PISTON RINGS (Continued)

(10) Install No. 2 intermediate piston ring using a piston ring installer (Fig. 16).

(11) Install No. 1 upper piston ring using a piston ring installer (Fig. 16).

(12) Position piston ring end gaps as shown in (Fig. 17). It is important that expander ring gap is at least 45° from the side rail gaps, but not on the piston pin center or on the thrust direction.

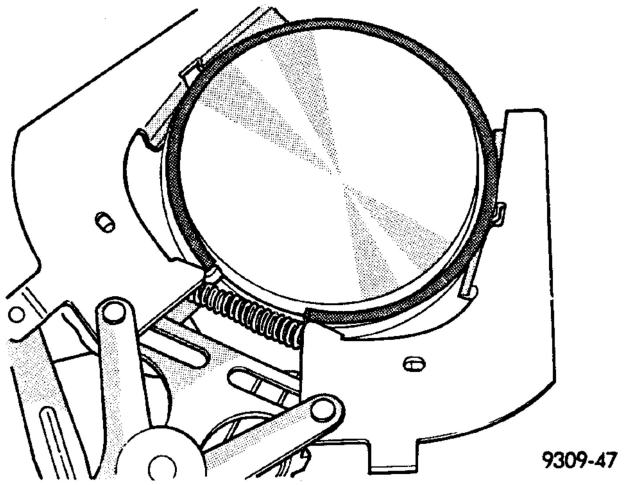

Fig. 16 UPPER AND INTERMEDIATE RINGS

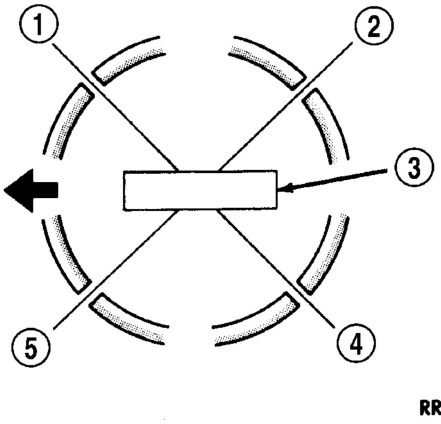

Fig. 17 PISTON RING END GAP POSITION

1 - SIDE RAIL UPPER
2 - NO. 1 RING GAP
3 - PISTON PIN
4 - SIDE RAIL LOWER
5 - NO. 2 RING GAP AND SPACER EXPANDER GAP

VIBRATION DAMPER

REMOVAL

(1) Disconnect negative cable from battery.

(2) Remove accessory drive belt (Refer to 7 - COOLING/ACCESSORY DRIVE/DRIVE BELTS - REMOVAL).

(3) Drain cooling system (Refer to 7 - COOLING - STANDARD PROCEDURE).

(4) Remove radiator upper hose.

(5) Remove upper fan shroud.

(6) Using Special Tools 6958 Spanner with Adapter Pins 8346, loosen fan and viscous assembly from water pump.

(7) Remove fan and viscous assembly.

(8) Remove crankshaft damper bolt.

(9) Remove damper using Special Tools 8513A Insert and 8454 Three Jaw Puller.

INSTALLATION

CAUTION: To prevent severe damage to the Crankshaft, Damper or Special Tool 8512–A, thoroughly clean the damper bore and the crankshaft nose before installing Damper.

(1) Slide damper onto crankshaft slightly.

CAUTION: Special Tool 8512–A, is assembled in a specific sequence. Failure to assemble this tool in this sequence can result in tool failure and severe damage to either the tool or the crankshaft.

(2) Assemble Special Tool 8512–A as follows, The nut is threaded onto the shaft first. Then the roller bearing is placed onto the threaded rod (The hardened bearing surface of the bearing **MUST** face the nut). Then the hardened washer slides onto the threaded rod (Fig. 18). Once assembled coat the threaded rod's threads with Mopar® Nickel Anti-Seize or (Loctite No. 771).

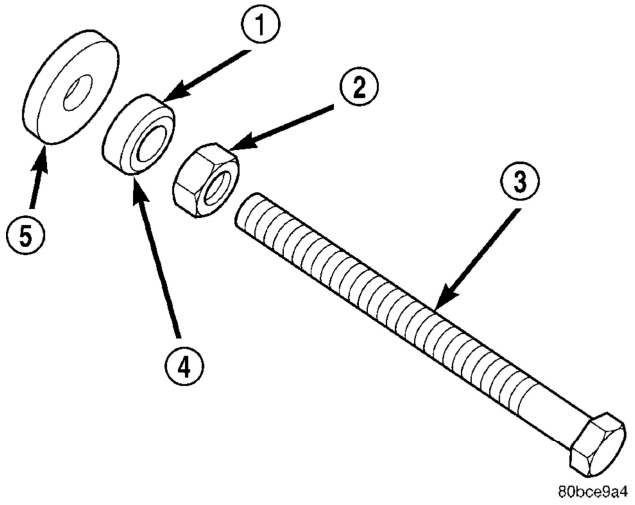

Fig. 18 Proper Assembly Method for Special Tool 8512

1 - BEARING
2 - NUT
3 - THREADED ROD
4 - BEARING HARDENED SURFACE (FACING NUT)
5 - HARDENED WASHER

VIBRATION DAMPER (Continued)

(3) Using Special Tool 8512–A, press damper onto crankshaft.

(4) Install then tighten crankshaft damper bolt to 176 N·m (129 ft. lbs.).

(5) Install fan blade assembly (Refer to 7 - COOLING/ENGINE/FAN DRIVE VISCOUS CLUTCH - INSTALLATION).

(6) Install radiator upper shroud and tighten fasteners to 11 N·m (95 in. lbs.).

(7) Install radiator upper hose.

(8) Install accessory drive belt (Refer to 7 - COOLING/ACCESSORY DRIVE/DRIVE BELTS - INSTALLATION).

(9) Refill cooling system (Refer to 7 - COOLING - STANDARD PROCEDURE).

(10) Connect negative cable to battery.

STRUCTURAL COVER

DESCRIPTION

The structural dust cover is made of die cast aluminum and joins the lower half of the transmission bell housing to the engine.

OPERATION

The structural cover provides additional powertrain stiffness and reduces noise and vibration.

REMOVAL

(1) Raise vehicle on hoist.

CAUTION: On manual transmission vehicles, the 7/16 inch engine block to clutch housing bolts must be loosened before removal of the structural dust cover. Clutch housing distortion will occur if this procedure is not followed.

(2) Remove the bolts retaining structural cover.

(3) Remove the structural cover.

INSTALLATION

AUTOMATIC TRANSMISSION

CAUTION: The structural cover must be installed as described in the following steps. Failure to do so will cause severe damage to the cover.

(1) Position the structural cover in the vehicle.

(2) Install all four bolts retaining the cover-to-engine. DO NOT tighten the bolts at this time.

(3) Install the four cover-to-transmission bolts. Do NOT tighten at this time.

CAUTION: The structural cover must be held tightly against both the engine and the transmission bell housing during tightening sequence. Failure to do so may cause damage to the cover.

(4) Torque the (4)structural dust cover bolts that go into the transmission to 6-11 N·m (50-100 in.lbs.).

(5) Torque the (4) structural dust cover bolts that go into the engine block to 6-11 N·m (50-100 in.lbs.).

(6) Starting with the two rear cover-to-engine bolts, tighten bolts (1) (Fig. 19) to 54 N·m (40 ft. lbs.), then tighten bolts (2) (Fig. 19) and (3) to 54 N·m (40 ft. lbs.) in the sequence shown.

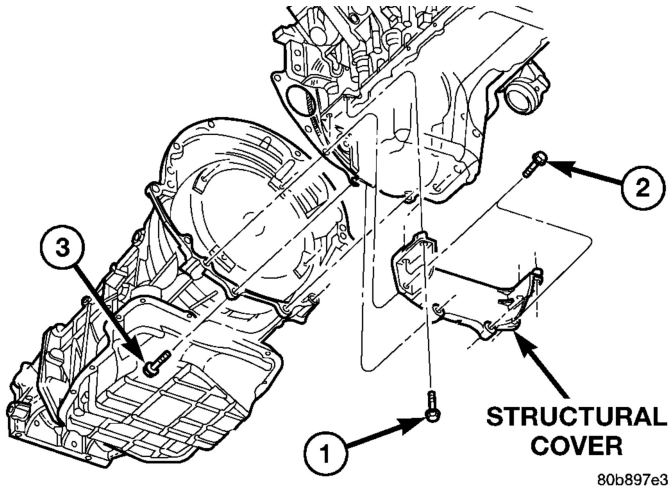

Fig. 19 Structural Cover

1 - BOLT
2 - BOLT
3 - BOLT

(7) Install the exhaust pipe on left hand exhaust manifold.

(8) Tighten exhaust manifold-to-exhaust pipe retaining bolts to 20–26 N·m (15–20 ft. lbs.).

MANUAL TRANSMISSION

CAUTION: The 7/16 inch engine block to clutch housing bolts must be loosened before removal/installation of the structural dust cover. Clutch housing distortion will occur if this procedure is not followed.

(1) Position the structural cover in the vehicle.

CAUTION: The structural cover must be installed as described in the following steps. Failure to do so will cause severe damage to the cover, and engine noise.

(2) Install all bolts retaining the cover-to-engine. DO NOT tighten the bolts at this time (Fig. 20).

(3) Install the cover-to-transmission bolts. Do NOT tighten at this time.