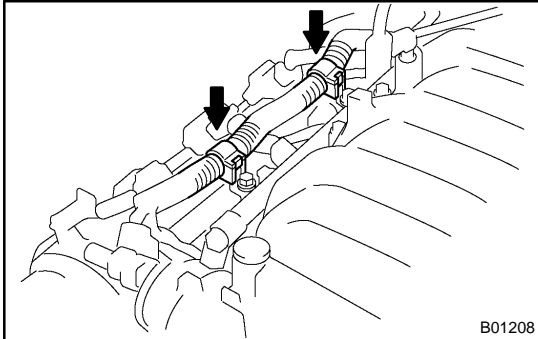


REMOVAL

1. REMOVE V-BANK COVER
2. REMOVE INTAKE AIR CONNECTOR
3. REMOVE FUEL PRESSURE PULSATION DAMPERS
(See page SF-28)
4. DISCONNECT VVT SENSOR CONNECTORS
5. REMOVE VSV FOR EVAP

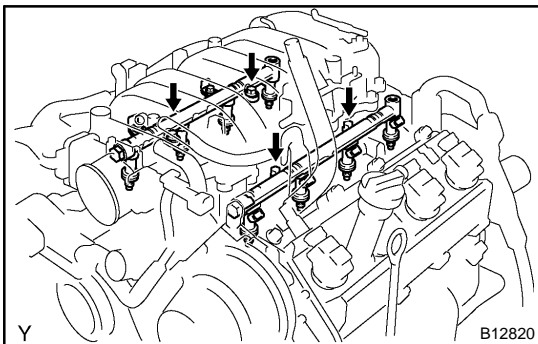


6. DISCONNECT ENGINE WIRE FROM DELIVERY PIPE
 - (a) Disconnect the 2 wire clamps from the wire clamp bracket on the RH delivery pipe.
 - (b) Disconnect the 8 injector connectors.

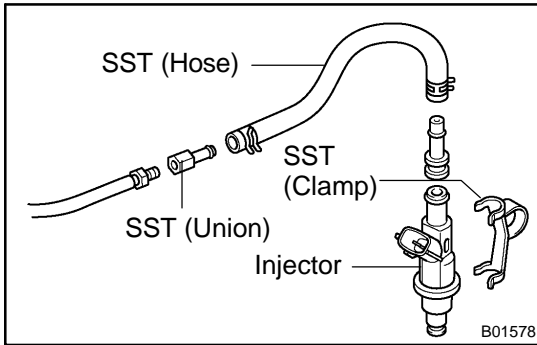
7. REMOVE DELIVERY PIPES AND INJECTORS

NOTICE:

- Be careful not to drop the injectors when removing the delivery pipes.
- Pay attention to put any hung load on the injector to and from the side direction.



- (a) Remove the 4 nuts holding the delivery pipe to the intake manifold.
- (b) Remove the 2 delivery pipes and 8 injectors assembly and 4 spacers.
- (c) Pull out the 8 injectors from the delivery pipes.
- (d) Remove the 2 O-rings, grommet and insulator from each injector.

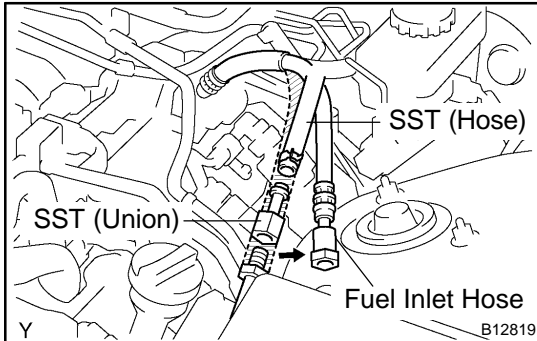


INSPECTION

1. INSPECT INJECTOR INJECTION

CAUTION:

Keep injector clear of sparks during the test.



- Disconnect the fuel inlet hose from the fuel tube.
- Connect SST (hose) to the fuel inlet tube with SST (union). Tighten the flare nut on the fuel tube.

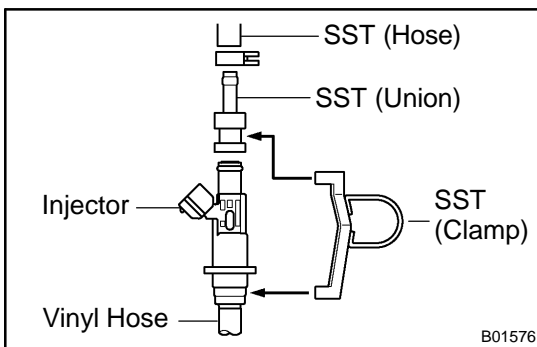
SST 09268-41047

Torque: 30 N·m (310 kgf·cm, 22 ft·lbf)

HINT:

Use SST. (See page [SF-1](#))

SST 09032-12700



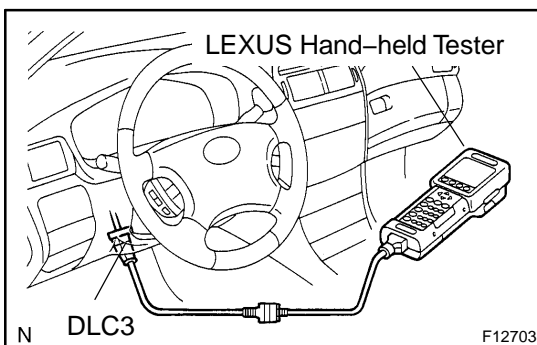
- Install the grommet and O-ring to the injector.
- Connect SST (hose) to the injector with SST (union), and hold the injector and union with SST (clamp).

SST 09268-41047

- Put the injector into the graduated cylinder.

HINT:

Install a suitable vinyl hose onto the injector to prevent gasoline from splashing out.

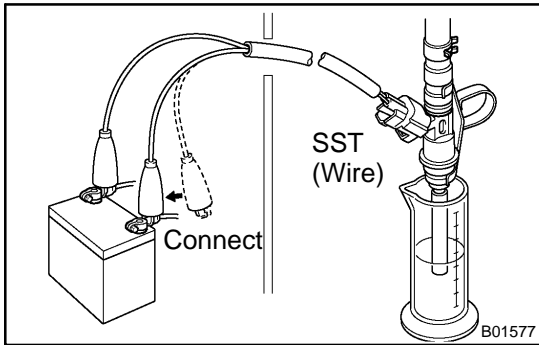


- Connect the LEXUS hand-held tester or OBDII scan tool to the DLC3.
- Turn the ignition switch ON, and push the hand-held tester main switch ON.

NOTICE:

DO not start the engine.

- Select the active test mode on the hand-held tester.
- Please refer to the LEXUS hand-held tester or OBDII scan tool operator's manual for further details.
- If you have no LEXUS hand-held tester, connect the positive (+) and negative (-) leads from the battery to the fuel pump connector. (See page [SF-18](#))



- (k) Connect SST (wire) to the injector and battery for 15 seconds, and measure the injection volume with a graduated cylinder. Test each injector 2 or 3 times.

SST 09842-30070

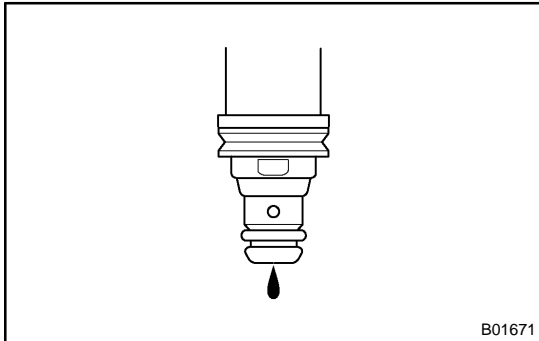
Injection volume:

60 – 73 cm³ (3.7 – 4.5 cu in.) per 15 sec.

Difference between each injector:

13 cm³ (0.6 cu in.) or less

If the injection volume is not as specified, replace the injector.



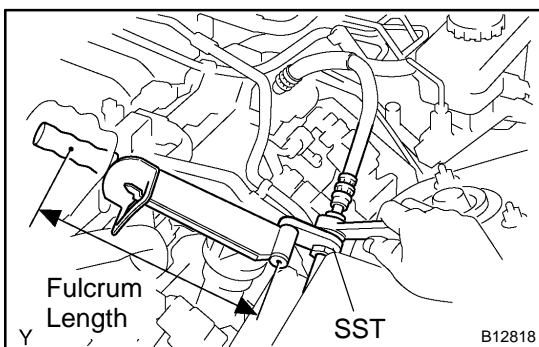
2. INSPECT LEAKAGE

- (a) In the condition above, disconnect the test probes of SST (wire) from the battery and check the fuel leakage from the injector.

SST 09842-30070

Fuel drop: One drop or less per 12 minutes

- (b) Turn the ignition switch OFF.
 (c) Disconnect the negative (-) terminal cable from the battery.
 (d) Remove SST.
 SST 09268-41047



- (e) Reconnect the fuel inlet hose to the fuel tube.

SST 09023-12700

Torque: 30 N·m (310 kgf·cm, 22 ft·lbf)

HINT:

Use a torque wrench with a fulcrum length of 30 cm (11.81 in.).

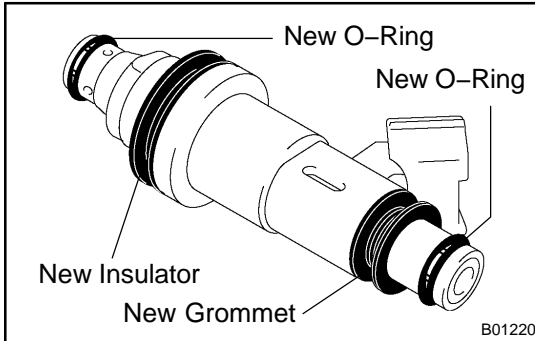
- (f) Disconnect the LEXUS hand-held tester or OBDII scan tool from the DLC3.

INSTALLATION

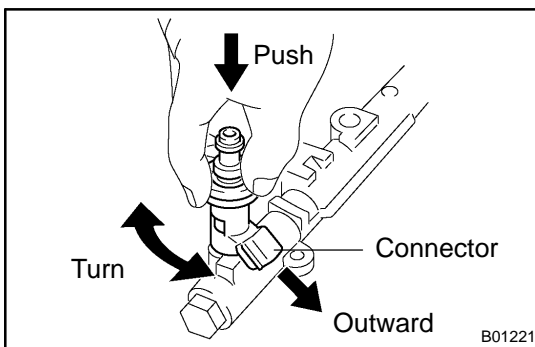
1. INSTALL INJECTORS AND DELIVERY PIPES

NOTICE:

- Be careful not to drop the injectors when installing the delivery pipes.
- Pay attention to put any hung load on the injector to and from the side direction.



- (a) Install a new grommet and new insulator to each injector.
 (b) Apply a light coat of gasoline to 2 new O-rings and install them to each injector.

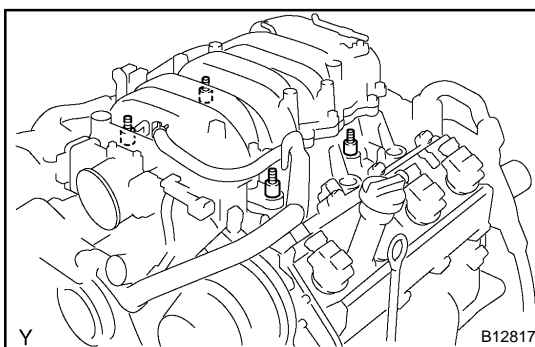


- (c) While turning the injector clockwise and counterclockwise, push it to the delivery pipes. Install the 8 injectors.

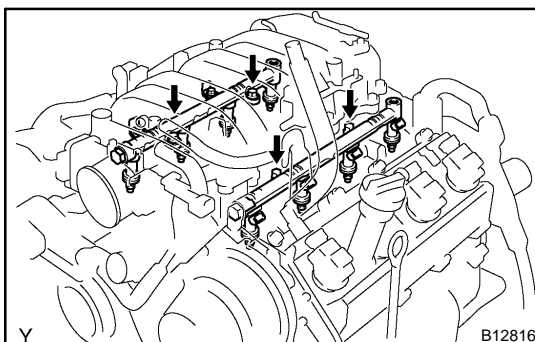
HINT:

Install the injector with cover for No. 5, 6, 7 and 8 cylinders.

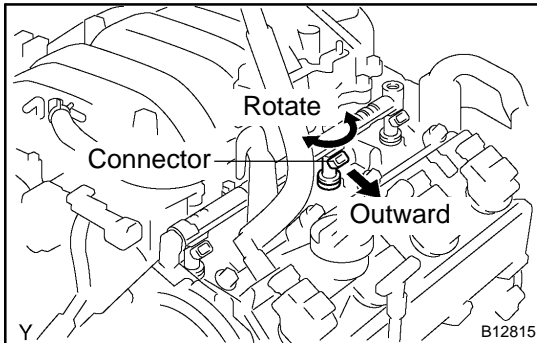
- (d) Position injector connector outward.



- (e) Place the 4 spacers on the intake manifold.



- (f) Place the 8 injectors and 2 delivery pipes assembly in position on the intake manifold.
 (g) Temporarily install the 4 nuts.



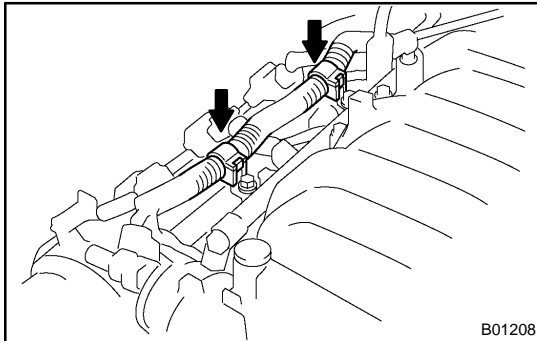
(h) Check that the injectors rotate smoothly.

HINT:

If injectors do not rotate smoothly, the probable cause is incorrect installation of O-rings. Replace the O-rings.

- (i) Position injector connector outward.
- (j) Tighten the 4 nuts holding the delivery pipes to the intake manifold.

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)



2. CONNECT ENGINE WIRE TO DELIVERY PIPE

- (a) Connect the 8 injector connectors.
- (b) Connect the 2 wire clamps to the wire clamp bracket on the RH delivery pipe.

3. INSTALL VSV FOR EVAP

Torque: 18 N·m (185 kgf·cm, 13 ft·lbf)

4. CONNECT VVT SENSOR CONNECTORS

5. INSTALL FUEL PRESSURE PULSATION DAMPER

(See page [SF-29](#))

6. INSTALL INTAKE AIR CONNECTOR

7. INSTALL AIR CLEANER INLET

8. INSTALL V-BANK COVER