

9. COOLING SYSTEM

| | |
|---------------------------|-----|
| SERVICE INFORMATION | 9-1 |
| TROUBLESHOOTING | 9-1 |
| COOLING SYSTEM INSPECTION | 9-2 |
| COOLANT REPLACEMENT | 9-2 |
| RADIATOR | 9-4 |
| WATER PUMP | 9-4 |

SERVICE INFORMATION

GENERAL

- To service the water pump mechanical seal, remove the right crankcase cover.
- All cooling system service can be done with the engine in the frame.
- Do not remove the radiator cap when the engine is hot. The coolant is under pressure and it could result in scalding. The engine must be cool before servicing the cooling system.
- Avoid spilling coolant on painted surfaces. After servicing the system, check for leaks.
- Use only a high quality ethylene glycol based anti-freeze containing corrosion protection inhibitors specifically recommended for use in aluminum engines.

SPECIFICATIONS

| | |
|------------------------------|---|
| Radiator cap relief pressure | 110–140 kPa (1.1–1.4 kg/cm ² , 16–20 psi) |
| Freezing point | 55% Distilled water + 45% ethylene glycol: –32°C (–25°F) 50% Distilled water + 50% ethylene glycol: –37°C (–34°F) 45% Distilled water + 55% ethylene glycol: –44.5°C (–48°F) |
| Coolant capacity | 910 cc (31 US oz, 0.802 Imp qt) at coolant change RADIATOR: 700 cc (23 US oz, 0.617 Imp qt) RESERVE TANK: 210 cc (7 US oz, 0.185 Imp qt) 1,320 cc (45 US oz, 1.623 Imp qt) at disassembly RADIATOR: 1,100 cc (37 US oz, 0.969 Imp qt) RESERVE TANK: 220 cc (7.5 US oz, 0.654 Imp qt) |

9

TORQUE VALUES

Water pump impeller 8–12 N·m (0.8–1.2 kg·m, 6–9 ft·lb)

TOOLS

Special

Mechanical seal driver attachment 07945–4150400 or Mechanical installer GH-AH-065415 (U.S.A. only)

Attachment, 28 x 30 mm 07946–1870100

Bearing remover, 12 mm 07936–1660100

Remover weight 07741–0010200 or 07936–3710200

Common

Driver 07749–0010000

Pilot, 12 mm 07746–0040200

TROUBLESHOOTING

Engine temperature too high

- Faulty radiator cap
- Insufficient coolant
- Passages blocked in radiator, hoses or water jacket
- Faulty water pump

Coolant leaks

- Faulty water pump mechanical seal
- Loose water hose connections
- Damaged or deteriorated water hoses