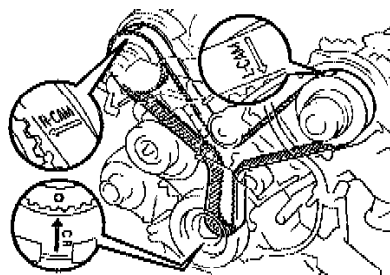


Timing Component Alignment Marks: Locations

CAUTION: Incorrect removal or installation of the timing belt can result in damage to internal engine components.

For complete Timing Belt Removal and Installation information, please refer to Timing Belt; Service and Repair. See: Timing Belt/Service and Repair

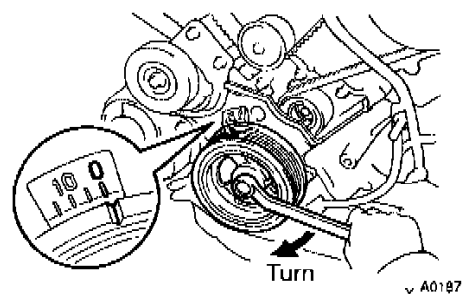


IF RE-USING TIMING BELT, CHECK INSTALLATION MARKS ON TIMING BELT

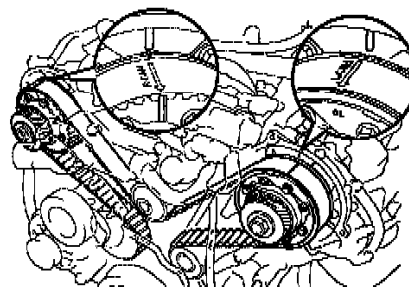
Check that there are 3 installation marks on the timing belt by turning the crankshaft pulley as shown in the illustration.

HINT: If the installation marks have disappeared, place a new installation mark on the timing belt before removing each part.

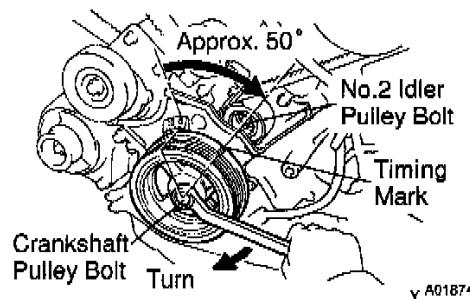
SET NO.1 CYLINDER TO APPROX. 50° ATDC/COMPRESSION



- a. Turn the crankshaft pulley and align its groove with timing mark "0" of the No.1 timing belt cover.



- b. Check that the timing marks of the camshaft timing pulleys and timing belt rear plates aligned. If not, turn the crankshaft **1 revolution (360°)**.

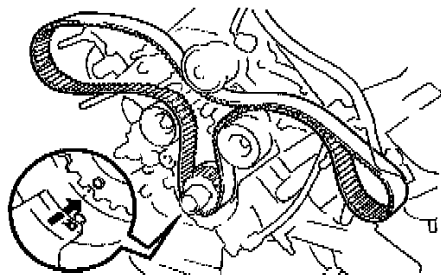


- c. Turn the crankshaft pulley approx. 50° clockwise, and put the timing mark of the crankshaft pulley in line with the centers of the crankshaft pulley bolt and the idler pulley bolt.

NOTICE: If the timing belt is disengaged, having the crankshaft pulley at the wrong angle can cause the piston head and valve head to come into contact with each other when you remove the camshaft timing pulley (step 19), causing damage. So always set the crankshaft pulley at the correct angle.

- d. Remove the crankshaft pulley bolt.

NOTICE: Do not turn the crankshaft pulley.



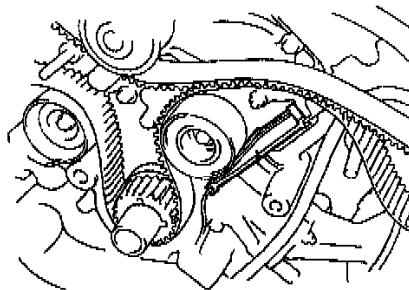
TEMPORARILY INSTALL TIMING BELT

NOTICE: The engine should be cold.

- a. Remove any oil or water on the crankshaft pulley, oil pump pulley, water pump pulley, No.1 idler pulley and No.2 idler pulley, and keep them clean.

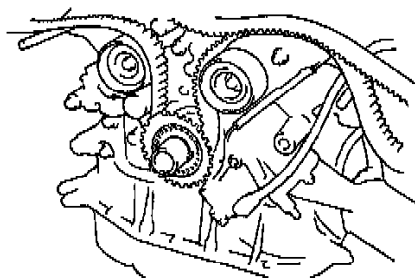
NOTICE: Only wipe the pulleys; do not use any cleansing agent.

- b. Align the installation mark on the timing belt with the timing mark of the crankshaft timing pulley.
c. Install the timing belt on the crankshaft timing pulley, No.1 idler pulley and No.2 idler pulley.



TIMING BELT COVER SPACER

- a. Install the gasket to the cover spacer.
b. Install the cover spacer.

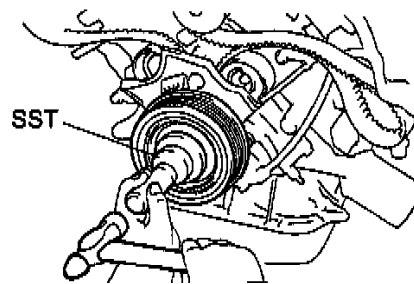


TIMING BELT GUIDE

Install the belt guide, facing the cup side outward.

NO.1 TIMING BELT COVER

Install the timing belt cover with the 4 bolts.



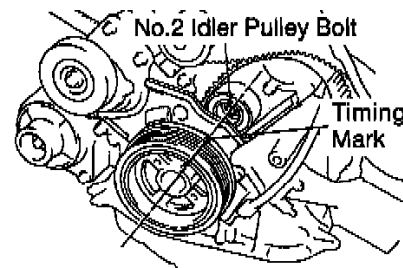
CRANKSHAFT PULLEY

- Align the pulley set key with the key groove of the crankshaft pulley.
- Using SST and a hammer, tap in the crankshaft pulley.
SST 09223-46011

DRIVE BELT TENSIONER

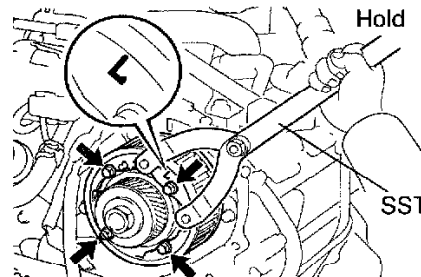
Install the belt tensioner with the bolt and 2 nuts.
Torque: **16 Nm (160 kgf-cm, 12 ft. lbs.)**

HINT: Use a bolt **106 mm (4.18 inch)** in length.



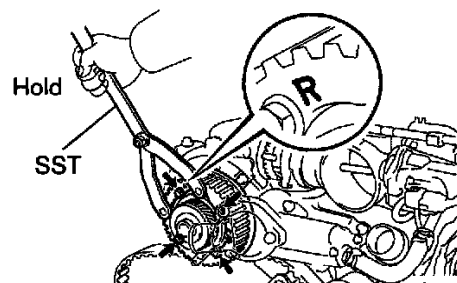
CHECK CRANKSHAFT PULLEY POSITION

Check that the timing mark of the crankshaft pulley is aligned with the centers of the crankshaft pulley and the idler pulley bolt.



LH CAMSHAFT TIMING PULLEY

- Align the camshaft timing tube knock pin with the knock pin groove of the timing pulley.
- Attach the timing pulley to the camshaft timing tube, facing the "L" mark forward.
- Using SST, install the 4 pulley bolts.
SST 09960-10010 (09962-01000, 09963-00350)
Torque: **7.5 Nm (80 kgf-cm, 66 ft. lbs.)**



RH CAMSHAFT TIMING PULLEY

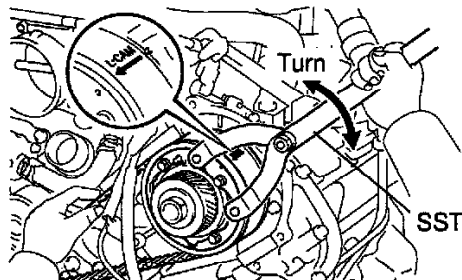
- Align the camshaft timing tube knock pin with the knock pin groove of the timing pulley.
- Attach the timing pulley to the camshaft timing tube, facing the "R" mark forward.
- Using SST, install the 4 pulley bolts.
SST 09960-10010 (09962-01000, 09963-00350)

Torque: 7.5 Nm (80 kgf-cm, 66 ft. lbs.)

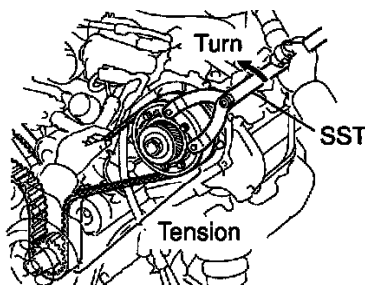
CONNECT TIMING BELT TO LH CAMSHAFT TIMING PULLEY

- a. Remove any oil or water on the LH camshaft timing pulley, and keep it clean.

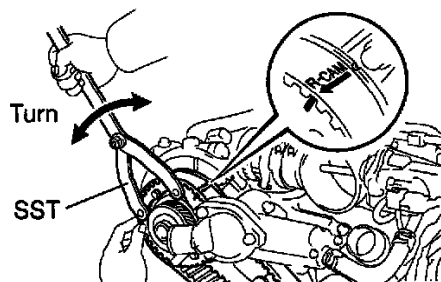
NOTICE: Only wipe the pulleys; do not use any cleansing agent.



- b. Using SST, turn the timing pulley. Align the installation mark on the timing belt with the timing mark of the timing pulley, and hang the timing belt on the timing pulley.
SST 09960-10010 (09962-01000, 09963-00350)



- c. Using SST, turn the LH camshaft timing pulley counterclockwise until there is tension between the crankshaft timing pulley and LH camshaft timing pulley.
SST 09960-10010 (09962-01000, 09963-00350)

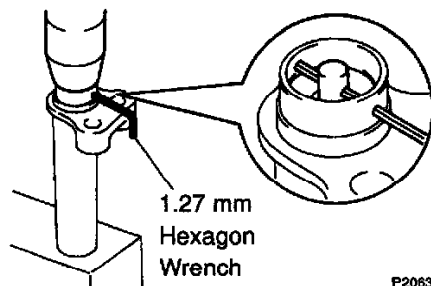


CONNECT TIMING BELT TO RH CAMSHAFT TIMING PULLEY

- a. Remove any oil or water on the RH camshaft timing pulley and water pump pulley, and keep them clean.

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

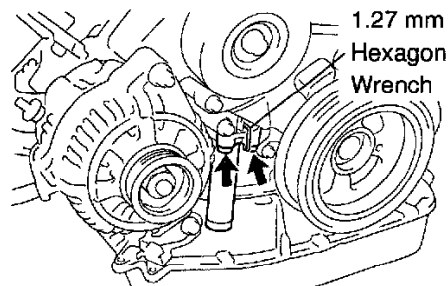
- b. Using SST, turn the timing pulley. Align the installation mark on the timing belt with the timing mark of the timing pulley, and hang the timing belt on the timing pulley.
SST 09960-10010 (09962-01000, 09963-00350)



P20636

SET TIMING BELT TENSIONER

- Using a press, slowly press in the push rod using **981 - 9,807 N (100 - 1,000 kgf, 220 - 2,205 lbs.)** of pressure.
- 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.
- Release the press.
- Install the dust boot to the belt tensioner.

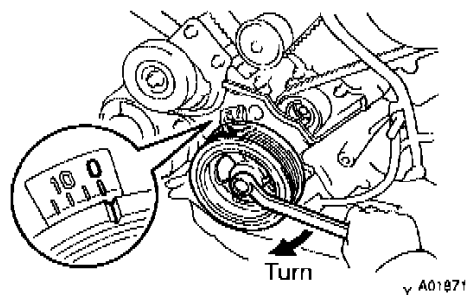


TIMING BELT TENSIONER

- Temporarily install the belt tensioner with the 2 bolts.
- Alternately tighten the 2 bolts.
Torque: **26 Nm (270 kgf-cm, 19 ft. lbs.)**
- Using pliers, remove the 1.27 mm hexagon wrench from the belt tensioner.

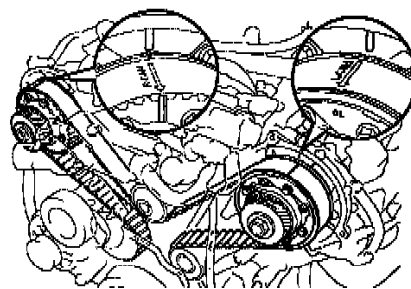
CHECK VALVE TIMING

- Temporarily install the crankshaft pulley bolt.



- Slowly turn the crankshaft pulley **2 revolutions** from TDC to TDC.

NOTICE: Always turn the crankshaft pulley clockwise.



- 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.