LUBRICATION SYSTEM SERVICE

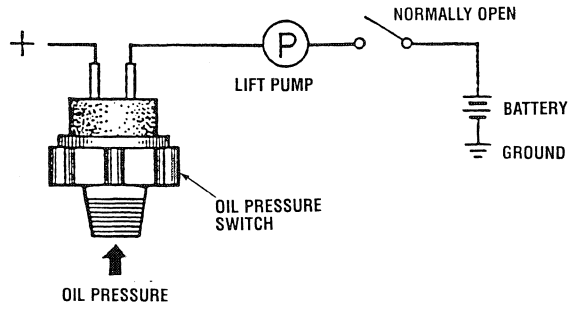
OIL PRESSURE

The engine's oil pressure, during operation, is indicated by the oil pressure gauge on the instrument panel. During normal operation, the oil pressure will range between 40 and 60 psi (2.8 and 4.2 kg/cm²).

NOTE: *A newly started, cold engine can have an oil pressure reading up to 60 psi (4.2 kg/cm²). A warmed engine can have an oil pressure reading as low as 35 psi (2.5 kg/cm²). These readings will vary depending upon the temperature of the engine and the rpms.*

Low Oil Pressure

The specified safe minimum oil pressure is 5 – 10 psi. A gradual loss of oil pressure usually indicates worn bearings. For additional information on low oil pressure readings, see *ENGINE TROUBLESHOOTING.*



OIL PRESSURE SWITCH

Checking the Oil Pressure

1. Remove the oil pressure switch and install a mechanical oil pressure gauge in its place.
2. Start the engine. After warming up to operating temperature, measure the oil pressure at both idling and rated speeds.
3. If the oil pressure is less than the specified limit, check the following:
   - **a.** Engine oil insufficient.
   - **b.** Oil pump defective.
   - **c.** Oil strainer clogged.
   - **d.** Oil filter.
   - **e.** Oil gallery clogged.
   - **f.** Excessive oil clearance of bearing.
   - **g.** Foreign matter in the relief valve.

When Reassembling:

1. After checking the engine oil pressure, tighten the engine oil pressure switch to the specified torque.

   Oil pressure at idle speed:
   15 psi (1.05 kg/cm²) (103.4 kPa)

   Oil pressure at rated speed:
   40 – 60 psi (2.8 – 4.2 kg/cm²) (276 – 414 kPa)

   Oil pressure switch torque:
   10.8 – 14.5 ft-lb (1.5 – 2.0 kg-m)

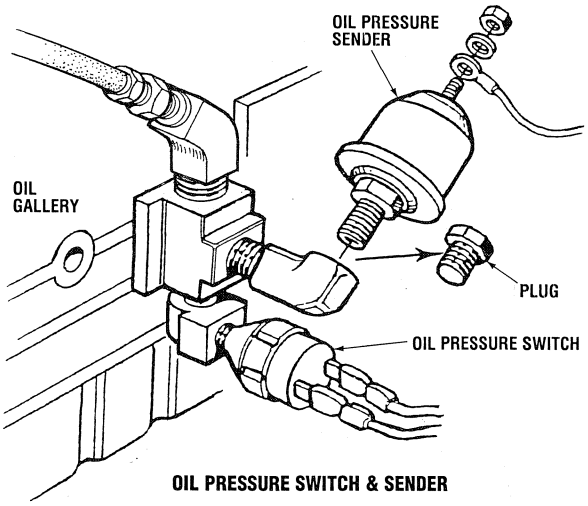
Oil Pressure Switch
Oil Pressure Sender (optional)

When performing an engine overhaul, replace the oil pressure switch, and the oil pressure sender if used.

When installing the new parts, apply teflon sealant to the threaded ends being careful not to close off the oil hole in the sender.

Oil pressure switch torque:
10.8 – 14.5 ft-lb (1.5 – 2.0 kg-m)

> ⚠ **CAUTION:** ***Oil Pressure Switch – Do not use lock pliers, vise grips, or pipe wrenches on the oil pressure switch. Use the correct socket which is available from Snap-On, Proto, New Britain and others. Damage to the switch will cause oil leaks and/or switch failure.***



OIL PRESSURE SWITCH & SENDER

OIL PUMP

Rotor Lobe Clearance

1. Measure the clearance between the lobes of the inner rotor and the outer rotor with a feeler gauge.
2. If the clearance exceeds the standard value, replace the oil pump rotor assembly.