

11. Cooling System

A: INSPECTION

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

Pressure:

122 kPa (1.2 kgf/cm², 18 psi)

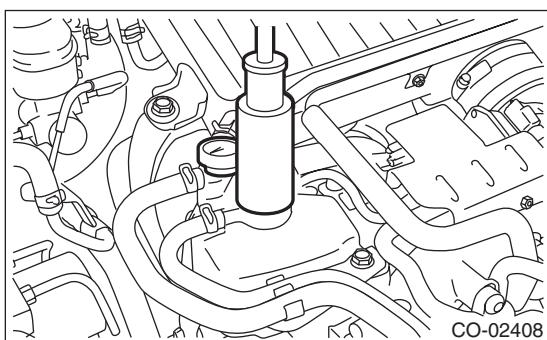
- Each portion of radiator for leakage
- Hose joints and other connections for leakage

CAUTION:

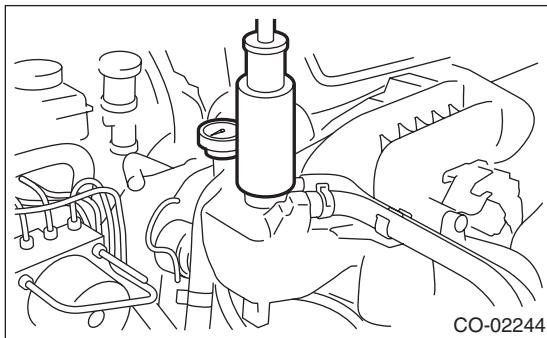
- If any engine coolant is spilled on the exhaust pipe or under cover, wipe off completely to prevent fires or emission of smoke.
- Be careful not to deform the filler neck of filler tank when installing and removing the tester, and while operating the tester.

NOTE:

- Be sure to install the tester to filler tank side.
 - STI model



- Except for STI 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 filler tank.
- Do not remove the radiator side cap.

- 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 limit value has been maintained for this period. Replace the radiator cap if the pressure is below the limit.

Radiator cap valve open pressure

Filler tank side

Specification:

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

Service limit:

83 kPa (0.85 kgf/cm², 12 psi)

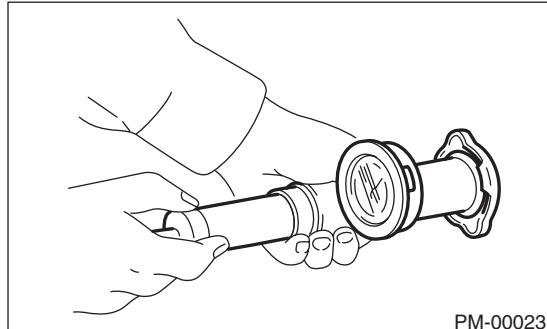
Radiator side

Specification:

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

Service limit:

112 kPa (1.14 kgf/cm², 16 psi)



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

<Ref. to CO(STI)-15, Water Pump.> <Ref. to CO(STI)-17, Thermostat.> <Ref. to CO(STI)-19, Radiator.> <Ref. to CO(STI)-22, Radiator Cap.> <Ref. to CO(w/o STI)-15, Water Pump.> <Ref. to CO(w/o STI)-17, Thermostat.> <Ref. to CO(w/o STI)-19, Radiator.>

Cooling System

PERIODIC MAINTENANCE SERVICES

4) Check the radiator fan operates using Subaru Select Monitor, when the coolant temperature exceeds the specified value. If it does not operate, check the radiator fan system. <Ref. to CO(STI)-7, Radiator Fan System.> <Ref. to CO(w/o STI)-7, Radiator Fan System.>

Engine coolant temperature:

Except for STI model

<Ref. to CO(w/o STI)-8, INSPECTION, Radiator Fan System.>

STI model

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