

# LUBRICATION

## ENGINE OILING SYSTEM

Engine lubrication system is a force-feed type. The oil is supplied under full pressure to crankshaft, connecting rods, camshaft bearing and valve lifters. A controlled volume of oil is supplied to rocker arms and push rods. All other moving parts are lubricated by splash or gravity flow. Oil flows through oil filter before entering main oil gallery.

### Crankcase Capacity

Crankcase capacity is 4.5 qts. (4.25L) with oil filter.

### Oil Pressure

Normal oil pressure at 2500 RPM should be 40-60 psi (2.8-4.2 kg/cm<sup>2</sup>) with engine at normal operating temperature.

### Pressure Relief Valve

Pressure relief valve is located in oil pump and is not adjustable.

## OIL PUMP

### Removal & Disassembly

Remove oil pan. See OIL PAN. Remove oil pump baffle. Remove oil pump retaining bolts. Remove oil pump and pick-up tube assembly. Remove oil pump drive shaft. Remove and replace gasket. Disassemble oil pump. Note direction of component installation for reassembly reference.

### Inspection

Inspect components for damage. Measure rotor end clearance, outer race-to-housing clearance and rotor tip clearance. Check clearance between pressure relief valve and bore. Measure relief valve tension. Replace oil pump assembly if measurements are not within specifications. See OIL PUMP SPECIFICATIONS table.

**NOTE:** Oil pump is serviced as an assembly only. Replace assembly if measurements are not within specifications. See OIL PUMP SPECIFICATIONS table

### OIL PUMP SPECIFICATIONS

Application	In. (mm)
Drive Shaft-To-Housing Clearance	.0005-.0019 (.013-.048)
Gear Backlash	.008-.012 (.20-.31)
Gear Height Clearance	.0003-.0032 (.008-.081)
Idler Shaft-To-Idler Gear	.0015-.0027 (.038-.069)
Idler-To-Driver Gear Radial Clearance	.002-.006 (.05-.15)
Relief Valve Spring Tension	(1)
Relief Valve-To-Bore Clearance	.0017-.0029 (.043-.074)

(1) Tension should be 9-10 lbs. @ 1.11" (4.08-4.54 kg @ 28.2 mm).

### **Reassembly & Installation**

To reassemble, reverse disassembly procedure. Ensure components are installed in original location. To install, reverse removal procedure. Tighten bolts to specification. See TORQUE SPECIFICATIONS table. Fill crankcase.