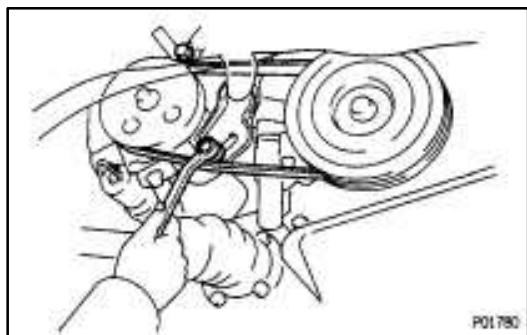


6. REMOVE GENERATOR DRIVE BELT

Loosen the pivot bolt and adjusting lock bolt, and remove the drive belt.

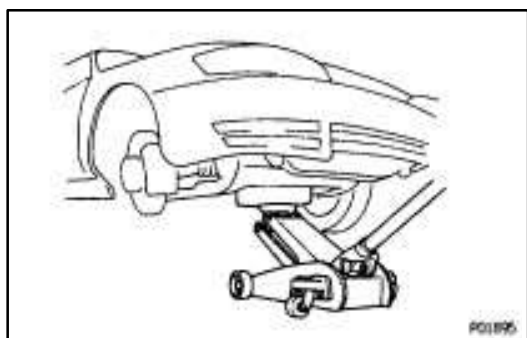
7. REMOVE RH FRONT WHEEL

8. REMOVE RH FENDER APRON SEAL



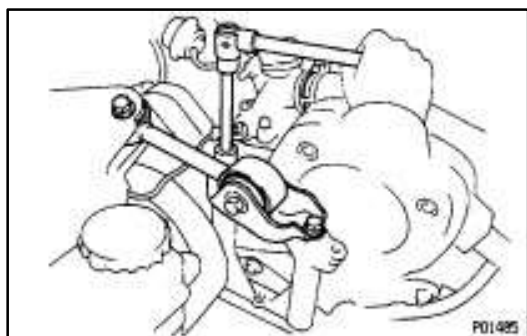
9. REMOVE PS DRIVE BELT

Loosen the bolts, and remove the drive belt.



10. SLIGHTLY JACK UP ENGINE

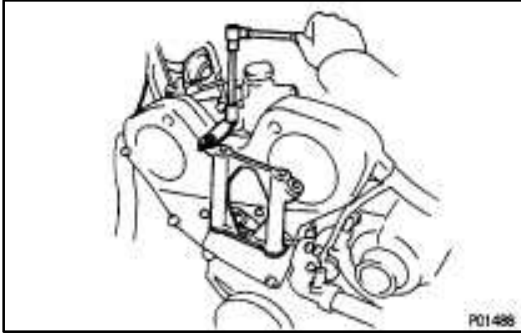
Raise the engine enough to remove the weight from the engine mounting on the right side.



11. REMOVE ENGINE MOVING CONTROL ROD

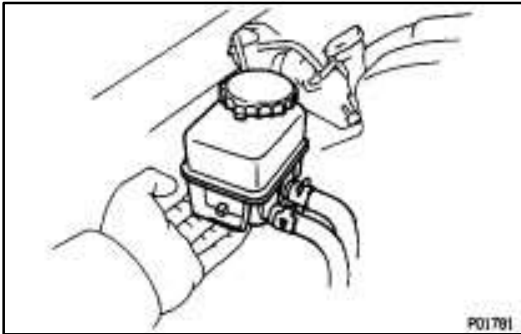
Remove the three bolts and control rod.

12. DISCONNECT CONNECTOR FROM GROUND WIRE ON RH FENDER APRON



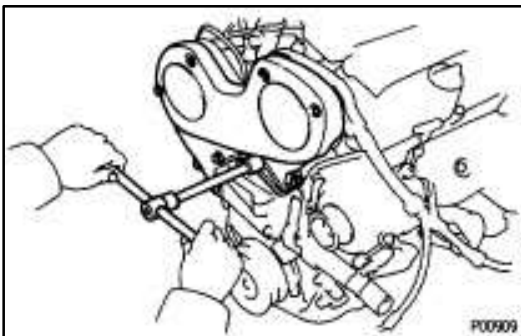
13. REMOVE RH ENGINE MOUNTING STAY AND NO.2 RH ENGINE MOUNTING BRACKET

Remove the bolt, nut, mounting stay and mounting bracket.



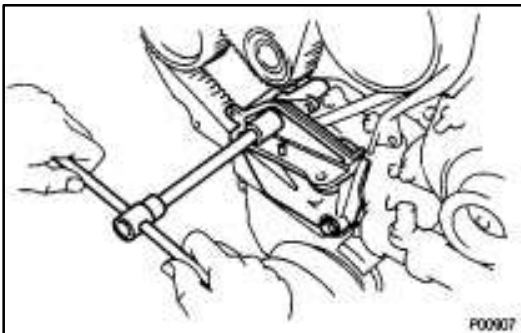
14. REMOVE PS OIL RESERVOIR TANK WITHOUT DISCONNECTING HOSES

15. REMOVE SPARK PLUGS



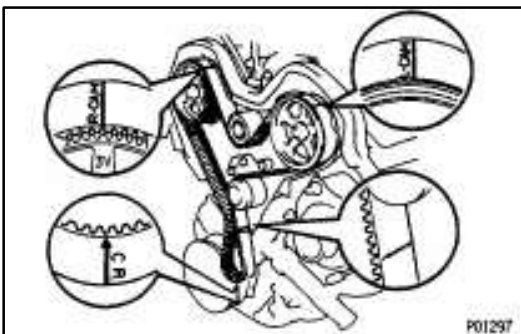
16. REMOVE NO.2 TIMING BELT COVER

Remove the eight bolts, timing belt cover and gasket.



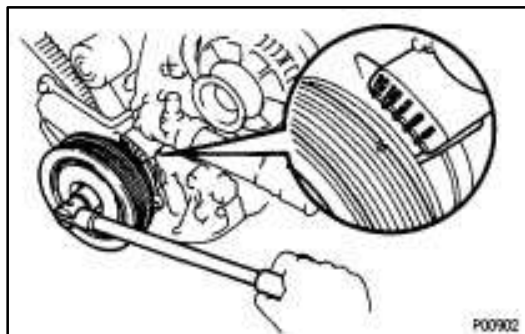
17. REMOVE ENGINE RH MOUNTING BRACKET

Remove the three bolts and mounting bracket.



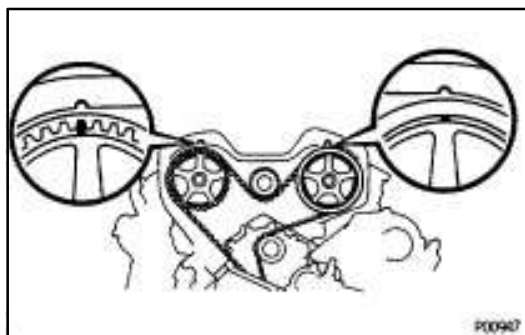
18. IF RE-USING TIMING BELT, CHECK INSTALLATION MARKS ON TIMING BELT

Check that there are four installation marks on the timing belt by turning the crankshaft pulley as shown in the illustration. If the installation marks have disappeared, place a new installation mark on the timing belt before removing each part.

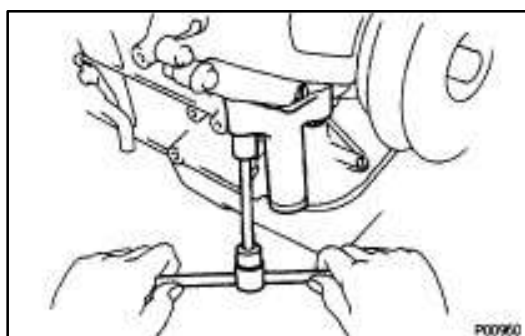


19. SET NO.1 CYLINDER TO TDC/COMPRESSION

- (a) Turn the crankshaft pulley and align its groove with the timing mark "O" of the No.1 timing belt cover.

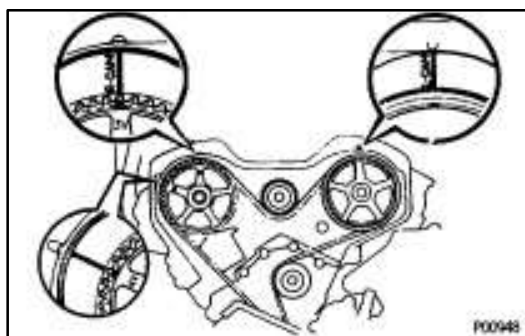


- (b) Check that timing marks of the camshaft timing pulleys and No.3 timing belt cover are aligned.
If not, turn the crankshaft one revolution (360°).



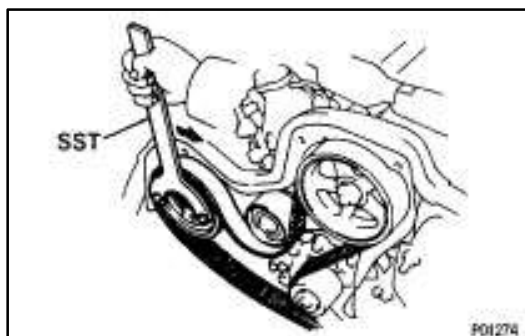
20. REMOVE TIMING BELT TENSIONER

Remove the two bolts, tensioner and dust boot.

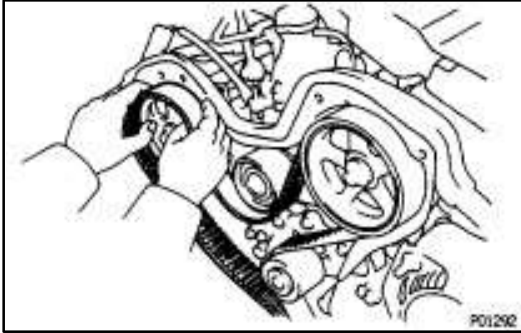


21. REMOVE TIMING BELT FROM CAMSHAFT TIMING PULLEY

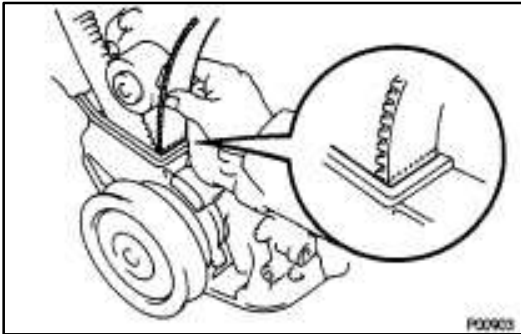
HINT (Re-using timing belt): If the installation marks have disappeared, before removing the timing belt, place new installation marks on the timing belt to match the timing marks of the camshaft timing pulleys.



- (a) Using SST, loosen the tension between the LH and RH camshaft timing pulleys by slightly turning the RH camshaft timing pulley clockwise.
SST 09278-54012



- (b) Remove the timing belt from the camshaft timing pulleys.



HINT (Re-using timing belt): If the installation marks have disappeared, after removing the timing belt from the camshaft timing pulleys, place new installation mark on the timing belt to match the end of the No.1 timing belt cover.

22. REMOVE CAMSHAFT TIMING PULLEYS

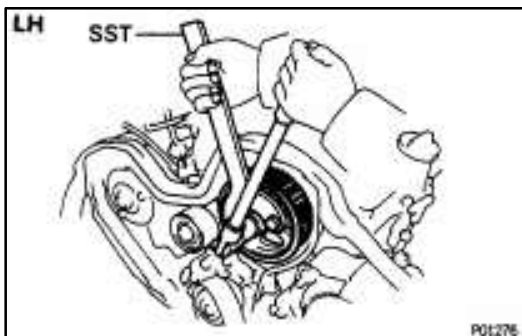
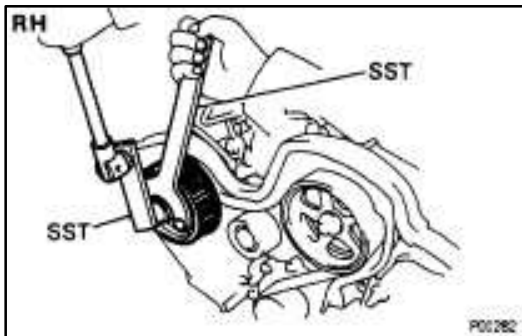
Using SST, remove the bolt, timing pulley and knock pin.

Remove the two timing pulleys.

SST RH 09249-63010 and 09278-54012

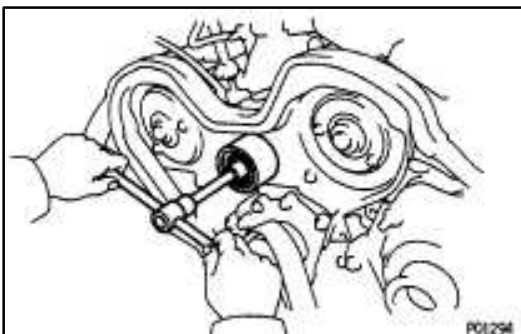
LH 09278-54012

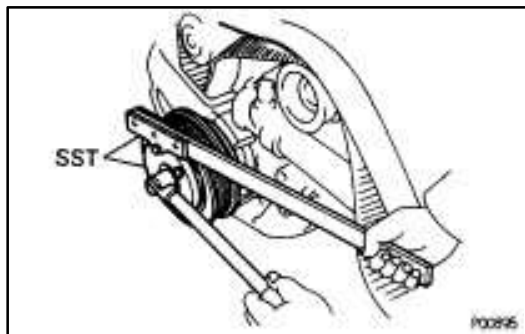
HINT: Arrange the RH and LH pulleys.



23. REMOVE NO.2 IDLER PULLEY

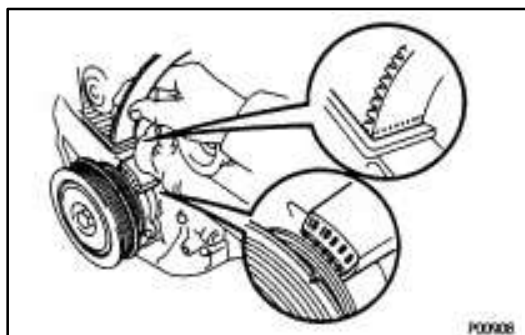
Remove the bolt and idler pulley.



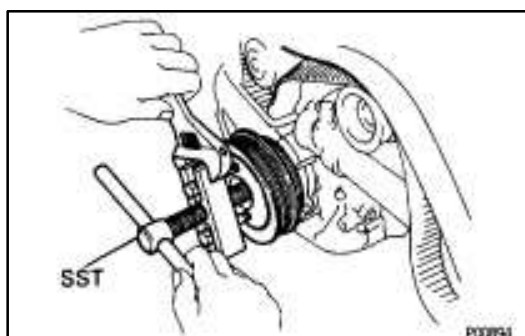


24. REMOVE CRANKSHAFT PULLEY

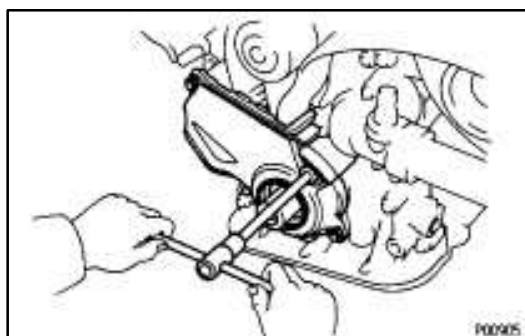
- (a) Using SST, remove the pulley bolt.
 SST 09213-54015, 09213-70010 (90105-08076)
 09330-00021



HINT (Re-using timing belt): When the crankshaft pulley bolt is loosened, the position of the timing mark of the crankshaft pulley and also the installation mark may slip, so check and align them again.

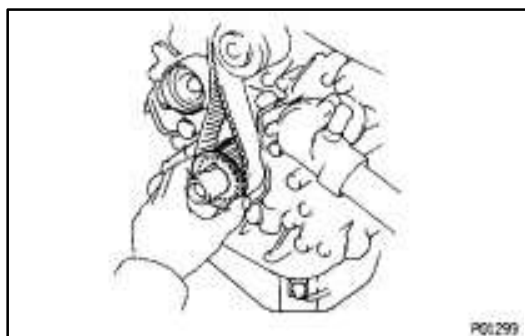


- (b) Using SST, remove the pulley.
 SST 09213-60017



25. REMOVE NO.1 TIMING BELT COVER

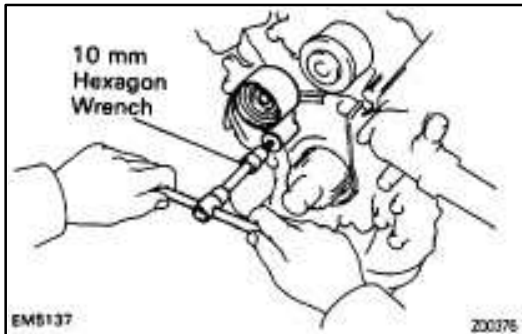
Remove the four bolts, timing belt cover and gasket.



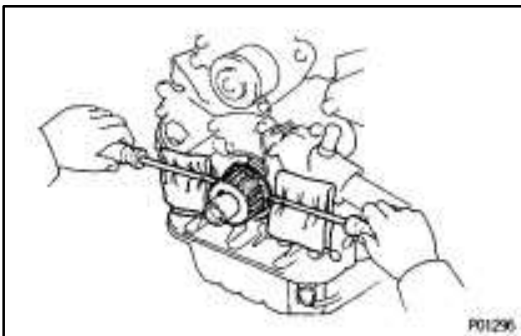
26. REMOVE TIMING BELT GUIDE

**27. REMOVE TIMING BELT**

HINT (Re-using timing belt): If the installation marks have disappeared, place a new installation mark on the timing belt to match the drilled mark of the crankshaft timing pulley.

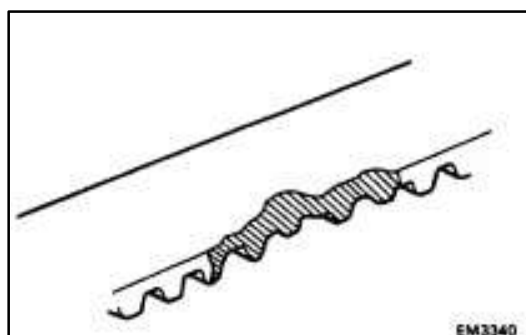
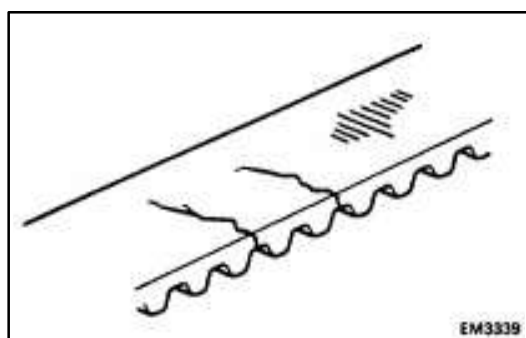
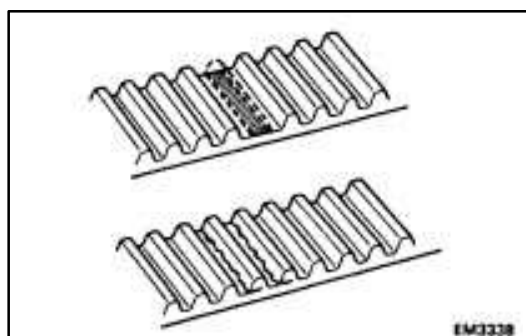
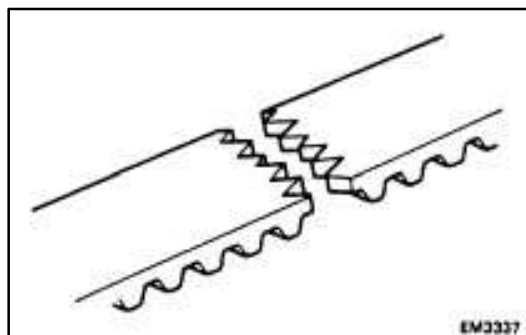
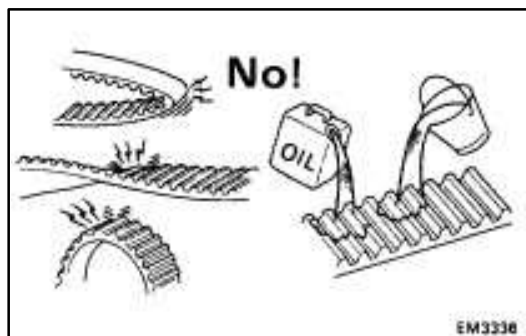
**28. REMOVE NO.1 IDLER PULLEY**

Using a 10 mm hexagon wrench, remove the bolt, idler pulley and plate washer.

**29. REMOVE CRANKSHAFT TIMING PULLEY**

If the pulley cannot be removed by hand, use two screw-drivers.

HINT: Position shop rags as shown to prevent damage.



TIMING BELT INSPECTION

EG0F1-01

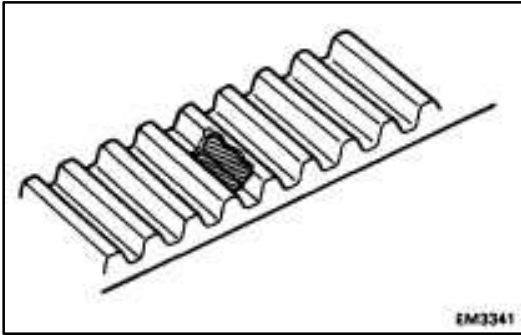
1. INSPECT TIMING BELT

NOTICE:

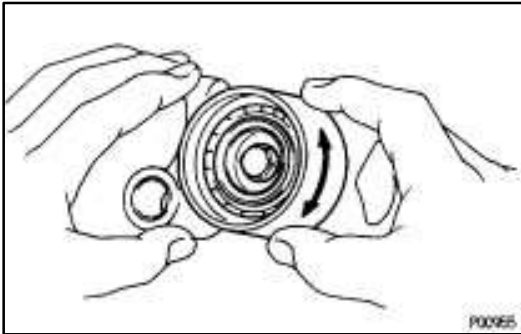
- Do not bend, twist or turn the timing belt inside out.
- Do not allow the timing belt to come into contact with oil, water or steam.
- Do not utilize timing belt tension when installing or removing the mount bolt of the camshaft timing pulley.

If there are any defects as shown in the figures, check the following points:

- Premature parting
 - Check for proper installation.
 - Check the timing cover gasket for damage and proper installation.
- If the belt teeth are cracked or damaged, check to see if either camshaft is locked.
- If there is noticeable wear or cracks on the belt face, check to see if there are nicks on the side of the idler pulley lock and water pump.
- If there is wear or damage on only one side of the belt, check the belt guide and the alignment of each pulley.

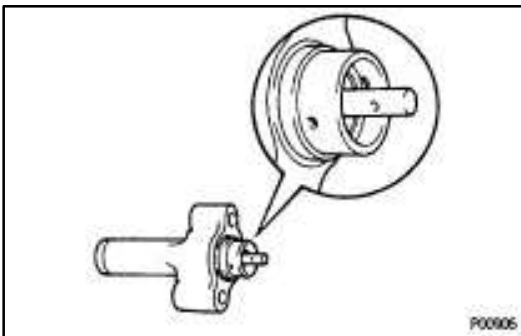


- (e) If there is noticeable wear on the belt teeth, check timing cover for damage and check to correct gasket installation and for foreign material on the pulley teeth. If necessary, replace the timing belt.



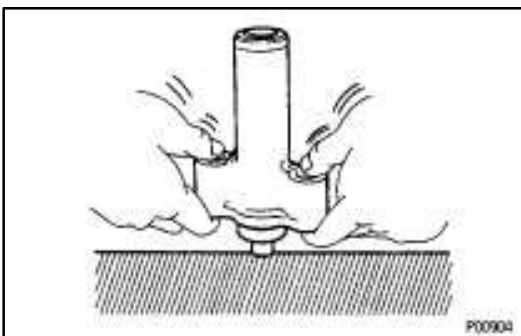
2. INSPECT IDLER PULLEYS

Check that the idler pulley turns smoothly. If necessary, replace the idler pulley.

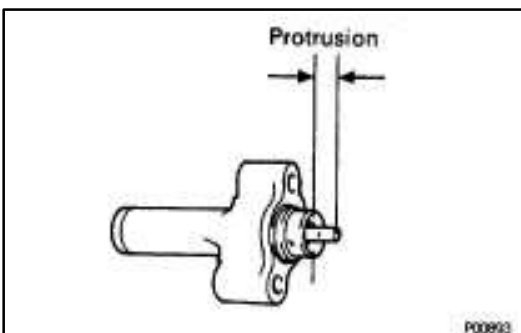


3. INSPECT TIMING BELT TENSIONER

- (a) Visually check tensioner for oil leakage. HINT: If there is only the faintest trace of oil on the seal on the push rod side, the tensioner is all right. If leakage is found, replace the tensioner.



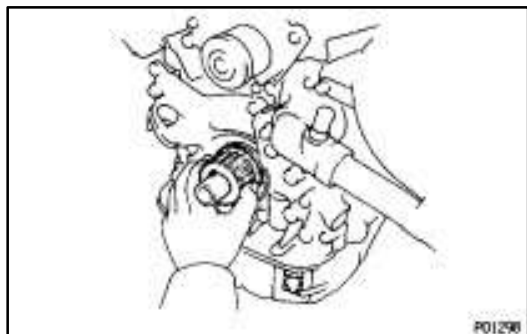
- (b) Hold the tensioner with both hands and push the push rod strongly against the floor or wall to check that it doesn't move. If the push rod moves, replace the tensioner.



- (c) Measure the protrusion of the push rod from the housing end. **Protrusion:**

10.0–10.5 mm (0.94–0.413 in.)

If the protrusion is not as specified, replace the tensioner.



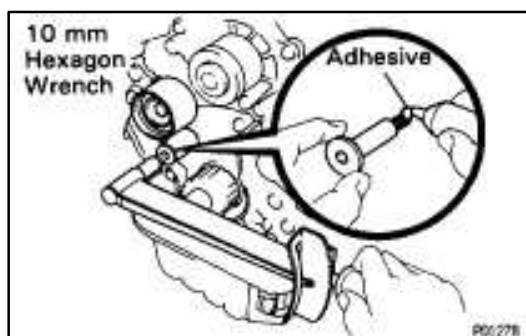
TIMING BELT INSTALLATION

EG0F2-01

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

1. INSTALL CRANKSHAFT TIMING PULLEY

- (a) Align the pulley set key with the key groove of the timing pulley.
- (b) Slide on the timing pulley, facing the flange side inward.



2. INSTALL NO.1 IDLER PULLEY

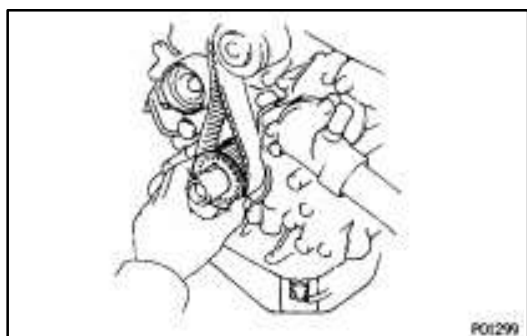
- (a) Apply adhesive to two or three threads of the mount bolt end.
Adhesive:
 Part No.08833-00080, THREE BOND 1344, LOCTITE 242 or equivalent
- (b) Using a 10 mm hexagon wrench, install the idler pulley with the plate washer and bolt. Torque the bolt.
Torque: 34 N·m (350 kgf·cm, 25 ft·lbf)
- (c) Check that the pulley bracket moves smoothly.



3. TEMPORARILY INSTALL TIMING BELT

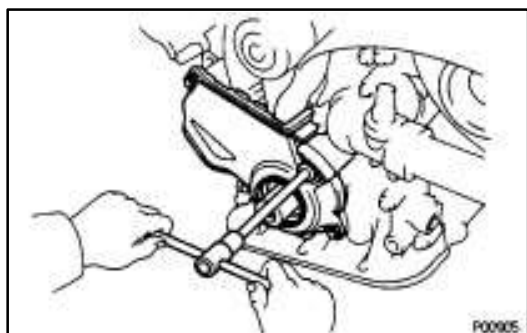
NOTICE: The engine should be cold.

- (a) Remove any oil or water on the crankshaft timing, No. 1 idler and water pump pulleys, and keep them clean.
- (b) Align the installation mark on the timing belt with the drilled mark of the crankshaft timing pulley.
- (c) Install the timing belt on the crankshaft timing, No.1 idler and water pump pulleys.



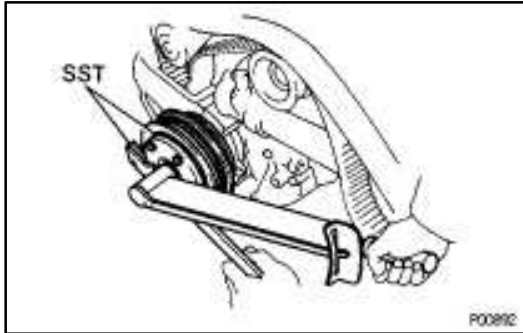
4. INSTALL TIMING BELT GUIDE

Install the belt guide, facing the cup side outward.



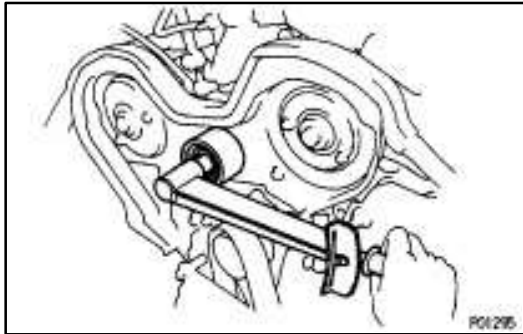
5. INSTALL NO.1 TIMING BELT COVER

- (a) Install the gasket to the timing belt cover.
- (b) Install the timing belt cover with the four bolts.



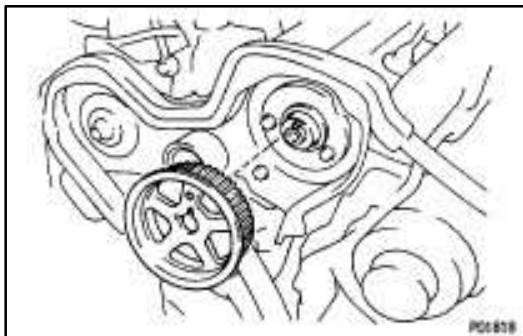
6. INSTALL CRANKSHAFT PULLEY

- (a) Align the pulley set key with the key groove of the pulley, and slide the pulley.
- (b) Using SST, install and torque the bolt.
SST 09213-54015, 09213-70010 (90105-08076)
09330-00021
Torque: 245 N·m (2,500 kgf·cm, 181 ft·lbf)



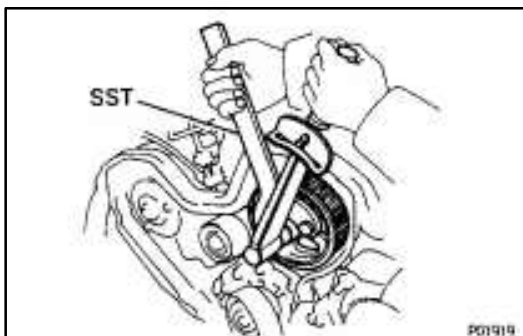
7. INSTALL NO.2 IDLER PULLEY

- (a) Install the idler pulley with the bolt. Torque the bolt.
Torque: 39 N·m (400 kgf·cm, 29 ft·lbf)
- (b) Check that the idler pulley moves smoothly.

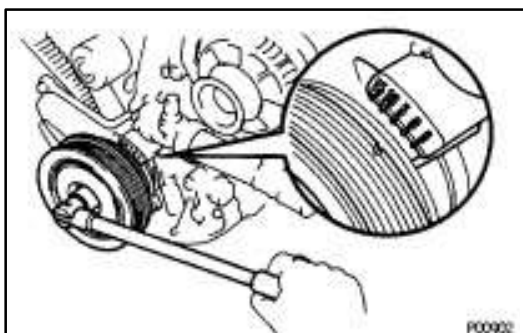


8. INSTALL LH CAMSHAFT TIMING PULLEY

- (a) Slide the timing pulley, facing the flange side outward.
- (b) Align the knock pin hole of the camshaft with the knock pin groove of the timing pulley as shown.
- (c) Install the knock pin.

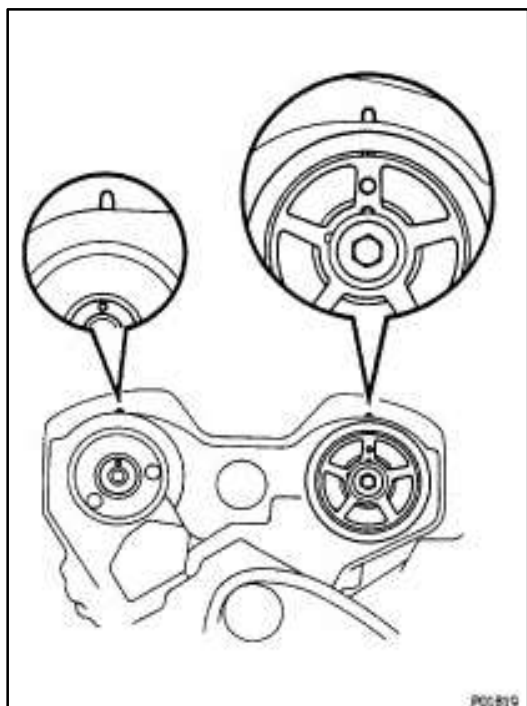


- (d) Using SST, install and torque the bolt.
SST 09278-54012
Torque: 108 N·m (1,100 kgf·cm, 80 ft·lbf)

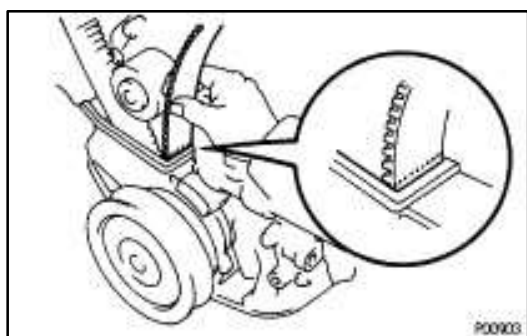


9. SET NO.1 CYLINDER TO TDC/COMPRESSION

- (a) (Crankshaft Position)
Turn the crankshaft pulley, and align its groove with the "O" timing mark of the No.1 timing belt cover.

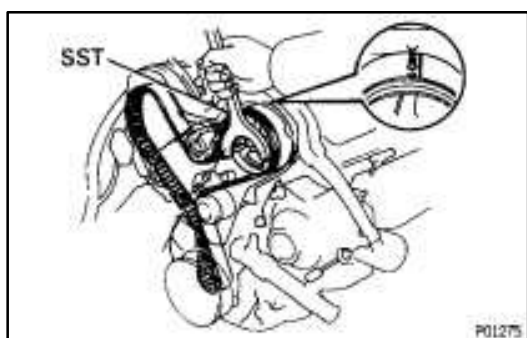


- (b) (RH Camshaft Pulley Position)
Turn the camshaft, align the knock pin hole of the camshaft with the timing mark of the No.3 timing belt cover.
- (c) (LH Camshaft Pulley Position)
Turn the camshaft timing pulley, align the timing marks of the camshaft timing pulley and No.3 timing belt cover.

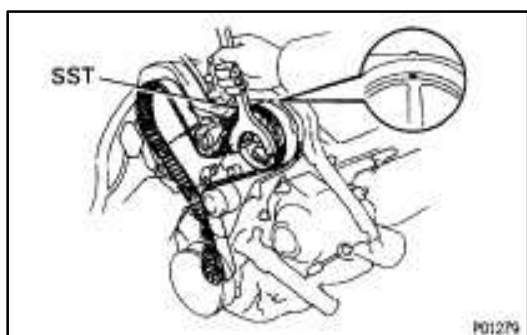


10. INSTALL TIMING BELT TO LH CAMSHAFT TIMING PULLEY

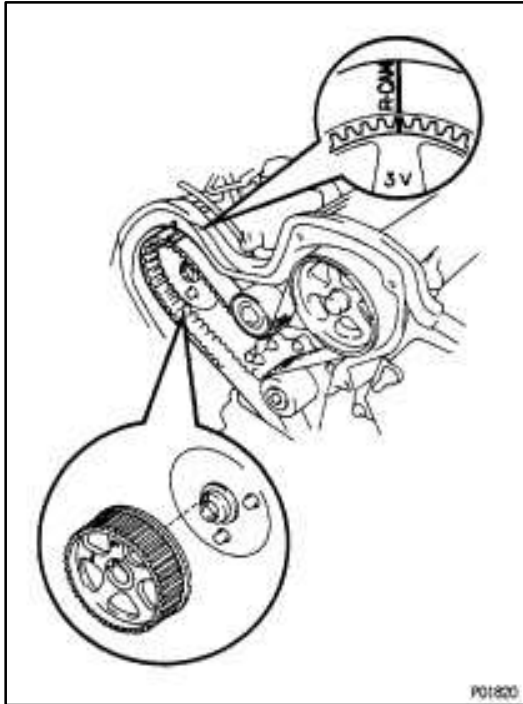
- (a) Check that the installation mark on the timing belt matches the end of the No.1 timing belt cover.
If the installation marks do not align, shift the meshing of the timing belt and crankshaft timing pulley until they align.



- (b) Remove any oil or water on the LH camshaft timing pulley, and keep it clean.
- (c) Using SST, slightly turn the LH camshaft timing pulley clockwise. Align the installation mark on the timing belt with the timing mark of the camshaft timing pulley, and hang the timing belt on the LH camshaft timing pulley.
SST 09278-54012

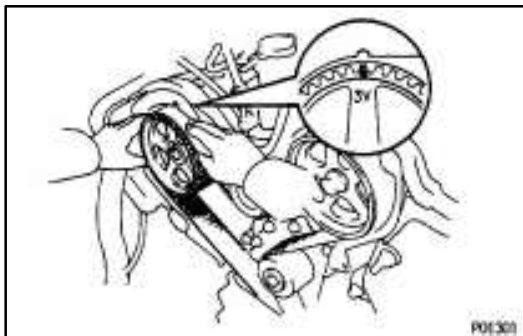


- (d) Using SST, align the timing marks of the LH camshaft pulley and No.3 timing belt cover.
SST 09278-54012
- (e) Check that the timing belt has tension between the crankshaft timing and LH camshaft timing pulleys.

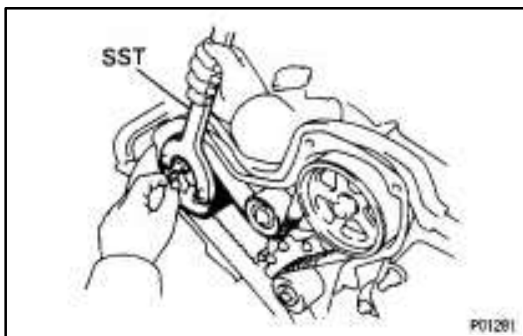


11. INSTALL RH CAMSHAFT TIMING PULLEY AND TIMING BELT

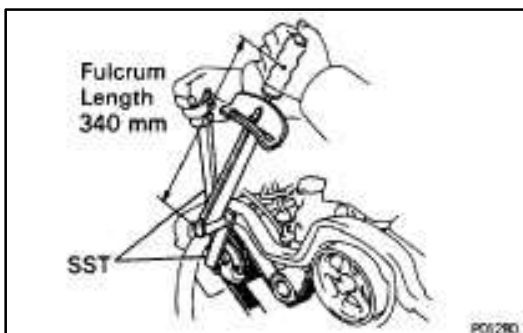
- (a) Remove any oil or water on the RH camshaft timing and No.2 idler pulleys, and keep them clean.
- (b) Align the installation mark on the timing belt with the timing mark of the RH camshaft timing pulley as shown.
- (c) Hang the timing belt on the RH camshaft timing pulley, facing the flange side inward.



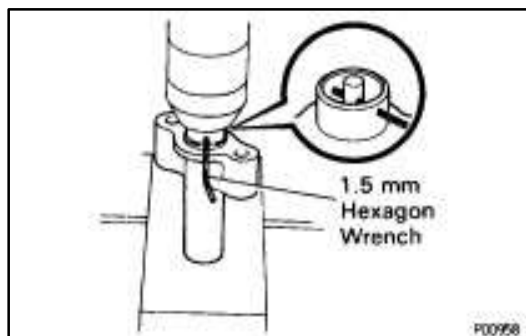
- (d) Align the timing marks of the RH camshaft timing pulley and No.3 timing belt cover.
- (e) Slide the RH camshaft timing pulley on the camshaft.



- (f) Using SST, align the knock pin hole of the camshaft with the knock pin groove (3V mark side) of the pulley and install the knock pin.
SST 09278-54012

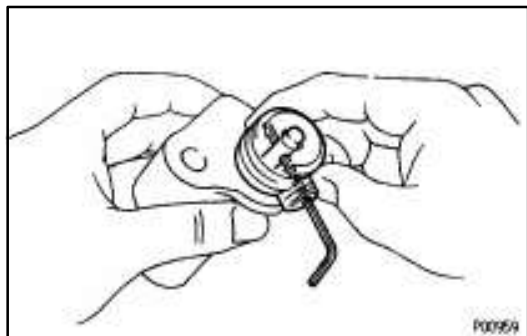


- (g) Using SST, install and torque the bolt.
SST 09249-63010 and 09278-54012
Torque: 75 N·m (760 kgf·cm, 55 ft·lbf)
HINT: Use a torque wrench with a fulcrum length of 340 mm (13.39 in.)

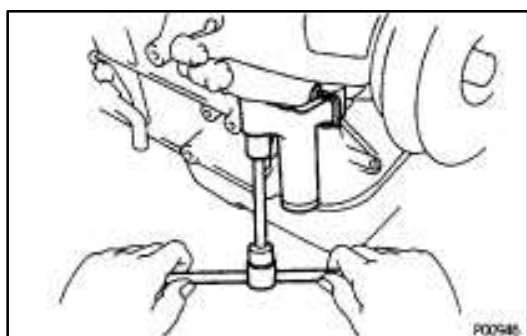


12. SET TIMING BELT TENSIONER

- Using a press, slowly press in the push rod using 981–9,807 N (100–1,000 kgf, 200–2,205 lbf) of pressure.
- Align the holes of the push rod and housing, pass a 1.5 mm hexagon wrench through the holes to keep the setting position of the push rod.
- Release the press.

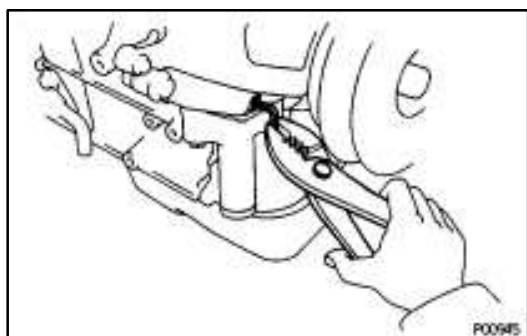


- Install the dust boot to the tensioner.

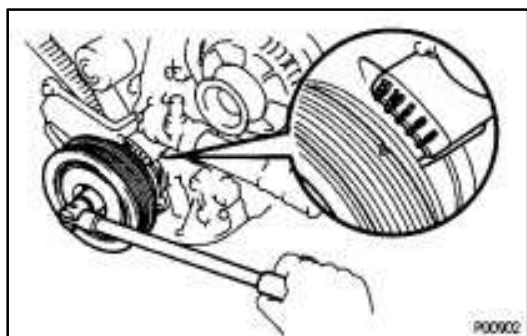


13. INSTALL TIMING BELT TENSIONER

- Install the tensioner with the two bolts.
Torque: 26 N·m (270 kgf·cm, 20 ft·lbf)

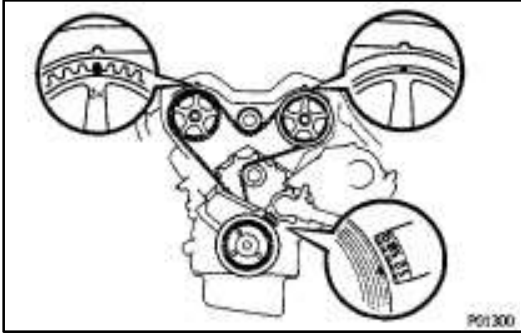


- Remove the 1.5 mm hexagon wrench from the tensioner.

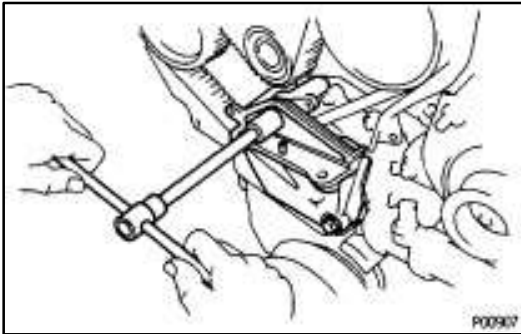


14. CHECK VALVE TIMING

- Turn the crankshaft pulley two revolutions from TDC to TDC.
HINT: Always turn the crankshaft clockwise.

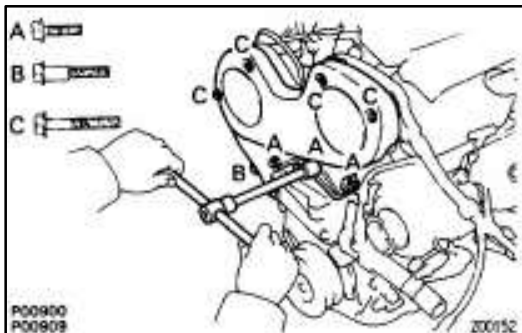


- (b) Check that each pulley aligns with the timing marks as shown in the illustration.
If the marks do not align, remove the timing belt and reinstall it.



15. INSTALL ENGINE RH MOUNTING BRACKET

Install the mounting bracket with the three bolt.
Torque: 39 N·m (410 kgf·cm, 30 ft·lbf)



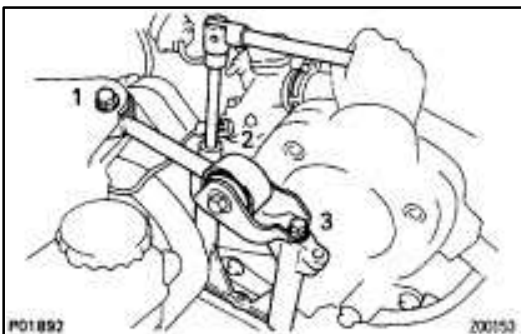
16. INSTALL NO.2 TIMING BELT COVER

- (a) Install the gasket to the timing belt cover.
(b) Install the timing belt cover with the eight bolts.
HINT: Use the bolts indicated by A, B and C.

17. INSTALL SPARK PLUGS

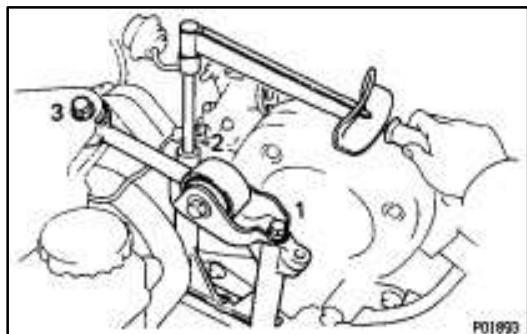
Torque: 18 N·m (180 kgf·cm, 13 ft·lbf)

18. INSTALL PS OIL RESERVOIR TANK

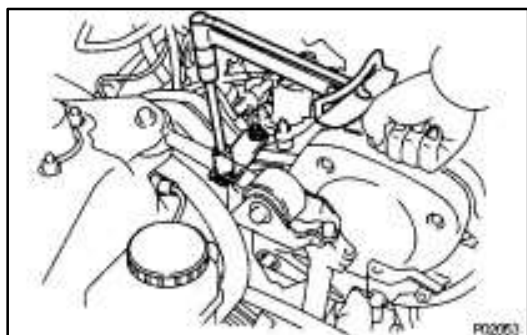


19. INSTALL NO.2 RH ENGINE MOUNTING BRACKET AND ENGINE MOVING CONTROL ROD

- (a) Temporarily install the No.2 RH engine mounting bracket and engine moving control rod with the three bolts in the sequence shown.

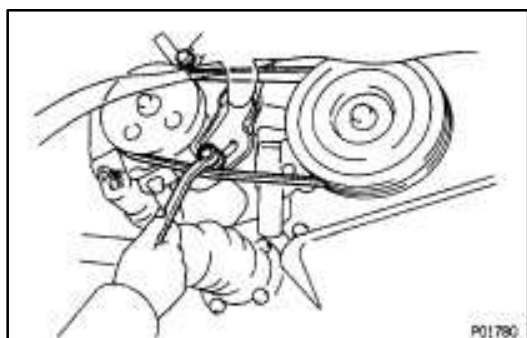


- (b) Torque the three bolts in the sequence shown.
Torque: 64 N·m (650 kgf·cm, 47 ft·lbf)

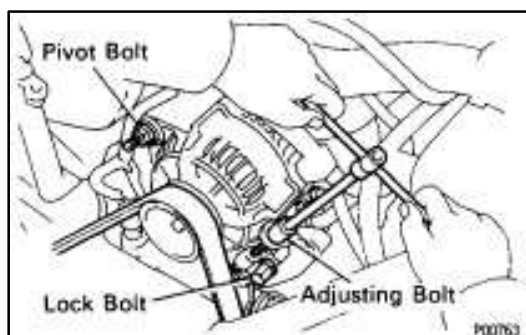


- 20. INSTALL RH ENGINE MOUNTING STAY**
Install the mounting stay with the bolt and nut.
Torque: 31 N·m (320 kgf·cm, 23 ft·lbf)

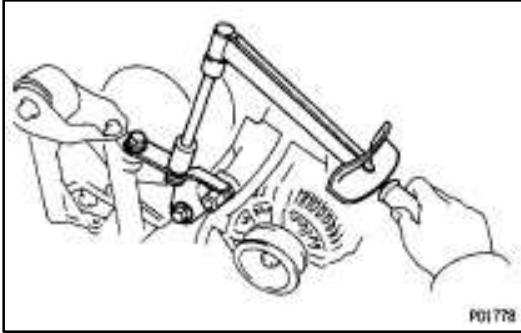
- 21. CONNECT CONNECTOR TO GROUND WIRE ON RH FENDER APRON**
22. INSTALL RH FENDER APRON SEAL
23. INSTALL RH FRONT WHEEL



- 24. INSTALL AND ADJUST PS DRIVE BELT**
Install the drive belt with the pivot and adjusting bolts.
Drive belt tension:
New belt
150–185 lb
Used belt
115±20 lb



- 25. INSTALL GENERATOR DRIVE BELT**
Adjust the drive belt. (See CH section)
Drive belt tension:
New belt
175±5 lb
Used belt
115±20 lb



26. INSTALL NO.2 AND NO.3 RH ENGINE MOUNTING STAYS

- (a) Install the No.2 RH engine mounting stay with the bolt and nut.

Bolt

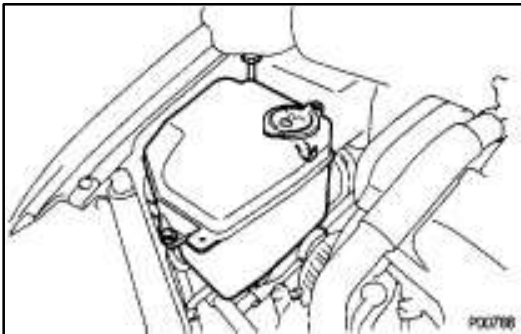
Torque: 75 N·m (760 kgf·cm, 55 ft·lbf)

Nut

Torque: 62 N·m (630 kgf·cm, 46 ft·lbf)

- (b) Install the No.3 RH engine mounting stay with the two bolts.

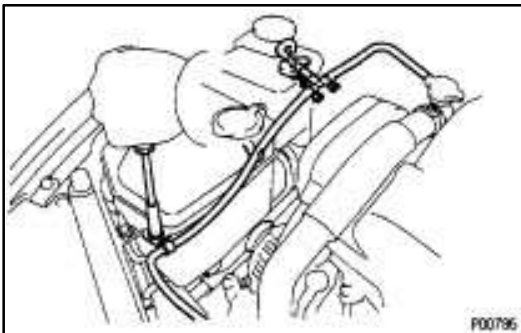
Torque: 73 N·m (740 kgf·cm, 54 ft·lbf)



27. INSTALL ENGINE COOLANT RESERVOIR TANK

28. INSTALL WASHER TANK

- (a) Connect the connector and vinyl hose to the washer tank.
 (b) Install the washer tank with the three bolts.



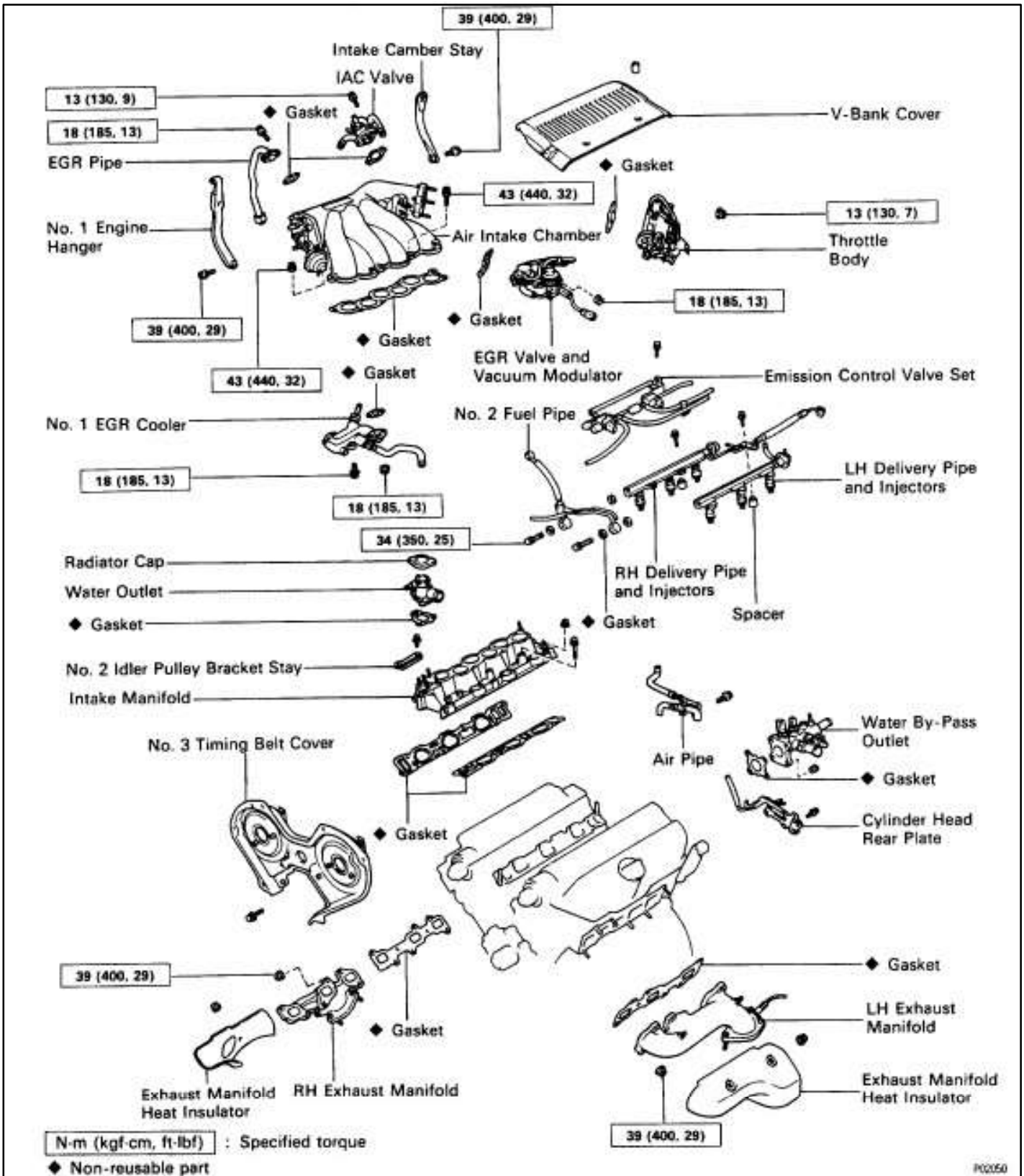
29. INSTALL ENGINE COOLANT RESERVOIR HOSE

Connect the reservoir hose with the bolt.

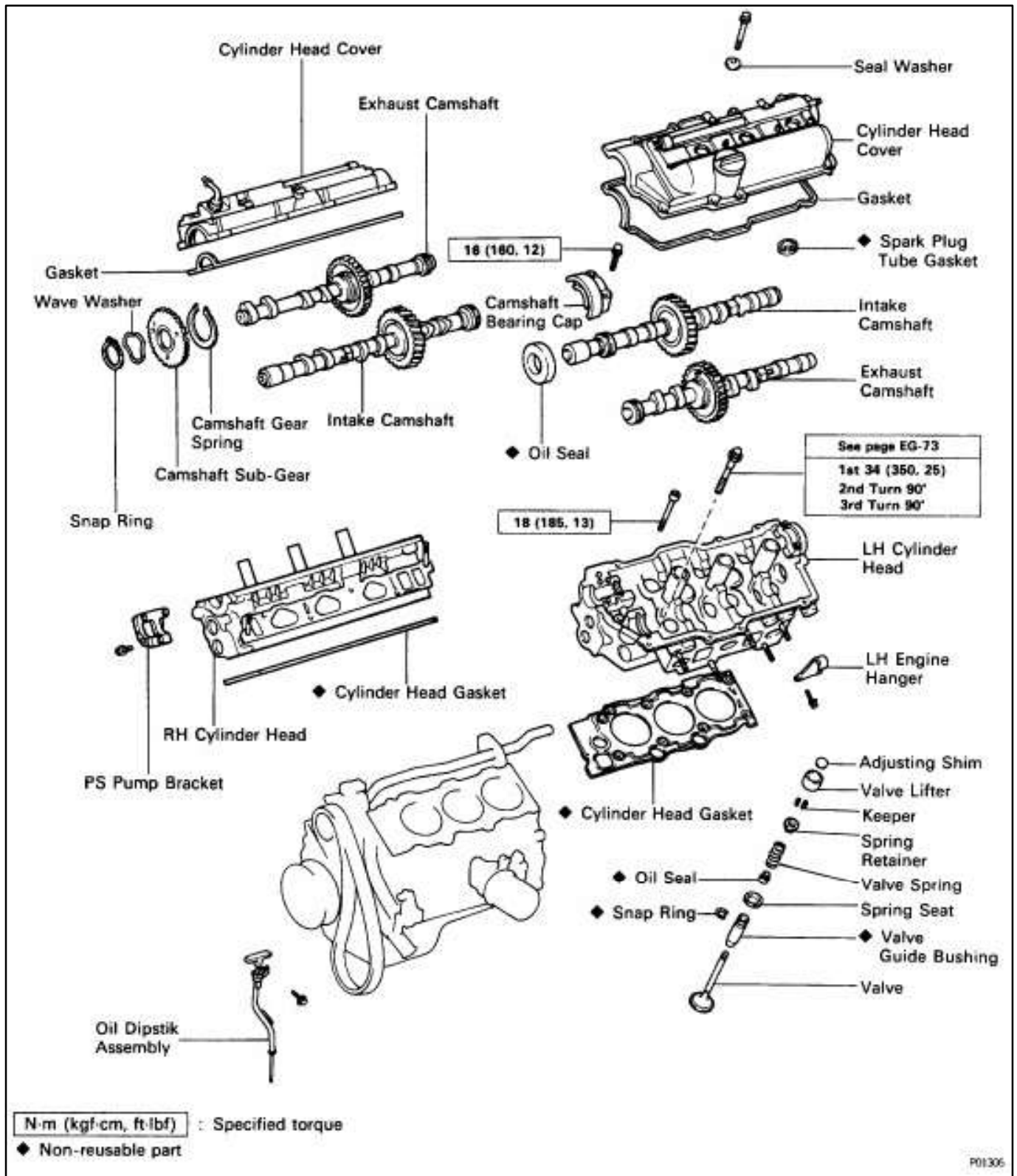
30. CONNECT CABLE TO NEGATIVE TERMINAL OF BATTERY

CYLINDER HEADS COMPONENTS

EG0F3-01



COMPONENTS (Cont'd)



CYLINDER HEADS REMOVAL

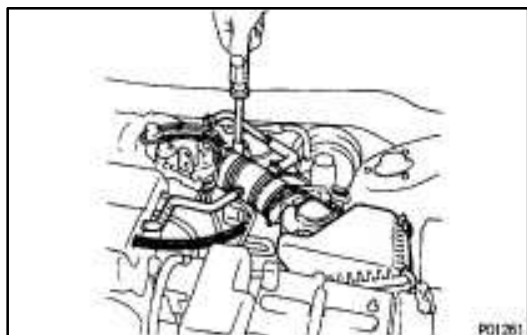
EG0F4-02

(See page [EG-47](#))

1. **DISCONNECT CABLE FROM NEGATIVE TERMINAL OF BATTERY**

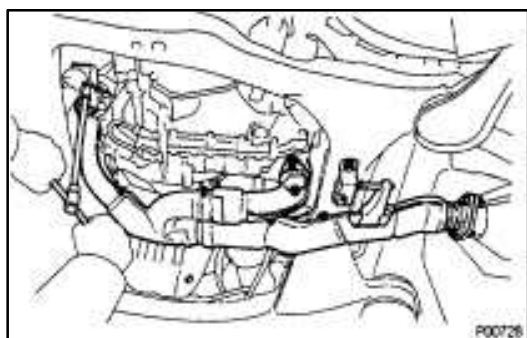
CAUTION (w / Airbag): Work must be started after approx. 30 seconds or longer from the time the ignition switch is turned to the "LOCK" position and the negative (-) terminal cable is disconnected from the battery.

2. **DRAIN ENGINE COOLANT**
3. **DISCONNECT ACCELERATOR CABLE FROM THROTTLE BODY**
4. **(A/T) DISCONNECT THROTTLE CABLE FROM THROTTLE BODY**



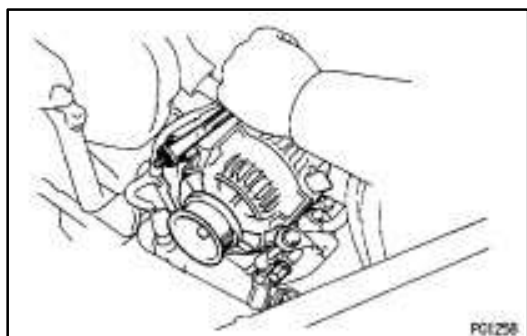
5. **REMOVE AIR CLEANER CAP, VOLUME AIR FLOW METER AND AIR CLEANER HOSE**

- (a) Disconnect the volume air flow meter connector.
- (b) Disconnect the coil cord clamp.
- (c) Disconnect the air hoses.
- (d) Loosen the air cleaner hose clamp bolt.
- (e) Disconnect the air cleaner cap clips.
- (f) Remove the air cleaner cap and volume air flow meter together with the air cleaner hose.

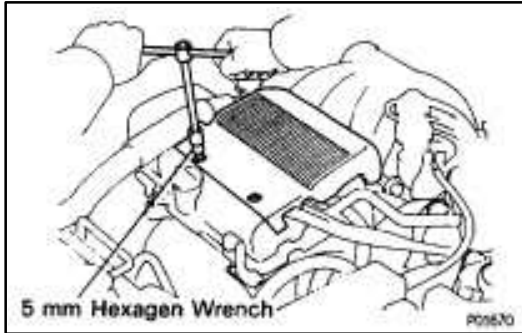


6. **REMOVE FRONT EXHAUST PIPE**

- (a) Loosen the two bolts, and disconnect the bracket.
- (b) Remove the two bolts and nuts holding the front exhaust pipe to the three-way catalytic converter.
- (c) Remove the four nuts holding the front exhaust pipe to the exhaust manifolds.
- (d) Remove the front exhaust pipe and gaskets.

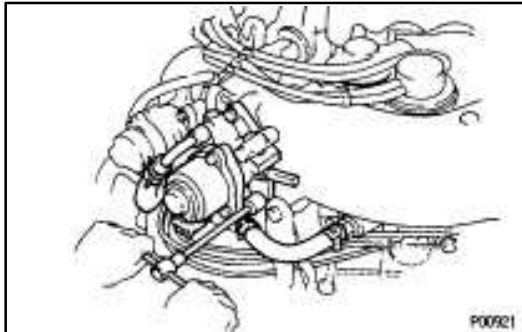


7. **REMOVE GENERATOR (See CH section)**



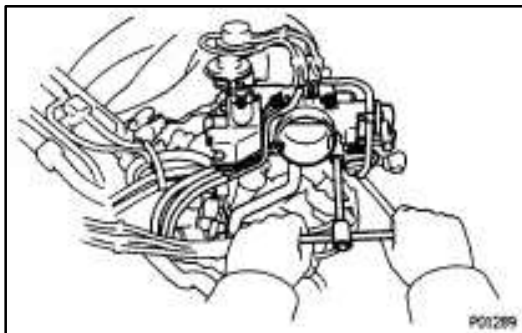
8. REMOVE V-BANK COVER

Using a 5 mm hexagon wrench, remove the two nuts and V-bank cover.



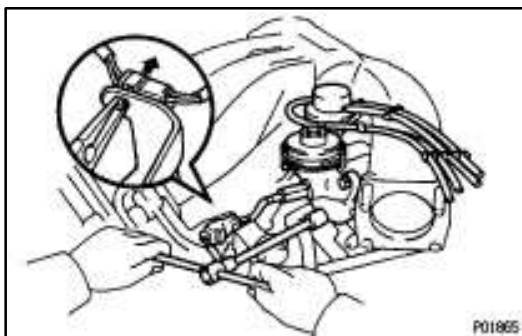
9. REMOVE IAC VALVE

- (a) Disconnect the following hoses:
 - (1) PS idle-up air hose
 - (2) Water by-pass hoses
 - (3) No.5 air hose
- (b) Disconnect the IAC valve connector.
- (c) Remove the two bolts, IAC valve and gasket.



10. REMOVE THROTTLE BODY

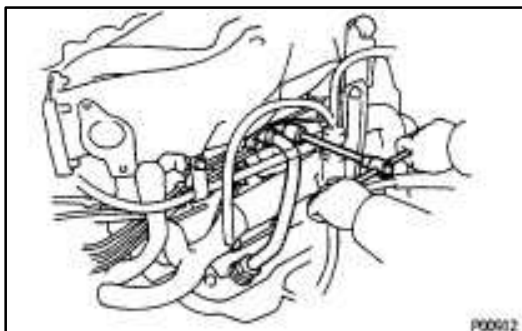
- (a) Disconnect the following hoses:
 - (1) Three TVV vacuum hoses
 - (2) Four EGR vacuum hoses
 - (3) Water by-pass hose
- (b) Disconnect the throttle position sensor connector.
- (c) Remove the two bolts, two nuts, throttle body and gasket.



11. REMOVE EGR VALVE AND VACUUM MODULATOR

- (a) (Calif. only)
Disconnect the EGR gas temp. sensor connector.
- (b) Remove the two nuts, EGR valve, vacuum modulator and gasket.

12. REMOVE DISTRIBUTOR (See IG section)



13. REMOVE EGR PIPE

- (a) Loosen the union nut.
- (b) Remove the two bolts, EGR pipe and gasket.