

Cooling System

PERIODIC MAINTENANCE SERVICES

10. Cooling System

A: INSPECTION

1) To check the radiator for leakage, fill it with engine coolant, and attach the radiator cap tester (A) to the filler neck, and apply pressure. Check the following points:

Non-turbo model:

157 kPa (1.6 kg/cm², 23 psi)

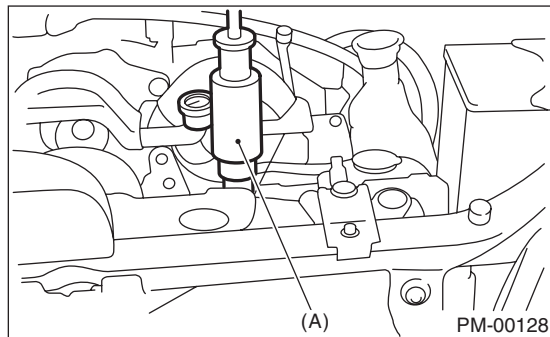
Turbo model:

122 kPa (1.2 kg/cm², 18 psi)

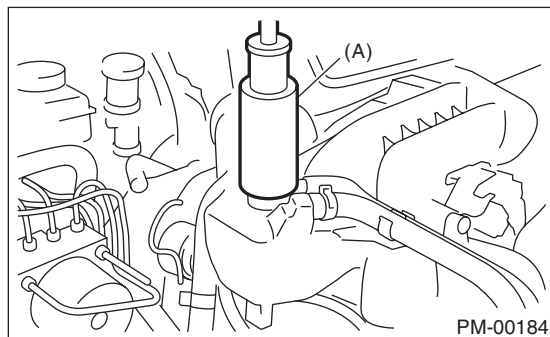
- Each portion of radiator for leakage
- Hose joints and other connections for leakage

NOTE:

- For turbo model, be sure to install the tester to filler tank side.
- Be particularly careful not to deform the filler neck of radiator when installing and removing the tester and after testing.
 - Non-turbo model



- Turbo model



- When performing this check, be sure to keep the engine stationary and fill radiator with coolant.
- Wipe off check points before applying pressure.
- Use care not to spill coolant when detaching tester from radiator.
- Do not remove the radiator side cap. (Turbo model)

2) Check the radiator cap valve open pressure using radiator cap tester.

NOTE:

Rust or dirt on the cap may prevent valve from functioning normally: be sure to clean the cap before testing.

Raise the pressure until the needle of gauge stops and see if the pressure can be retained for five to six seconds. The radiator cap is normal if a pressure above the service limit value has been maintained for this period.

Radiator cap valve open pressure

Non-turbo model

Standard:

93 — 123 kPa (0.95 — 1.25 kg/cm², 14 — 18 psi)

Service limit:

83 kPa (0.85 kg/cm², 12 psi)

Turbo model

Filler tank side

Standard:

93 — 123 kPa (0.95 — 1.25 kg/cm², 14 — 18 psi)

Service limit:

83 kPa (0.85 kg/cm², 12 psi)

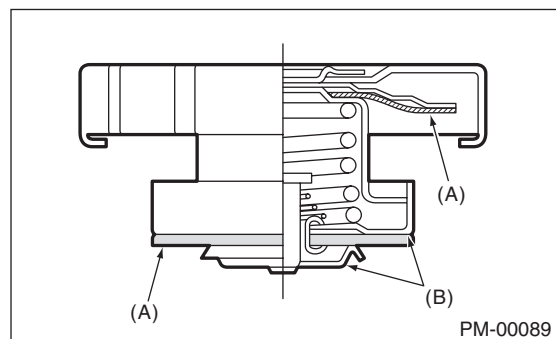
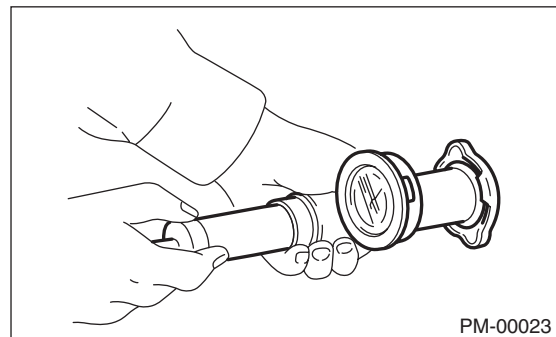
Radiator side

Standard:

122 — 152 kPa (1.24 — 1.55 kg/cm², 18 — 22 psi)

Service limit:

112 kPa (1.14 kg/cm², 16 psi)



- (A) Check points for deformation
- (B) Check points for deformation, damage, rust

3) Start the engine, and then check it does not overheat or it is cooled excessively. If it overheats or it is cooled excessively, check the cooling system.

- 2.5 L non-turbo model

<Ref. to CO(H4SO)-14, Water Pump.> <Ref. to CO(H4SO)-17, Thermostat.> <Ref. to CO(H4SO)-19, Radiator.> <Ref. to CO(H4SO)-22, Radiator Cap.>

- 2.5 L turbo model

<Ref. to CO(H4DOTC)-15, Water Pump.> <Ref. to CO(H4DOTC)-17, Thermostat.> <Ref. to CO(H4DOTC)-19, Radiator.> <Ref. to CO(H4DOTC)-23, Radiator Cap.>

- 3.0 L model

<Ref. to CO(H6DO)-12, Water Pump.> <Ref. to CO(H6DO)-13, Thermostat.> <Ref. to CO(H6DO)-14, Radiator.> <Ref. to CO(H6DO)-17, Radiator Cap.>

4) Check the radiator fan operates using Subaru Select Monitor, when the coolant temperature exceeds 96°C (205°F). If it does not operate, check the radiator fan system.

- 2.5 L non-turbo model

<Ref. to CO(H4SO)-8, INSPECTION, Radiator Fan System.>

- 2.5 L turbo model

<Ref. to CO(H4DOTC)-9, INSPECTION, Radiator Fan System.>

- 3.0 L model

<Ref. to CO(H6DO)-8, INSPECTION, Radiator Fan System.>