

INSTALLATION

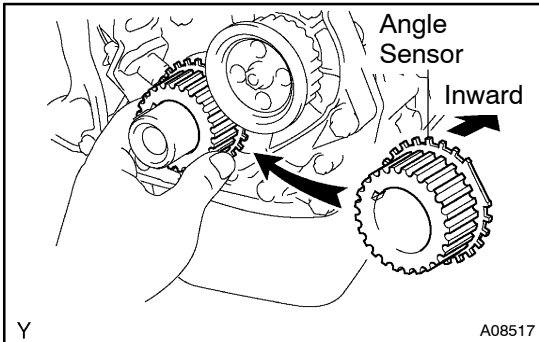
1. INSTALL OIL PUMP PULLEY

(a) Align the cutouts of the pulley and shaft, and slide on the pulley.

(b) Using SST, install the pulley nut.

SST 09960-10010 (09962-01000, 09963-00600)

Torque: 27 N·m (270 kgf·cm, 20 ft·lbf)



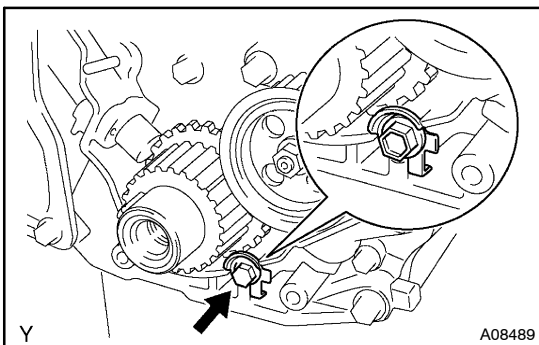
2. INSTALL CRANKSHAFT TIMING PULLEY

(a) Align the timing pulley set key with the key groove of the pulley.

(b) Slide on the timing pulley with the angle sensor facing inward.

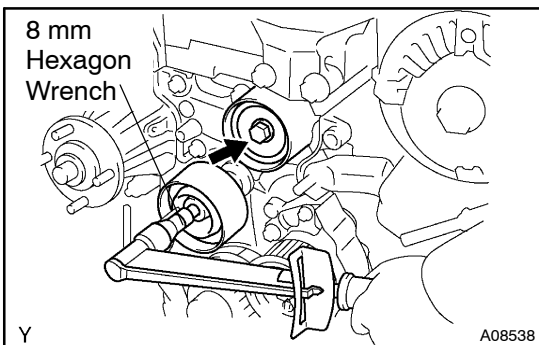
NOTICE:

Do not scratch the angle sensor of the timing pulley.



(c) Install the timing belt plate with the bolt.

Torque: 9 N·m (90 kgf·cm, 78 in·lbf)



3. INSTALL NO.1 IDLER PULLEY (TIMING BELT TENSIONER)

Using a 8 mm hexagon wrench, temporarily install the pulley (tensioner).

4. INSTALL NO.2 IDLER PULLEY

(a) Install the pulley with the bolt.

Torque: 37 N·m (370 kgf·cm, 27 ft·lbf)

(b) Check that the idler pulley moves smoothly.

5. INSTALL CAMSHAFT TIMING PULLEY

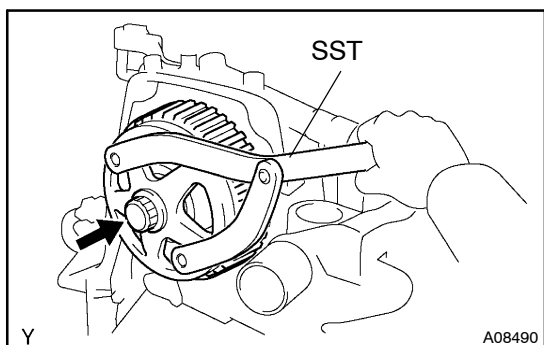
NOTICE:

NEVER reuse the cam-pulley set bolt.

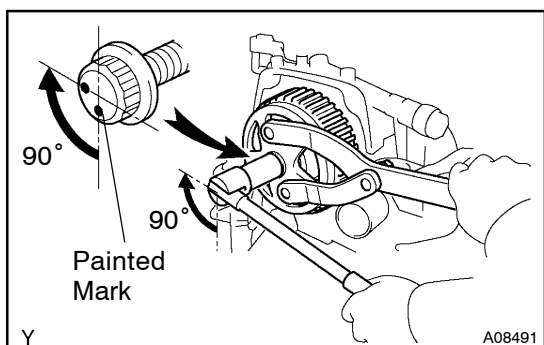
HINT:

The cam-pulley set bolt is tightened in 2 progressive steps (steps (b) and (d)).

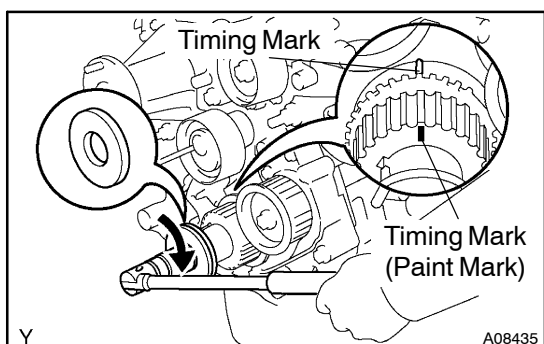
(a) Align the camshaft knock pin with the groove in the pulley and slide on the pulley.



- (b) Using SST, install and tighten a new cam-pulley set bolt.
SST 09960-10010 (09962-01000, 09963-01000)
Torque: 35 N·m (350 kgf·cm, 25 ft·lbf)

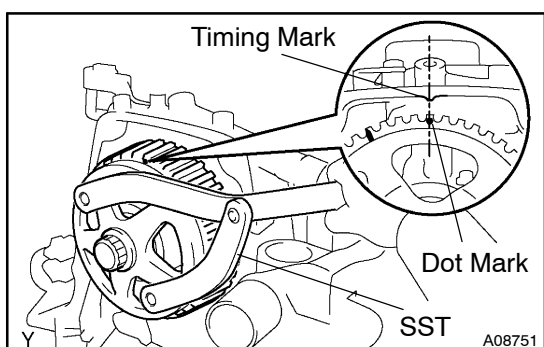


- (c) Mark the cam-pulley set bolt with paint.
(d) Retighten the cam-pulley set bolt by 90°.
(e) Check that the painted mark is now at a 90° angle to (c).



6. SET NO.1 CYLINDER TO APPROX. 60° BTDC/COMPRESSION

- (a) Crankshaft Timing Pulley Position:
Using the crankshaft pulley bolt and plate washer, turn the crankshaft, and align the timing mark (paint mark) of the crankshaft timing pulley with the timing mark of the timing belt case.



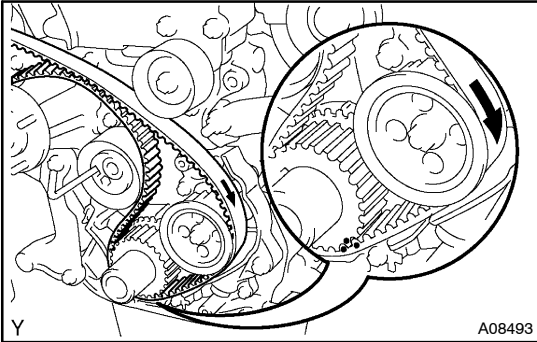
- (b) Camshaft Timing Pulley Position:
Using SST, turn the camshaft pulley, align the dot mark (60° mark BTDC) of the camshaft timing pulley with the timing mark of the No.1 bearing cap.
SST 09960-10010 (09962-01000, 09963-01000)

7. INSTALL TIMING BELT

NOTICE:

The engine should be cold.

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



- (b) Install the timing belt on the crankshaft timing pulley, oil pump pulley, No.1 idler pulley and No.2 idler pulley.

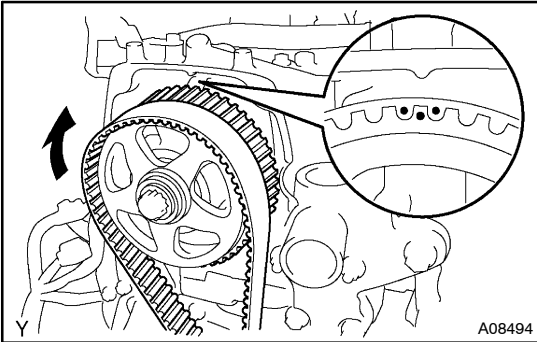
NOTICE:

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

HINT:

When re-using timing belt:

Align the marked points during removal, and install the belt with the arrow pointing to the direction of engine revolution.

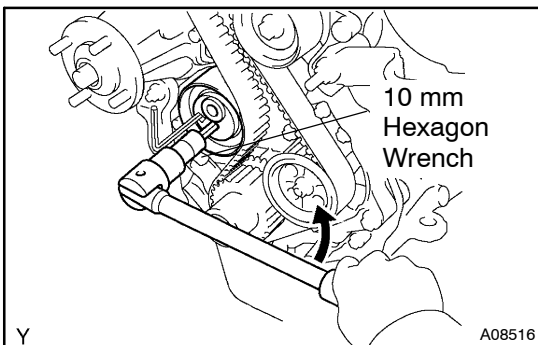


- (c) Install the timing belt, check the tension between the crankshaft timing pulley, oil pump pulley, No.2 idler pulley and camshaft timing pulley.

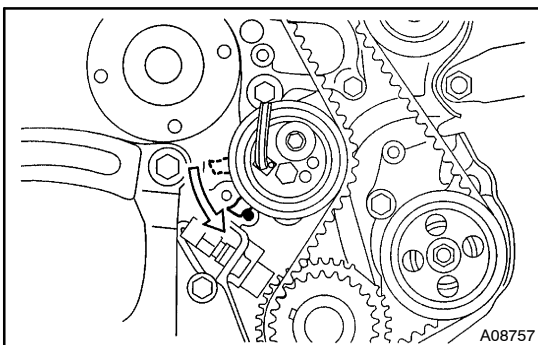
HINT:

When re-using timing belt:

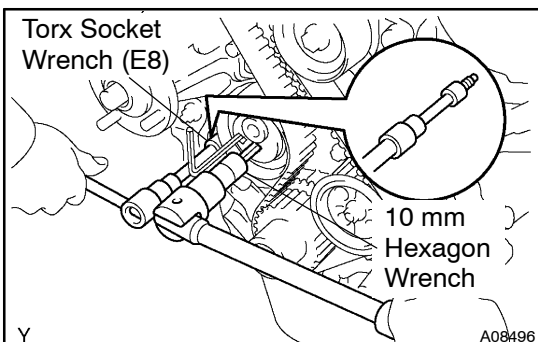
Align the marked points during removal.



- (d) Using a 10 mm hexagon wrench, keep holding the No.1 idler pulley toward the direction of tensing the timing belt.



- (e) After confirming that the stay of the No.1 idler pulley touches the pin, install the positioning bolt by hand.

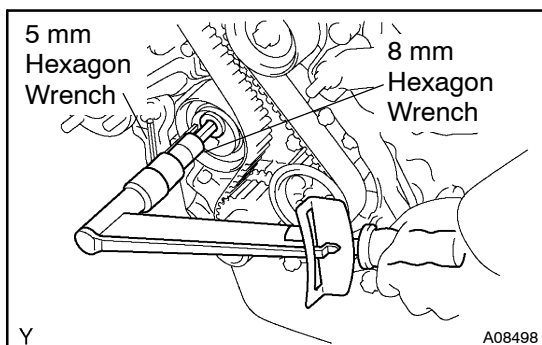


- (f) Using a torx socket wrench (E8), tighten the positioning bolt.

Torque: 8 N·m (80 kgf·cm, 69 in·lbf)

NOTICE:

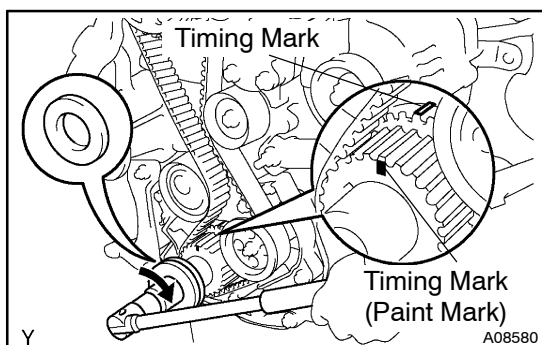
Be careful not to allow the bolt to come onto the stay of the No.1 idler pulley.



- (g) Using a 8 mm hexagon wrench, tighten the bolt of the No.1 idler pulley (timing belt tensioner).

Torque: 42.5 N·m (425 kgf·cm, 31 ft·lbf)

- (h) Take the 5 mm hexagon wrench for lock out of the square window.

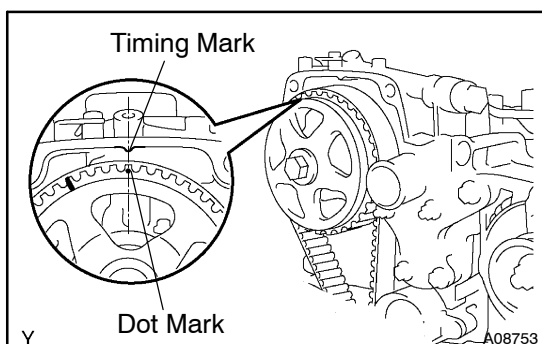


8. CHECK VALVE TIMING

- (a) Temporarily install the crankshaft pulley bolt and plate washer.
- (b) Slowly revolve the crankshaft 2 times, and align the timing mark (paint mark) of the crankshaft timing pulley with the timing mark of the timing belt case.

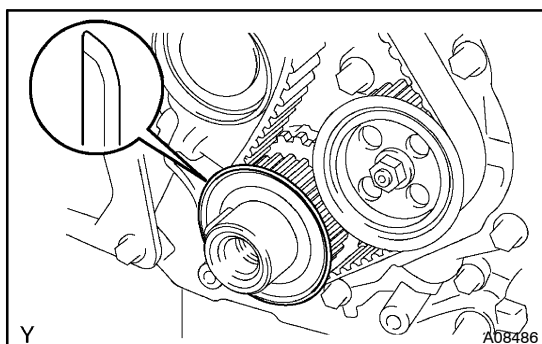
NOTICE:

Always turn the crankshaft clockwise.



- (c) Check that the dot mark (60° mark BTDC) of the camshaft timing pulley is aligned with the timing mark of the No.1 bearing cap.

- (d) Remove the crankshaft pulley bolt and plate washer.



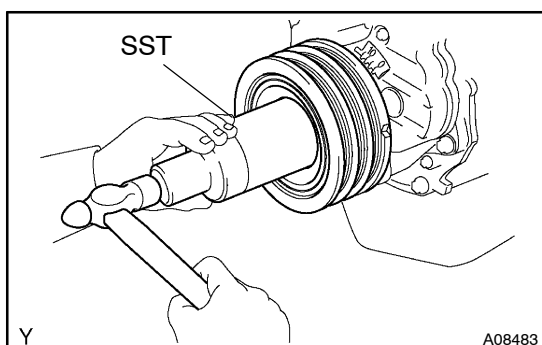
9. INSTALL TIMING BELT GUIDE

Install the guide with the cup side facing outward.

10. INSTALL NO.1 TIMING BELT COVER

- (a) Install the gasket to the timing belt cover.
- (b) Install the timing belt cover with the 4 bolts.

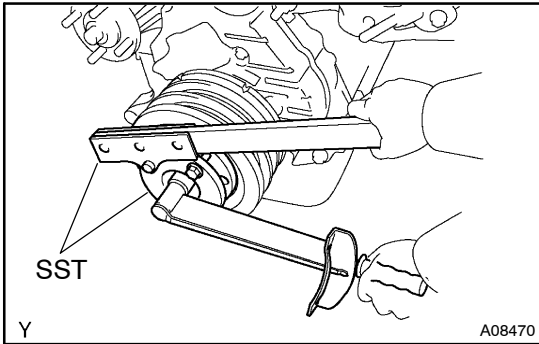
Torque: 6 N·m (60 kgf·cm, 52 in.·lbf)



11. INSTALL CRANKSHAFT PULLEY

- (a) Align the pulley set key with the key groove of the pulley.
- (b) Using SST and a hammer, tap in the pulley.

SST 09316-60011 (09316-00011)



- (c) Using SST, install the pulley bolt.
 SST 09213-54015 (90119-08216), 09330-00021
Torque: 220 N·m (2,200 kgf·cm, 159 ft·lbf)

12. INSTALL NO.2 TIMING BELT COVER

- (a) Install the gasket to the timing belt cover.
 (b) Install the timing belt cover with the 4 bolts.
Torque: 6 N·m (60 kgf·cm, 52 in·lbf)

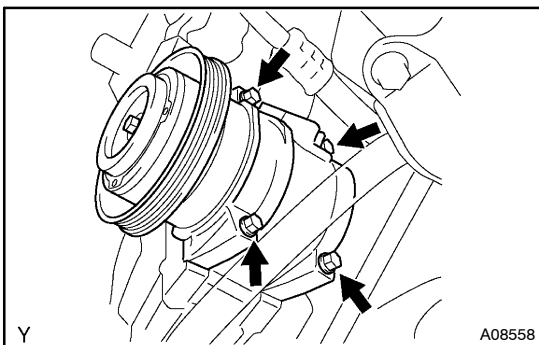
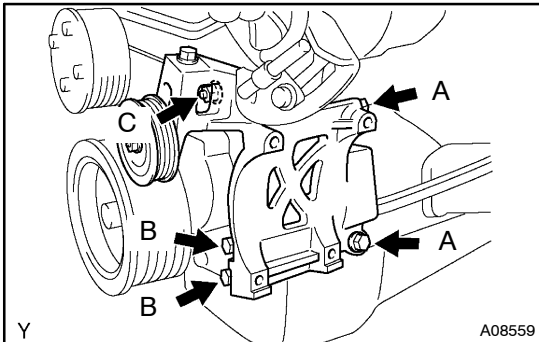
13. INSTALL FAN PULLEY AND SPACER

HINT:

Temporarily install the 4 nuts.

14. INSTALL A/C COMPRESSOR BRACKET

- (a) Install the compressor bracket with the 4 bolts and nut.
 (b) Tighten the bolt B, nut C and bolt A.
Torque: 46.5 N·m (475 kgf·cm, 34 ft·lbf)



15. INSTALL A/C COMPRESSOR

- (a) Install the A/C compressor with the 4 bolts.
Torque: 24.5 N·m (250 kgf·cm, 18 ft·lbf)
 (b) Connect the A/C compressor connector.

16. INSTALL DRIVE BELT FOR PSYANE PUMP (See page SR-37)

17. INSTALL DRIVE BELT FOR ALTERNATOR (See page CH-15)

18. INSTALL DRIVE BELT FOR A/C COMPRESSOR (See page AC-18)

19. TIGHTEN MOUNTING NUTS OF FAN PULLEY AND SPACER

Torque: 18.5 N·m (185 kgf·cm, 13 ft·lbf)

20. INSTALL RADIATOR ASSEMBLY (See page CO-21)

21. INSTALL SPARK PLUGS (See page IG-1)

22. INSTALL IGNITION COILS (See page IG-6)

23. INSTALL NO.2 CYLINDER HEAD COVER

24. INSTALL AIR CLEANER ASSEMBLY

25. INSTALL AIR CLEANER INLET

26. FILL ENGINE WITH COOLANT

27. START ENGINE AND CHECK FOR LEAK

28. INSTALL NO.1 ENGINE UNDER COVER

29. ROAD TEST

Check abnormal noise, shock, slippage, correct shift points and smooth operation.

30. RECHECK ENGINE COOLANT LEVEL