

## ON-VEHICLE INSPECTION

### 1. REMOVE RADIATOR CAP

Remove the radiator cap from the radiator.

#### CAUTION:

To avoid the danger of being burned, do not remove the radiator cap while the engine and radiator are still hot, as fluid and steam can be blown out under pressure.

### 2. INSPECT RADIATOR CAP

#### NOTICE:

- If the radiator cap has contaminations, always rinse it with water.
- Before using a radiator cap tester, wet the relief valve and pressure valve with engine coolant or water.
- When performing steps (a) and (b) below, keep the tester at an angle of over 30° above the horizontal.

- (a) Using a radiator cap tester, slowly pump the tester and check that air is coming from the vacuum valve.

**Pump speed: 1 push/(3 seconds or more)**

#### NOTICE:

**Push the pump at a constant speed.**

If air is not coming from the vacuum valve, replace the reservoir cap.

- (b) Pump the tester and measure the relief valve opening pressure.

**Pump speed: 1 push within 1 seconds**

#### NOTICE:

**This pump speed is for the first pump only (in order to close the vacuum valve). After this, the pump speed can be reduced.**

**Standard opening pressure:**

**93 – 123 kPa (0.95 – 1.25 kgf/cm<sup>2</sup>, 13.5 – 17.8 psi)**

**Minimum opening pressure:**

**79 kPa (0.8 kgf/cm<sup>2</sup>, 11.5 psi)**

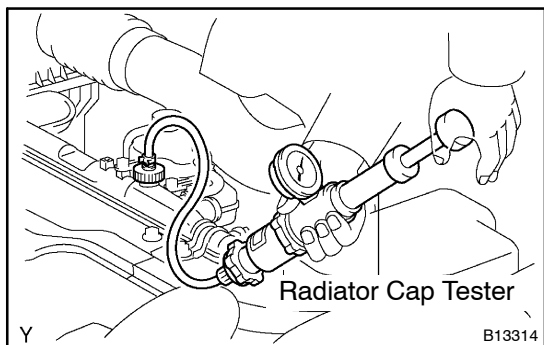
#### HINT:

Use the tester's maximum reading as the opening pressure.

If the opening pressure is less than minimum, replace the reservoir cap.

### 3. INSPECT COOLING SYSTEM FOR LEAKS

- (a) Fill the radiator and engine with coolant and attach a radiator cap tester to the water filler.



- (b) Warm up the engine.
- (c) Pump it to 118 kPa (1.2 kgf/cm<sup>2</sup>, 17.1 psi), and check that the pressure does not drop.

If the pressure drops, check the hoses, radiator or water pump for leaks. If no external leaks are found, check the heater core, cylinder block and head.

#### 4. REINSTALL RESERVOIR CAP