Chrysler Corp. 6 Engines

3.7 LITER 6-CYLINDER

IDENTIFICATION CODING

ENGINE IDENTIFICATION

Engine identification number is stamped on block, below No. 6 spark plug. First position indicates model year (2). Next 3 digits designate engine cubic inch displacement.

ENGINE IDENTIFICATION CODES

Engine	Code
3.7L (225") 1-Bbl	225
3.7L (225") 2-Bbl	225

SPECIAL ENGINE MARKS

Information identifying undersize and oversize components will be found at various locations on engine. Coding and location is as follows:

- "M" or "R" followed by number indicates which main or rod journals are .001" (.03 mm) undersize. Found on center crankshaft counterweight.
- "M-10" or "R-10" indicates all main or rod journals are .010" (.25 mm) undersize. Found on center crankshaft counterweight.
- "A" Indicates all cylinder bores .020" (.51 mm) oversize. Found on top of front pad on right side of block.
- "♦" Indicates .008" (.20 mm) oversize valve lifters. Found on top of front pad on right side of block.
- "O/S" Indicates .005" (.13 mm) oversize valve stems and is stamped on the thermostat boss at front of cylinder head.

ENGINE REMOVAL

See Engine Removal at end of ENGINE Section.

CYLINDER HEAD & MANIFOLDS

MANIFOLD ASSEMBLY

Removal

1) Disconnect all lines, hoses and linkages from carburetor and air cleaner. Remove air cleaner and carburetor. Remove carburetor air heater and disconnect exhaust pipe at manifold.

2) Remove air injection tube (if equipped). Remove manifolds as an assembly. Remove 2 bolts and stud nut securing intake manifold to exhaust manifold and separate.

Installation

1) Clean all gasket mating surfaces. Install new gasket between intake and exhaust manifolds. Snug bolts and stud nut securing manifolds together, but DO NOT tighten at this time. Position manifold assembly on cylinder head, using new gasket, coated on both sides with gasket sealer.

2) Install steel conical washer on center stud with cup side facing nut. Install brass washers at each end of exhaust manifold with flat sides facing manifold. Install triangular washers on remaining studs. Install nuts with cone side facing washers. Snug all bolts and nuts to approximately 10 INCH Lbs. (1 N.m).

3) Tighten nut first, then 2 bolts securing manifolds together. Start at center of manifold assembly and work outward, tightening manifold nuts. Install carburetor air heater, air injection tube (with new gasket), carburetor, linkages, lines, hoses and air cleaner. Connect exhaust pipe to manifold.

CYLINDER HEAD

Removal

1) Drain cooling system and remove air cleaner. Remove all wiring, hoses, lines and linkages from carburetor, distributor, manifolds and cylinder head.

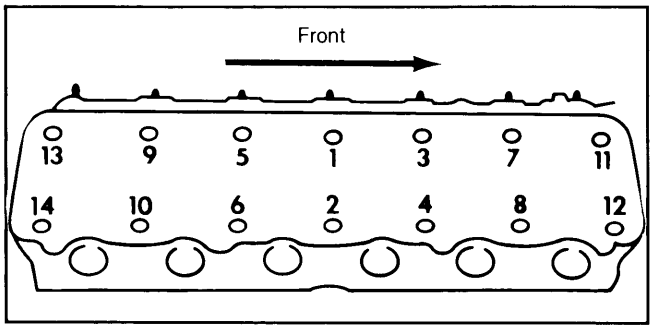
2) Disconnect exhaust pipe at manifold. Remove rocker cover and rocker arm shaft assembly. Remove push rods, and identify to insure installation in original location. Remove cylinder head bolts, cylinder head and manifolds as an assembly.

NOTE: Do not use sealer of any type or aluminum paint on head gasket.

Installation

Clean all gasket mating surfaces. Install gasket and cylinder head on block with manifold assembly removed. Install cylinder head bolts, and tighten in two steps. To complete installation, reverse removal procedure. *See Fig. 1.*

Fig. 1: Cylinder Head Bolt Tightening Sequence



Tighten bolts in 2 steps.

VALVES

VALVE ARRANGEMENT

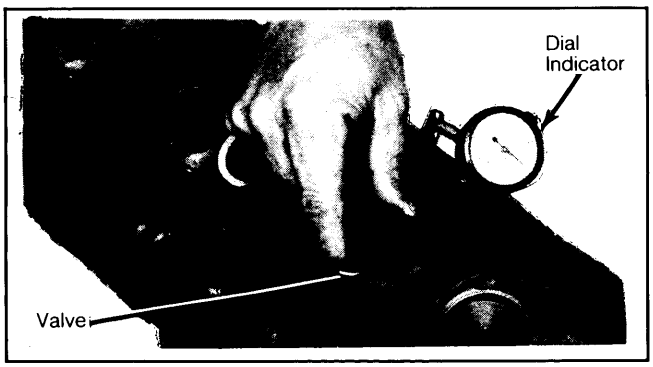
E-I-E-I-E-I-I-E-I-E-I-E (front-to-rear).

VALVE GUIDE SERVICING

Wear Check

With valve spring assembly removed and valve guide cleaned, install sleeve tool (C-3973) over valve stem.

Fig. 2: Measuring Valve Stem-to-Guide Clearance



Total sideplay should not exceed .017" (.43 mm).

3.7 LITER 6-CYLINDER (Cont.)

Install valve in cylinder head. Attach dial indicator to cylinder head, and position at right angle to valve stem being measured. Total sideplay should not exceed .017" (.43 mm). *See Fig. 2.*

Servicing

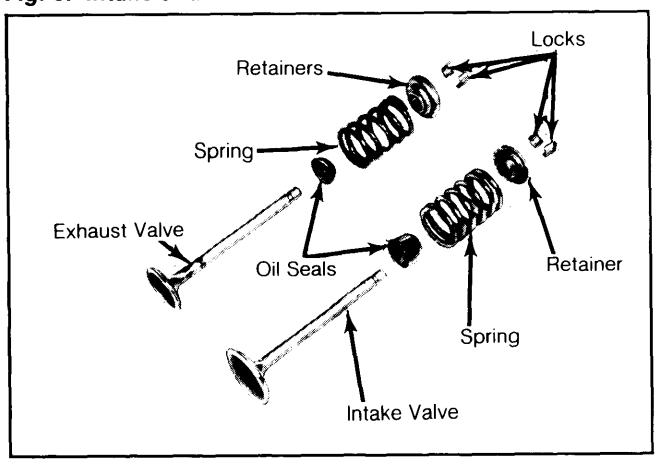
1) If valve guides require reaming, do not attempt to ream from standard to .030" (.76 mm) in one step. Use step procedure to obtain .030" (.76 mm) oversize.

2) Replacement valves with oversize stems are available in .005" (.13 mm), .015" (.38 mm), and .030" (.76 mm) oversize.

VALVE STEM OIL SEALS

Cup type seal is used on all valves. Long seal is used on intake valve and short seal is used on exhaust valve. If seals are removed for any reason, replace with new seals. *See Fig. 3.*

Fig. 3: Intake and Exhaust Valve Assemblies



Short seal is used on exhaust valves.

VALVE SPRINGS

Removal

With cylinder head removed, compress valve springs using valve spring compressor. Remove valve retaining locks, spring retainers, springs and oil seals. Ensure removed valves are installed in original locations.

CAUTION: Remove burrs from valve stem lock grooves to prevent damage to valve guides if valves are removed.

Inspection

1) Valve springs should be tested whenever they are removed from cylinder head. Using valve spring tester, check springs. Replace springs that do not meet specifications.

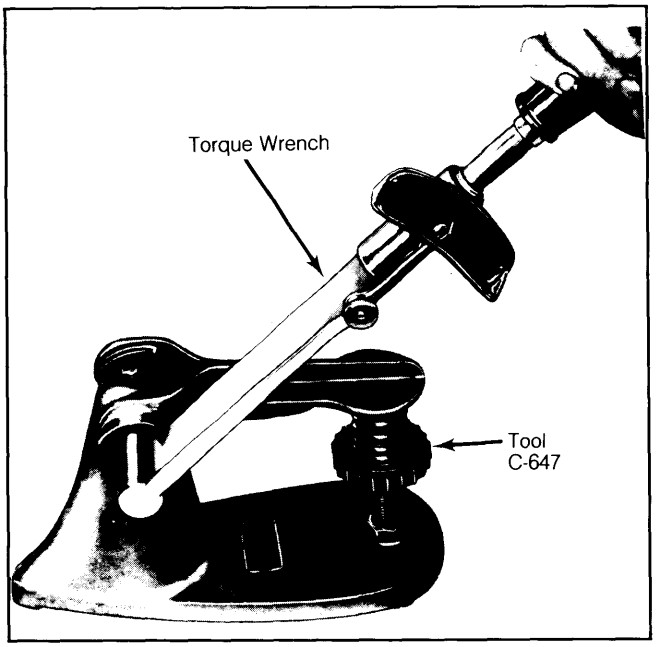
2) Inspect each spring for squareness, using a steel square and flat surface. Replace spring if more than $\frac{1}{16}$" (1.6 mm) out of square. *See Fig. 4.*

Installation

1) Coat valve stems with engine oil and insert in cylinder head. If valves or seats are reground, check valve stem height using gauge tool (C-3746). If valve is too long, grind valve tip down until length is within limits.

2) Install new oil seals firmly and squarely down over valve guides. Install valve springs, retainers and locks. Intake oil seals require .06" (1.5 mm) gap between top of guide and seal.

Fig. 4: Testing Valve Spring Compressed Length



Use torque wrench and spring tester.

VALVE SPRING INSTALLED HEIGHT

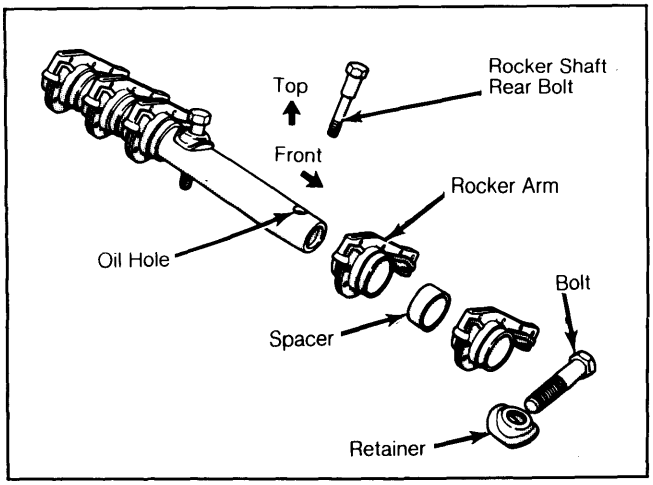
1) If valves or seats are reground, measure installed height of spring. Measure from bottom surface of spring seat in cylinder head (or top of spacer) to bottom surface of spring retainer.

2) Installed height should be $1\frac{5}{8}$-$1\frac{11}{16}$" (41.3-42.9 mm). If height is not within limits, install a $\frac{1}{16}$" (1.6 mm) spacer at head counterbore to correct spring height.

ROCKER ARM ASSEMBLY

Stamped steel rocker arms are arranged on single rocker arm shaft. Hardened steel spacers are used between pairs of rocker arms. Shaft is supported and attached to seven mounts on cylinder head. *See Fig. 5.*

Fig. 5: Rocker Arm and Shaft Assembly



Install long retainer in center position.

Chrysler Corp. 6 Engines

3.7 LITER 6-CYLINDER (Cont.)

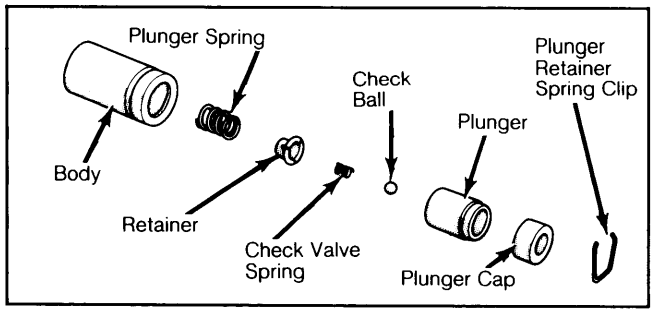
Note the following:

- The oil hole must be installed upward and toward front of engine.
- Install long retainer at center position and special bolt at rear of engine.
- Shaft retainers must seat on rocker shaft and not on extended bushing of rocker arm.

HYDRAULIC VALVE LIFTERS

1) Prior to testing, disassemble lifter and clean all parts to remove varnish and carbon. Reassemble lifter. To test, remove cap from plunger and plunger from lifter body. Fill lifter body with clean kerosene and install plunger. Unseat check valve to permit complete installation of plunger, and replace cap. *See Fig. 6.*

Fig. 6: Hydraulic Lifter Assembly



Do not lose check balls.

2) Place lifter upright in lifter testing tool (C-4343). Test leakdown by compressing tool. If plunger collapses immediately, disassemble, clean and retest. If rapid leakdown still occurs, replace lifter.

3) Check all lifters for "dished" wear condition and replace as necessary. If lifter or lifter bore in cylinder block is scuffed, scored, or shows signs of sticking, ream bore to next oversize and replace with oversize lifter.

PISTONS, PINS & RINGS

OIL PAN

See Oil Pan Removal at end of ENGINE Section.

PISTON & ROD ASSEMBLY

Removal

1) With cylinder head and oil pan removed, use ridge cutter to remove any ridge or deposits on upper end of cylinder bore. Piston must be at bottom of stroke and covered with cloth to collect cuttings.

2) Mark connecting rods and caps for cylinder identification as necessary. Rotate crankshaft so connecting rod is centered in cylinder bore. Remove rod cap, and cover rod cap bolts with rubber hose to protect crankshaft. Push piston and rod assembly out through top of cylinder block. Use care not to nick crankshaft journal or cylinder wall. Install rod caps on mating rods.

Installation

1) Compression ring gaps must be located on piston, so they will be on left side of engine and staggered about 60° apart.

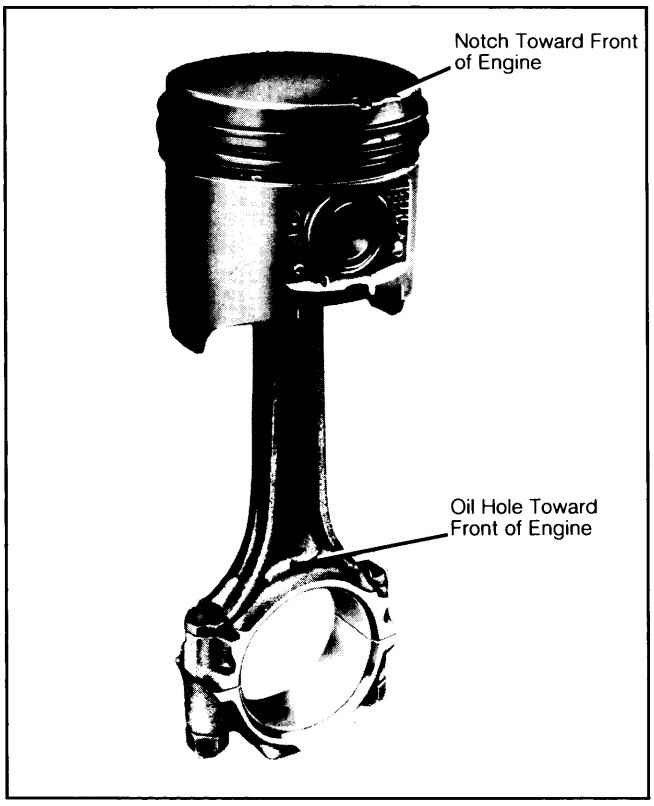
NOTE: Neither gap should line up with oil ring gaps, and identification "TOP" on each compression ring should face top of piston.

2) Rotate oil ring expander so gaps are on right side of engine. Rotate steel rails so gaps are opposite and positioned above piston pin holes.

3) Immerse pistons and rings in clean engine oil. Slide ring compressor over piston and tighten. Do not allow position of rings to change. Lightly oil cylinder bores.

4) Position piston and rod assembly into bore. Notch on top of piston and oil squirt hole in connecting rod must point toward front of engine. Rotate crankshaft so connecting rod journal is in center of cylinder bore. *See Fig. 7.*

Fig. 7: Correct Rod-to-Piston Relationship



Cover rod cap bolts with rubber hose, to avoid damage to crankshaft during piston removal or installation.

5) Install piston and rod assembly into bore and carefully guide connecting rod onto crankshaft journal to prevent damage. Tap piston head lightly with hammer handle to seat connecting rod and bearing against crankshaft. Install rod cap with bearing, and tighten.

FITTING PISTONS

1) With piston and cylinder bores dry and clean, measure for piston-to-cylinder wall clearance. Measurements should be taken at 70° F (21° C).

2) Measure piston diameter at top of skirt, 90° to piston pin axis. Measure cylinder bore halfway down cylinder and 90° to crankshaft centerline.

3) Check cylinder bore for taper or out-of-round condition using a micrometer or cylinder gauge. Cylinder bore must not be more than .005" (.13 mm) out-of-round, or taper more than .010" (.25 mm). Excessive taper and out-of-round condition, or scuffed or scored cylinder walls require reboring and honing for installation of new pistons and rings.

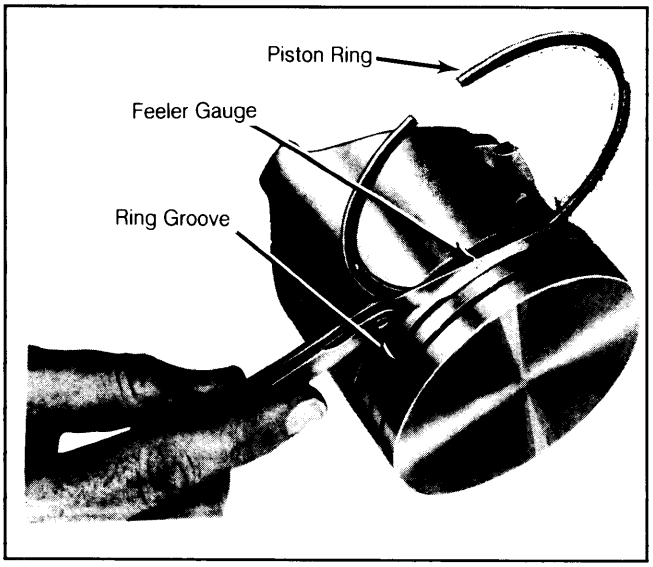
3.7 LITER 6-CYLINDER (Cont.)

4) If cylinders are honed, wash thoroughly with scrub brush and soapy water, then rinse well. Oil the bores after cleaning to prevent rust. Pistons are available in standard and .020" (.51 mm) oversize.

5) With pistons and cylinder bores dry and clean, clearance between piston and cylinder walls must be .0005-.0015" (.013-.038 mm). Check ring end gap in cylinder bore with a feeler gauge. Ring must be square in bore and about 2" (50.8 mm) from bottom of cylinder bore.

6) Check ring side clearance in ring groove of piston with a feeler gauge. Steel rail service oil ring should be free in groove and all ring grooves in piston must be clean. *See Fig. 8.*

Fig. 8: Measuring Ring Side Clearance



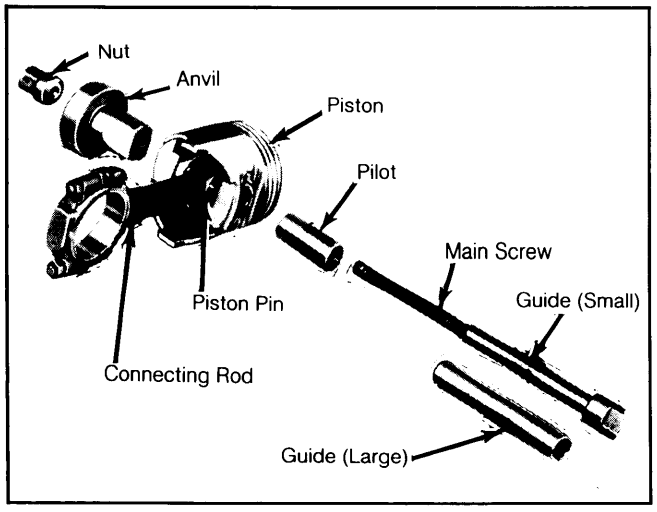
Ring grooves must be clean.

PISTON PINS

Removal

Arrange piston pin removal tool (C-3724 or equivalent) as shown in *Fig. 9.* Spring must be removed from anvil. Install nut loosely on main screw. When pin falls from connecting rod, stop press to prevent damage to bottom of anvil.

Fig. 9: Removing Piston Pin

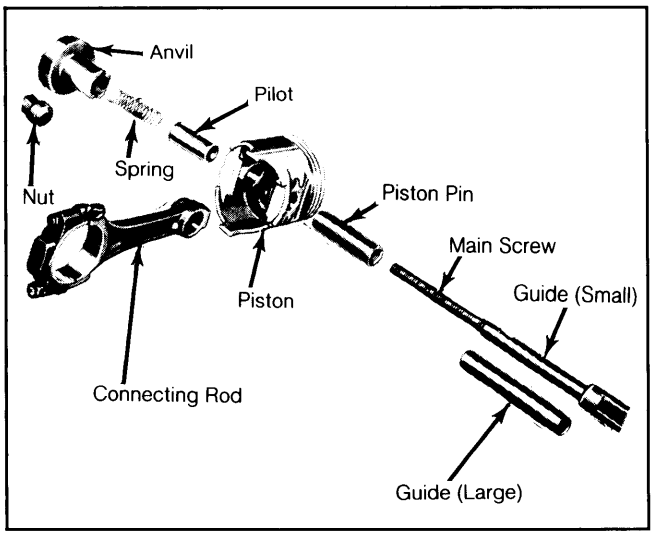


Notice arrangement of removal tool.

Installation

1) Measure piston pin fit in the piston. If pin is not a sliding fit in piston at 70° F (21° C), piston and pin must be replaced as an assembly. Lubricate piston pin bore and connecting rod bore. Arrange pin removal tool (C-3724) for installation of piston pin. *See Fig. 10.*

Fig. 10: Installing Piston Pin



Change tool arrangement when installing pin.

2) Install spring inside pilot, and install spring and pilot in the anvil. Position notch on piston and oil hole in connecting rod on same side (front of engine). *See Fig. 7.* Press pin into position until pin bottoms against pilot on tool.

Checking Pin Fit

Arrange piston pin tool parts as for removal of pin. Place assembly in vise, securing main screw butt end between vice jaws. Attach torque wrench to nut, and test torque up to 15 ft. lbs. (20 N.m). If connecting rod moves downward on piston pin, replace connecting rod.

CRANKSHAFT & ROD BEARINGS

MAIN & CONNECTING ROD BEARINGS

NOTE: Use Plastigage method for checking bearing clearances. Be sure oil film is removed from surfaces to be checked. The following procedures are with oil pan and pump removed.

Connecting Rod Bearings

1) After ensuring rod caps are marked for cylinder identification, remove rod caps. Rotate crankshaft until connecting rod to be checked starts moving toward top of engine. Place strip of Plastigage across full width of lower bearing, ¼" (6.5 mm) off center of cap and away from oil holes.

2) Install bearing cap, and tighten to 45 ft. lbs. (61 N.m). Do not rotate crankshaft. Remove cap, and measure width of Plastigage with scale furnished.

3) New bearings are available in standard, .001" (.03 mm), .002" (.05 mm), .003" (.08 mm), .010" (.25

3.7 LITER 6-CYLINDER (Cont.)

mm), and .012" (.31 mm) undersize. Taper or out-of-round on any crankshaft journal should not exceed .001" (.03 mm). Always install new bearings in pairs.

4) Install bearings so small formed tang fits into machined groove in connecting rod. Install rod caps, and tighten.

Main Bearings

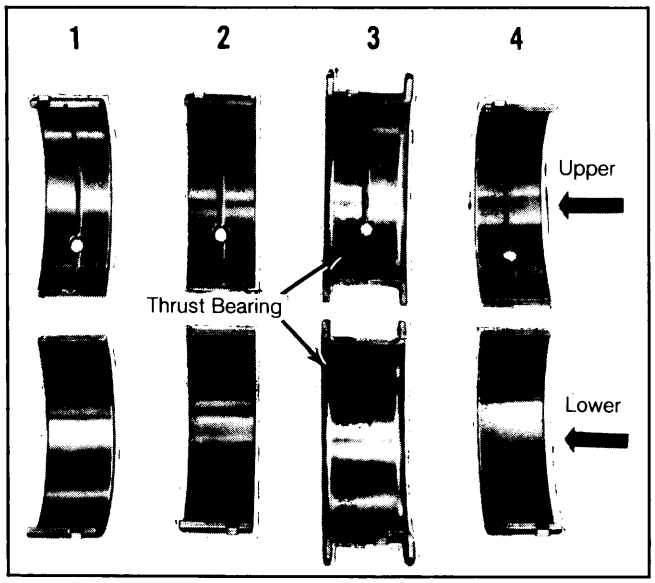
1) Check main bearing clearances 1 at a time. To accurately determine clearance, weight of crankshaft must be eliminated. A .010" (.25 mm) minimum thickness cardboard shim is used for this procedure. Place shim between bearing shell and cap of the bearings adjacent to one being checked.

2) Tighten adjacent bearing caps to 10-15 ft. lbs. (14-20 N.m). Measure clearance using Plastigage method as explained in Connecting Rod Bearings. Tighten main bearing cap bolts to 85 ft. lbs. (115 N.m).

3) New bearings are available in standard, .001" (.03 mm), .002" (.05 mm), .003" (.08 mm), .010" (.25 mm), and .012" (.31 mm) undersize. Always install new bearings in pairs.

4) Do not interchange upper main bearings (grooved with oil hole) with lower main bearings (plain). Lower main bearings I, 2 and 4 are interchangeable. Upper main bearings 1, 2 and 4 are interchangeable. Number 3 upper and lower main bearings are flanged to carry thrust loads and are not interchangeable with any other bearing. *See Fig. 11.*

Fig. 11: Main Bearing Identification



Grooved upper bearings and plain lower bearings are not interchangeable.

5) Fit main bearings 1 at a time. To replace bearings, remove bearing cap and insert pin tool (C-3059) in oil hole of crankshaft journal. Rotate crankshaft clockwise to remove upper bearing. Slightly chamfer sharp edges from plain side of new bearing, and start bearing in place.

6) Insert pin tool, and slowly rotate crankshaft counterclockwise, sliding bearing in place. Place new bearing in main bearing cap, install and tighten. Check crankshaft end play. If not within specifications, replace thrust bearing.

REAR MAIN BEARING OIL SEAL

Split-type rubber oil seals may be installed without removing the crankshaft. Split-type seals must be installed as a pair.

Removal

With oil pan removed, remove rear seal retainer and rear main bearing cap. Remove lower seal by pushing on end with a small screwdriver. Remove upper seal by pressing on end with a small screwdriver, being careful not to damage crankshaft.

Installation

1) Oil upper seal lightly with engine oil. Using thumb, hold seal (with paint stripe to rear) tightly against crankshaft. Rotate crankshaft while sliding seal into groove.

CAUTION: Sharp edge of groove in block may shave or nick back of seal. Use care not to damage seal lip.

2) Apply ⅛" (3 mm) bead of silicone sealer in bottom of lower seal retainer, starting and finishing ½" (13 mm) from ends of groove. Install lower half of seal into lower seal retainer (paint stripe to rear). Install main bearing cap, and tighten.

3) Install 2 side seals into grooves in seal retainer. Lightly grease seals. Install lower seal retainer, and tighten before silicone sealer cures (10-15 minutes).

NOTE: Do not use sealer or cement on seal ends or lip.

CAMSHAFT

ENGINE FRONT COVER

Removal

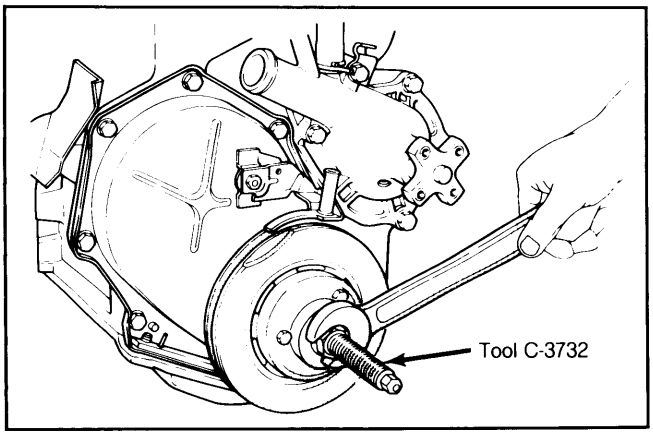
1) Drain cooling system and remove radiator. Remove drive belts, fan and pulley from water pump, and power steering crankshaft pulley. Remove vibration damper using puller (C-3732A).

2) Loosen oil pan bolts to provide clearance between pan and front cover. Remove front cover bolts and cover.

Installation

1) Clean gasket mating surfaces, and remove any burrs. Apply ⅛" (3 mm) bead of silicone sealer at

Fig. 12: Removing and Installing Vibration Damper



3.7 LITER 6-CYLINDER (Cont.)

junction of rubber pan seals and cork oil pan gaskets. Install cover with new gasket and tighten bolts. Tighten oil pan bolts with gaskets in place.

2) Lubricate front cover seal lip with Lubriplate. Position hub slot key in crankshaft, and slide vibration damper onto crankshaft. Press vibration damper onto crankshaft using puller (C-3732A) with installing adapter. Reverse removal procedure to complete installation. *See Fig. 12.*

FRONT COVER OIL SEAL

Removal

Drain cooling system and remove radiator and fan. Remove crankshaft pulley and vibration damper. *See Fig. 12.* Pry seal out from behind lip, using care not to damage crankshaft seal surface of front cover

Installation

1) Install new seal by installing the threaded shaft part of seal installer (C-4251) into threads of crankshaft. Place seal into opening with seal spring toward the inside of engine.

2) Place installing adapter (C-4251-2) with the thrust bearing and nut on the shaft. Tighten nut until tool is flush with the timing chain cover. Reverse removal procedure to complete installation.

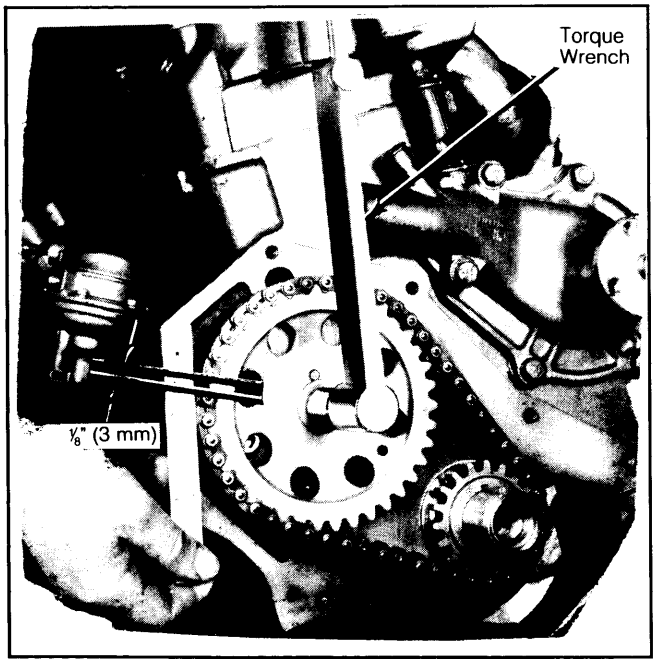
TIMING CHAIN

Checking For Stretch

1) Place scale next to timing chain to measure movement of chain. Place torque wrench and socket on camshaft sprocket bolt, and apply torque in direction of crankshaft rotation to remove slack. *See Fig. 13.* Do not permit crankshaft to move.

2) Torque should be 30 ft. lbs (41 N.m) with cylinder head installed, and 15 ft. lbs. (20 N.m) with head removed. Apply same torque in reverse direction, and measure amount of chain movement. If movement exceeds ⅛" (3 mm), replace timing chain. *See Fig. 13.*

Fig. 13: Measuring Timing Chain Stretch



Do not permit crankshaft to move.

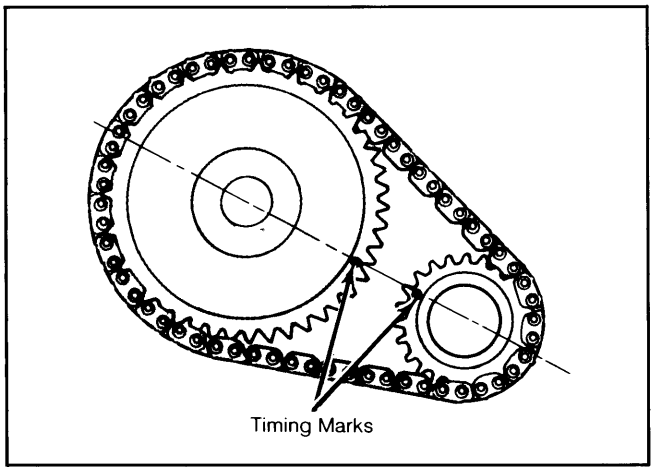
Removal

Remove camshaft sprocket attaching bolt, and remove timing chain with camshaft sprocket.

Installation

Turn crankshaft to line up timing mark of crankshaft sprocket with centerline of camshaft. Install camshaft sprocket and timing chain with timing marks aligned. Tighten camshaft sprocket bolt. *See Fig. 14.*

Fig. 14: Aligning Timing Chain Sprockets



Timing marks on gears should align.

CAMSHAFT

Removal

1) Remove air cleaner, rocker cover and rocker shaft assembly. Identify push rods for installation in original locations, and then remove. Identify valve lifters for installation in original locations. Remove lifters, using valve lifter removing tool (C-4129).

2) Remove timing chain and sprockets, distributor, oil pump and fuel pump. Install a long bolt in front end of camshaft to assist in removal. Remove camshaft, being careful not to damage camshaft bearings with camshaft lobes.

Installation

If camshaft is being replaced, check lifters for "dished" wear, and replace if necessary. Lubricate camshaft lobes and bearing journals. Carefully install camshaft in cylinder block. Reverse removal procedure to complete installation.

CAMSHAFT BEARINGS

Removal

With camshaft removed, drive out rear cam bearing welch plug. Install proper size adapters and horseshoe washers on camshaft bearing tool (C-3132A), at back of each bearing. Drive out bearing shells.

Installation

1) Using camshaft bearing tool (C-3132A), slide bearing over adapter. Install horseshoe lock and drive bearing into place.

CAUTION: Camshaft bearing oil hole(s) must be in exact alignment with drilled oil passage(s) from main bearing.

2) Insert remaining bearings in similar manner. Install No. 1 bearing 3/32" (2 mm) inward from front surface

3.7 LITER 6-CYLINDER (Cont.)

of block. Apply sealing compound such as Loctite Stud and Bearing Mount to new welch plug at rear of camshaft. Be sure plug does not leak.

ENGINE OILING

Crankcase Capacity

5 quarts (4.75L). Add 1 quart (.95L) with each filter change.

Oil Filter

Replace at first oil change and every other change thereafter.

Normal Oil Pressure

30-70 psi (2.1-4.9 kg/cm²) at 2000 RPM.

Pressure Regulator Valve

In oil pump body. Not adjustable.

ENGINE OILING SYSTEM

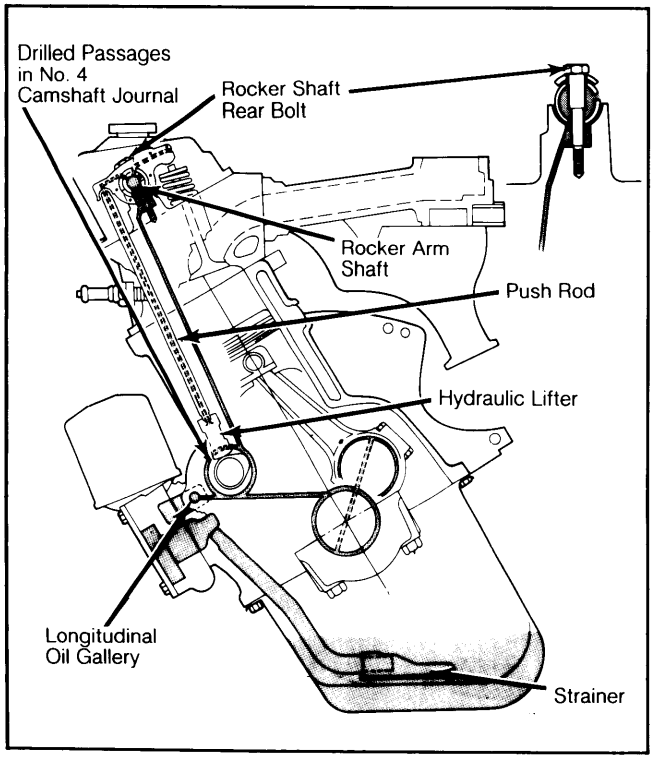
Rotor-type oil pump is mounted externally on right side of crankcase. Oil pump assembly consists of oil pump, oil filter and oil pressure regulator. Pump draws oil from pan, through fixed strainer and intake pipe screwed into crankcase wall at pump mounting pad.

Oil pump delivers oil directly into main oil gallery, extending along right side of crankcase. *See Fig. 15.*

Oil is continuously supplied from circular groove in No. 4 camshaft journal, through passages to valve rocker shaft, and into valve rockers. Valve rockers route full flow of oil through push rods to lifters; a reduced metered flow of oil reaches valve tips.

All main bearings are lubricated as shown in *Fig. 15.* Connecting rod bearings are lubricated by holes drilled in the crankshaft, between main and connecting rod journals.

Fig. 15: Engine Oiling System



OIL PUMP

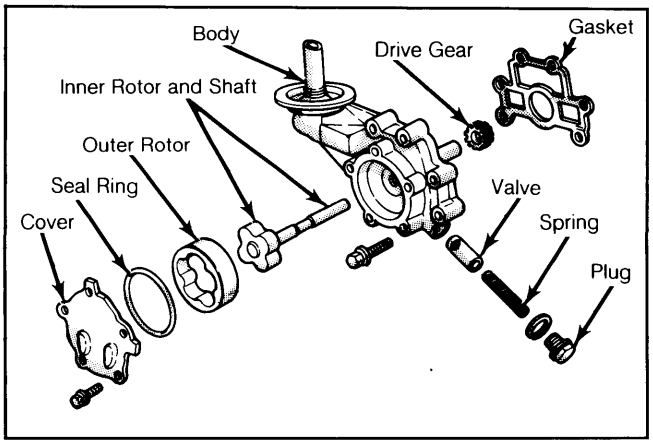
Removal

Remove oil pump cover and outer rotor. Be sure outer rotor does not drop out when pump cover is removed, as rotor damage may result from dropping. Remove oil pump.

Disassembly

With pump cover, seal ring and outer rotor removed, press off drive gear while supporting gear (to eliminate load on aluminum body of pump). Remove inner rotor with shaft. Remove oil pressure relief valve plug, spring and valve. *See Fig. 16.*

Fig. 16: Oil Pump Assembly



Inspection

1) Clean all parts thoroughly. Replace pump cover if mating face is scratched or grooved. Check wear of cover with a straightedge and feeler gauge. Replace pump assembly if wear is excessive.

2) Replace shaft and both rotors if inner rotor thickness or outer rotor thickness is not within limits. Measure outer rotor-to-pump body clearance with feeler gauge, and replace pump assembly if not within specifications.

3) Using straightedge and feeler gauge, measure clearance over rotors with straightedge placed over pump body, between bolt holes. Replace oil pump assembly if clearance is not within limits.

4) With rotors installed in pump body, check tip clearance between inner and outer rotors using feeler gauge. Excessive clearance requires replacement of shaft and both rotors.

OIL PUMP SPECIFICATIONS

Application	Specifications In. (mm)
Cover Wear	.0014 (.036) Max.
Inner Rotor Thickness	.826 (20.98) Min.
Outer Rotor Thickness	.826 (20.98) Min.
Outer Rotor Diameter	2.47 (62.74) Min.
Clearance Over Rotors	.003 (.076) Max.
Outer Rotor-to-Pump Body	.013 (.33) Max.
Rotor Tip Clearance	.009 (.23) Max.

Reassembly

Assemble pump in reverse order of disassembly, using new parts as required. Prime oil pump before installation by filling rotor cavity with engine oil.

3.7 LITER 6-CYLINDER (Cont.)

Installation

Using new gasket, install and tighten oil pump without outer rotor and pump cover. Install outer rotor into pump body with large chamfered edge inward. Prime pump by filling rotor cavity with engine oil. Install seal and pump cover, and tighten.

ENGINE COOLING

WATER PUMP

Removal

1) Disconnect negative battery cable. Drain cooling system. Loosen alternator and power steering pump or idler pulley. Remove all drive belts. Remove all hoses attached to water pump. Remove fan, spacer (or fluid unit), pulley and bolts as an assembly.

CAUTION: After removing fluid unit, do not place drive unit with shaft pointing downward. Silicone fluid from fluid unit could drain into fan drive bearing, causing lubricant failure.

2) Position by-pass hose lower clamp in center of hose, and disconnect heater hose. Remove water pump retainer bolts and pump. Discard gasket, and clean all mating surfaces.

Installation

To install, reverse removal procedures, using new gasket.

NOTE: For further information on cooling system capacities and other cooling system components, see appropriate article in "Engine Cooling Systems" at end of ENGINE Section.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N.m)
Camshaft Lock Bolt	50 (68)
Connecting Rod Cap Nuts	45 (61)
Cylinder Head Bolts	
Step 1	35 (47)
Step 2	70 (95)
Flywheel-to-Crankshaft Bolts	55 (75)
Front Cover Bolts	17 (23)
Fuel Pump Bolts	30 (41)
Intake-to-Exhaust Manifold Bolts	[1] 20 (27)
Main Bearing Cap Bolts	85 (115)
Manifold-to-Cylinder Head Bolts	10 (14)
Oil Pump Attaching Bolt	17 (23)
Rear Main Bearing Seal Retainer	30 (41)
Rocker Arm Shaft Bolts	25 (34)
Water Pump Bolts	30 (41)
Rocker Arm Cover Bolts	[2] 7 (10)

[1] — Tighten Stud Nut to 30 ft. lbs. (41 N.m).
[2] — Tighten within 10 minutes of application of RTV sealer.

ENGINE SPECIFICATIONS

GENERAL SPECIFICATIONS

Year	Displ. cu. ins.	Displ. liters	Carburetor	HP at RPM	Torque Ft. Lbs.@RPM	Compr. Ratio	Bore in.	Bore mm	Stoke in.	Stoke mm
1982	225	3.7	1-Bbl. & 2-Bbl.	.....	.....	8.4:1	3.40	86.4	4.125	104.8

VALVES

Engine & Valve	Head Diam. In. (mm)	Face Angle	Seat Angle	Seat Width In. (mm)	Stem Diameter In. (mm)	Stem Clearance In. (mm)	Valve Lift In. (mm)
3.7L							
Int.	1.615-1.525 (41.02-41.28)	44½-45°	45-45½°	.070-.090 (1.78-2.29)	.372-.373 (9.45-9.47)	.001-.003 (.03-.08)	.378 (9.60)
Exh.	1.355-1.365 (34.42-34.67)	42½-43°	45-45½	.040-.060 (1.02-1.52)	.371-.372 (9.42-9.45)	.002-.004 (.05-.10)	.378 (9.60)

PISTONS, PINS, RINGS

Engine	PISTONS Clearance In. (mm)	PINS Piston Fit In. (mm)	PINS Rod Fit In. (mm)	RINGS Rings	RINGS End Gap In. (mm)	RINGS Side Clearance In. (mm)
3.7L	.0005-.0015 (.013-.038)	.00035-.00085 (.0009-.0216)	.0007-.0017 (.018-.043)	1 & 2	.010-.020 (.25-.51)	.0015-.003 (.038-.080)
				3	.015-.055 (.38-1.40)	.0002-.005 (.005-.130)

Chrysler Corp. 6 Engines

3.7 LITER 6-CYLINDER (Cont.)

ENGINE SPECIFICATIONS (Cont.)

CRANKSHAFT MAIN & CONNECTING ROD BEARINGS

Engine	MAIN BEARINGS				CONNECTING ROD BEARINGS		
	Journal Diam. In. (mm)	Clearance In. (mm)	Thrust Bearing	Crankshaft End Play In. (mm)	Journal Diam. In. (mm)	Clearance In. (mm)	Side Play In. (mm)
3.7L	2.7495-2.7505 (69.837-69.863)	.0010-.0025 (.025-.064)	No. 3	.0035-.0095 (.089-.241)	2.1865-2.1875 (55.537-55.563)	.0012-.0022 (.025-.056)	.007-.013 (.18-.33)

CAMSHAFT

Engine	Journal In. (mm)	Clearance In. (mm)	Lobe Lift In. (mm)
3.7L		.001-.003 (.03-.08)	.....
No. 1	1.998-1.999 (50.75-50.77)		
No. 2	1.982-1.983 (50.34-50.37)		
No. 3	1.967-1.968 (49.96-49.99)		
No. 4	1.951-1.952 (49.56-49.58)		

VALVE SPRINGS

Engine	Free. Length In. (mm)	PRESSURE Lbs. @ In. (kg @ mm)	
		Valve Closed	Valve Open
3.7L	1.92 (48.8)	49-57@1.69 22-26@42.86)	137-150@1.31 (62-68@33.34)