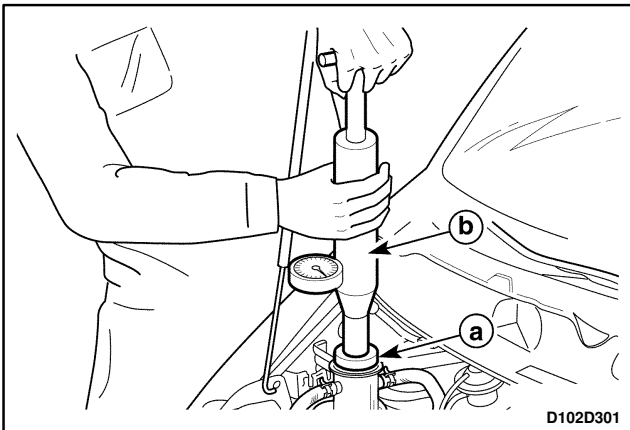


DIAGNOSTIC INFORMATION AND PROCEDURE

COOLANT LEAKS TEST

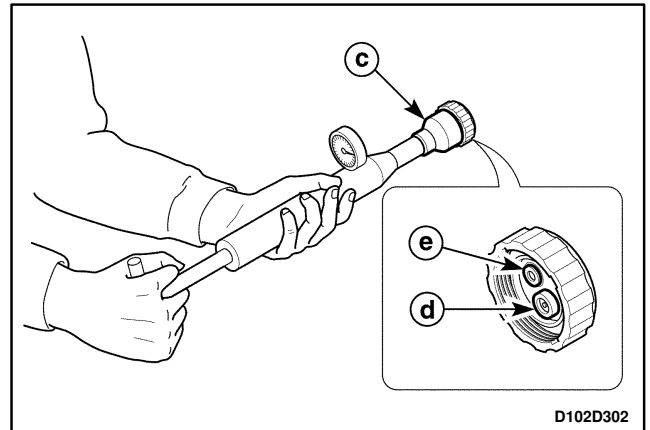
1. Remove the surge tank cap after the engine cools.
2. Check the coolant level.
3. Install a suitable cooling system pressure tester(b) to the surge tank filler neck using the adapter(a) and pressurize (110–120 kPa (16.0–17.4 psi)).
4. Check the coolant leaks on the hoses and connections during 2 minutes.
5. If the leak is checked, replace the parts or repair the connections.



SURGE TANK CAP TEST

The surge tank cap(c) is equipped with the pressure valve(d) and the vacuum valve(e). Therefore, the surge tank cap maintains proper pressure. And The surge tank cap protects the system from high-pressure by opening a pressure valve, and protects the coolant hoses from collapsing because of a vacuum.

1. Wash any sludge from the surge tank cap and the valve seat of the vacuum pressure valve for the surge tank cap.
2. Check for any damage or deformity to the vacuum pressure valve for the surge tank cap. If any damage or deformity is found, replace the cap.
3. Install a suitable cooling system pressure tester(b) to the cap using the Adapter(a).
4. Pull the vacuum pressure valve to the open position. If the surge tank cap does not seal properly, replace the surge tank cap.
5. Pressurize the cap to 90 to 120kPa (13 to 17psi).
6. Wait 10 seconds and check the pressure held by the tank cap tester.
7. If the pressure held by the cooling system pressure tester falls below 80kPa (11.6psi) replace the surge tank cap.



THERMOSTAT TEST

1. Remove the thermostat(f) from the vehicle. Refer to "Thermostat" in this section.
2. Make sure the valve spring is tight when the thermostat is fully closed. If the spring is not tight, replace the thermostat.
3. Suspend the thermostat and a thermometer in a pan of 50/50mixture of ethylene glycol and water. Do not let the thermostat or the thermometer rest on the bottom of the pan because the uneven concentration of heat on the bottom could result in inaccurate temperature measurements.
4. Heat the pan on a burner.
5. Use the thermometer to measure the temperature of the heated solution.
6. The thermostat should begin to open at 82°C (180°F) and it should be fully open at 95°C (203.4°F) and it should be fully close at 80°C (176.4°F). If it does not open or close at these temperature, replace the thermostat. Also, the thermostat rod's stroke from the initially open to the fully open should be 8mm (0.31 in.).

