

## INSPECTION

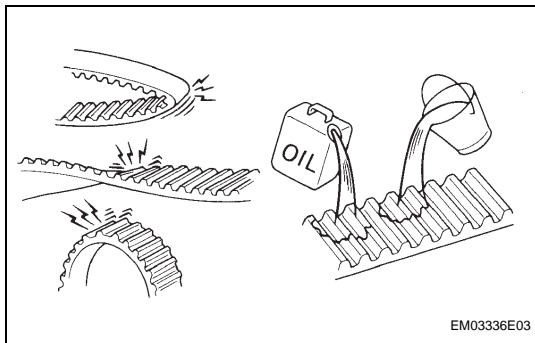
### 1. INSPECT TIMING BELT

#### 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 mounting bolt of the camshaft timing pulley.

Check the belt for any defects as shown in the illustrations.

Also, check these points below.



EM03336E03

- (a) If there is premature parting:
    - Check for proper installation.
    - Check the timing cover gasket for damage and proper installation.
  - (b) If the belt teeth are cracked or damaged, check to see if either camshaft is locked.
  - (c) 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.
  - (d) 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 the timing cover for damage.
    - Check that the gasket has been installed correctly.
    - Check for foreign object on the pulley teeth.
- If there is any doubt the belt condition, replace the timing belt.

## INSTALLATION

### 1. INSTALL TIMING BELT

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

**NOTICE:**

- If there is a trace of water and/or oil on the timing belt, repair the leakage and install a new timing belt.
- Wipe only the pulleys; do not use any cleaning agent.

- (b) Inspect the idler pulleys.

- (1) Check that the idler pulley turns smoothly.
- (2) Visually check the seal portion of the idler pulley for oil leakage.

- (c) Inspect the water pump.

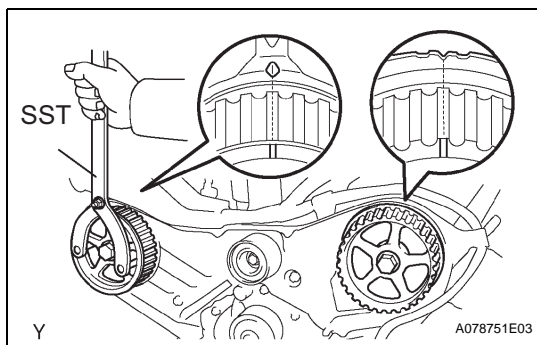
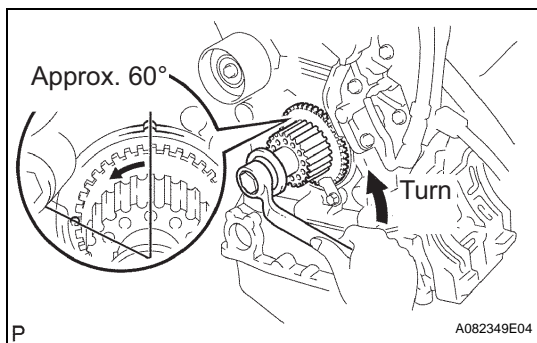
- (1) Turn the pulley, and check that water pump bearing moves smoothly and does not make noise.
- (2) Visually check the drain hole for coolant leakage.

- (d) Temporarily install the crankshaft pulley bolt and washer to the crankshaft.

- (e) Turn the crankshaft counterclockwise by approximately 60°.

**NOTICE:**

To prevent contacting the piston head and the valve head, set the crankshaft pulley at 60° BTDC/compression position.

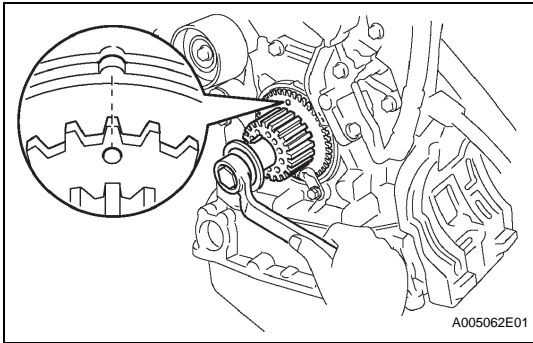


- (f) Using SST, turn the timing pulleys, and align the timing marks of the timing pulleys with the No. 3 timing belt cover.

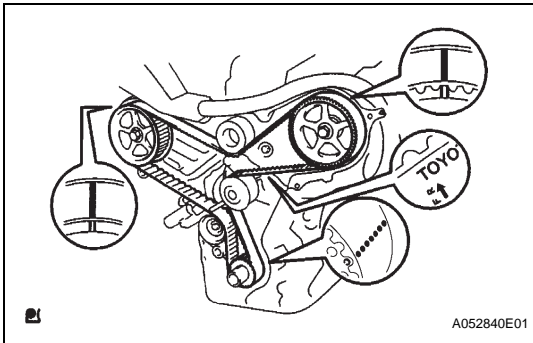
**SST 09960-10010 (09962-01000, 09963-01000)**

**NOTICE:**

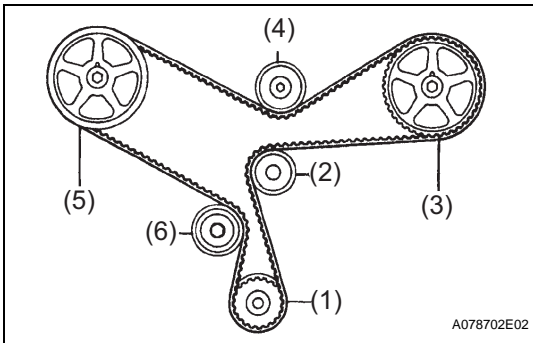
Be sure to hold the SST with the timing marks aligned to prevent the left bank pulley from deviating to the right.



- (g) Turn the crankshaft, and align the timing mark of the crankshaft timing pulley with the oil pump body.



- (h) Face the front mark on the timing belt forward.  
 (i) Align the installation mark on the timing belt with the timing mark of the crankshaft timing pulley.  
 (j) Align the installation marks on the timing belt with the timing marks of the camshaft timing pulleys.



- (k) Install the timing belt in this order.

1st	Crankshaft timing pulley
2nd	Water pump pulley
3rd	LH camshaft timing pulley
4th	No. 2 idler pulley
5th	RH camshaft timing pulley
6th	No. 1 idler pulley

## 2. INSTALL CHAIN TENSIONER ASSEMBLY NO.1

- (a) Set the timing belt tensioner upright on the press.  
 (b) Slowly press in the push rod.

### NOTICE:

**Do not apply pressure more than 9.8 kN (1,000 kgf, 2,205 lbf) to the rod.**

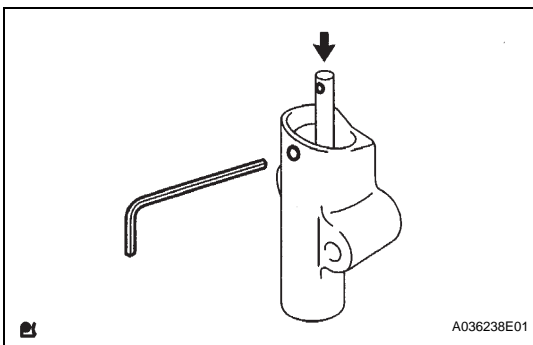
- (c) Align the holes of the push rod and housing, pass a 1.5 mm hexagon wrench through the holes to keep the setting position of the push rod.  
 (d) Release the press.  
 (e) Temporarily install the tensioner with the 2 bolts. Alternately tighten the 2 bolts.

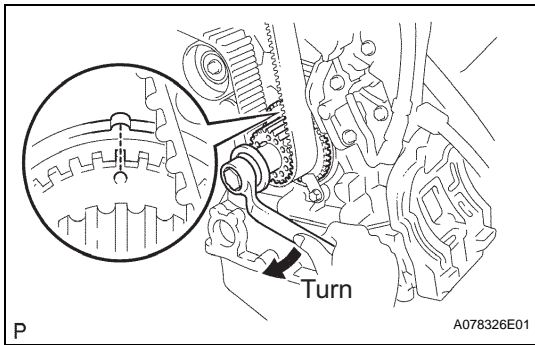
**Torque: 27 N\*m (280 kgf\*cm, 20 ft.\*lbf)**

### NOTICE:

**Be sure to tighten the bolts equally. Installing the tensioner at an angle may cause failure of its proper operation.**

- (f) Remove the 1.5 mm hexagon wrench from the tensioner.

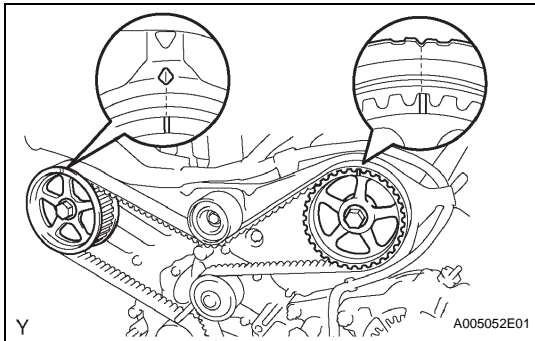




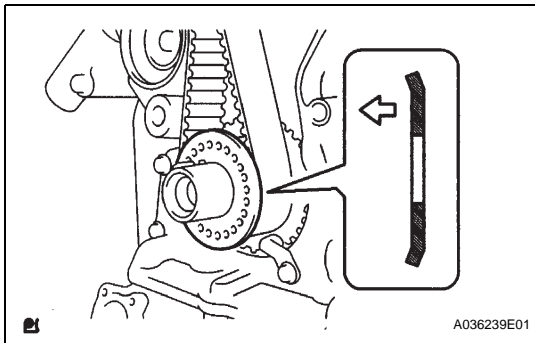
- (g) Turn the crankshaft 2 revolutions slowly and align the timing mark of the crankshaft timing pulley with the oil pump body.

**NOTICE:**

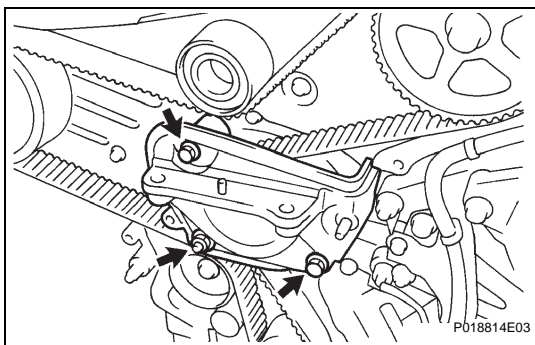
**Always turn the crankshaft clockwise.**



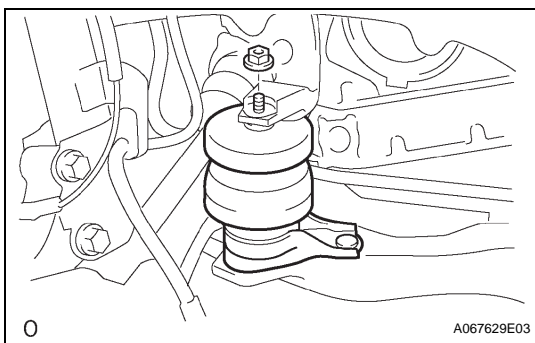
- (h) Check the timing marks of the RH and LH timing pulleys are aligned with the timing marks of the No. 3 timing belt cover as shown in the illustration. If the marks do not align, remove the timing belt and reinstall it.
- (i) Remove the crankshaft pulley bolt.

**3. INSTALL TIMING BELT GUIDE NO.2**

- (a) Install the timing belt guide, facing the cup side toward the engine front.

**4. INSTALL ENGINE MOUNTING BRACKET RH**

- (a) Place a wooden block on a jack underneath the engine.
- (b) Jack up and slant the engine, and install the engine mounting bracket RH with the 2 bolts and nut.  
**Torque: 28 N\*m (286 kgf\*cm, 21 ft.\*lbf)**



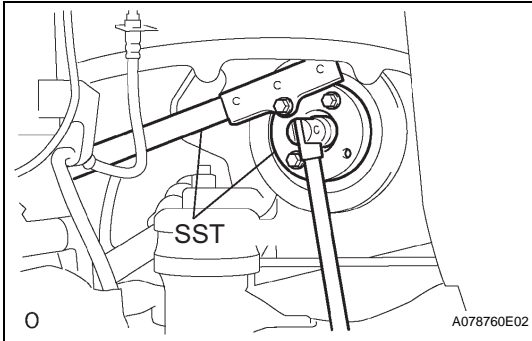
- (c) Install the engine mounting insulator RH with the nut.  
**Torque: 95 N\*m (969 kgf\*cm, 70 ft.\*lbf)**

**5. INSTALL TIMING BELT NO.2 COVER**

- (a) Visually check for cracks and breaks on the gasket of the timing belt cover. If there is a trace that water is entering at the visual check, replace the timing belt cover.
- (b) Install the timing belt cover.  
**Torque: 8.5 N\*m (87 kgf\*cm, 75 in.\*lbf)**

**6. INSTALL TIMING BELT NO.1 COVER**

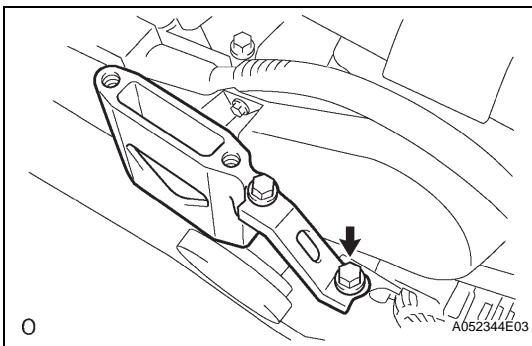
- (a) Visually check for cracks and breaks on the gasket of the timing belt cover.  
If there is a trace that water is entering at the visual check, replace the timing belt cover.
- (b) Install the timing belt cover.  
**Torque: 8.5 N\*m (87 kgf\*cm, 75 in.\*lbf)**
- (c) Install the engine wire protector cover to the timing belt No. 3 cover.

**7. INSTALL CRANKSHAFT PULLEY**

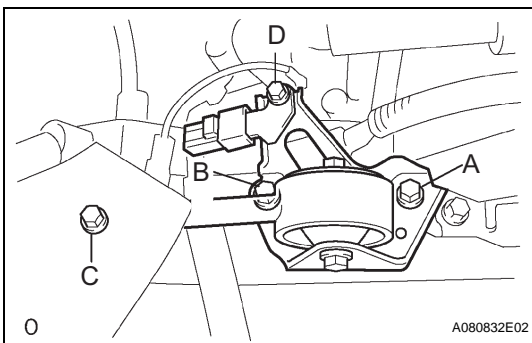
- (a) Align the keyway of the pulley with the key located on the crankshaft and slide the pulley into place.
- (b) Using SST, install the pulley bolt.  
**SST 09213-54015 (91651-60855), 09330-00021**  
**Torque: 220 N\*m (2,250 kgf\*cm, 162 ft.\*lbf)**

**8. INSTALL GENERATOR BRACKET NO.2**

**Torque: 28 N\*m (286 kgf\*cm, 21 ft.\*lbf)**

**9. INSTALL ENGINE MOUNTING STAY NO.2 RH**

- (a) Install the engine mounting stay No. 2 and the engine mounting bracket No. 2 with the bolt.  
**Torque: 64 N\*m (653 kgf\*cm, 47 ft.\*lbf)**

**10. INSTALL ENGINE MOVING CONTROL ROD**

- (a) Temporarily tighten bolts B and C.
- (b) First tighten bolt A, next tighten bolt B, then tighten bolt C.  
**Torque: 64 N\*m (653 kgf\*cm, 47 ft.\*lbf)**
- (c) Tighten bolt D.  
**Torque: 23 N\*m (235 kgf\*cm, 17 ft.\*lbf)**

**11. INSTALL VANE PUMP V BELT**

- (a) Install the vane pump V belt (See page [EM-6](#)).

**12. INSTALL V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1**

- (a) Install the V (cooler compressor to crankshaft pulley) belt No.1 (See page [EM-6](#)).

**13. INSPECT DRIVE BELT DEFLECTION AND TENSION**

- (a) Inspect the drive belt deflection and tension (reference) (See page [EM-1](#)).

**14. INSTALL FRONT FENDER APRON SEAL RH**

- (a) Install the front fender apron seal RH (See page [ES-368](#)).

**15. INSTALL ENGINE UNDER COVER NO.1**

- 16. INSTALL ENGINE UNDER COVER ASSEMBLY**
  - (a) w/ engine under cover assembly
- 17. INSTALL COWL TOP PANEL SUB-ASSEMBLY OUTER**
  - (a) Install the cowl top panel sub-assembly outer (See page [FU-14](#)).
- 18. INSTALL WINDSHIELD WIPER LINK ASSEMBLY**
  - (a) Install the windshield wiper link assembly (See page [WW-38](#)).
- 19. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY**
  - (a) Install the cowl top ventilator louver sub-assembly (See page [WW-38](#)).
- 20. INSTALL FR WIPER ARM LH**
  - (a) Install the FR wiper arm LH (See page [WW-38](#)).
- 21. INSTALL FR WIPER ARM RH**
  - (a) Install the FR wiper arm RH (See page [WW-38](#)).
- 22. INSTALL FRONT WHEEL RH**
  - (a) Install the front wheel RH (See page [EM-6](#)).