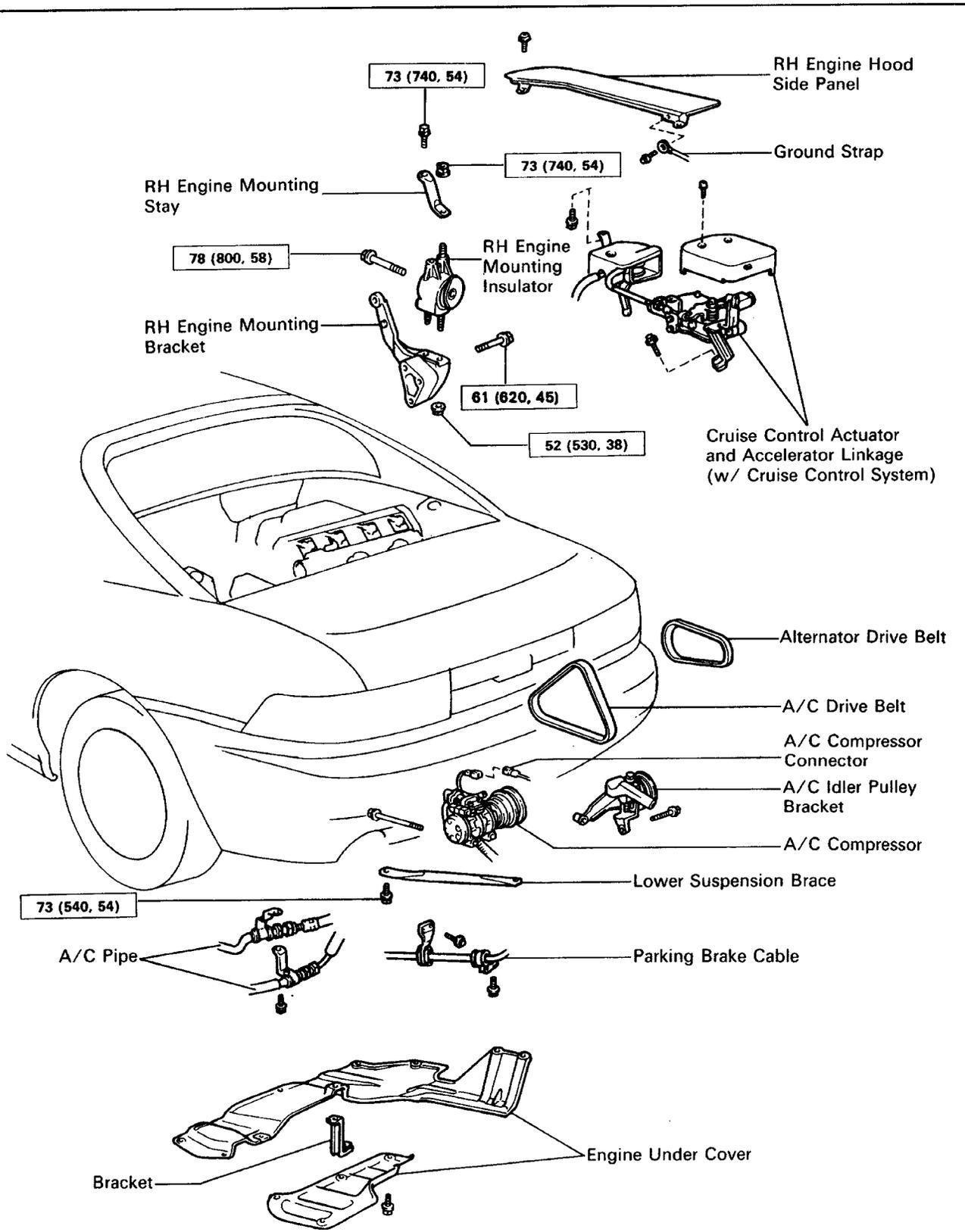
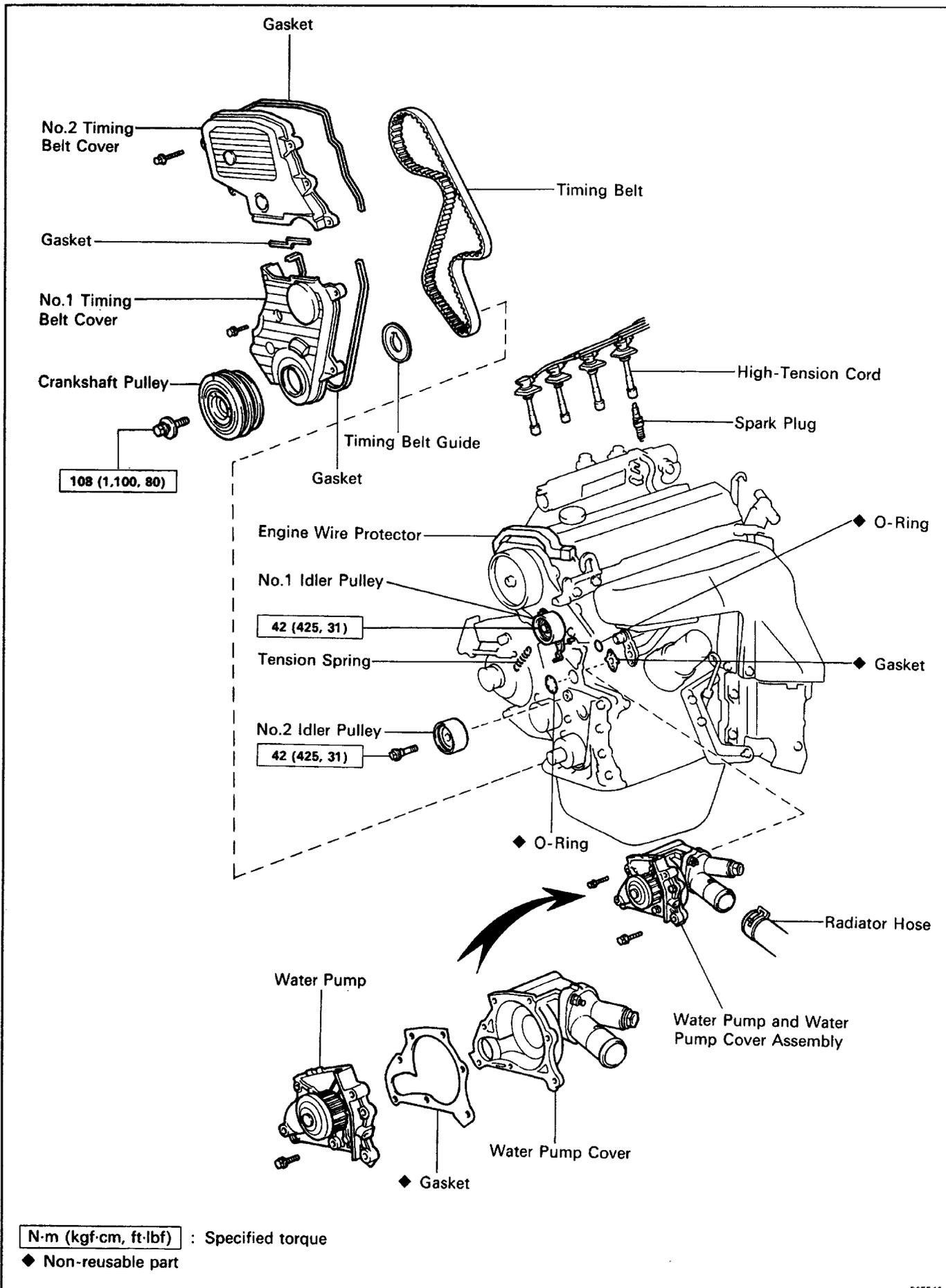


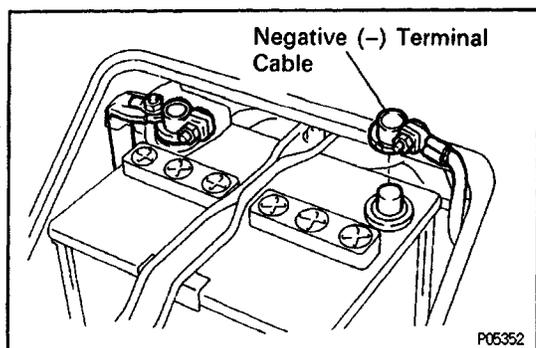
WATER PUMP COMPONENTS FOR REMOVAL AND INSTALLATION

EG128-01



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





WATER PUMP REMOVAL

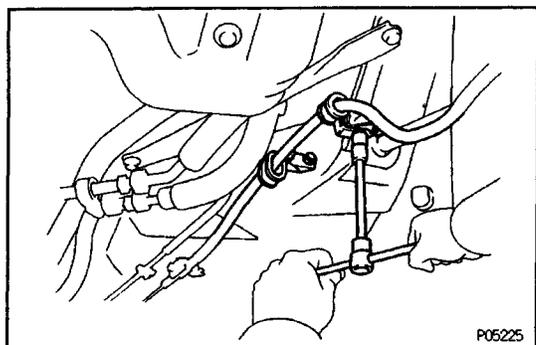
1. DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY

CAUTION: Turn the ignition switch to "LOCK" Disconnect the negative terminal from the battery. Wait at least 20 seconds before proceeding with work.

2. REMOVE ENGINE UNDER COVERS

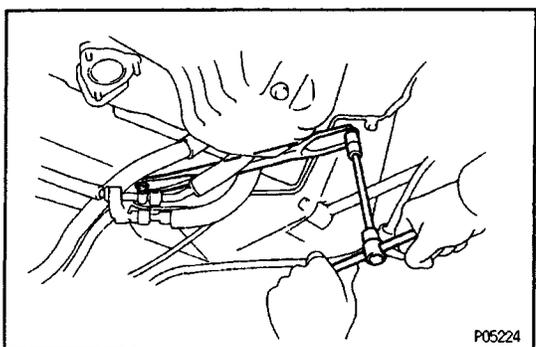
3. REMOVE RH ENGINE HOOD SIDE PANEL

4. DRAIN ENGINE COOLANT

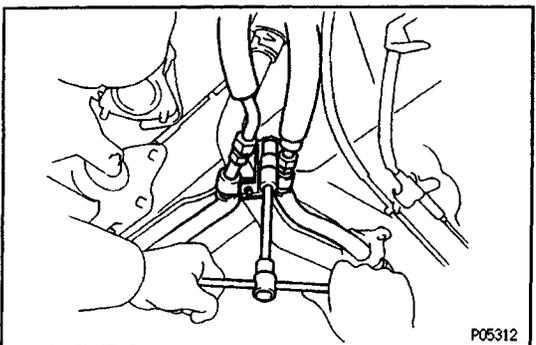


5. DISCONNECT A/C COMPRESSOR FROM ENGINE

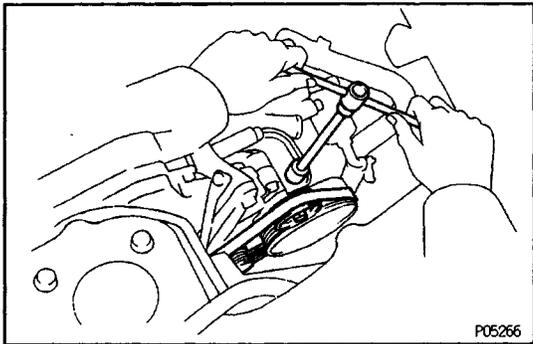
(a) Remove the three clamp bolts, and disconnect the parking brake cable.



(b) Remove the two bolts and lower suspension brace.

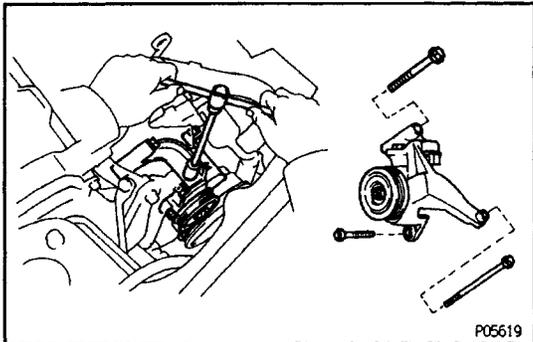


(c) Remove the clamp nut, and disconnect the two A/C pipes.



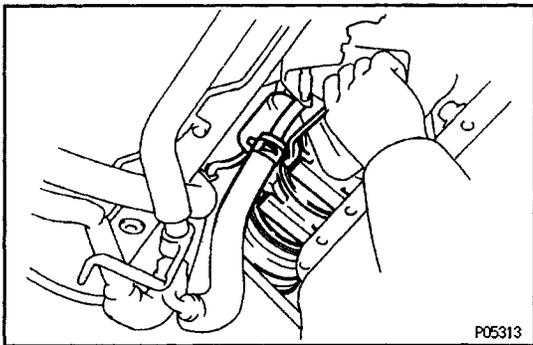
(d) Loosen the idler pulley nut.

(e) Loosen the adjusting bolt, and remove the drive belt.

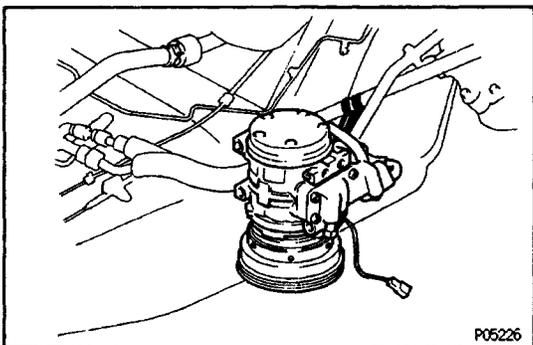


(f) Disconnect the A/C compressor connector.

(g) Remove the three bolts and idler pulley bracket.



(h) Remove the two bolts, and disconnect the A/C compressor from the engine.

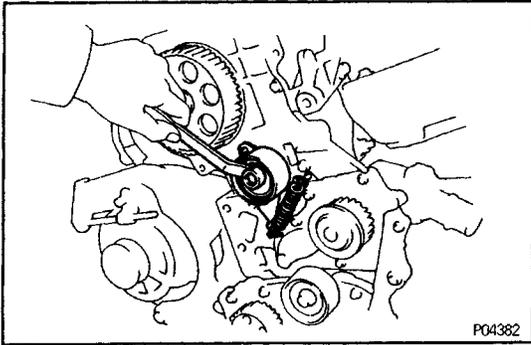


HINT: Suspend the A/C compressor to strut rod with a string.

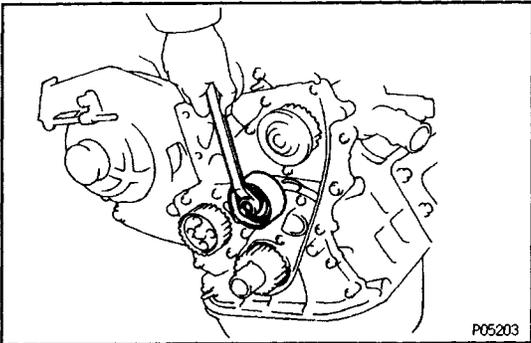
6. REMOVE TIMING BELT

(See steps 4 to 6 and 8 to 22 in Timing Belt Removal under Engine Mechanical)

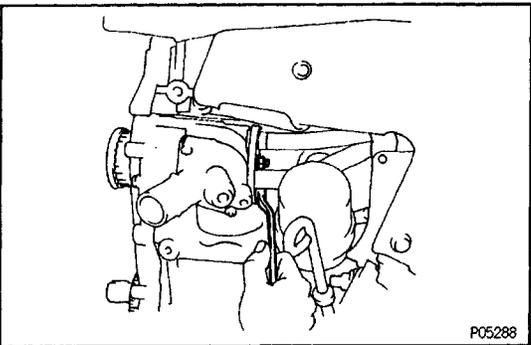
7. DISCONNECT RADIATOR HOSE FROM WATER OUTLET

**8. REMOVE TIMING BELT TENSION SPRING**

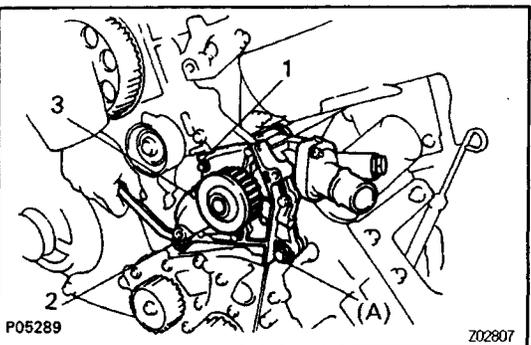
Loosen the No.1 idler pulley bolt, and remove the tension spring.

**9. REMOVE No.2 IDLER PULLEY**

Remove the bolt and pulley.

**10. REMOVE WATER PUMP AND WATER PUMP COVER ASSEMBLY**

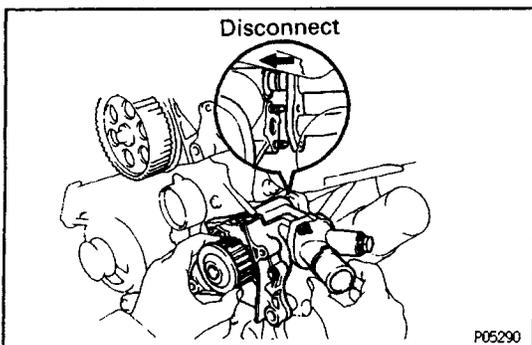
(a) Remove the two nuts holding the water pump to the water by-pass pipe.



(b) (w/o A/C)

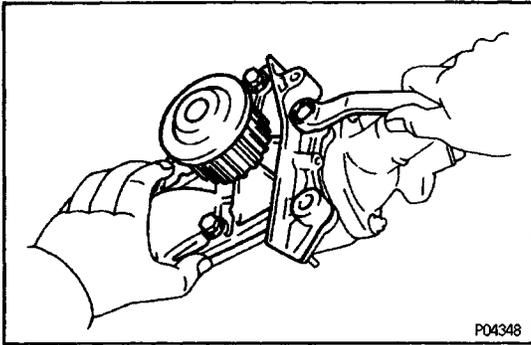
Remove bolt (A).

(c) Remove the three bolts in the sequence shown.



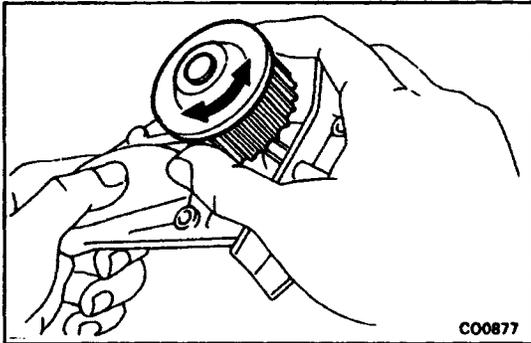
(d) Disconnect the water pump cover from the water by-pass pipe, and remove the water pump and water pump cover assembly.

(e) Remove the gasket and two O-rings from the water pump and water by-pass pipe.



11. REMOVE WATER PUMP FROM WATER PUMP COVER

Remove the three bolts, water pump and gasket.

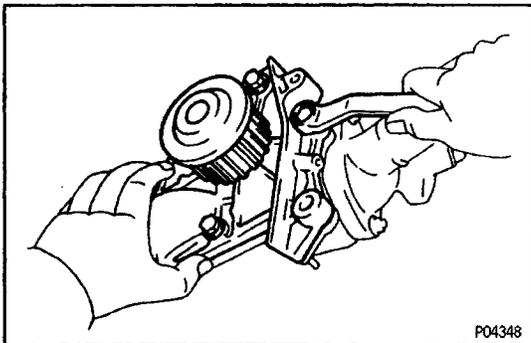


WATER PUMP INSPECTION

INSPECT WATER PUMP

Turn the pulley and check that the water pump bearing moves smoothly and quietly.

EG13A-01



WATER PUMP INSTALLATION

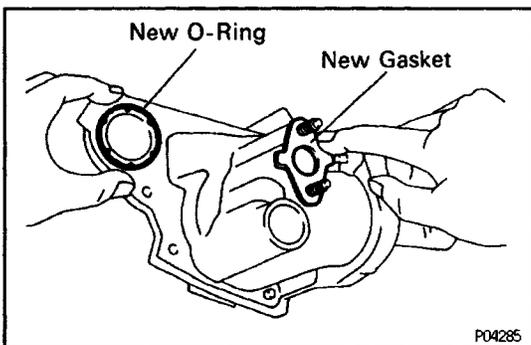
(See Components for Removal and Installation)

1. INSTALL WATER PUMP TO WATER PUMP COVER

Install a new gasket and the water pump with the three bolts.

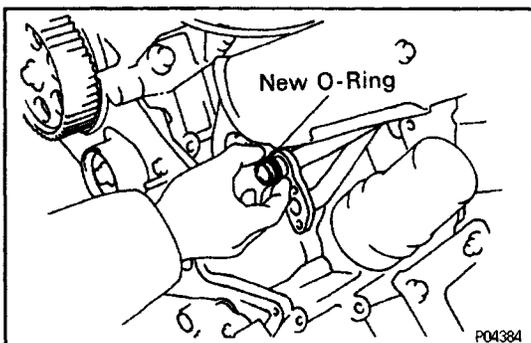
Torque: 8.8 N-m (90 kgf-cm, 78 in.-lbf)

EG13B-01



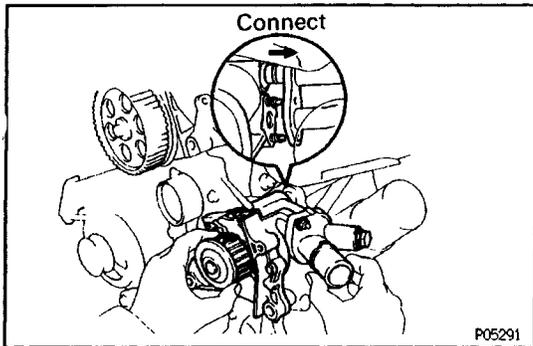
2. INSTALL WATER PUMP AND WATER PUMP COVER ASSEMBLY

(a) Install new O-ring and gasket to water pump cover.

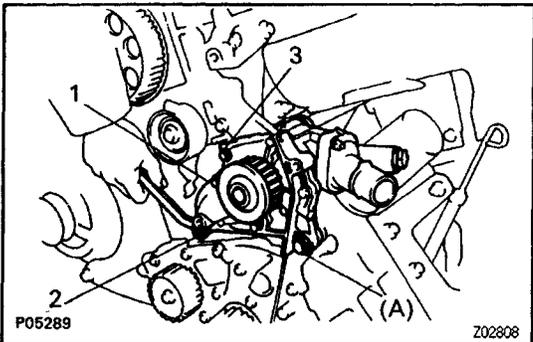


(b) Instal a new O-ring to the water by-pass pipe.

(c) Apply soapy water to the O-ring on the water by-pass pipe.



- (d) Connect the water pump cover to the water by-pass pipe. Do not install the nuts yet.



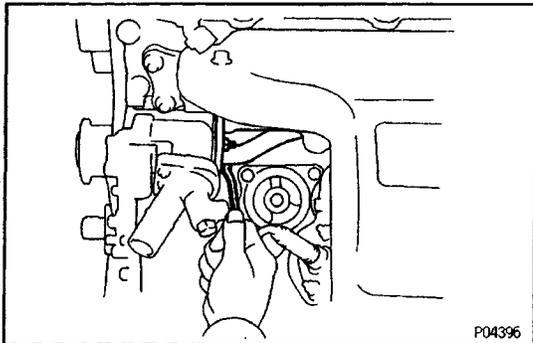
- (e) Install the water pump with the three bolts. Tighten the bolts in the sequence shown.

Torque: 8.8 N-m (90 kgf-cm, 78 in.-lbf)

- (f) (w/o, A/C)

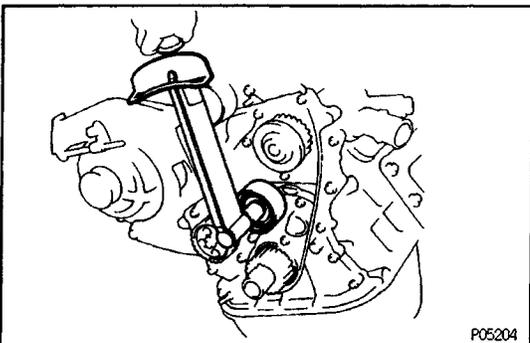
Install the bolt (A).

Torque: 27 N-m (275 kgf-cm, 20 ft-lbf)



- (g) Install the two nuts holding the water pump cover to the water by-pass pipe.

Torque: 9.3 N-m (95 kgf-cm, 82 in.-lbf)

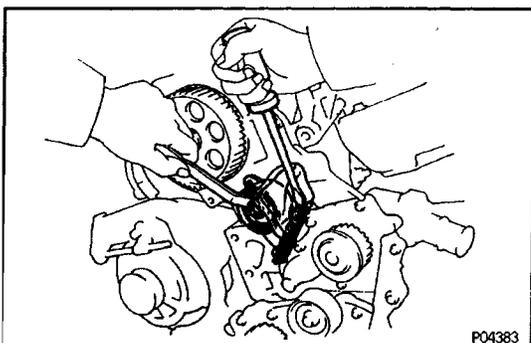


3. INSTALL NO.2 IDLER PULLEY

- (a) Install the pulley with the bolt.

Torque: 42 N-m (425 kgf-cm, 31 ft-lbf)

- (b) Check that the idler pulley moves smoothly.



4. INSTALL TIMING BELT TENSION SPRING

- (a) Install the tension spring.

- (b) Pry the No. 1 pulley toward the left as far as it will go, and tighten the pulley bolt.

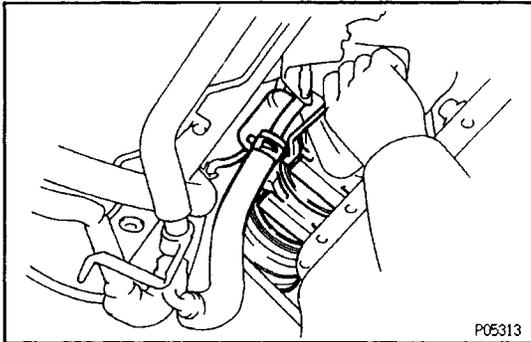
5. CONNECT LOWER RADIATOR HOSE TO WATER INLET

6. INSTALL TIMING BELT

(See steps 5 to 19 and 21 to 23 in Timing Belt Installation under Engine Mechanical)

7. INSTALL A/C COMPRESSOR

- (a) Temporarily install the A/C compressor with the two bolts



- (b) Install the idler pulley bracket with the three bolts.

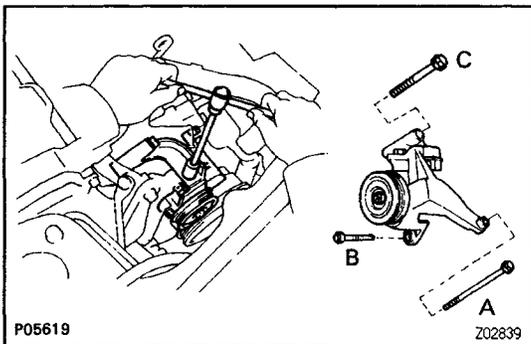
Torque:

25 N-m (250 kgf-cm, 18 ft-lbf) for A

27 N-m (275 kgf-cm, 20 ft-lbf) for B

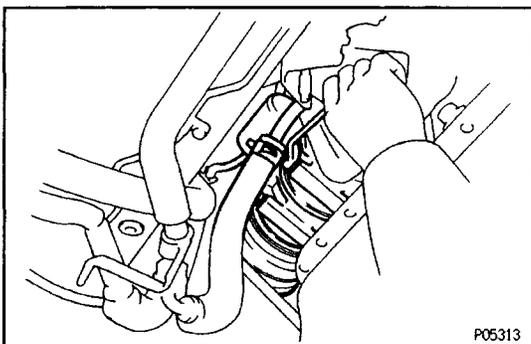
37 N-m (375 kgf-cm, 27 ft-lbf) for C

- (c) Connect the A/C compressor connector.



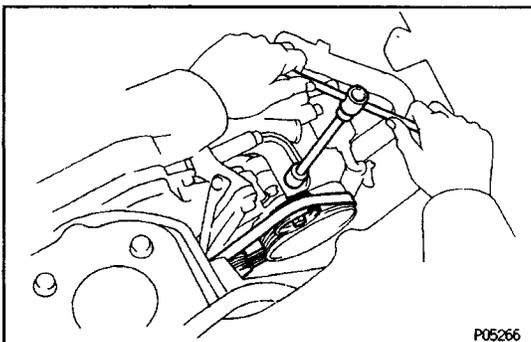
- (d) Tighten the two bolts of the lower side of the A/C compressor.

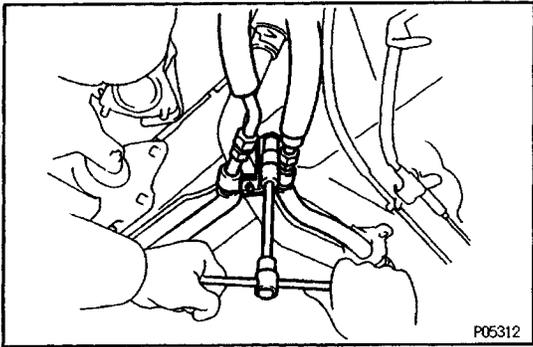
Torque: 25 N-m (250 kgf-cm, 18 ft-lbf)



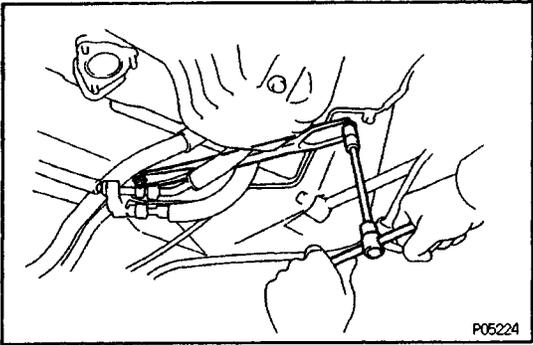
- (e) Install the drive belt with the adjusting bolt.

- (f) Tighten the idler pulley nut.

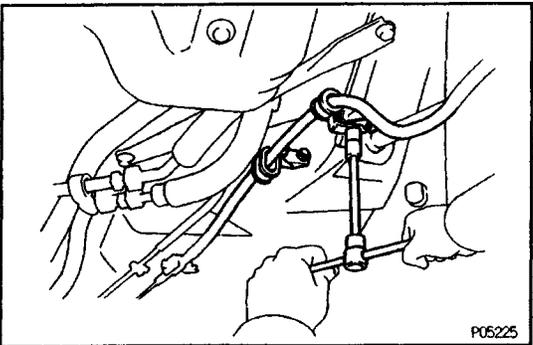




(g) Install the A/C pipes with the two clamps and nut.



(h) install the lower suspension brace with the two bolts.
Torque: 73 N-m (740 kgf-cm, 54 ft-lbf)



(i) Install the parking brake cable with the two clamps and three bolts.

8. CONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY

9. FILL WITH ENGINE COOLANT

10. START ENGINE AND CHECK FOR COOLANT LEAKS

11. INSTALL RH ENGINE HOOD SIDE PANEL

12. INSTALL ENGINE UNDER COVERS