

## 2. INSPECT RADIATOR CAP SUB-ASSY <br> NOTICE:

- If the water filler cap is dirty, clean it with water.
- Before using the radiator cap tester, wet the relief valve and pressure valve with coolant or water.
(a) Using a radiator cap tester, slowly pump the tester and


## 1. INSPECT THERMOSTAT

HINT:
The thermostat is imprinted with the valve opening temperature.
(a) Immerse the thermostat in the water, then gradually heat the water.
(b) Check the valve opening temperature.

Valve opening temperature: 80 to $84^{\circ} \mathrm{C}$ (176 to $183^{\circ} \mathrm{F}$ )
HINT:
If the valve opening temperature is not as specified, replace the thermostat.
(c) Check the valve lift.

Valve lift:

| Temperature | Valve Lift |
| :---: | :---: |
| $95^{\circ} \mathrm{C}\left(205^{\circ} \mathrm{F}\right)$ | $8.5 \mathrm{~mm}(0.335 \mathrm{in}$.$) or more$ |

If the valve lift is not as specified, replace the thermostat.
(d) Check that the valve is fully closed when the thermostat is at low temperature (below $77^{\circ} \mathrm{C}\left(171^{\circ} \mathrm{F}\right)$ ).
If not fully closed, replace the thermostat.

check that the air is coming form the vacuum valve.
Pumping speed: $\mathbf{1}$ push / 3 seconds or more
NOTICE:

- Pump the tester at a constant speed.
- Slant the radiator cap tester at an angle of over $30^{\circ}$ as shown in the illustration when checking.
If air is not coming from the vacuum valve, replace the radiator cap.
(b) Pump the tester, then measure the relief valve opening pressure.
Pumping speed: 1 push / 1 second or more
NOTICE:
- This pumping speed is for only the first pumping to close the vacuum valve. After the first pumping, the pumping speed can be reduced.
- Slant the radiator cap tester at an angle of over $30^{\circ}$ as shown in the illustration when checking.
Standard opening pressure:
74 to 103 kPa ( 0.75 to $1.05 \mathrm{kgf} / \mathrm{cm}^{2}$, 10.7 to 14.9 psi ) Minimum opening pressure:
59 kPa ( $0.6 \mathrm{kgf} / \mathrm{cm}^{2}, 8.5 \mathrm{psi}$ )
HINT:
Use the tester's maximum reading as the opening pressure. If the opening pressure is less than minimum, replace the radiator cap.

