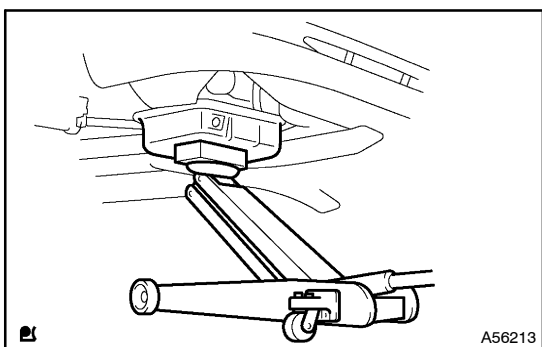


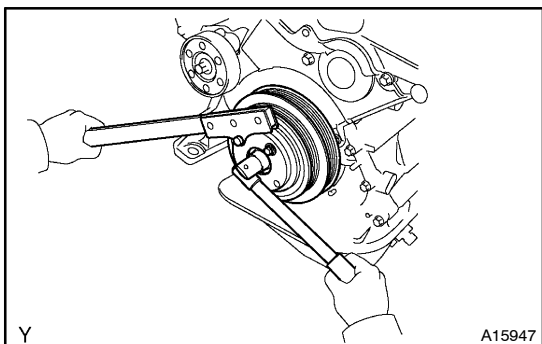
REPLACEMENT

1. REMOVE FRONT WHEEL RH
2. REMOVE ENGINE UNDER COVER RH
3. REMOVE ENGINE COVER SUB-ASSY NO.1
4. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1
(See [page 14-75](#))
5. REMOVE FAN AND GENERATOR V BELT
(See [page 14-5](#))



6. REMOVE ENGINE MOUNTING BRACKET NO.2 RH

- (a) Place a wooden block between the jack and engine, and set the jack, then remove the 2 bolts, nut and mounting bracket.

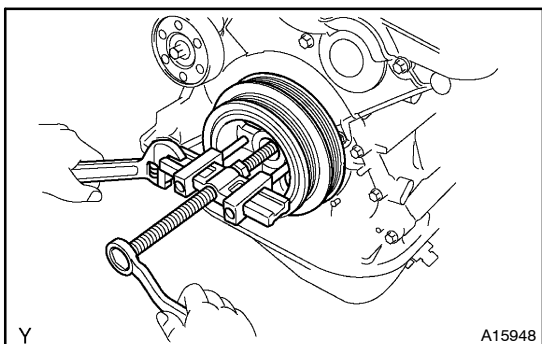


7. REMOVE CRANKSHAFT PULLEY

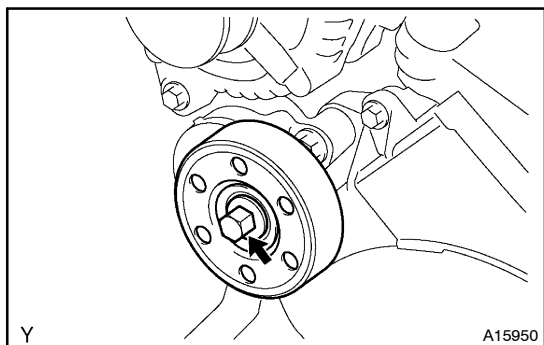
- (a) Using SST, remove the pulley bolt.
SST 09213-54015 (91651-60855), 09330-00021

HINT:

When using bolt (91651-60855), a plate washer (5 mm or 0.20 in.) must be inserted between the bolt and SST.

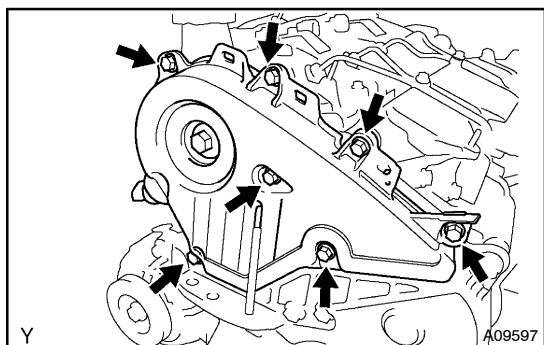


- (b) Using SST, remove the pulley.
SST 09950-50013 (09951-05010, 09952-05010, 09953-05010, 09953-05020, 09954-05021, 09954-05030)



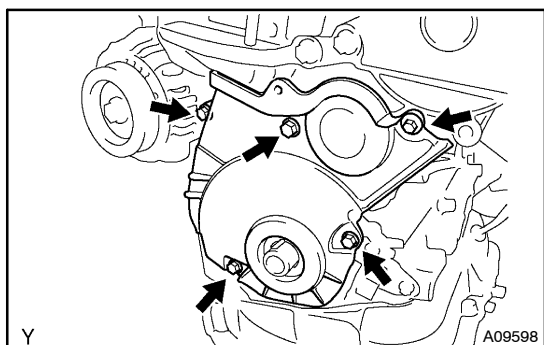
8. REMOVE PULLEY SUB-ASSY, IDLER

- (a) Remove the bolt, washer and pulley.



9. REMOVE TIMING BELT NO.2 COVER

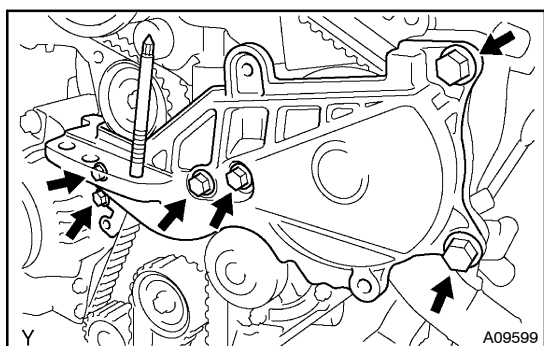
- (a) Remove the 7 bolts, 7 seal washers and timing belt cover.



10. REMOVE TIMING BELT NO.1 COVER

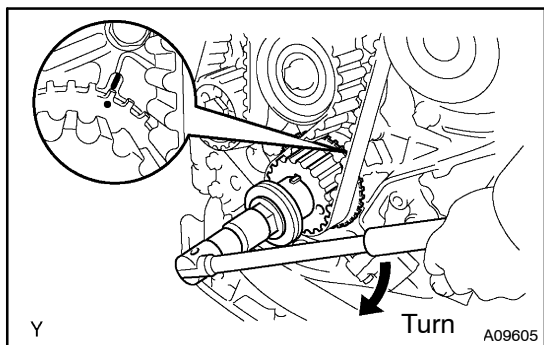
- (a) Remove the 5 bolts, 5 seal washers and timing belt cover.
(b) Remove the oil pump insulator.

11. REMOVE TIMING BELT GUIDE

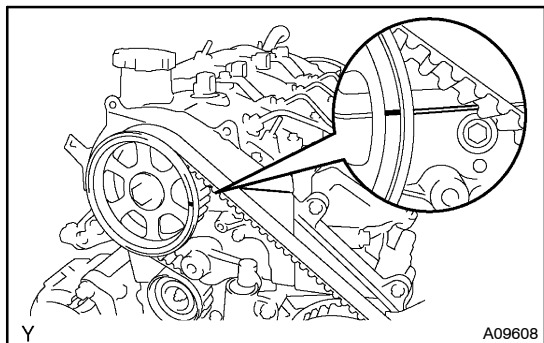


12. REMOVE TRANSVERSE ENGINE ENGINE MOUNTING BRACKET

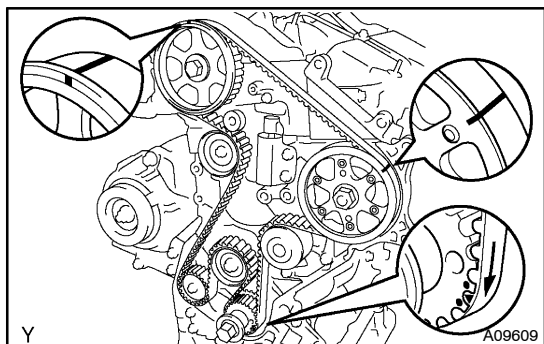
- (a) Remove the 6 bolts and engine mounting bracket.

**13. SET NO.1 CYLINDER TO TDC/COMPRESSION**

- (a) Using the crankshaft pulley bolt, align the dot mark of the crankshaft timing pulley with the TDC mark of the oil pump by turning the crankshaft.

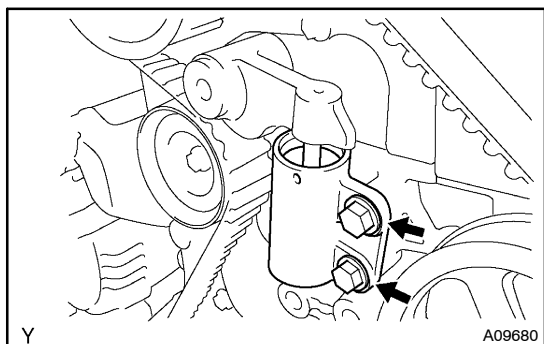


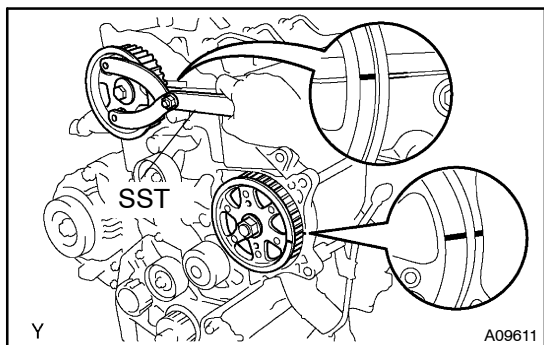
- (b) Check that the timing mark of the camshaft timing pulley is aligned with the top end of the cylinder head. If not, revolve the crankshaft 1 revolution (360°) and align the mark as above.

14. REMOVE TIMING CHAIN COVER PLATE**15. REMOVE TIMING BELT****HINT:**

If re-using the timing belt, draw a direction arrow on the timing belt (in direction of engine revolution), and place matchmarks on the pulleys and timing belt.

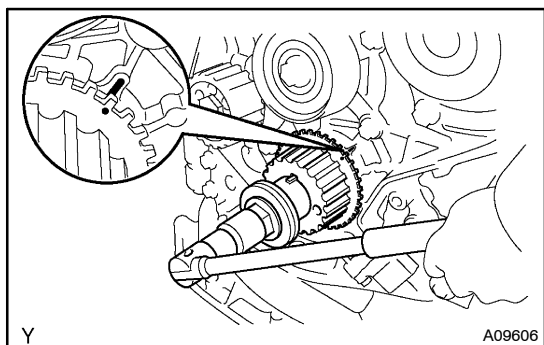
- (a) Remove the bolt and timing belt plate.
- (b) Alternately loosen the 2 bolts, and remove them and the timing belt tensioner.
- (c) Remove the timing belt.



**16. SET NO.1 CYLINDER TO TDC/COMPRESSION**

- (a) Using SST, set the timing and drive pulleys at each position.

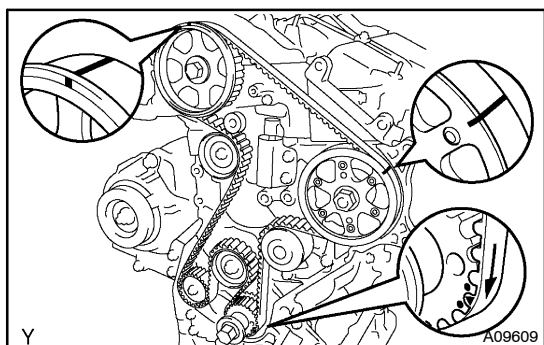
SST 09960-10010 (09962-01000, 09963-01000)



- (b) Using the crankshaft pulley bolt, align the dot mark of the crankshaft timing pulley with the TDC mark of the oil pump pulley by turning the crankshaft.

NOTICE:

When turning the camshaft or crankshaft, the valve heads will hit against the piston top so do not turn them more than necessary.

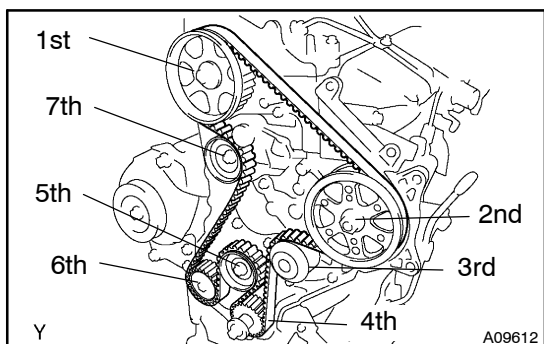
**17. INSTALL TIMING BELT****NOTICE:**

The engine should be cold.

- (a) Remove any oil or water on each pulleys, and keep them clean.

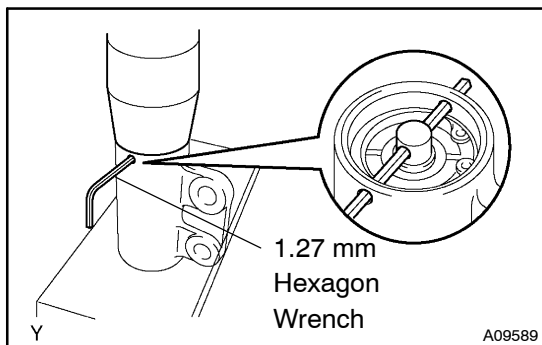
NOTICE:

Only wipe the pulleys; do not use any cleansing agent.

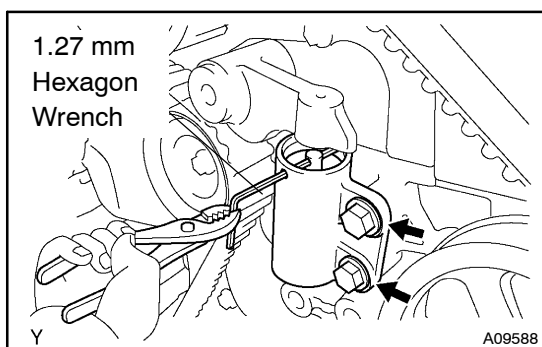
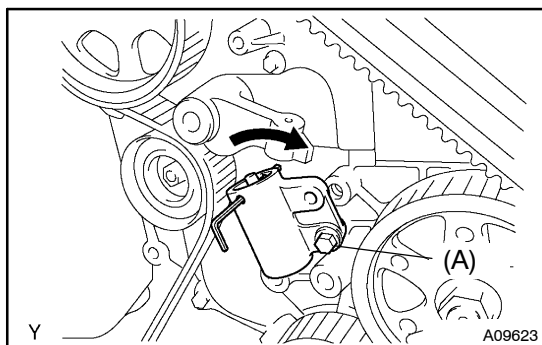


- (b) Install the timing belt in this order:

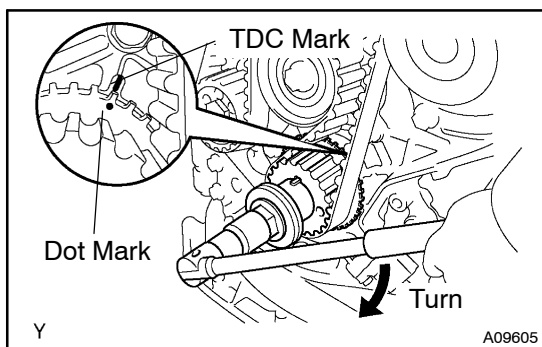
- 1st: Camshaft timing pulley
- 2nd: Supply pump drive pulley
- 3rd: Water pump pulley
- 4th: Crankshaft timing pulley
- 5th: No.2 idler pulley
- 6th: Oil pump pulley
- 7th: No.1 idler pulley



- (c) Install the chain tensioner.
- (1) Using a press, slowly press in the push rod using 981 – 9,807 N (100 – 1,000 kgf, 200 – 2,205 lbf) of pressure.
 - (2) Align the holes of the push rod and housing, pass a 1.27 mm hexagon wrench through the holes to keep the setting position of the push rod.
 - (3) Release the press.
 - (4) Temporarily install the tensioner with the bolt (A).
 - (5) Turn the tensioner clockwise and temporarily install the other bolt.



- (6) Alternately tighten the 2 bolts.
- Torque: 21 N·m (210 kgf·cm, 15 ft·lbf)**
- (7) Remove the 1.27 mm hexagon wrench from the tensioner.

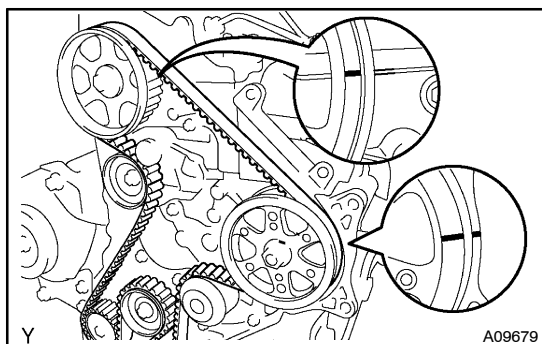


18. CHECK VALVE TIMING

- (a) Slowly turn the crankshaft 2 revolutions from TDC to TDC.

NOTICE:

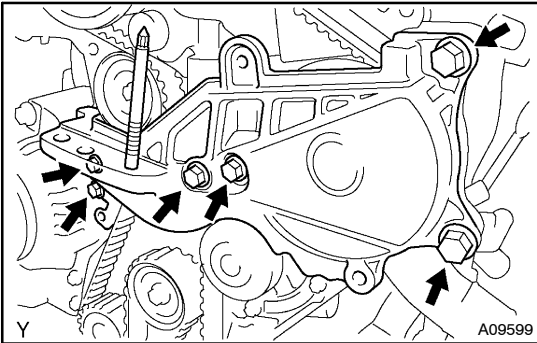
Always turn the crankshaft clockwise.



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

19. INSTALL TIMING CHAIN COVER PLATE

Torque: 9 N·m (92 kgf·cm, 80 in·lbf)



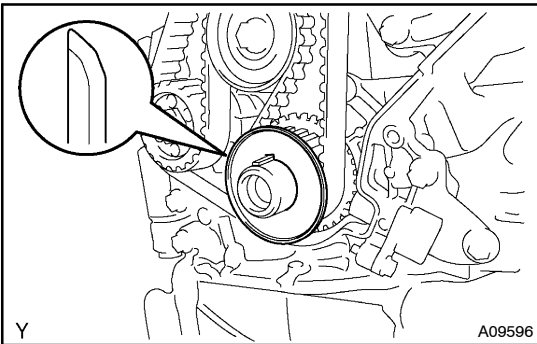
20. INSTALL TRANSVERSE ENGINE MOUNTING BRACKET

- (a) Install the engine mounting bracket with the 6 bolts.

Torque:

37 N·m (375 kgf·cm, 27 ft·lbf) for 14 mm head bolt

64 N·m (650 kgf·cm, 47 ft·lbf) for 17 mm head bolt



21. INSTALL TIMING BELT GUIDE

- (a) Install the belt guide, facing the cap side outward.

22. INSTALL TIMING BELT NO.1 COVER

- (a) Check that the timing belt cover gasket has cracks or peeling, etc.

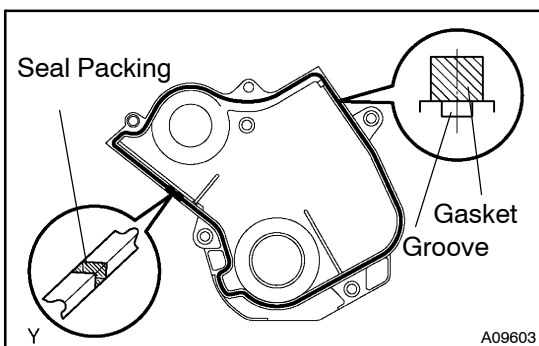
If the gasket has cracks or peeling, etc., replace it by using these steps:

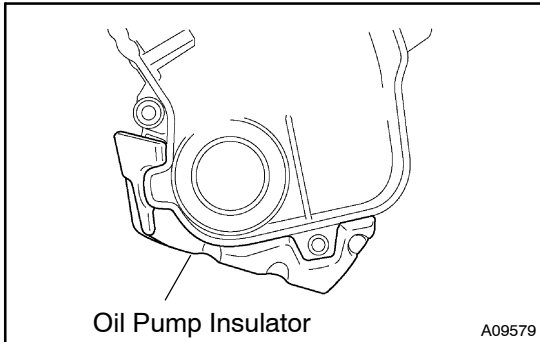
- (1) Using a screwdriver and gasket scraper, remove all the old gasket material.
- (2) Thoroughly clean all components to remove all the loose material.
- (3) Remove the backing paper from a new gasket and install the gasket evenly to the part of the timing belt cover shaded black in the illustration.

NOTICE:

- **Affix the gasket at the center of the groove.**
- **At the corner portion, affix the gasket without making its thickness lessen.**
- (4) After installing the gasket, press down on it so that the adhesive firmly sticks to the timing belt cover.
- (5) In case that there is a clearance between the joint portion of the gasket, apply the same amount of seal packing as the width and height of the gasket.

Seal packing: Part No. 08826-00080 or equivalent





- (b) Install the oil pump insulator to the belt cover.
- (c) Install the No. 1 timing belt cover and gasket with the 5 bolts and 5 seal washers.
- (d) After installing the belt cover, check that there is no peeling off of the gasket.

23. INSTALL TIMING BELT NO.2 COVER

- (a) Check that the timing belt cover gasket have cracks or peeling, etc.

If the gasket has cracks or peeling, etc., replace it using these steps:

- (1) Using a screwdriver and gasket scraper, remove all the old gasket material.
- (2) Thoroughly clean all components to remove all the loose material.
- (3) Remove the backing paper from a new gasket and install the gasket evenly to the part of the timing belt cover shaded black in the illustration.

NOTICE:

- **Affix the gasket at the center of the groove.**
 - **At the corner portion, affix the gasket without making its thickness lessen.**
- (4) After installing the gasket, press down on it so that the adhesive firmly sticks to the timing belt cover.
 - (5) In case that there is a clearance between the joint portion of the gasket, apply the same amount of seal packing as the width and height of the gasket.

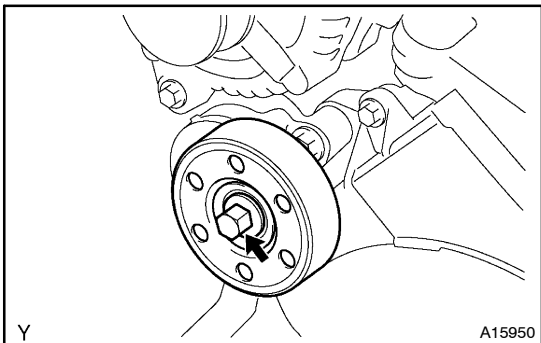
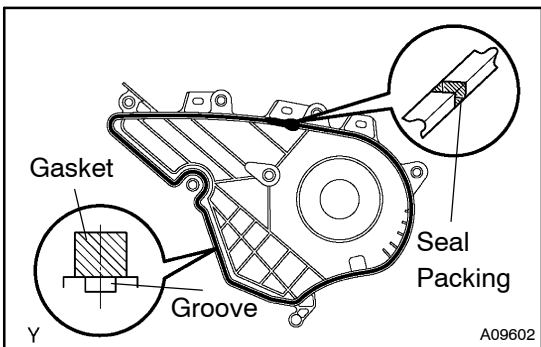
Seal packing: Part No. 08826-00080 or equivalent

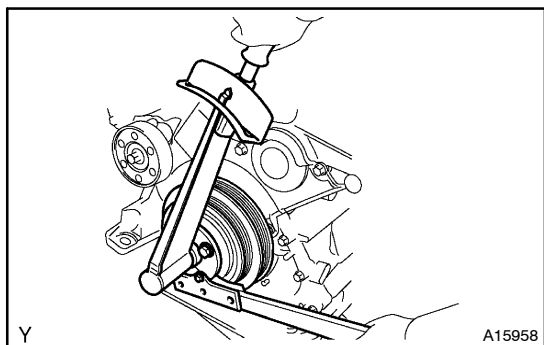
- (b) Install the No.2 timing belt cover and gasket with the 7 bolts and 7 seal washers.

24. INSTALL PULLEY SUB-ASSY, IDLER

- (a) Install the pulley and washer, with the bolt.

Torque: 40 N·m (408 kgf·cm, 30 ft·lbf)



**25. INSTALL CRANKSHAFT PULLEY**

- (a) Align the pulley set key with the key groove of the pulley, and slide the pulley to the crankshaft.
- (b) Using SST, install the pulley bolt.

SST 09213-54015 (91651-60855), 09330-00021

Torque: 180 N·m (1,800 kgf·cm, 130 ft·lbf)

HINT:

When using bolt (91651-60855), a plate washer (5 mm or 0.20 in.) must be inserted between the bolt and SST.

26. INSTALL ENGINE MOUNTING BRACKET NO.2 RH

- (a) Install the 2 bolts, nut and mounting bracket.

Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)

- (b) Remove the jack.

27. ADJUST V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1

(See [page 14-114](#))

28. INSTALL ENGINE COVER SUB-ASSY NO.1

(See [page 11-23](#))

29. INSTALL FRONT WHEEL RH

Torque: 103 N·m (1050 kgf·cm, 76 ft·lbf)