

DESCRIPTION AND OPERATION (Continued)

Lubrication System

The engine lubrication system is of the force-feed type in which oil is supplied under full pressure to the crankshaft and connecting rod bearings, hydraulic tappets and camshaft bearings. From the tappets, a controlled volume of oil is supplied to the rocker arms through the hollow push rods. All other moving parts are lubricated by gravity flow or splash. The rotary gear-type pump, which develops the oil pressure, is attached to the front cover assembly. The pump driven gear is rotated by the distributor shaft through an intermediate shaft. A full flow oil filter is externally mounted on the front cover and normally all engine oil passes through the filter element. However, if the element should become restricted, a spring-loaded bypass valve will open, allowing an uninterrupted flow of oil to the engine's moving parts.

Drive Belt, Serpentine

Accessories mounted on the front of the engine are belt-driven by the crankshaft. A serpentine drive belt is routed over each accessory pulley and is driven by a pulley bolted to the crankshaft damper. The belt is held tight against the drive pulleys by an idler pulley attached to a tensioner mounted on the RH side of the engine. For service procedures, including tensioning, refer to Section 03-05.

IN-VEHICLE SERVICE

Exhaust Manifold, LH**Removal**

1. Remove oil level dipstick tube support bracket.

2. Disconnect wires from spark plugs.
3. Raise vehicle on hoist. Refer to Section 00-02.
4. Remove manifold-to-exhaust pipe retaining nuts.
5. Lower vehicle.
6. Remove exhaust manifold retaining bolts and exhaust manifold (9431).

Installation

NOTE: Lightly oil all bolt and stud bolt threads before installation except those specifying special sealant.

1. Clean mating surfaces on the exhaust manifold cylinder head and exhaust pipe.
2. Position exhaust manifold on the cylinder head. Install pilot bolt (lower front bolt hole on No. 5 cylinder).

NOTE: A slight warpage in the exhaust manifold may cause a misalignment between the bolt holes in the head and the manifold. Elongate the holes in the exhaust manifold as necessary to correct the misalignment. Do not elongate the pilot hole (lower front bolt on No. 5 cylinder).

3. Install remaining manifold retaining bolts. Tighten to 20-30 N-m (15-22 lb-ft).
4. Raise vehicle.
5. Connect exhaust pipe to exhaust manifold. Tighten retaining nuts to 21-32 N-m (16-24 lb-ft).
6. Lower vehicle.
7. Connect spark plug wires.
8. Install dipstick tube support bracket retaining nut. Tighten to 20-30 N-m (15-22 lb-ft).