EG

RADIATOR

RADIATOR CLEANING

EG074-0M

Using water or steam cleaner, remove any mud or dirt from the radia tor core.

NOTICE: If using a high pressure type cleaner, be careful not to deform the fins of the radiator core. (i.e. Maintain a distance between the cleaner nozzle and radiator core.)

RADIATOR INSPECTION

EG60E-02

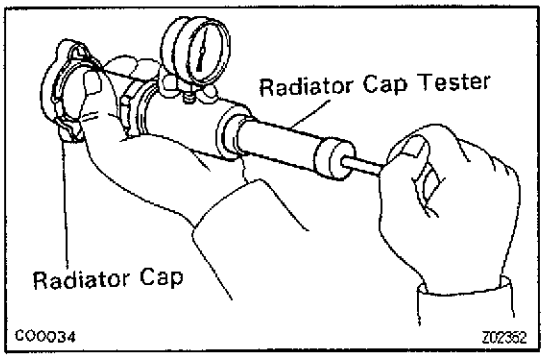
1. **REMOVE RADIATOR CAP**

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.**



Using a radiator cap tester, pump the tester and measure the relief valve opening pressure.

Standard opening pressure:

74 — 103 kPa

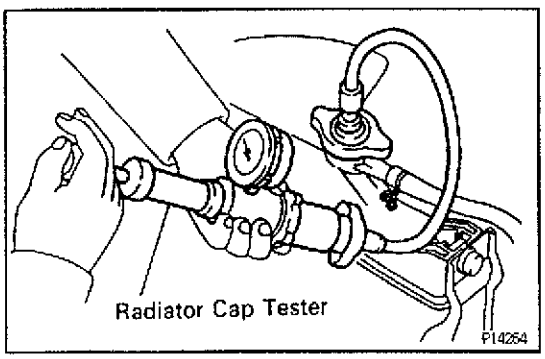
(0.75 — 1.05 kgf/cm², 10.7 — 14.9 psi)

Minimum opening pressure:

59 kPa (0.6 kgf/cm², 8.5 psi)

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

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



3. **INSPECT COOLING SYSTEM FOR LEAKS**

(a) Fill the radiator with coolant and attach a radiator cap tester.

(b) Warm up the engine.

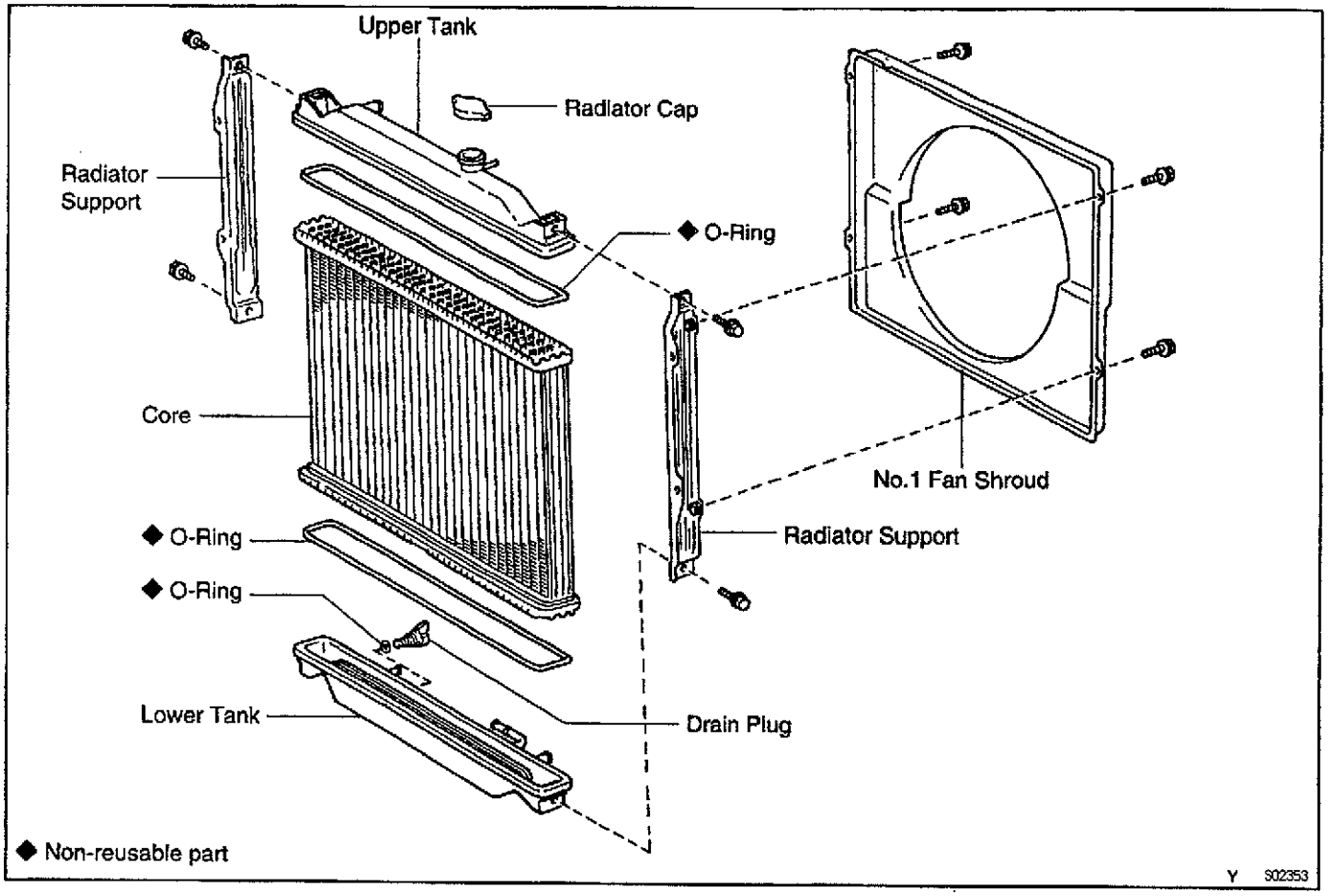
(c) Pump it to 118 kPa (1.2 kgf/cm², 17.1 psi), and check that the pressure does not drop.

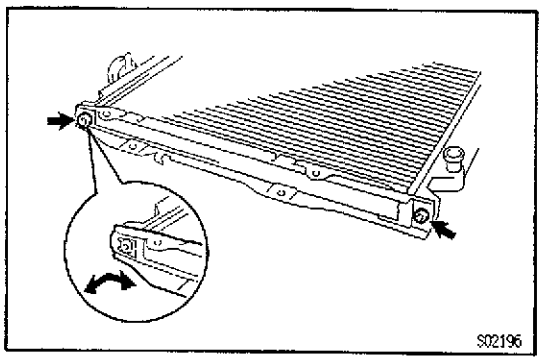
If the pressure drops, check the hoses, radiator or water pump for leaks. If no external leaks are found, check the heater core, cylinder block and head.

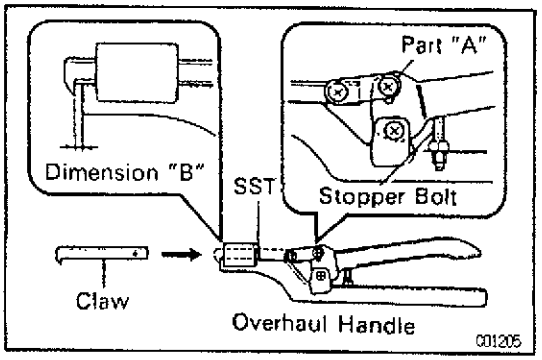
4. **REINSTALL RADIATOR CAP**

COMPONENTS FOR DISASSEMBLY AND ASSEMBLY

EG1J8-01







RADIATOR DISASSEMBLY

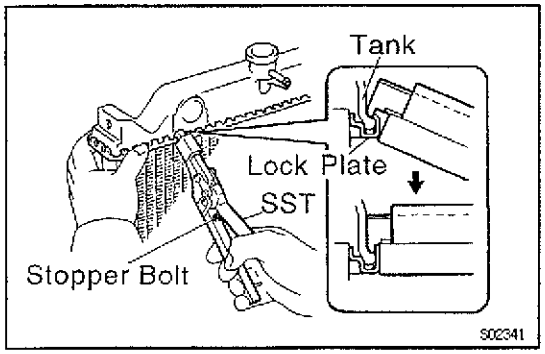
EG7BH-01

1. **REMOVE NO.1 FAN SHROUD**
   Remove the 4 bolts and fan shroud.
2. **REMOVE RADIATOR SUPPORTS**
   Remove the 4 screws and 2 radiator supports.
   INSTALLATION HINT: Insert the tabs the radiator upper tank through the radiator support holes.
   Torque: 13 N·m (130 kgf·cm, 9.6 ft·lbf)
3. **REMOVE DRAIN PLUG**
4. **ASSEMBLE SST**
   SST 09230–01010

(a) Install the claw to the overhaul handle, inserting it in the hole in part "A" as shown in the diagram.

(b) While gripping the handle, adjust the stopper bolt so that dimension "B" shown in the diagram is 0.2 – 0.3 mm (0.008 – 0.012 in.).
NOTICE: If this adjustment is not done, the claw may be damaged.

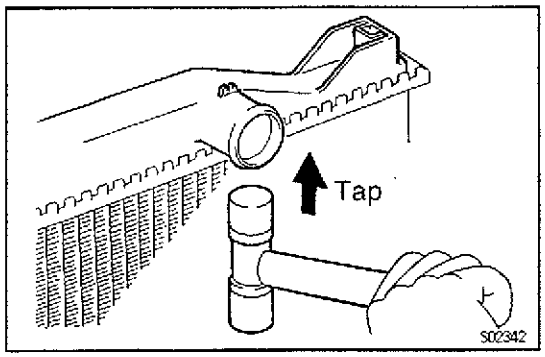
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5. UNCAULK LOCK PLATES

Using SST to release the caulking, squeeze the handle until stopped by the stopper bolt.

SST 09230−01010



6. REMOVE TANKS AND O−RINGS

(a) Lightly tap the radiator port (inlet or outlet) with a soft −faced hammer, and remove the tank.

(b) Remove the O−ring.

7. A/T:

REMOVE OIL COOLER FROM LOWER TANK

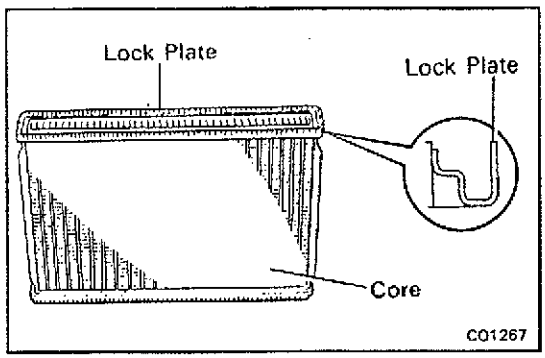
(a) Remove the 2 nuts and 2 pipes.

(b) Remove the 2 nuts, 2 spring washers, 2 plate washers and oil cooler.

(c) Remove the 2 O−rings from the oil cooler.

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RADIATOR ASSEMBLY



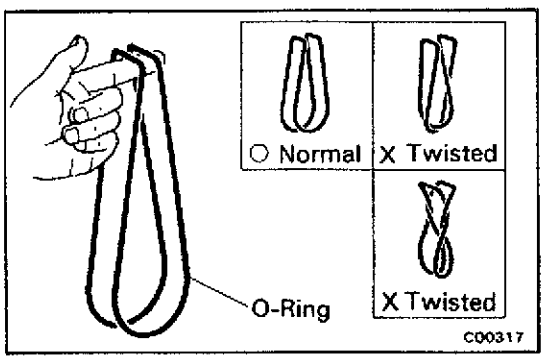
1. INSPECT LOCK PLATE

Inspect the lock plate for damage.

HINT:

- If the sides of the lock plate groove are deformed, reassembly of the tank will be impossible.
- Therefore, first correct any deformation with pliers or similar object. Water leakage will result if the bottom of the lock plate groove is damaged or dented. Therefore, repair or replace if necessary.

NOTICE: The radiator can only be recaulked 2 times. After the 2nd time, the radiator core must be replaced.

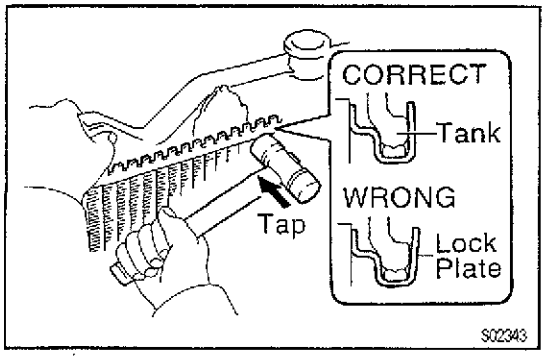


2. INSTALL NEW O−RINGS AND TANKS

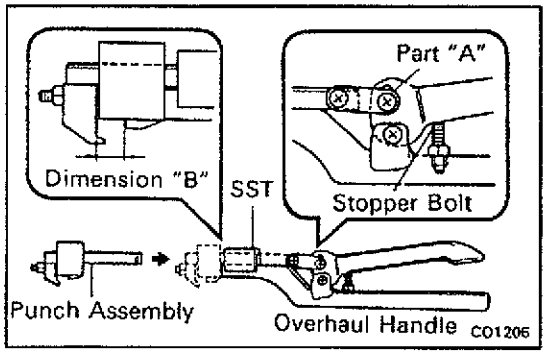
(a) After checking that there are no foreign objects in the lock plate groove, install the new O−ring without twisting it.

HINT: When cleaning the lock plate groove, lightly rub it with sand paper without scratching it.

(b) Install the tank without damaging the O−ring.



(c) Tap the lock plate with a soft–faced hammer so that there is no gap between it and the tank.



3. ASSEMBLE SST

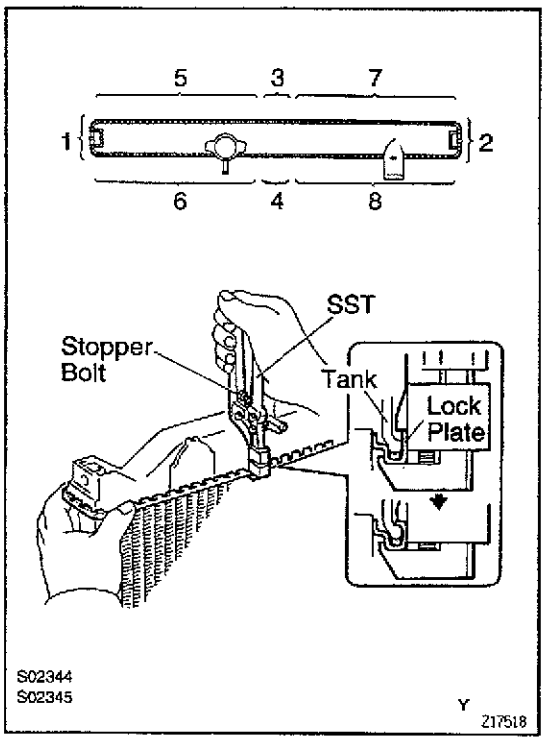
SST 09230–01010

(a) Install the punch assembly to the overhaul handle, inserting it in the hole in part "A" as shown in the illustration.

(b) While gripping the handle, adjust the stopper bolt so that dimension "B" shown in the diagram.

Dimension "B":

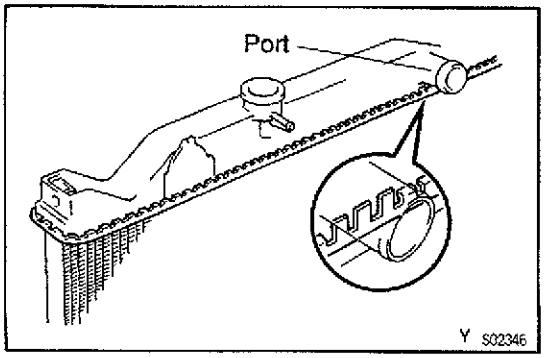
8.4 mm (0.34 in.)



4. CAULK LOCK PLATE

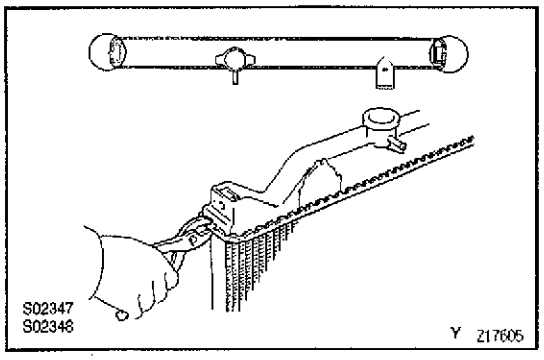
(a) Lightly press SST against the lock plate in the order shown in the illustration. After repeating this a few times, fully caulk the lock plate by squeezing the handle until stopped by the stopper bolt.

SST 09230–01010



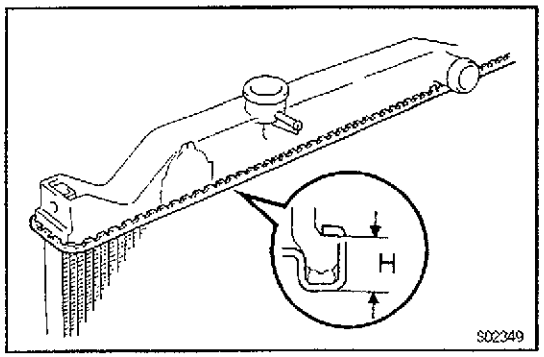
HINT:

- Do not stake the areas protruding around the ports.



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- The points shown in the rib sides near here cannot be staked with SST. Use pliers or similar object and be careful not to damage the core plates.



(b) Check the lock plate height (H) after completing the caulking.

Plate height (H):

7.4 — 7.8 mm (0.2959 — 0.3119 in.)

If not within the specified height, adjust the stopper bolt of the handle again and caulk again.

5. PAINT LOCK PLATES

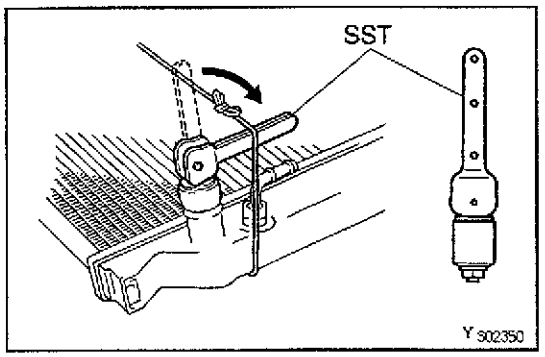
6. INSTALL DRAIN PLUG TO RADIATOR

(a) Install a new O—ring to the drain plug.

(b) Apply soapy water to the O—ring.

(c) Install the drain plug.

7. Reassembly except steps 1 to 7 is in the reverse order of disassembly.



8. CHECK FOR WATER LEAKS

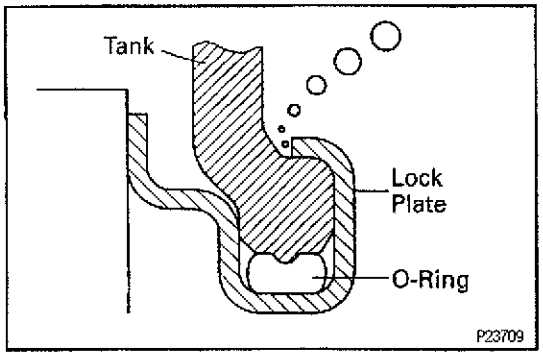
(a) Using SST, plug the inlet and outlet pipes of the radiator.

SST 09230—01010

(b) Using a radiator cap tester, apply pressure to the radiator.

Test pressure:

177 kPa (1.8 kgf/cm², 26 psi)



(c) Check for water leaks.

HINT: On radiators with resin tanks, there is a clearance between the core plate and tank plate where a minute amount of air will remain, giving the appearance of an air leak when the radiator is submerged in water. Therefore, before performing the water leak test, first swish the radiator around in the water until all air bubbles disappear.