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|--|----------------------|--------------------------------|
| <b>Last Modified:</b> 5-25-2010  | 6.4 A                | <b>From:</b> 200907            |
| <b>Model Year:</b> 2010  | <b>Model:</b> HS250H | <b>Doc ID:</b> RM000002KK802CX |
| <b>Title:</b> 2AZ-FXE COOLING: COOLANT (for Engine): REPLACEMENT (2010 HS250H) |                      |                                |

## REPLACEMENT

1. REMOVE NO. 1 ENGINE UNDER COVER

2. DRAIN COOLANT (for Engine)

NOTICE:

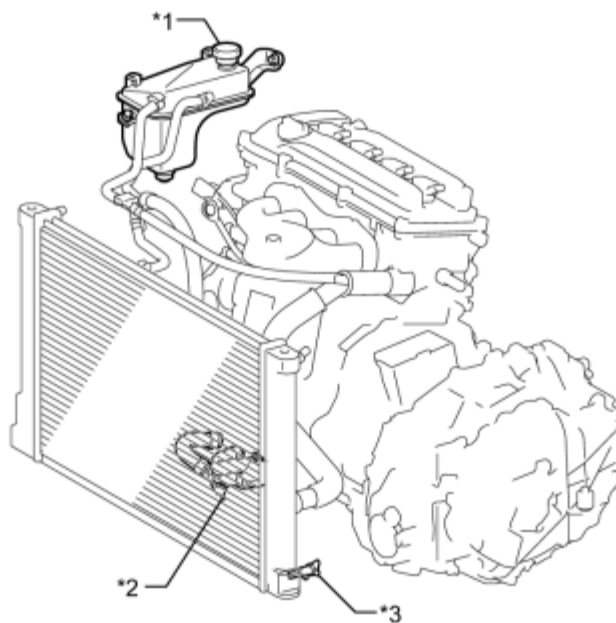
Do not remove the reserve tank cap, oil cooler hose drain cock plug and radiator drain cock plug while the engine and radiator are still hot. Pressurized, hot engine coolant and steam may be released and cause serious burns.

(a) Loosen the radiator drain cock plug and drain the coolant.

HINT:

Collect the coolant in a container and dispose of it according to the local regulations.

(b) Loosen the oil cooler hose drain cock plug.



T

**Text in Illustration**

|    |                          |    |                                 |
|----|--------------------------|----|---------------------------------|
| *1 | Reserve Tank Cap         | *2 | Oil Cooler Hose Drain Cock Plug |
| *3 | Radiator Drain Cock Plug | -  | -                               |

3. ADD COOLANT (for Engine)

- (a) Tighten the radiator drain cock plug.
- (b) Tighten the oil cooler hose drain cock plug.
- (c) Remove the reserve tank cap.
- (d) Add TOYOTA Super Long Life Coolant (SLLC) to the reserve tank filler opening.

Standard Capacity:

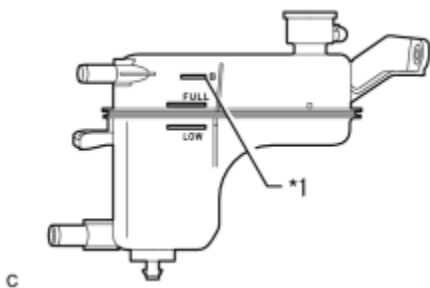
| Item           | Capacity                              |
|----------------|---------------------------------------|
| Engine coolant | 7.3 liters (7.7 US qts, 6.4 Imp. qts) |

HINT:

TOYOTA vehicles are filled with TOYOTA SLLC at the factory. In order to avoid damage to the engine cooling system and other technical problems, only use TOYOTA SLLC or similar high quality ethylene glycol based non-silicate, non-amine, non-nitrite, non-borate coolant with long-life hybrid organic acid technology (coolant with long-life hybrid organic acid technology is a combination of low phosphates and organic acids).

NOTICE:

Never use water as a substitute for engine coolant.




- (e) Remove the reserve tank cap and add coolant to B line of the reserve tank.

|                             |        |
|-----------------------------|--------|
| <b>Text in Illustration</b> | B Line |
| *1                          |        |

(f) Squeeze the No. 1 and No. 2 radiator hoses several times by hand, and then check the level of the coolant.

If the coolant level is low, add coolant.

(g) Put the engine in inspection mode  .

(h) Install the reserve tank cap, and warm up the engine sufficiently.

(i) Bleed air from the cooling system.

#### NOTICE:

- Before starting the engine, turn the A/C switch off.
- Adjust the heater control to the maximum hot setting.
- Adjust the blower speed to the low setting.

(1) Warm up the engine until the thermostat opens. While the thermostat is open, allow the coolant to circulate for several minutes.

#### HINT:

The thermostat opening timing can be confirmed by squeezing the No. 2 radiator hose by hand, and sensing vibrations when the engine coolant starts to flow inside the hose.

### **When squeezing the radiator hose:**

- Wear protective gloves.
- Be careful as the radiator hoses are hot.
- Keep your hands away from the radiator fans.

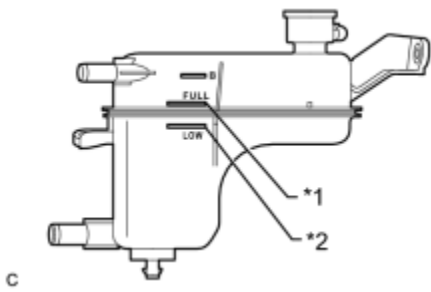
(2) After the engine is warmed up, let it idle for 7 minutes or more.

(3) Squeeze the No. 1 and No. 2 radiator hoses several times by hand to bleed air from the system.

### **When squeezing the radiator hose:**

- Wear protective gloves.
- Be careful as the radiator hoses are hot.
- Keep your hands away from the radiator fans.

(j) After the engine has cooled down, check that the



coolant level is between full and low lines.

| <b>Text in Illustration</b> |           |
|-----------------------------|-----------|
| *1                          | Full Line |
| *2                          | Low Line  |

If the coolant level is low, add coolant to the full line on the reserve tank.

4. INSPECT FOR COOLANT LEAK (for Engine) [INFO](#)

5. INSTALL NO. 1 ENGINE UNDER COVER

