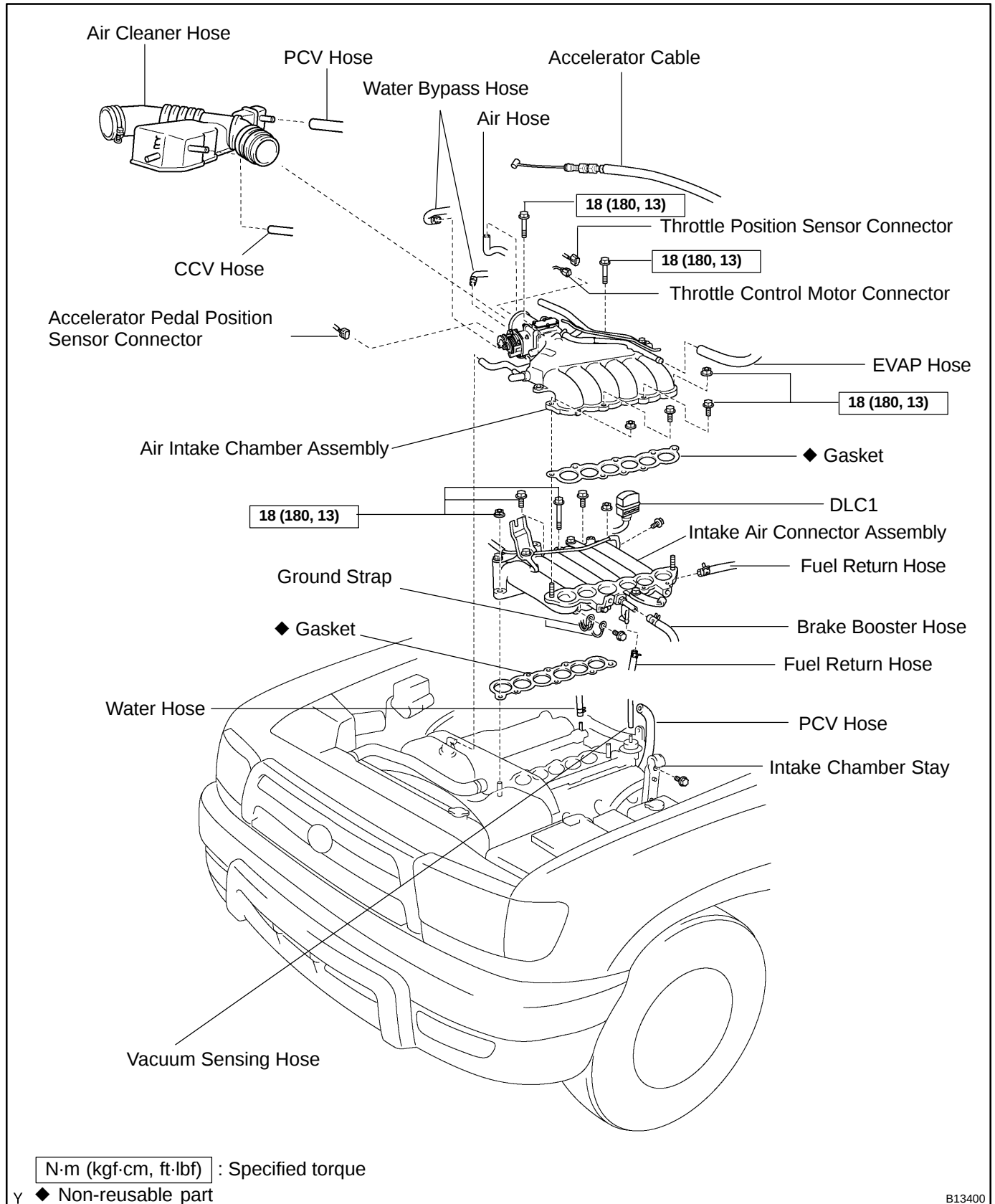
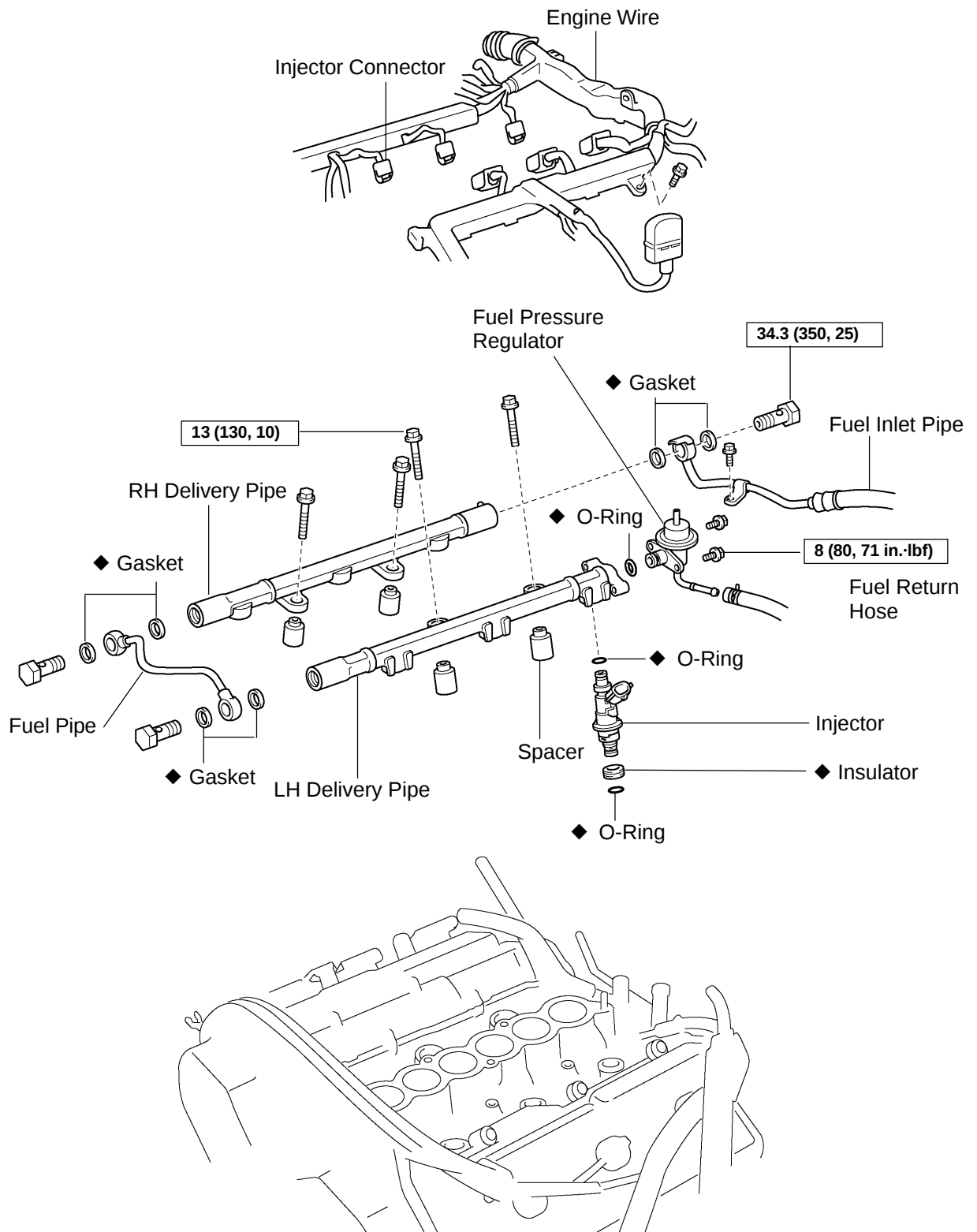


INJECTOR COMPONENTS

SF022-04



B13400



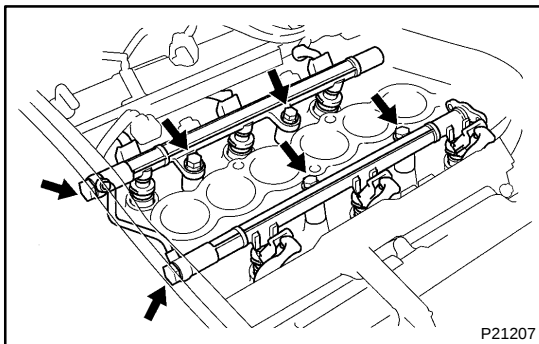
N·m (kgf·cm, ft·lbf) : Specified torque

◆ Non-reusable part

B06047

REMOVAL

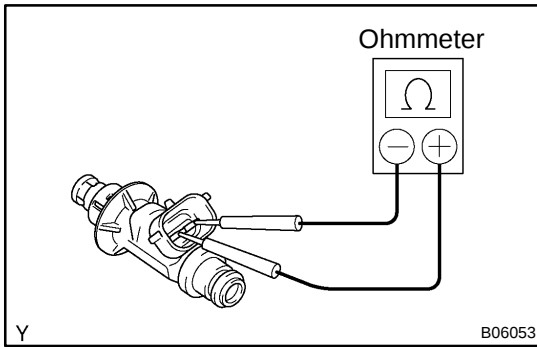
1. REMOVE AIR CLEANER HOSE
 2. REMOVE INTAKE AIR CONNECTOR ASSEMBLY (See page [EM-29](#))
 3. REMOVE FUEL PRESSURE REGULATOR (See page [SF-16](#))
 4. DISCONNECT FUEL INLET PIPE
- CAUTION:**
Catch leaking fuel in a container.
5. REMOVE FUEL PIPE
 6. DISCONNECT INJECTOR CONNECTORS



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 bolts and delivery pipes together with the 6 injectors.
 - (b) Remove the 4 spacers from the intake manifold.
 - (c) Pull out the 6 injectors from the delivery pipes.
 - (d) Remove the 2 O-rings and insulator from each injector.



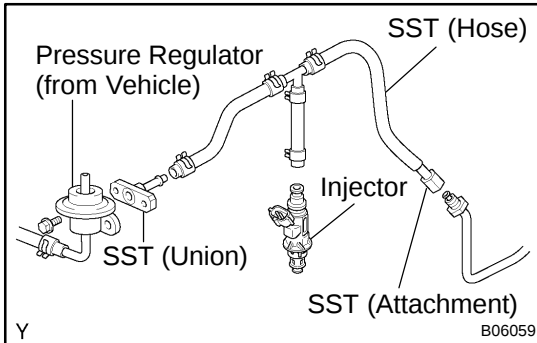
INSPECTION

1. INSPECT INJECTOR RESISTANCE

Using an ohmmeter, measure the resistance between the terminals.

Resistance: Approx. 13.8 Ω at 20°C (68°F)

If the resistance is not as specified, replace the injector.

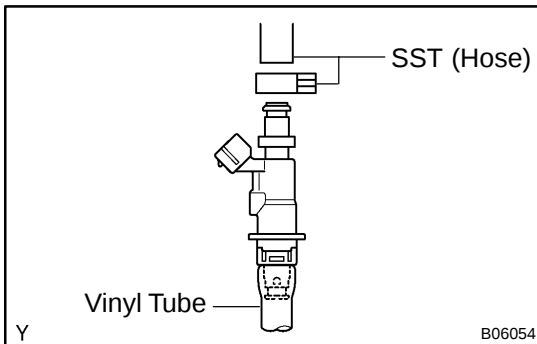


2. INSPECT INJECTOR INJECTION

CAUTION:

Keep injector clear of sparks during the test.

- Disconnect the fuel inlet pipe from the fuel tube.
- Connect SST (attachment and hose) to the fuel tube.
SST 09268-41047 (09268-52011)
- Connect the fuel return hose, SST (union) and SST (hose) to the fuel pressure regulator.
SST 09268-41047 (09268-41091)

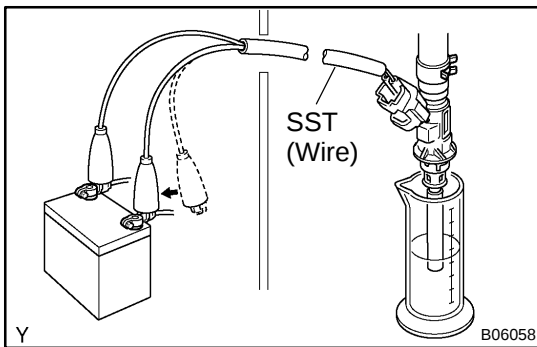


- Connect SST (hose) to the injector.
SST 09268-41047
- Put the injector into the graduated cylinder.

HINT:

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

- Connect a TOYOTA hand-held tester to the DLC3.
(See page [SF-7](#))



- 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.

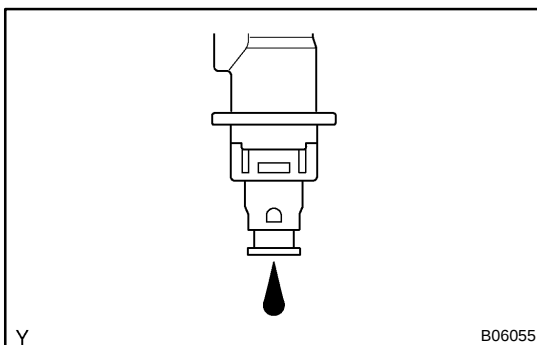
SST 09842-30070

Volume: 60 - 73 cm³ (3.4 - 4.5 cu in.) per 15 sec.

Difference between each injector:

13 cm³ (0.8 cu in.) or less

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



3. INSPECT LEAKAGE

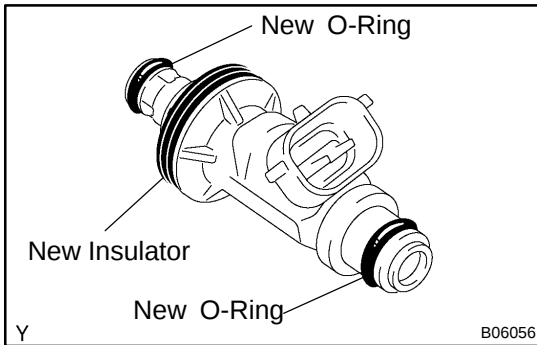
- In the condition above, disconnect the tester probes of SST (wire) from the battery and check the fuel leakage from the injector.

SST 09842-30070

Fuel drop: 1 drop or less per 12 minutes

- Turn the ignition switch OFF.
- Disconnect the negative (-) terminal cable from the battery.

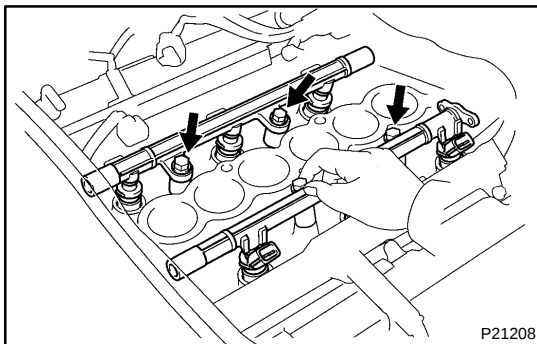
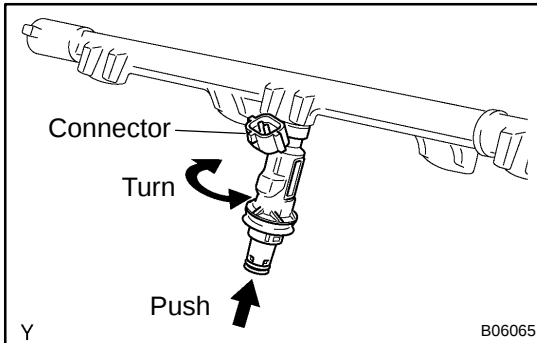
- (d) Remove the SST.
SST 09268-41047
- (e) Disconnect the TOYOTA hand-held tester from the DLC3.



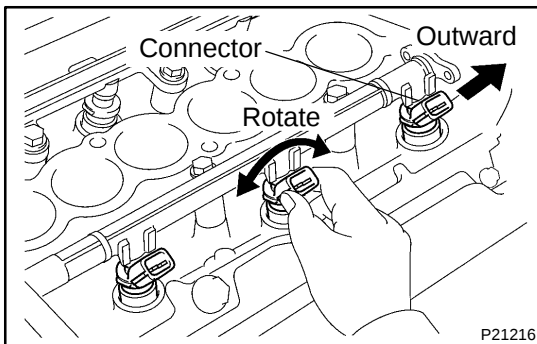
INSTALLATION

1. TEMPORARILY INSTALL INJECTORS AND DELIVERY PIPES

- Install a new insulator to each injector.
- Apply a light coat of spindle oil or gasoline to 2 new O-rings and install them to each injector.
- While turning the injector clockwise and counterclockwise, push it to the delivery pipes. Install the 6 injectors.
- Position the injector connector outward.



- Place the 4 spacers in position on the intake manifold.
- Place the delivery pipes with the 6 injectors in position on the intake manifold.
- Temporarily install the 4 bolts holding the delivery pipes to the intake manifold.

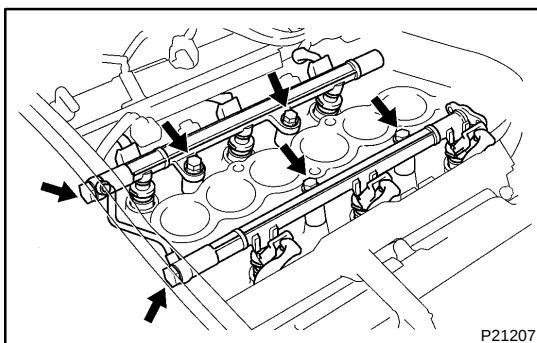


- Check that the injectors rotate smoothly.

HINT:

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

- Position the injector connector outward.



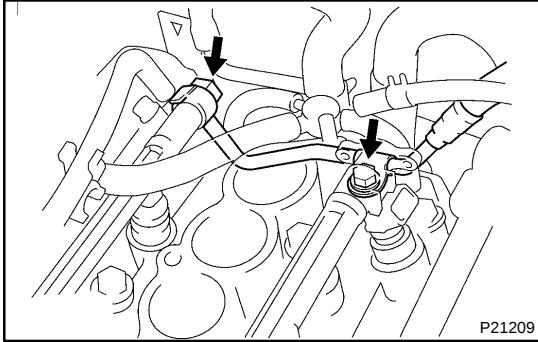
2. CONNECT INJECTOR CONNECTORS 3. INSTALL FUEL PIPE AND TIGHTENING DELIVERY PIPE HOLDING BOLTS

- Install the fuel pipe with 4 new gaskets and the 2 union bolts.

Torque: 34.3 N·m (350 kgf·cm, 25 ft·lbf)

- Tighten the 4 bolts holding the delivery pipes to the intake manifold.

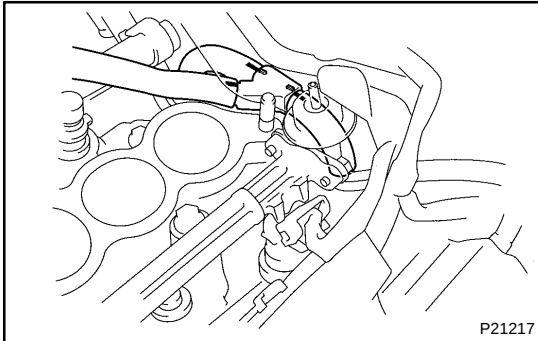
Torque: 13 N·m (130 kgf·cm, 10 ft·lbf)

**4. CONNECT FUEL INLET PIPE**

- (a) Temporarily install the inlet pipe with 2 new gaskets, union bolt and bolt.
- (b) Tighten the clamp bolt.
- (c) Tighten the union bolt.

Torque: 8 N·m (80 kgf·cm, 71 in·lbf)

Torque: 34.3 N·m (350 kgf·cm, 25 ft·lbf)

5. INSTALL FUEL PRESSURE REGULATOR (See page [SF-17](#))**6. INSPECT AIR ASSIST LINES AND CONNECTIONS**

Visually check for loose connections, sharp bends or damage.

7. INSTALL INTAKE AIR CONNECTOR ASSEMBLY (See page [EM-52](#))**8. INSTALL AIR CLEANER HOSE****9. CHECK FOR FUEL LEAKS (See page [SF-1](#))**