EGR PIPE SUB–ASSY NO.1 (1KD–FTV)

1207B–01

REPLACEMENT

1. **DRAIN ENGINE COOLANT (See page 16–50)**
2. **REMOVE INTERCOOLER PROTECTOR (See page 13–30)**
3. **REMOVE INTERCOOLER ASSY (See page 10–31)**
4. **REMOVE AIR HOSE NO.1**
5. **SEPARATE VANE PUMP OIL RESERVOIR ASSY**

(a) Remove the 3 bolts and vane pump oil reservoir assy.

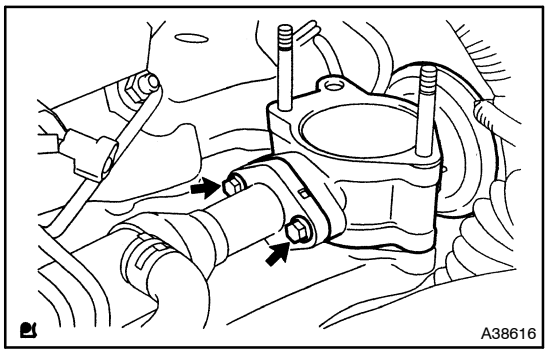
HINT:

It is not necessary that detach the hose from the vane pomp oil reservoir assy when you remove that assembly. Also, for your work in the rest of the following removal process, you may put and hang the removed oil reservoir assy with a rope to an appropriate location of the vehicle.

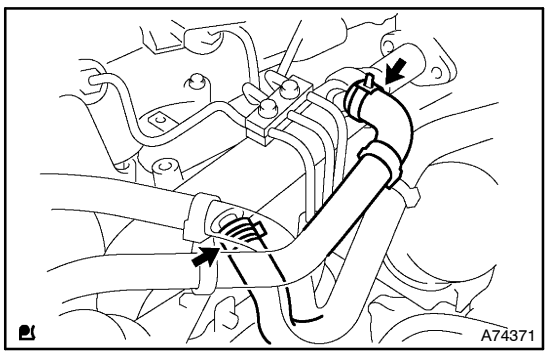
6. **REMOVE EGR PIPE SUB–ASSY NO.1**

(a) Remove the vacuum switching valve assy No. 1. (See page 10–31)

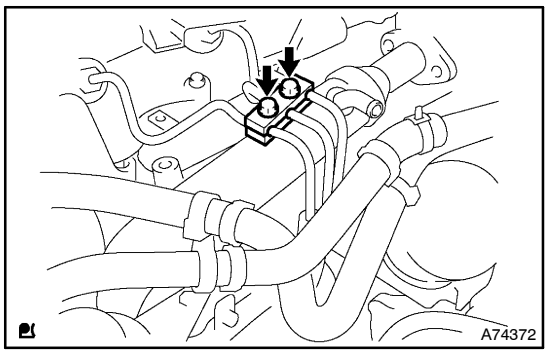
(b) Remove the diesel throttle body assy. (See page 10–31)



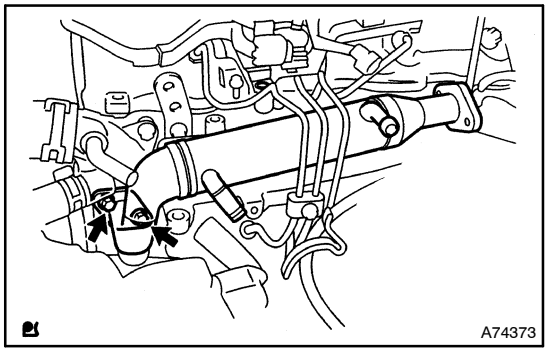
(c) Remove the electric EGR control valve assy.
   (1) Disconnect the vacuum hose form the electric EGR control valve assy.
   (2) Remove the 2 bolts and electric EGR control valve assy.



(d) Disconnect the water bypass hose No. 3 and No. 4 from the EGR pipe sub–assy No. 1.



(e) Remove the 2 bolts and injection pipe clamp No. 3.



(f) Remove the 2 bolts and EGR pipe sub–assy No. 1.

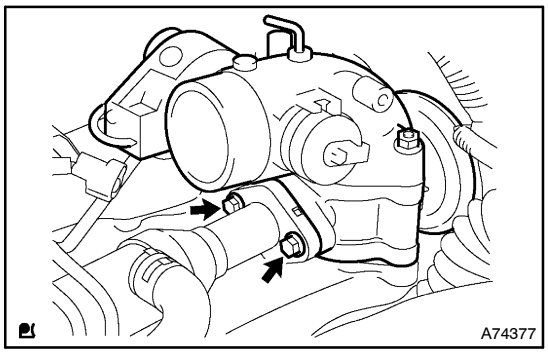
7. INSTALL EGR PIPE SUB–ASSY NO.1

(a) Set a new gasket, temporarily install the EGR pipe sub–assy No. 1 with the 2 nuts.

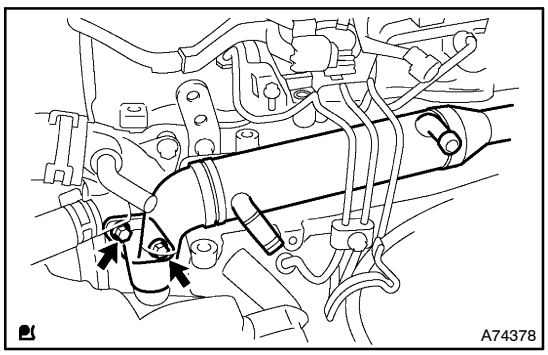
(b) Set a new gasket, and temporarily install the electric EGR control valve assy with the 2 bolts.

(c) Connect the vacuum hose to the electric EGR valve assy.

(d) Set a new gasket, and temporarily install the diesel throttle body assy with the bolt and 2 nuts.



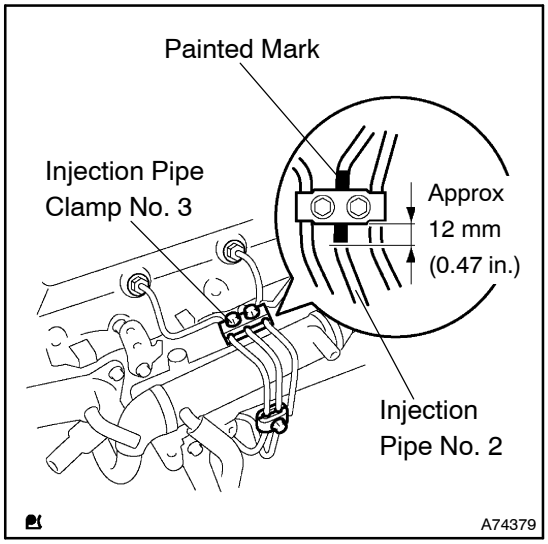
(e) Tighten the 2 bolts, which are shown in the illustration.
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)



(f) Tighten the 2 nuts, which are shown in the illustration.
Torque: 13 N·m (133 kgf·cm, 10 ft·lbf)

(g) Tighten the mounting bolt and the 2 nuts of the diesel throttle body assy.
Torque: 20 N·m (204 kgf·cm, 15 ft·lbf)

(h) Install the vacuum switching valve assy No. 1 with the 2 bolts.
Torque: 8.0 N·m (82 kgf·cm, 71 in.·lbf)



(i) Instal the injection pipe clamp No. 3 with the 2 bolts.

HINT:

- Make sure that the injection pipe clamp No. 3 is install at the correct position where the painted mark of the injection pipe No. 2 indicates.
- If the painted marks on the injection pipe No. 2 are disappeared, install the injection clamp No. 3 as shown in the illustration.

Torque: 5.0 N·m (51 kgf·cm, 44 in.·lbf)

(j) Connect the water by–pass No. 3 and No. 4 the EGR pipe No. 1.

8. INSTALL VANE PUMP OIL RESERVOIR ASSY

(a) Install the vane pump oil reservoir assy with the 3 bolts.
Torque: 18 N·m (184 kgf·cm, 13 ft·lbf)

9. INSTALL AIR HOSE NO.1

10. INSTALL INTERCOOLER ASSY (See page 10–31)

11. INSTALL INTERCOOLER PROTECTOR

(a) Install intercooler protector with the 5 bolts.
Torque: 6.0 N·m (61 kgf·cm, 53 in.·lbf)

12. ADD ENGINE COOLANT (See page 16–50)

13. CHECK FOR ENGINE COOLANT LEAKS