



TORQUE VALUES

Engine oil drain plug	30–40 N·m (3.0–4.0 kg-m, 22–29 ft-lb)
Engine oil filter	15–20 N·m (1.5–2.0 kg-m, 11–14 ft-lb) — Apply engine oil to the O-ring
Right main oil gallery plug	25–35 N·m (2.5–3.5 kg-m, 18–25 ft-lb) — Apply 3-BOND® No. 1211 or its equivalent to the bolt threads
Oil cooler elbow socket bolt	10–15 N·m (1.0–1.5 kg-m, 7–11 ft-lb)

TOOLS

Special

Oil pressure gauge	07506–3000000 or commercially available
Oil pressure gauge attachment	07510–MJ10100
Oil filter wrench	07912–MB00000

Common

Extension bar	07716–0020500 or commercially available
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TROUBLESHOOTING

Oil level too low — high oil consumption

1. External oil leaks
2. Worn piston rings
3. Worn valve guide or seal

Contamination

1. Oil or filter not changed often enough
2. Head gasket faulty
3. Worn piston rings

Low oil pressure

1. Oil level low
2. Pressure relief valve stuck open
3. Plugged oil pick-up screen
4. Oil pump worn
5. External oil leaks

High oil pressure

1. Pressure relief valve stuck closed
2. Plugged oil filter, gallery, or metering orifice
3. Incorrect oil being used

No oil pressure

1. Oil level low
2. Oil pump drive gear broken
3. Oil pump faulty
4. Internal oil leakage