Size: large
- Single pair

**4C-5526 Nitrile-coated Knit-lined Gloves**

- For dry and light oil applications
- Superior resistance to cuts and abrasions
- Porous coating is soft and flexible
- Excellent grip

NOTE: When using gloves as Personal Protection Equipment (PPE), always consult the Material Safety Data Sheet (MSDS) for the chemical that is being handled for the most appropriate glove.



(Continued)

4C-5526 Nitrile-coated Knit-lined Gloves (Continued)

Part Number	Size	Qty.	Application	Chemical Resistance
4C-5526	Large	12 pair per package	Light to Med. duty, general purpose, fabrication, assembly, maintenance, shipping and receiving. Superior abrasion. Excellent grip in light oil appl.	Oil, Grease

4C-5527 Neox Gloves with Neoprene Coating

- Resistance to cuts, abrasions, and chemicals
- Interlock knit lining enhances puncture and snag resistance
- Two-piece lining eliminates irritating seams

NOTE: When using gloves as Personal Protection Equipment (PPE), always consult the Material Safety Data Sheet (MSDS) for the chemical that is being handled for the most appropriate glove.

Part Number	Size	Qty.	Application	Chemical Resistance
4C-5527	One size fits most	12 pair per package	Resists Heat, Cutting, Use in Plating, Galvanizing, Degreasing, Petrochemicals	Acids, Solvents, (Ex.: Glycol Ether), Oils, Caustics, Soaps, Alcohols

4C-5529 Neoprene-coated Knit-lined Gloves

- For full-arm protection when using chemicals
- Broad protection against cuts and abrasions
- Resist oils, caustics, acids, alcohol, and solvents
- Fabric lining enhances puncture and snag resistance

NOTE: When using gloves as Personal Protection Equipment (PPE), always consult the Material Safety Data Sheet (MSDS) for the chemical that is being handled for the most appropriate glove.

Part Number	Size	Qty.	Application	Chemical Resistance
4C-5529	One size fits most	Single Pair	Resists Heat, Cutting, Use in Plating, Galvanizing, Sandblasting Cabinet	Acids, Solvents, (Ex: Glycol Ether), Oils Caustics, Soaps, Alcohols

Disposable Nitrile Gloves

- Perfect for people allergic to rubber latex
- Resistant to punctures and chemicals
- Fits either hand
- 100 per box, 6 mil thick, 241.3 mm (9 ½ in) long

Part Number	Description	Size
260-1776	Powdered	Small
259-7005	Powdered	Medium
246-5179	Powdered	Large
259-7006	Powdered	Extra Large
260-1802	Powder-Free	Small
259-7007	Powder-Free	Medium
246-5180	Powder-Free	Large
259-7008	Powder-Free	Extra Large

**Disposable Latex Gloves**

- For working with chemicals
- Extra stretch for best fit
- Excellent sensitivity touch
- Seamless construction
- Rubber latex
- 100 per box, 5 mil thick, 10 in long

Part Number	Size
260-1777	Small
260-1778	Medium
246-5181	Large
260-1779	Extra Large

**Nylon Gloves with Nitrile Coating**

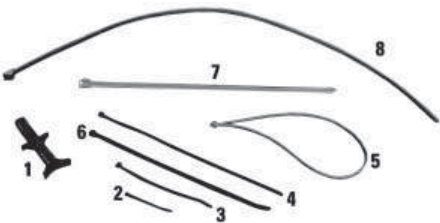
- For maintenance/assembly and shipping/receiving
- Excellent cut and abrasion resistances
- Good alternative to heavy cotton-coated gloves

Part Number	Size	Qty.
247-6412	Large	Single Pair
247-6413	Extra Large	Single Pair
247-4449	Large	Bulk — 12 Pair
247-4450	Extra Large	Bulk — 12 Pair



Cable Ties and Applicators

Warranty: Six Months (applicators)



- Used to secure wires, cables, tubes, etc.

Item	Part Number	Bundle Diameter Range	Length	Strap Width	Package Quantity	Installer (Item 1)
2	1S-9593	1.5 mm to 15.7 mm (0.06 in to 0.62 in)	88.9 mm (3.50 in)	2.5 mm (0.100 in)	100	1U-5228
2	8L-8413	1.5 mm to 28.4 mm (0.06 in to 1.12 in)	134.6 mm (5.3 in)	3.8 mm (0.150 in)	200	1U-5228
3	3S-2093	1.5 mm to 44.5 mm (0.06 in to 1.75 in)	170.2 mm (6.7 in)	4.9 mm (0.194 in)	500	1U-5228
4	6K-0806	1.5 mm to 101.6 mm (0.06 in to 4.00 in)	355.6 mm (14.0 in)	4.9 mm (0.194 in)	250	1U-5228
5	034-1432	1.5 mm to 203 mm (0.06 in to 8.00 in)	698.5 mm (27.5 in)	--	1	--
6	7K-1181	4.8 mm to 101.6 mm (0.19 in to 4.00 in)	355.6 mm (14.0 in)	7.9 mm (0.310 in)	100	1U-5227
7	5P-5148	44.5 mm to 120.6 mm (1.75 in to 4.75 in)	510.5 mm (20.1 in)	12.7 mm (0.500 in)	100	--
8	6V-7555	44.5 mm to 305 mm (1.75 in to 12.00 in)	1018.5 mm (40.1 in)	12.7 mm (0.500 in)	1	--
Not shown	240-1678	12.7 mm to 79.4 mm (0.5 in to 3.125 in)	279 mm (11 in)	4.8 mm (0.190 in)	1,000	--

Oil Safe Containers

310-5744 Contamination Prevention Kit

- Prevents oil contamination
- Speeds up lubrication jobs
- Dispenses easily to awkward points
- Reduces spills and resulting accidents
- Expedites filling and refilling
- Leads to an organized workspace



Part Number	Description
310-5677	Drum (3 L)
310-5678	Drum (5 L)
310-5679	Drum (10 L)
310-5682	Pump
310-5711	Stretch Hose Extension
310-5715	Stumpy Spout Lid (Yellow)
310-5720	Stumpy Spout Lid (Blue)
310-5725	Utility Lid (Red)
Accessories	
310-5675	Drum (1.5 L)
310-5676	Drum (2 L)
310-5712	Stumpy Hose Extension
310-5713	Stumpy Spout Lid (Red)
310-5714	Stumpy Spout Lid (Blue)
310-5716	Stumpy Spout Lid (Lt. Green)
310-5717	Stumpy Spout Lid (Black)
310-5718	Stumpy Spout Lid (Purple)
310-5719	Stretch Spout Lid (Red)
310-5721	Stretch Spout Lid (Yellow)
310-5722	Stretch Spout Lid (Lt. Green)
310-5723	Stretch Spout Lid (Black)
310-5724	Stretch Spout Lid (Purple)
310-5726	Utility Lid (Blue)
310-5728	Utility Lid (Yellow)
310-5730	Utility Lid (Lt. Green)
310-5733	Utility Lid (Black)
310-5734	Utility Lid (Purple)

1U-6156 Barrel Cover

- Used to cover open or closed top drums — cover snaps onto top of drum
- Supports the Caterpillar contamination control efforts
- Protects drum contents from water induction when stored outside
- Keeps drum top clean and contents ready for use
- Made of long lasting, low density polyethylene — resistant to petroleum-based fluids and ultraviolet rays
- 10 covers per package



Part Number	Material Thickness	I.D.	Color
1U-6156	1.5 mm (0.06 in)	571.0 mm (22.5 in)	Yellow

Hand Tools (Inch)

256-4816 Hand Tool Group

Warranty: See individual part number

- Used for routine maintenance and adjustment
- Flat top tool box provides adequate storage for all tools in this group
- Using proper tools reduces downtime

Part Number	Description	Size
256-4816	Complete Hand Tool Set	--
Hand Tool Group Consists of:		
185-3630	Spin-On Filter Strap Wrench Assembly	--
194-3565	Socket	30 mm, ½ in drive, 12 Pt.
199-6154	Socket	24 mm, ½ in drive, 12 Pt.
1U-7585	Hex Wrench	⅝ in
200-1929	Metric Hex Key Set	1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm, 8.0 mm, and 10.0 mm
213-6926	Impact Socket	10.0 mm, ½ in drive, 6 Pt.
213-6927	Impact Socket	11.0 mm, ½ in drive, 6 Pt.
213-6929	Impact Socket	13.0 mm, ½ in drive, 6 Pt.
214-7223	Combination Wrench	36.0 mm
214-7322	Adjustable Wrench	8 in
214-7324	Torx® Bit Set	--
214-7329	Open End Wrench	41.0 mm
239-6826	Reversible Ratchet	½ in drive
256-4879	Torx Wrench, T50	--
6V-7932	Standard Screwdriver	⅜ in tip, 323.9 mm (12.75 in) long
6V-9096	Combination Wrench	16.0 mm
6V-9098	Combination Wrench	18.0 mm
6V-9099	Combination Wrench	19.0 mm
6V-9101	Combination Wrench	21.0 mm
6V-9102	Combination Wrench	22.0 mm
6V-9103	Combination Wrench	24.0 mm
6V-9104	Combination Wrench	30.0 mm
6V-9111	Socket	16.0 mm, ½ in drive, 12 Pt.
6V-9113	Socket	18.0 mm, ½ in drive, 12 Pt.
6V-9116	Socket	22.0 mm, ½ in drive, 12 Pt.
8F-9866	Grease Gun	--
8H-8577	Ball Peen Hammer	--
9S-1732	Socket Extension	½ in drive, 127.0 mm (5.00 in) long
9U-6219	Tool Box	--
9U-7968	Pry Bar	--

213-4443 Socket Set, 17 Piece, 1/4 inch Drive

Warranty: See individual part number



- 12 point
- 1/4 inch square drive
- Standard length sockets
- Chrome finish

Part Number	Description	Size	Length
213-4443	Complete Socket Set	--	--
Socket Set Consists of:			
9S-1720	Socket Extension	--	50.8 mm (2.00 in)
9S-1721	Socket Extension	--	101.6 mm (4.00 in)
9S-1722	Socket Driver	1/4 in	--
9S-1724	Universal Joint	--	--
9S-1725	Socket Case ¹	--	--
213-4437	Adapter	1/4 in female to 3/8 in male	--
239-6823	Reversible Ratchet	1/4 in	--
261-0443	Adapter	3/8 in female to 1/2 in male	--
9S-1711	Socket	3/16 in	22.2 mm (0.88 in)
9S-1712	Socket	7/32 in	22.2 mm (0.88 in)
9S-1713	Socket	1/4 in	22.2 mm (0.88 in)
9S-1714	Socket	9/32 in	22.2 mm (0.88 in)
9S-1715	Socket	5/16 in	22.2 mm (0.88 in)
9S-1716	Socket	11/32 in	22.2 mm (0.88 in)
9S-1717	Socket	3/8 in	22.2 mm (0.88 in)
9S-1718	Socket	7/16 in	22.2 mm (0.88 in)
9S-1719	Socket	1/2 in	22.2 mm (0.88 in)

¹Warranty: Six Months

Hand Tools (Inch)

9S-1746 Socket Set, 11 Piece, $\frac{3}{8}$ inch Drive

Warranty: See individual part number

- 12 point
- $\frac{3}{8}$ inch square drive
- Chrome finish



Part Number	Description	Size	Length
9S-1746	Complete Socket Set	--	--
Sockets Set Consists of:			
8S-2274	Double Hex Socket	$\frac{3}{8}$ in	23.0 mm (0.91 in)
8H-8567	Double Hex Socket	$\frac{7}{16}$ in	23.0 mm (0.91 in)
8H-8568	Double Hex Socket	$\frac{1}{2}$ in	23.8 mm (0.94 in)
8H-8569	Double Hex Socket	$\frac{9}{16}$ in	24.6 mm (0.97 in)
8H-8570	Double Hex Socket	$\frac{5}{8}$ in	26.2 mm (1.03 in)
9S-1728	Double Hex Socket	$1\frac{1}{16}$ in	27.0 mm (1.06 in)
8H-8571	Double Hex Socket	$\frac{3}{4}$ in	27.8 mm (1.09 in)
Accessories Included			
239-6824	Reversible Ratchet	--	--
8H-8573	Speeder Handle	--	--
8H-8574	Socket Extension	--	76.2 mm (3.00 in)
8H-8575	Socket Extension	--	152.4 mm (6.00 in)

241-0873 Twist Socket Set, 13 Piece, $\frac{3}{8}$ inch Drive

Warranty: Lifetime



- SAE/Metric impact sockets quickly and easily remove damaged or rounded nuts and bolts
- 6 fluted sockets grip onto fastener and tighten as more torque is applied (no hammering required to install socket over fastener)
- Applications include oil pan drain plugs, exhaust manifold nuts, studs, pipe nipples, and corroded marine fasteners
- Shallow depth
- Fits sizes from 10 to 19 mm ($\frac{3}{8}$ to $\frac{3}{4}$ inch)
- $\frac{3}{8}$ inch square drive
- Standard length
- Industrial black finish
- Includes plastic tray, socket bar, and clips
- Can be ordered by set or individual

241-0873 Twist Socket Set, 13 Piece, $\frac{3}{8}$ inch Drive (Continued)

Warranty: Lifetime

Part Number	Description	Size	Length
241-0873	Complete Twist Socket Set	--	--
Twist Socket Set Consists of:			
241-0860	Socket	10 mm	31.8 mm (1¼ in)
241-0861	Socket	12 mm	31.8 mm (1¼ in)
241-0862	Socket	13 mm	31.8 mm (1¼ in)
241-0863	Socket	14 mm	31.8 mm (1¼ in)
241-0864	Socket	15 mm	31.8 mm (1¼ in)

Part Number	Description	Size	Length
Twist Socket Set Consists of: (Continued)			
241-0865	Socket	17 mm	31.8 mm (1¼ in)
241-0866	Socket	$\frac{3}{8}$ in	31.8 mm (1¼ in)
241-0867	Socket	11 mm	31.8 mm (1¼ in)
241-0868	Socket	$\frac{1}{2}$ in	31.8 mm (1¼ in)
241-0869	Socket	$\frac{9}{16}$ in	31.8 mm (1¼ in)
241-0870	Socket	16 mm	31.8 mm (1¼ in)
241-0871	Socket	$\frac{11}{16}$ in	34.9 mm (1⅜ in)
241-0872	Socket	19 mm	34.9 mm (1⅜ in)

271-4600 Impact Socket Set, 12 Piece, $\frac{3}{8}$ inch Drive

Warranty: See individual part number

- 6 point
- $\frac{3}{8}$ inch drive
- Standard length sockets
- Includes socket bar and clips

Part Number	Description	Size	Length
271-4600	Complete Impact Socket Set	--	--
Impact Socket Set Consists of:			
271-4601	Socket	$\frac{5}{16}$ in	22.2 mm (0.87 in)
271-4602	Socket	$\frac{3}{8}$ in	23.8 mm (0.94 in)
271-4603	Socket	$\frac{7}{16}$ in	23.8 mm (0.94 in)
271-4604	Socket	$\frac{1}{2}$ in	23.8 mm (0.94 in)
271-4605	Socket	$\frac{9}{16}$ in	23.8 mm (0.94 in)
271-4606	Socket	$\frac{5}{8}$ in	23.8 mm (0.94 in)
271-4607	Socket	$\frac{11}{16}$ in	26.2 mm (1.03 in)
271-4608	Socket	$\frac{3}{4}$ in	26.2 mm (1.03 in)
271-4609	Socket	$\frac{13}{16}$ in	30.2 mm (1.19 in)
271-4610	Socket	$\frac{7}{8}$ in	32.5 mm (1.28 in)
271-4611	Socket	$\frac{15}{16}$ in	33.3 mm (1.31 in)
271-4612	Socket	1 in	25.4 mm (1.00 in)

**271-4613 Impact Socket Set, 7 Piece, $\frac{3}{8}$ inch Drive**

Warranty: See individual part number

- 12 point
- $\frac{3}{8}$ inch drive
- Standard length sockets
- Includes socket bar and clips

Part Number	Description	Size	Length
271-4613	Complete Impact Socket Set	--	--
Impact Socket Set Consists of:			
271-4615	Socket	$\frac{3}{8}$ in	22.2 mm (0.87 in)
271-4616	Socket	$\frac{7}{16}$ in	23.8 mm (0.94 in)
271-4617	Socket	$\frac{1}{2}$ in	23.8 mm (0.94 in)
271-4618	Socket	$\frac{9}{16}$ in	23.8 mm (0.94 in)
271-4619	Socket	$\frac{5}{8}$ in	23.8 mm (0.94 in)
271-4620	Socket	$\frac{11}{16}$ in	26.2 mm (1.03 in)
271-4621	Socket	$\frac{3}{4}$ in	26.2 mm (1.03 in)



Hand Tools (Inch)

271-4669 Impact Socket Set, 12 Piece, $\frac{3}{8}$ inch Drive

Warranty: See individual part number



- 6 point
- $\frac{3}{8}$ inch drive
- Deep length sockets
- Includes socket bar and clips

Part Number	Description	Size	Length
271-4669	Complete Impact Socket Set	--	--
Impact Socket Set Consists of:			
271-4670	Socket	$\frac{5}{16}$ in	54.0 mm (2.13 in)
271-4671	Socket	$\frac{3}{8}$ in	54.0 mm (2.13 in)
271-4672	Socket	$\frac{7}{16}$ in	54.0 mm (2.13 in)
271-4673	Socket	$\frac{1}{2}$ in	54.0 mm (2.13 in)
271-4674	Socket	$\frac{9}{16}$ in	60.3 mm (2.37 in)
271-4675	Socket	$\frac{5}{8}$ in	60.3 mm (2.37 in)
271-4676	Socket	$\frac{11}{16}$ in	74.6 mm (2.94 in)
271-4677	Socket	$\frac{3}{4}$ in	69.9 mm (2.75 in)
271-4678	Socket	$\frac{13}{16}$ in	69.9 mm (2.75 in)
271-4679	Socket	$\frac{7}{8}$ in	69.9 mm (2.75 in)
271-4680	Socket	$\frac{15}{16}$ in	69.9 mm (2.75 in)
271-4681	Socket	1 in	69.9 mm (2.75 in)

9S-1748 Socket Set, 16 Piece, $\frac{1}{2}$ inch Drive

Warranty: See individual part number



- 12 point
- $\frac{1}{2}$ inch square drive
- Chrome finish

Part Number	Description	Size	Length
9S-1748	Complete Socket Set	--	--
Socket Set Consists of:			
1S-0259	Double Hex Socket	$\frac{1}{2}$ in	38.1 mm (1.50 in)
8H-8549	Double Hex Socket	$\frac{9}{16}$ in	38.1 mm (1.50 in)
8H-8550	Double Hex Socket	$\frac{5}{8}$ in	38.1 mm (1.50 in)
8H-8551	Double Hex Socket	$\frac{11}{16}$ in	38.1 mm (1.50 in)
8H-8552	Double Hex Socket	$\frac{3}{4}$ in	38.1 mm (1.50 in)
8H-8553	Double Hex Socket	$\frac{13}{16}$ in	38.1 mm (1.50 in)
8H-8554	Double Hex Socket	$\frac{7}{8}$ in	38.1 mm (1.50 in)
8H-8555	Double Hex Socket	$\frac{15}{16}$ in	38.1 mm (1.50 in)
8H-8556	Double Hex Socket	1 in	38.1 mm (1.50 in)
9S-1729	Double Hex Socket	$1 \frac{1}{16}$ in	41.3 mm (1.63 in)
9S-1730	Double Hex Socket	$1 \frac{1}{8}$ in	44.5 mm (1.75 in)
9S-1731	Double Hex Socket	$1 \frac{1}{4}$ in	47.6 mm (1.88 in)
Accessories Included			
239-6826	Reversible Ratchet		
168-0383	Breaker Bar		
8H-8559	Socket Extension		279.0 mm (11.00 in)
9S-1732	Socket Extension		127.0 mm (5.00 in)

213-3086 Impact Socket Set, 11 Piece, 1/2 inch Drive

Warranty: See individual part number

- 6 point
- 1/2 inch square drive
- Standard length sockets
- Black oxide finish
- Includes socket bar and clips



Part Number	Description	Size	Length
213-3086	Complete Impact Socket Set	--	--
Impact Socket Set Consists of:			
213-3087	Socket	1/2 in	38.1 mm (1.50 in)
213-3088	Socket	3/16 in	38.1 mm (1.50 in)
213-3089	Socket	5/16 in	38.1 mm (1.50 in)
213-3091	Socket	11/16 in	38.1 mm (1.50 in)
213-3094	Socket	3/4 in	38.1 mm (1.50 in)
213-3099	Socket	13/16 in	38.1 mm (1.50 in)
213-3102	Socket	7/8 in	38.1 mm (1.50 in)
213-3104	Socket	15/16 in	44.5 mm (1.75 in)
213-3107	Socket	1 in	44.5 mm (1.75 in)
213-3109	Socket	1 1/16 in	50.8 mm (2.00 in)
213-3110	Socket	1 1/8 in	50.8 mm (2.00 in)

213-3515 Impact Socket Set, 12 Piece, 1/2 inch Drive

Warranty: See individual part number

- 6 point
- 1/2 inch square drive
- Deep length sockets
- Black oxide finish
- Includes socket bar and clips



Part Number	Description	Size	Length
213-3515	Complete Impact Socket Set	--	--
Impact Socket Set Consists of:			
213-3516	Socket	7/16 in	82.6 mm (3.25 in)
213-3517	Socket	1/2 in	82.6 mm (3.25 in)
213-3518	Socket	9/16 in	82.6 mm (3.25 in)
213-3520	Socket	5/8 in	82.6 mm (3.25 in)
213-3521	Socket	11/16 in	82.6 mm (3.25 in)
213-3522	Socket	3/4 in	82.6 mm (3.25 in)
213-3523	Socket	13/16 in	82.6 mm (3.25 in)
213-3524	Socket	7/8 in	88.9 mm (3.50 in)
213-3525	Socket	15/16 in	88.9 mm (3.50 in)
213-3526	Socket	1 in	88.9 mm (3.50 in)
213-3528	Socket	1 1/16 in	88.9 mm (3.50 in)
213-3530	Socket	1 1/8 in	88.9 mm (3.50 in)

Hand Tools (Inch)

214-1161 Socket Set, 11 Piece, 1/2 inch Drive

Warranty: See individual part number

- 12 point
- 1/2 inch square drive
- Deep length sockets
- Polished chrome finish
- Includes socket bar and clips



Part Number	Description	Size	Length
214-1161	Complete Socket Set	--	--
Socket Set Consists of:			
214-1162	Socket	1/2 in	82.6 mm (3.25 in)
214-1163	Socket	9/16 in	82.6 mm (3.25 in)
214-1164	Socket	5/8 in	82.6 mm (3.25 in)
214-1165	Socket	11/16 in	82.6 mm (3.25 in)
214-1166	Socket	3/4 in	82.6 mm (3.25 in)
214-1167	Socket	13/16 in	82.6 mm (3.25 in)
214-1168	Socket	7/8 in	82.6 mm (3.25 in)
214-1169	Socket	15/16 in	82.6 mm (3.25 in)
214-1170	Socket	1 in	82.6 mm (3.25 in)
214-1171	Socket	1 1/16 in	82.6 mm (3.25 in)
214-1172	Socket	1 1/8 in	82.6 mm (3.25 in)

9S-1747 Universal Socket Set, 7 Piece, 3/8 inch Drive

Warranty: See individual part number

- 12 point
- 3/8 inch universal drive
- Polished chrome finish



Size	Part Number	Description	Length
--	9S-1747	Complete Hand Tool Set	--
Socket Set Consists of:			
3/8 in	8S-2284	Universal Socket	40.1 mm (1.58 in)
7/16 in	8H-8562	Universal Socket	40.1 mm (1.58 in)
1/2 in	8H-8563	Universal Socket	42.1 mm (1.66 in)
9/16 in	8H-8564	Universal Socket	42.8 mm (1.69 in)
5/8 in	8H-8565	Universal Socket	44.5 mm (1.75 in)
11/16 in	9S-1727	Universal Socket	49.6 mm (1.95 in)
3/4 in	8H-8566	Universal Socket	50.4 mm (1.98 in)

214-6518 Universal Impact Socket Set, 5 Piece, 1/2 inch Drive

- 6 point
- 1/2 inch square drive
- Black oxide finish
- Includes socket bar and clips



Part Number	Description	Size	Length
214-6518	Complete Hand Tool Set	--	--
Universal Impact Socket Set Consists of:			
214-6521	Socket	1/2 in	73.8 mm (2.91 in)
214-6522	Socket	9/16 in	73.8 mm (2.91 in)
214-6523	Socket	5/8 in	73.8 mm (2.91 in)
214-6524	Socket	11/16 in	77.8 mm (3.06 in)
214-6526	Socket	3/4 in	77.8 mm (3.06 in)

246-8184 Universal Impact Socket Set, 14 Piece, 1/2 inch Drive

- 6 point
- 1/2 inch square drive
- Black oxide finish
- Standard length impact sockets
- Includes socket bar and clips

Part Number	Description	Size	Length
246-8184	Complete Socket Set	--	--
Universal Impact Socket Set Consists of:			
214-6521	Socket	1/2 in	73.8 mm (2.91 in)
214-6522	Socket	9/16 in	73.8 mm (2.91 in)
214-6523	Socket	5/8 in	73.8 mm (2.91 in)
214-6524	Socket	11/16 in	77.8 mm (3.06 in)
214-6526	Socket	3/4 in	77.8 mm (3.06 in)
246-8173	Socket	13/16 in	77.8 mm (3.06 in)
246-8175	Socket	7/8 in	77.8 mm (3.06 in)
246-8176	Socket	15/16 in	77.8 mm (3.06 in)
246-8177	Socket	1 in	77.8 mm (3.06 in)
246-8178	Socket	1 1/16 in	80.2 mm (3.16 in)
246-8179	Socket	1 1/8 in	84.9 mm (3.34 in)
246-8180	Socket	1 3/16 in	84.9 mm (3.34 in)
246-8181	Socket	1 1/4 in	86.5 mm (3.41 in)
246-8182	Socket	1 5/16 in	86.5 mm (3.41 in)

**9S-1749 Socket Set, 21 Piece, 3/4 inch Drive**

Warranty: See individual part number

- 12 point
- 3/4 inch drive
- Chrome finish

Part Number	Description	Size	Length
9S-1749	Complete Socket Set	--	--
Socket Set Consists of:			
8H-8529	Socket	3/4 in	50.8 mm (2.00 in)
8H-8530	Socket	7/8 in	50.8 mm (2.00 in)
8H-8531	Socket	15/16 in	50.8 mm (2.00 in)
8H-8532	Socket	1 in	52.4 mm (2.06 in)
8H-8533	Socket	1 1/16 in	54.0 mm (2.13 in)
8H-8534	Socket	1 1/8 in	55.5 mm (2.19 in)
8H-8535	Socket	1 1/4 in	57.2 mm (2.25 in)
8H-8536	Socket	1 5/16 in	58.7 mm (2.31 in)
8H-8537	Socket	1 1/2 in	63.5 mm (2.50 in)
8H-8539	Socket	1 5/8 in	66.7 mm (2.63 in)
8H-8538	Socket	1 11/16 in	69.9 mm (2.75 in)
8H-8540	Socket	1 3/4 in	69.9 mm (2.75 in)
8H-8541	Socket	1 7/8 in	79.4 mm (3.13 in)
8H-8542	Socket	2 in	79.4 mm (3.13 in)
8H-8543	Socket	2 1/8 in	82.6 mm (3.25 in)
8H-8544	Socket	2 3/16 in	82.6 mm (3.25 in)
8H-8504	Socket	2 1/4 in	82.6 mm (3.25 in)
Accessories Included			
160-6389	Ratchet Head ¹	--	--
8H-8546	Breaker Bar Head	--	--
162-8716	Wrench Handle	--	--
8H-8548	Socket Extension	203.2 mm (8.00 in)	203.2 mm (8.00 in)

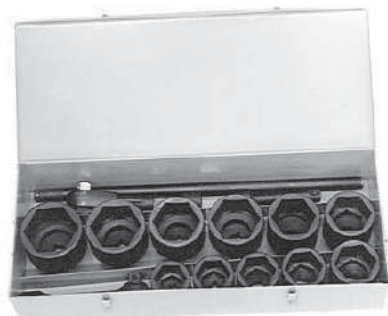


¹ 160-6390 Repair Kit is available for former 8H-8545 Ratchet Head.

Hand Tools (Inch)

5S-6093 Heavy-Duty Socket Set, 17 Piece, 1 inch Drive

Warranty: See individual part number



- 6 point
- 1 inch square drive
- Black oxide finish

Part Number	Description	Size	Length
5S-6093	Complete Socket Set	--	--
Heavy-Duty Socket Set Consists of:			
5S-6077	Socket	2 ¼ in	98.4 mm (3.88 in)
5S-6078	Socket	2 ½ in	104.8 mm (4.13 in)
5S-6079	Socket	2 ¾ in	57.2 mm (2.25 in)
5S-6080	Socket	2 ¾ in	114.3 mm (4.50 in)
5S-6081	Socket	3 in	123.8 mm (4.88 in)
5S-6082	Socket	3 ⅛ in	127.0 mm (5.00 in)
5S-6083	Socket	3 ¼ in	127.0 mm (5.00 in)
5S-6084	Socket	3 ½ in	133.4 mm (5.25 in)
5S-6085	Socket	3 ¾ in	133.4 mm (5.25 in)
5S-6086	Socket	3 ¾ in	136.5 mm (5.38 in)
5S-6087	Socket	4 in	127.0 mm (5.00 in)
Accessories Included			
5S-6092	Tool Box ¹	--	--
5S-6088	Sledge Socket Wrench ¹	--	--
161-3983	Ratchet Head ²	--	--
5S-6089	Wrench Handle	--	--
5S-6076	Socket Extension	--	203.2 mm (8.00 in)
5S-6090	Head	--	--

¹Warranty: Six months

²161-3985 Repair Kit (5S-6094 Repair Kit is available for former 5S-6091 Ratchet Head.)

8S-1603 Socket Set, 15 Piece, 12 Point Shoulder Bolt

Warranty: See individual part number



Part Number	Description	Size	Drive	Length
8S-1603	Complete Socket Set	--	--	--
Socket Set Consists of:				
8S-1589	Socket	¼ in	⅝ in	31.8 mm (1.25 in)
8S-1590	Socket	⅝ in	⅝ in	31.8 mm (1.25 in)
8S-1591	Socket	¾ in	⅝ in	38.1 mm (1.50 in)
8S-1592	Socket	7/16 in	⅝ in	38.1 mm (1.50 in)
8S-1593	Socket	½ in	½ in	44.5 mm (1.75 in)
8S-1594	Socket	9/16 in	½ in	44.5 mm (1.75 in)
8S-1595	Socket	5/8 in	½ in	44.5 mm (1.75 in)
8S-1596	Socket	11/16 in	½ in	44.5 mm (1.75 in)
8S-1597	Socket	¾ in	¾ in	82.6 mm (3.25 in)

(Continued)

8S-1603 Socket Set, 15 Piece, 12 Point Shoulder Bolt (Continued)

Warranty: See individual part number

Part Number	Description	Size	Drive	Length
Socket Set Consists of: (Continued)				
8S-1598	Socket	$\frac{13}{16}$ in	$\frac{3}{4}$ in	82.6 mm (3.25 in)
8S-1599	Socket	$\frac{7}{8}$ in	$\frac{3}{4}$ in	82.6 mm (3.25 in)
8S-1600	Socket	$\frac{15}{16}$ in	$\frac{3}{4}$ in	82.6 mm (3.25 in)
8S-1601	Socket	1 in	$\frac{3}{4}$ in	57.2 mm (2.25 in)
Accessories Included:				
261-0444	Adapter	$\frac{1}{2}$ in Female to $\frac{3}{8}$ in square in Male	--	--
8S-1602	Tool Box	--	--	--

214-6142 Hex Driver Set, 10 Piece

Warranty: See individual part number

- Seven $\frac{3}{8}$ inch drive hex sockets and three $\frac{1}{2}$ inch drive hex sockets
- Includes socket bar and clips

Part Number	Description	Hex Size	Square Drive	Overall Length	Replacement Bit
214-6142	Complete Hex Driver Set	--	--	--	--
Hex Driver Set Consists of:					
2P-8263	Drive Hex Socket	$\frac{1}{8}$ in	$\frac{3}{8}$ in	52.39 (2.06 in)	2P-8269
2P-8264	Drive Hex Socket	$\frac{5}{32}$ in	$\frac{3}{8}$ in	52.39 (2.06 in)	2P-8271
2P-8265	Drive Hex Socket	$\frac{3}{16}$ in	$\frac{3}{8}$ in	52.39 (2.06 in)	2P-8272
8T-3042	Drive Hex Socket	$\frac{7}{32}$ in	$\frac{3}{8}$ in	52.39 (2.06 in)	8T-3043
2P-8266	Drive Hex Socket	$\frac{1}{4}$ in	$\frac{3}{8}$ in	52.39 (2.06 in)	2P-7274
2P-8267	Drive Hex Socket	$\frac{5}{16}$ in	$\frac{3}{8}$ in	52.39 (2.06 in)	2P-7274
2P-8268	Drive Hex Socket	$\frac{3}{8}$ in	$\frac{3}{8}$ in	53.18 (2.09 in)	2P-8275
214-7320	Drive Hex Socket	$\frac{1}{2}$ in	$\frac{1}{2}$ in	53.18 (2.09 in)	214-7321
214-7327	Drive Hex Socket	$\frac{9}{16}$ in	$\frac{1}{2}$ in	53.18 (2.09 in)	1P-3566
214-7328	Drive Hex Socket	$\frac{5}{8}$ in	$\frac{1}{2}$ in	53.18 (2.09 in)	214-7331
Standard Hex Bit					
2P-8273	Hex Bit ¹	$\frac{1}{4}$ in	--	--	--
5P-7253	Socket-goes with Hex Bit 5P-7252	$\frac{35}{64}$ in	$\frac{3}{8}$ in	--	--

¹ Standard hex bit without socket

Hand Tools (Inch)

246-8499 Hex Ball Driver Socket Set, 8 Piece

Warranty: See individual part number



- Four ¼ inch drive hex ball sockets and four ⅜ inch drive hex ball sockets
- Material: steel
- Includes socket bar and clips

Part Number	Description	Hex Size	Square Drive	Overall Length
246-8499	Complete Hex Ball Driver Socket Set	--	--	--
Hex Ball Driver Socket Set Consists of:				
243-5178	Socket	⅛ in	¼ in	47.63 mm (1 ⅛ in)
243-5179	Socket	9/64 in	¼ in	47.63 mm (1 ⅛ in)
243-5180	Socket	5/32 in	¼ in	47.63 mm (1 ⅛ in)
243-5181	Socket	3/16 in	¼ in	49.21 mm (1 15/16 in)
243-5175	Socket	7/32 in	⅜ in	52.39 mm (2 1/16 in)
243-5177	Socket	¼ in	⅜ in	52.39 mm (2 1/16 in)
243-5173	Socket	5/16 in	⅜ in	53.18 mm (2 3/32 in)
243-5174	Socket	3/8 in	⅜ in	53.18 mm (2 3/32 in)

194-3584 TORX® Driver Set, 10 Piece

Warranty: See individual part number



- Ten pieces, ¼ inch and ⅜ inch square drive
- TORXALIGN® design grips TORX® fasteners for easier fastener starting (TORX® and TORXALIGN® are registered trademarks of Camcar, Inc.)
- Includes socket bar and clips

Part Number	Torx Size	Square Drive	Overall Length
194-3584	Complete Driver Set	--	--
TORXALIGN® Bits			
194-3531	T10	¼ in	39.6 mm (1.56 in)
194-3532	T15	¼ in	39.6 mm (1.56 in)
194-3533	T20	¼ in	39.6 mm (1.56 in)
194-3534	T25	¼ in	39.6 mm (1.56 in)
194-3535	T30	⅜ in	44.5 mm (1.75 in)
194-3536	T40	⅜ in	44.5 mm (1.75 in)
194-3537	T45	⅜ in	52.3 mm (2.06 in)
194-3538	T50	⅜ in	52.3 mm (2.06 in)
194-3539	T55	⅜ in	51.6 mm (2.03 in)
One Piece, ¼ inch Square Drive Torx® Socket included			
194-3540	E8	¼ in	22.2 mm (0.88 in)

Ratchets

Warranty: Lifetime



- Sealed heads protect internal components from outside environment which leads to longer product life and reduced maintenance, and prevents gear slippage
- Heads forged to exact tolerances for longer tool life and greater head strength
- High strength internal mechanism provides longer tool life
- Ergonomic handle reduces user fatigue and has a more comfortable grip
- Reverse lever can be shifted with one hand which saves time when the gear mechanism needs to be reversed in tight places
- Square drive is close to the end of the head, giving maximum accessibility to fasteners in restricted areas
- Nickel chrome plating provides a durable, corrosion resistant coating and a brilliant tool finish

(Continued)

Ratchets (Continued)

Warranty: Lifetime

Part Number	Description	Size	Length	Smallest Working Arc	Repair Kit
239-6823	Reversible Ratchet	¼ in	112.3 mm (4.42 in)	12.0 Degrees	230-0812
239-6824	Reversible Ratchet	⅜ in	187.5 mm (7.38 in)	12.0 Degrees	230-0813
194-4944 ¹	Ratchet	⅜ in	260.4 mm (10.25 in)	5.0 Degrees	—
239-6825	Ratchet	½ in	261.9 mm (10.31 in)	10.0 Degrees	214-7339
214-7340 ²	Ratchet	½ in	287.3 mm (11.31 in)	4.5 Degrees	214-7341
239-6826	Reversible Ratchet	½ in	381.0 mm (15.00 in)	10.0 Degrees	214-7339
263-3341 ³	Ratchet	½ in	448.6 mm (17.66 in)	10.0 Degrees	214-7339
Repair Kits for Discontinued Ratchets					
5P-7443	Ratchet	--	--	--	5P-7444 (20 tooth gear) 5P-7445 (30 tooth gear)
8H-8557	Ratchet	--	--	--	4S-7326
9U-6635	Ratchet	--	--	--	9U-6636 (30 tooth gear)
9U-6637	Ratchet	--	--	--	9U-6638 (30 tooth gear)
9U-6639	Ratchet	--	--	--	9U-6640 (30 tooth gear)
214-7333	Flex Head Ratchet, ½ in Drive	--	--	--	214-7339

¹ Offset round swivel head² Round head³ Long flex handle**4C-9600 Combination Wrench Set, Standard Length, 11 Piece**

Warranty: See individual part number

- Polished chrome finish
- 271-4700 Wrench Gripper Rack available

Size	Part Number	Length
⅜ in	4C-9592	165.1 mm (6.50 in)
7/16 in	4C-9593	184.2 mm (7.25 in)
½ in	4C-9594	204.0 mm (8.03 in)
9/16 in	4C-9595	222.3 mm (8.75 in)
5/8 in	4C-9596	241.3 mm (9.50 in)
11/16 in	4C-9597	260.4 mm (10.25 in)
¾ in	4C-9598	280.2 mm (11.03 in)
13/16 in	4C-9599	299.2 mm (11.78 in)
7/8 in	4C-9601	318.3 mm (12.53 in)
15/16 in	4C-9602	338.1 mm (13.31 in)
1 in	4C-9603	357.1 mm (14.06 in)



Hand Tools (Inch)

248-8810 Fractional Ratcheting Wrench Set, 8 piece

Warranty: Lifetime



- Dual pawl ratcheting box end
- 15 degrees offset box head
- Box ends are reversible
- Durable nickel chrome finish

Part Number	Size	Length
248-8811	5/16 in	135 mm (5 5/16 in)
248-8812	3/8 in	160 mm (6 5/16 in)
248-8813	7/16 in	170 mm (6 11/16 in)
248-8814	1/2 in	180 mm (7 1/2 in)
248-8815	9/16 in	190 mm (7 5/8 in)
248-8816	5/8 in	210 mm (8 3/8 in)
248-8817	11/16 in	230 mm (9 1/8 in)
248-8818	3/4 in	250 mm (9 13/16 in)

1P-3515 Open End Wrench Set, 30° and 60° Offset, 14 Piece

Warranty: Lifetime



Part Number	Size	Length
Open End Wrench Set Consists of:		
1P-3501	3/8 in	122.9 mm (4.84 in)
1P-3502	7/16 in	137.4 mm (5.41 in)
1P-3503	1/2 in	151.6 mm (5.97 in)
1P-3504	9/16 in	166.6 mm (6.56 in)
1P-3505	5/8 in	180.8 mm (7.12 in)
1P-3506	11/16 in	197.6 mm (7.78 in)
1P-3507	3/4 in	210.3 mm (8.28 in)
1P-3508	13/16 in	225.6 mm (8.88 in)
1P-3509	7/8 in	239.8 mm (9.44 in)
1P-3510	15/16 in	254.0 mm (10.00 in)
1P-3511	1 in	269.0 mm (10.59 in)
1P-3512	1 1/16 in	283.5 mm (11.16 in)
1P-3513	1 1/8 in	298.5 mm (11.75 in)
1P-3514	1 1/4 in	327.2 mm (12.88 in)
Optional Wrenches (not included in set)		
127-2277	1 3/8 in	356.6 mm (14.04 in)
127-2278	1 1/2 in	385.8 mm (15.19 in)
127-2279	1 5/8 in	415.0 mm (16.34 in)
127-2280	1 3/4 in	473.2 mm (18.63 in)

Socket Extensions

Warranty: Lifetime

Part Number	Drive	Length
9S-1720	¼ in	50.8 mm (2.00 in)
9S-1721	¼ in	101.6 mm (4.00 in)
8H-8574	⅜ in	76.2 mm (3.00 in)
3P-2240	⅜ in	304.8 mm (12.00 in)
8H-8575	⅜ in	152.4 mm (6.00 in)
5P-8676	½ in	76.2 mm (3.00 in)
9S-1732	½ in	127.0 mm (5.00 in)
8H-8559	½ in	279.0 mm (11.00 in)
271-4722 ¹	½ in	76.2 mm (3.00 in)
271-4723 ¹	½ in	127.0 mm (5.00 in)
271-4724 ¹	½ in	279.0 mm (11.00 in)
8H-8548	¾ in	203.2 mm (8.00 in)
8T-9265 ²	¾ in	254.0 mm (10.00 in)
8T-5183 ²	¾ in	406.4 mm (16.00 in)
5S-6076	1 in	203.2 mm (8.00 in)
158-8723 ³	1 in	476.0 mm (18.74 in)

¹ Impact

² Requires locking pin

³ Double hole extension



Socket Drive Adapters

Part Number	Description	Replacement Bit
213-4437	Adapter, ¼ in Female to ⅜ in Male	--
261-0443	Adapter, ⅜ in Female to ¼ in Male	261-0446
8H-8576	Adapter, ⅜ in Female to ½ in Male	--
261-0444	Adapter, ½ in Female to ⅜ in square in Male	261-0447
8H-8561	Adapter, ½ in Female to ¾ in Male	--
261-0445	Adapter, ¾ in Female to ½ in Male	261-0448
2P-8261	Adapter, ¾ in Female to 1 in Male	--
5P-3588	Adapter, 1 in Female to ¾ in Male	--
261-8569	Adapter, 1 in Female to 1 ½ in Male	--
261-8570	Adapter, 1 ½ in Female to 1 in Male	--



Impact Wrench Socket Adapters

- Heavy-duty adapter and extensions can be used with 1 ½ inch drive impact wrenches
- Allows the use of 1 inch drive sockets instead of the higher priced 1 ½ inch drive sockets

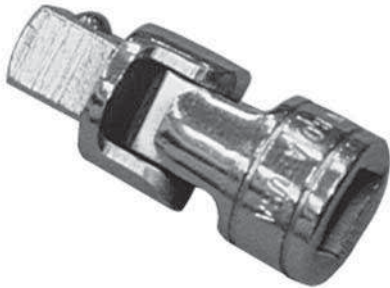
Item	Part Number	Description
1	9S-4028	Extension, 1 in drive both ends, 133.4 mm (5.25 in) long
2	9S-4026	Adapter, 1 ½ in to 1 in drive
3	9S-4027	Extension, 1 in drive both ends, 60.3 mm (2.38 in) long
Not shown	207-8160	Extension, 1 in drive, 76.2 mm (3 in) long



Hand Tools (Inch)

Universal Joint

Warranty: Lifetime



Drive	Part Number
¼ in	9S-1724
¾ in	6V-0094
½ in	8H-8560

Open End Wrenches

Warranty: Lifetime



- Tappet wrench
- For low torque applications

Size	Part Number	Length
½ in × ⅞ in	8H-8501	9.50 in

233-1642 Metric Ratchet Set, 17 Piece

Warranty: Lifetime

- Socket contacts the fastener on the flats rather than on the corners, preventing rounding of the fastener and allowing for more torque to be applied
- Concentric or uniform wall thickness eliminates weak spots while allowing for a thin wall design for greater accessibility
- Creates positive engagement with the drive tool for a tight/slop-free driving system. Detents are located on all four inner walls ensuring positive engagement with the drive tool in any orientation.
- Hex and drive ends of the socket are countersunk or funnel-shaped, making engagement with the fastener or drive tool quicker and easier
- Nickel chrome plating provides a durable, corrosion resistant coating and a brilliant tool finish



Size	Part Number	Description	Length
4.0 mm	200-8415	Socket (1/4 in Drive)	22.2 mm (0.87 in)
5.0 mm	200-8417	Socket (1/4 in Drive)	22.2 mm (0.87 in)
5.5 mm	200-8418	Socket (1/4 in Drive)	22.2 mm (0.87 in)
6.0 mm	200-8419	Socket (1/4 in Drive)	22.2 mm (0.87 in)
7.0 mm	200-8420	Socket (1/4 in Drive)	22.2 mm (0.87 in)
8.0 mm	200-8421	Socket (1/4 in Drive)	22.2 mm (0.87 in)
9.0 mm	200-8422	Socket (1/4 in Drive)	22.2 mm (0.87 in)
10.0 mm	200-8423	Socket (1/4 in Drive)	22.2 mm (0.87 in)
11.0 mm	200-8424	Socket (1/4 in Drive)	22.2 mm (0.87 in)
12.0 mm	200-8426	Socket (1/4 in Drive)	22.2 mm (0.87 in)
13.0 mm	200-8427	Socket (1/4 in Drive)	22.2 mm (0.87 in)
14.0 mm	200-8428	Socket (1/4 in Drive)	22.2 mm (0.87 in)
15.0 mm	200-8429	Socket (1/4 in Drive)	23.0 mm (0.91 in)
1/4 in	9U-6635	Ratchet	112.3 mm (4.42 in)
1/4 in	9S-1720	Socket Extension	50.8 mm (2.00 in)
1/4 in	9S-1721	Socket Extension	101.6 mm (4.00 in)
1/4 in	9S-1724	Universal Joint	--

200-8413 Socket Set, 13 Piece, 1/4 inch Drive

Warranty: See individual part number

- 6 point
- 1/4 inch drive
- Standard length sockets
- Polished chrome finish
- Includes socket bar and clips

Size	Part Number	Length
4.0 mm	200-8415	22.2 mm (0.87 in)
5.0 mm	200-8417	22.2 mm (0.87 in)
5.5 mm	200-8418	22.2 mm (0.87 in)
6.0 mm	200-8419	22.2 mm (0.87 in)
7.0 mm	200-8420	22.2 mm (0.87 in)
8.0 mm	200-8421	22.2 mm (0.87 in)
9.0 mm	200-8422	22.2 mm (0.87 in)
10.0 mm	200-8423	22.2 mm (0.87 in)
11.0 mm	200-8424	22.2 mm (0.87 in)
12.0 mm	200-8426	22.2 mm (0.87 in)
13.0 mm	200-8427	22.2 mm (0.87 in)



(Continued)

Hand Tools (Metric)

200-8413 Socket Set, 13 Piece, 1/4 inch Drive (Continued)

Warranty: See individual part number

Size	Part Number	Length
14.0 mm	200-8428	22.2 mm (0.87 in)
15.0 mm	200-8429	23.0 mm (0.91 in)

194-3574 Socket Set, 12 Piece, 3/8 inch Drive

Warranty: See individual part number

- 12 point
- 3/8 inch drive
- Standard length sockets
- Polished chrome finish
- Includes socket bar and clips



Size	Part Number	Length
8.0 mm	194-3480	23.0 mm (0.91 in)
9.0 mm	194-3483	23.0 mm (0.91 in)
10.0 mm	194-3488	23.0 mm (0.91 in)
11.0 mm	194-3490	23.0 mm (0.91 in)
12.0 mm	194-3492	23.8 mm (0.94 in)
13.0 mm	194-3494	24.6 mm (0.97 in)
14.0 mm	194-3495	26.2 mm (1.03 in)
15.0 mm	194-3496	27.0 mm (1.06 in)
16.0 mm	194-3497	27.8 mm (1.09 in)
17.0 mm	194-3498	28.6 mm (1.13 in)
18.0 mm	194-3499	28.6 mm (1.13 in)
19.0 mm	194-3500	30.2 mm (1.19 in)

271-4622 Impact Socket Set, 14 Piece, 3/8 inch Drive

Warranty: See individual part number



- 6 point
- 3/8 inch drive
- Standard length sockets
- Includes socket bar and clips

Size	Part Number	Length
8.0 mm	271-4623	23.0 mm (0.91 in)
9.0 mm	271-4624	23.0 mm (0.91 in)
10.0 mm	271-4625	23.0 mm (0.91 in)
11.0 mm	271-4626	23.8 mm (0.94 in)
12.0 mm	271-4627	23.8 mm (0.94 in)
13.0 mm	271-4628	24.6 mm (0.97 in)
14.0 mm	271-4630	27.0 mm (1.06 in)
15.0 mm	271-4631	27.0 mm (1.06 in)
16.0 mm	271-4632	27.8 mm (1.09 in)
17.0 mm	271-4633	28.2 mm (1.11 in)
18.0 mm	271-4634	29.0 mm (1.14 in)
19.0 mm	271-4635	30.6 mm (1.20 in)
21.0 mm	271-4636	29.5 mm (1.16 in)
24.0 mm	271-4637	33.0 mm (1.30 in)

9U-6124 Universal Metric Socket Set, 9 Piece, $\frac{3}{8}$ inch Drive

Warranty: Lifetime

SMCS Code: 1251-010, 0601

- Model: 3066 Engine
- 9U-6128 used to remove and install fuel injection pump
- Standard length, 12 point universal socket set
- Specially forged and heat treated for toughness and long life — meets rigid industry standards
- Includes socket bar and clips

Size	Part Number	Length
10.0 mm	9U-6125	43.5 mm (1.71 in)
12.0 mm	9U-6126	45.5 mm (1.79 in)
13.0 mm	9U-6127	45.5 mm (1.79 in)
14.0 mm	9U-6128	47.9 mm (1.89 in)
15.0 mm	9U-6129	47.9 mm (1.89 in)
16.0 mm	9U-6130	47.9 mm (1.89 in)
17.0 mm	9U-6131	50.7 mm (2.00 in)
18.0 mm	9U-6132	50.7 mm (2.00 in)
19.0 mm	9U-6133	52.5 mm (2.07 in)

**199-6156 Socket Set, 13 Piece, $\frac{1}{2}$ inch Drive**

Warranty: See individual part number

- 12 point
- $\frac{1}{2}$ inch drive
- Standard length sockets
- Polished chrome finish
- Includes socket bar and clips

Size	Part Number	Length
12.0 mm	199-6149	38.1 mm (1.50 in)
13.0 mm	199-6150	38.1 mm (1.50 in)
14.0 mm	8T-3041	38.1 mm (1.50 in)
15.0 mm	6V-9110	38.1 mm (1.50 in)
16.0 mm	6V-9111	38.1 mm (1.50 in)
17.0 mm	6V-9112	38.1 mm (1.50 in)
18.0 mm	6V-9113	38.1 mm (1.50 in)
19.0 mm	6V-9114	38.1 mm (1.50 in)
20.0 mm	199-6152	38.1 mm (1.50 in)
21.0 mm	6V-9115	38.1 mm (1.50 in)
22.0 mm	6V-9116	38.1 mm (1.50 in)
23.0 mm	199-6153	38.1 mm (1.50 in)
24.0 mm	199-6154	38.8 mm (1.53 in)



Hand Tools (Metric)

213-6923 Impact Socket Set, 12 Piece, 1/2 Inch Drive

Warranty: See individual part number



- 6 point
- 1/2 inch drive
- Black oxide finish
- Standard length impact sockets
- Includes socket bar and clips

Size	Part Number	Length
10.0 mm	213-6926	38.1 mm (1.50 in)
11.0 mm	213-6927	38.1 mm (1.50 in)
12.0 mm	213-6928	38.1 mm (1.50 in)
13.0 mm	213-6929	38.1 mm (1.50 in)
14.0 mm	213-6930	38.1 mm (1.50 in)
15.0 mm	213-6932	38.1 mm (1.50 in)
16.0 mm	213-6933	38.1 mm (1.50 in)
17.0 mm	213-6934	38.1 mm (1.50 in)
18.0 mm	213-6935	38.1 mm (1.50 in)
19.0 mm	213-6936	38.1 mm (1.50 in)
20.0 mm	213-6924	38.1 mm (1.50 in)
21.0 mm	213-6937	38.1 mm (1.50 in)

214-6643 Impact Socket Set, 11 Piece, 1/2 inch Drive

Warranty: See individual part number



- 6 point
- 1/2 inch drive
- Black oxide finish
- Deep length impact sockets
- Includes socket bar and clips

Size	Part Number	Length
10.0 mm	214-6644	82.6 mm (3.25 in)
11.0 mm	214-6645	82.6 mm (3.25 in)
12.0 mm	214-6646	82.6 mm (3.25 in)
13.0 mm	214-6647	82.6 mm (3.25 in)
14.0 mm	214-6648	82.6 mm (3.25 in)
15.0 mm	214-6649	82.6 mm (3.25 in)
16.0 mm	214-6650	82.5 mm (3.25 in)
17.0 mm	214-6651	82.6 mm (3.25 in)
18.0 mm	214-6652	82.5 mm (3.25 in)
19.0 mm	214-6653	82.6 mm (3.25 in)
20.0 mm	214-7346	82.6 mm (3.25 in)

261-8572 Metric Swivel Impact Socket Set, 7 Piece, 3/8 inch Drive

Warranty: Lifetime

- 6 point
- 3/8 inch square drive
- Includes socket bar and clips

Size	Part Number	Length
10.0 mm	261-8573	50.8 mm (2.0 in)
12.0 mm	261-8574	53.1 mm (2.09 in)
13.0 mm	261-8575	54.1 mm (2.13 in)
14.0 mm	261-8576	55.4 mm (2.18 in)
15.0 mm	261-8577	56.4 mm (2.22 in)
17.0 mm	261-8578	62.2 mm (2.45 in)
18.0 mm	261-8579	64.0 mm (2.52 in)

**246-8199 Metric Universal Impact Socket Set, 10 Piece, 1/2 inch Drive**

Warranty: See individual part number

- 6 point
- 1/2 inch square drive
- Black oxide finish
- Standard length impact sockets
- Includes socket bar and clips

Size	Part Number	Length
10.0 mm	246-8185	73.7 mm (2.90 in)
11.0 mm	246-8186	73.7 mm (2.90 in)
12.0 mm	246-8187	73.7 mm (2.90 in)
13.0 mm	246-8188	73.7 mm (2.90 in)
14.0 mm	246-8189	73.7 mm (2.90 in)
15.0 mm	246-8190	73.7 mm (2.90 in)
16.0 mm	246-8191	73.7 mm (2.90 in)
17.0 mm	246-8192	77.8 mm (3.06 in)
18.0 mm	246-8194	77.7 mm (3.06 in)
19.0 mm	246-8197	77.7 mm (3.06 in)

**9U-6547 Impact Socket Set, 24 Piece, 3/4 inch Drive**

Warranty: See individual part number

- 6 point
- 3/4 inch drive
- Black oxide finish
- Standard length impact sockets

Size	Part Number	Length
17.0 mm	9U-6523	44.5 mm (1.75 in)
19.0 mm	9U-6524	44.5 mm (1.75 in)
20.0 mm	9U-6525	44.5 mm (1.75 in)
21.0 mm	9U-6526	47.8 mm (1.88 in)
22.0 mm	9U-6527	47.6 mm (1.87 in)
23.0 mm	9U-6528	47.8 mm (1.88 in)
24.0 mm	9U-6529	47.6 mm (1.87 in)
26.0 mm	9U-6530	50.8 mm (2.00 in)
27.0 mm	9U-6531	50.8 mm (2.00 in)
28.0 mm	9U-6532	53.8 mm (2.12 in)



(Continued)

9U-6547 Impact Socket Set, 24 Piece, 3/4 inch Drive (Continued)

Warranty: See individual part number

Size	Part Number	Length
30.0 mm	9U-6533	53.8 mm (2.12 in)
31.0 mm	9U-6534	54.0 mm (2.13 in)
32.0 mm	9U-6535	53.8 mm (2.12 in)
33.0 mm	9U-6536	53.8 mm (2.12 in)
34.0 mm	9U-6537	54.0 mm (2.13 in)
35.0 mm	9U-6538	57.2 mm (2.25 in)
36.0 mm	9U-6539	57.2 mm (2.25 in)
38.0 mm	9U-6540	57.2 mm (2.25 in)
40.0 mm	9U-6541	66.7 mm (2.63 in)
41.0 mm	9U-6542	66.5 mm (2.62 in)
42.0 mm	9U-6543	66.5 mm (2.62 in)
43.0 mm	9U-6544	66.5 mm (2.62 in)
46.0 mm	9U-6545	66.7 mm (2.63 in)
50.0 mm	9U-6546	73.2 mm (2.88 in)

194-3585 Metric Hex Driver Set, 9 Piece

Warranty: See individual part number

- Includes socket bar and clips



Part Number	Description	Hex Size	Drive	Bit Length	Overall Length	Replacement Bit
194-3585	Hex Bit Socket Set	--	--	--	--	--
Set Consists of:						
194-3541	Metric Hex Driver	4.0 mm	3/8 in	25.4 mm	52.3 mm (2.06 in)	--
194-3542	Metric Hex Driver	5.0 mm	3/8 in	25.7 mm	52.6 mm (2.07 in)	--
194-3543	Metric Hex Driver	6.0 mm	3/8 in	25.7 mm	52.6 mm (2.07 in)	--
194-3544	Metric Hex Driver	7.0 mm	3/8 in	25.7 mm	52.6 mm (2.07 in)	--
194-3545	Metric Hex Driver	8.0 mm	3/8 in	25.1 mm	52.1 mm (2.05 in)	--
194-3546	Metric Hex Driver	10.0 mm	3/8 in	25.5 mm	52.5 mm (2.07 in)	--
194-3547	Metric Hex Driver	12.0 mm	1/2 in	--	81.0 mm (3.19 in)	--
194-3548	Metric Hex Driver	14.0 mm	1/2 in	--	81.0 mm (3.19 in)	--
194-3549	Metric Hex Driver	17.0 mm	1/2 in	--	93.7 mm (3.69 in)	--

(Continued)

194-3585 Metric Hex Driver Set, 9 Piece (Continued)

Warranty: See individual part number

Part Number	Description	Hex Size	Drive	Bit Length	Overall Length	Replacement Bit
Optional Metric Hex Drivers						
6V-9085	Metric Hex Driver	10.0 mm	½ in	62.0 mm	62.0 mm (2.44 in)	--
6V-9086	Metric Hex Driver	14.0 mm	½ in	35.0 mm	81.0 mm (3.19 in)	--
1U-6151	Metric Hex Driver	17.0 mm	¾ in	47.0 mm	92.0 mm (3.62 in)	1U-6152
168-8395	Metric Hex Driver	17.0 mm	¾ in	50.8 mm	61.7 mm (2.43 in)	169-0782
9U-7418	Metric Hex Driver	19.0 mm	¾ in	47.7 mm	111.3 mm (4.39 in)	1U-7419
1U-9474	Metric Hex Driver	22.0 mm	1 in	32.0 mm	84.0 mm (3.31 in)	1U-9476
140-8780 ¹	Metric Hex Driver	24.0 mm	--	50.8 mm	50.8 mm (2.00 in)	--
129-4552	Metric Hex Driver	27.0 mm	1 in	72.0 mm	129.0 mm (5.08 in)	129-4553

¹ Hex bit only**243-5182 Metric Hex Ball Driver Socket Set, 8 Piece**

Warranty: See individual part number

- Four ¼ inch drive hex ball sockets and four ¾ inch drive hex ball sockets
- Material: steel
- Includes socket bar and clips

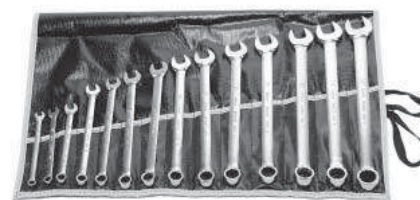
Hex Size	Part Number	Description	Drive	Bit Length	Overall Length
--	243-5182	Complete Hex Ball Driver Socket Set	--	--	--
Set Consists of:					
3.0 mm	243-5190	Hex Ball Driver	¼ in	--	47.7 mm (1.88 in)
4.0 mm	243-5184	Hex Ball Driver	¼ in	--	47.6 mm (1.87 in)
5.0 mm	243-5185	Hex Ball Driver	¼ in	--	47.9 mm (1.89 in)
6.0 mm	243-5186	Hex Ball Driver	¼ in	--	47.9 mm (1.89 in)
7.0 mm	243-5187	Hex Ball Driver	¾ in	25.6 mm	52.5 mm (2.07 in)
8.0 mm	243-5188	Hex Ball Driver	¾ in	25.6 mm	52.5 mm (2.07 in)
9.0 mm	243-5189	Hex Ball Driver	¾ in	25.6 mm	52.5 mm (2.07 in)
10.0 mm	243-5183	Hex Ball Driver	¾ in	25.6 mm	52.5 mm (2.07 in)
Optional Metric Hex Ball Drivers					
4.0 mm	4C-8996	Hex Ball Driver	¾ in	--	128.3 mm (5.05 in)
10.0 mm	155-3046	Hex Ball Driver	¾ in	--	128.3 mm (5.05 in)

**1U-5545 Combination Wrench Set, 14 Piece**

Warranty: Lifetime

- Metric, 6.0 mm through 19.0 mm
- Polished chrome finish
- Includes storage pouch

Size	Part Number	Length
6.0 mm	1U-5546	113.0 mm (4.45 in)
7.0 mm	1U-5547	118.0 mm (4.65 in)
8.0 mm	1U-5548	123.0 mm (4.84 in)
9.0 mm	1U-5549	159.0 mm (6.26 in)
10.0 mm	6V-9090	171.0 mm (6.73 in)
11.0 mm	6V-9091	184.0 mm (7.24 in)
12.0 mm	6V-9092	195.0 mm (7.68 in)
13.0 mm	6V-9093	207.0 mm (8.15 in)
14.0 mm	6V-9094	219.0 mm (8.62 in)
15.0 mm	6V-9095	233.0 mm (9.17 in)
16.0 mm	6V-9096	242.0 mm (9.53 in)
17.0 mm	6V-9097	256.0 mm (10.08 in)
18.0 mm	6V-9098	267.0 mm (10.51 in)
19.0 mm	6V-9099	280.0 mm (11.02 in)



248-8819 Metric Ratcheting Wrench Set, 12 piece

Warranty: Lifetime



- Dual pawl ratcheting box end
- 15 degrees offset box head
- Box ends are reversible
- Durable nickel chrome finish

Size	Part Number	Length
8.0 mm	248-8820	135.0 mm (5.47 in)
9.0 mm	248-8822	150.0 mm (5.91 in)
10.0 mm	248-8823	160.0 mm (6.3 in)
11.0 mm	248-8824	170.0 mm (6.7 in)
12.0 mm	248-8825	175.0 mm (6.9 in)
13.0 mm	248-8826	180.0 mm (7.1 in)
14.0 mm	248-8827	190.0 mm (7.5 in)
15.0 mm	248-8828	200.0 mm (7.9 in)
16.0 mm	248-8829	210.0 mm (8.27 in)
17.0 mm	248-8830	230.0 mm (9.1 in)
18.0 mm	248-8831	240.0 mm (9.4 in)
19.0 mm	248-8832	250.0 mm (9.8 in)

Adjustable Wrenches

Part Number	Jaw Range	Length	Finish
214-7322	24.0 mm (0.94 in)	203.2 mm (8.00 in)	Black Oxide
214-7323	29.0 mm (1.13 in)	254.0 mm (10.00 in)	Black Oxide
214-7330	33.0 mm (1.31 in)	304.8 mm (12.00 in)	Black Oxide
214-7332	42.0 mm (1.66 in)	381.0 mm (15.00 in)	Black Oxide



1U-8760 Wrench for Special Applications

- Used for holding cylinders and other irregularly shaped objects — works for parts of most any size and shape
- Special head design for turning wrench in either direction
- Ratcheting action makes it possible to regrip without removal
- Chain wrench capacity: ½ inch to 4 ¾ inch O.D.

Part Number	Description	Size
1U-8760	Wrench for Special Applications	Chain wrench capacity: ½ in to 4 ¾ in O.D.



1U-7608 Chain Wrench

SMCS Code: 5102-017

Models: D6H, D7H and motor graders prior to April 1987 G-Series production

- Used to remove and install threaded crowns on hydraulic cylinders
- Grips cylindrical objects for assembly or disassembly
- Black oxide finish, high carbon steel
- Has 19 mm (¾ in) square drive
- Can be used with breaker bars, ratchets and torque wrenches
- Can be used on threaded crowns up to 203 mm (8 in) in diameter
- Tool is capable of withstanding in excess of 1,000 ft-lb of torque

Part Number	Head Length	Head Thickness	Chain Length	Weight	Rated Capacity
1U-7608	53.97 mm (2 ⅛ in)	34.92 mm (1 ⅜ in)	711.2 mm (28 in)	0.86 kg (1.90 lb)	1360 N·m (1,000 ft-lb)



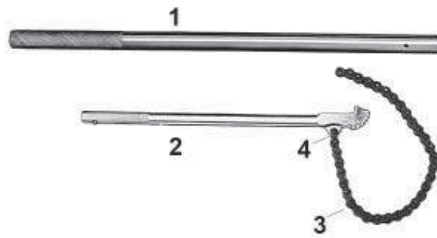
Miscellaneous Hand Tools

3P-1535 Chain Wrench Group

Model: 16G, 518, 613C, 615, 910

SMCS Code: 4303-017, 5105-017, 5309-017, 5102-017

- Used to remove and install threaded crown, which is used to retain head on later hydraulic cylinders
- General purpose tool that can be used in many applications



Item	Part Number	Description
1	3P-1536	Handle
2	1U-8792	Chain Wrench Assembly, Handle Length 482.6 mm (19.00 in)
3	1U-8791	Chain — part of 1U-8792, 76.2 mm (3.00 in) O.D. Minimum and 171.5 mm (6.75 in) O.D. Maximum
4	3P-1537	Pin — part of 1U-8792

187-2718 Filter Wrench

SMCS Code: 5050-011

Various Models — including Skid Steer Loaders, Compact Wheel Loaders, and Mini-Hex Excavators

- Used to remove spin-on oil and fuel filters
- Makes filter removal quick and easy
- Fits filter diameters between 88.9 to 98.6 mm (3.50 to 3.88 in)



Part Number	Description
187-2718	Filter Wrench

185-3630 Filter Strap Wrench

Caterpillar Engines

SMCS Code: 0602

Marine Engines, Truck Engines, Industrial Engines, Generator Sets, Machine Engines

- Provides quick, efficient service when removing or installing all spin-on type fuel and oil filters
- Capable of applying higher torques required on larger filters without denting filter can



Item	Part Number	Description
1	6H-7378	Retaining Ring
2	1P-0551	Spring Pin
3	2P-8253	Strap

175-7546 Oil Filter Cutter Group

- Used to cut open spin-on filters to inspect filter media for contaminants, a common practice when diagnosing potential machine problems and internal contaminants.
- Aluminum frame construction
- Designed to cut all types of filters, including aircraft-style filters, without repositioning cutting wheels
- Heavy-duty double roller and cutting wheel design eliminates binding of filters
- All wear parts are heat-treated steel for added durability
- Cutting wheels are ground with a double-taper edge for easier cutting



Item	Part Number	Description	Required
--	175-7546	Cutter Group	--
Replacement Parts			
1	177-0364	Roller	2
2	177-0365	Cutting Wheel	2
Not shown	177-0366	Spacer	2
3	177-0367	Pin	4

200-1931 Hex Bit Set, 7 Piece

- Black oxide finish bits
- Chrome plated case

Part Number	Description	Length	Size
200-1931	Metric Hex Key Set	76.2 mm (3.00 in) Long Bits	1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm



9S-1742 Hex Bit Set, 9 Piece

- Black oxide finish
- 3 1/2 inch cadmium case

Part Number	Description	Length	Size
9S-1742	Hex Key Wrench Assembly	3 in Bits	0.05 in, 1/16 in, 3/64 in, 1/32 in, 1/16 in, 1/8 in, 3/16 in, 1/4 in, 5/16 in



200-1928 "L" Shaped Hex Allen Key Wrench Group, Inch, 13 Piece



- Cat® branded plastic holder included

Part Number	Description	Size
200-1928	Fractional Hex Key Set	0.05 in, 1/16 in, 5/64 in, 3/32 in, 7/64 in, 1/8 in, 9/64 in, 5/32 in, 3/16 in, 7/32 in, 1/4 in, 5/16 in and 3/8 in

293-3025 Fractional Hex Allen Key Wrench Group with Ball End, Inch, 13 Piece



- Cat® branded plastic holder included

Part Number	Description	Size
293-3025	Fractional Hex Allen Wrench Group	0.05 in, 1/16 in, 5/64 in, 3/32 in, 7/64 in, 1/8 in, 9/64 in, 5/32 in, 3/16 in, 7/32 in, 1/4 in, 5/16 in and 3/8 in

200-1929 "L" Shaped Hex Allen Key Wrench Group, Metric, 9 Piece



- Cat® branded plastic holder included

Part Number	Description	Size
200-1929	Metric Hex Key Set	1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm, 8.0 mm, and 10.0 mm

293-3026 Metric Hex Allen Key Wrench Group with Ball End, Metric, 9 Piece



- Cat® branded plastic holder included

Part Number	Description	Size
293-3026	Metric Hex Allen Wrench Group	1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm, 8.0 mm, and 10.0 mm

256-4879 "L" Shaped Torx™ Wrench T50

Part Number	Description	Length	Flute Length	Material
256-4879	Torx Wrench, T50	95.25 mm (3.75 in)	8.84 mm (0.348 in)	Steel

**Hex Key Wrenches, Standard and Metric**

- Extra length hex keys
- Inch and metric sizes



Part Number	Size
1U-7559	1.5 mm
1U-7560	2 mm
1U-7561	2.5 mm
1U-7562	3 mm
1U-7563	4 mm
1U-7564	5 mm
1U-7565	6 mm
1U-7566	8 mm
1U-7567	10 mm
1U-7568	12 mm

Part Number	Size
1U-7569	14 mm
1U-7570	17 mm
1U-7571	19 mm
4C-4067	22 mm
1U-7572	1/16 in
1U-7573	5/64 in
1U-7574	3/32 in
1U-7575	1/8 in
1U-7576	5/32 in
1U-7577	3/16 in

Part Number	Size
1U-7578	7/32 in
1U-7579	1/4 in
1U-7580	5/16 in
1U-7581	3/8 in
1U-7582	7/16 in
1U-7583	1/2 in
1U-7584	5/8 in
1U-7585	3/4 in
1U-7632	1 in
1U-7586	1 in

9U-7290 Screwdriver Set

Warranty: Lifetime

- Exclusive high-tech handle design for a more comfortable grip and more powerful performance

Part Number	Description	Size
9U-7290	Screwdriver Set	Includes a flat 1/4 in tip and #1 Phillips



Miscellaneous Hand Tools

162-7804 Black Plastic Handle Screwdriver Set, 6 Piece

Warranty: Lifetime

- Black plastic handles
- 6-piece set
- Includes vinyl pouch



Part Number	Tip Size	Description
162-7804	--	Complete Screwdriver Set
Complete Set Consists of:		
6V-7937	$\frac{3}{16}$ in	Standard Screwdriver
6V-7935	$\frac{1}{4}$ in	Standard Screwdriver
6V-7933	$\frac{5}{16}$ in	Standard Screwdriver
6V-7932	$\frac{3}{8}$ in	Standard Screwdriver
6V-7936	No. 1	Phillips Screwdriver
6V-7934	No. 2	Phillips Screwdriver

9U-7291 Ratcheting Screwdriver, 5 Bits

Warranty: Lifetime

Part Number	Description	Size	Length
9U-7291	Ratcheting Screwdriver	$\frac{3}{16}$ in and $\frac{1}{2}$ in flat tips, #1 and #2 Phillips, and #2 Pozidriv store in hollow handle	222.25 mm (8 $\frac{3}{4}$ in) long overall; 96.04 mm (3 $\frac{25}{32}$ in) stainless steel shank length



9U-7328 Tool Bit Set, 6 Piece

- High impact, pocket-sized ABS plastic case
- Convenient magnetic bit holder (to fit power drills or for use with the case as a hand-held screwdriver) is included



Part Number	Description	Contents
9U-7328	Tool Bit Set	Includes #1, #2, and #3 Phillips and 6.5 mm $\times$ 1.2 mm, 6.0 mm $\times$ 1.0 mm, and 5.5 mm $\times$ 0.8 mm flat tips

Hacksaws

- Blade tensioning device

Part Number	Length	Use	Teeth	Material	Qty.
194-3552	350.0 mm (13.78 in)	For use with 12 inch blade; blade tensioning device in handle	--	--	--
208-6183	419.1 mm (16.50 in)	For use with 12 inch blade	--	--	--
Replacement Hacksaw Blade Sets					
1U-9234	305.0 mm (12 in)	--	457.0 mm (18 in)	Bi-Metal	5
1U-9236	305.0 mm (12 in)	--	610.0 mm (24 in)	Bi-Metal	10
1U-9238	305.0 mm (12 in)	--	813.0 mm (32 in)	Bi-Metal	5
1U-9240	305.0 mm (12 in)	--	457.0 mm (18 in)	High Carbon Steel	5
1U-9242	305.0 mm (12 in)	--	610.0 mm (24 in)	High Carbon Steel	5
1U-9244	305.0 mm (12 in)	--	813.0 mm (32 in)	High Carbon Steel	5



Pry Bars

- Flat taper at one end and pointed taper on the other end

Part Number	Description	Size
1U-7587	Rolling Head Pry Bar	152.4 mm (6.00 in)
194-3553	Rolling Head Pry Bar	304.8 mm (12.00 in)
5F-4764	Rolling Head Pry Bar	406.4 mm (16.00 in)
194-3556	Rolling Head Pry Bar	533.4 mm (21.00 in)
1U-7591	Pry Bar	0.625 mm × 457.2 mm (0.63 in × 18.00 in)
1U-7592	Pry Bar	0.75 mm × 609.6 mm (0.75 in × 24.00 in)
1U-7593	Pry Bar	0.875 mm × 762.0 mm (0.88 in × 30.00 in)
4F-5166	Pry Bar	762.0 mm (30.00 in)
4C-5742	Long Pry Bar	1168.4 mm (46.00 in)
4C-5647	Long Pry Bar	1371.6 mm (54.00 in)



Hammers

Item	Part Number	Size	Height	Length	Weight	Material
Ball Peen Hammers						
1	1S-0257	1 ½ in	--	298.5 mm (11.75 in)	340 g (12 oz)	--
2	1B-7810	1 ½ in	113.5 mm (4.47 in)	406.4 mm (16.00 in)	680 g (1 ½ lb)	--
3	8H-8577	1 ¼ in	128.6 mm (5.06 in)	406.4 mm (16.00 in)	900 g (2 lb)	--
Soft Face Hammers						
4	1S-0258	1 ½ in	117.5 mm (4.63 in)	330.2 mm (13.00 in)	900 g (2 lb)	--
Replacement Tips for 1S-0258						
6	3S-0459	--	--	--	--	Hard tip
5	3S-0460	--	--	--	--	Medium tip



(Continued)

Miscellaneous Hand Tools

Hammers (Continued)

Item	Part Number	Size	Height	Length	Weight	Material
Hammer Handles						
--	263-3817	305 mm (12 in)	--	--	--	Hickory
--	263-3819	407 mm (16 in)	--	--	--	Hickory
--	263-3820	458 mm (18 in)	--	--	--	Hickory

Multiple Use Hammers



Item	Part Number	Description	Face Diameter	Overall Length	Weight	Size	Material
1	223-1697	Double Face Sledge	47.8 mm (1.88 in)	889.0 mm (35.00 in)	4.4 kg (9.62 lb)	--	--
2	223-1694	Dead Blow Sledge	69.8 mm (2.75 in)	508.0 mm (20.00 in)	2.5 kg (5.50 lb)	--	--
3	223-1693	Hand Drilling (Short Handle)	38.1 mm (1.50 in)	273.0 mm (10.75 in)	1.8 kg (4.00 lb)	--	--
--	223-1695	Dead Blow Sledge	82.6 mm (3.25 in)	914.4 mm (36.00 in)	5.4 kg (12.00 lb)	--	--
--	223-1698	Double Face Sledge	54.0 mm (2.13 in)	905.0 mm (35.63 in)	5.0 kg (10.92 lb)	--	--
--	245-9823	Double Face Sledge	73.0 mm (2.88 in)	914.0 mm (36.00 in)	7.2 kg (16.00 lb)	--	--
Hammer Handles							
--	263-3821	--	--	--	--	762 mm (30 in)	Hickory
--	263-3822	--	--	--	--	915 mm (36 in)	Hickory

Slide Sledge® Heavy Equipment Repair Tool

One operator can safely and easily maneuver the Slide Sledge Heavy Equipment Repair Tool into hard-to-reach places, simplifying repairs while reducing operator effort.

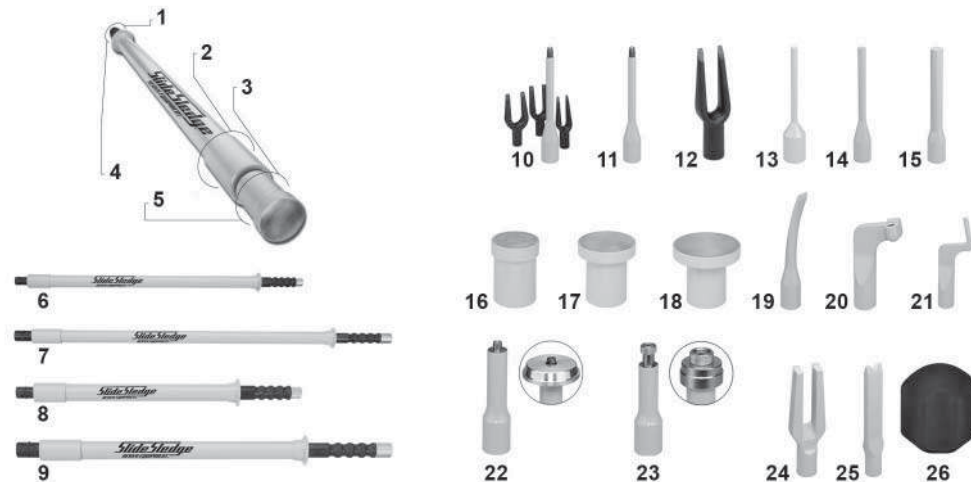
Slide Sledge is powered by sliding the steel drive bar back and forth, allowing the operator to deliver a precise impact — when and where it's needed. This eliminates inaccurate sledgehammer swings that can damage machinery.

- Eliminates need for special equipment or additional operators
- Reduces preventive and unscheduled maintenance hours
- Used to remove and install pins on almost any equipment
- Cuts through stripped or rusted bolts in seconds
- Reaches between ripper teeth for easy removal and installation
- Drives seals into place, quickly and easily
- Adapts to separator forks for fast, easy changeouts
- Promotes a safer work environment — eliminates flying debris associated with hammer and chisel use
- Minimizes operator effort and reduces muscle strain through finger-pressure control
- Accommodates interchangeable, application-specific tips that allow one tool to do the job of many
- Adapts to quick-change tips engineered to get the job done faster and easier
- Delivers powerful, precise impact; use a 5 lb handle weight for additional impact
- Made of induction-hardened steel for long life

Item 1	Item 2	Item 3	Item 4	Item 5
Induction-Hardened Steel Drive Bar delivers a powerful impact.	Linear Impact Delivery System maximizes power transfer to tip.	Quick-Change secures tips and allows for quick tip changes.	Ergonomic Handle — provides solid grip. Slide Lock — keeps bar in place when tool is not in use.	D-Head Design keeps tip from rotating.

(Continued)

Slide Sledge® Heavy Equipment Repair Tool (Continued)



Item	Part Number	Weight	Length	Description	Use
6	272-1208	9.00 lb	30.00 in	Slide Sledge Heavy Equipment Repair Tool with 272-1237 Pin Driver	For fitting into tight areas
7	272-1212	13.00 lb	46.00 in	Slide Sledge Heavy Equipment Repair Tool with 272-1237 Pin Driver	Ideal for most standard applications
8	272-1215	14.00 lb	30.00 in	Slide Sledge Heavy Equipment Repair Tool with 272-1237 Pin Driver	Larger diameter allows tool to fit into tight areas while delivering Biggest Maximum Force
9	272-1218	21.00 lb	46.00 in	Slide Sledge Heavy Equipment Repair Tool with 272-1237 Pin Driver	Longer length and greater weight deliver Biggest Maximum Force for your toughest applications
Accessories					
10	272-1222	--	--	Tie Rod/Ball Joint Separator 3 Tip Set	Slide Sledge separator adapter and 1 ¹ / ₈ in, and 1 ¹ / ₂ forks
11	272-1223	--	--	Tie Rod/Ball Joint Splitter Adapter	Attach all Slide Sledge separator fork and most common forks available
12	272-1224	--	--	Tie Rod/Ball Joint Separator Fork, 1 ¹ / ₈ in	--
12	272-1225	--	--	Tie Rod/Ball Joint Separator Fork, 1 ⁵ / ₁₆ in	--
12	272-1226	--	--	Tie Rod/Ball Joint Separator Fork, 1 ¹ / ₂ in	--
12	272-1227	--	--	Tie Rod/Ball Joint Separator Fork, 1 ¹ / ₂ in	--
13	272-1228	--	--	Pin Driver, 1/2 in diameter	Recommended for pins and bolts greater than 1/2 in up to 3/4 in diameter
14	272-1230	--	--	Pin Driver, 3/8 in diameter	Recommended for pins greater than 3/8 in up to 1 1/4 in diameter
15	272-1233	--	--	Pin Driver, 1 1/4 in diameter	Recommended for pins greater than 1 1/4 in up to 2 in diameter
16	272-1237	--	--	Pin Driver, 2 in diameter	Recommended for pins greater than 2 in up to 2 1/2 in diameter
17	272-1239	--	--	Pin Driver, 2 1/2 in diameter	Recommended for pins greater than 2 1/2 in up to 3 in diameter
18	272-1240	--	--	Pin Driver, 3 in diameter	Recommended for pins greater than 3 in up to 4 in diameter
19	272-1241	--	--	Curved Chisel Tip, 1 3/4	For chopping away hardened debris and shearing metal bolts, pins, and rivets up to 3/8 in, grade 8
20	272-1242	--	--	Ripper Tooth Pin Inserter, 3/4 in diameter	Use on pins as small as 3/4 in up to 1 in with minimum tooth spacing of 4 1/2 in
21	272-1243	--	--	Ripper Tooth Pin Remover, 3/4 in diameter	Use on pins as small as 3/4 in up to 1 in with minimum tooth spacing of 4 1/2 in
20	272-1244	--	--	Ripper Tooth Pin Inserter, 1/2 in diameter	Use on pins as small as 1/2 in up to 3/4 in with minimum tooth spacing of 3 1/2 in

(Continued)

Miscellaneous Hand Tools

Slide Sledge® Heavy Equipment Repair Tool (Continued)

Item	Part Number	Weight	Length	Description	Use
Accessories (Continued)					
21	272-1245	--	--	Ripper Tooth Remover, ½ in diameter	Use on pins as small as ½ in up to ¾ in with minimum tooth spacing of 3 ½ in
21	272-1246	--	--	Ripper Tooth Pin Remover, ¾ in diameter	Use on pins as small as ¾ in up to 1 in with minimum tooth spacing of 2 ¾ in
22	272-1249	--	--	Race/Bearing/Seal Adapter	Adapter driver tip to install races, bearings, and seals. Add drive plates to the end in various combinations. Fits plates with a common ⅝ center hole, up to ¾ in high (plates not included)
23	272-1250	--	--	Bushing Driver Adapter	Adapter driver tip to properly install bushings easily and quickly. Fits drivers with a common ¾ center hole, up to ¾ in high (drivers not included)
24	272-1251	--	--	Scarifier Tooth Tip	Removes scarifier teeth on most motor graders. The fork design allows the technician to split the trenching arm where the scarifier tooth is forced to fit.
25	272-1252	--	--	Utility Wedge Tip	All-purpose impact tool designed to separate parts and straighten steel with maximum force.
26	272-1253	--	--	5 Pound Handle Weight	Increases the Slide Sledge striking force by 5 lbs; works with any of the four tools by threading onto tool handle
20	272-1247	--	--	Ripper Tooth Pin Insertor, ¾ in diameter	Use on pins as small as ¾ in up to 1 in with minimum tooth spacing of 2 ¾ in
Not Shown					
--	272-1248	--	--	Bushing/Bearing/Seal Plate Driver	Use with Caterpillar plates (not included)
--	287-2075	--	--	Small Tire Bead Breaker, 2 ¼ in head width	Most standard applications
--	287-2076	--	--	Large Tire Bead Breaker, 2 ¾ in head width	Ideal for tractor trailers, backhoes, motor graders, and other large equipment

Slide Sledge Tool Bags and Case



Part Number	Description	Size
273-3527	Heavy Nylon Tool Bag with Interior Pockets	38 in long
273-3528	Heavy Nylon Tool Bag with Interior Pockets	52 in long
273-3529	Hard Shell Tool Case with Custom Foam and Wheels	53 × 14 in

Shovels and Spades

Warranty: Manufacturer's

- Ergonomically engineered for balance and safety
- Latest technology fiberglass handles
- Super-duty, pultruded core with reinforcement sections adds strength
- Molded-exterior, polymer clad jacket for handling comfort

Item	Part Number	Description
1	157-2264	Shovel, Round Point with 122 cm (48 in) long handle
2	157-2276	Spade, Drain with 122 cm (48 in) long handle
3	157-2268	Shovel, Square with 122 cm (48 in) long handle
4	157-2273	Scoop, #12 Aluminum
5	157-2278	Spade, Drain with 69 cm (27 in) "D" handle
6	157-2269	Shovel, Square Point with 69 cm (27 in) "D" handle
7	157-2266	Shovel, Round Point with 69 cm (27 in) "D" handle



9U-7329 Universal Level

Warranty: Manufacturer's

- Made of high-impact ABS
- Has two easy-to-read Plexiglas vials, one a vertical angle dial adjustable from 0° to 180°
- Includes a clear plastic gift box

Part Number	Description
9U-7329	Universal Level



233-1639 Yellow Grip Pliers Set, 3 Piece

Warranty: Lifetime

- Hardened cutting edges stay sharper longer and cut with less effort
- Machined cutter heads for matched blades
- Black oxide finish
- Vinyl grip

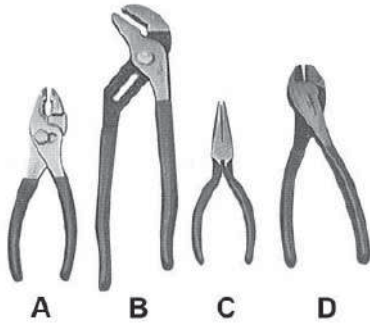


Part Number	Description	Length
6V-6192	Combination Pliers	190.5 mm (7.50 in)
6V-6193	Heavy-Duty Diagonal Cutter	185.7 mm (7.30 in)
6V-6194	Needle Nose Pliers	181.1 mm (7.13 in)

Miscellaneous Hand Tools

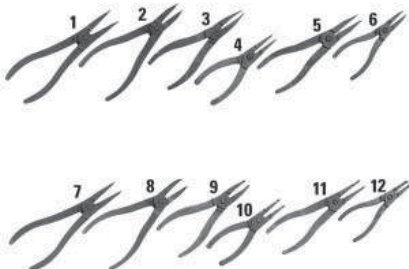
Combination and Multiple Position Pliers

Warranty: Lifetime



Type	Part Number	Description	Length	Finish	Vinyl Grip
A	6V-6192	Slip Joint Pliers	190.5 mm (7.50 in)	Black Oxide	Yes
A	213-1983	Combination Pliers	159.3 mm (6.30 in)	Chrome	Yes
A	1S-0255	Combination Pliers	163.5 mm (6.40 in)	Chrome	No
B	214-7347	Multiple Position Pliers	304.8 mm (12.00 in)	Chrome	Yes
B	6V-6195	Interlocking Joint Pliers	235.0 mm (9.30 in)	Black Oxide	Yes
B	236-1169	Multiple Position Pliers	400.0 mm (16.00 in)	Chrome	Yes
C	6V-6194	Needle Nose Pliers	181.1 mm (7.13 in)	Black Oxide	Yes
D	6V-6193	Heavy-Duty Diagonal Cutter	185.7 mm (7.30 in)	Black Oxide	Yes
--	212-3607	End Cutter Pliers	187.3 mm (7.40 in)	Black Oxide	Yes
--	214-7348	Vise Grip, Curved Jaw	250.0 mm (9.80 in)	Chrome	No
--	246-5128	Locking Pliers, Straight Jaw	127.0 mm (5.00 in)	Black	No
--	246-5129	Locking Pliers, Curved Jaw	177.8 mm (7.00 in)	Black	No
--	246-5131	Locking Pliers, Long Rounded Jaw	254.0 mm (10.00 in)	Black	No
--	246-5132	Locking Pliers, Curved Jaw w/cotter	254.0 mm (10.00 in)	Black	No
--	246-5133	Locking Pliers, Straight Jaw	254.0 mm (10.00 in)	Black	No
--	246-5134	Locking Pliers Set, 5 piece	--	--	--
--	8H-8582	Vise Grip, Straight Jaw	250.0 mm (9.80 in)	Chrome	No

Retaining Ring Pliers



Item	Part Number	No.	Tip Size	Type
Straight Tips				
1	1P-1863	No. 26	0.12 in	External
2	1P-1861	No. 25	0.09 in	Internal
3	1P-1857	No. 23	0.07 in	Internal
4	1P-1855	No. 22	0.04 in	External
5	1P-1859	No. 24	0.07 in	External
6	1P-1853	No. 21	0.04 in	Internal
Right Angle Tips				
7	1P-1864	No. 26-90	0.12 in	External
8	1P-1862	No. 25-90	0.09 in	Internal
9	1P-1858	No. 23-90	0.07 in	Internal
10	1P-1856	No. 22-90	0.04 in	External
11	1P-1860	No. 24-90	0.07 in	External
12	1P-1854	No. 21-90	0.04 in	Internal

5P-5197 External Pliers

- Use to compress or expand large retaining rings
- A double ratchet locks to hold the handles at any given point without hand pressure
- Gap between the plier tips ranges from 12.7 mm (0.50 in) fully closed to 76.0 mm (3.00 in) fully open

Item	Part Number	Description
1	5P-5197	External Pliers
2	136-1452	Internal Pliers
3 and 4	1U-6728	Tip Set
Not Shown	6V-2062	Tip Set, 90 Degrees ¹

¹ Used for 5P-5197



1U-8758 Internal Retaining Ring Pliers

- Used to remove and install the large internal retaining rings in power shift transmissions
- Double ratchet lock
- Pliers include 0.15 in (3.8 mm) diameter tips
- Service Part: 1U-8759 Replacement Tips (2 per package)

Part Number	Description	Length
1U-8758	Internal Retaining Ring Pliers	29.00 in (737.0 mm)



2P-8312 External Retaining Ring Pliers

- Used to remove and install tempered steel retaining rings used in many applications
- Right angle tips to provide the necessary clearance where the lock ring is accessible only from a perpendicular position

Part Number	Description
2P-8312	External Retaining Ring Pliers



Miscellaneous Hand Tools

226-1900 Pin Punch Set, 7 Piece

Warranty: See individual part number



- Replaces discontinued 1U-7250 Pin Punch Set, 7 Piece
- Individually heat treated for uniform hardness
- Includes pouch

Part Number	Point Size	Length
226-1901	$\frac{1}{16}$ in	102 mm (4.0 in)
226-1902	$\frac{3}{32}$ in	114 mm (4.5 in)
226-1903	$\frac{1}{8}$ in	127 mm (5.0 in)
226-1904	$\frac{5}{32}$ in	140 mm (5.5 in)
226-1905	$\frac{3}{16}$ in	140 mm (5.5 in)
226-1906	$\frac{7}{32}$ in	178 mm (7.0 in)
226-1907	$\frac{1}{4}$ in	178 mm (7.0 in)

227-3129 Drift Punch Set, 5 Piece

Warranty: See individual part number

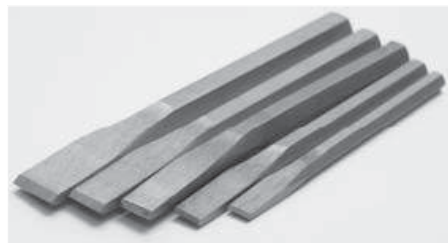


- Replaces discontinued 1U-7260 Drift Punch Set, 5 Piece
- Material: high carbon steel
- Individually heat treated for uniform hardness
- Includes pouch

Part Number	Point Size	Length
227-3130	$\frac{1}{8}$ in	229 mm (9.0 in)
227-3131	$\frac{3}{16}$ in	279 mm (11.0 in)
227-3132	$\frac{7}{32}$ in	305 mm (12.0 in)
227-3133	$\frac{1}{4}$ in	305 mm (12.0 in)
227-3134	$\frac{5}{16}$ in	305 mm (12.0 in)

227-3795 Chisel Group, 5 Piece

Warranty: See individual part number



- Individually heat-treated for uniform hardness
- Resharpened and polished after blasting for a sharper cutting edge
- Includes pouch

Part Number	Punch Size	Length
227-3796	$\frac{5}{16}$ in	114.3 mm (4.50 in)
227-3797	$\frac{3}{8}$ in	127.0 mm (5.00 in)
227-3798	$\frac{7}{16}$ in	139.7 mm (5.50 in)
227-3799	$\frac{1}{2}$ in	146.1 mm (5.75 in)
227-3800	$\frac{5}{8}$ in	152.4 mm (6.00 in)

Individual Chisels and Punch Pieces

- Hot-formed from fine alloy steel and heat treated for maximum hardness — they hold their edges and points

Item	Part Number	Punch Size	Length	Type
1	8H-8578	$\frac{3}{8}$ in	241.3 mm (9.50 in)	Punch
2	1F-1161	$\frac{3}{4}$ in	177.8 mm (7.00 in)	Cold Chisel
3	1F-1159	$\frac{3}{16}$ in	152.4 mm (6.00 in)	Center Punch
--	165-3977	4.95 mm	154 mm (6.06 in)	Radius Punch
--	1F-1160	$1\frac{1}{32}$ in	139.7 mm (5.50 in)	Cold Chisel
--	1U-7296	$\frac{3}{16}$ in	158.8 mm (6.25 in)	Center Punch
--	8H-8579	$\frac{5}{32}$ in	203.2 mm (8.00 in)	Punch
--	8T-0832	$\frac{1}{4}$ in	142.7 mm (5.63 in)	Cape Chisel



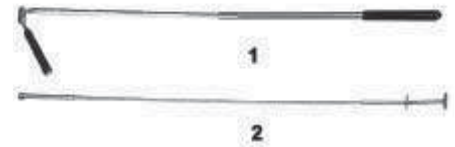
Feeler Gauges

Item	Part Number	Description
1	1U-7234	Feeler Gauge, 25 Blade, 0.0015 in-0.040 in
2	8H-8581	Feeler Gauge, 25 Blade, 0.0015 in-0.025 in



Retrieval Tools

Item	Part Number	Description
1	1U-7262	Telescoping Magnet
2	146-2728	Flexible Pickup Tool



Inspection Mirror

- The mirror extends to 15 $\frac{1}{4}$ " long
- The mirror swivels 360 degrees
- Replacement mirror available

Part Number	Description	Replacement Mirror
271-4718	Inspection Mirror	271-4719

Miscellaneous Hand Tools

Putty Knife/Scraper



Part Number	Description	Size
8H-8580	Straight Blade Scraper	38.1 mm (1.50 in) wide

5P-1720 Seal Pick



- Used to remove and install all types of oil seals
- One end of pick is pointed for prying out flexible seals
- Blunt, hook end is used to align seals for installation and to eliminate the twist that occurs when installing O-ring or quad-ring seals
- Both ends of the pick are hardened and provide much greater strength than would normally be expected from a tool this size

Part Number	Description
5P-1720	Seal Pick

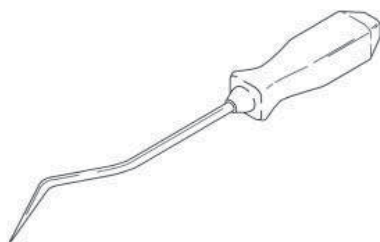
5P-7414 Seal Pick Kit



Part Number	Description
5P-7414	Seal Pick Kit

195-4609 Seal Pick

Model: All Hydraulic Cylinders



- Used to remove cylinder rod seals
- Large size allows faster and easier removal of seals from large hydraulic cylinders
- Heavy-duty design

Part Number	Description	Length
195-4609	Seal Pick	248.0 mm (9.80 in)

Utility Knife and Blades

- “Slick lock” push-button knife that includes 2 blades stored in the handle

Part Number	Description	Length	Thickness	Qty.
4C-4870	Utility Knife	152.4 mm (6 in)	--	1
4C-4871	Utility Knife Blades	--	0.635 mm (0.025 in)	100 blades per box



Scratch Brushes

- Hand scratch brushes are excellent for removing rust, scale, old paint, chips and dirt, and for cleaning castings and metal parts
- Provide long, effective service at extremely low cost

Part Number	Description	Size
1U-9915	Curved Handle Brush	0.014 in (3 × 19 Row)
1U-9916	Curved Handle Brush	0.012 in (4 × 19 Row)
1U-9917	Shoe Handle Brush	0.014 in (4 × 16 Row)
1U-9918	Inspection Stainless Brush	0.006 in (3 × 7 Row)



160-0774 Corner Cleaner Wire Brush

- Quickly removes flaking paint, rust, and scale
- Handy small size with pointed end works well in hard to reach areas
- Full size handle with finger grips and thumb rest provides added control and comfort
- Made of tough polypropylene

Part Number	Description	Overall Length
160-0774	Corner Cleaner Wire Brush	254.0 mm (10.00 in)



Miscellaneous Hand Tools

160-0772 Longneck Wire Brush



- Excellent for removing rust, scale, old paint, chips, or dirt
- Unique wrap-around handle protects your fingers
- Full size handle and molded finger grips add control and reduce fatigue
- Over 80 yards of wire for maximum performance
- Made of tough polypropylene
- Heavy-duty steel scraper has a baked-on, rust resistant finish
- Scraper is permanently secured to brush

Part Number	Description	Width	Overall Length
160-0772	Longneck Wire Brush	76.2 mm (3.00 in)	330.2 mm (13.00 in)

160-0775 Industrial Wire Scrubber



- Quickly removes flaking paint, rust, and scale
- Dual grip design reduces fatigue — grasp either the handle or specially molded block
- Made of tough polypropylene

Part Number	Description	Overall Length
160-0775	Industrial Wire Scrubber	177.8 mm (7.00 in)

Parts Cleaning Brushes



Item	Part Number	Description	Wire Size	Wire Row
1	1U-9920	11 in O.A.L.	Size #10	Black Polypropylene
2	1U-9919	11 in O.A.L.	Size #10	Tampico
3	1U-9922	11 in O.A.L.	Size #10	Unitized
4	2B-4317	10 3/4 in O.A.L.	Paint Style 1 1/2 in	Black Nylon

Paint Brushes

- Use with interior or exterior paints, stains, varnishes, and urethanes
- Quantity: one box of 12 brushes

Part Number	Width × Length	Material
262-9749	25 mm × 178 mm (1 in × 7 in)	Nylon Brush, Metal Ferrule, Plastic Handle
262-9750	51 mm × 203 mm (2 in × 8 in)	Nylon Brush, Metal Ferrule, Plastic Handle
262-9752	76 mm × 203 mm (3 in × 8 in)	Hog Bristle Brush, Metal Ferrule, Wood Handle



Acid Brushes

- Genuine horsehair bristles, crimped with flat tin handle
- Chemical resistant handle

Part Number	Description	Size
1U-9977	Acid Brush	$\frac{3}{8}$ in
1U-9978	Acid Brush	$\frac{1}{2}$ in
1U-9979	Acid Brush	$\frac{5}{16}$ in



Heavy-Duty Pipe Wrenches

- High-tensile ductile iron handle and hardened tool-steel parts
- Designed to withstand heavy demands

Part Number	Pipe Capacity	Length	Weight
4C-6962	10.0 mm - 48.0 mm (0.13 in - 1.50 in)	254.0 mm (10.00 in)	5.4 kg (12 lb)
4C-6963	10.0 mm - 60.0 mm (0.13 in - 2.00 in)	305.0 mm (12.00 in)	8.1 kg (18 lb)
4C-6964	14.0 mm - 63.0 mm (0.25 in - 2.00 in)	356.0 mm (14.00 in)	9.5 kg (21 lb)
4C-6965	14.0 mm - 75.0 mm (0.25 in - 2.50 in)	457.0 mm (18.00 in)	15.0 kg (33 lb)
4C-6972	14.0 mm - 90.0 mm (0.25 in - 3.00 in)	610.0 mm (24.00 in)	27.2 kg (60 lb)



Aluminum Pipe Wrenches

- 10 inch through 24 inch
- 35% lighter than cast iron wrenches
- Heat treated titanium — aluminum alloy handle
- Forged hook jaw
- Heat-treated alloy steel parts interchangeable with iron wrenches



(Continued)

Miscellaneous Hand Tools

Aluminum Pipe Wrenches (Continued)

Item	Part Number	Description	Pipe Capacity	Length
1	4C-6974	Aluminum Wrench	14.0 mm - 63.0 mm (0.25 in - 2.00 in)	356.0 mm (14.00 in)
2	4C-6975	Aluminum Wrench	14.0 mm - 75.0 mm (0.25 in - 2.50 in)	457.0 mm (18.00 in)
3	4C-6976	Aluminum Wrench	14.0 mm - 90.0 mm (1.25 in - 3.00 in)	610.0 mm (24.00 in)
Not shown	4C-6973	Aluminum Wrench	10.0 mm - 48.0 mm (0.13 in - 1.50 in)	254.0 mm (10.00 in)

Spark Plug Sockets

Model: G3516B (50 Hz), G3516B (60 Hz), G3520B (50 Hz), and G3500C

SMCS Code: 1555-010



- Thin wall design eliminates possible socket interference

Part Number	Description	Size	Length	Application
216-1685	Spark Plug Socket	½ in drive, ⅞ in, 6 point hex	103 mm overall length	--
4C-4601	Spark Plug Socket	⅞ inch hex, ½ inch square drive, 6 point	103.1 mm (4.06 in) long	Special thin wall for use on G3500 and G3600 Engines

8F-9866 Lever Grease Gun, Model Pro "L"

190-5622 Pistol Grip Grease Gun



- Heavy-duty construction
- Cast iron head equipped with a check valve and an air-bleed valve
- Spring primed
- Two way loading
- Uses standard Cat Grease cartridges (14.5 oz)
- Lever gun will operate with partial lever strokes for use in close quarters
- Zinc plated
- Cat branded

8F-9866

- Maximum operating pressure of assembly: 68 948 kPa (10,000 psi)

190-5622

- Maximum operating pressure of assembly: 31 026 kPa (4,500 psi)

Reference

NEHS0793 Tool Operating Manual

Item	Part Number	Description
--	190-5622	Pistol Grip Grease Gun
--	8F-9866	Grease Gun
8F-9866 Consists of:		
1	190-1668	Coupler
2	190-1669	Hose Assembly, 12 in long (optional)
3	190-5623	Hose Assembly, 18 in long
190-5622 Consists of:		
1	190-1668	Coupler
3	190-5623	Hose Assembly, 18 in long
2	190-1669	Hose Assembly, 12 in long (optional)

Item	Part Number	Description
Service Parts for Noncurrent 8F-9866 (This model is not marked Pro "L" and uses the 2M-2689 or 190-1670 Coupler with a check valve)		
--	190-1670	Coupler (valve with steel insert)
--	2M-2689	Coupler (valve with rubber insert)
--	9F-2637	Nipple (part of 9F-2636)
--	9F-2638	Hose Assembly (part of 9F-2636)
--	9F-2636	Nozzle Assembly

Automatic Power Tapes

5P-3277, 1U-9366, 1U-9367, and 1U-9368

- 2-color
- Handsome, chrome-finished case
- Removable belt clip

232-5041

- Ergonomically designed
- Magnetic tip holds tape in place and makes long distance measuring much easier
- Yellow and black plastic



Part Number	Blade Width	Blade Length	English Graduations	Metric Graduations	Locking Feature
5P-3277	12.7 mm (½ in)	3 m (10 ft)	1 in, ⅛ in	1.0 cm, 1.0 mm	Yes
1U-9366	19.05 mm (¾ in)	5 m (16 ft)	1 in, ⅛ in	1.0 cm, 1.0 mm	Yes
1U-9367	25.4 mm (1 in)	8 m (26 ft)	1 in, ⅛ in	1.0 cm, 1.0 mm	Yes
1U-9368	25.4 mm (1 in)	9 m (30 ft)	1 ft, 1 in, ⅛ in	--	Yes
232-5041	25.4 mm (1 in)	8 m (26 ft)	1 ft, 1 in, ⅛ in	1.0 cm, 1.0 mm	Yes

Tape Measures

Warranty: Manufacturer's

9U-7326 Tape Measure, ¼ inch × 6 ft

- Black ABS-encased steel tape
- Slim and contemporary — fits easily in your pocket
- Has auto stop and return
- Readings in mm and inches

9U-7327 Tape Measure, ½ inch × 10 ft

- Can read dimensions directly on the tape by looking in a see-through window
- Great for inside measurements such as window dimensions
- Readings in mm and inches

Part Number	Description	Size
9U-7327	Tape Measure	½ in × 10 ft
9U-7326	Tape Measure	¼ in × 6 ft



Full-Torque® Thread Repair Kits

- Unique threaded insert design repairs damaged threaded holes in cast and ductile iron, steel, and aluminum
- Spiralhook™ threads engage tapped hole and draw surrounding metal into threads, as bolt or stud is torqued, resulting in a stronger repair
- Thread Repair Solid Plug inserts allow off-center and custom-size thread repairs
- Viable alternative to welding cast and ductile iron, steel, and aluminum
- In many cases parts can be repaired without disassembly
- Six kits with individual written installation instructions for a wide range of repair solutions



Part Number	Description	Qty.
263-7140 — Thread Repair Kit: 1-8 Thread Insert Kit for ductile iron in Off-Highway Truck and Wheel Loader wheels; can also be used on steel fabricated and cast wheels		
263-7170	Installation Tool	1
263-7173	Thread Insert, 1-8	5
263-7160	Drill Bit, 1 5/16 inch	1
263-7161	Rough Tap	1
263-7162	Finish Tap	1
263-7145 — M20 Thread Insert Kit for repair of 3116 block head bolt holes		
263-7174	Thread Insert, M20	5
263-7180	Drill Bit, 5/8 inch	1
263-7181	Rough Tap	1
263-7182	Finish Tap	1
263-7183	Installation Tool	1
263-7141 — M24 Thread insert Kit for ductile iron in Off-Highway Truck and Wheel Loader wheels; can also be used on steel fabricated and cast wheels		
263-7160	Drill Bit, 1 5/16 inch	1
263-7161	Rough Tap	1
263-7162	Finish Tap	1
263-7167	Installation Tool	1
263-7168	Thread Insert, M24	5
263-7142 — M30 Thread Insert Kit for ductile iron housing on 797 Off-Highway Truck wheels		
263-7157	Rough Tap	1
263-7158	Finish Tap	1
263-7165	Installation Tool	1
263-7178	Drill Bit, 1 5/8 inch	1
263-7179	Drill Fixture	1
263-7173	Thread Insert, M30	5
263-7144 — M36 Thread Insert Kit for ductile iron housing on 797 Off-Highway Truck wheels; also used for repairing 797 front axle steering bracket mounting holes		
263-7155	Rough Tap	1
263-7156	Finish Tap	1
263-7163	Installation Tool	1

(Continued)

Full-Torque® Thread Repair Kits (Continued)

Part Number	Description	Qty.
263-7144 — M36 Thread Insert Kit for ductile iron housing on 797 Off-Highway Truck wheels; also used for repairing 797 front axle steering bracket mounting holes (Continued)		
263-7164	Thread Insert, M36	5
263-7172	Drill Bit, 1 41/64 inch	1
263-7179	Drill Fixture	1
263-7146 — Thread Repair Solid Plug Insert Kit for drilling and tapping off-center and custom-size threaded holes ¹ ; used for repairing 797 differential retaining bolt holes in thrust washer halves		
263-7175	Solid Plug Insert	5
263-7177	Spotfacer	1
263-7255	Rough Tap	1
263-7256	Finish Tap	1
263-7258	Tapping Fluid	1
263-7259	Thread Sealant	1
263-7260	Drill Bit, 21/32 inch	1

¹Maximum I.D. thread size of original threaded hole is 1/2 inch

263-7147 Lock-N-Stitch® Crack Repair Kit

- Unique threaded stitching pins and locks repair cracks in cast and ductile iron, steel, or aluminum castings
- L-Series Stitching Pins use an interference fit to seal pressure tight and can be installed at steep angles
- C-Series Stitching Pins feature Spiralhook™ threads to produce drawing pressure that pulls sides of the crack together for strength
- Locks installed across a crack; drill jigs create precise hole patterns across cracks in castings; locks driven into hole patterns creating additional strength
- Cold process — viable alternative to welding
- In many cases parts can be repaired without disassembly
- Extensive kit features specialized tools, complete instructions including six DVDs covering all aspects of crack repair, and storage case
- Provides a wide range of repair solutions



(Continued)

263-7147 Lock-N-Stitch® Crack Repair Kit (Continued)

Part Number	Description	Qty.
Tools		
263-7184	Magcheck™ Kit	1
263-7190	Pneumatic Tapping Tool	1
263-7253	Large Collet for 263-7190	1
263-7254	Quick Change Tap Adapter	1
263-7249	Trim-Kut® 3 inch Discs (includes ¼ inch mandrel)	10
“L” Series Stitching Pins, 6.3 mm (0.248 in) Thread Diameter		
263-7193	Stitch Pin, 6.3 mm (0.250 in) length	100
263-7194	Stitch Pin, 9.5 mm (0.375 in) length	100
263-7195	Stitch Pin, 15.9 mm (0.625 in) length	100
263-7196	Stitch Pin, 25.4 mm (1.00 in) length	100
263-7197	Drill Bit, wire size 7	2
263-7198	Starting Tap	1
263-7199	Bottom Tap	1
263-7200	Piloted Tap	1
263-7201	Drilling Jig	1
“L” Series Stitching Pins, 8.3 mm (0.326 in) Thread Diameter		
263-7202	Stitch Pin, 6.3 mm (0.250 in) length	100
263-7203	Stitch Pin, 12.7 mm (0.500 in) length	100
263-7204	Stitch Pin, 25.4 mm (1.00 in) length	100
263-7208	Drill Bit, letter size L	2
263-7205	Starting Tap	1
263-7206	Bottom Tap	1
263-7207	Piloted Tap	1
263-7250	Drilling Jig	1
“C” Series Stitching Pins, 6.0 mm (0.233 in) Thread Diameter		
263-7209	Stitch Pin, 6.3 mm (0.250 in) length	100
263-7210	Stitch Pin, 9.5 mm (0.375 in) length	100
263-7211	Stitch Pin, 12.7 mm (0.500 in) length	100
263-7212	Stitch Pin, 19 mm (0.750 in) length	100
263-7213	Stitch Pin, 28.6 mm (1.125 in) length	100
263-7197	Drill Bit, wire size 7	2
263-7201	Drilling Jig	1
263-7215	Finishing Tap, fine	1
263-7216	Bottom Tap, fine	1
263-7217	Spotfacer	1
263-7218	Drill Stop	1
“C” Series Stitching Pins, 9.5 mm (0.375 in) Thread Diameter		
263-7219	Stitch Pin, 15.9 mm (0.625 in) length	25
263-7220	Stitch Pin, 22.2 mm (0.875 in) length	25
263-7221	Stitch Pin, 34.9 mm (1.375 in) length	25
263-7222	Stitch Pin, 50.8 mm (2.00 in) length	25
263-7226	Drill Bit, letter size O	2
263-7223	Rough Tap	1
263-7224	Bottom Tap	1
263-7225	Bottom Tap	1
263-7251	Drilling Jig	1
263-7228	Drill Stop	1
263-7227	Spotfacer	1
Lock, 20 mm (0.793 in) Long		
263-7230	Lock, 3.2 mm (0.125 in) thick	10
263-7232	Drill Bit, wire size 15	3
263-7233	Drill Stop	1
263-7234	Drilling Jig	1

(Continued)

263-7147 Lock-N-Stitch® Crack Repair Kit (Continued)

Part Number	Description	Qty.
Lock, 36 mm (1.409 in) Long		
263-7235	Bottom Lock, 2 mm (0.080 in) thick	10
263-7236	Surface Lock, 4 mm (0.160 in) thick	10
263-7238	Drill Bit Set, $\frac{1}{8}$ and $\frac{3}{16}$ inch	3 each
263-7240	Drill Stop, $\frac{1}{8}$ inch	1
263-7241	Drill Stop, $\frac{3}{16}$ inch	1
263-7239	Drilling Jig	1
Lock, 48 mm (1.877 in) Long		
263-7242	Bottom Lock, 5 mm (0.190 in) thick	10
263-7243	Surface Lock, 9.5 mm (0.375 in) thick	5
263-7244	Drill Bit Set, $\frac{1}{8}$ and $\frac{1}{4}$ inch	3 each
263-7240	Drill Stop, $\frac{1}{8}$ inch	1
263-7246	Drill Stop, $\frac{1}{4}$ inch	1
263-7245	Drilling Jig	1

Tool Boxes

Tool Storage Units — Roller and Side Cabinets

Warranty: Manufacturer's



- Uniweld modular design increases the durability of cabinets
- Full suspension ball bearing drawers
- 400-pound capacity drawers
- Drawer interior customization (partitions and dividers provided)
- Drawer inserts provided
- 30- and 45-inch roller cabinets have 6-inch, heavy duty, 900-pound-capacity casters
- 60-inch roller cabinet has spring loaded 6-inch, heavy duty, 1,200-pound-capacity casters
- Mobile handle with black end caps (handle matches cabinet color)
- For the 45- and 60-inch cabinets, drawer bank widths are 20 and 27 inches
- Black is standard color and is available for immediate shipping. Yellow, Red, and Blue are optional colors and require 3-4 weeks lead time.
- Sturdy locking mechanism included with roller cabinets
- Accessories: hardwood tops, stainless steel tops, side cabinets

Shop Supplies and Hand Tools

Part Number	Description	Drawer Qty.	Color	Width	Depth	Height	Weight	Load Capacity	Cubic cm (in)
30 inch, Roller Cabinets:									
292-2359	30 inch Roller Cabinet	7	Black	76.2 cm (30 in)	70.49 cm (27.75 in)	83.82 cm (33 in)	161 kg (355 lb)	1632.93 kg (3,600 lb)	410 594 cm (25,056 in)
292-2363	30 inch Roller Cabinet	7	Red	76.2 cm (30 in)	70.49 cm (27.75 in)	83.82 cm (33 in)	161 kg (355 lb)	1632.93 kg (3,600 lb)	410 594 cm (25,056 in)
292-2364	30 inch Roller Cabinet	7	Blue	76.2 cm (30 in)	70.49 cm (27.75 in)	83.82 cm (33 in)	161 kg (355 lb)	1632.93 kg (3,600 lb)	410 594 cm (25,056 in)
--	Drawer, (2.25 in) full width	5	--	66.04 cm (26 in)	70.49 cm (27.75 in)	5.72 cm (2.25 in)	--	--	--
--	Drawer, (3 in) full width	1	--	66.04 cm (26 in)	70.49 cm (27.75 in)	7.62 cm (3 in)	--	--	--
--	Drawer, (7 in) full width	1	--	66.04 cm (26 in)	70.49 cm (27.75 in)	17.78 cm (7 in)	--	--	--
45 inch, Roller Cabinets:									
292-2365	45 inch Roller Cabinet	14	Black	114.3 cm (45 in)	70.49 cm (27.75 in)	109.22 cm (43 in)	327 kg (720 lb)	1632.93 kg (3,600 lb)	716 131 cm (43,701 in)
292-2366	45 inch Roller Cabinet	14	Red	114.3 cm (45 in)	70.49 cm (27.75 in)	109.22 cm (43 in)	327 kg (720 lb)	1632.93 kg (3,600 lb)	716 131 cm (43,701 in)
292-2367	45 inch Roller Cabinet	14	Blue	114.3 cm (45 in)	70.49 cm (27.75 in)	109.22 cm (43 in)	327 kg (720 lb)	1632.93 kg (3,600 lb)	716 131 cm (43,701 in)
312-6485	45 inch Roller Cabinet	14	Yellow	114.3 cm (45 in)	70.49 cm (27.75 in)	109.22 cm (43 in)	327 kg (720 lb)	1632.93 kg (3,600 lb)	716 131 cm (43,701 in)
--	Drawer, (3 in) full width	1	--	114.3 cm (40.5 in)	63.5 cm (25 in)	7.62 cm (3 in)	--	--	--
--	Drawer, (2.25 in)	8	--	45.72 cm (18 in)	63.5 cm (25 in)	5.08 cm (2 in)	--	--	--
--	Drawer, (3 in)	4	--	45.72 cm (18 in)	63.5 cm (25 in)	7.62 cm (3 in)	--	--	--
--	Drawer, (6 in)	1	--	45.72 cm (18 in)	63.5 cm (25 in)	15.24 cm (6 in)	--	--	--

(Continued)

Tool Storage Units — Roller and Side Cabinets (Continued)

Warranty: Manufacturer's

Part Number	Description	Drawer Qty.	Color	Width	Depth	Height	Weight	Load Capacity	Cubic cm (in)
60 inch, Roller Cabinets:									
292-2368	60 inch Roller Cabinet	13	Black	152.4 cm (60 in)	70.49 cm (27.75 in)	109.2 cm (43 in)	372 kg (820 lb)	2177.24 kg (4,800 lb)	954 284 cm (58,234 in)
292-2369	60 inch Roller Cabinet	13	Red	152.4 cm (60 in)	70.49 cm (27.75 in)	109.2 cm (43 in)	372 kg (820 lb)	2177.24 kg (4,800 lb)	954 284 cm (58,234 in)
292-2370	60 inch Roller Cabinet	13	Blue	152.4 cm (60 in)	70.49 cm (27.75 in)	109.2 cm (43 in)	372 kg (820 lb)	2177.24 kg (4,800 lb)	954 284 cm (58,234 in)
312-6486	60 inch Roller Cabinet	13	Yellow	152.4 cm (60 in)	70.49 cm (27.75 in)	109.2 cm (43 in)	372 kg (820 lb)	2177.24 kg (4,800 lb)	954 284 cm (58,234 in)
--	Drawer, (3 in) full width	1	--	140.97 cm (55.5 in)	63.5 cm (25 in)	7.62 cm (3 in)	--	--	--
--	Drawer, (2.25 in)	7	--	63.5 cm (25 in)	63.5 cm (25 in)	5.72 cm (2.25 in)	--	--	--
--	Drawer, (3 in)	3	--	63.5 cm (25 in)	63.5 cm (25 in)	7.62 cm (3 in)	--	--	--
--	Drawer, (3.5 in)	1	--	63.5 cm (25 in)	63.5 cm (25 in)	8.89 cm (3.5 in)	--	--	--
--	Drawer, (6.25 in)	1	--	63.5 cm (25 in)	63.5 cm (25 in)	15.88 cm (6.25 in)	--	--	--
Side Cabinets for 292-2365, 292-2366, and 292-2367									
292-2371	Side Cabinet	--	Black	70.49 cm (27.75 in)	30.48 cm (12.00 in)	71.22 cm (28.04 in)	13.61 kg (30 lb)	45.36 kg (100 lb)	153 448 cm (9,364 in)
292-2372	Side Cabinet	--	Red	70.49 cm (27.75 in)	30.48 cm (12.00 in)	71.22 cm (28.04 in)	13.61 kg (30 lb)	45.35 kg (100 lb)	153 448 cm (9,364 in)
292-2373	Side Cabinet	--	Blue	70.49 cm (27.75 in)	30.48 cm (12.00 in)	71.22 cm (28.04 in)	13.61 kg (30 lb)	45.35 kg (100 lb)	153 448 cm (9,364 in)
312-6487	Side Cabinet	--	Yellow	70.49 cm (27.75 in)	30.48 cm (12.00 in)	71.22 cm (28.04 in)	13.61 kg (30 lb)	45.35 kg (100 lb)	153 448 cm (9,364 in)
Roller Cabinet Accessories:									
292-2380	Hardwood Top for the 45 in Cabinets	--	--	114.3 cm (45 in)	71.2 cm (28 in)	3.3 cm (1.3 in)	--	--	
292-2381	Stainless Steel Top for the 45 in Cabinets	--	--	114.3 cm (45 in)	71.2 cm (28 in)	3.81 cm (1.5 in)	--	--	
292-2422	Hardwood Top for the 60 in Cabinets	--	--	152.4 cm (60 in)	71.2 cm (28 in)	3.3 cm (1.3 in)	--	--	
292-2423	Stainless Steel Top for the 60 in Cabinets	--	--	152.4 cm (60 in)	71.2 cm (28 in)	3.81 cm (1.5 in)	--	--	

Tool Boxes

Tool Storage Units — Chests and Roller Cabinets

Warranty: One Year



313-1491 26" Combo

- 40 inch and 26 inch top chests have a top compartment — gas spring in 40 inch top chest and slide lock on 26 inch top chest allow top compartment to open easily
- Double-wall steel construction provides strength and durability to support loaded drawers so they stay level
- Full length stiffener under the cover is welded to sides of the cover to provide the strongest top cover available and to minimize racking
- Extra deep drawer pulls give more finger room (almost 1 inch) to comfortably pull the drawer
- Rolled edges on drawers add strength, rigidity, and safety
- Ball-bearing slides provide extra weight support with smooth, one-hand operation
- Ergonomic handle design provides comfortable gripping and ease of maneuvering
- Gussets on corners improve cabinet strength so the cabinet stays square
- Drawer liners included
- Caster plates and weldnuts keep casters tight for smooth rolling — caster screws pass through double thick steel plates and pre-threaded weldnuts

Part Number	Description	Drawer Qty.	Width	Depth	Height	Cubic cm (in)	Weight	Load Capacity
30 inch								
313-1490	26 inch Roller Cabinet, 7 Drawers	--	678.7 mm (26.7 in)	503.2 mm (19.8 in)	950.9 mm (37 in)	150 880 cm (9,200 in)	83 cm (183 lb)	508 kg (1,120 lb)
--	Drawer, 5.08 cm (2 in) full width	4	543.6 mm (21.4 in)	445.3 mm (17.5 in)	35.7 mm (1.4 in)	22 222 cm (1,355 in)	--	--
--	Drawer, 10.16 cm (4 in) full width	3	543.6 mm (21.4 in)	445.3 mm (17.5 in)	91.3 mm (3.6 in)	75 013.6 cm (4,574 in)	--	--
--	Drawer, 15.24 cm (6 in) full width	1	543.6 mm (21.4 in)	445.3 mm (17.5 in)	194.5 mm (8.7 in)	38 900.8 cm (2,372 in)	--	--
313-1489	26 inch Top Chest, 4 Drawers	--	678.7 mm (26.7 in)	503.2 mm (19.8 in)	492.9 mm (19.4 in)	101 352 cm (6,180 in)	54 cm (119 lb)	--
--	Drawer, 5.08 cm (2 in) full width	2	542.9 mm (21.4 in)	445.3 mm (17.5 in)	35.7 mm (1.4 in)	22 222 cm (1,355 in)	--	--
--	Drawer, 10.16 cm (4 in) full width	2	542.9 mm (21.4 in)	445.3 mm (17.5 in)	91.3 mm (3.6 in)	50 003.6 cm (3,049 in)	--	--
--	Top Compartment	--	675.5 mm (26.6 in)	475.5 mm (18.7 in)	492.9 mm (19.4 in)	42 377.6 cm (2,584 in)	--	--
313-1491	26 inch Combo (Roller Cabinet and Top Chest) ¹	--	--	--	--	--	--	--
40 inch								
313-1493	40 inch Roller Cabinet, 7 Drawers	--	101.6 cm (40 in)	50.29 cm (19.8 in)	102.62 cm (40.4 in)	270 878.8 cm (16,517 in)	127.12 kg (280 lb)	508.48 kg (1,120 lb)
313-1492	40 inch Top Chest	--	101.6 cm (40 in)	50.29 cm (19.8 in)	49.28 cm (19.4 in)	161 080.8 cm (9,822 in)	83.54 kg (184 lb)	--
313-1494	40 inch Combo (Roller Cabinet and Top Chest) ¹	--	--	--	--	--	--	--
--	Drawer, 5.08 cm (2 in) full width	2	88.14 cm (34.7 in)	44.45 cm (17.5 in)	4.06 cm (1.6 in)	31 865.2 cm (1,943 in)	--	--
--	Drawer, 10.16 cm (4 in) full width	3	88.14 cm (34.7 in)	44.45 cm (17.5 in)	9.14 cm (3.6 in)	107 551.2 cm (6,558 in)	--	--
--	Drawer, 15.24 cm (6 in) full width	1	88.14 cm (34.7 in)	44.45 cm (17.5 in)	14.22 cm (5.6 in)	55 776.4 cm (3,401 in)	--	--
--	Drawer, 20.32 cm (8 in) full width	1	88.14 cm (34.7 in)	44.45 cm (17.5 in)	19.30 cm (7.6 in)	75 686 cm (4,615 in)	--	--

(Continued)

Tool Storage Units — Chests and Roller Cabinets (Continued)

Warranty: One Year

Part Number	Description	Drawer Qty.	Width	Depth	Height	Cubic cm (in)	Weight	Load Capacity
40 inch (Continued)								
--	Drawer, 5.08 cm (2 in) full width	2	88.14 cm (34.7 in)	44.45 cm (17.5 in)	4.06 cm (1.6 in)	31 865.2 cm (1,943 in)	--	--
--	Drawer, 10.16 cm (4 in) full width	2	88.14 cm (34.7 in)	44.45 cm (17.5 in)	9.14 cm (3.6 in)	71 700.8 cm (4,372 in)	--	--
--	Top Compartment	--	101.35 cm (39.9 in)	47.50 cm (18.7 in)	11.94 cm (4.7 in)	57 514.8 cm (3,507 in)	--	--
Accessories: Covers — black with CAT logo printed in yellow and white on the front of the cover								
223-3835	Laminated Press Board Top for the 76.2 cm (30 in) Roller Cabinet	--	76.2 cm (30 in)	50.80 cm (20.00 in)	0.97 cm (0.38 in)	--	--	--
223-3836	Laminated Press Board Top for the 101.6 cm (40 in) Roller Cabinet	--	101.6 cm (40 in)	50.80 cm (20.00 in)	0.97 cm (0.38 in)	--	--	--
223-3837	Butcher Block Top for the 134.62 cm (53 in) Roller Cabinet	--	134.77 cm (53.06 in)	49.38 cm (19.44 in)	4.45 cm (1.75 in)	--	--	--
223-3832	Cover for the 76.2 cm (30 in) Combo Top Chest and Roller Cabinet	--	--	--	--	--	--	--
223-3833	Cover for the 101.6 cm (40 in) Combo Top Chest and Roller Cabinet	--	--	--	--	--	--	--
223-3834	Cover for the 134.62 cm (53 in) Combo Top Chest and Roller Cabinet	--	--	--	--	--	--	--
Accessories: Organizing Foam								
246-7948	Organizing Foam for 214-6146 30 inch Combo for 222-7876 Student Tool Set	--	--	--	--	--	--	--
246-7950	Organizing Foam for 214-6149 40 inch Combo for 222-7876 Student Tool Set	--	--	--	--	--	--	--

¹ Combo part numbers available for sale only in North and South America

Tool Boxes

9U-6219 Tool Box



- Black, steel construction
- Tote tray included

Part Number	Description	Length	Width	Height	Material
9U-6219	Tool Box	508 mm (20 in)	219.08 mm (8.63 in)	219.08 mm (8.63 in)	Steel

202-8643 Plastic Tool Box



- Plastic, water-tight container (will not rust or scratch like metal boxes)
- Tool box decal: NEEG2916

Part Number	Description	Dimension	Tool Box Capacity	Color
202-8643	Plastic Tool Box	514.4 × 212.7 × 225.4 mm (20.25 × 8.37 × 8.87 in)	9 kg (20 lb)	Gray

325-1133 Chest



- 6 drawer, drop front tool chest
- Weight: 26 kg (57 lb)
- Color: Red

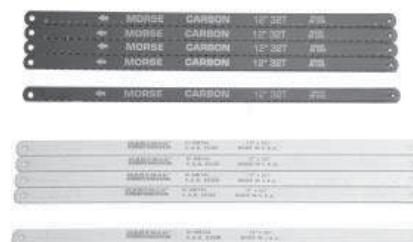
Part Number	Description	Drawers	Width	Depth	Height
--	Chest	Overall	66.0 cm (26 in)	30.5 cm (12 in)	36.8 cm (14.5 in)
--	Drawer	3	17.8 cm (7 in)	26.7 cm (10.5 in)	5.1 cm (2 in)
--	Drawer	2	58.4 cm (23 in)	26.7 cm (10.5 in)	5.1 cm (2 in)
--	Drawer	1	58.4 cm (23 in)	26.7 cm (10.5 in)	6.4 cm (2.5 in)
--	Drawer		52.7 cm (20.75 in)	21 cm (8.25 in)	5.1 cm (2 in)

BIM and HCS Saw Blades

Part Number	Length	Teeth	Package Quantity	Teeth Specs
1U-9234	305.0 mm (12 in)	457.0 mm (18 in)	5	Raker BIM ¹
1U-9236	305.0 mm (12 in)	610.0 mm (24 in)	10	Wavy BIM
1U-9238	305.0 mm (12 in)	813.0 mm (32 in)	5	Wavy BIM
1U-9240	305.0 mm (12 in)	457.0 mm (18 in)	5	Raker HCS ²
1U-9242	305.0 mm (12 in)	610.0 mm (24 in)	5	Wavy HCS
1U-9244	305.0 mm (12 in)	813.0 mm (32 in)	5	Wavy HCS

¹BIM – All purpose blade, highly flexible, for the most difficult materials.

²HCS – High carbon steel blade, for non-hard materials.



Bi-Metal All-Purpose Tiger Saw Blades

Part Number	Length	Teeth/Inch	Package Quantity	Recommended Use
4C-9942	152 mm (6 in), flexible	18	5	Heavy gauge (non-ferrous metals) — bar and angle stock-stainless-galvanized pipe-tubing (over 18 ga.)
4C-9943	152 mm (6 in), flexible	14	5	Heavy gauge (non-ferrous metals) — bar and angle stock-cast aluminum-copper-brass-galvanized
4C-9944	229 mm (9 in)	5/7	5	General roughing-in wood
4C-9945	305 mm (12 in)	6	5	General roughing-in wood



Torque Wrenches

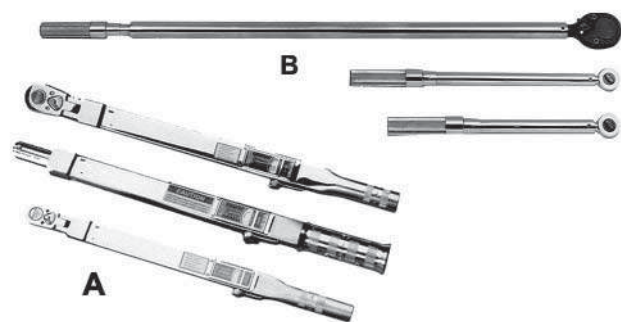
Click Type Torque Wrenches

Style A

- Work only in the right-hand or clockwise direction, and are guaranteed to be accurate within 4% of setting of the top 80% of the scale
- Easily adjusted by a small calibrated dial along the wrench arm
- Eliminates the need to reduce the torque setting to the low end of the scale for storage in order to retain accuracy
- The 162-8718 Torque Wrench can be disassembled into three components for storage in a tool box

Style B

- Work in both right and left-hand (clockwise and counter-clockwise) directions
- Micrometer handle style adjustment
- These wrenches are labeled in both ft-lb and N-m

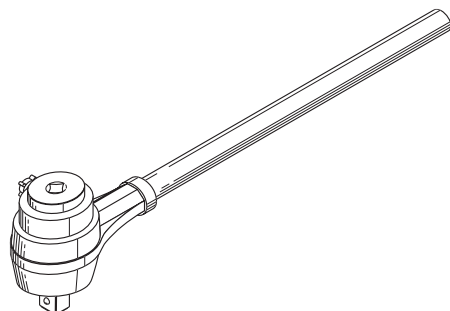


Style	Part Number	Minimum Torque Range	Max. Torque Range	Drive	Accuracy	Head Type	Increments	Head Length	Head Width	Head Depth	Case Included	Kit Part Number	Kit Part Number
A	8T-9293	40 ft-lb	252 ft-lb	½ in	±6%	Flex-Ratchet	5 ft-lb	561.97 mm (22 ½ in)	41.27 mm (1 ½ in)	19.05 mm (¾ in)	Yes	5P-7429 ¹	260-3765 ²
A	162-8718	200 ft-lb	600 ft-lb	¾ in	±6%	Detach-Ratchet	10 ft-lb	1219.2 mm (48 in)	60.32 mm (2 ¾ in)	31.75 mm (1 ¼ in)	--	160-6390 ¹	260-3766 ²
A	4C-5492	20 ft-lb	100 ft-lb	¾ in	±6%	Flex-Ratchet	2 ft-lb	447.67 mm (17 ¾ in)	28.57 mm (1 ⅛ in)	14.28 mm (⅝ in)	Yes	4C-5819 ¹	260-3764 ²
B	9U-5019	6.8 N-m (5 ft-lb)	101.8 N-m (75 ft-lb)	¾ in	±6%	Fixed Ratchet	0.7 N-m (0.5 ft-lb)	393.7 mm (15 ½ in)	--	--	Yes	--	--
B	9U-5020	13.6 N-m (10 ft-lb)	135.7 N-m (100 ft-lb)	¾ in	±6%	Fixed Ratchet	0.7 N-m (0.5 ft-lb)	393.7 mm (15 ½ in)	--	--	Yes	--	--
B	214-7349	27.1 N-m (20 ft-lb)	203.6 N-m (150 ft-lb)	½ in	±6%	Fixed Ratchet	1.4 N-m (1 ft-lb)	469.9 mm (18 ½ in)	--	--	Yes	214-7350	--
B	9U-5006	40.7 N-m (30 ft-lb)	339.3 N-m (250 ft-lb)	½ in	±6%	Fixed Ratchet	1.4 N-m (1 ft-lb)	539.6 mm (21 ¼ in)	--	--	Yes	--	--
B	9U-5007	135.7 N-m (100 ft-lb)	814.2 N-m (600 ft-lb)	¾ in	±6%	Fixed Ratchet	7 N-m (5 ft-lb)	1092.2 mm (45 in)	--	--	Yes	--	--

¹ Service Kit for ratchets that have brand on the head

² Service Kit for ratchets that do not have brand on the head

206-8796 Torque Multiplier



- Used to apply torque greater than capability of torque wrench with an accuracy of ±5%
- Specifically used to install and remove counterweight bolts on 5230B Front Shovels or other similar applications
- Designed for use with 1 inch square drive torque wrench
- Provides 360° continuous rotation in both directions
- Built-in, angle-of-turn protractor measures angle of rotation in 5° increments for torque turn specifications
- Overload protection is provided by square output drive which shears at a torque slightly above maximum output rating
- Decals located on multiplier provide torque input and output values

(Continued)

206-8796 Torque Multiplier (Continued)**Reference:**

REN3379 Service Manual, Disassembly and Assembly

Part Number	Input Square Drive	Output Square Drive	Power Ratio	Rated Input Capacity	Max. Output Capacity	Overall Length
206-8796	1 in	1 ½ in	4.33 to 1	1470 N·m (1,081 ft·lb)	5440 N·m (4,000 ft·lb)	76.0 mm (3.0 in)

Torque Multipliers

Warranty: Manufacturer's

- Used to apply torques above the capability of torque wrenches with an accuracy of $\pm 5\%$
- The 6V-6080 Multiplier features a directional clutch which holds the windup and provides ratcheting action so that the multiplier is usable in close quarters where movement of the input wrench is limited
- Both multipliers are designed to provide 360° continuous rotation in both directions
- They also have an angle of turn protractor which measures the angle of rotation in 5° increments for torque turn specifications
- Overload protection is provided by the square output drive which shears at a torque slightly above the maximum output rating
- Decals providing torque input and output values are located on the multiplier



Part Number	Description	Input Square Drive	Output Square Drive	Power Ratio	Rated Input Capacity	Max. Rated Output	Weight
6V-7820	Torque Multiplier	½ in	¾ in	6 to 1	271 N·m (200 ft·lb)	1620 N·m (1,200 ft·lb)	4 kg (9 lb)
6V-6080	Torque Multiplier	½ in	1 in	18.5 to 1	240 N·m (177 ft·lb)	4335 N·m (3,200 ft·lb)	8.2 kg (18 lb)
6V-7820 — Serviceable Parts							
2N-2213	Bearing	--	--	--	--	--	--
6V-4079	Drive Assembly	--	--	--	--	--	--
8H-0707	Bolt	--	--	--	--	--	--
6V-4081	Pinion	--	--	--	--	--	--
3B-3911	Bearing	--	--	--	--	--	--
6V-4083	Gear	--	--	--	--	--	--
6V-6134	Protractor	--	--	--	--	--	--
6V-6080 — Serviceable Parts							
6L-4082	Race	--	--	--	--	--	--
6V-6135	Gear	--	--	--	--	--	--
6V-6136	Pinion	--	--	--	--	--	--
6V-9137	Pinion	--	--	--	--	--	--
6V-9136	Gear	--	--	--	--	--	--
6V-6134	Protractor	--	--	--	--	--	--
176-2934	Drive Assembly	--	--	--	--	--	--
5P-4115	Washer	--	--	--	--	--	--
6V-6137	Dowl	--	--	--	--	--	--
6V-9135	Pin	--	--	--	--	--	--
6V-6139	Pin	--	--	--	--	--	--
6V-6762	Race	--	--	--	--	--	--
2M-1672	Bearing	--	--	--	--	--	--
2H-2213	Bearing	--	--	--	--	--	--
8T-0893	Screw	--	--	--	--	--	--
8T-5181	Input End Assembly	--	--	--	--	--	--
8T-0894	Hardware Kit	--	--	--	--	--	--

Low Clearance Hydraulic Wrenches

Warranty: Manufacturer's



- Well suited for high torque and/or low clearance applications
 - Easy and safe to use
 - Can decrease bolting time by 75%
 - Accurate up to ± 3
 - Best torque to weight ratio available
- 1U-6221, 132-8159, and 132-8183**
- Twin Jet provides fast operation
 - 360 $\times$ 360 degree hose swivel
 - Tool-free cassette quick connect
 - Quick tool release means no tool lock-up under severe conditions
 - Twin pawl equal load ratchet mechanism gives improved durability
 - Anti-backlash mechanism avoids pre-stall or turning speed slow down

Part Number	Description	Max. Torque	Min. Torque	Accuracy	Hex Size
132-8159	Low Clearance Hydraulic Wrench	4136 N-m (3,050 ft-lb)	474.6 N-m (350 ft-lb)	± 3	Hex drive size range — 25 - 80 mm (1 - 3 $\frac{1}{8}$ in)
132-8183	Low Clearance Hydraulic Wrench	8475.4 N-m (6,250 ft-lb)	881.4 N-m (650 ft-lb)	± 3	Hex drive size range — 46 - 95 mm (1 $\frac{1}{2}$ - 3 $\frac{7}{8}$ in)
1U-6221	Low Clearance Hydraulic Wrench	1844.2 N-m (1,360 ft-lb)	203.4 N-m (150 ft-lb)	± 3	Hex drive size range — 19 - 65 mm ($\frac{3}{4}$ - 2 $\frac{5}{16}$ in)
Standard Links for 1U-6221 ¹					
132-8143	Standard link	--	--	--	36 mm
132-8144	Standard link	--	--	--	55 mm
1U-6222	Standard link	--	--	--	46 mm
Standard Links for 132-8159 ¹					
132-8176	Standard link	--	--	--	36 mm
132-8177	Standard link	--	--	--	46 mm
132-8178	Standard link	--	--	--	55 mm
Standard Links for 132-8183 ¹					
132-8190	Standard link	--	--	--	55 mm
132-8191	Standard link	--	--	--	65 mm
132-8192	Standard link	--	--	--	70 mm
Swivel Seal Kits					
132-8142	Swivel Seal Kit for 1U-6221	--	--	--	--
132-8166	Swivel Seal Kit for 132-8159	--	--	--	--
132-8189	Swivel Seal Kit for 132-8183	--	--	--	--
Square Drives					
132-8154	Square drive: $\frac{3}{4}$ in for 1U-6221	--	--	--	--
132-8167	Square drive: 1 in for 132-8159	--	--	--	--
132-8201	Square drive: 1 $\frac{1}{2}$ in for 132-8201	--	--	--	--
Reaction Arms ²					
132-8160	Reaction arm for 132-8159	--	--	--	--
132-8184	Reaction arm for 132-8183	--	--	--	--

¹ Additional link sizes are available. Call the Hotline to check the availability of additional links. Hotline USA: 1-800-542-8665, Illinois: 1-800-541-8665, Canada: 1-800-523-8665, Geneva phone: ++ 41 (22) 849 40 48/4428

² Reaction arm is sold separately

Low Clearance Hydraulic Wrenches

Warranty: Manufacturer's

- Well suited for high torque and/or low clearance applications
- Easy and safe to use
- Can decrease bolting time up to 75%
- Accurate to $\pm 3\%$
- Best torque-to-weight ratio available

242-1413, 242-1414, and 242-1415

- Low clearance for inaccessible bolting area
- Pins give quick tool-free connect/disconnect of links



Part Number ¹	Description	Max. Torque	Min. Torque	Accuracy	Hex Size ²	Hex Drive Size Range ³	Weight
242-1413	Low Clearance Hydraulic Wrench	2237.5 N·m (1,650 ft·lb)	217 N·m (160 ft·lb)	± 3	--	--	2.36 kg (5.2 lb)
242-1414	Low Clearance Hydraulic Wrench	5288.6 N·m (3,900 ft·lb)	528.9 N·m (390 ft·lb)	± 3	--	--	5.0 kg (11.05 lb)
242-1415	Low Clearance Hydraulic Wrench	11 797.7 N·m (8,700 ft·lb)	1179.8 N·m (870 ft·lb)	± 3	--	--	9.3 kg (20.5 lb)
Standard Links for 242-1413 ³							
242-1419	Standard link	--	--	--	36 mm	19 - 55.6 mm ($\frac{3}{4}$ - 2 $\frac{1}{16}$ in)	--
242-1420	Standard link	--	--	--	46 mm	19 - 55.6 mm ($\frac{3}{4}$ - 2 $\frac{1}{16}$ in)	--
Standard Links for 242-1414 ³							
242-1422	Standard link	--	--	--	36 mm	46 - 80 mm (1 $\frac{13}{16}$ - 3 $\frac{1}{8}$ in)	--
242-1423	Standard link	--	--	--	46 mm	46 - 80 mm (1 $\frac{13}{16}$ - 3 $\frac{1}{8}$ in)	--
Standard Links for 242-1415 ³							
242-1424	Standard link	--	--	--	36 mm	60.3 - 95 mm (2 $\frac{3}{8}$ - 3 $\frac{7}{8}$ in)	--
242-1425	Standard link	--	--	--	46 mm	60.3 - 95 mm (2 $\frac{3}{8}$ - 3 $\frac{7}{8}$ in)	--
Repair Kits							
246-0441	Repair kit for 242-1413	--	--	--	--	--	--
246-0442	Repair Kit for 242-1414	--	--	--	--	--	--
246-0443	Repair Kit for 242-1415	--	--	--	--	--	--

¹Note: When ordering a power head low clearance tool, a link must also be purchased to use the power head.

²Hex links must be purchased with tool

³Additional link sizes are available. Call the Hotline to check the availability of additional links. Hotline US: 1-800-542-8665, Illinois: 1-800-541-8665, Canada: 1-800-523-8665, Geneva phone: ++ 41 (22) 849 40 48/4428

Square Drive Hydraulic Wrenches 132-8112, 132-8119, 132-8126, 132-8133

Warranty: Manufacturer's

- Well suited for high torque and/or low clearance applications
- Easy and safe to use
- Can decrease bolting time by up to 75%
- Accurate to $\pm 3\%$
- Best torque-to-weight ratio available
- Dual pawl mechanism prevents repeated bolt wind up
- 360 $\times$ 180 degree swivel gives hose-free like operation
- Quick release levers for accurate pawl release
- Uni-body housing provides rigid durability
- Anti-lock switch allows instant tool on/off
- Anti-rust finish provides corrosion resistance
- Click on reaction arm allows instant on/off reaction arm



(Continued)

Torque Wrenches

Square Drive Hydraulic Wrenches 132-8112, 132-8119, 132-8126, 132-8133 (Continued)

Warranty: Manufacturer's

- Anti-backlash mechanism

Part Number	Max. Torque	Min. Torque	Drive	Accuracy	Reaction Arm Type	Weight	Seal Kit Part Number
132-8112	1884.9 N·m (1,390 ft-lb)	271.2 N·m (200 ft-lb)	¾ in	±3	Standard	2.02 kg (4.45 lb)	1U-6225
132-8119	4447.9 N·m (3,280 ft-lb)	650.9 N·m (480 ft-lb)	1 in	±3	Standard	4.51 kg (9.95 lb)	132-8125
132-8126	7580.4 N·m (5,590 ft-lb)	1132.3 N·m (835 ft-lb)	1 ½ in	±3	Standard	7.60 kg (16.75 lb)	132-8132
132-8133	15 621.8 N·m (11,520 ft-lb)	2379.9 N·m (1,755 ft-lb)	1 ½ in	±3	Standard	13.38 kg (29.50 lb)	132-8139

Square Drive Hydraulic Wrenches 242-1410, 242-1411, 242-1412

Warranty: Manufacturer's



- Well suited for high torque and/or low clearance applications
- Easy and safe to use
- Can decrease bolting time by up to 75%
- Accurate to ±3%
- Best torque-to-weight ratio available
- 360 degree swivel for hose attachment
- Click on reaction arm
- Standard square drive
- Ergonomic design
- Lightweight tool

Part Number	Max. Torque	Min. Torque	Drive	Accuracy	Long Reaction Arm Part Number ¹	Weight	Repair Kit
242-1410	813.6 N·m (600 ft-lb)	94.9 N·m (70 ft-lb)	¾ in	±3	242-1416	1.4 kg (3.15 lb)	246-0438
242-1411	1559.45 N·m (1,150 ft-lb)	237.3 N·m (175 ft-lb)	¾ in	±3	242-1417	2 kg (4.45 lb)	246-0439
242-1412	4088.5 N·m (3,015 ft-lb)	617 N·m (455 ft-lb)	1 in	±3	242-1418	4.5 kg (9.90 lb)	246-0440

¹Tool comes with standard reaction arm.

Square Drive Hydraulic Wrenches 242-1408, 242-1409

Warranty: Manufacturer's

- Well suited for high torque and/or low clearance applications
- Easy and safe to use
- Can decrease bolting time by up to 75%
- Accurate to ±3%
- Best torque-to-weight ratio available
- Simple to use
- Reaction arm pivots into 9 different positions
- Uni-body housing

Part Number	Max. Torque	Min. Torque	Drive	Accuracy	Weight	Repair Kit
242-1408	135.6 N·m (1,200 ft-lb)	230.5 N·m (170 ft-lb)	¾ in	±3	2.6 kg (5.8 lb)	246-0436
242-1409	4013.9 N·m (2,960 ft-lb)	585.8 N·m (432 ft-lb)	1 in	±3	6 kg (13.15 lb)	246-0437

Square Drive Hydraulic Wrenches 175-7940, 175-7941

Warranty: Manufacturer's

- Well suited for high torque and/or low clearance applications
- Easy and safe to use
- Can decrease bolting time by up to 75%
- Accurate to $\pm 3\%$
- Best torque-to-weight ratio available
- Simple to use
- Uni-body housing



Part Number	Max. Torque	Min. Torque	Drive Size	Weight	Accuracy
175-7940	7593.9 N·m (5,600 ft·lb)	1118.7 N·m (825 ft·lb)	1 1/2 in	13.2 kg (29 lb)	± 3
175-7941	11 119.7 N·m (8,200 ft·lb)	1640.8 N·m (1,210 ft·lb)	1 1/2 in	14.5 kg (32 lb)	± 3

Pneumatic Tools

Impact Wrenches, 3/8 inch

Warranty: Manufacturer's



European Union Compliant, CE marked

- Reverse bias air motor provides greater power in reverse for extra break away torque
- Molded ergonomic handle grip reduces vibration and operator fatigue
- Built in power regulator allows power output to be adjusted to operating conditions

Part Number: 222-3048	
Drive size	3/8 in
Recommended air pressure	620 kPa (90 PSIG)
Air consumption, free speed	14 SCFM (1.9 CFM) [53.8 l/min.]
Air consumption, working	25 SCFM (3.5 CFM) [99.11 l/min.]
Free speed, forward	8,000 rpm
Free speed, reverse	9,000 rpm
Sound level, free speed	84.6 dBA
Sound level, working	95.6 dBA
Blows per minute	1170
Torque range	68-251 N·m (50-185 ft·lb)
Maximum Torque	251- N·m (185 ft·lb) Forward/ 285 N·m (210 ft·lb) Reverse
Air inlet thread size	1/4 in — 18 NPT
Recommended hose size, ID min.	10 mm (3/8 in)
Overall length	159 mm (6.25 in)
Height	179 mm (7 in)
Width	57 mm (2.24 in)
Weight	1.70 kg (3.75 lb)

Impact Wrenches, 1/2 and 3/4 inch

Warranty: Manufacturer's



European Union Compliant, CE marked

- Aluminum housing reduces weight and provides durable long life
- Steel nose front for extra protection, easy service access
- Power speed regulator allows power output to be adjusted to operating conditions
- Variable speed trigger allows operator versatility over wide range of fasteners

Part No.	222-3050	222-3053
Drive Size	1/2 in	3/4 in
Recommended air pressure	620 kPa (90 PSIG)	620 kPa (90 PSIG)
Air consumption, free speed	30 SCFM (4.2 CFM) [118.9 l/min.]	41 SCFM (5.8 CFM) [164.2 l/min.]
Free speed forward	8,000 rpm	4500 rpm
Free speed reverse	8,000 rpm	5000 rpm
Sound level free speed	108 dBA	92 dBA
Torque range	35-408 N·m (25-300 ft·lb)	407-1085 N·m (300-800 ft·lb)
Maximum torque	578 N·m (425 ft·lb) forward	1626 N·m (1,200 ft·lb)
Air inlet thread size	1/4 in — 18 NPT	3/8 in — 18 NPT
Recommended hose size, ID min.	8 mm (5/16 in)	10 mm (3/8 in)
Overall length	185 mm (7.3 in)	259 mm (10.2 in)
Weight	2.63 kg (5.8 lb)	6.59 kg (14.5 lb)

Impact Wrenches, 1 inch

Warranty: Manufacturer's

European Union Compliant, CE marked

- Power speed regulator allows power output to be adjusted to operating conditions
- Variable speed trigger allows operator versatility over wide range of fasteners

Part No.	222-3054	222-3055
Drive size	1 in	1 in
Recommended air pressure	620 kPa (90 PSIG)	620 kPa (90 PSIG)
Air consumption free speed	26 SCFM (3.6 CFM)	41 SCFM (8.3 CFM) [164.2 l/min]
Air consumption working	36 SCFM (5.3 CFM) [150.1 l/min]	36 SCFM (5.3 CFM) [150.1 l/min]
Free speed forward	4,000 rpm	4,000 rpm
Free speed reverse	4,000 rpm	4,000 rpm
Sound level free speed	92 dBA	92 dBA
Sound level working	103 dBA	103 dBA
Blows per minute	500	505
Torque range	813-1898 N·m (600-1,400 ft·lb)	813-1898 N·m (600-1,400 ft·lb)
Maximum torque	3796 N·m (2,800 ft·lb)	4067 N·m (3,000 ft·lb)
Air inlet thread size	½ in — 14 NPT	½ in — 14 NPT
Recommended hose size, ID min.	13 mm (½ in)	13 mm (½ in)
Overall length	302 mm (11.8 in)	535 mm (21 in)
Height	270 mm (10.6 in)	172 mm (6.8 in)
Width	111 mm (4.37 in)	110 mm (4.33 in)
Weight	12.05 kg (26.5 lb)	12.27 kg (27 lb)



Impact Wrenches Repair Kits

Warranty: Manufacturer's

- Used to repair current Caterpillar branded air-powered impact wrenches
- Reduce air tool repair cost by performing in-house repairs
- Reduced downtime (no need to ship air tool to a repair center)

Typical Anvil Repair Kit Components — 231-6064	
Anvil repair kit for 12.7 mm (½ in) Impact Wrench	
Kit Includes:	
2 – Hammers	2 – Hammer Pins
1 – Hammer Case Gasket	1 – Retainer O-Rings
1 – Socket Retainer	Material: Steel, Rubber, and Plastic
Motor and Throttle Repair Kit — 231-6063, for 12.7 mm (½ in) Impact Wrench	
Kit Includes:	
1 – Detent Ball	1 – Detent Spring
1 – Gasket	1 – Hammer Case Gasket
1 – Retainer O-Ring	Material: Steel, Rubber, and Plastic



(Continued)

Impact Wrenches Repair Kits (Continued)

Warranty: Manufacturer’s

Part Number	Description	Impact Wrench Part Number	Anvil Part Number
Impact Wrench Repair Kits			
231-6041	3⁄8 inch Motor and Throttle Repair Kit	222-3048	--
231-6043	3⁄8 inch Anvil Repair Kit	222-3048	280-2681
231-6060	3⁄8 inch Motor and Throttle Repair Kit	222-3049	--
231-6061	3⁄8 inch Anvil Repair Kit	222-3049	--
231-6063	1⁄2 inch Motor and Throttle Repair Kit	222-3050/222-3051	--
231-6064	1⁄2 inch Anvil Repair Kit	222-3050/222-3051	280-2682
231-6068	3⁄4 inch Motor and Throttle Repair Kit	222-3053	--
231-6070	3⁄4 inch Anvil Repair Kit	222-3053	280-2683
231-6073	1 inch Motor and Throttle Repair Kit	222-3054	--
231-6071	1 inch Anvil Repair Kit	222-3054	280-2684
231-6098	1 inch Motor and Throttle Repair Kit	222-3055	--
231-6074	1 inch Anvil Repair Kit	222-3055	280-2684
280-2676	3⁄8 inch Motor and Throttle Repair Kit	266-3737	--
280-2677	3⁄8 inch Anvil Repair Kit	266-3737	280-2675
280-2679	1⁄2 inch Motor and Throttle Repair Kit	266-3736	--
280-2680	1⁄2 inch Anvil Repair Kit	266-3736	280-2678

Safety Air Guns

Warranty: Manufacturer’s



High Power Extension Air Gun

- Versatile tool ideal for cleaning hard-to-reach locations
- Good for cleaning benchtops, workstations, machinery, and equipment
- Venturi tip increases the power and limits static pressure to less than 207 kPa (30 psi) when tip is blocked
- Includes durable cast aluminum, pistol-style body, aluminum extension, and aluminum nozzle
- 1⁄4 inch NPT inlet
- Meets OSHA standards

Part Number	Description	Size
156-0930	Safety Air Gun	61 cm (24.0 in)
156-0931	Safety Air Gun	91 cm (36.0 in)
156-0932	Safety Air Gun	122 cm (48.0 in)



V-Belt Sizing Guide



- Belt size refers to the pulley groove width (B) for belts under and equal to ½ in.
- Belt size refers to the belt top width (A) for belts over ½ in.

Belt Size	A Belt Top Width	B Pulley Groove Width
9.6 mm ($\frac{3}{8}$ in)	10.72 mm (0.422 in)	9.65 mm (0.380 in)
12.7 mm ($\frac{1}{2}$ in)	13.89 mm (0.547 in)	12.70 mm (0.500 in)
17.5 mm ($\frac{11}{16}$ in)	17.48 mm (0.688 in)	15.88 mm (0.625 in)
19.1 mm ($\frac{3}{4}$ in)	19.05 mm (0.750 in)	17.53 mm (0.690 in)
22.2 mm ($\frac{7}{8}$ in)	21.51 mm (0.847 in)	19.94 mm (0.785 in)
23.8 mm ($\frac{15}{16}$ in)	23.83 mm (0.938 in)	22.30 mm (0.878 in)
27.0 mm (1 $\frac{1}{16}$ in)	26.97 mm (1.062 in)	25.48 mm (1.003 in)
31.8 mm (1 $\frac{1}{4}$ in)	32.94 mm (1.297 in)	31.83 mm (1.253 in)

SAE effective length for COG and NON-COG belts equals:

Outer circumference minus 9.65 mm (0.38 in) for $\frac{3}{8}$ inch and $\frac{1}{2}$ inch belt sizes.

Outer circumference minus 14.48 mm (0.57 in) for $\frac{11}{16}$ in and larger belt sizes.

V-Belt Maintenance Tips

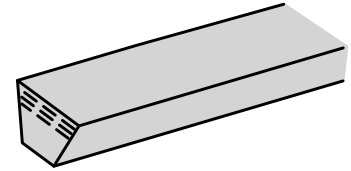
Keep the V-Belts on your engine in good condition. V-Belt failure can cause malfunctions of the charging system and overheating. Regularly do the following:

- Check for cracked, worn, or frayed belts. On matched belt sets, always replace the complete set. If just one belt is bad, uneven load on belts, pulleys, bearings, and shafts can occur.
- Check pulley grooves to make sure they are not worn, damaged, or aligned incorrectly. Poor belt to pulley contact will result in rapid wear and short life.

Using a tension gauge, check belt tension after installation and at every oil change.

Adjust to ensure proper belt seating.

Non-Cog Type

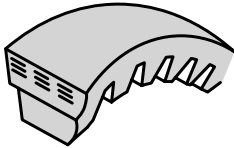


Size	Length	Set Part Number	Single Belt Number
9.5 mm (3/8 in)	1105 mm (43.5 in)	9Y-7159 (2)	2W-2531
12.7 mm (1/2 in)	787 mm (31.0 in)		7C-2163
	1016 mm (40.0 in)		7C-8236
	1054 mm (41.5 in)		1P-9744
	1092 mm (43.0 in)		4N-7335
	1105 mm (43.5 in)	9N-1330 (3)	9N-1329
	1118 mm (44.0 in)		1N-3743
	1143 mm (45.0 in)	9N-1322 (2)	2P-6820
	1168 mm (46.0 in)		2P-6819
	1181 mm (46.5 in)		4N-9891
			9Y-1131
	1194 mm (47.0 in)		2P-6818
	1206 mm (47.5 in)		1W-2934
	1232 mm (48.5 in)	9N-1323 (2)	1P-3085
	1245 mm (49.0 in)		4P-0454
	1257 mm (49.5 in)	4N-8580 (2)	1P-4334
	1270 mm (50.0 in)	9L-6128 (2)	3P-0130
	1283 mm (50.5 in)		2P-6212
	1295 mm (51.0 in)		9Y-6117
	1308 mm (51.5 in)	4N-8597 (2)	4N-6130
	1334 mm (52.5 in)	7W-3896 (2)	2P-4191
	1346 mm (53.0 in)		068-0610
	1372 mm (54.0 in)	9L-6126 (2)	9L-6125
			9L-6125
	1397 mm (55.0 in)		8N-0503
	1410 mm (55.5 in)		2P-4685
		114-3542 (3)	2S-2743
	1435 mm (56.5 in)		4N-7610
	1460 mm (57.5 in)	7N-8518 (2)	2P-4230
	1549 mm (61.0 in)	9N-3483 (2)	1P-6868
	1588 mm (62.5 in)	6N-0724 (2)	1P-4313
	1600 mm (63.0 in)		2P-6161
		068-8546 (2)	9L-4479
	1664 mm (65.5 in)	9L-6130 (2)	2P-8720
		9L-2850 (3)	2P-8720
	1689 mm (66.5 in)		1N-4556
	1714 mm (67.5 in)		2P-6532
	1727 mm (68.0 in)		166-3354
	1753 mm (69.0 in)	166-3360 (3)	166-3352
	1803 mm (71.0 in)		1W-6039
		166-3359 (3)	166-3351
	1829 mm (72.0 in)		7W-5207
	1842 mm (72.5 in)	166-3363 (3)	166-3355
		127-4767 (2)	127-4766
	1854 mm (73.0 in)		1N-3795

Size	Length	Set Part Number	Single Belt Number
12.7 mm (1/2 in)	1880 mm (74.0 in)		1W-9693
	1905 mm (75.0 in)	166-3361 (3)	166-3353
	1981 mm (78.0 in)		8M-0760
	2083 mm (82.0 in)		9Y-1954
	2134 mm (84.0 in)		7E-3898
	2184 mm (86.0 in)		1W-8908
	2286 mm (90.0 in)		4W-5825
	2288 mm (90.1 in)		117-0030
17.5 mm (11/16 in)	1524 mm (60.0 in)	9N-1326 (3)	9N-1321
	1664 mm (65.5 in)		7C-9001
		9N-1327 (2)	9N-1320
		9N-2802 (3)	9N-1320
	1740 mm (68.5 in)		6N-7721
	1892 mm (74.5 in)	166-3365 (3)	166-3357
	1956 mm (77.0 in)	166-3366 (3)	166-3358
	2057 mm (81.0 in)	166-3364 (3)	166-3356
	2286 mm (90.0 in)	1W-8043 (2)	1W-8044
23.8 mm (15/16 in)	1384 mm (54.5 in)	9Y-8864 (2)	9Y-8865
	1460 mm (57.5 in)	9Y-0291 (2)	9Y-0290
	1638 mm (64.5 in)	6N-3637 (2)	6N-3636
	2019 mm (79.5 in)	5R-7276 (2)	
		7M-0305 (3)	
	2083 mm (82.0 in)	6L-1987 (2)	3L-9489

Number in parentheses () after the set part number indicates the quantity of belts per set.

Cog Type



Size	Length	Set Part Number	Single Belt Number
9.5 mm (3/8 in)	737 mm (29.0 in)	6L-6213 (2)	6L-6212
	914 mm (36.0 in)	1N-8405 (2)	1N-8404
	1016 mm (40.0 in)	7L-4528 (2)	030-2630
	1257 mm (49.5 in)	2N-0159 (2)	1N-9310
	1283 mm (50.5 in)	7N-3157 (2)	
	1308 mm (51.5 in)	7L-5091 (2)	7L-5090
	1410 mm (55.5 in)	7N-3158 (2)	7N-3159
12.7 mm (1/2 in)	711 mm (28.0 in)		4H-0552
	737 mm (29.0 in)		2L-1478
	800 mm (31.5 in)	9L-2267 (2)	9L-2266
	838 mm (33.0 in)		004-0909
	851 mm (33.5 in)		061-8384
	864 mm (34.0 in)		036-6775
	876 mm (34.5 in)		7E-0744
	889 mm (35.0 in)		030-3289
	902 mm (35.5 in)		037-2448
	914 mm (36.0 in)		036-2176
	940 mm (37.0 in)		030-3291
	952 mm (37.5 in)	5L-3980 (2)	5L-3979
	991 mm (39.0 in)	2W-0237 (2)	1N-4635
	1003 mm (39.5 in)		8N-3504
	1016 mm (40.0 in)		9L-4896
	1029 mm (40.5 in)		001-5645
	1041 mm (41.0 in)	9L-1125 (2)	9L-1126
	1054 mm (41.5 in)	9L-4226 (2)	4M-6291
	1080 mm (42.5 in)	2N-1493 (2)	061-7139
	1092 mm (43.0 in)	9L-4013 (2)	9L-4012
	1105 mm (43.5 in)	1N-4223 (2)	1W-5555
	1118 mm (44.0 in)		068-5990
	1130 mm (44.5 in)	5L-3826 (2)	5L-3834
	1143 mm (45.0 in)	3N-4658 (2)	4L-6060
	1168 mm (46.0 in)	6L-7954 (2)	9M-1091
	1194 mm (47.0 in)		8L-8646
	1206 mm (47.5 in)	6L-8161 (2)	6L-3408
	1219 mm (48.0 in)	9L-0619 (2)	9L-2248
	1232 mm (48.5 in)		6N-3113
		111-0575 (2)	6N-3113
	1245 mm (49.0 in)	5N-6350 (2)	3K-3408
	1257 mm (49.5 in)		6F-1992
	1270 mm (50.0 in)	8L-8984 (2)	5M-8137

Size	Length	Set Part Number	Single Belt Number
12.7 mm (1/2 in)	1283 mm (50.5 in)	5L-4995 (2)	5L-4996
	1308 mm (51.5 in)	3N-1491 (2)	5M-8135
		9S-6760 (3)	5M-8135
	1321 mm (52.0 in)	9L-0895 (2)	9L-0894
		9L-1554 (3)	9L-0894
	1334 mm (52.5 in)	3S-8447 (2)	3S-8448
		3N-4079 (3)	3S-8448
	1346 mm (53.0 in)	5L-3308 (2)	5L-3307
	1359 mm (53.5 in)	4N-8771 (2)	3S-6272
		8L-4526 (3)	3S-6272
	1372 mm (54.0 in)		061-7140
		130-3216 (2)	061-7140
	1397 mm (55.0 in)	9L-1557 (2)	9L-1553
		9L-4034 (3)	9L-1553
	1410 mm (55.5 in)	2S-2756 (2)	2S-2743
	1422 mm (56.0 in)	5N-9303 (2)	3S-3964
	1448 mm (57.0 in)	9L-1127 (2)	9L-1128
		9L-3047 (3)	9L-1128
	1460 mm (57.5 in)	4W-6025 (2)	3S-3961
	1473 mm (58.0 in)	9L-1226 (2)	7L-5001
	1486 mm (58.5 in)	2S-9779 (2)	2S-5218
		5N-6098 (3)	2S-5218
	1499 mm (59.0 in)	2N-2297 (2)	6L-5115
		6L-5117 (3)	6L-5115
	1511 mm (59.5 in)	7E-5799 (3)	7E-5798
	1524 mm (60.0 in)	9L-1106 (2)	2S-9506
		9L-3599 (3)	2S-9506
			4N-2745
	1549 mm (61.0 in)	6L-4100 (2)	5N-4692
		5N-4693 (3)	5N-4693
	1575 mm (62.0 in)	8M-8341 (2)	8M-8336
		9L-4325 (3)	8M-8336
	1600 mm (63.0 in)	9L-4480 (3)	9L-4479
	1626 mm (64.0 in)	8M-8340 (2)	8M-8335
		9L-3474 (3)	8M-8335
	1638 mm (64.5 in)		2P-7333
	1651 mm (65.0 in)	8S-5154 (2)	4S-6209
		5N-4876 (3)	4S-6209
	1664 mm (65.5 in)	1S-4700 (2)	1S-4699
	1689 mm (66.5 in)	4W-8729 (2)	5S-5249

Number in parentheses () after the set part number indicates the quantity of belts per set.

(Continued)

Cog Type (Continued)

Size	Length	Set Part Number	Single Belt Number	Size	Length	Set Part Number	Single Belt Number
12.7 mm (½ in)	1702 mm (67.0 in)	9L-1129 (2)	9L-1130	17.5 mm (⅝ in)	1486 mm (58.5 in)	9N-1325 (3)	4N-8220
		9L-2527 (3)	9L-1130		1499 mm (59.0 in)	9L-6642 (2)	9L-6641
	1727 mm (68.0 in)	1S-1187 (2)	3S-9652		1524 mm (60.0 in)	4P-1667 (2)	4P-1666
		3S-9653 (3)	3S-9652		1549 mm (61.0 in)	9L-6644 (2)	9L-6643
	1740 mm (68.5 in)	4W-8655 (2)	4W-8654		1549 mm (61.0 in)	6N-6798 (3)	9L-6643
	1753 mm (69.0 in)	4W-8662 (2)	5S-5052			6N-9159 (4)	9L-6643
		9L-2526 (3)	5S-5052		1562 mm (61.5 in)	4N-2532 (2)	4N-2531
	1778 mm (70.0 in)	2S-2481 (2)			1562 mm (61.5 in)	5N-0414 (3)	4N-2531
		9L-5280 (3)				9L-6646 (2)	9L-6645
	1791 mm (70.5 in)	2P-5618 (2)	2P-5617		1613 mm (63.5 in)	8N-0539 (2)	6N-6657
		4N-6999 (3)	2P-5617			6N-6656 (3)	6N-6657
	1803 mm (71.0 in)	1S-1208 (2)	6F-2590			6N-6653 (4)	6N-6657
	1816 mm (71.5 in)		7E-6158		1639 mm (64.5 in)	9L-6724 (2)	4N-8218
	1829 mm (72.0 in)	6L-6557 (2)	9L-2519			4N-6423 (3)	4N-8218
		9L-2520 (3)	9L-2519			6N-0388 (4)	4N-8218
	1842 mm (72.5 in)	1S-4760 (2)	1S-4761		1664 mm (65.5 in)	4P-8397 (2)	4P-8398
		5N-2088 (3)	1S-4761		1689 mm (66.5 in)	9L-6648 (2)	9L-6647
	1854 mm (73.0 in)	9L-6080 (3)	8N-2814			6N-6652 (3)	9L-6647
	1880 mm (74.0 in)	9L-1630 (3)	9L-1629		1740 mm (68.5 in)	9L-6650 (2)	9L-6649
		7L-5093 (4)	9L-1629			6N-9158 (3)	9L-6649
	1905 mm (75.0 in)		5M-0923		1752 mm (69.0 in)	7E-7646 (3)	7E-7645
	1918 mm (75.5 in)	6N-3843 (2)	1N-4555		1778 mm (70.0 in)	3R-9346 (2)	6N-6654
	1943 mm (76.5 in)	9L-2350 (3)	9L-2349			6N-6655 (3)	6N-6654
	1956 mm (77.0 in)		8M-3092		1803 mm (71.0 in)	3N-8848 (3)	4N-8221
		136-3646 (2)	8M-3092		1816 mm (71.5 in)	9L-6652 (2)	9L-6651
	1968 mm (77.5 in)	9L-4266 (3)	9L-4265			5N-2346 (4)	9L-6651
	1981 mm (78.0 in)	7C-7204 (2)	8M-0760		1829 mm (72.0 in)	5N-4751 (3)	6N-0073
	2007 mm (79.0 in)	7E-6192 (2)			1854 mm (73.0 in)	9L-6725 (2)	4N-8277
	2187 mm (86.1 in)		117-0036			4N-8278 (3)	4N-8277
						7W-3222 (4)	4N-8277
17.5 mm (⅝ in)	889 mm (35.0 in)		1L-6557		1892 mm (74.5 in)	6N-6651 (3)	6N-6650
	1080 mm (42.5 in)		6B-5653		1905 mm (75.0 in)	3R-9090 (4)	3R-9089
	1156 mm (45.5 in)		8P-3064		1918 mm (75.5 in)	6N-9144 (2)	4N-8219
	1232 mm (48.5 in)		6B-2746			4N-6302 (3)	4N-8219
	1245 mm (49.0 in)	9L-6654 (2)	9L-6653		1956 mm (77.0 in)	4P-8087 (3)	4P-8088
	1295 mm (51.0 in)	9L-0361 (2)	5B-8473		1981 mm (78.0 in)	6N-7053 (3)	6N-7054
	1308 mm (51.5 in)		6N-0341			1W-0422 (4)	6N-7054
	1359 mm (53.5 in)	7N-3949 (2)	7N-3948		2007 mm (79.0 in)	4W-9051 (4)	4W-6256
		2N-8612 (3)	7N-3948		2032 mm (80.0 in)	7C-2500 (3)	7W-6129
	1372 mm (54.0 in)	8L-5137 (3)	8L-5136			4W-8510 (4)	7W-6129
	1410 mm (55.5 in)	7L-7020 (3)	4L-4648		2057 mm (81.0 in)	8N-5509 (2)	6N-5338
	1422 mm (56.0 in)	4N-8217 (2)	4N-8216			6N-5337 (3)	6N-5338
	1448 mm (57.0 in)	9L-6640 (2)	9L-6639			7W-8137 (6)	6N-5338
		9N-1324 (3)	9L-6639		2083 mm (82.0 in)	7N-7055 (4)	7N-7056
	1460 mm (57.5 in)		6N-7135		2108 mm (83.0 in)	118-2018 (3)	7W-8132
	1486 mm (58.5 in)	4N-6373 (2)	4N-8220				

Number in parentheses () after the set part number indicates the quantity of belts per set.

(Continued)

Cog Type (Continued)

Size	Length	Set Part Number	Single Belt Number	Size	Length	Set Part Number	Single Belt Number
17.5 mm ($1\frac{1}{16}$ in)	2108 mm (83.0 in)	7W-8135 (6)	7W-8132	19.1 mm ($\frac{3}{4}$ in)	1372 mm (54.0 in)		3S-8402
	2134 mm (84.0 in)	1W-3711 (2)	4N-8197		1397 mm (55.0 in)	7M-4691 (2)	5M-0924
		4N-8198 (3)	4N-8197		1435 mm (56.5 in)	7M-0298 (2)	7M-2097
		8N-6710 (4)	4N-8197		1448 mm (57.0 in)		8M-3646
	2159 mm (85.0 in)	7N-6602 (2)	7N-8538		1473 mm (58.0 in)		4M-9678
		7N-4148 (4)	7N-8538		1486 mm (58.5 in)		3R-2689
	2184 mm (86.0 in)	129-2416 (3)	1N-3464		1511 mm (59.5 in)		7M-3921
		1N-3463 (2)	1N-3464		1524 mm (60.0 in)	8S-3199 (2)	
	2210 mm (87.0 in)	7N-4829 (2)	7N-4828		1562 mm (61.5 in)	7M-6104 (2)	3P-0025
		8N-6696 (4)	7N-4828		1575 mm (62.0 in)	7S-9807 (2)	4M-6292
		8N-6702 (6)	7N-4828		1588 mm (62.5 in)	2P-6142 (2)	2P-6141
	2235 mm (88.0 in)	1W-0530 (2)	7N-2143		1600 mm (63.0 in)	7M-6105 (2)	8H-9832
	2261 mm (89.0 in)	7N-9417 (2)	8N-6693		1613 mm (63.5 in)	1P-2423 (2)	1P-2421
		8N-6708 (4)	8N-6693		1626 mm (64.0 in)	7M-6100 (2)	2M-8502
		8N-6699 (6)	8N-6693		1638 mm (64.5 in)	4S-7754 (2)	4S-7757
	2286 mm (90.0 in)	7W-5228 (6)	1W-8044		1651 mm (65.0 in)	7S-9811 (2)	5M-2733
	2337 mm (92.0 in)	1N-3713 (6)	1N-3714		1676 mm (66.0 in)	7S-9860 (2)	7S-9859
	2388 mm (94.0 in)	8N-6718 (4)	8N-6717		1689 mm (66.5 in)	8M-1714 (2)	8M-1715
		8N-6700 (6)	8N-6717			3N-8258 (3)	8M-1715
	2413 mm (95.0 in)	5L-7426 (4)	5L-7425		1702 mm (67.0 in)	1S-1126 (2)	2L-2991
		7L-7882 (6)	5L-7425		1727 mm (68.0 in)	5S-9078 (2)	5S-9505
	2438 mm (96.0 in)	8N-6707 (4)	8N-6709		1753 mm (69.0 in)	5S-9079 (2)	5S-9506
		8N-6705 (6)	8N-6709		1765 mm (69.5 in)	7S-1690 (2)	7S-1691
	2464 mm (97.0 in)	8N-6713 (4)	8N-6719		1778 mm (70.0 in)	7S-9810 (2)	7S-9809
		8N-6711 (6)	8N-6719		1791 mm (70.5 in)	5M-5343 (2)	5M-6096
	2489 mm (98.0 in)	7N-3122 (5)	7N-3121		1803 mm (71.0 in)	7M-5535 (2)	4M-9386
	2515 mm (99.0 in)	4W-0752 (3)	2W-5092			4N-4105 (4)	4M-9386
		7W-5229 (6)	2W-5092		1842 mm (72.5 in)	9M-6933 (2)	9M-6934
	2591 mm (102.0 in)	7N-3118 (5)	7N-3117		1854 mm (73.0 in)	2P-6140 (2)	2P-6139
	2616 mm (103.0 in)	1N-4480 (4)	1N-4092		1880 mm (74.0 in)	2P-2357 (2)	2P-2356
		1N-4097 (6)	1N-4092		1892 mm (74.5 in)	6N-2348 (2)	6N-2349
	2667 mm (105.0 in)	8N-6716 (6)	8N-6698		1930 mm (76.0 in)	7S-8350 (2)	7S-8349
	2692 mm (106.0 in)	8N-6720 (6)	1N-4090		1943 mm (76.5 in)	8S-6178 (2)	9M-5146
	2718 mm (107.0 in)	7N-3120 (5)	7N-3119		1956 mm (77.0 in)		9M-3633
		1N-4095 (6)	7N-3119		2007 mm (79.0 in)	5R-2455 (3)	4M-9072
	2794 mm (110.0 in)	8N-6694 (6)	1N-4093		2019 mm (79.5 in)	4N-4773 (4)	4N-4789
	2819 mm (111.0 in)	1N-4098 (6)	1N-4089		2032 mm (80.0 in)	5S-0291 (3)	
19.1 mm ($\frac{3}{4}$ in)	1054 mm (41.5 in)		5M-5344		2057 mm (81.0 in)	2S-8268 (3)	2S-9911
	1143 mm (45.0 in)		5L-1584		2083 mm (82.0 in)	4N-1745 (3)	7M-7373
	1156 mm (45.5 in)		9S-9010		2108 mm (83.0 in)	3S-9646 (3)	2S-5279
	1181 mm (46.5 in)		1S-5138		2184 mm (86.0 in)	7N-7502 (2)	5S-1762
	1206 mm (47.5 in)		5M-5345		2633 mm (103.7 in)	11S-2460 (4)	11S-2459
	1232 mm (48.5 in)	5L-4660 (2)	3L-9717		2692 mm (106.0 in)	127-5563 (4)	127-5564
	1257 mm (49.5 in)		8F-2434		2769 mm (109.0 in)	169-0147 (4)	169-0146
	1334 mm (52.5 in)		7M-0169		22.2 mm ($\frac{7}{8}$ in)	1892 mm (74.5 in)	221-7007 (2)
							221-7006

Number in parentheses () after the set part number indicates the quantity of belts per set.

(Continued)

Cog Type (Continued)

Size	Length	Set Part Number	Single Belt Number	Size	Length	Set Part Number	Single Belt Number
22.2 mm ($\frac{7}{8}$ in)	2311 mm (91.0 in)	124-5113 (2)	110-0375	23.9 mm ($\frac{15}{16}$ in)	1943 mm (76.5 in)	7M-4703 (2)	2M-7863
	2388 mm (94.0 in)	123-3995 (2)	110-0376			7M-4704 (3)	2M-7863
	2540 mm (100.0 in)	7M-4720 (2)	6B-9737		1956 mm (77.0 in)	7M-4718 (2)	1H-6929
	2718 mm (107.0 in)	102-9928 (6)	4W-5092		1968 mm (77.5 in)	5L-5014 (2)	3L-7539
		180-4526 (4)	4W-5092			2S-6168 (3)	3L-7539
	2769 mm (109.0 in)	123-5889 (4)	123-5890		1994 mm (78.5 in)	7M-4721 (2)	8B-3546
		133-6445 (4)	133-6444		2007 mm (79.0 in)	8M-0934 (2)	8M-0959
23.9 mm ($\frac{15}{16}$ in)	2895 mm (114.0 in)	119-6374 (6)	119-6373		2032 mm (80.0 in)	9M-7801 (2)	9M-7800
	1232 mm (48.5 in)		5F-7676			2S-5653 (3)	9M-7800
	1270 mm (50.0 in)		5H-2896		2057 mm (81.0 in)	8M-8681 (2)	3L-6052
	1308 mm (51.5 in)		5H-9857			3S-7520 (3)	3L-6052
	1372 mm (54.0 in)	7E-5097 (2)	7E-5096			6N-1551 (4)	3L-6052
	1397 mm (55.0 in)	7E-5113 (2)	7E-5114		2108 mm (83.0 in)	4S-9791 (3)	4S-7796
	1410 mm (55.5 in)	7M-4711 (2)	9F-1899		2159 mm (85.0 in)	7M-4710 (2)	5H-7371
	1422 mm (56.0 in)	1S-1127 (2)	1L-5514		2159 mm (85.0 in)	2P-8624 (3)	5H-7371
	1448 mm (57.0 in)	4N-6529 (2)	5L-9902		2184 mm (86.0 in)	7C-3559 (2)	7C-3560
	1486 mm (58.5 in)	7M-4715 (2)	8F-5164		2210 mm (87.0 in)	2W-8951 (2)	1M-7303
	1499 mm (59.0 in)		8M-9708			7M-4701 (3)	1M-7303
	1511 mm (59.5 in)		4M-8218		2235 mm (88.0 in)	2W-6766 (2)	2W-6765
	1549 mm (61.0 in)	2P-2369 (2)	3S-2347		2261 mm (89.0 in)	2W-8952 (2)	2S-5279
	1575 mm (62.0 in)	8N-4128 (2)	5M-5347			7N-3965 (4)	7N-3966
	1588 mm (62.5 in)	2P-2696 (2)	5M-5965		2286 mm (90.0 in)	1S-1207 (2)	5B-9790
	1600 mm (63.0 in)	7M-4716 (2)	4F-6390			6N-7575 (4)	5B-9790
	1613 mm (63.5 in)		6B-8536		2337 mm (92.0 in)	4W-7508 (2)	4W-7507
	1626 mm (64.0 in)	2P-1388 (2)	2P-1272		2540 mm (100.0 in)	7W-6471 (6)	6B-9737
	1651 mm (65.0 in)	7M-0981 (2)	1L-5681		2591 mm (102.0 in)	7W-1665 (4)	7W-1664
	1676 mm (66.0 in)	4N-3587 (2)	7M-7477		2718 mm (107.0 in)	4W-5091 (5)	4W-5092
		7M-7476 (3)	7M-7477		2869 mm (113.0 in)	9Y-8467 (6)	9Y-8466
	1689 mm (66.5 in)	7L-7099 (2)	3L-7540	26.9 mm ($1\frac{1}{16}$ in)	1156 mm (45.5 in)		6B-1039
	1702 mm (67.0 in)	7M-7864 (3)	2H-1383		1245 mm (49.0 in)		7B-4032
	1714 mm (67.5 in)	5L-5015 (2)	2M-8183		1270 mm (50.0 in)		4F-7956
	1753 mm (69.0 in)	9M-7221 (2)	9M-7220		1334 mm (52.5 in)		5H-4239
		2S-6913 (3)	9M-7220	28.6 mm ($1\frac{1}{8}$ in)	1054 mm (41.5 in)		100-3725
	1765 mm (69.5 in)	3P-0071 (2)	5H-4207		1093 mm (43.0 in)		7E-4841
	1778 mm (70.0 in)	7M-4706 (2)	4M-5429	31.8 mm ($1\frac{1}{4}$ in)	1537 mm (60.5 in)		7B-2774
	1803 mm (71.0 in)	7M-4707 (2)	4M-5413	31.8 mm ($1\frac{1}{4}$ in)	1562 mm (61.5 in)		8H-7180
	1803 mm (71.0 in)	5L-5656 (3)	4M-5413		1588 mm (62.5 in)	5L-6672 (2)	3B-8904
	1816 mm (71.5 in)	7M-4719 (2)	7B-0344		1651 mm (65.0 in)	6L-6552 (2)	1H-3592
	1842 mm (72.5 in)	7M-4705 (2)	5H-1678		1753 mm (69.0 in)	7M-4948 (2)	1H-5899
	1854 mm (73.0 in)	7M-4702 (2)	5H-7448	34.9 mm ($1\frac{3}{8}$ in)	1880 mm (74.0 in)	7M-4953 (2)	5H-4462
	1867 mm (73.5 in)	3P-0098 (2)	3P-0099		1506 mm (59.3 in)		114-6414
	1880 mm (74.0 in)	7M-0185 (2)					
	1918 mm (75.5 in)	8S-1475 (2)	2M-8255				
		7M-4947 (3)	2M-8255				
	1930 mm (76.0 in)	7M-4717 (2)	7H-9806				

Number in parentheses () after the set part number indicates the quantity of belts per set.

Serpentine Type

Size	Length	Single Part Number
Section	917 mm (36.1 in)	218-9823
	1054 mm (41.5 in)	100-3725
	1093 mm (43.0 in)	141-7116
	1170 mm (46.1 in)	186-4195
	1230 mm (48.4 in)	236-3842
	1860 mm (73.2 in)	219-3303
	2180 mm (85.8 in)	183-4494
	2210 mm (87.0 in)	211-5022
	2246 mm (88.4 in)	190-4155
	2376 mm (93.5 in)	189-2218
	2475 mm (97.4 in)	253-4012
	2481 mm (97.7 in)	219-3304
	2555 mm (100.6 in)	219-8689
	2658 mm (104.6 in)	239-5944
	2820 mm (111.0 in)	260-6106
	2840 mm (111.8 in)	226-9381
	2860 mm (112.6 in)	174-9690

"We manage and track parts orders online with the Cat[®] PartStore[™] System."

"WE ORDER PARTS ONLINE with Cat[®] PartStore[™].

It's easy, available anytime and we get our parts fast. Then our Cat Dealer showed us how to track our orders online which made our record keeping easier and helped us manage parts orders. Now we use the PartStore System all the time to track and manage."

SERVICE. We'll be there with the solutions you need throughout the life of your Cat[®] machines. Call or stop by soon to find out all the ways we can help you get the most from your equipment.



www.cat.com

© 2008 Caterpillar All Rights Reserved
CAT, CATERPILLAR, their respective logos, "Caterpillar Yellow" and the POWER EDGE trade dress, as well as corporate and product identity used herein, are trademarks of Caterpillar and may not be used without permission.

CATERPILLAR[®]
TODAY'S WORK. TOMORROW'S WORLD.[™]

