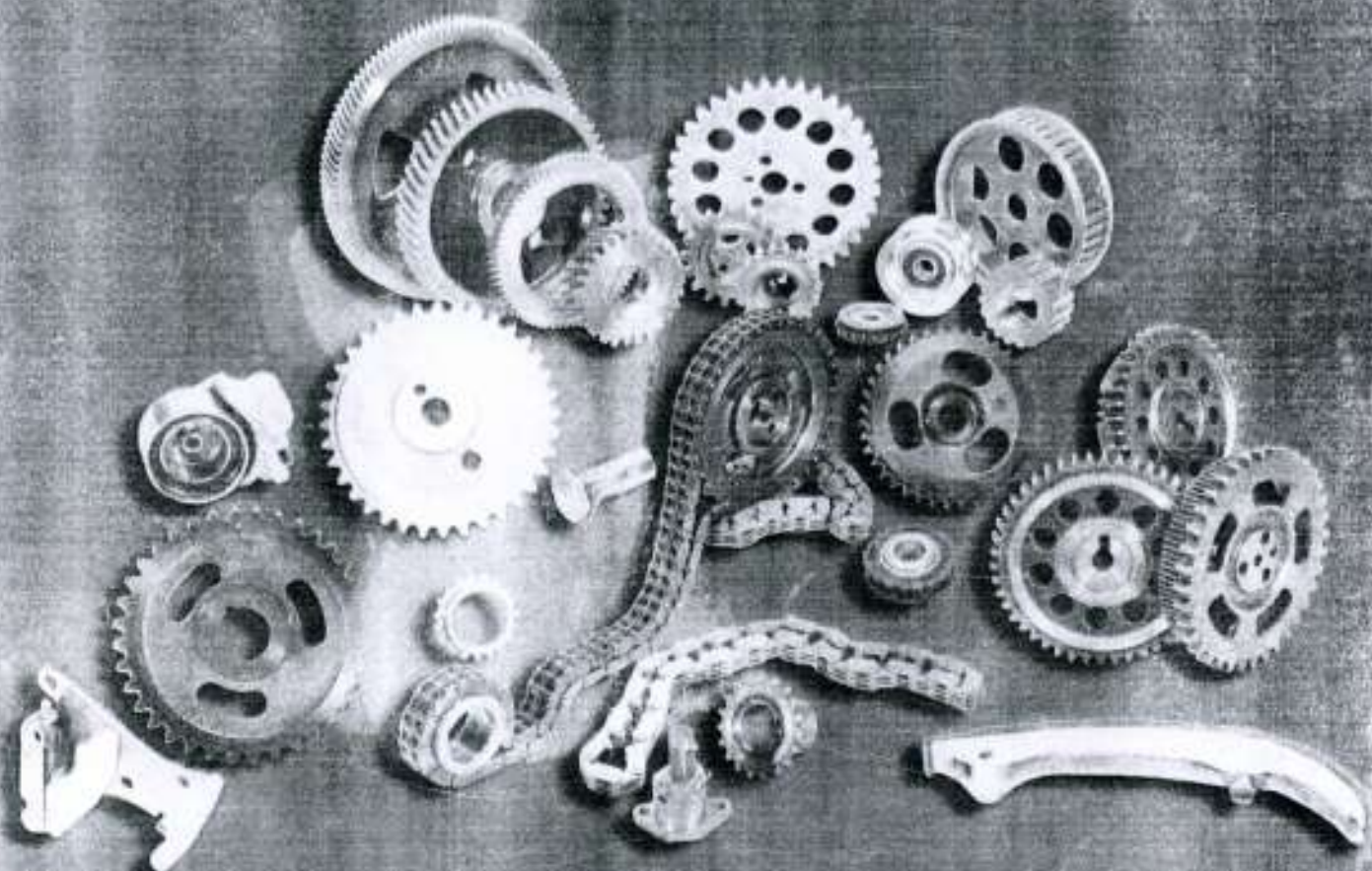


CK-LENT

TIMING PRODUCTS

Weatherly 050-052
Catalog No. 0205
February 2005
Supersedes
Catalog No.0602
June 2002



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Innovation Since 1921***

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VALVE TIMING MARKS

Domestic Passenger Cars

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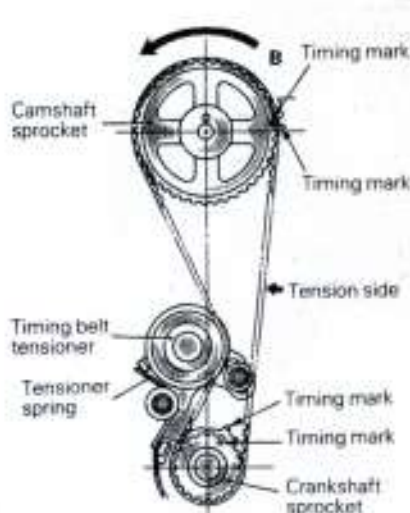


Fig. 1 DaimlerChrysler 1.5L

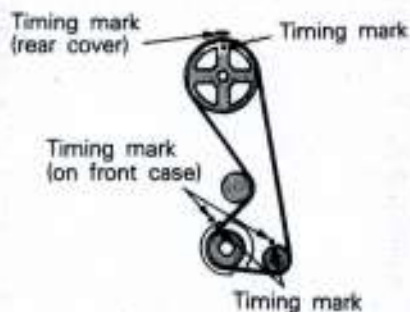


Fig. 2 DaimlerChrysler 1.8L SOHC. 1993-94 Laser & Talon

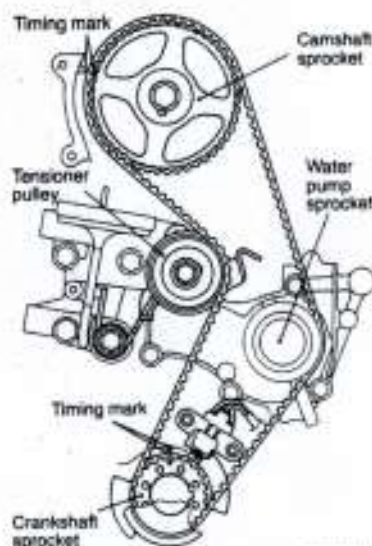


Fig. 3 DaimlerChrysler 1.8L SOHC. 1993-96 Colt Vista & Summit Wagon & 1993-96 Colt & Summit

VALVE TIMING MARKS

Domestic Cars (continued)

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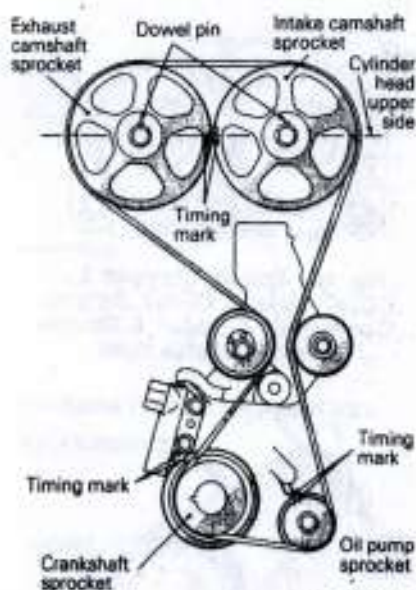


Fig. 4 DaimlerChrysler 2.0L DOHC. 1993-94 Laser & Talon & 1995-98 Talon Turbo Timing Belt

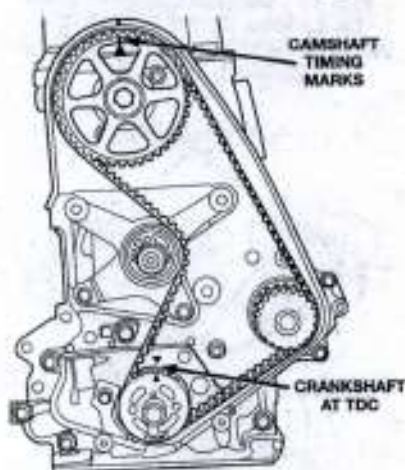


Fig. 7 DaimlerChrysler 2.0L SOHC. Breeze, Cirrus, Neon & Stratus

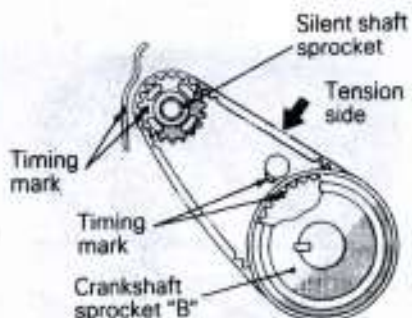


Fig. 5 DaimlerChrysler 2.0L DOHC. 1993-94 Laser & Talon & 1995-98 Talon Turbo Balance Shaft

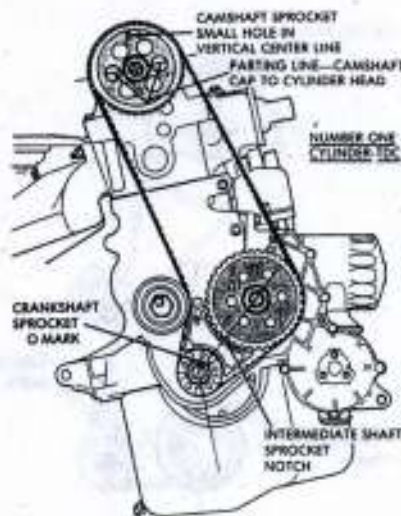


Fig. 8 DaimlerChrysler 2.2L & 2.5L/4 VIN J, K & U

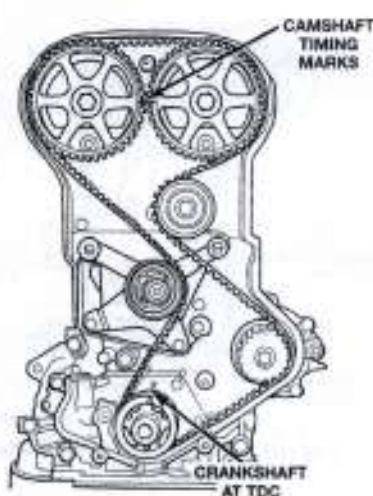


Fig. 6 DaimlerChrysler 2.0L & 2.4L DOHC. Avenger, Neon, 1995 Breeze, Cirrus & Stratus, 1995-98 Talon Non-Turbo & 1995-99 Sebring Coupe

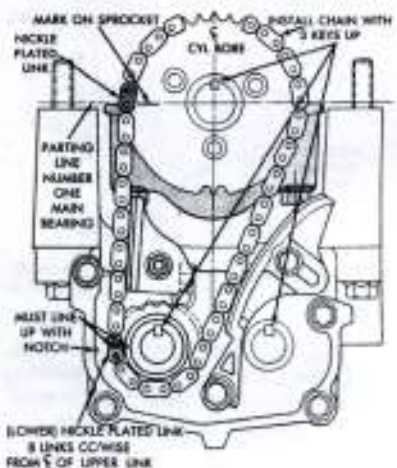


Fig. 9 DaimlerChrysler 2.5L/4 VIN J, K & U Balance Shaft

VALVE TIMING MARKS

Domestic Cars (continued)

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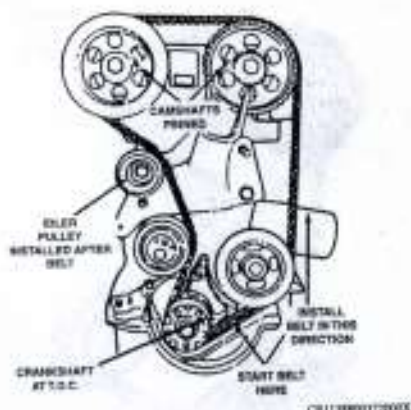


Fig. 10 DaimlerChrysler 2.2L Turbo III

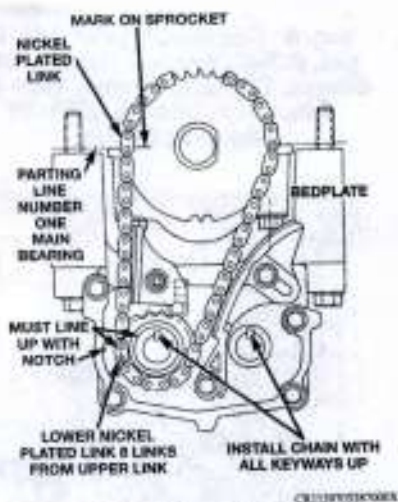


Fig. 13 DaimlerChrysler 2.4L DOHC. Breeze, Cirrus, Sebring Convertible, Sedan & Stratus Sedan Balance Chain

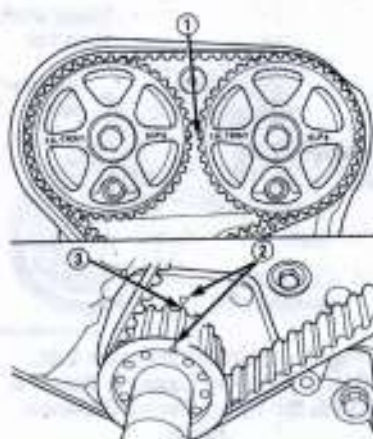


Fig. 11 DaimlerChrysler 2.4L DOHC. 1996-2004 Breeze, Cirrus, Sebring Convertible & Sedan & Stratus Sedan Camshaft & Crankshaft

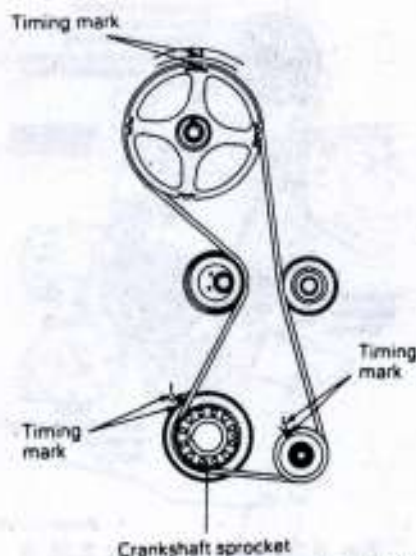


Fig. 14 DaimlerChrysler 2.4L. Colt Vista, Summit Wagon & 2001-04 Sebring & Stratus Coupe Timing Belt

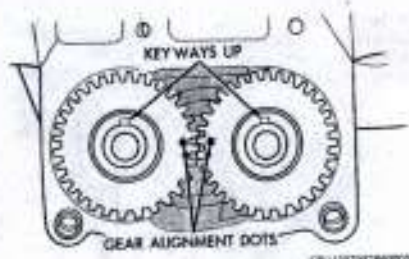


Fig. 12 DaimlerChrysler 2.4L DOHC. Breeze, Cirrus, Sebring Convertible & Sedan & Stratus Sedan Balance Gear

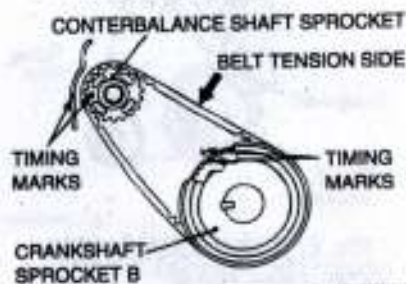


Fig. 15 DaimlerChrysler 2.4L. Colt Vista, Summit Wagon & 2001-04 Sebring & Stratus Coupe Balance Shaft Belt

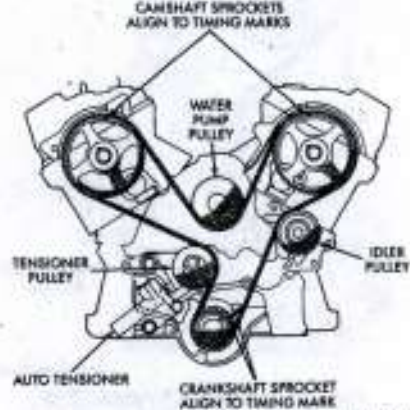


Fig. 16 DaimlerChrysler 2.5L & 3.0 V6. Avenger, Cirrus, Sebring & Stratus

VALVE TIMING MARKS

Domestic Cars (continued)

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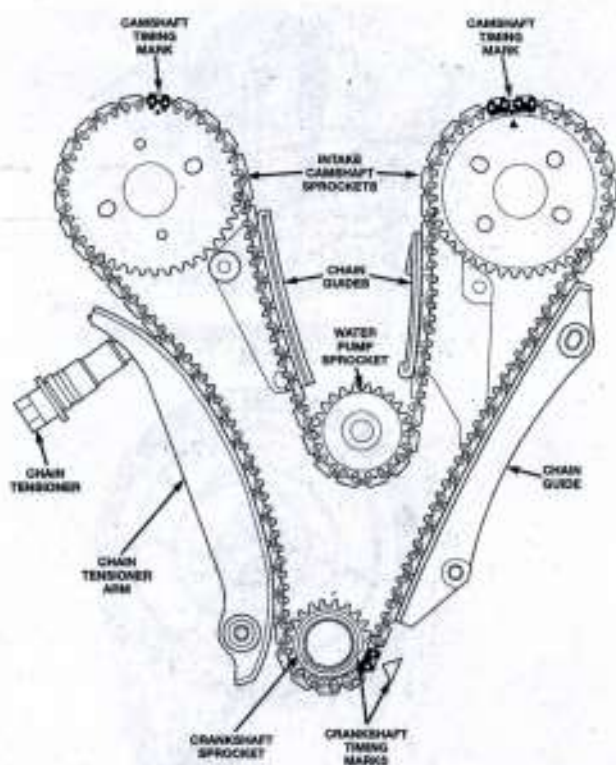


Fig. 17 DaimlerChrysler 2.7L Primary Chain

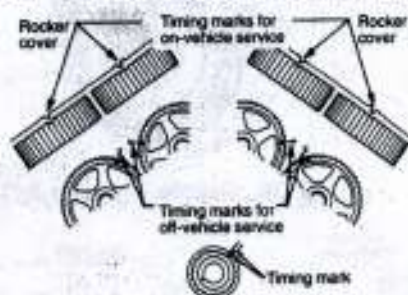


Fig. 19 DaimlerChrysler 3.0L DOHC

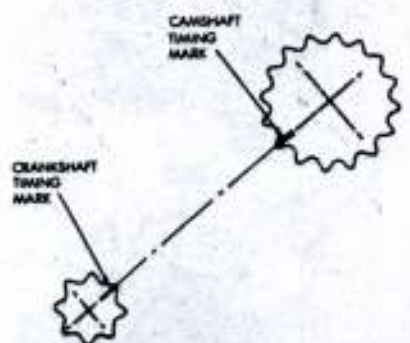


Fig. 21 DaimlerChrysler 3.0L Monaco & Premier LH Timing Chain

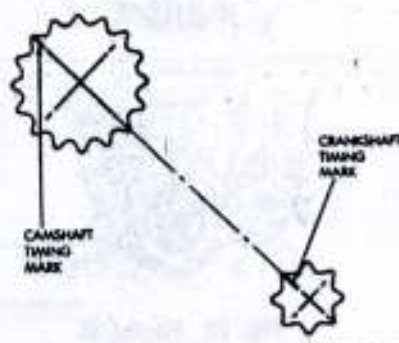


Fig. 22 DaimlerChrysler 3.0L Monaco & Premier RH Timing Chain

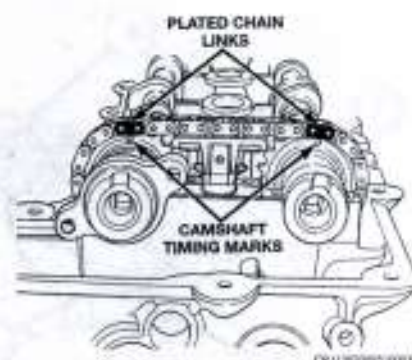


Fig. 18 DaimlerChrysler 2.7L Secondary Chain

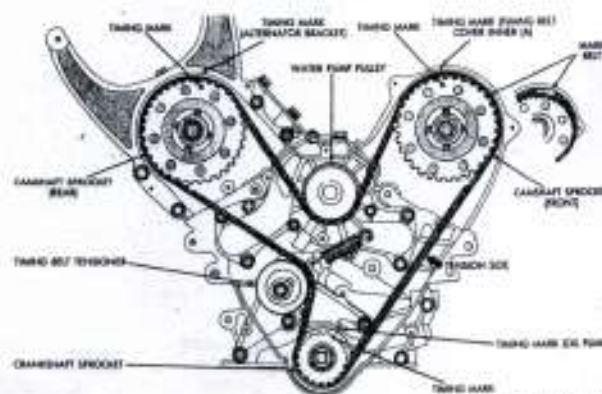


Fig. 20 DaimlerChrysler 3.0L SOHC Except Monaco, Premier & Sebring & Stratus Coupe



Fig. 23 DaimlerChrysler 3.5L & 1998-2001 3.2L

VALVE TIMING MARKS

Domestic Cars (continued)

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CAMSHAFT POINTER
MUST BE ALIGNED
WITH THE TIMING
MARK.

TURN THE
CRANKSHAFT
UNTIL KEYWAY
IS AT 12 O'CLOCK

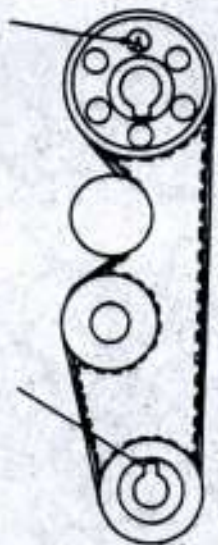


Fig. 30 Ford 1.9L

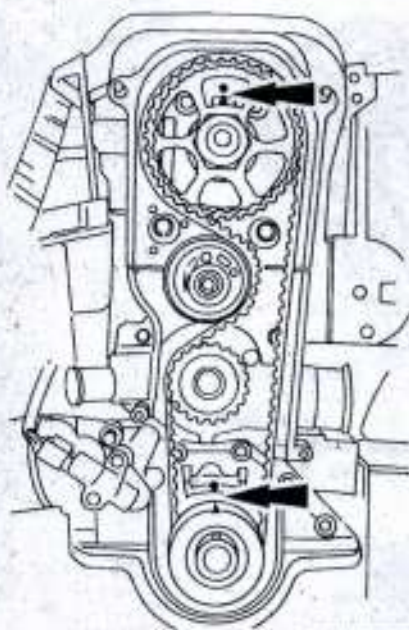


Fig. 31 Ford 2.0L SOHC

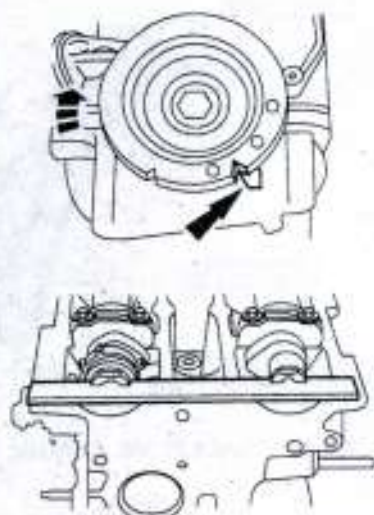


Fig. 32 Ford 2.0L DOHC. Focus, Contour, Mystique, ZX2 & 1999-2002 Cougar (position camshaft alignment tool in slots on back of camshafts)

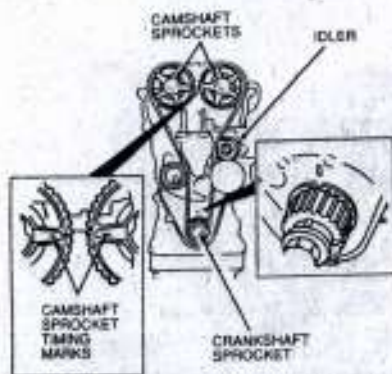


Fig. 33 Ford 2.0L. Probe

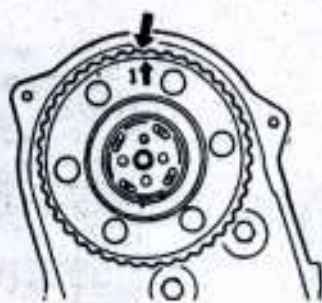


Fig. 34 Ford 2.2L

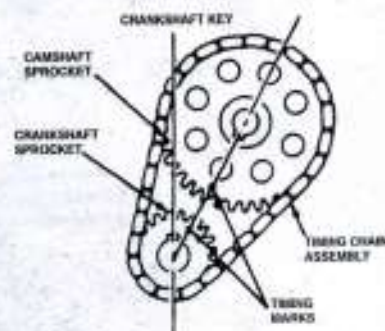


Fig. 35 Ford 2.3L & 2.5L/4 OHV

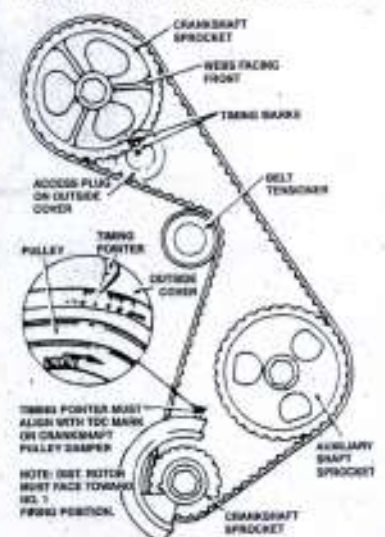
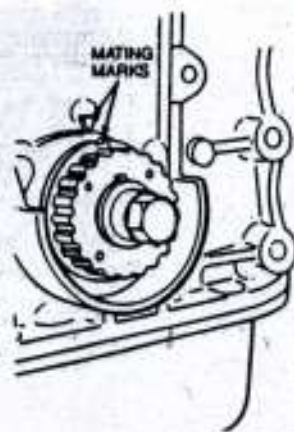


Fig. 36 Ford 2.3L OHC

VALVE TIMING MARKS

Domestic Cars (continued)

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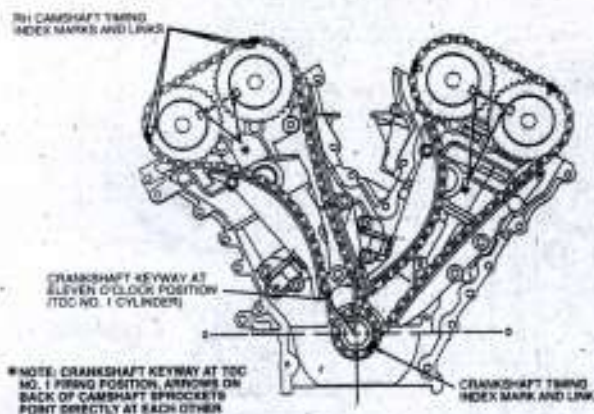


Fig. 37 Ford 2.5L V6. Contour, Cougar & Mystique

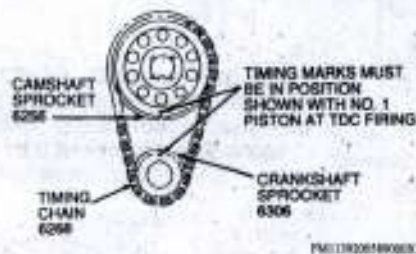


Fig. 39 Ford 3.0L OHV

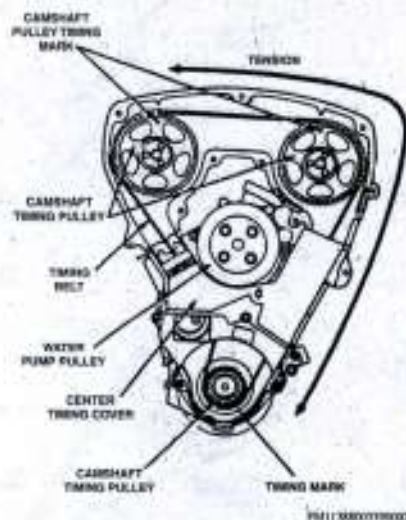


Fig. 40 Ford 3.0L & 3.2 DOHC. SHO

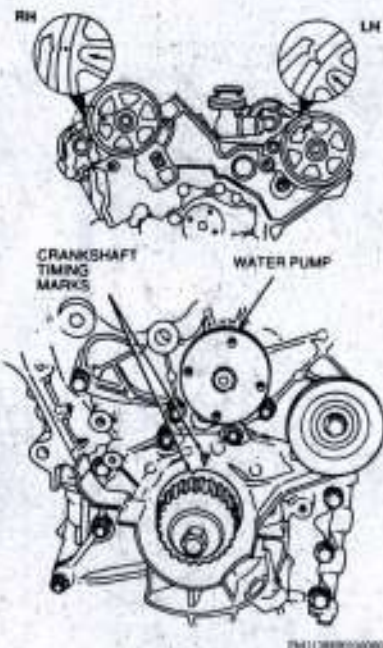


Fig. 38 Ford 2.5L V6. Probe

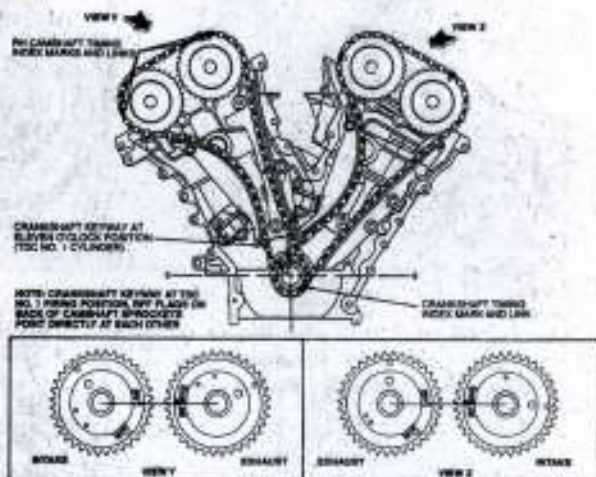


Fig. 41 Ford 3.0L DOHC. 1996-2004 Sable & Taurus

VALVE TIMING MARKS

Domestic Cars (continued)

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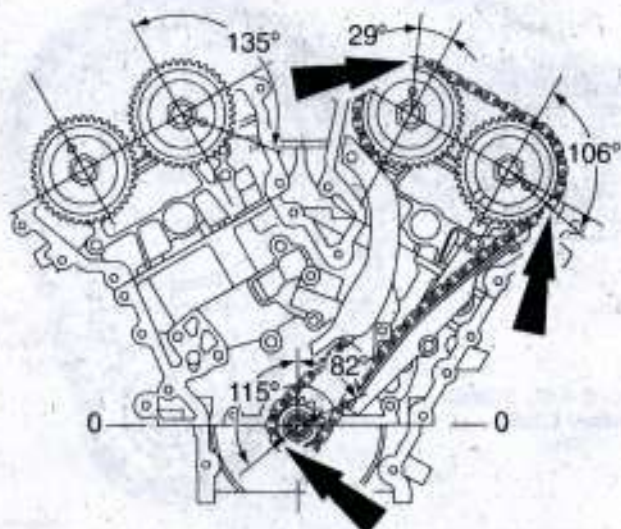


Fig. 42 Ford 3.0L DOHC. Lincoln LS Left Timing Chain (align gold links w/marks on camshaft & crankshaft gears)

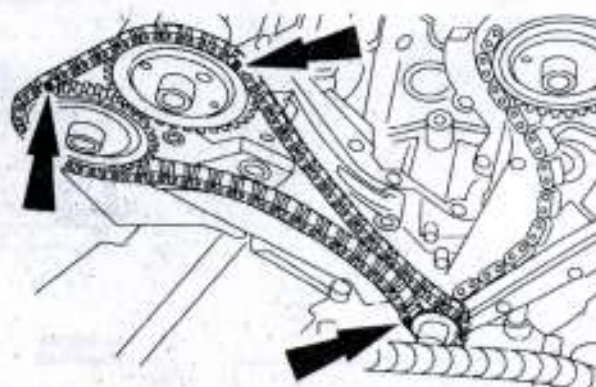


Fig. 43 Ford 3.0L DOHC. Lincoln LS Right Timing Chain (align gold links w/marks on camshaft & crankshaft gears)

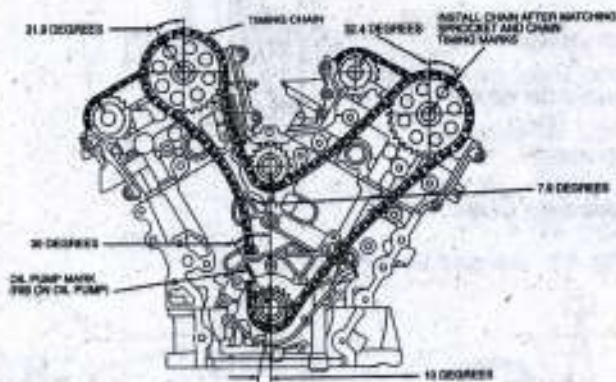


Fig. 44 Ford 3.4L

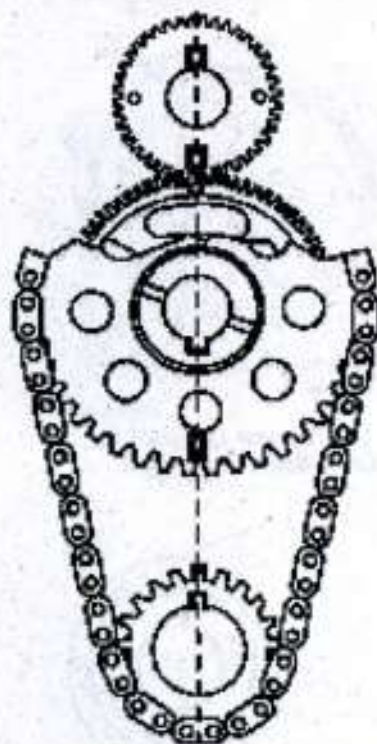
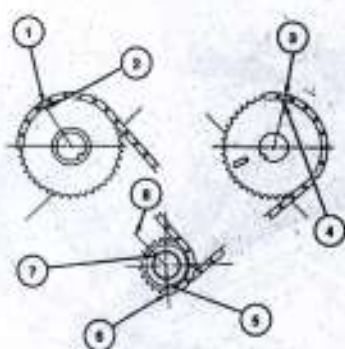


Fig. 45 Ford 3.8L

VALVE TIMING MARKS

Domestic Cars (continued)

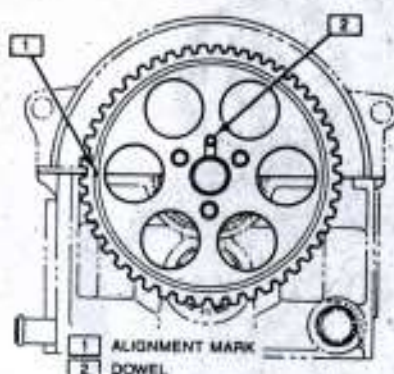
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Item	Description
1	RH Camshaft Timing Chain Mark
2	RH Camshaft Sprocket Mark
3	LH Camshaft Timing Chain Mark
4	RH Camshaft Sprocket Mark
5	Crankshaft Sprocket Mark
6	Crankshaft Timing Chain Mark
7	Crankshaft Sprocket
8	Crankshaft Keyway Center Line

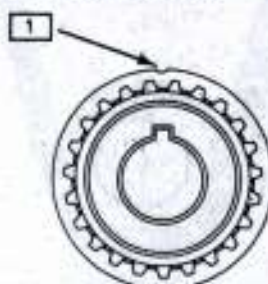
PM113000412000X

Fig. 46 Ford 4.6L Primary Chain



GC11880427000X

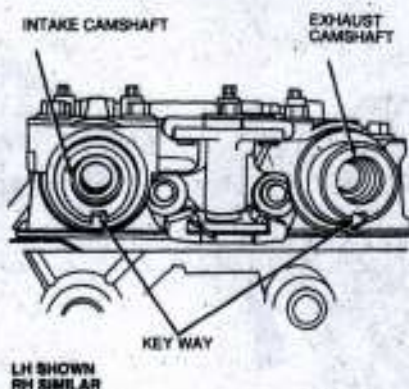
Fig. 50 General Motors 1.6L SOHC Storm Camshaft



1 CRANKSHAFT TIMING PULLEY MARK

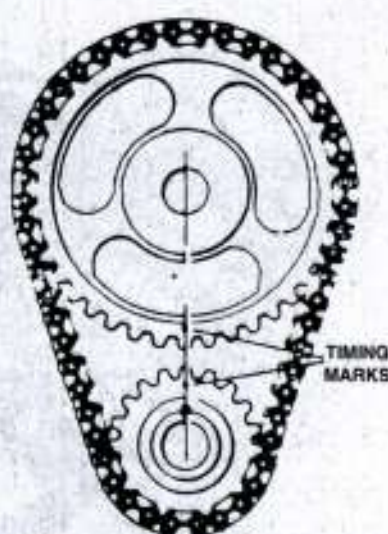
GC11880427000X

Fig. 51 General Motors 1.6L SOHC Storm Crankshaft



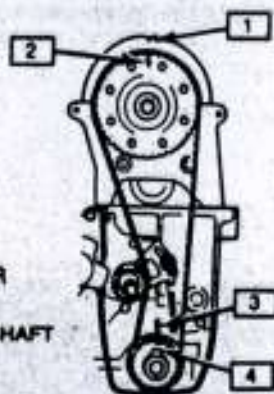
PM113000412000X

Fig. 47 Ford 4.6L DOHC Secondary Chain



PM113000412000X

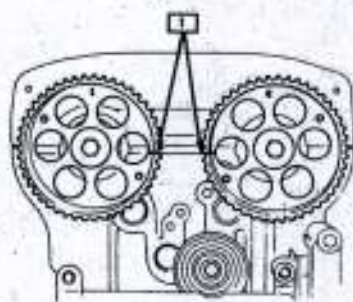
Fig. 48 Ford 5.0L



GC11880413000X

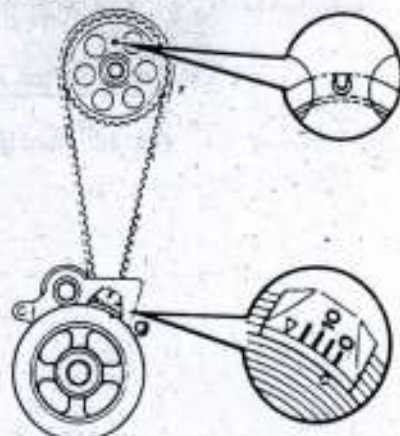
Fig. 49 General Motors 1.0L & 1.3L

- 1 "V" MARK ON CYLINDER HEAD COVER
- 2 TIMING MARK ON CAMSHAFT TIMING BELT GEAR
- 3 ARROW MARK ON OIL PUMP CASE
- 4 PUNCH MARK ON CRANKSHAFT TIMING BELT GEAR



GC11880427000X

Fig. 52 General Motors 1.6L & 1.8L DOHC Storm Camshaft



GC11880424000X

Fig. 53 General Motors 1.6L & 1.8L 1993-97 Prizm Except GSi

VALVE TIMING MARKS

Domestic Cars (continued)

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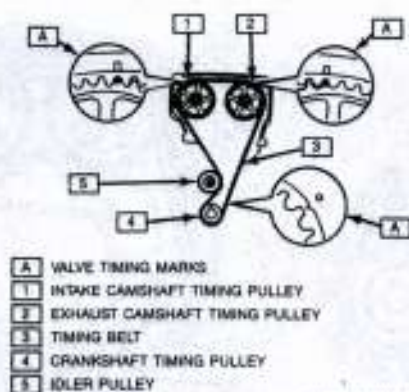


Fig. 54 General Motors 1.6L Prizm GSi (Intake Camshaft Knock Pin Faces Upward; Exhaust Camshaft Knock Pin Faces Downward)

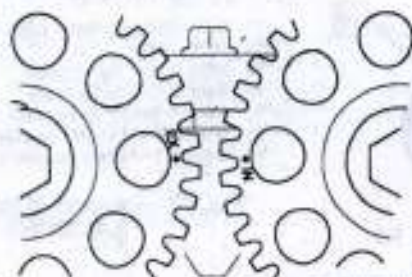


Fig. 56 General Motors 1.8L DOHC 1998-2002 Prizm Camshafts

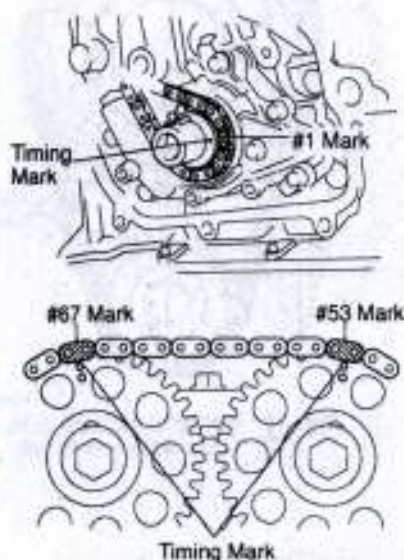


Fig. 57 General Motors 1.8L DOHC 1998-2002 Prizm Crankshaft & Timing Chain



Fig. 55 General Motors 1.6L LeMans

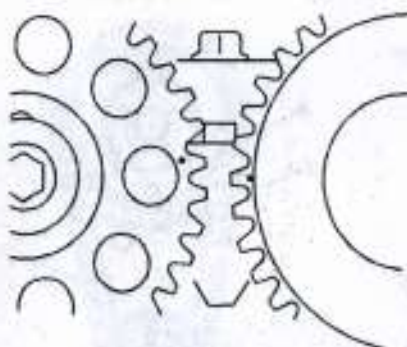


Fig. 58 General Motors 1.8L DOHC 2003-04 Pontiac Vibe Camshaft Marks

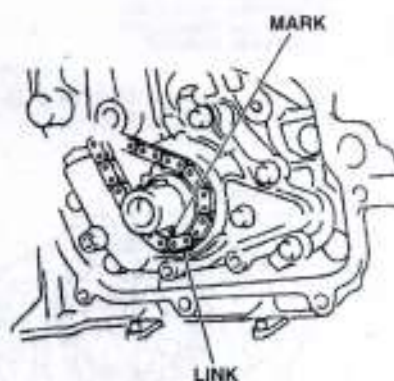


Fig. 59 General Motors 1.8L DOHC 2003-04 Pontiac Vibe Crankshaft Marks & Chain

VALVE TIMING MARKS

Domestic Cars (continued)

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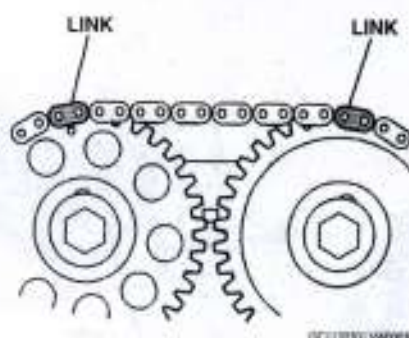


Fig. 60 General Motors 1.8L DOHC, 2003 Pontiac Vibe Camshaft Marks & Chain

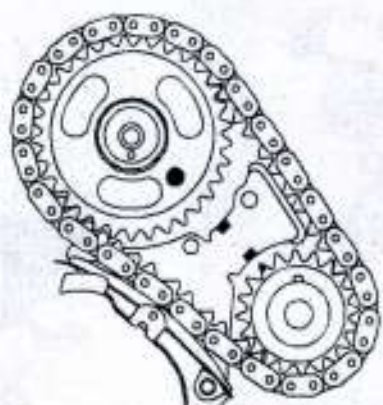
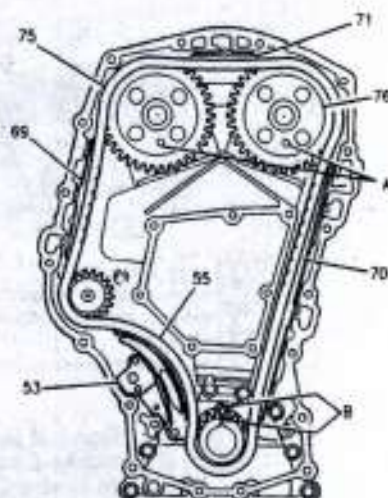


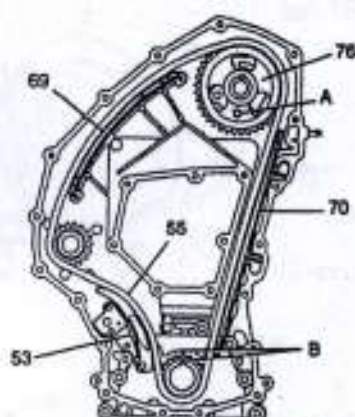
Fig. 61 General Motors 2.0L & 2.2L OHV



A CAMSHAFT TIMING ALIGNMENT PIN LOCATION
B CRANKSHAFT GEAR TIMING MARK

53 SHOE ASSEMBLY TIMING CHAIN TENSIONER
55 TIMING CHAIN
69 GUIDE - R.H. TIMING CHAIN
70 GUIDE - L.H. TIMING CHAIN
71 GUIDE - UPPER TIMING CHAIN
75 SPROCKET - EXHAUST CAMSHAFT
76 SPROCKET - INTAKE CAMSHAFT

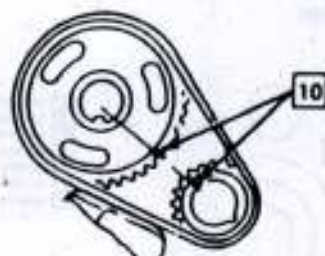
Fig. 62 General Motors 2.3L & 2.4L DOHC



A CAMSHAFT TIMING ALIGNMENT PIN LOCATIONS
B CRANKSHAFT GEAR TIMING MARKS

53 SHOE AND TENSIONER ASSEMBLY
55 TIMING CHAIN
69 GUIDE - R.H. TIMING CHAIN
70 GUIDE - L.H. TIMING CHAIN
75 SPROCKET, CAMSHAFT

Fig. 63 General Motors 2.3L & 2.4L SOHC



10 TIMING MARKS TO BE ALIGNED AS SHOWN WHEN ENGINE IS ROTATED TO T.D.C.

Fig. 64 General Motors 2.5L



Fig. 67 General Motors 3.3L & 3.8L, Less Balance Shaft

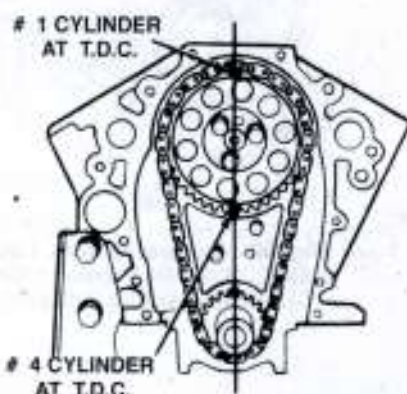


Fig. 65 General Motors 3.1L & 3.4L OHV, 1993-96



1. DAMPER TIMING MARK
2. CRANKSHAFT TIMING MARK
3. DAMPER TIMING MARK
4. CAMSHAFT TIMING MARK

Fig. 66 General Motors 3.1L & 3.4L OHV, 1997-2004

VALVE TIMING MARKS

Domestic Cars (continued)

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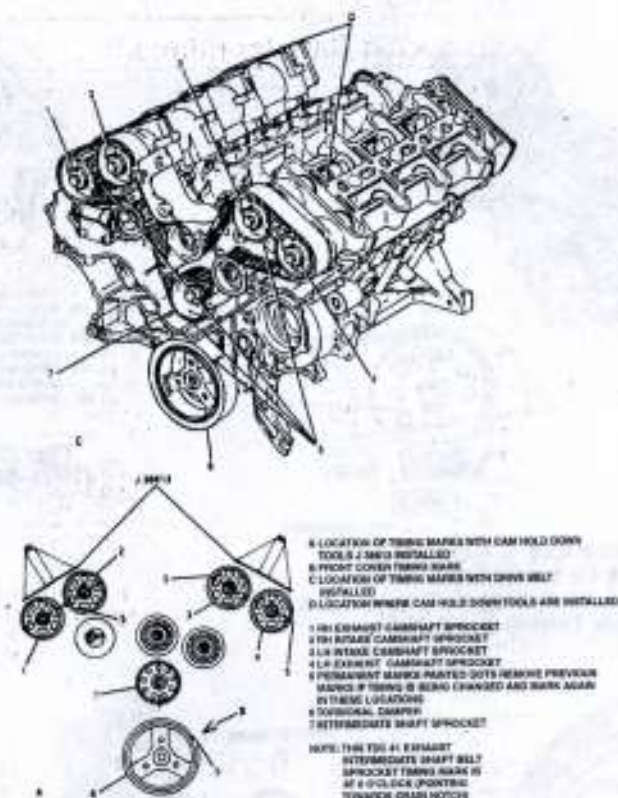
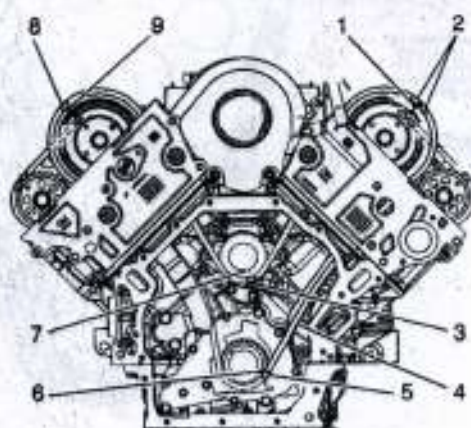


Fig. 68 General Motors 3.4L DOHC



- 1- LH CAMSHAFT SPROCKET MARK
- 2- DARK LINK
- 3- DARK LINK
- 4- TIMING CHAIN
- 5- DARK LINK
- 6- CRANKSHAFT SPROCKET MARK
- 7- BALANCE SHAFT SPROCKET MARK
- 8- DARK LINK
- 9- RH CAMSHAFT SPROCKET MARK

Fig. 69 General Motors 3.5L

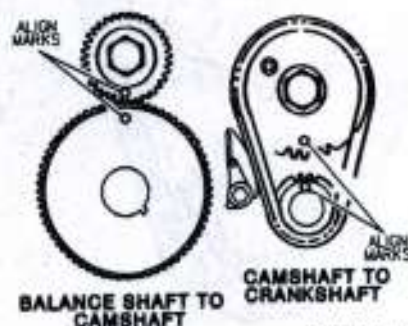


Fig. 70 General Motors 3.8L With Balance Shaft

VALVE TIMING MARKS

Domestic Cars (continued)

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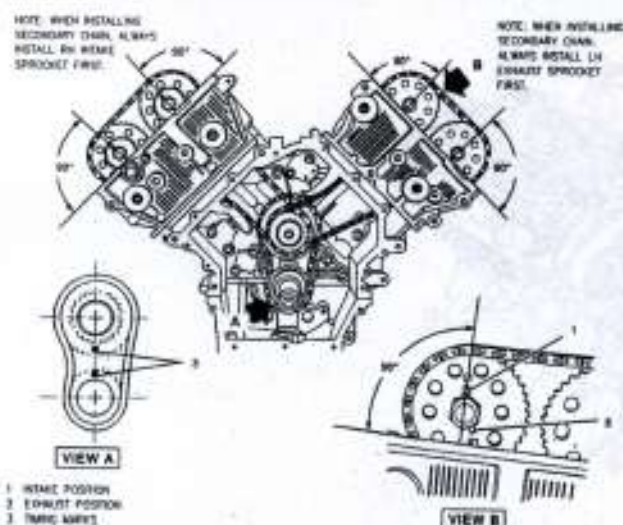


Fig. 71 General Motors 4.0L & 4.6L (LH Intake Camshaft Timing Mark LI; LH Exhaust Camshaft Timing Mark LE; RH Intake Camshaft Timing Mark RI; RH Camshaft Timing Mark RE)

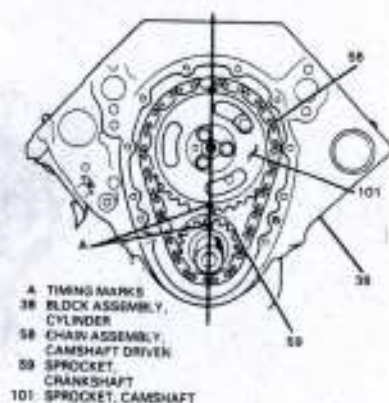


Fig. 72 General Motors 4.3L (1993-99), 5.0L & 5.7L VIN E & 7

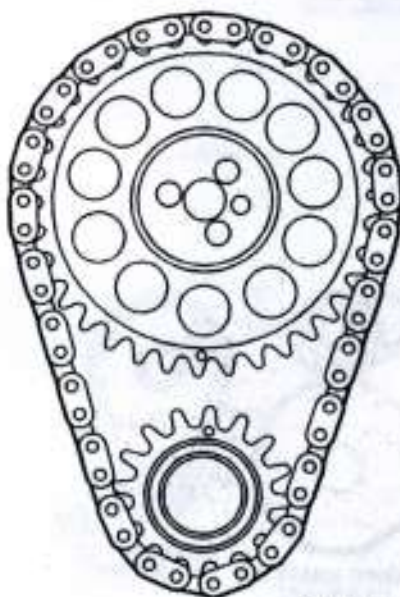


Fig. 73 General Motors 4.3L (2000-02), 5.7L VIN G

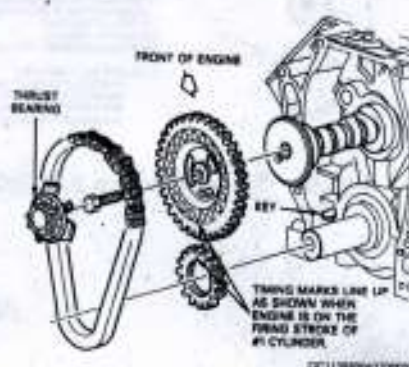


Fig. 74 General Motors 4.5L & 4.9L

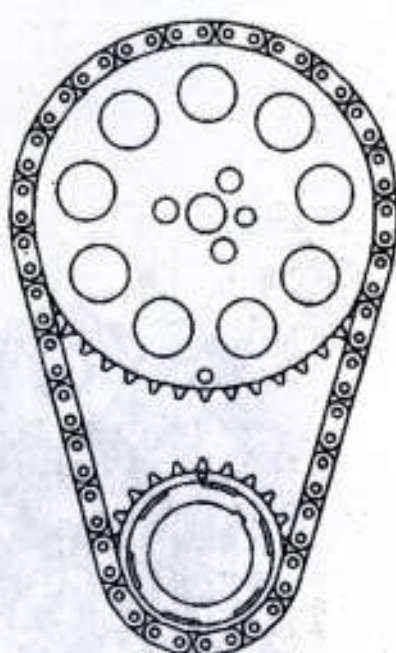
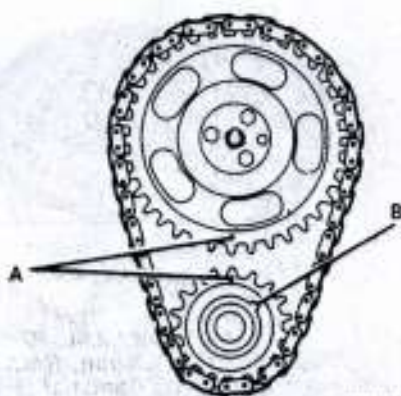


Fig. 75 General Motors 5.7L VIN G

VALVE TIMING MARKS

Domestic Cars (continued)

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**Fig. 76 General Motors 5.7L
VIN P**

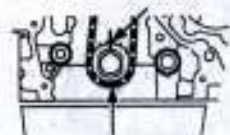


Fig. 77 Saturn 1.9L SOHC

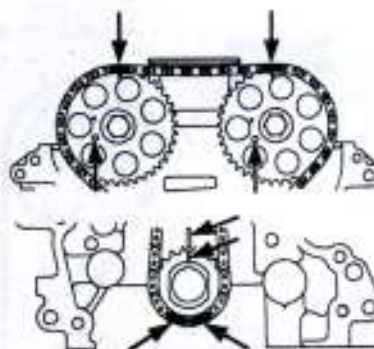
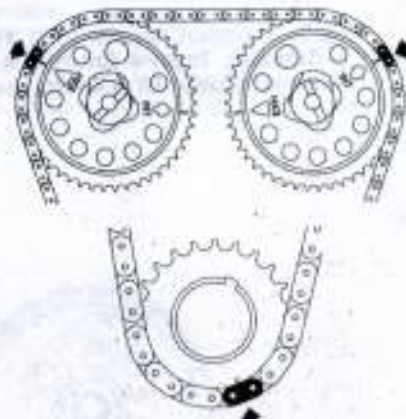


Fig. 78 Saturn 1.9L DOHC



**Fig. 79 General Motors & Saturn
2.2L OHC & Saturn ION 2.0L**

VALVE TIMING MARKS

Domestic Light Trucks & Vans

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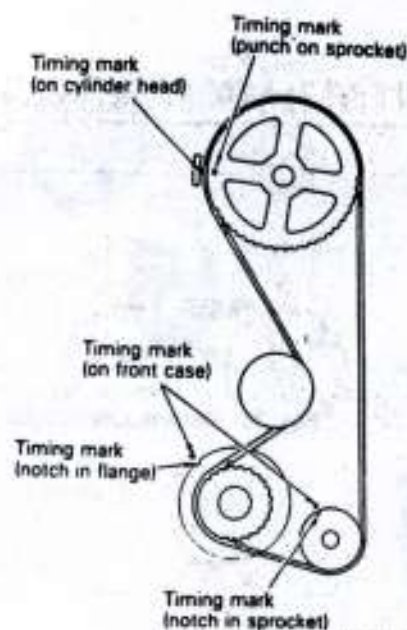


Fig. 1 DaimlerChrysler 2.4L. Ram 50

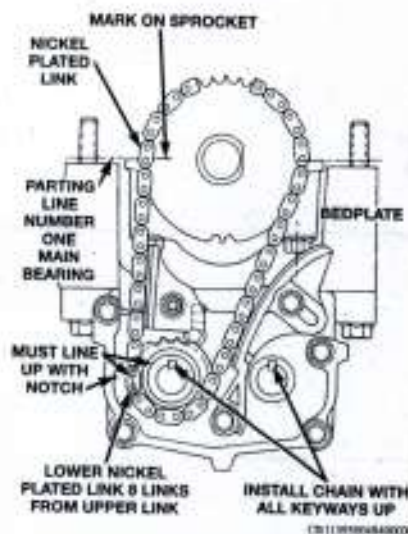


Fig. 4 DaimlerChrysler 2.4L. PT Cruiser, Caravan, Town & Country & Voyager Balance Shaft

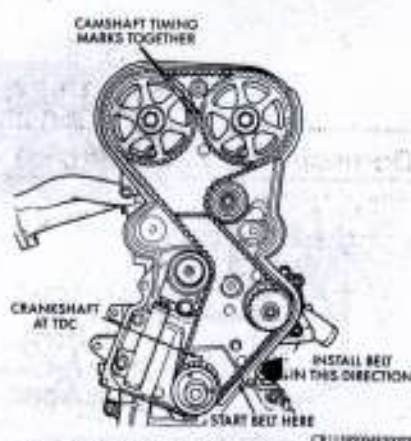


Fig. 2 DaimlerChrysler 2.4L. 1995 Caravan, Town & Country & Voyager Camshaft & Crankshaft

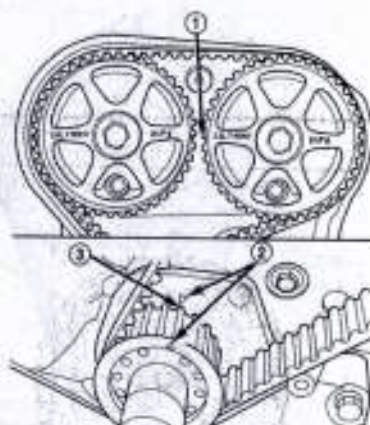


Fig. 3 DaimlerChrysler 2.4L. PT Cruiser, 1996-2004 Caravan, Town & Country & Voyager Camshaft & Crankshaft

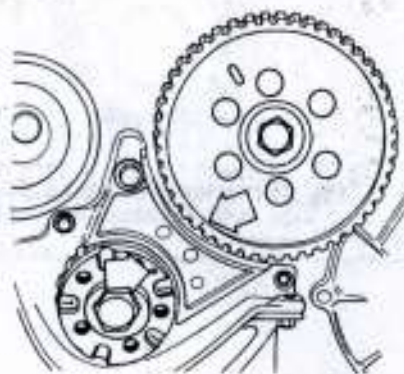


Fig. 5 DaimlerChrysler 2.5L OHC

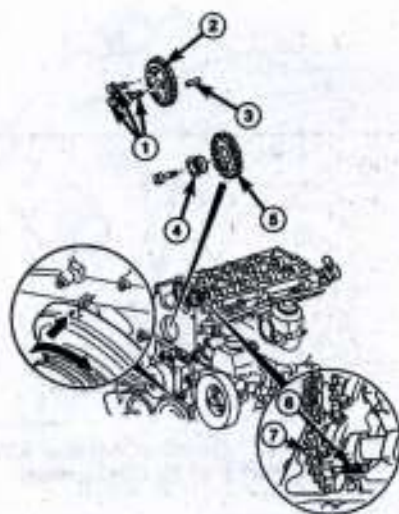


Fig. 6 DaimlerChrysler 2.5L OHV, 4.0L & 4.2L

VALVE TIMING MARKS

Domestic Light Trucks & Vans (continued)

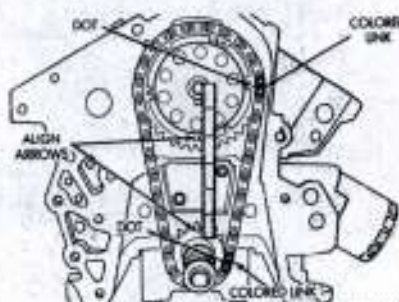
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- 1 - CAMSHAFT SPROCKET BOLTS
- 2 - INTAKE CAMSHAFT
- 3 - DOWEL PIN
- 4 - INTERMEDIATE GEAR BUSHING
- 5 - INTERMEDIATE GEAR
- 6 - CAMSHAFT LOCKING PIN #8929
- 7 - INTAKE CAMSHAFT SPROCKET

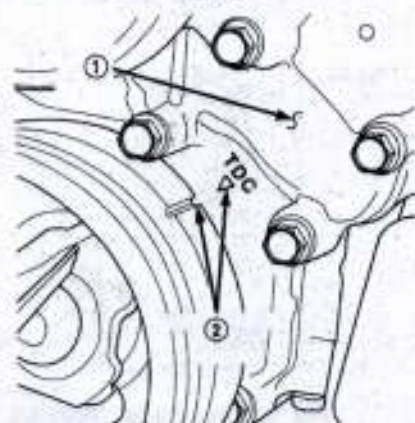
CR113040001000T

Fig. 7 DaimlerChrysler 2.7L Diesel Sprinter



CR113050001000X

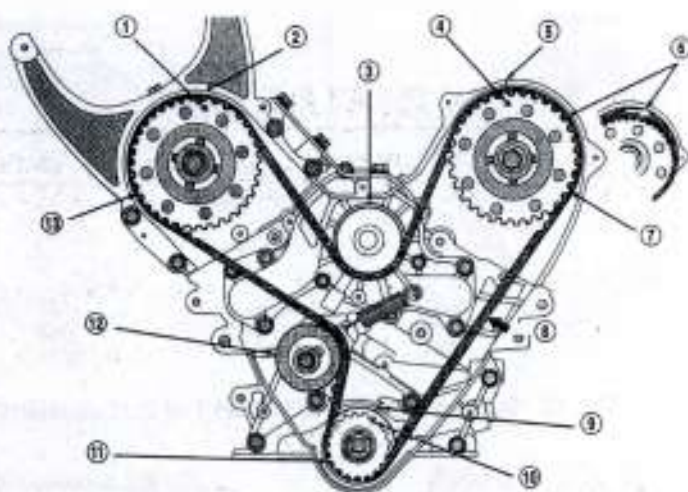
Fig. 9 DaimlerChrysler 3.3L & 3.8L



- 1 - TIMING CHAIN COVER
- 2 - CRANKSHAFT TIMING MARKS

CR1130500047000X

Fig. 10 DaimlerChrysler 3.7L V6 (Part 2 of 2). Crankshaft

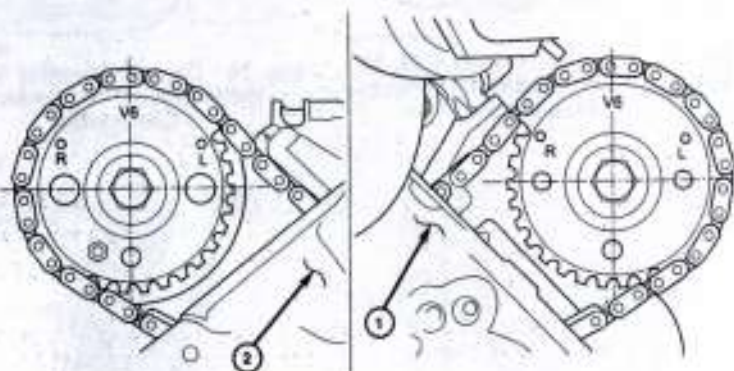


- 1 - TIMING MARK
- 2 - TIMING MARK (GENERATOR BRACKET)
- 3 - WATER PUMP PULLEY
- 4 - TIMING MARK
- 5 - TIMING MARK (TIMING BELT COVER INNER (A))
- 6 - MARK BELT
- 7 - CAMSHAFT SPROCKET (FRONT)

- 8 - TENSION SIDE
- 9 - TIMING MARK (OIL PUMP)
- 10 - TIMING MARK
- 11 - CRANKSHAFT SPROCKET
- 12 - TIMING BELT TENSIONER
- 13 - CAMSHAFT SPROCKET (REAR)

CR113060000000A

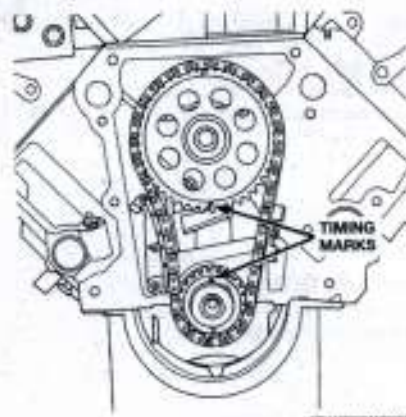
Fig. 8 DaimlerChrysler 3.0L



- 1 - LEFT CYLINDER HEAD
- 2 - RIGHT CYLINDER HEAD

CR1130500046000X

Fig. 10 DaimlerChrysler 3.7L V6 (Part 1 of 2). Camshafts



CR1130500000000

Fig. 11 DaimlerChrysler 3.9L, 5.2L, Dodge 5.9L V8 & 8.0L

VALVE TIMING MARKS

Domestic Light Trucks & Vans (continued)

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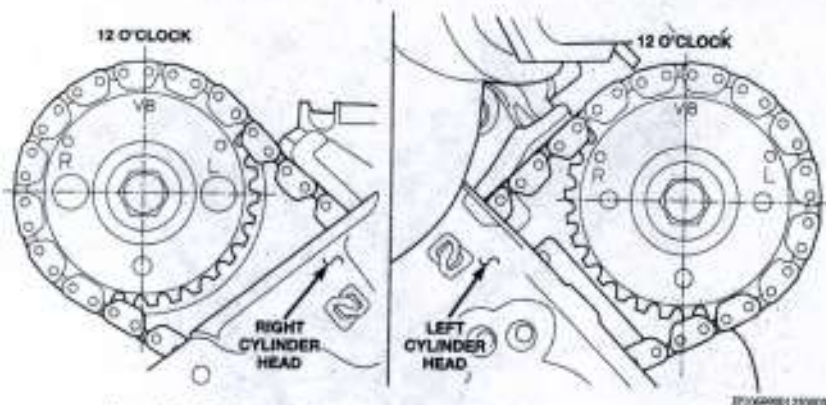


Fig. 12 DaimlerChrysler 4.7L (Part 1 of 2). Camshafts

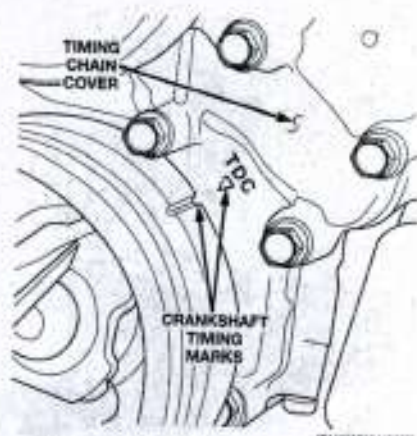


Fig. 12 DaimlerChrysler 4.7L (Part 2 of 2). Crankshaft



Fig. 13 DaimlerChrysler 5.9L 12 Valve Diesel. Camshaft To Pump Drive Gear

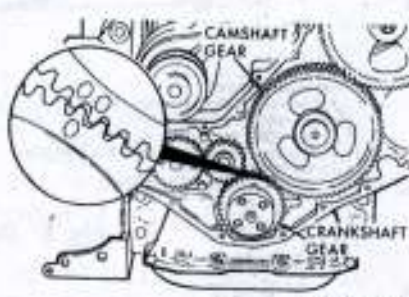


Fig. 14 DaimlerChrysler 5.9L 12 Valve Diesel. Camshaft To Crankshaft

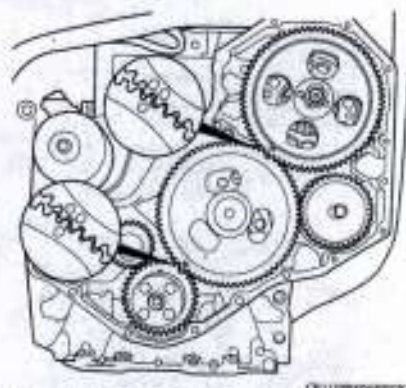


Fig. 15 DaimlerChrysler 5.9L 24 Valve Diesel

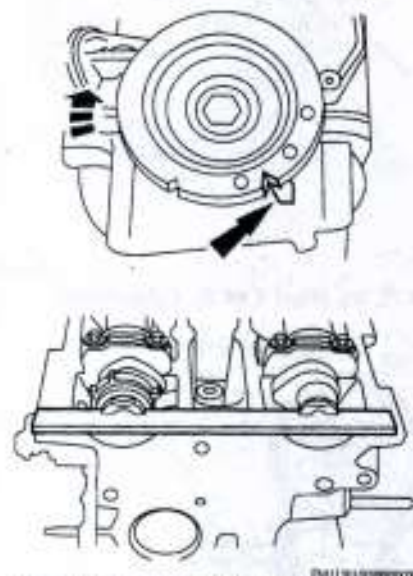


Fig. 16 Ford 2.0L DOHC. Escape (position camshaft alignment tool in slots on back of camshafts)

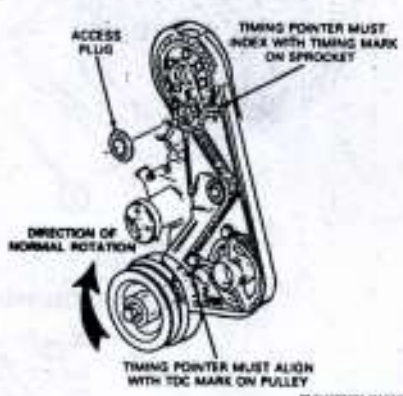


Fig. 17 Ford 2.3L. 1993-94

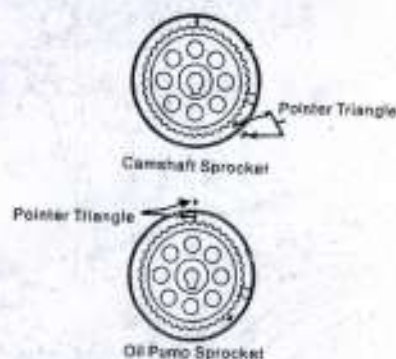


Fig. 18 Ford 2.3L. 1995-97

VALVE TIMING MARKS

Domestic Light Trucks & Vans (continued)

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Fig. 19 Ford 2.3L (Part 1 of 2). 2001-04 Ranger (position camshaft alignment tool in slots on back of camshafts)

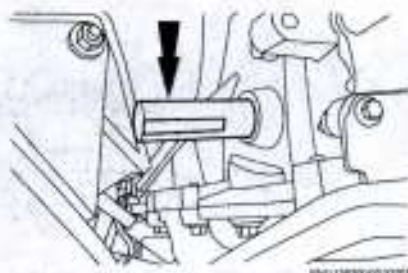


Fig. 19 Ford 2.3L (Part 2 of 2). 2001-04 Ranger (crankshaft timing peg installation)

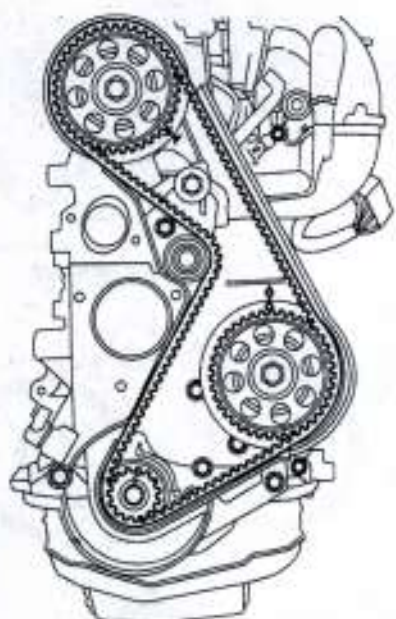


Fig. 20 Ford 2.5L

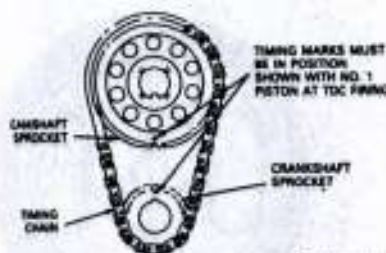


Fig. 21 Ford 2.9L & 3.0L OHV

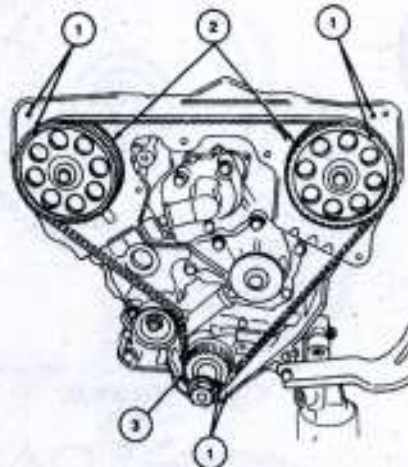


Fig. 22 Ford 3.0L OHC, Villager (1=Timing Marks, 2=Camshaft Sprockets, 3=Crankshaft Sprocket)

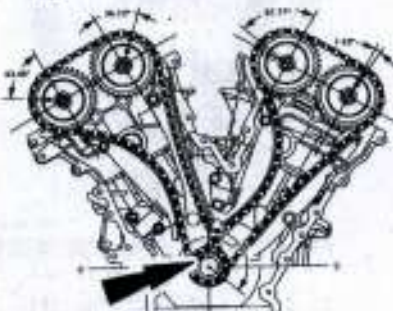


Fig. 23 Ford 3.0L DOHC, Escape

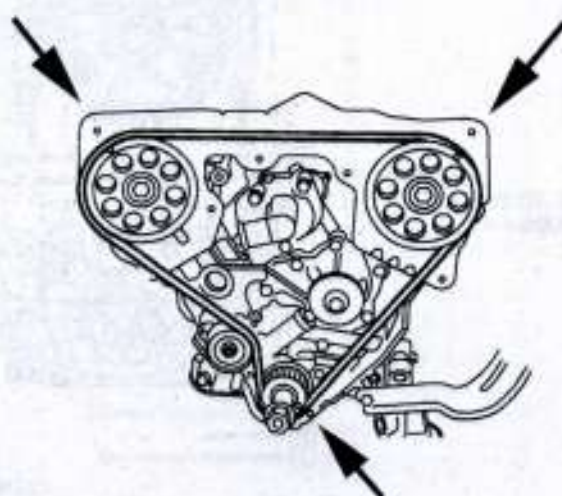


Fig. 24 Ford 3.3L

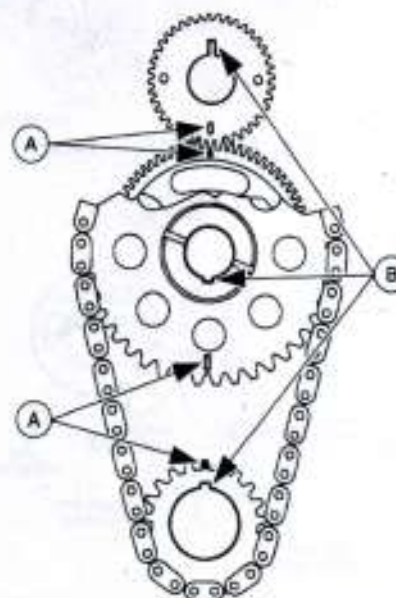


Fig. 25 Ford 3.8L & 4.2L

VALVE TIMING MARKS

Domestic Light Trucks & Vans (continued)

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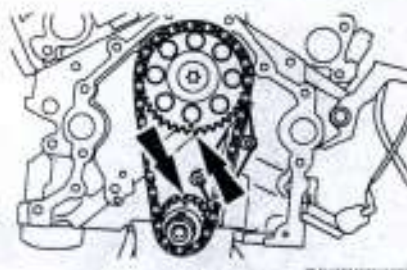


Fig. 26 Ford 4.0L OHV

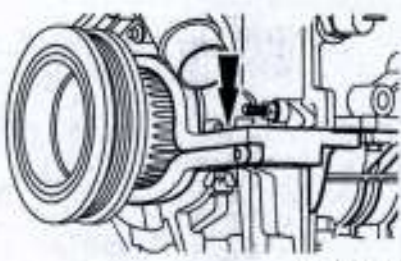


Fig. 27 Ford 4.0L OHC
(Crankcase Holding Tool)

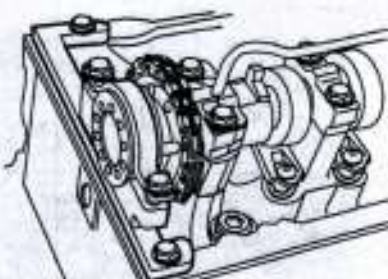


Fig. 28 Ford 4.0 OHC (Camshaft
Gear Positioning/Holding Tool)

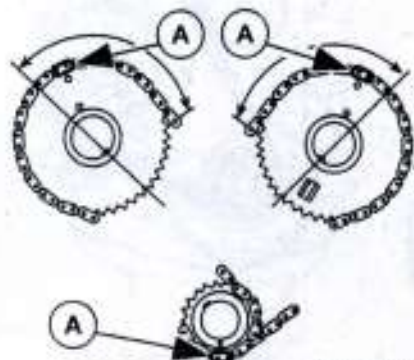


Fig. 29 Ford 4.6L, 5.4L & 6.8L
(A=Sprocket Timing Marks &
Copper Links)

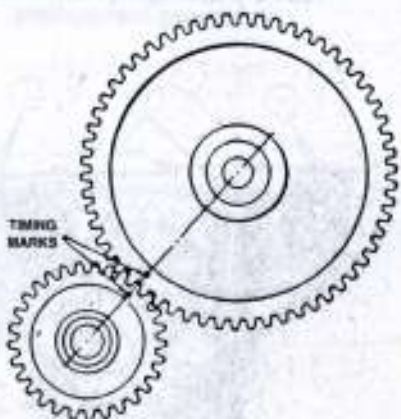


Fig. 30 Ford 4.9L

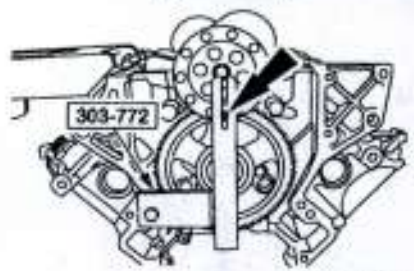


Fig. 32 Ford 6.0L Diesel

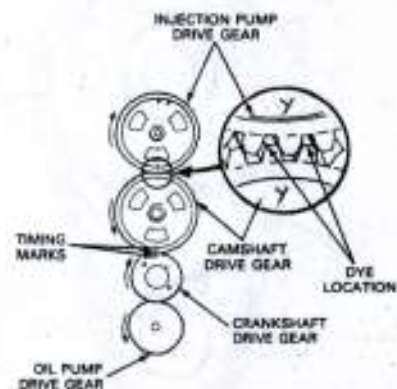


Fig. 33 Ford 7.3L Diesel, 1993-94

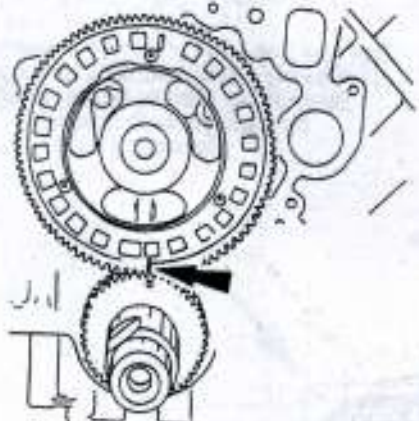


Fig. 34 Ford 7.3L Diesel,
1995-2003

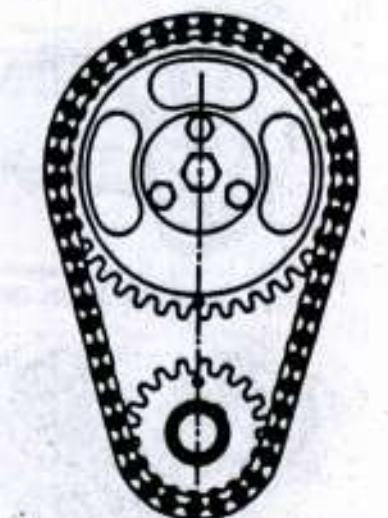


Fig. 31 Ford 5.0L, 5.8L & 7.5L

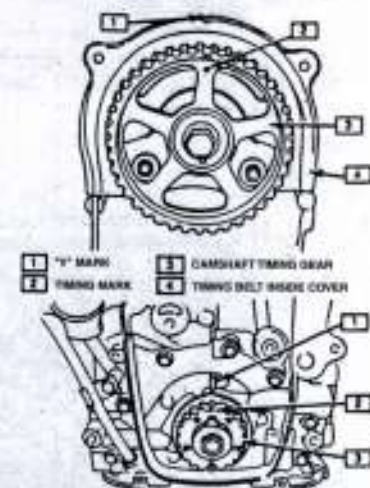
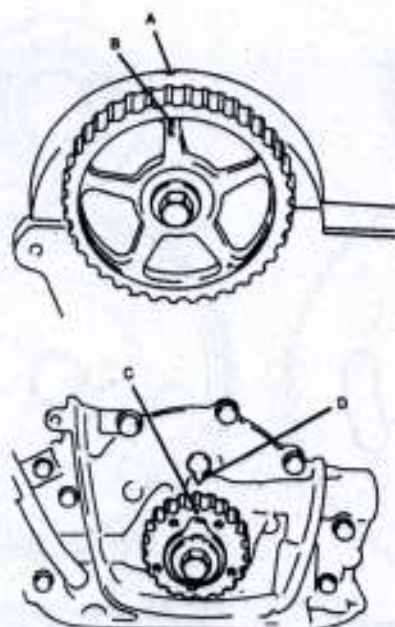


Fig. 35 General Motors Tracker
1.6L, 1993-94 & 1995 VIN U

VALVE TIMING MARKS

Domestic Light Trucks & Vans (continued)

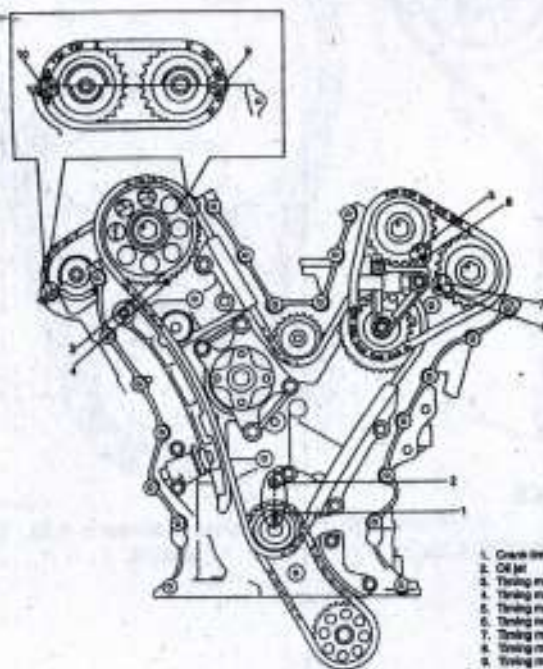
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- A CYLINDER HEAD COVER MARK
- B CAMSHAFT TIMING BELT GEAR MARK "E"
- C CRANKSHAFT TIMING BELT GEAR MARK
- D OIL PUMP CASTING MARK

GC1187000000000

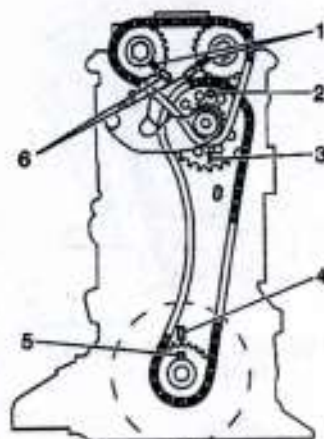
Fig. 36 General Motors. Tracker 1.6L. 1995 VIN 6 & 1996-2002



- 1. Crank timing pulley key
- 2. Oil jet
- 3. Timing mark of R/R bank 1st timing chain sprocket
- 4. Timing mark of R/R bank 1st timing chain
- 5. Timing mark of L/H bank 2nd timing chain intake sprocket
- 6. Timing mark of L/H bank 2nd timing chain
- 7. Timing mark of L/H bank 2nd timing chain exhaust sprocket
- 8. Timing mark of L/H bank 2nd timing chain
- 9. Timing mark of R/R bank 2nd timing chain intake sprocket
- 10. Timing mark of R/R bank 2nd timing chain exhaust sprocket

GC1130181130000

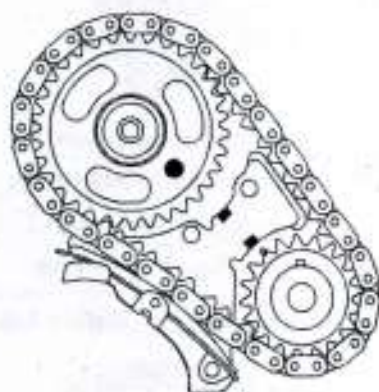
Fig. 38 General Motors. Tracker 2.5L V6



- 1. Camshaft Guide Pins
- 2. Idler Sprocket Timing Mark
- 3. Idler Sprocket Arrow
- 4. Engine Block Timing Mark
- 5. Crankshaft Keyway

GC1130012000000

Fig. 37 General Motors. Tracker 2.0L



GC1130432000000

Fig. 39 General Motors 2.2L



GC1130000440000

Fig. 40 General Motors 2.5L 4 Cyl.

VALVE TIMING MARKS

Domestic Light Trucks & Vans (continued)

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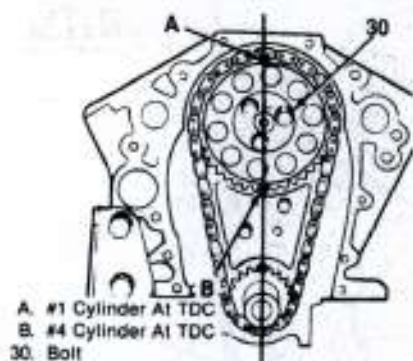


Fig. 41 General Motors 2.8L & 4.3L



1. DAMPER TIMING MARK
2. CRANKSHAFT TIMING MARK
3. DAMPER TIMING MARK
4. CAMSHAFT TIMING MARK

Fig. 44 General Motors 3.4L



Fig. 45 General Motors 5.0L & 5.7L

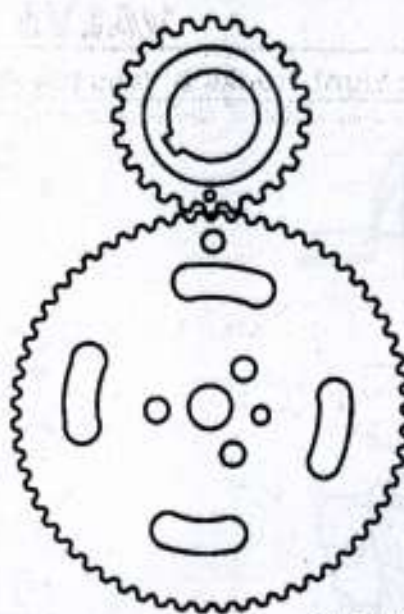


Fig. 42 General Motors 4.3L Balance Shaft. 1993-97 VINs W & X

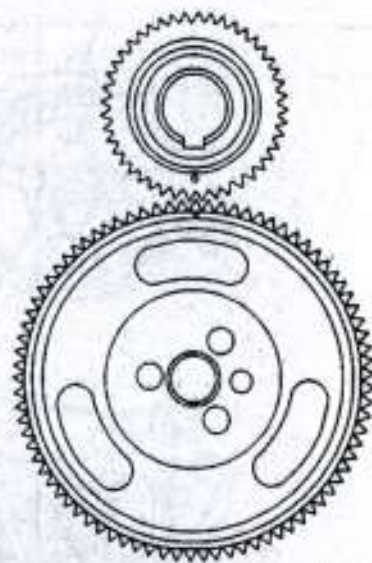
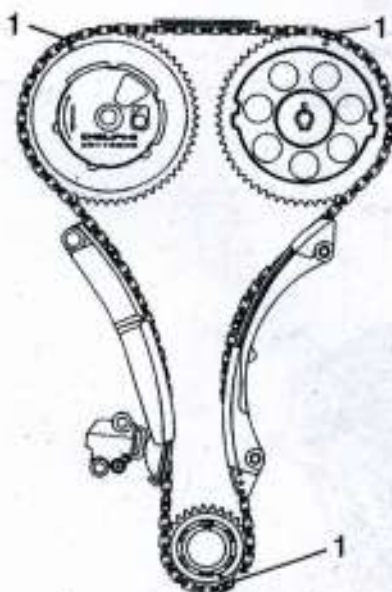


Fig. 43 General Motors 4.3L Balance Shaft. 1998-2002 VINs W & X



1- TIMING MARKS

Fig. 46 General Motors 4.2L

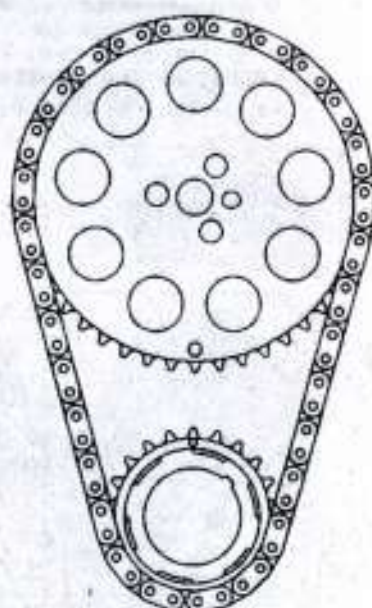


Fig. 47 General Motors 4.8L, 5.3L & 6.0L

VALVE TIMING MARKS

Domestic Light Trucks & Vans (continued)

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A. Align Marks as Shown

GC113001265000X

Fig. 48 General Motors 7.4L 1993-94

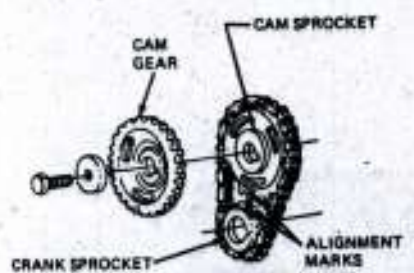


Fig. 51 General Motors 6.2L & 6.5L Diesel Engines

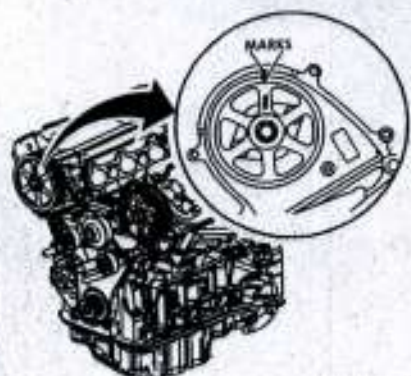


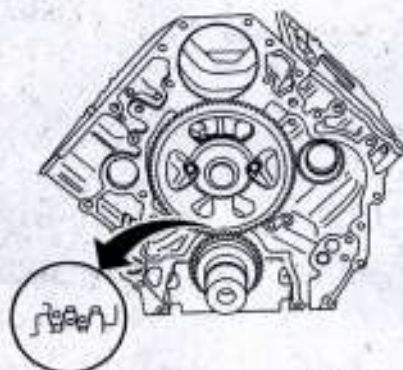
Fig. 54 Saturn Vue 3.5L LH Camshaft Sprocket

GC1130402300000T



GC113090190000X

Fig. 49 General Motors 7.4L 1995-2000



GC113030140000X

Fig. 52 General Motors 6.6L Diesel Engine

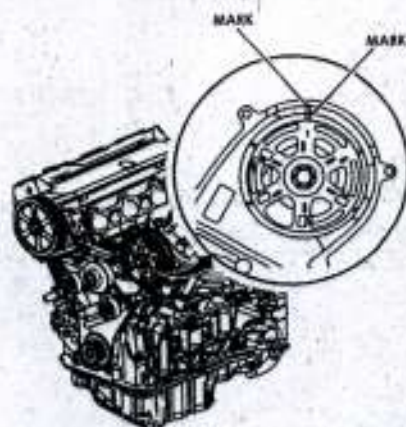


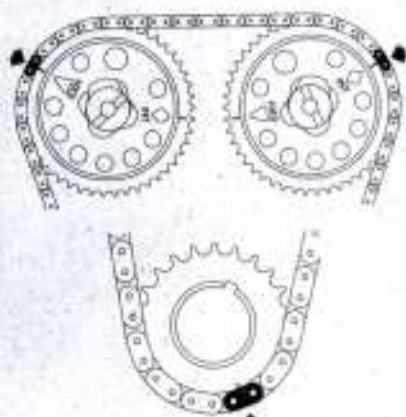
Fig. 55 Saturn Vue 3.5L RH Camshaft Sprocket

GC1130402300000T



GC113000190000X

Fig. 50 General Motors 8.1L



GC113020110000X

Fig. 53 Saturn Vue 2.2L Engine

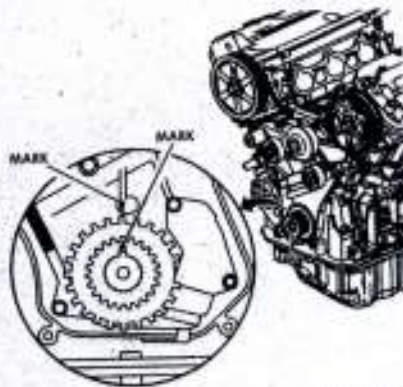


Fig. 56 Saturn Vue 3.5L Crankshaft Sprocket

GC1130402300000T

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans

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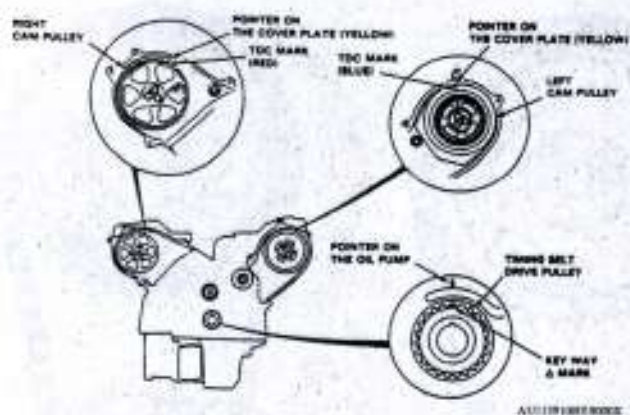


Fig. 1 Acura. Legend

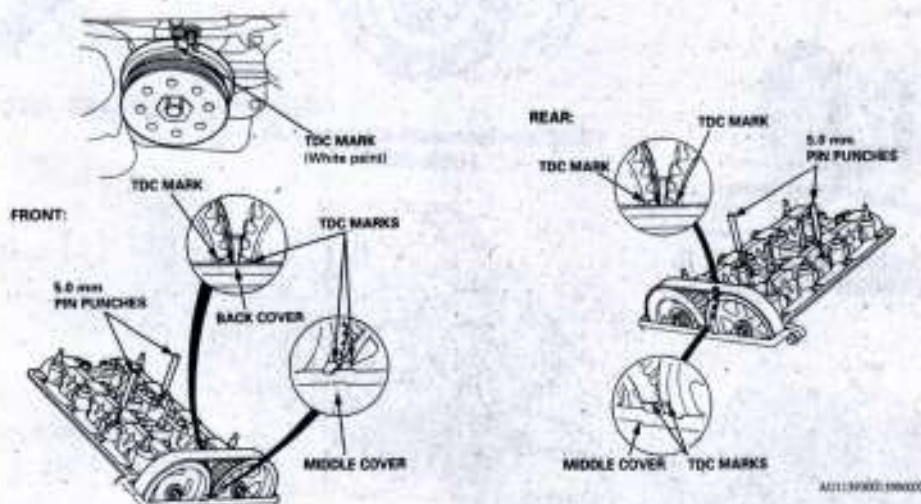


Fig. 2 Acura. NSX

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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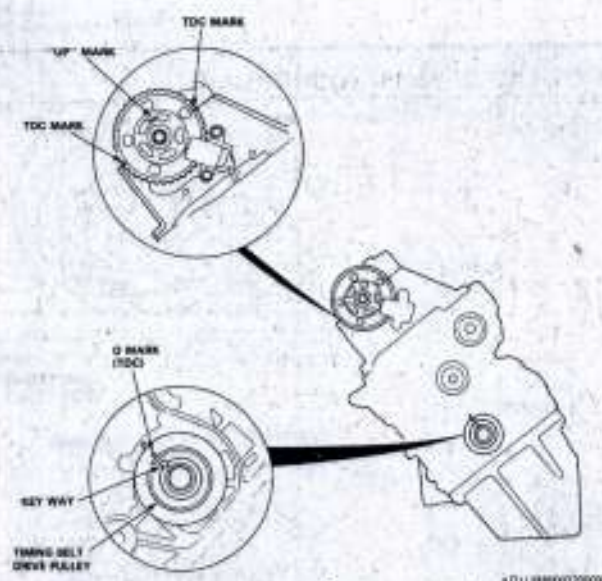


Fig. 3 Acura. Vigor Front Sprocket Marks

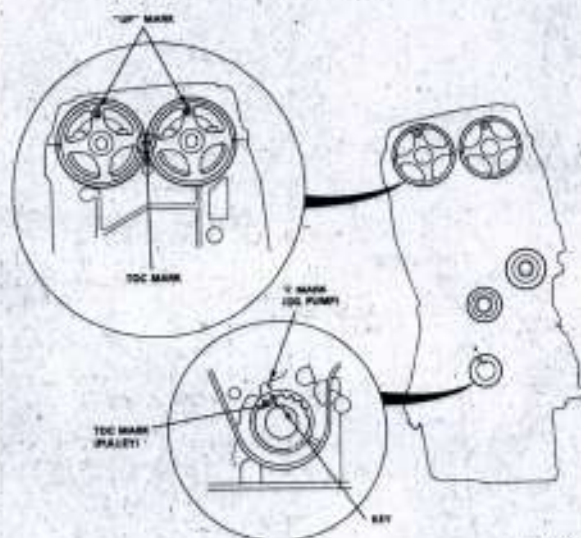


Fig. 5 Acura. Integra 1.7L & 1994-95 1.8L B18C1 VTEC & 1996-2001 1.8L

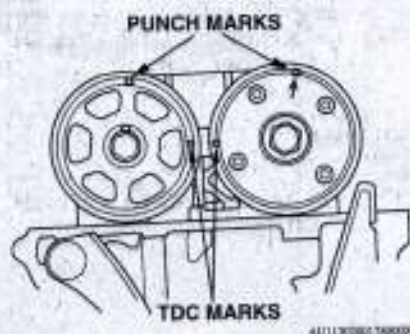


Fig. 7 Acura. RSX & TSX Camshaft Sprocket

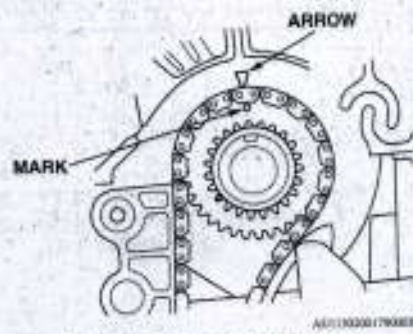


Fig. 8 Acura. RSX & TSX Crankshaft Sprocket

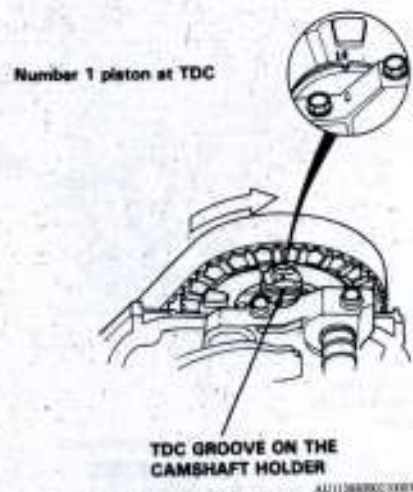


Fig. 4 Acura. Vigor Camshaft Sprocket Rear Mark

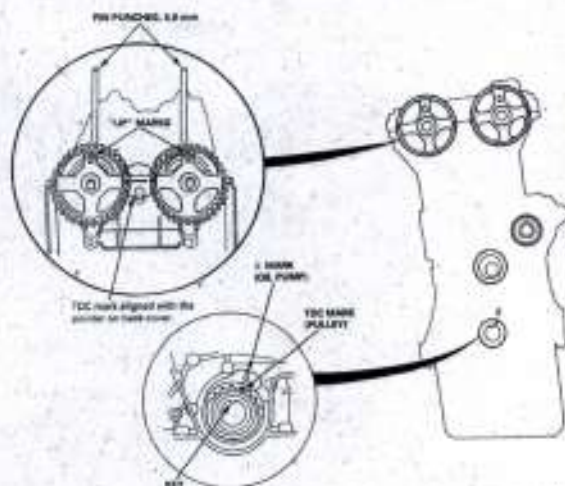


Fig. 6 Acura. Integra 1994-95 1.8L B18B1

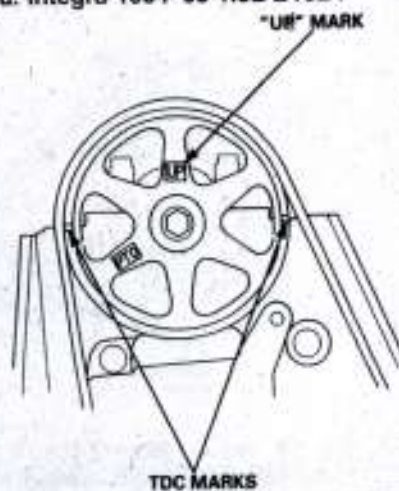


Fig. 9 Acura. 2.2CL & 2.3CL Camshaft Sprocket

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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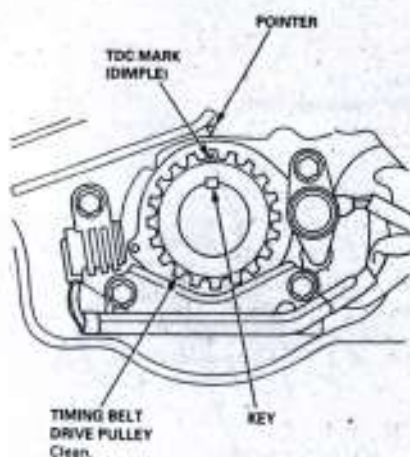


Fig. 10 Acura 2.2CL & 2.3CL Crankshaft Sprocket

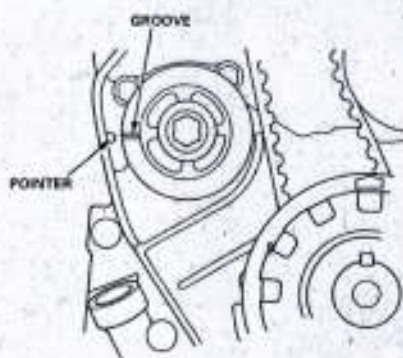


Fig. 11 Acura 2.2CL & 2.3CL Balancer Shaft

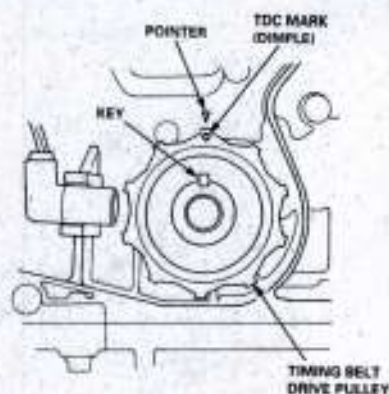


Fig. 12 Acura 2.5TL

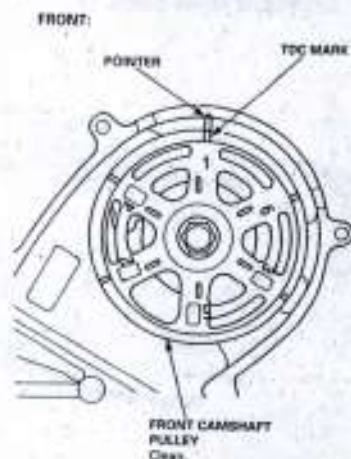


Fig. 13 Acura MDX 3.0CL, 3.2CL & 1999-2004 3.2 TL Camshaft Sprocket

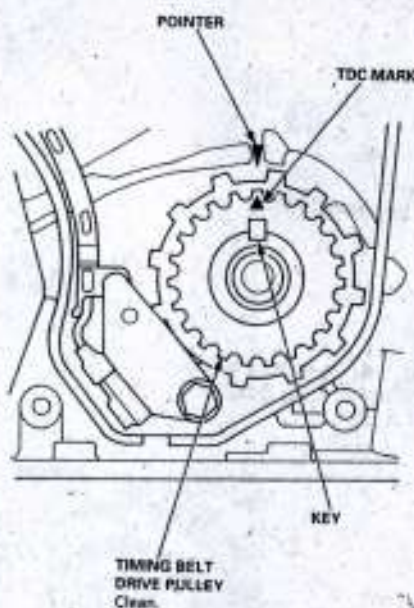


Fig. 14 Acura MDX 3.0CL, 3.2CL & 1999-2004 3.2 TL Crankshaft Sprocket

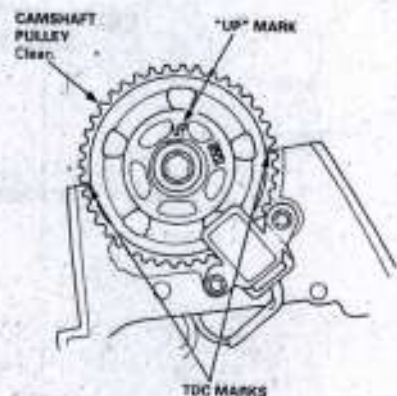
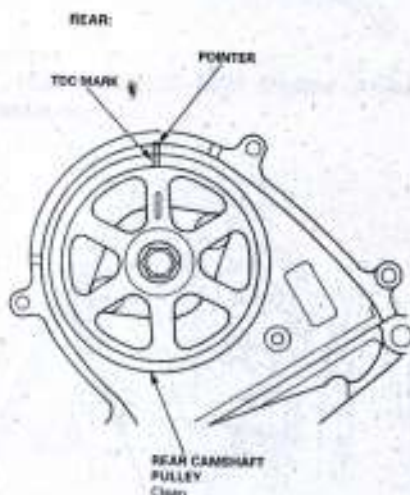


Fig. 15 Acura 1996-98 3.2TL LH Camshaft Sprocket



Imported Passenger Cars, Light Trucks & Vans (continued)

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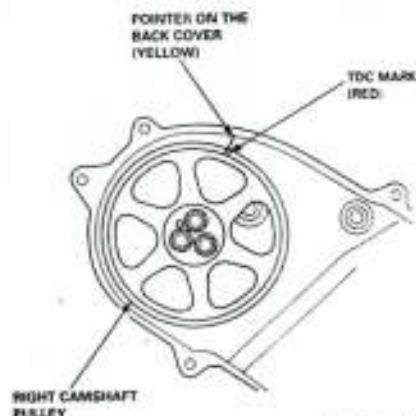


Fig. 16 Acura, 1996-98 3.2TL RH Camshaft Sprocket

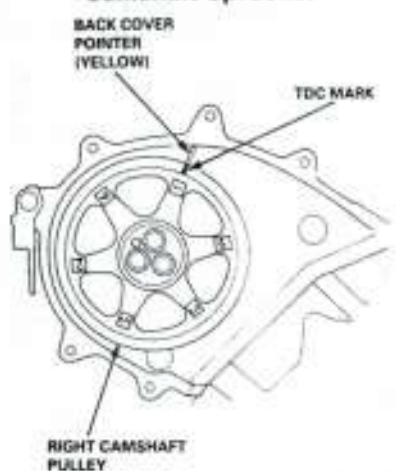


Fig. 19 Acura, 3.5RL RH Camshaft Sprocket



Fig. 22 Audi 1.8L (Except 5 Valve Turbo) & 2.0L Crankshaft Sprocket

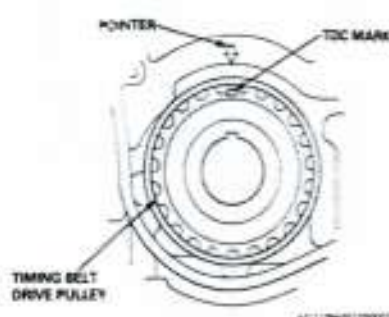


Fig. 17 Acura, 1996-98 3.2TL Crankshaft Sprocket

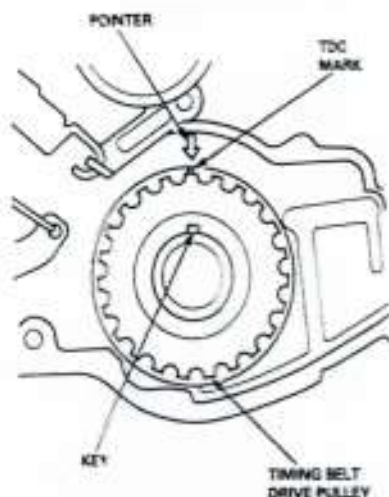


Fig. 20 Acura, 3.5RL Crankshaft Sprocket



Fig. 23 Audi 1.8L 5 Valve Turbo

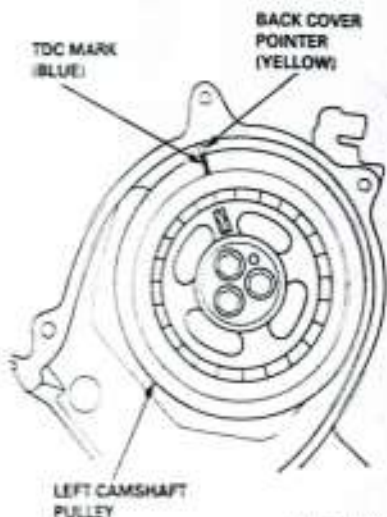


Fig. 18 Acura, 3.5RL LH Camshaft Sprocket



Fig. 21 Audi 1.8L (Except 5 Valve Turbo) & 2.0L Camshaft Sprocket



Fig. 24 Audi 2.2L Turbo & 2.3L Crankshaft Sprocket

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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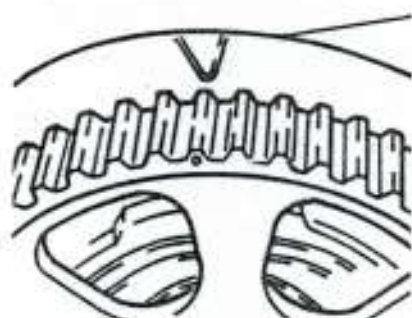


Fig. 25 Audi 2.22L Turbo & 2.3L Primary Camshaft Sprocket

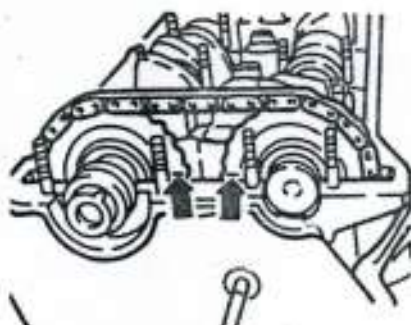


Fig. 26 Audi 2.22L Turbo & 2.3L Secondary Camshaft Sprockets

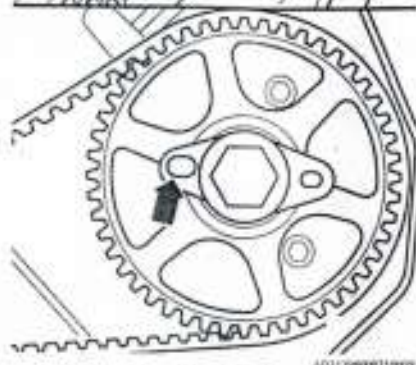
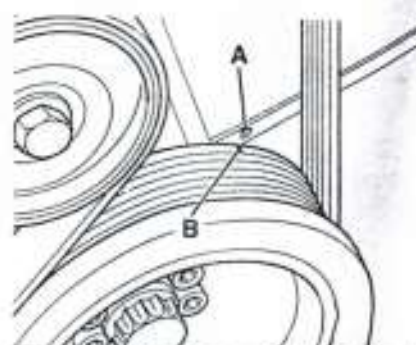


Fig. 27 Audi 2.8L Crankshaft TDC hole must be positioned behind removed CKP sensor & camshaft locking plate large holes must face each other

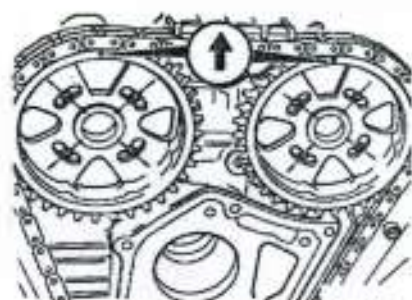


Fig. 28 BMW 1.8L & 1.9L Sprockets

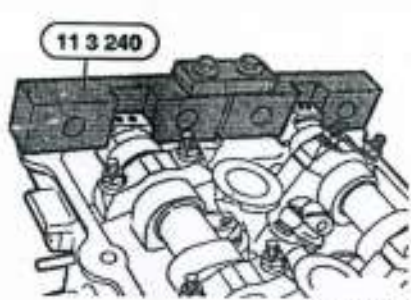


Fig. 29 BMW 1.8L & 1.9L With Locking Tool

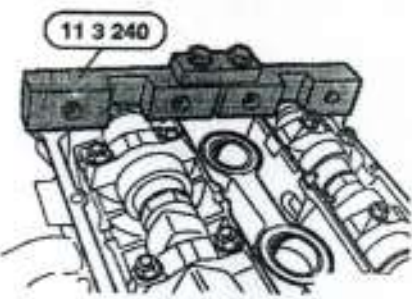


Fig. 30 BMW 2.5L (M50), 2.8L, 3.0L (S50) & 3.2L With Locking Tool

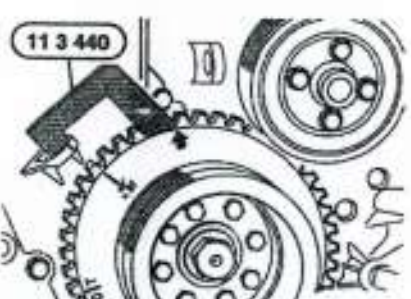


Fig. 31 BMW 3.0L (M60), 4.0L & 4.4L Crankcase

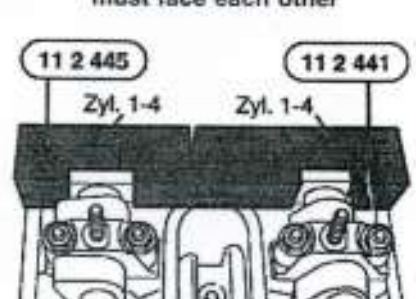


Fig. 32 BMW 3.0L (M60), 4.0L & 4.4L Cylinders 1-4

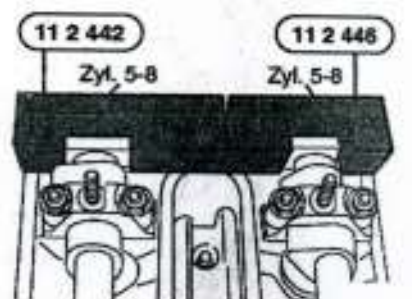


Fig. 33 BMW 3.0L (M60), 4.0L & 4.4L Cylinders 5-8

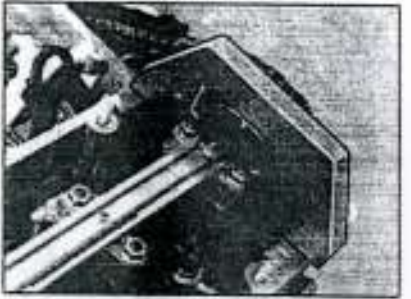


Fig. 34 BMW 5.0L, 5.4L & 5.6L With Locking Tool

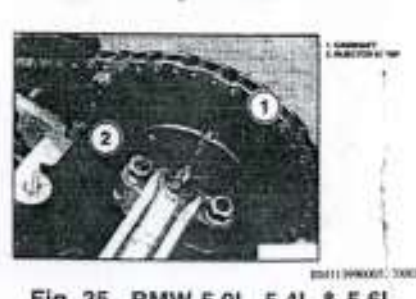


Fig. 35 BMW 5.0L, 5.4L & 5.6L Less Locking Tool

Imported Passenger Cars, Light Trucks & Vans (continued)

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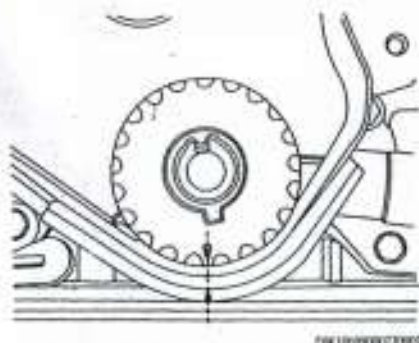


Fig. 36 Daewoo 1.6L DOHC Crankshaft Sprocket

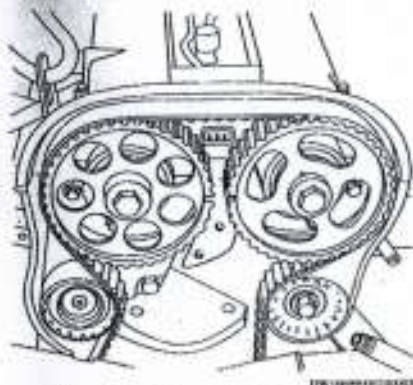


Fig. 37 Daewoo 1.6L DOHC Camshaft Sprocket

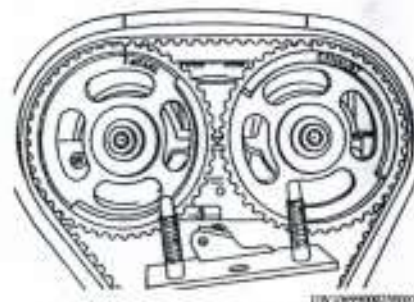


Fig. 38 Daewoo 2.0L & 2.2L DOHC Camshaft Sprocket

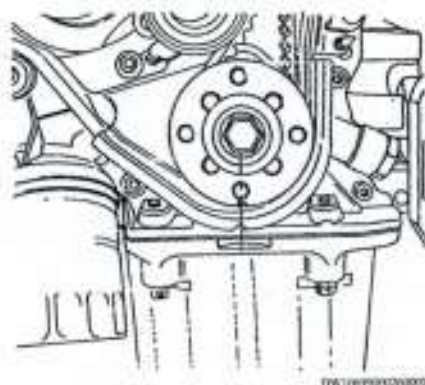


Fig. 39 Daewoo 2.0L & 2.2L DOHC Crankshaft Sprocket



Fig. 40 Honda Accord 4 Cyl. 1993-95

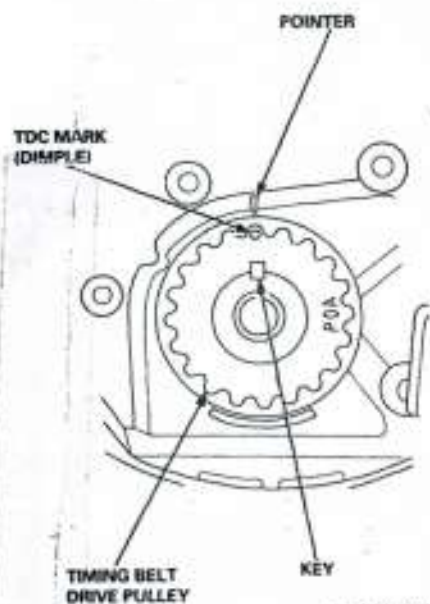
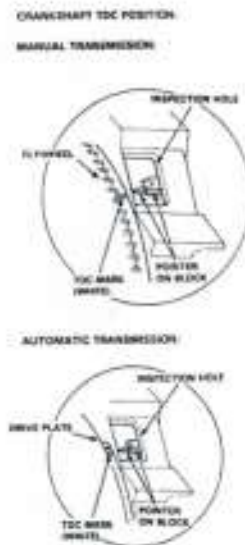


Fig. 41 Honda Odyssey Crankshaft, 1995

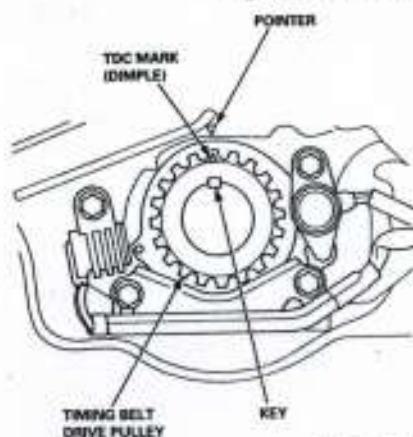


Fig. 42 1996-98 Honda Odyssey & 1996-99 Isuzu Oasis Crankshaft



Fig. 43 1995-98 Honda Odyssey & 1996-2004 Accord 4 Cyl. & 1996-99 Isuzu Oasis Camshaft Sprocket

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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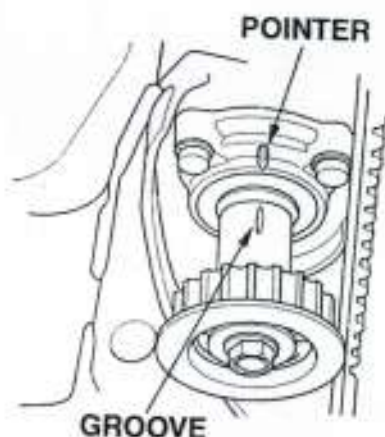


Fig. 44 1995-98 Honda 1996-2004 Accord 4 Cyl. Crankshaft Sprocket

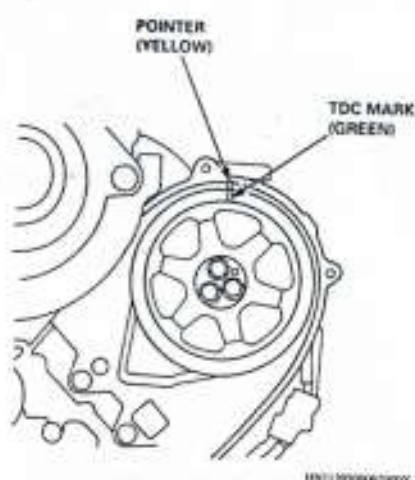


Fig. 45 Honda V6 Front Camshaft Sprocket. 1995-97 Accord

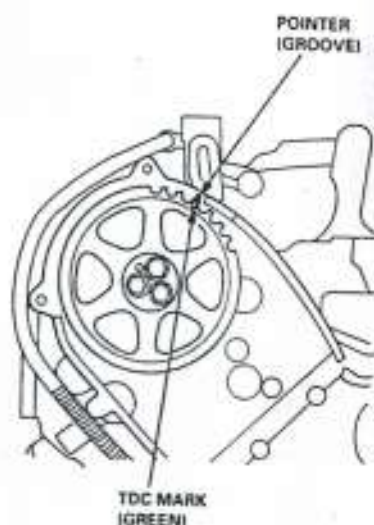


Fig. 46 Honda V6 Rear Camshaft Sprocket. 1995-97 Accord

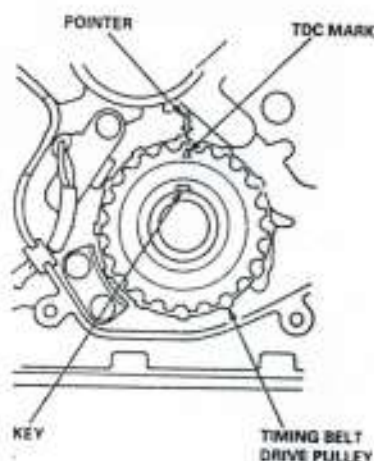


Fig. 47 Honda V6 Crankshaft Sprocket. 1995-97 Accord

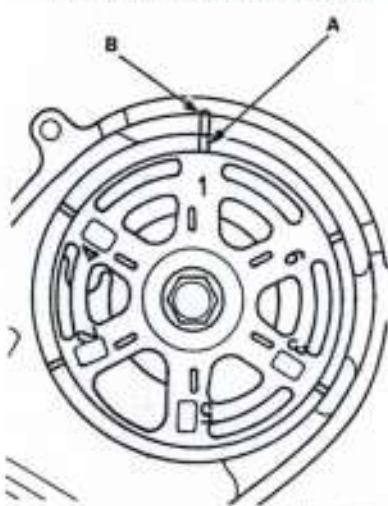


Fig. 48 Honda V6 Front Camshaft Sprocket. 1998-2004 Accord & 1999-2004 Odyssey

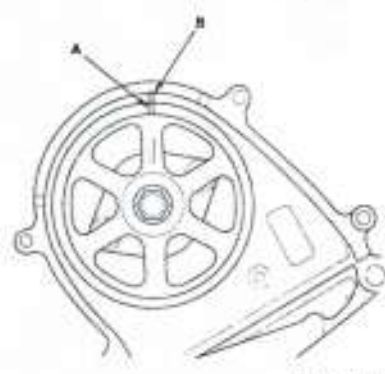


Fig. 49 Honda V6 Rear Camshaft Sprocket. 1998-2004 Accord & 1999-2004 Odyssey

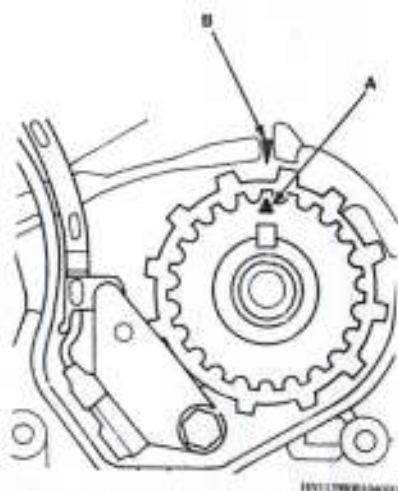


Fig. 50 Honda V6 Crankshaft Sprocket. 1998-2004 Accord & 1999-2004 Odyssey

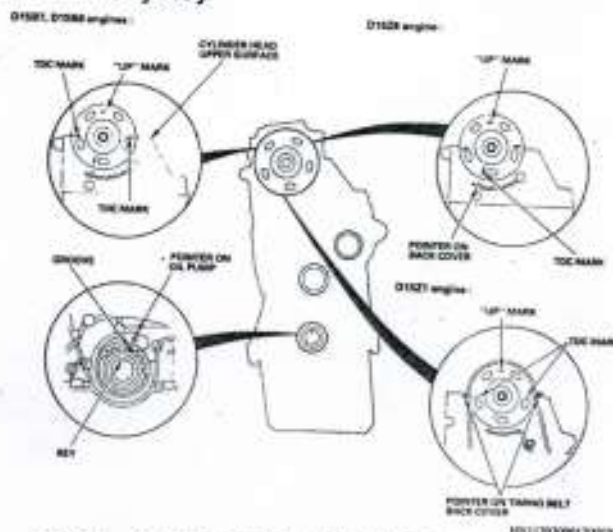


Fig. 51 Honda Civic & del Sol SOHC. 1993-95

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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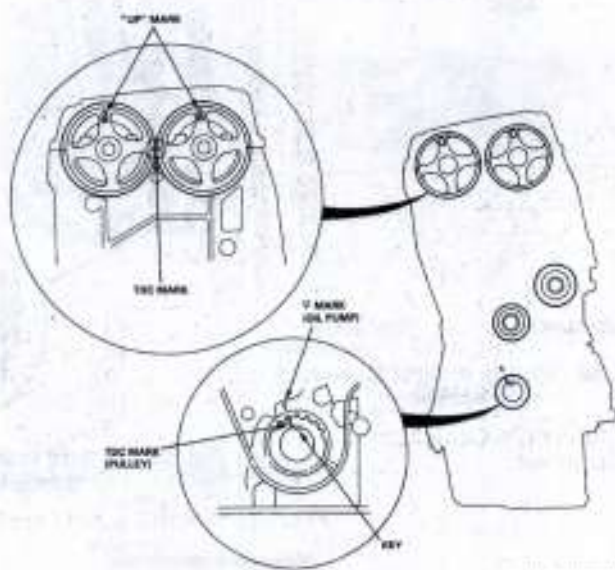


Fig. 52 Honda del Sol DOHC

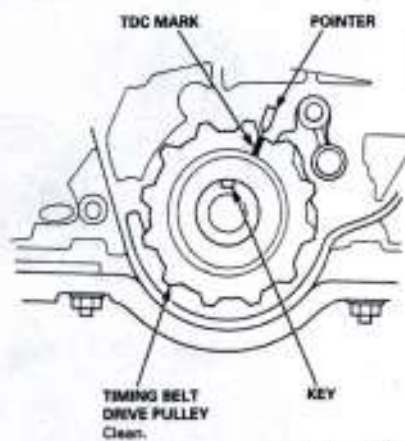


Fig. 53 Honda Civic Crankshaft Sprocket. 1996-2001

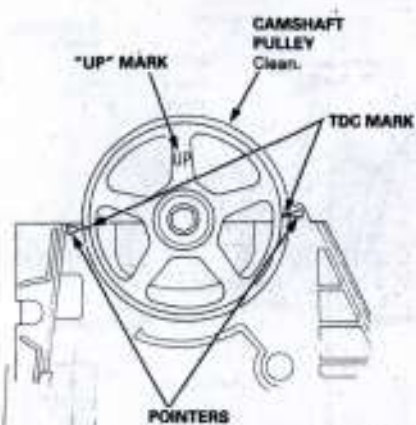


Fig. 54 Honda Civic Camshaft Sprocket. 1996-2001

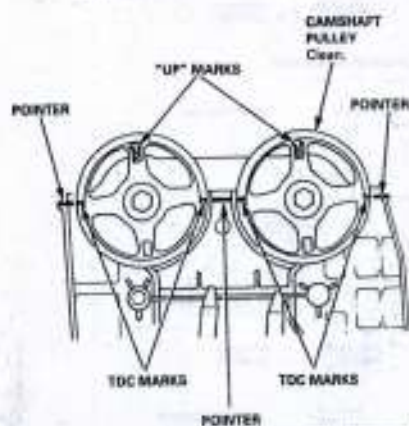
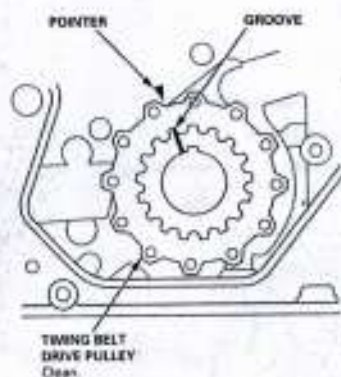


Fig. 55 Honda CR-V. 1997-2001

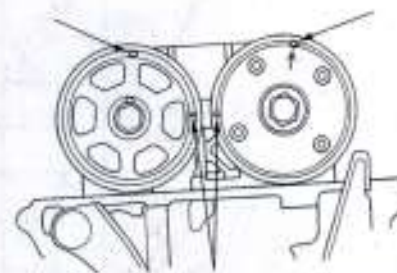
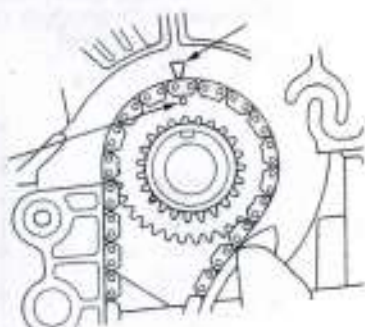


Fig. 56 Honda CR-V. 2002-04 Camshaft & Balance Shaft Sprocket Alignment

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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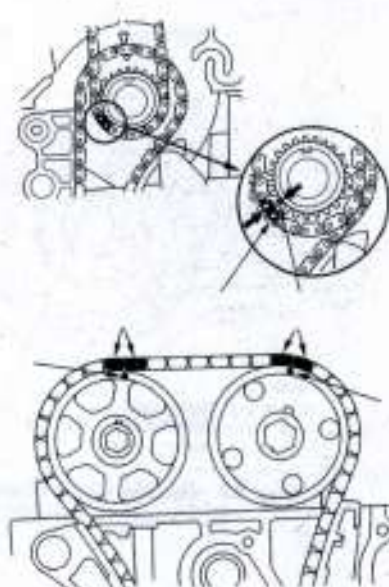


Fig. 57 Honda CR-V, 2002-04
Camshaft & Crankshaft Chain
Alignment

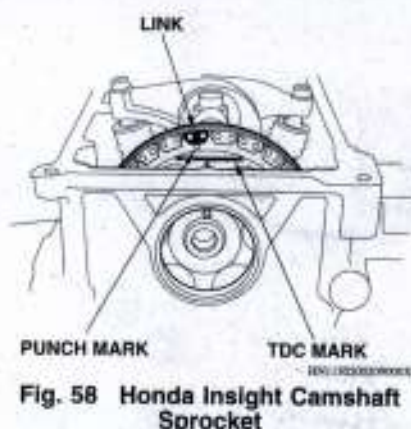


Fig. 58 Honda Insight Camshaft
Sprocket

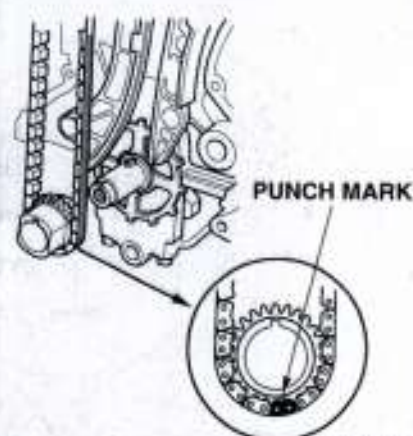


Fig. 59 Honda Insight Crankshaft
Sprocket



Fig. 60 Honda Prelude SOHC, 1993-96

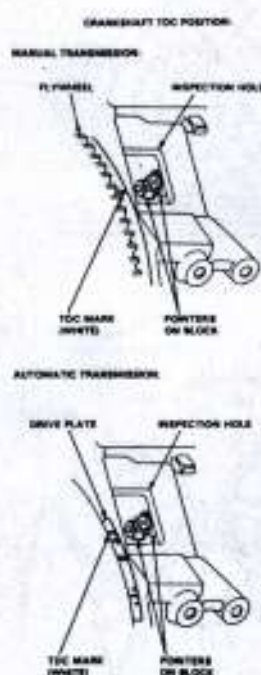
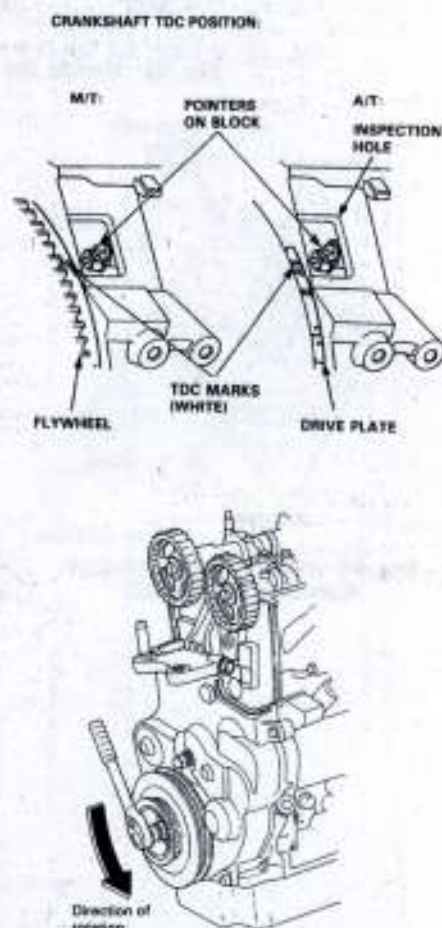


Fig. 61 Honda Prelude DOHC, 1993-96



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Imported Passenger Cars, Light Trucks & Vans (continued)

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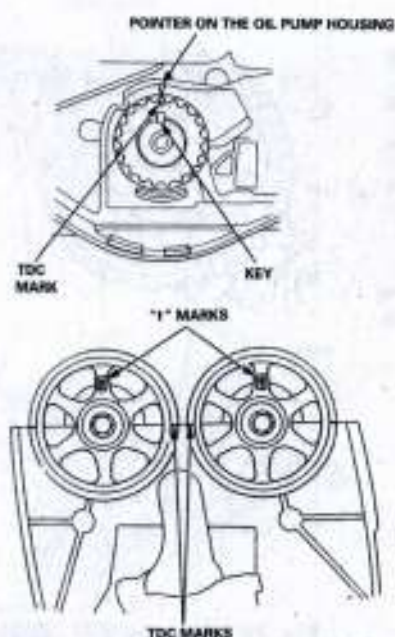


Fig. 62 Honda Prelude Camshaft & Crankshaft. 1997-2001

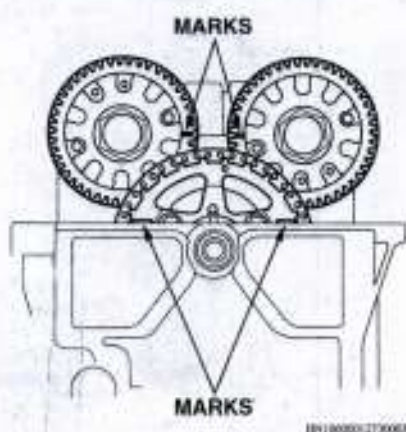


Fig. 66 Honda S2000 Camshaft

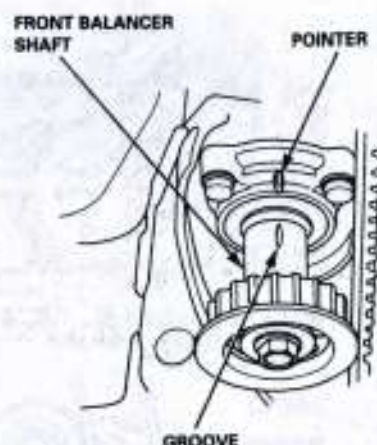


Fig. 63 Honda Prelude Front Balancer Shaft Alignment. 1997-2001

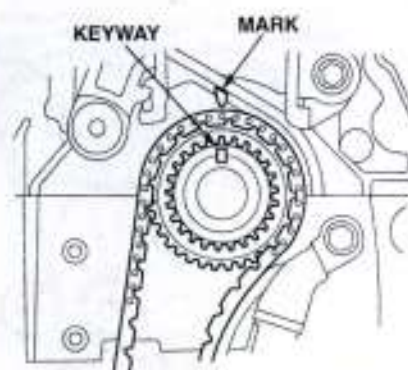


Fig. 64 Honda S2000 Crankshaft Timing Gear

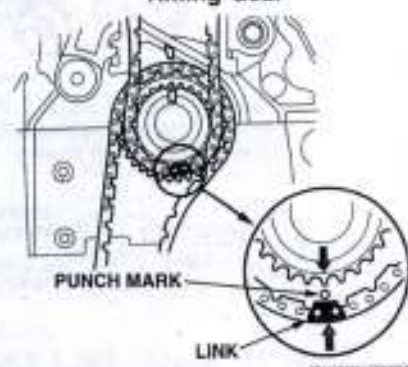


Fig. 65 Honda S2000 Crankshaft & Timing Chain

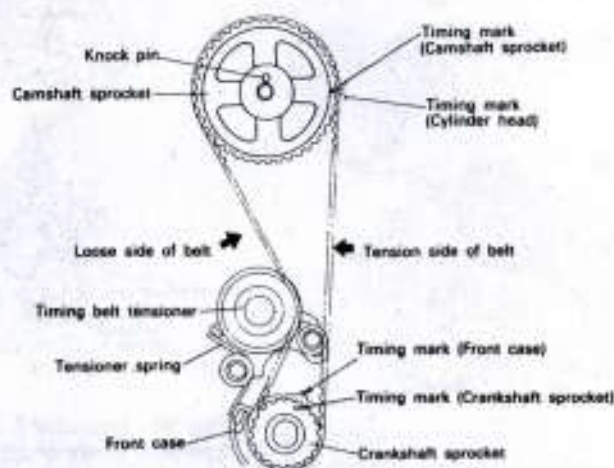


Fig. 67 Hyundai 1.5L

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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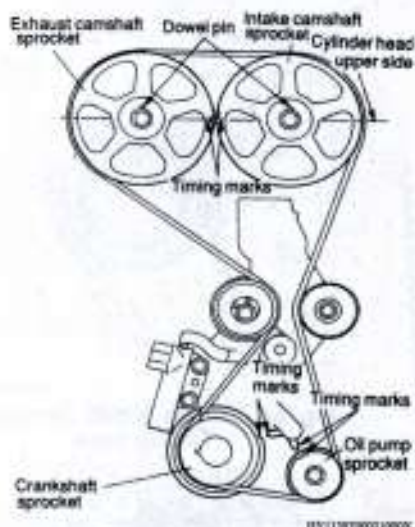


Fig. 68 Hyundai 1.6L & 1.8L 1993-95 Elantra Camshaft, Crankshaft & Oil Pump



Fig. 71 Hyundai 1.8L & 2.0L 1996-2003 Elantra & 1997-2003 Tiburon Camshaft

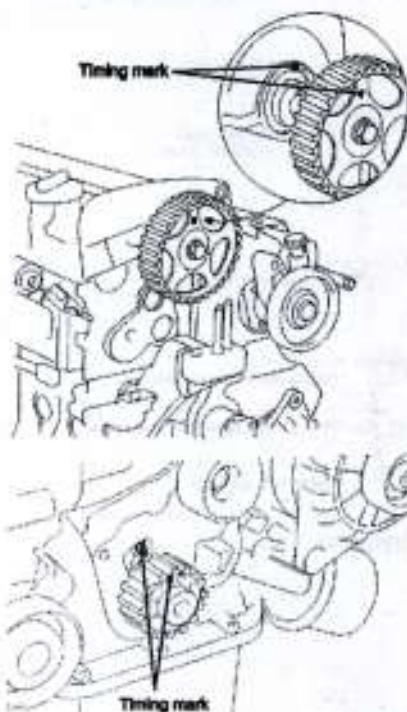


Fig. 73 Hyundai 2.0L 2004 Elantra & Tiburon

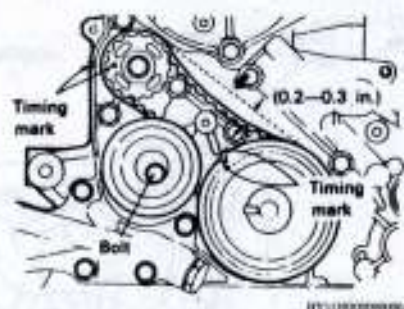


Fig. 69 Hyundai 1.6L, 1.8L & 2.0L Balance Shaft

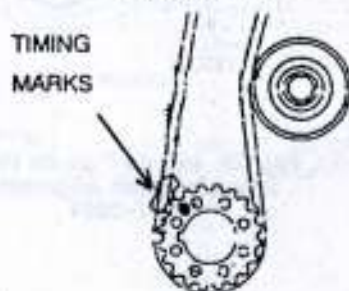


Fig. 72 Hyundai 1.8L & 2.0L 1996-2003 Elantra & 1997-2003 Tiburon Crankshaft

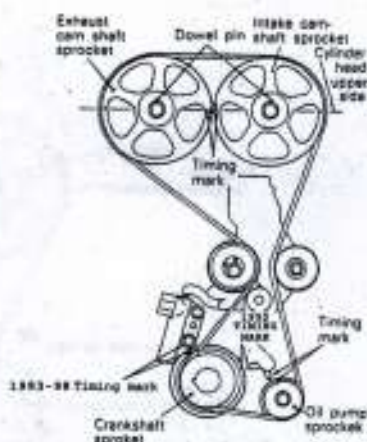


Fig. 74 Hyundai 2.0L Sonata Camshaft, Crankshaft & Oil Pump



Fig. 70 Hyundai 1.6L 2001-04 Accent

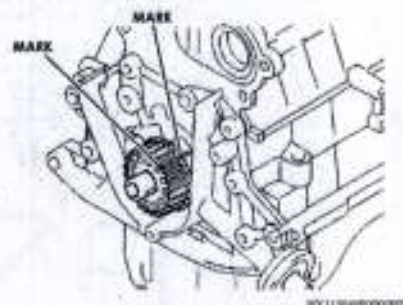


Fig. 75 Hyundai 2.4L Camshaft & Crankshaft

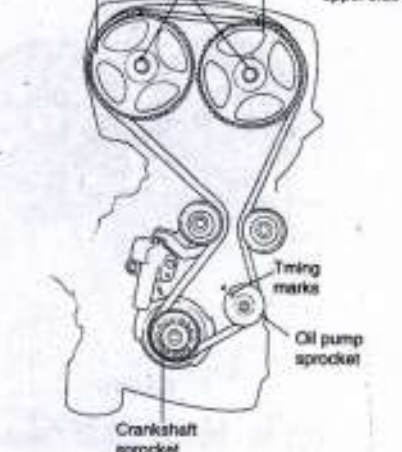
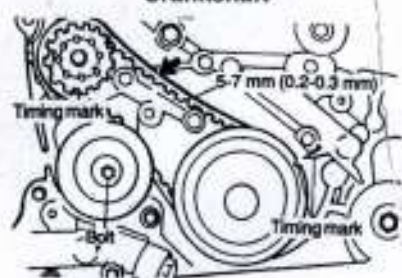


Fig. 76 Hyundai 2.4L Balance Shaft



VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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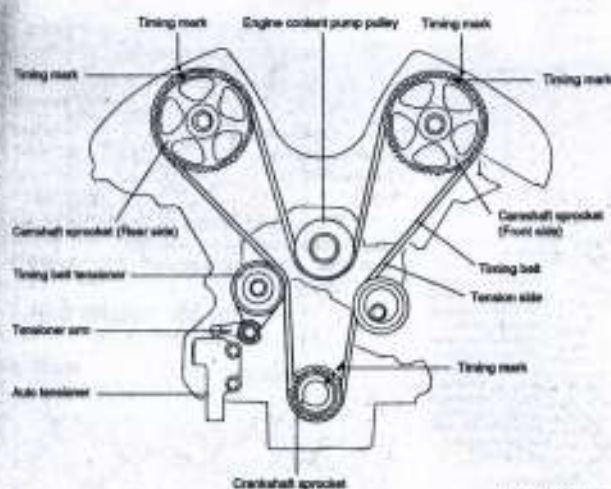


Fig. 77 Hyundai 2.5L, 2.7 & 3.0L SOHC

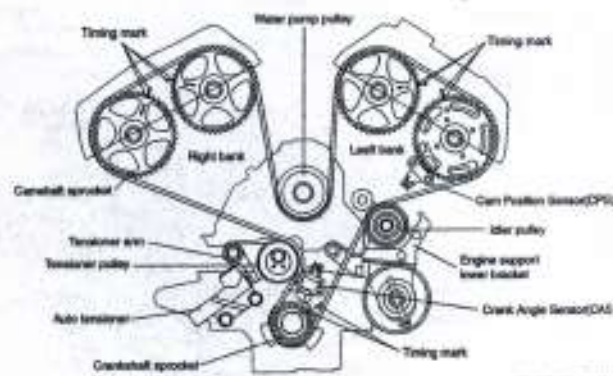


Fig. 78 Hyundai 3.0L & 3.5L DOHC

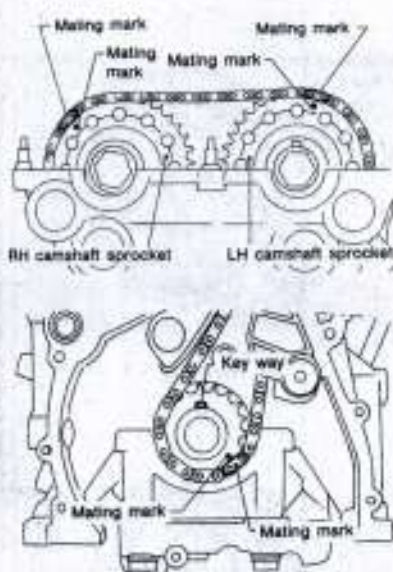


Fig. 79 Infiniti 2.0L

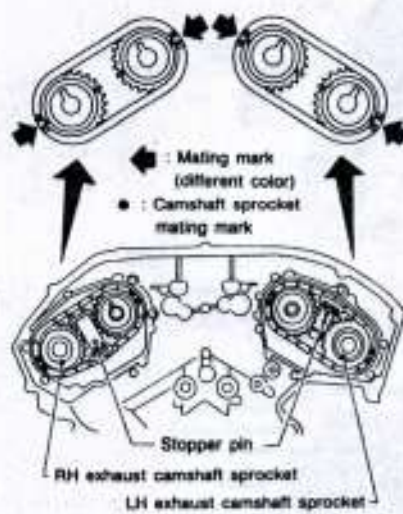


Fig. 80 Infiniti 3.0L I30 Camshaft Timing Chains

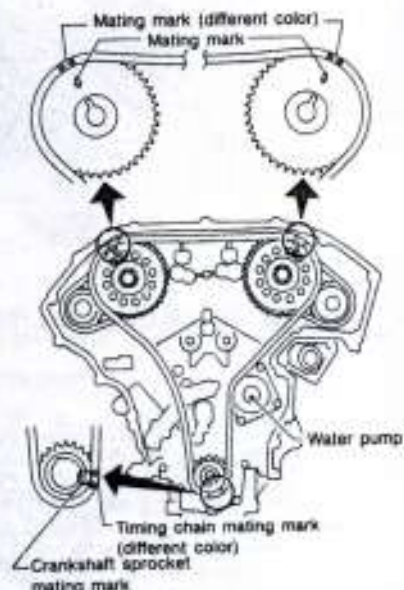


Fig. 81 Infiniti 3.0L I30 Primary Timing Chain

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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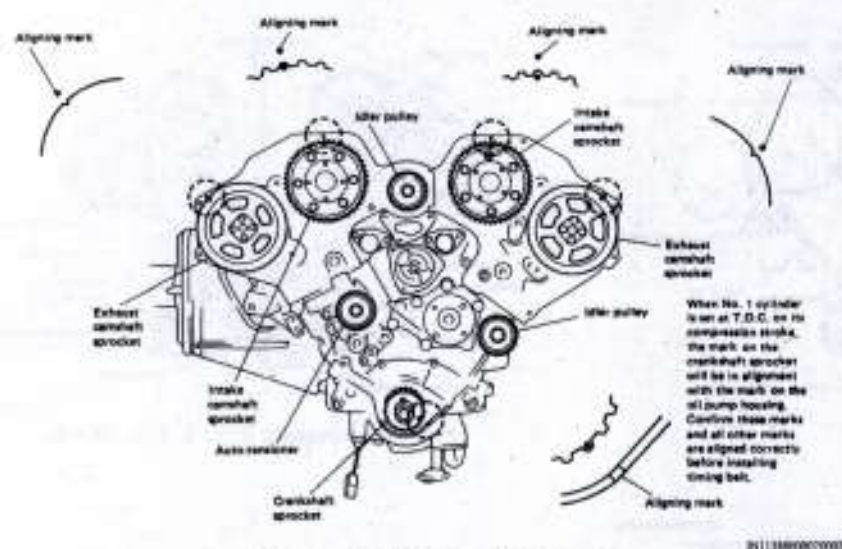


Fig. 82 Infiniti 3.0L, J30 & M30

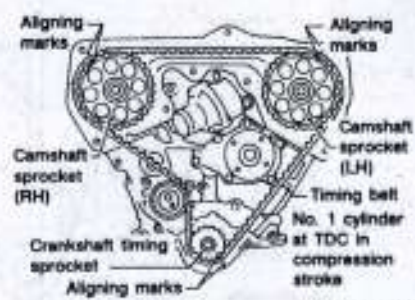
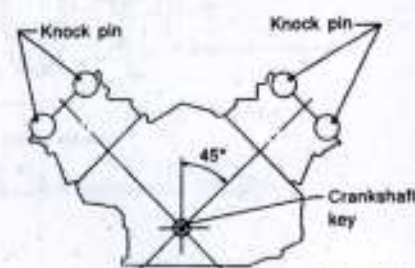


Fig. 83 Infiniti 3.3L



**Fig. 84 Infiniti 4.1L & 4.5L
Camshaft Knock Pin & Crankshaft
Key Positions, 1993-2001**

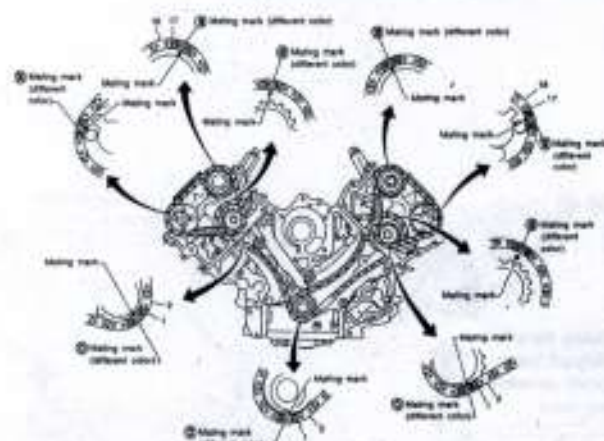


Fig. 85 Infiniti 4.1L & 4.5L Timing Chain, 1993–2001

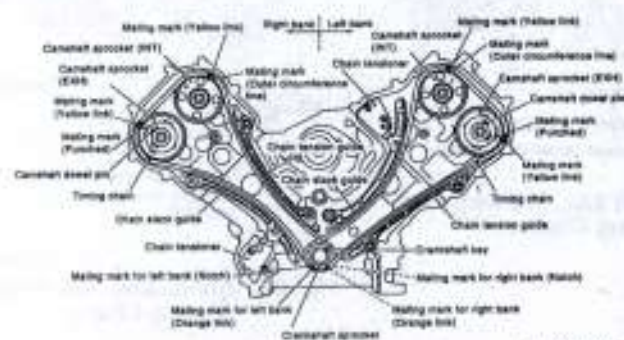
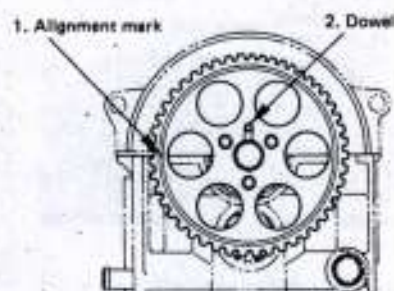
**Fig. 86 Infiniti 4.5L, 2002–04**

Fig. 87 Isuzu 1.6L SOHC

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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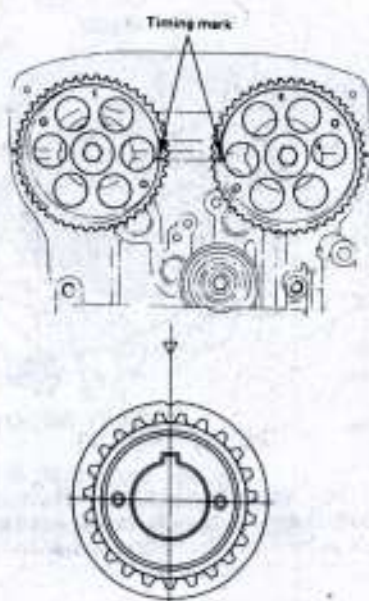


Fig. 88 Isuzu 1.6L & 1.8L DOHC

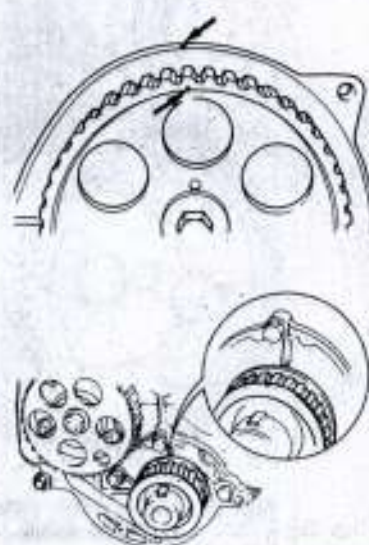
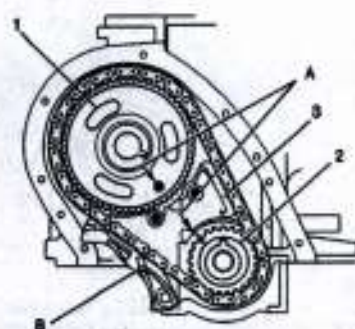


Fig. 91 Isuzu & Honda Passport 2.3L & 2.6L



1. SPROCKET, CAMSHAFT
2. SPROCKET, CRANKSHAFT
3. TENSIONER, TIMING CHAIN
- A. LINE UP TIMING MARKS ON SPROCKETS WITH THE TABS ON THE TIMING CHAIN TENSIONER
- B. REMOVE PIN AFTER TIMING CHAIN IS INSTALLED

Fig. 89 Isuzu 2.2L Hombre

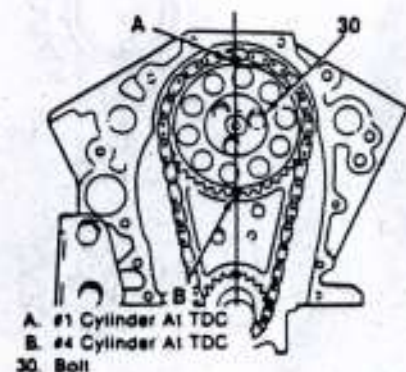


Fig. 92 Isuzu 3.1L

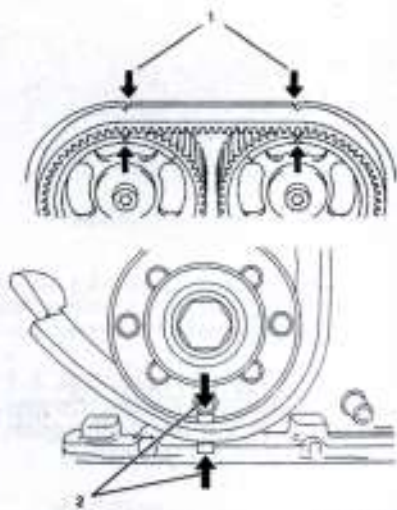


Fig. 90 Isuzu 2.2L Amigo & Rodeo

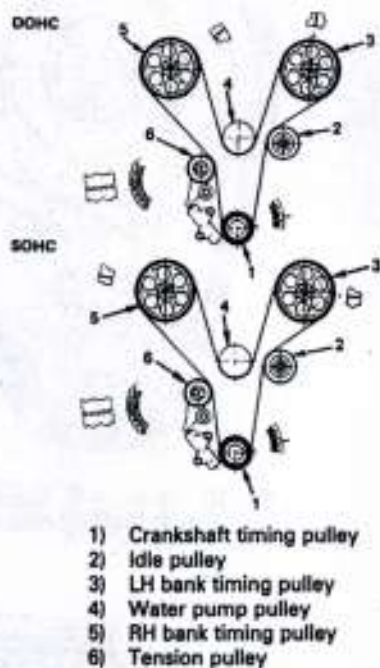


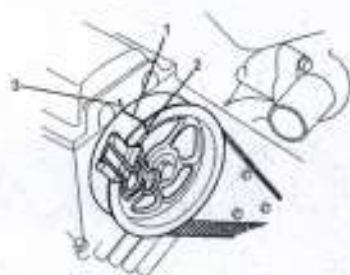
Fig. 93 Isuzu 3.2L 1993-97 Trooper, 1993-97 Rodeo, 1994-97 Honda Passport & 1996-97 Acura SLX

- 1) Crankshaft timing pulley
- 2) Idle pulley
- 3) LH bank timing pulley
- 4) Water pump pulley
- 5) RH bank timing pulley
- 6) Tension pulley

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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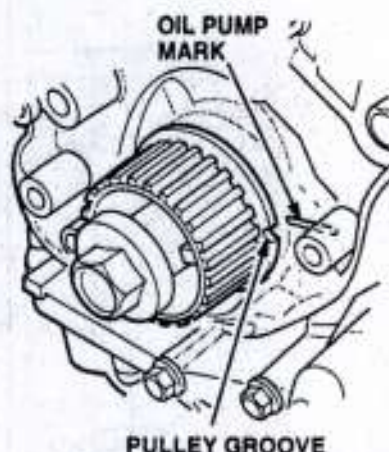
- (1) Alignment Mark on Timing Belt (White line).
- (2) Alignment Mark on Camshaft Drive Pulley.
- (3) Alignment Mark on Cylinder Head Cover RH.

**Fig. 94 Isuzu 3.2L & 3.5L.
1998-2004 Rodeo, Trooper, Acura
SLX & Honda Passport RH
Camshaft**



- (1) Alignment Mark on Timing Belt (White line).
- (2) Alignment Mark on Camshaft Drive Pulley.
- (3) Alignment Mark on Cylinder Head Cover LH.

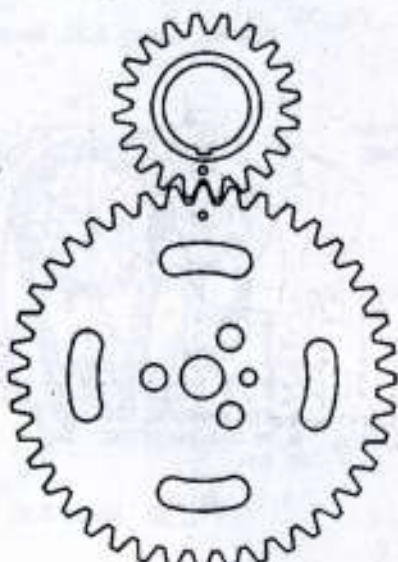
**Fig. 95 Isuzu 3.2L & 3.5L.
1998-2004 Rodeo, Trooper, Acura
SLX & Honda Passport LH
Camshaft Sprocket**



**Fig. 96 Isuzu 3.2L & 3.5L.
1998-2004 Rodeo, Trooper, Acura
SLX & Honda Passport Crankshaft
Sprocket**



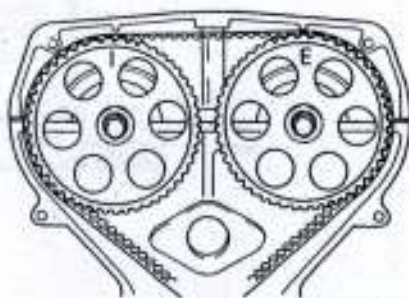
**Fig. 97 Isuzu 4.3L Camshaft &
Crankshaft Sprockets**



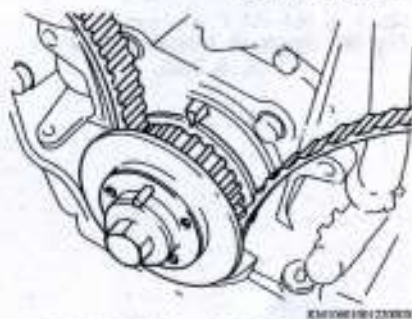
**Fig. 98 Isuzu 4.3L. 1996-97
Balance Shaft**



**Fig. 99 Isuzu 4.3L. 1998-2000
Balance Shaft**

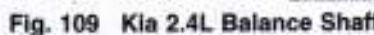
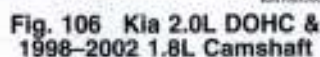
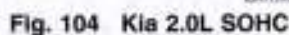
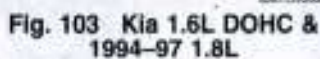


**Fig. 100 Kia 1.5L Camshaft
Timing Marks**



**Fig. 101 Kia 1.5L Crankshaft
Timing Marks**

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VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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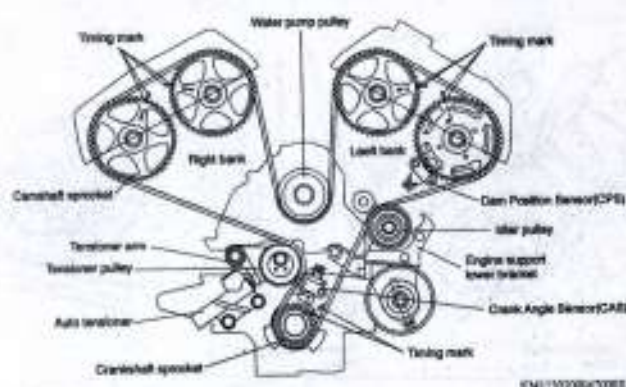


Fig. 110 Kia 3.5L

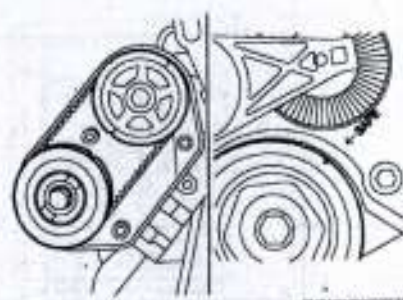


Fig. 111 Land Rover 2.5L

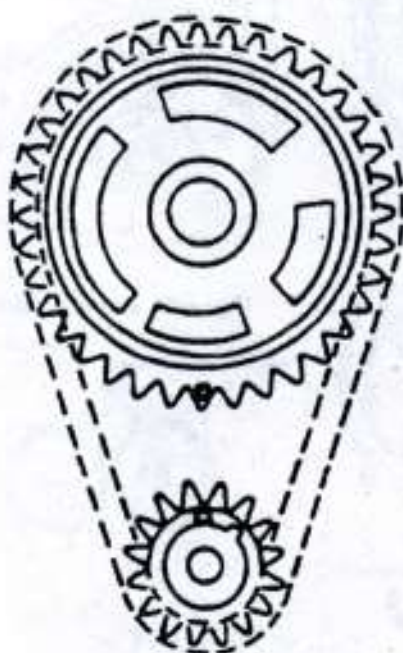


Fig. 112 Land Rover 4.0L & 4.6L

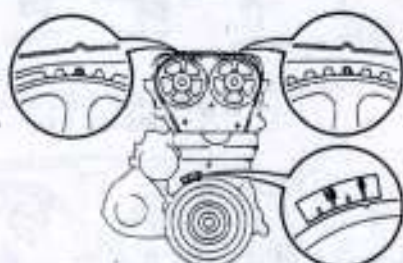


Fig. 113 Lexus Inline 6 Cyl.



Fig. 114 Lexus 1993 V6

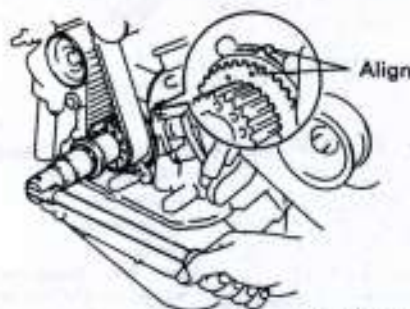


Fig. 115 Lexus 1994-99 V6 Crankshaft

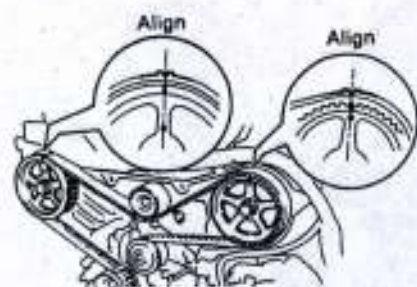


Fig. 116 Lexus 1994-99 V6 Camshaft

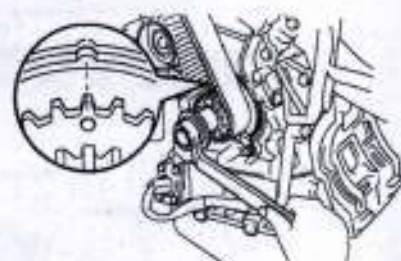


Fig. 117 Lexus 2000-04 V6

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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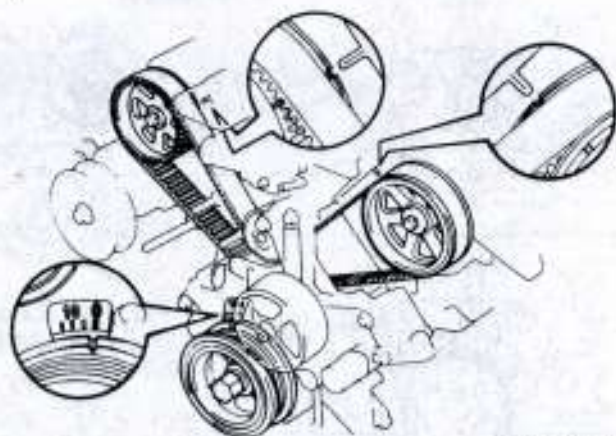


Fig. 118 Lexus 1993-97 V8



Fig. 120 Mazda 1.5L DOHC Timing Belt

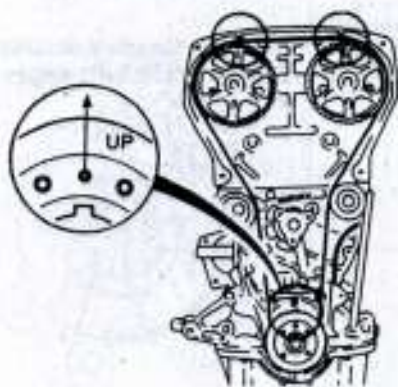


Fig. 123 Mazda 1.8L 4 Cyl. DOHC. 1993-94 Protege

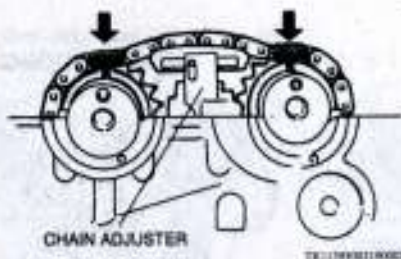


Fig. 121 Mazda 1.5L DOHC Camshaft

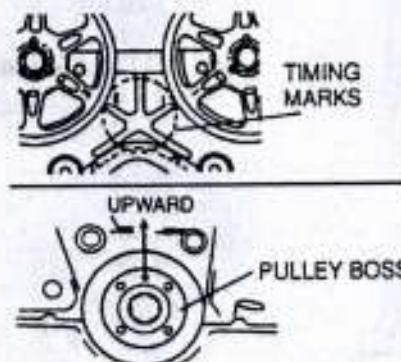


Fig. 124 Mazda 1.6L & 1.8L 4 Cyl. DOHC. MX-3 & 1995-98 Protege

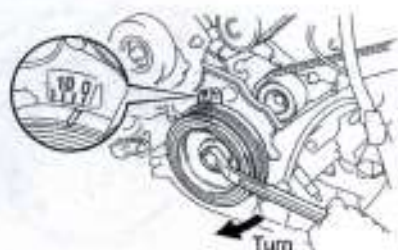


Fig. 119 Lexus 1998-2004 V8

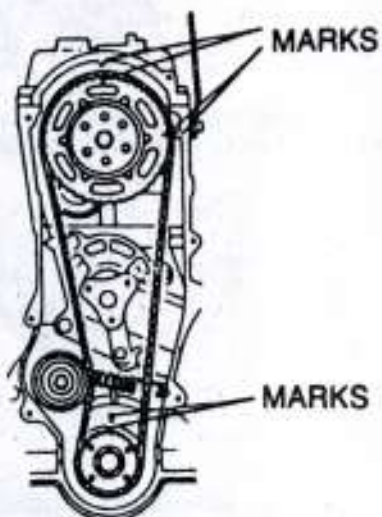


Fig. 122 Mazda 1.6L & 1.8L 4 Cyl. SOHC

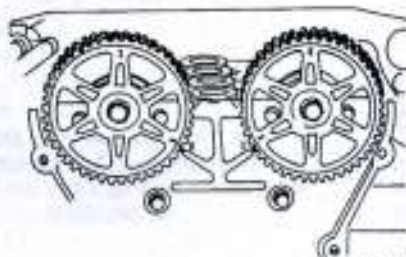


Fig. 125 Mazda 1.8L 4 Cyl. DOHC Camshaft. 1994-97 Miata

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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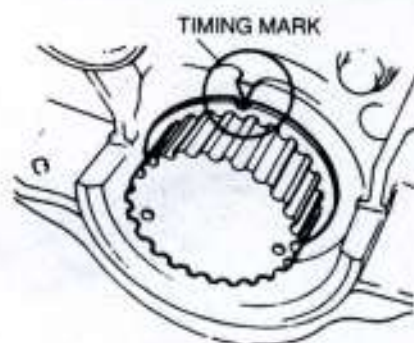


Fig. 126 Mazda 1.8L 4 Cyl. DOHC Crankshaft. 1994-97 Miata

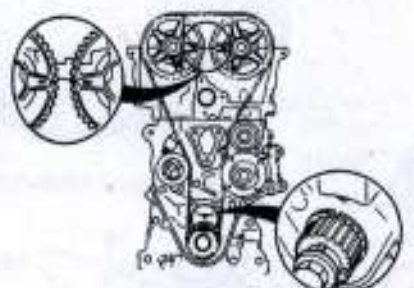


Fig. 129 Mazda 1.8L 4 Cyl. DOHC. 1999-2000 Protege

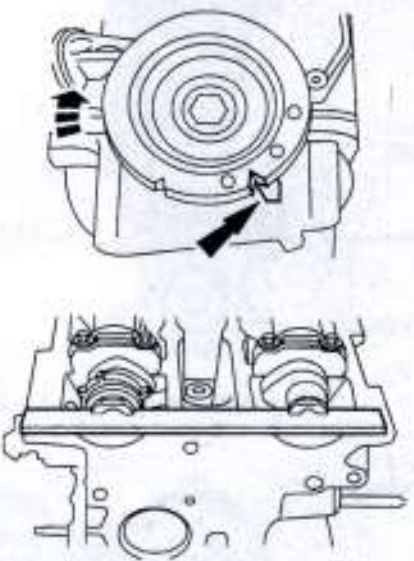


Fig. 132 Mazda 2.0L DOHC. Tribute (position camshaft alignment tool in slots on back of camshafts)

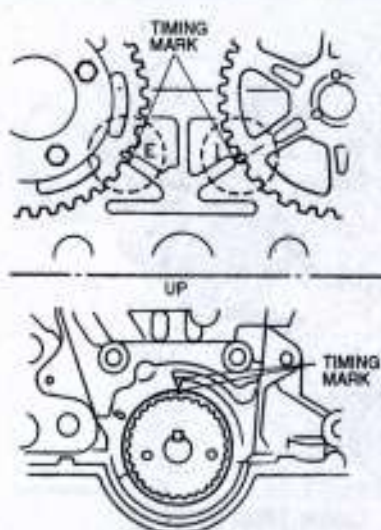


Fig. 127 Mazda 1.8L 4 Cyl. DOHC. 1999-2004 Miata

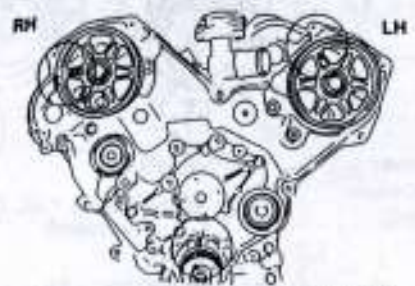


Fig. 130 Mazda 1.8L V6

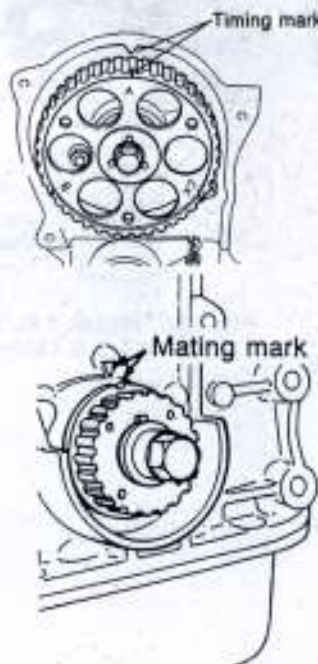


Fig. 133 Mazda 2.2L. B2200

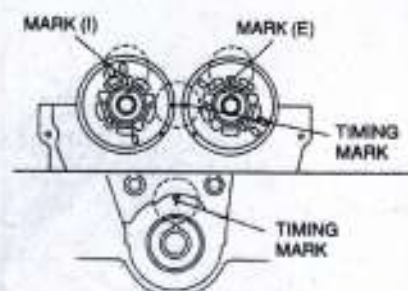


Fig. 128 Mazda 1.6L DOHC. 1999-2001 Protege

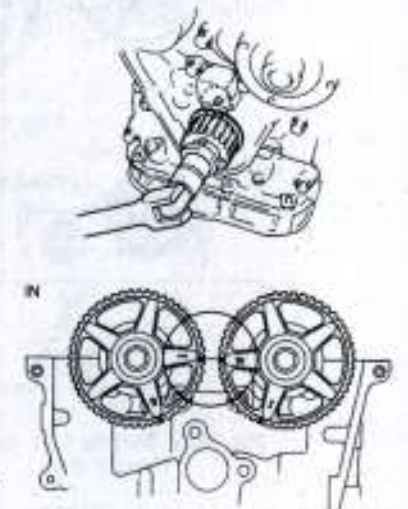


Fig. 131 Mazda 2.0L DOHC MX-6, 626 & Protege

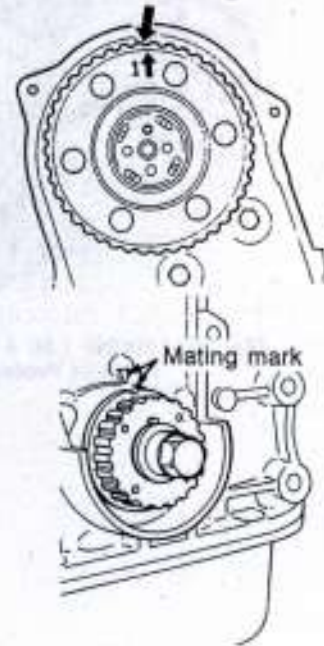


Fig. 134 Mazda 2.2L. MX-6 & 626

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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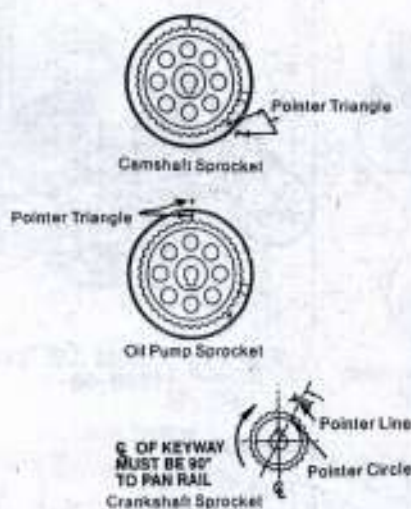


Fig. 135 Mazda 2.3L 4 Cyl.
1994-97 B2300

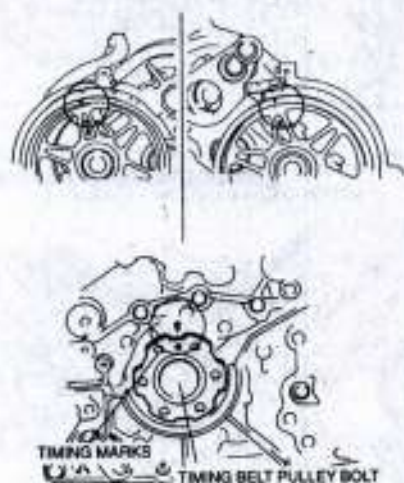


Fig. 137 Mazda 2.3L V6

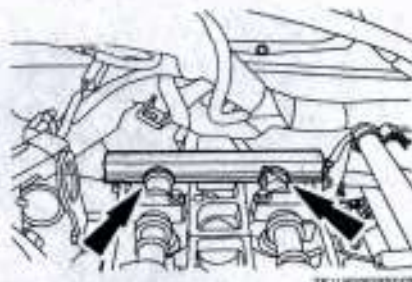


Fig. 136 Mazda 2.3L 4 Cyl.
(Part 1 of 2). 2001-04 B2300
(position camshaft alignment tool
in slots on back of camshafts)

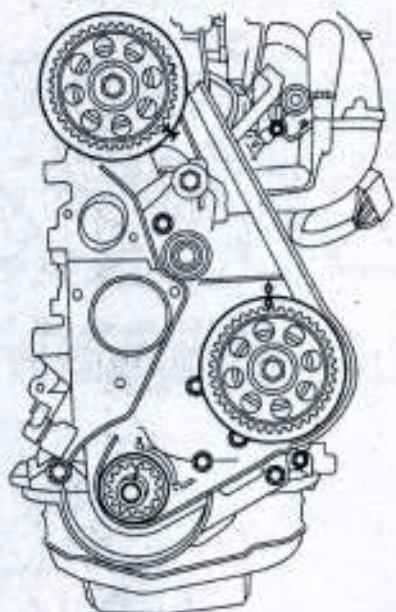


Fig. 138 Mazda 2.5L 4 Cyl.



Fig. 136 Mazda 2.3L 4 Cyl.
(Part 2 of 2). 2001-04 B2300
(crankshaft timing peg
installation)

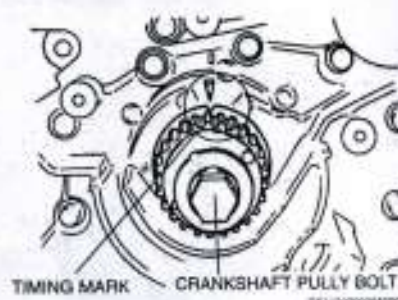


Fig. 139 Mazda 2.5L V6 w/timing
belt

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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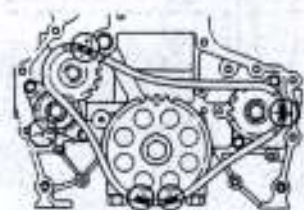
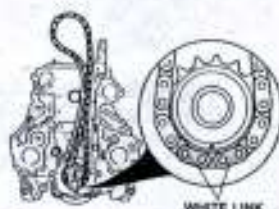


Fig. 140 Mazda 2.6L

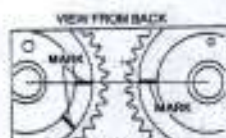


Fig. 143 Mazda 3.0L DOHC, 2002-04 MPV

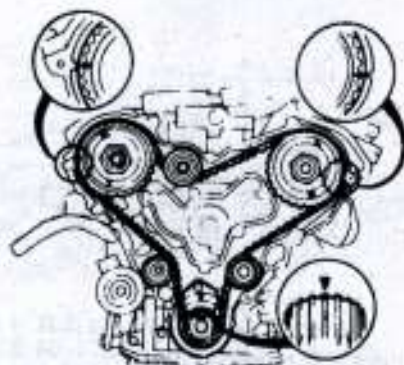
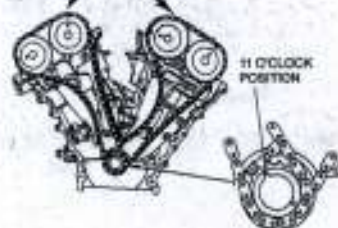


Fig. 141 Mazda 3.0L SOHC

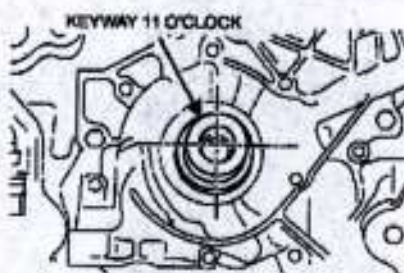


Fig. 144 Mazda 3.0L DOHC Crankshaft Keyway Alignment, 2003-04 Mazda 6

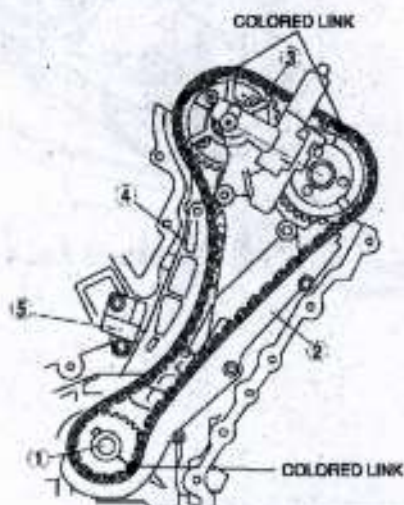


Fig. 146 Mazda 3.0L DOHC LH Timing Chain, 2003-04 Mazda 6

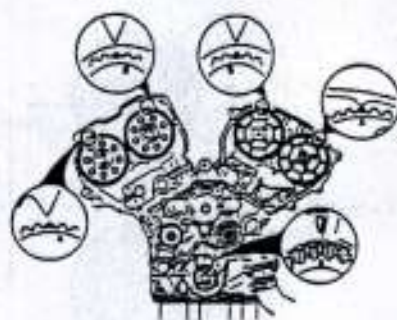


Fig. 142 Mazda 3.0L DOHC, 1993-98

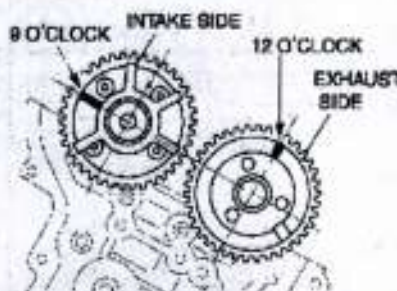


Fig. 145 Mazda 3.0L DOHC LH Camshafts, 2003-04 Mazda 6

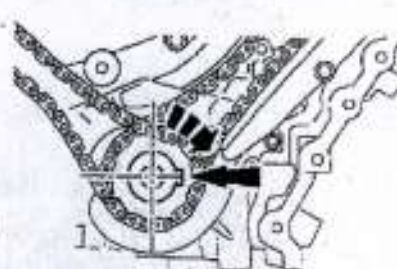


Fig. 147 Mazda 3.0L DOHC Positioning Crankshaft Sprocket For RH Timing Installation, 2003-04 Mazda 6

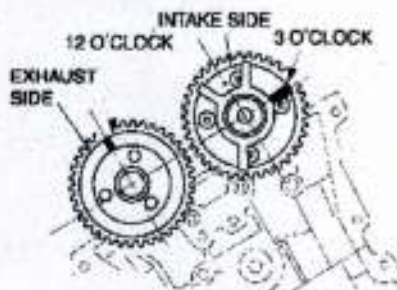


Fig. 148 Mazda 3.0L DOHC RH Camshafts, 2003-04 Mazda 6

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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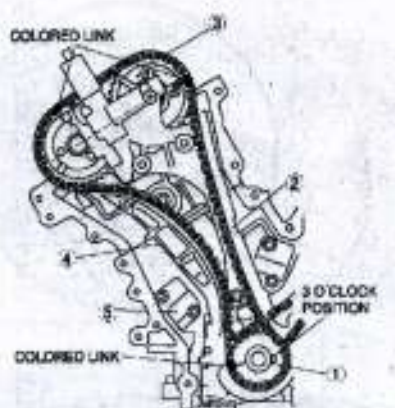


Fig. 149 Mazda 3.0L DOHC RH Timing Chain, 2003-04 Mazda 6



Fig. 152 Mercedes-Benz 102

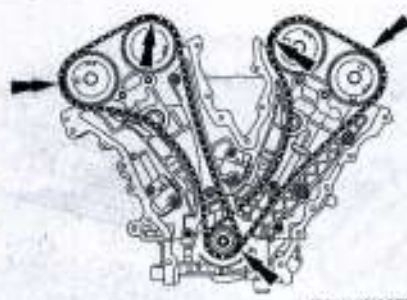
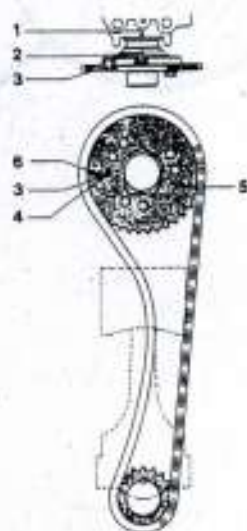


Fig. 150 Mazda 3.0L DOHC Tribute



Fig. 151 Mazda 3.0L OHV & 4.0L



1. Cam-on mark on bearing (see)
2. Alignment pin in camshaft flange
3. Locking pin in camshaft flange
4. Adjusting bore for basic adjustment
5. Adjusting bore to adjust timing period
6. Marking

Fig. 153 Mercedes-Benz 103

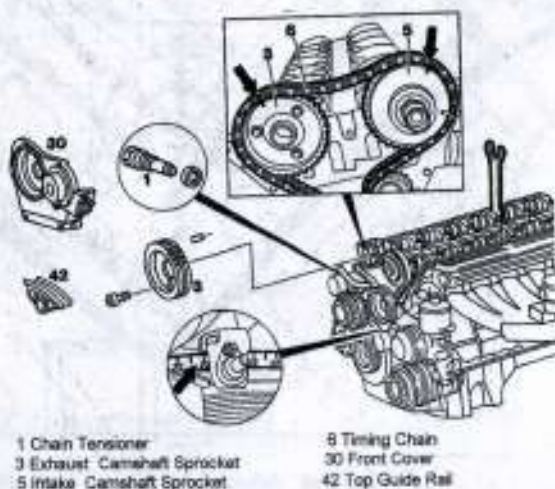


Fig. 154 Mercedes-Benz 104

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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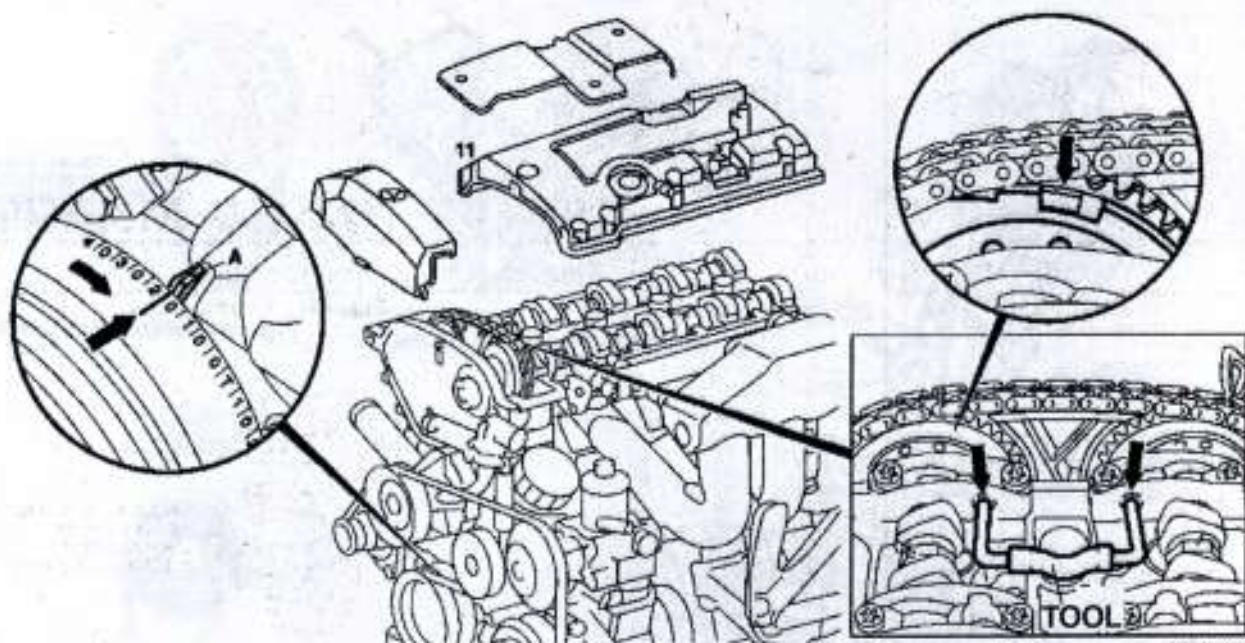


Fig. 155 Mercedes-Benz 111

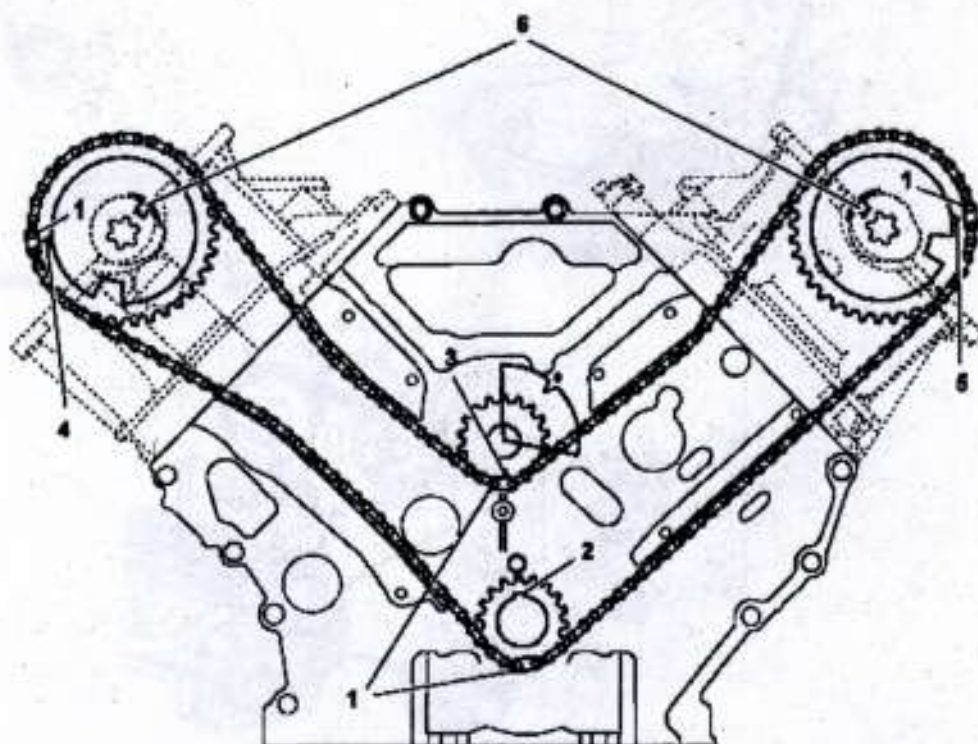


Fig. 156 Mercedes-Benz 112 & 113

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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Fig. 157 Mercedes-Benz 119. Camshaft



Fig. 158 Mercedes-Benz 119. Camshaft With Holding Tool

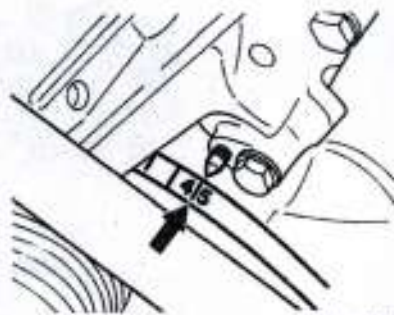


Fig. 159 Mercedes-Benz 119. Crankshaft



Fig. 160 Mercedes-Benz 120. Camshaft

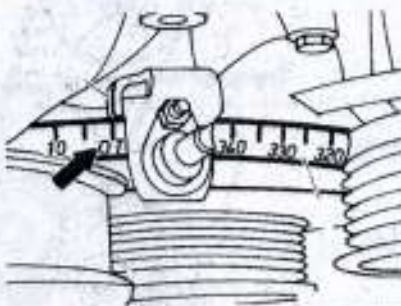


Fig. 161 Mercedes-Benz 120. Crankshaft

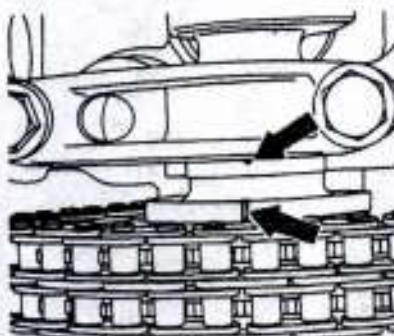


Fig. 163 Mercedes-Benz 602, 603 & 606

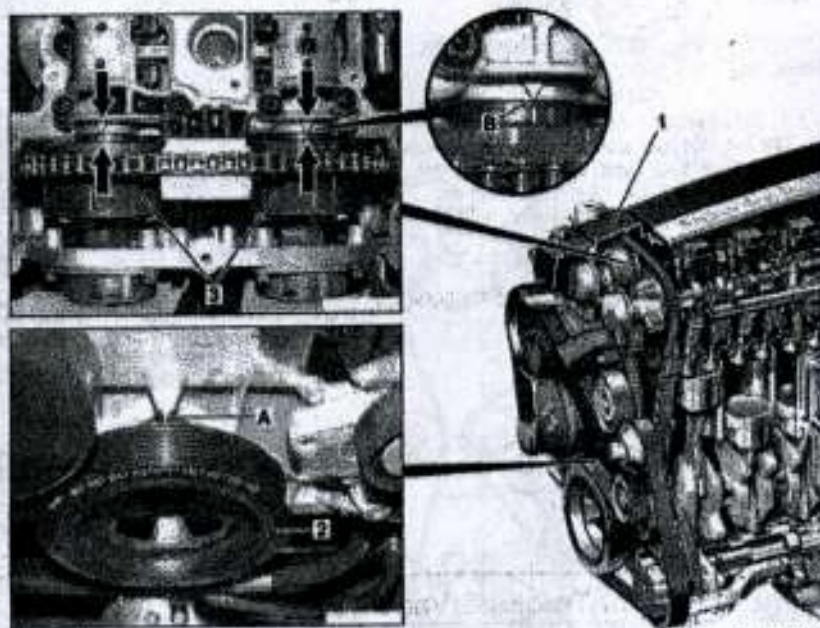


Fig. 162 Mercedes-Benz 271. Crankshaft

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

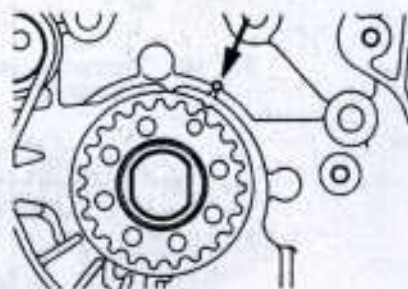
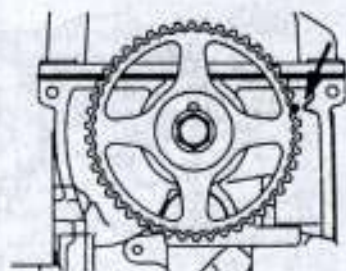
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1. Camshaft timing mark aligns with single pinned link.
2. Camshaft gear.
3. Left timing chain guide.
4. Right timing chain guide.
5. Timing chain tensioner.
6. Crankshaft gear.
7. Chain.
8. Crankshaft timing mark aligns with double pinned link.

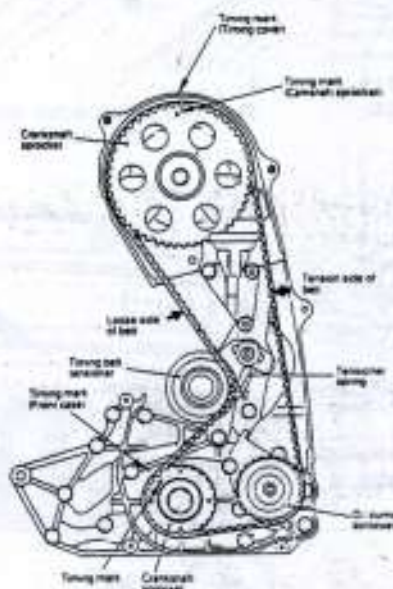
Fig. 164 Mini 1.6L

SPK000000000000



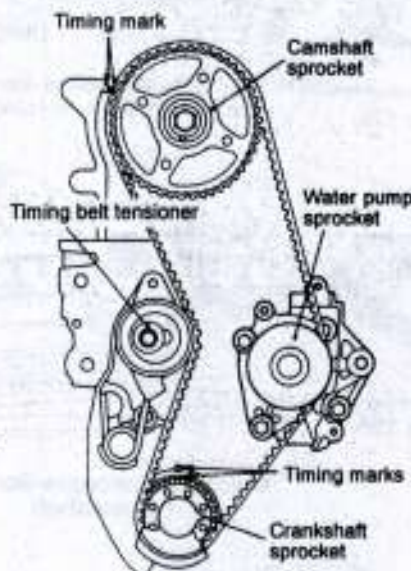
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Fig. 165 Mitsubishi 1.5L



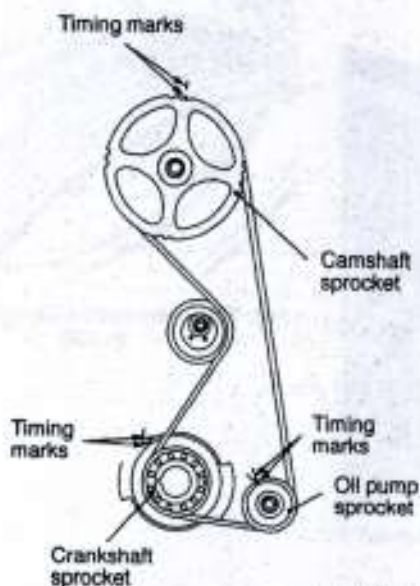
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Fig. 166 Mitsubishi 1.6L



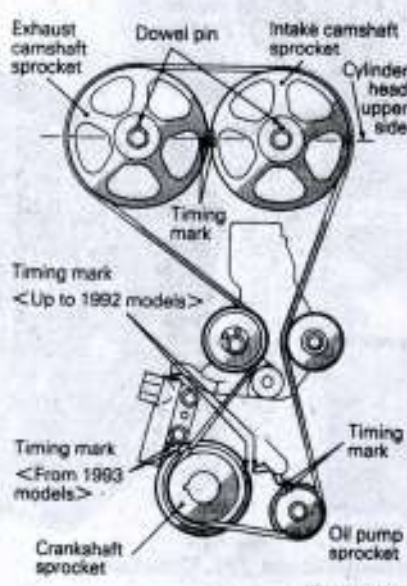
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Fig. 167 Mitsubishi 1.8L Expo & Mirage



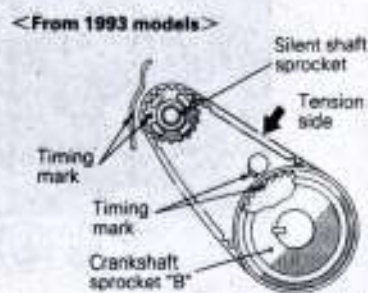
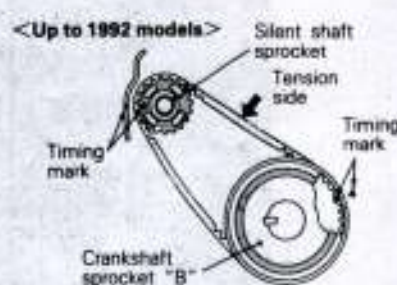
MT113900030000X

Fig. 168 Mitsubishi 1.8L & 2.4L SOHC. Eclipse & 1993-2002 Galant



MT113900030000X

Fig. 169 Mitsubishi 2.0L DOHC Timing Belt. Except 1995-99 Eclipse Non-Turbo



MT113900030000X

Fig. 170 Mitsubishi 2.0L DOHC Silent Shaft. Except 1995-99 Eclipse Non-Turbo

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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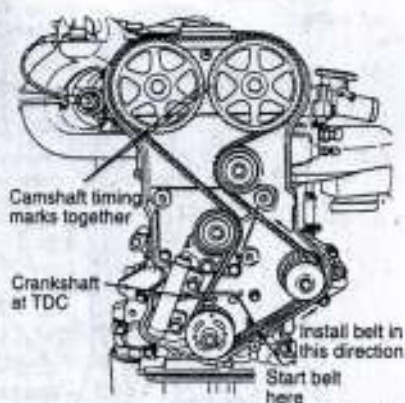


Fig. 171 Mitsubishi 2.0L DOHC. 1995-99 Eclipse Non-Turbo

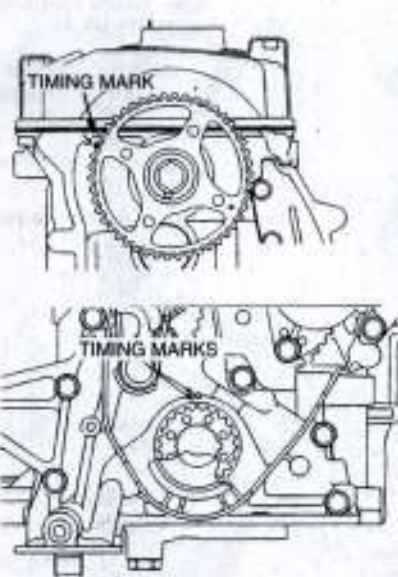


Fig. 172 Mitsubishi 2.0L SOHC. Lancer

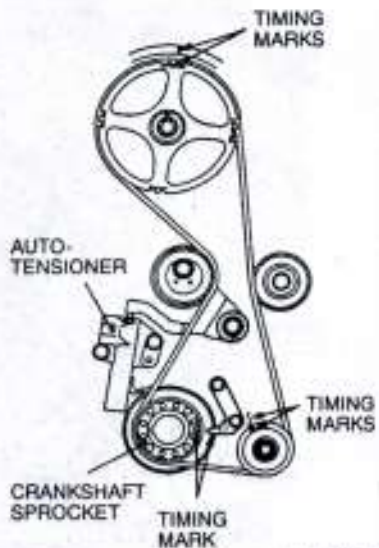


Fig. 173 Mitsubishi 2.4L SOHC. Eclipse, Montero Sport & 1993-2002 Galant

<Up to 1995 models>



<From 1996 models>



Fig. 174 Mitsubishi 3.0L SOHC Except Eclipse, Galant & Montero Sport

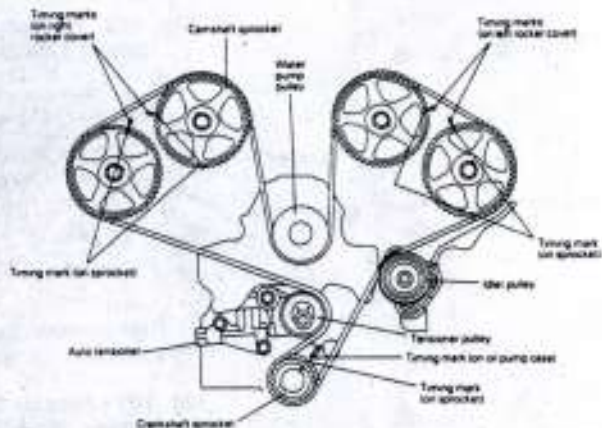


Fig. 175 Mitsubishi 3.0L & 3.5 DOHC

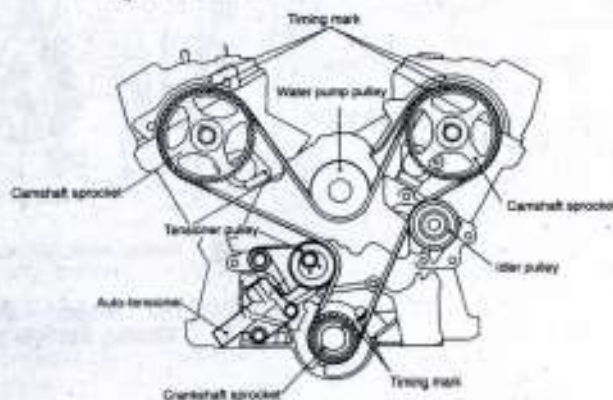


Fig. 176 Mitsubishi 3.0L SOHC. Eclipse, Galant & Montero Sport, 1996-2001 Montero 3.5L SOHC, 1996-2003 Diamante 3.5L SOHC & 3.8L

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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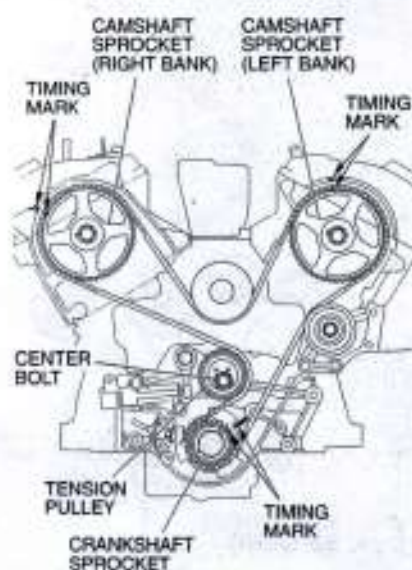


Fig. 177 Mitsubishi 3.5L SOHC. 2002-03 Montero

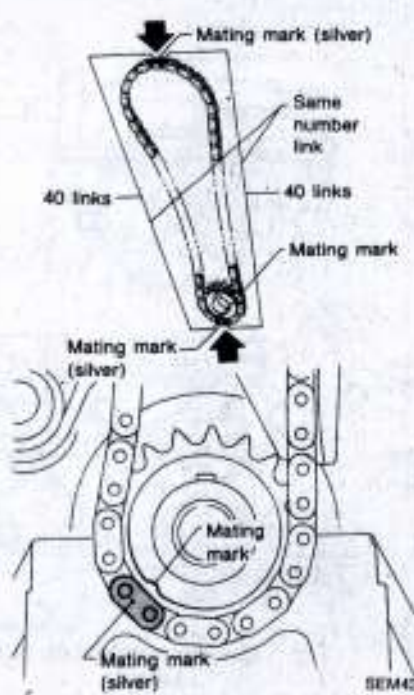


Fig. 178 Nissan 1.6L GA16DE Lower Chain. 1993-94

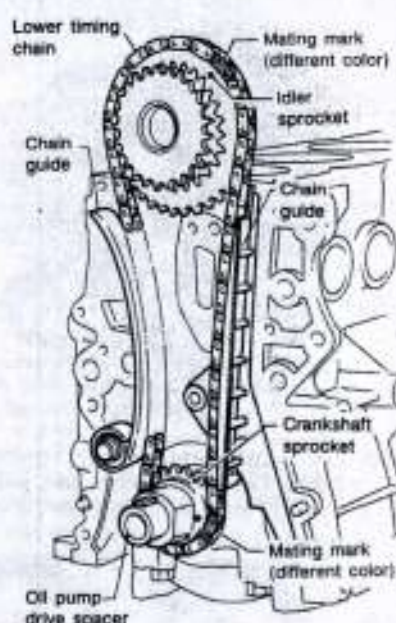


Fig. 179 Nissan 1.6L GA16DE Lower Chain. 1995-99

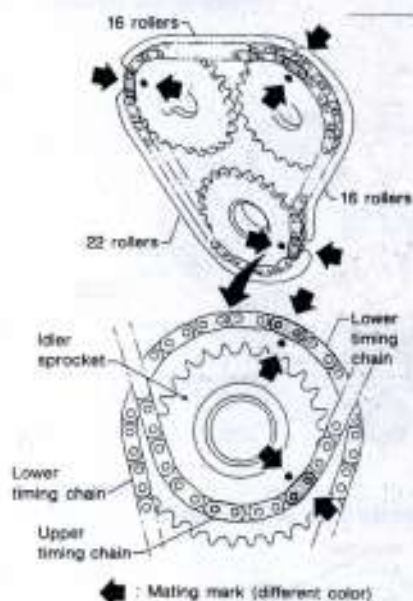


Fig. 180 Nissan 1.6L GA16DE Upper Chain

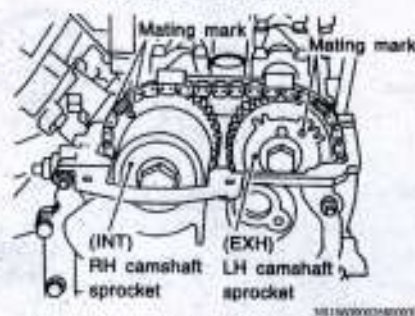


Fig. 181 Nissan 1.8L Camshaft Timing Marks. 2000-01

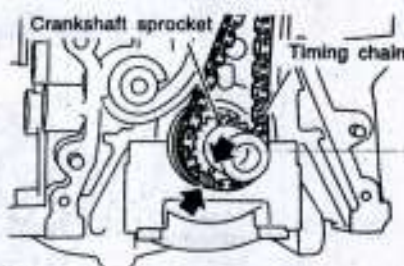


Fig. 182 Nissan 1.8L Crankshaft Timing Marks. 2000-01

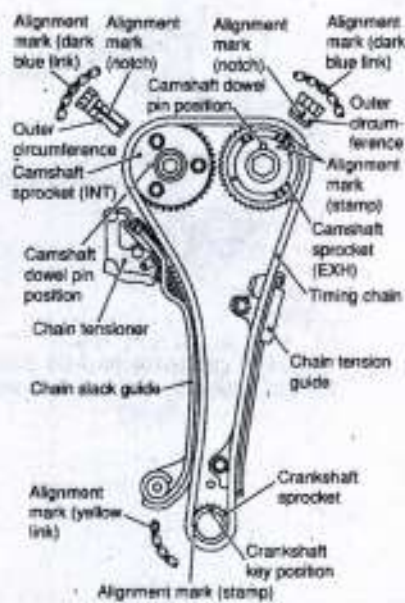


Fig. 183 Nissan 1.8L. 2002-04

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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Fig. 184 Nissan 2.4L KA24DE Lower Chain

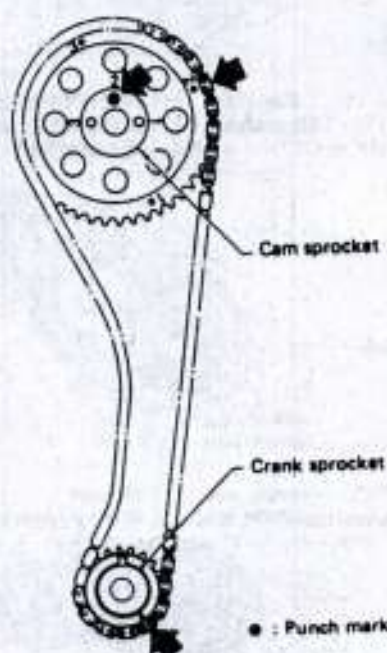


Fig. 187 Nissan 2.4L KA24DE

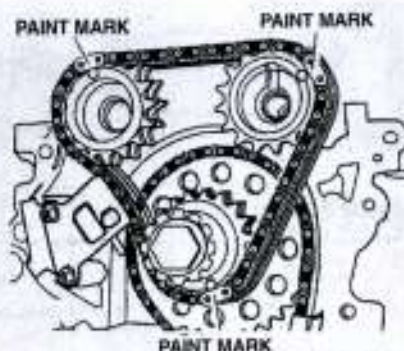


Fig. 185 Nissan 2.4L KA24DE Camshafts Upper Chain. 1993-2000

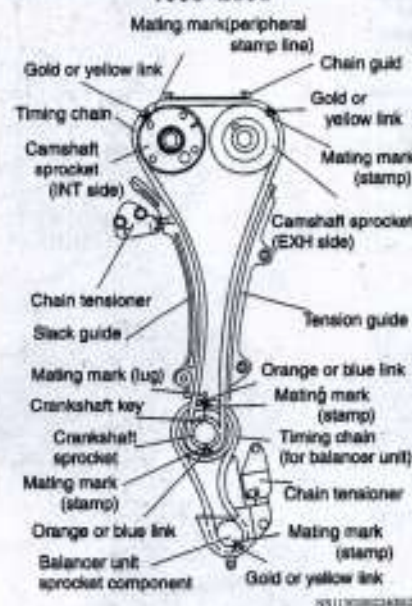


Fig. 188 Nissan 2.5L

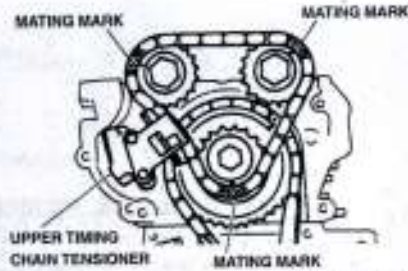


Fig. 186 Nissan 2.4L KA24DE Camshafts Upper Chain. 2001-04

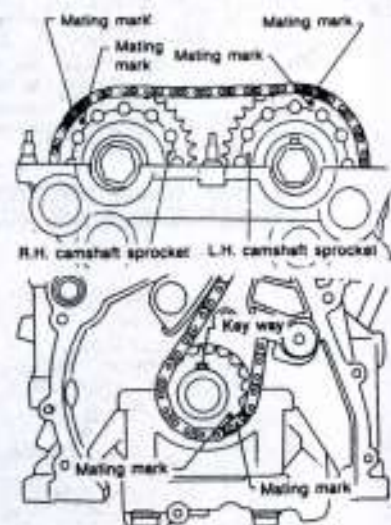


Fig. 189 Nissan 2.0L SR20DE

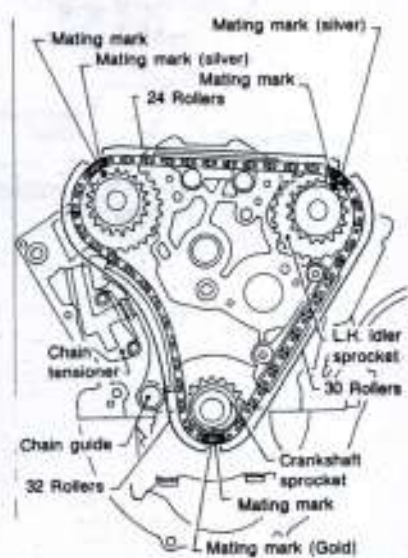


Fig. 190 Nissan 3.0L VE30DE Lower Timing Chain

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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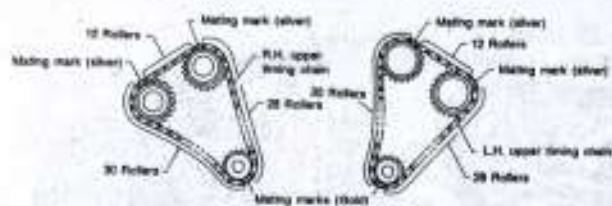


Fig. 191 Nissan 3.0L VE30DE Upper Timing Chains

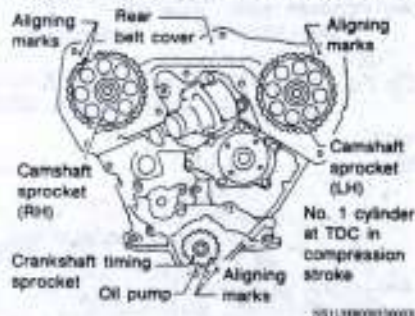


Fig. 193 Nissan 3.0L VG30E, VG30ET, VG30I & 3.3L VG33E

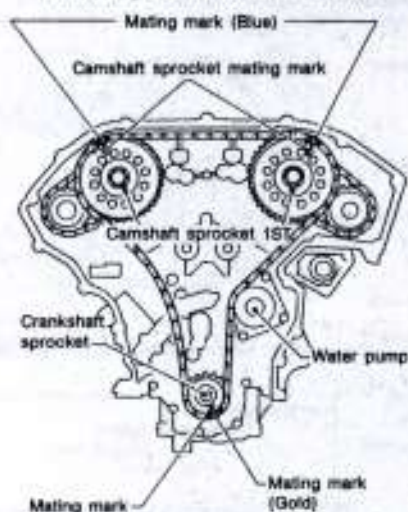


Fig. 194 Nissan 3.0L VQ30DE, 1995

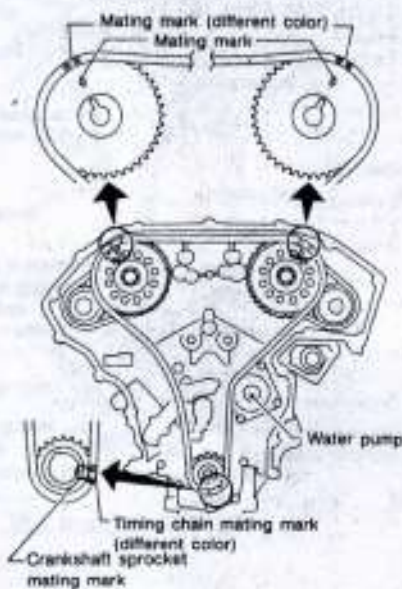


Fig. 195 Nissan 3.0L VQ30DE, 1996-99

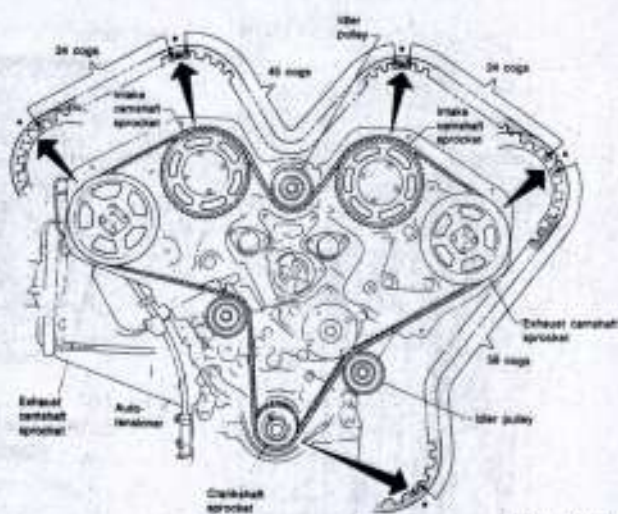


Fig. 192 Nissan 3.0L VG30DE & VG30DET

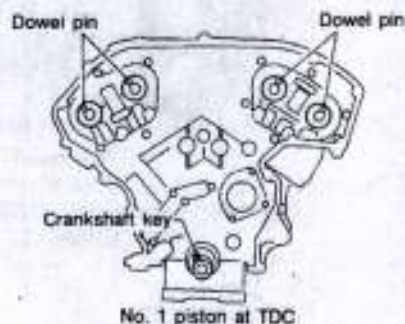


Fig. 196 Nissan & Infiniti 3.5L Camshaft Dowel Pin & Crankshaft Key Positions

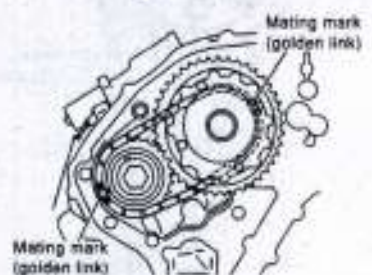


Fig. 197 Nissan & Infiniti 3.5L Secondary Timing Chain

VALVE TIMING MARKS

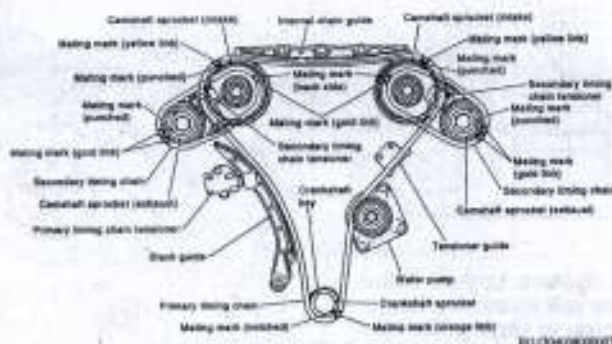


Fig. 198 Nissan & Infiniti 3.5L Primary Timing Chain



Fig. 200 Porsche 928 LH Side Cam

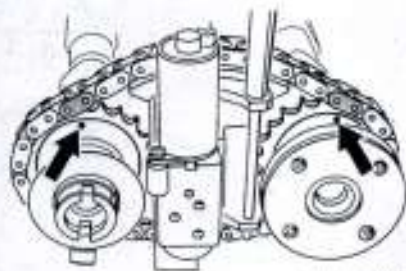


Fig. 202 Porsche Boxster Camshaft

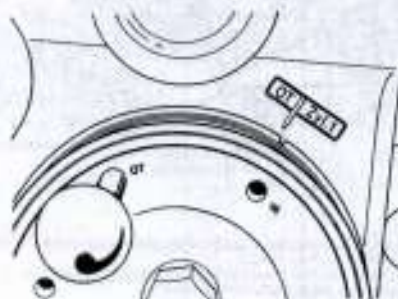


Fig. 203 Porsche Boxster Crankshaft



Fig. 204 Saab B204/B206/B234 4 Cyl.

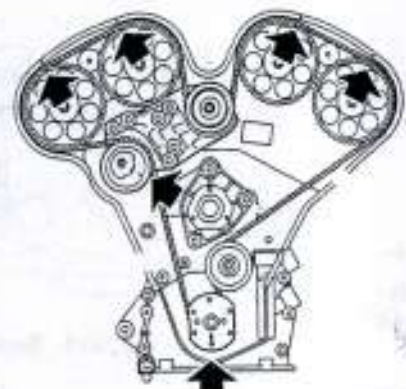


Fig. 205 Saab V6

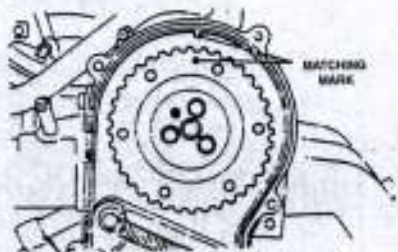


Fig. 206 Subaru 1.2L Camshaft

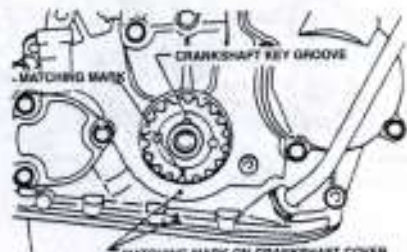


Fig. 207 Subaru 1.2L Crankshaft

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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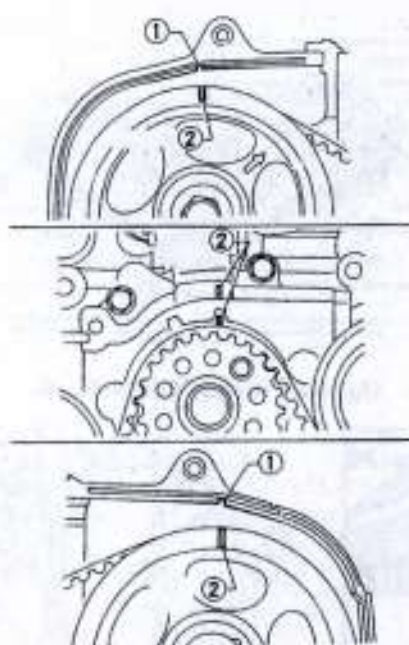


Fig. 208 Subaru Impreza 1.8L
(1=Camshaft Rear Cover Timing Mark; 2=Sprocket Timing Marks)

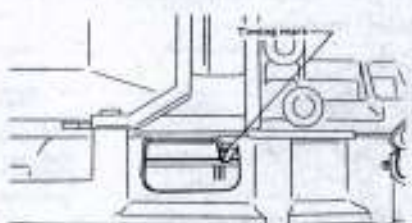


Fig. 209 Subaru Loyale 1.8L
Flywheel (align center line w/bellhousing timing mark)

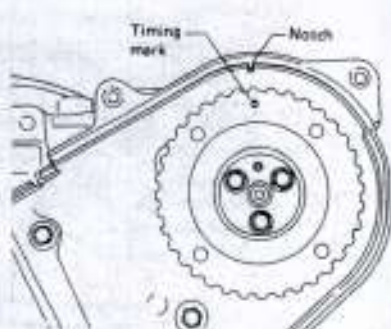


Fig. 210 Subaru Loyale 1.8L LH
Camshaft

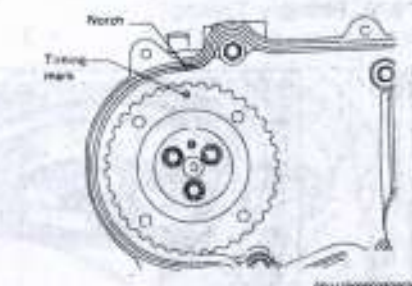


Fig. 211 Subaru Loyale 1.8L RH
Camshaft

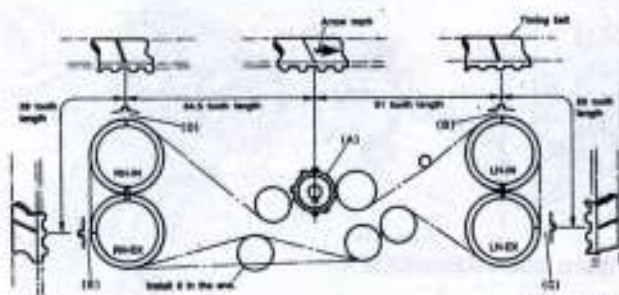
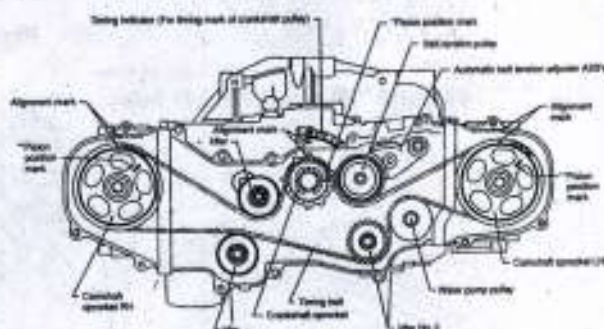
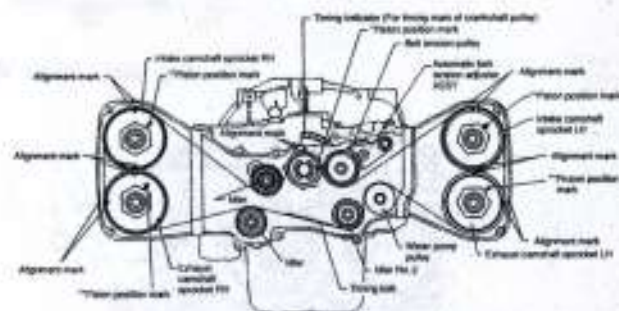


Fig. 212 Subaru 2.0L DOHC



NOTE:
* #1 piston is set at TDC (Top Dead Center) when piston-position mark on crankshaft sprocket is aligned with mark on cylinder block.
** #1 piston is set at TDC (Top Dead Center) on compression stroke when piston-position mark on camshaft sprocket is aligned with mark on belt cover.

Fig. 213 Subaru 2.2L SOHC



NOTE:
* #1 piston is set at TDC (Top Dead Center) when piston-position mark on crankshaft sprocket is aligned with mark on cylinder block.
** #1 piston is set at TDC (Top Dead Center) on compression stroke when piston-position mark on camshaft sprocket is facing directly upward.

Fig. 214 Subaru 2.5L DOHC

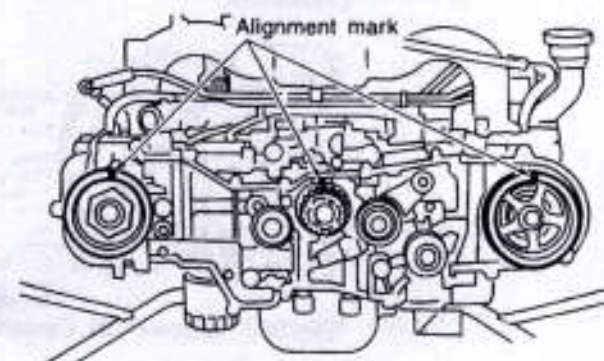


Fig. 215 Subaru 2.5L SOHC

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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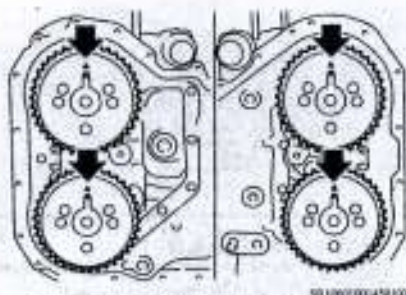
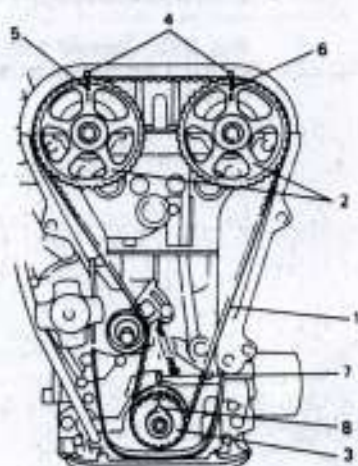


Fig. 216 Subaru 3.0L Camshaft Timing Marks



Fig. 218 Subaru 3.3L



1. Timing belt
2. Camshaft timing belt pulleys
3. Crankshaft timing belt pulleys
4. Marks on cylinder head cover
5. Punch mark by "I" (intake side)
6. Punch mark by "E" (exhaust side)
7. Mark on oil pump case
8. Key on crankshaft

Fig. 220 Suzuki 1.6L DOHC

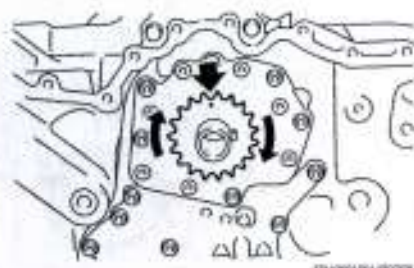
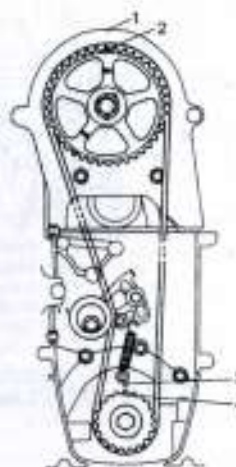
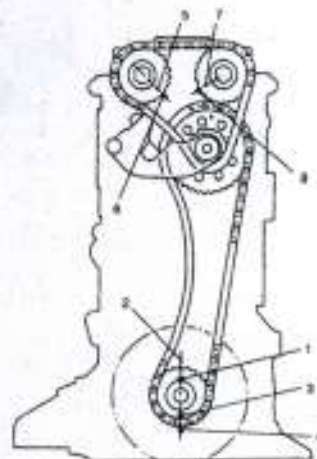


Fig. 217 Subaru 3.0L Crankshaft Timing Marks



1. "V" mark on cylinder head cover
2. Timing mark on camshaft timing belt pulley
3. Arrow mark on oil pump case
4. Punch mark on crankshaft timing belt pulley

Fig. 219 Suzuki 1.3L & 1.6L SOHC



1. Crankshaft timing sprocket key
2. Timing mark of crank timing sprocket key
3. Match mark on crank timing sprocket
4. Timing mark on lower crankcase
5. Timing mark on intake camshaft timing sprocket
6. Timing mark of intake camshaft timing sprocket
7. Timing mark on exhaust camshaft timing sprocket
8. Timing mark of exhaust camshaft timing sprocket

Fig. 221 Suzuki 1.8L Esteem

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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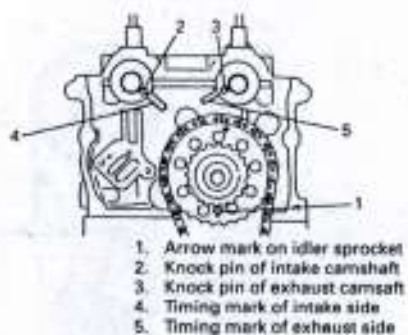
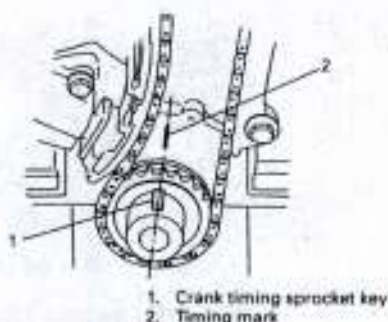


Fig. 222 Suzuki 1.8L Sidekick & 2.0L Lower Chain

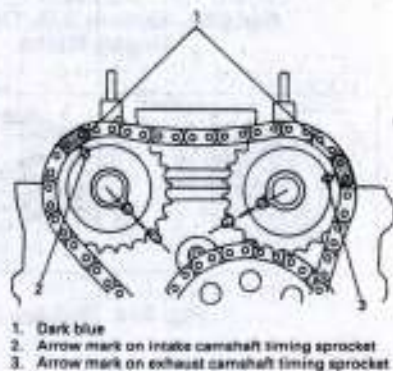
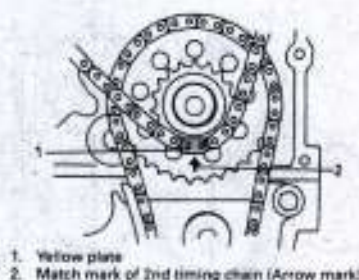


Fig. 223 Suzuki 1.8L Sidekick & 2.0L Upper Chain

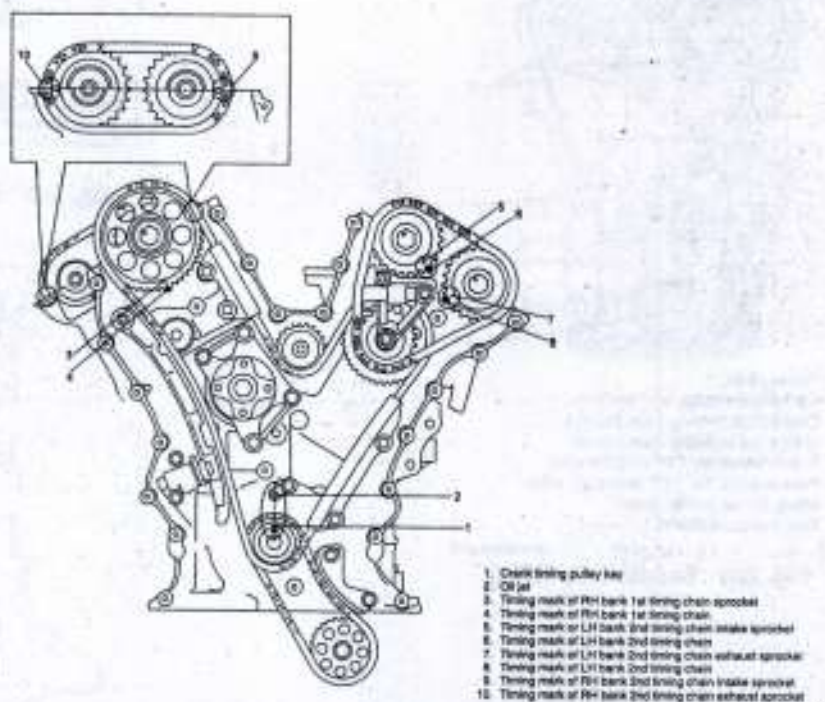


Fig. 224 Suzuki 2.5L & 2.7L Grand Vitara, Vitara & XL-7

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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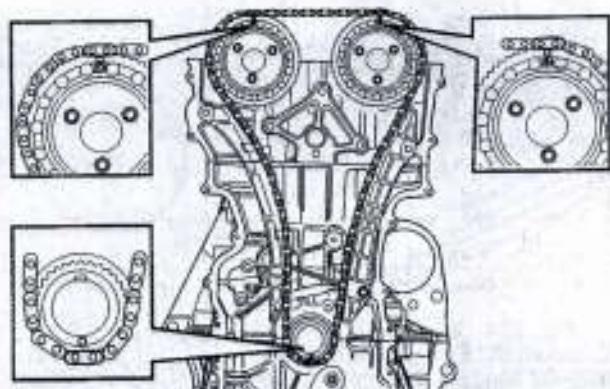
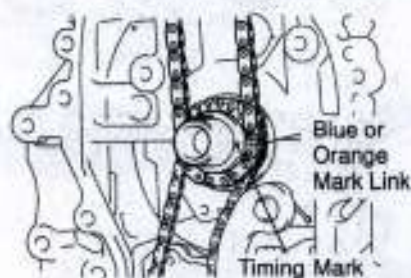


Fig. 225 Suzuki 2.5L Verona



Gold or Yellow Mark Link

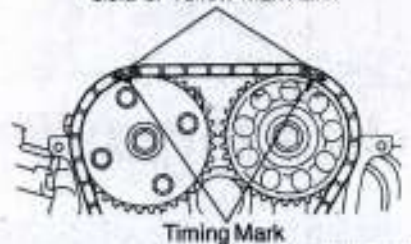


Fig. 227 Toyota 1AZ-FE Timing Chain

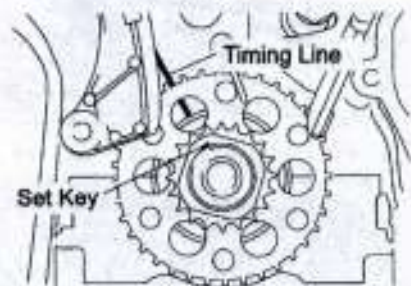


Fig. 230 Toyota 1GR-FE Crankshaft

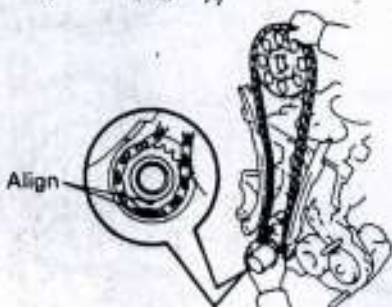


Fig. 228 Toyota 1FZ-FE & 1993-97 2RZ-FE & 3RZ-FE

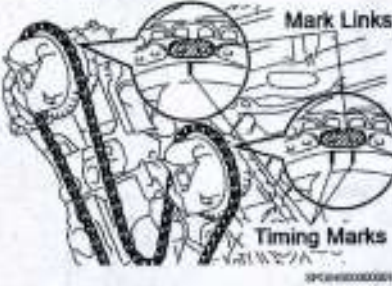


Fig. 231 Toyota 1GR-FE Timing Chain To Camshaft Sprockets

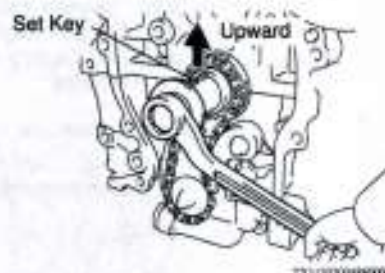
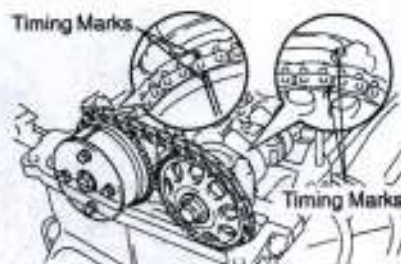


Fig. 226 Toyota 1AZ-FE Crankshaft & Camshaft

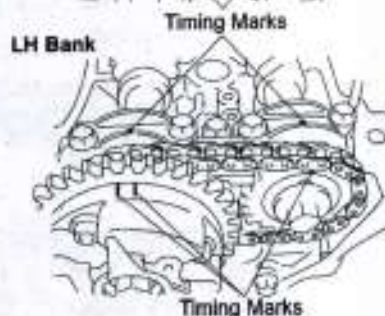


Fig. 229 Toyota 1GR-FE Camshafts

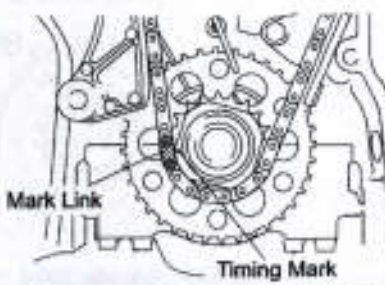


Fig. 232 Toyota 1GR-FE Timing Chain To Crankshaft Sprocket

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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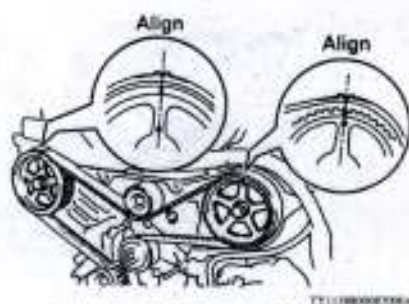


Fig. 233 Toyota 1MZ-FE Camshafts. Except Highlander, 2000-02 Avalon, Camry & Camry Solara

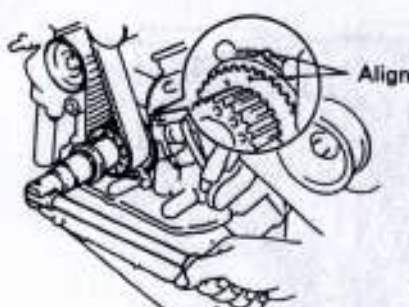


Fig. 234 Toyota 1MZ-FE Crankshaft. Except Highlander, 2000-02 Avalon, Camry & Camry Solara

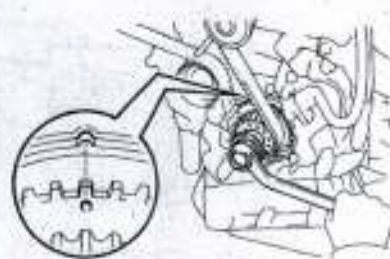


Fig. 235 Toyota 1MZ-FE & 3MZ-FE. Highlander, 2000-04 Avalon, Camry & Camry Solara

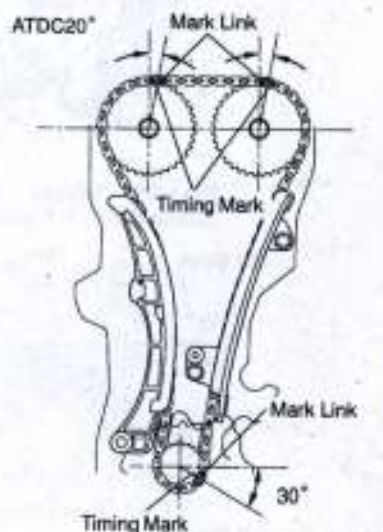


Fig. 236 Toyota 1NZ-FE & 2001-03 1NZ-FXE Timing Chain & Gear Marks At 20° ATDC. Echo & Prius

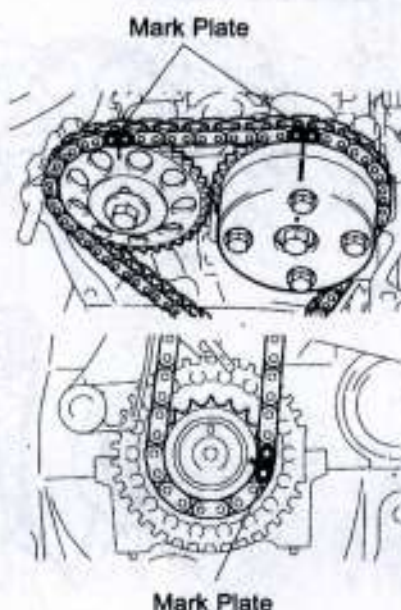


Fig. 238 Toyota 2004 1NZ-FXE Timing Chain & Gear Marks

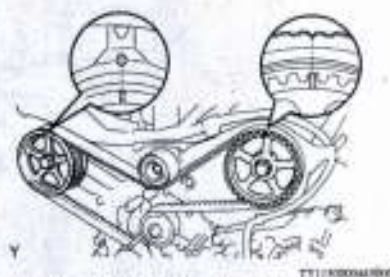


Fig. 239 Toyota 1ZZ-FE & 2ZZ-GE Camshafts

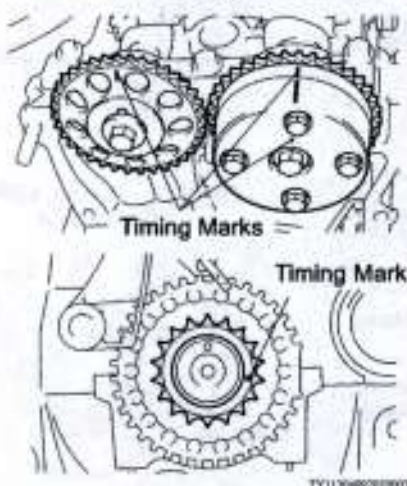


Fig. 237 Toyota 2004 1NZ-FXE Camshaft & Crankshaft Gear Marks

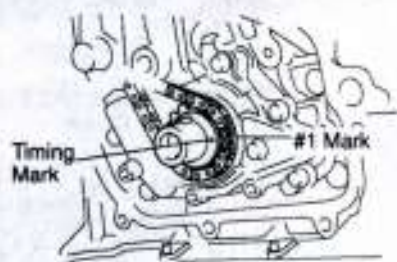


Fig. 240 Toyota 1ZZ-FE & 2ZZ-GE Crankshaft & Timing Chain

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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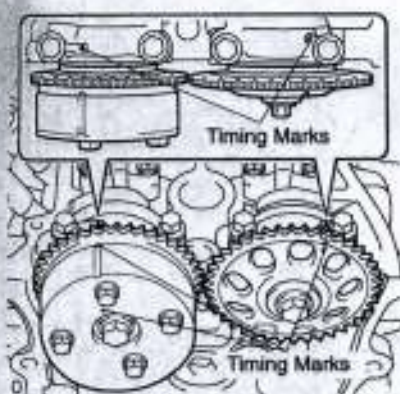


Fig. 241 Toyota 2AZ-FE Primary Timing Chain

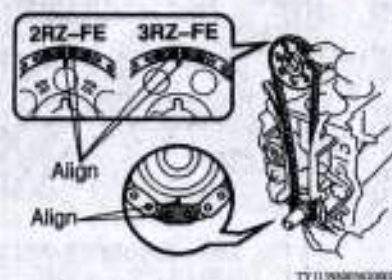


Fig. 244 Toyota 2RZ-FE & 3RZ-FE. 1998-2004

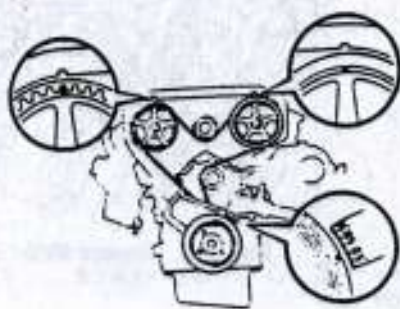


Fig. 248 Toyota 2VZ-FE

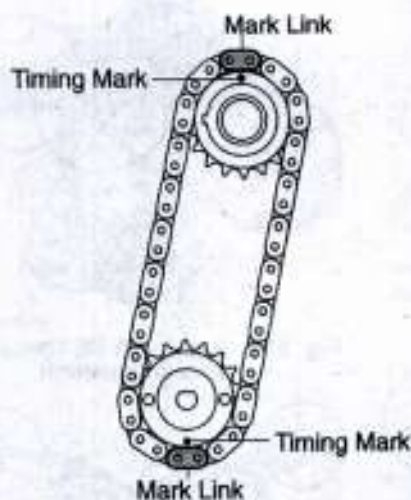


Fig. 242 Toyota 2AZ-FE Primary Sub-Chain

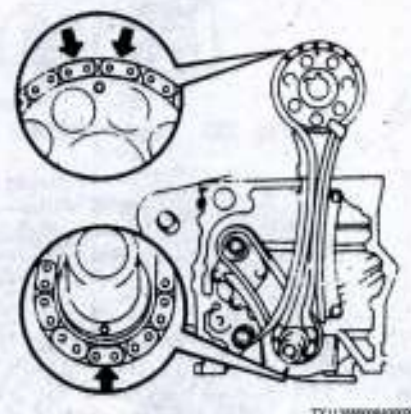


Fig. 245 Toyota 2TZ-FE & 2TZ-FZE

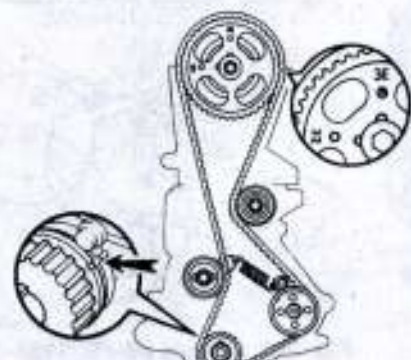


Fig. 249 Toyota 3E & 3E-E

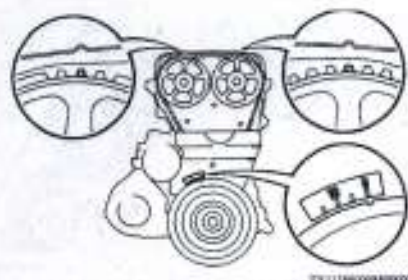


Fig. 243 Toyota 2JZ-GE & 2JZ-GTE



Fig. 246 Toyota 2UZ-FE Camshafts

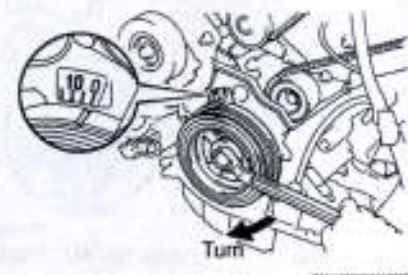


Fig. 247 Toyota 2UZ-FE Crankshaft



Fig. 250 Toyota 3F-E

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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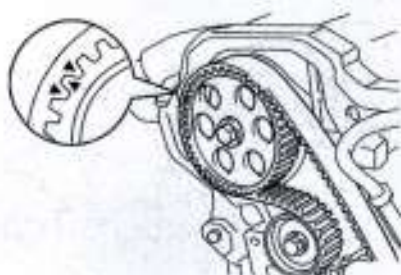


Fig. 251 Toyota 3S-FE Camshaft & Belt



Fig. 252 Toyota 3S-FE Camshaft & Crankshaft

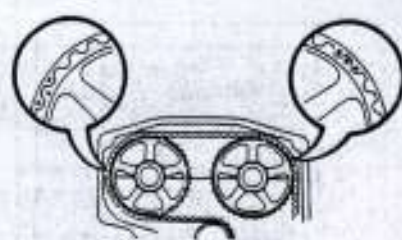


Fig. 253 Toyota 3S-GTE



Fig. 254 Toyota 3VZ-E

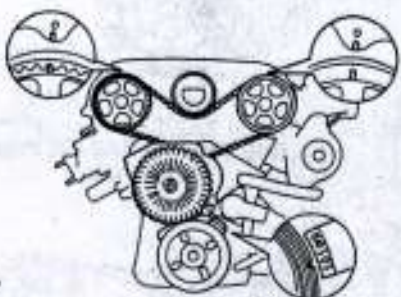


Fig. 255 Toyota 3VZ-FE

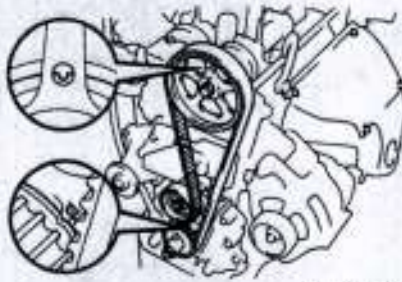


Fig. 256 Toyota 4A-FE & 7A-FE

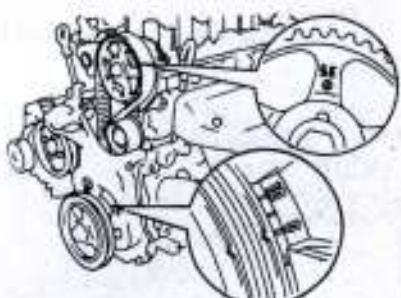


Fig. 257 Toyota 5E-FE, 1993-94

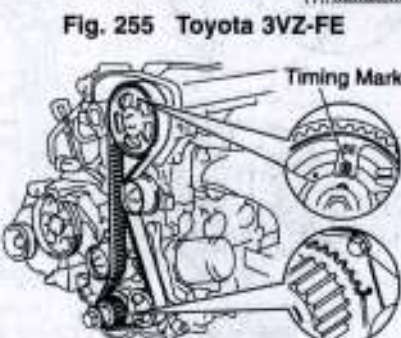


Fig. 258 Toyota 5E-FE, 1995-97

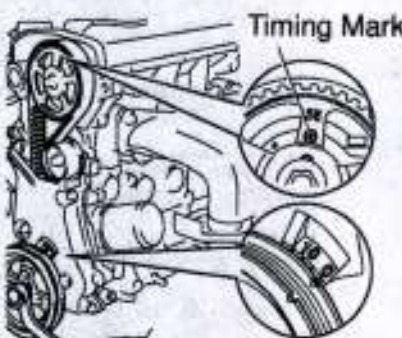


Fig. 259 Toyota 5E-FE, 1998

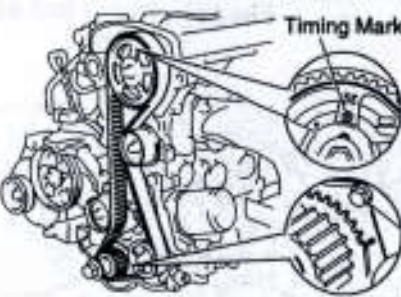


Fig. 260 Toyota 5S-FE, 1993-97



Fig. 261 Toyota 5S-FE, 1998-2001

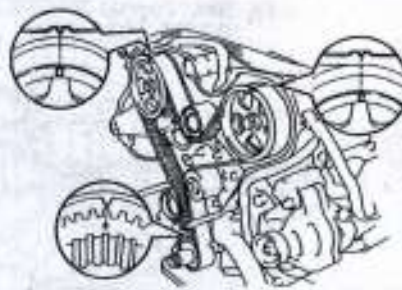
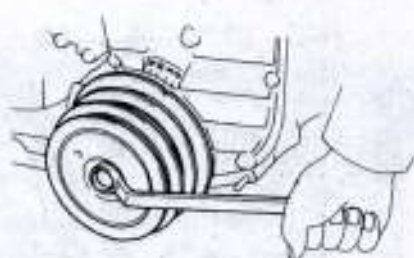


Fig. 262 Toyota 5VZ-FE

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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Alignment Mark

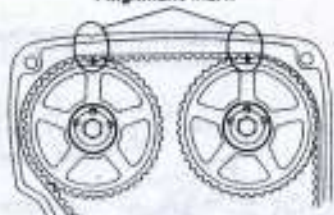


Fig. 263 Toyota 7M-GE

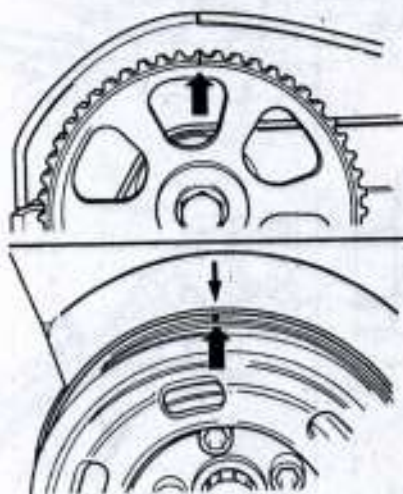


Fig. 266 Volkswagen 1.8L Turbo

Timing Mark



Fig. 264 Toyota 22R-E

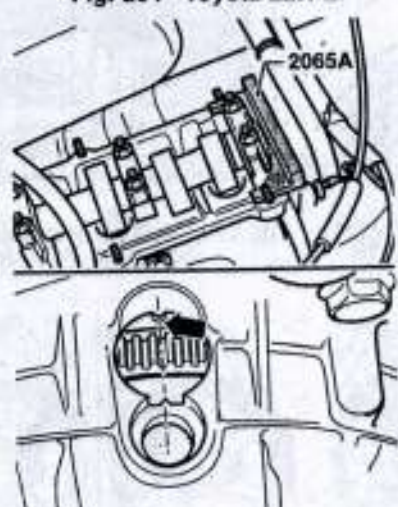


Fig. 267 Volkswagen 1.9L TDI Camshaft With Locking Pin & Crankshaft

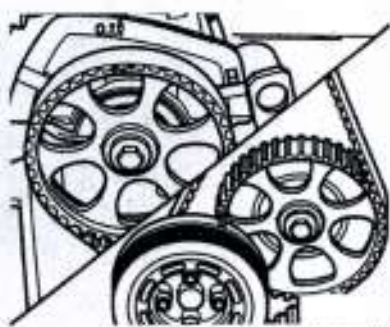


Fig. 265 Volkswagen 1.6 & 1.8L 8 Valve

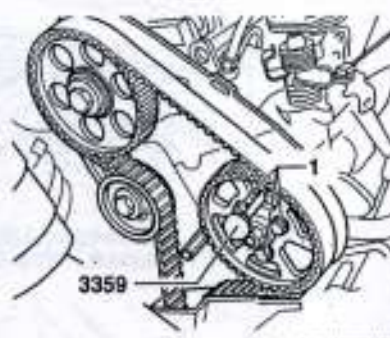


Fig. 268 Volkswagen 1.9L TDI Fuel Pump With Locking Pin

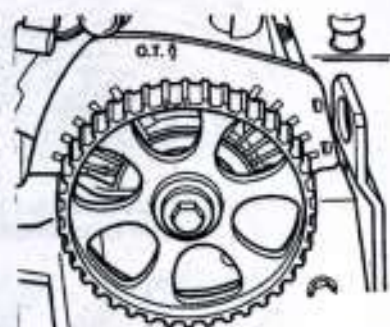


Fig. 269 Volkswagen 2.0L 8 Valve Camshaft, 1994-98

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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Fig. 270 Volkswagen 2.0L 8 Valve Crankshaft. 1994-98

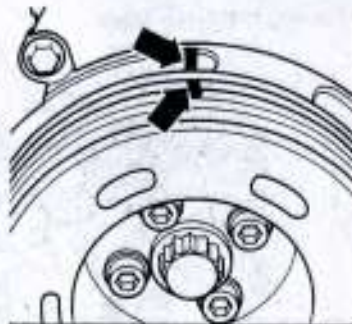


Fig. 271 Volkswagen 2.0L 8 Valve. 1999-2002



Fig. 273 Volkswagen 2.0L 16 Valve Crankshaft

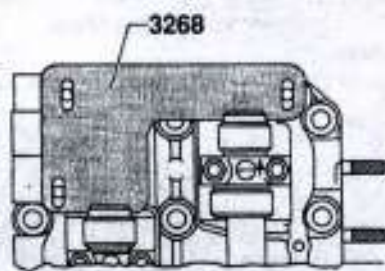


Fig. 274 Volkswagen 2.8L 2 Valve Camshaft With Jig

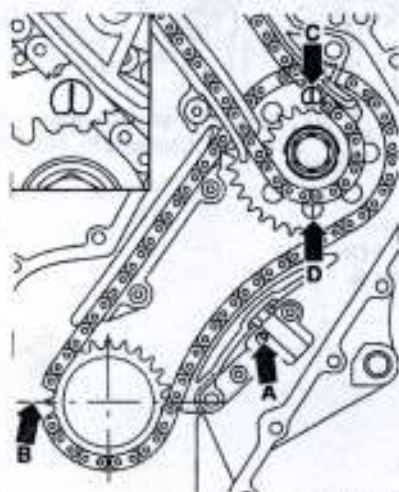


Fig. 276 Volkswagen 2.8L 2 Valve Idler Sprockets

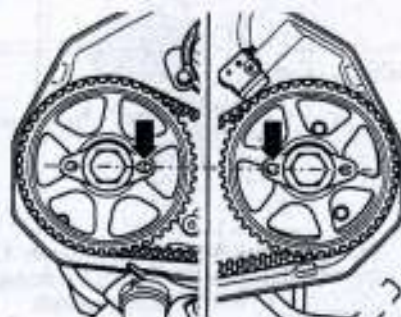


Fig. 277 Volkswagen 2.8L 5 Valve Camshaft

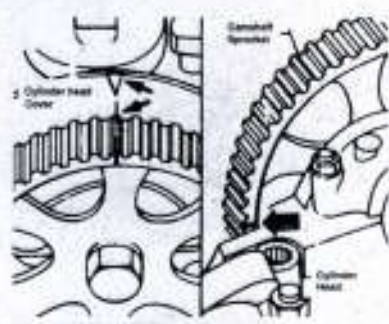


Fig. 272 Volkswagen 2.0L 16 Valve Camshaft

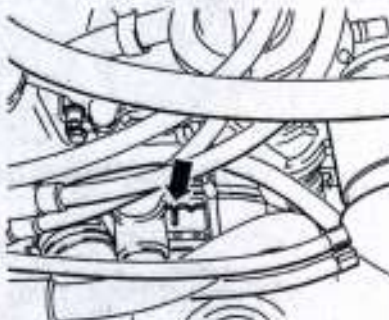


Fig. 275 Volkswagen 2.8L 2 Valve Crankshaft

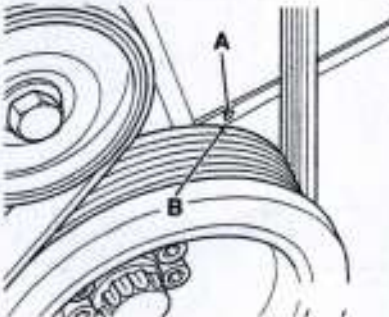


Fig. 278 Volkswagen 2.8L 5 Valve Crankshaft

VALVE TIMING MARKS

Imported Passenger Cars, Light Trucks & Vans (continued)

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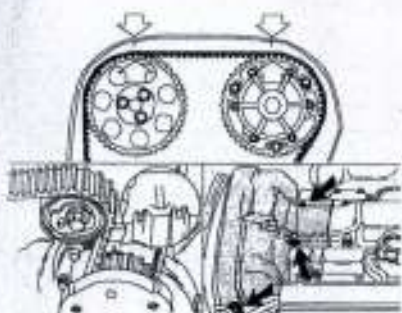


Fig. 279 Volvo 1.9L 4 Cyl.

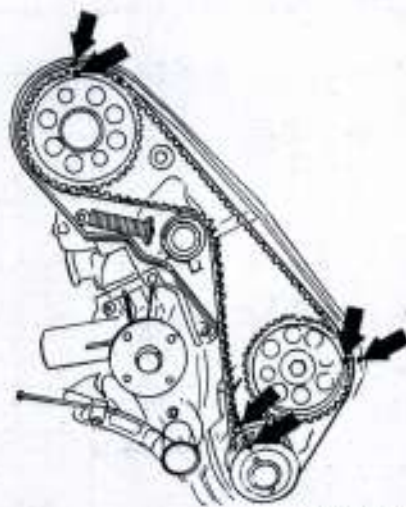


Fig. 280 Volvo 2.1L & 2.3L 4 Cyl. SOHC

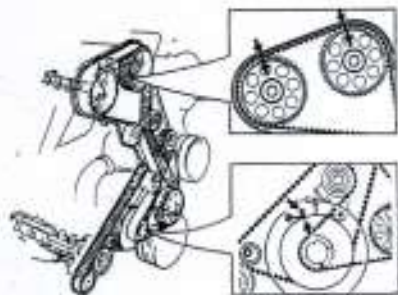


Fig. 281 Volvo 2.3L 4 Cyl. DOHC

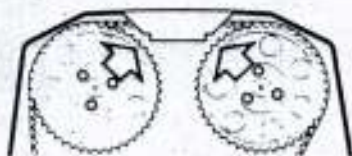


Fig. 282 Volvo 5 Cyl. 1993-2000

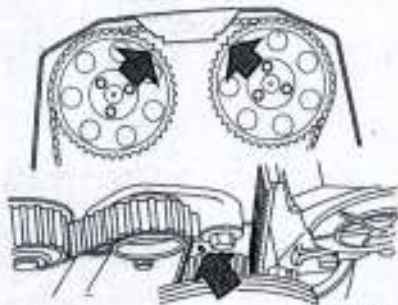


Fig. 283 Volvo 6 Cyl. 1993-99

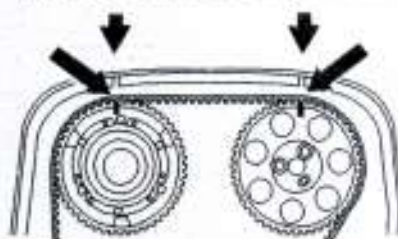


Fig. 284 Volvo 6 Cyl. 2000-04 6 Cyl. & 2001-04 5 Cyl.