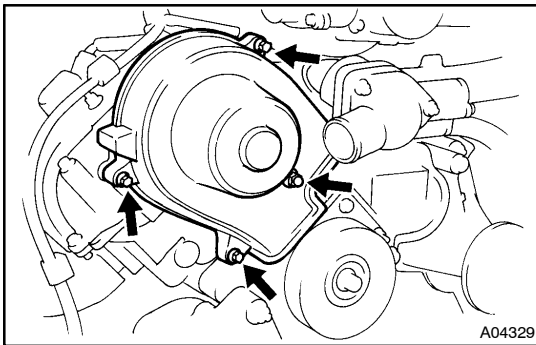
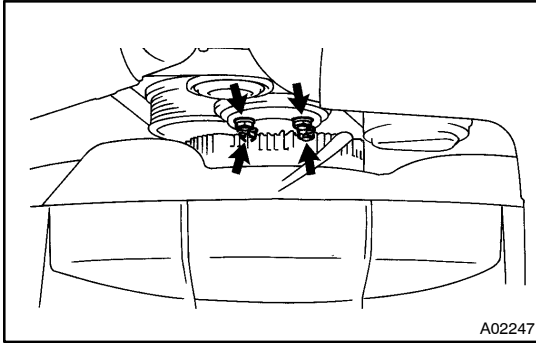
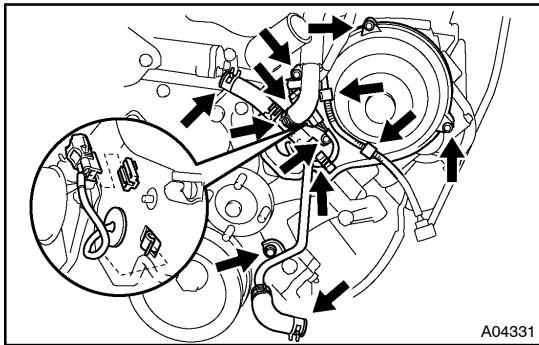


REMOVAL

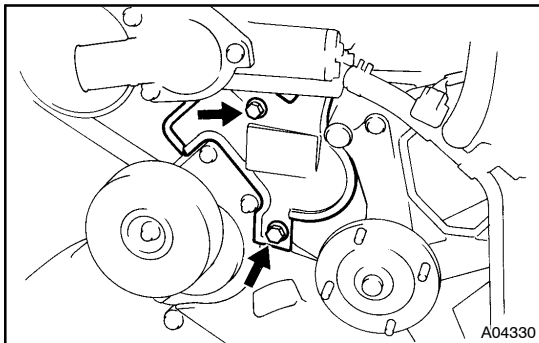
1. **REMOVE OIL PAN PROTECTOR**
2. **REMOVE ENGINE UNDER COVER**
3. **DRAIN ENGINE COOLANT**
4. **REMOVE BATTERY CLAMP COVER**
5. **REMOVE V-BANK COVER**
 - (a) Remove the fuel return hose from the V-bank cover.
 - (b) Remove the 2 bolt, 2 cap nuts and V-bank cover.
6. **REMOVE AIR CLEANER AND INTAKE AIR CONNECTOR ASSEMBLY**
7. **REMOVE DRIVE BELT, FAN, FLUID COUPLING AND FAN PULLEY**
 - (a) Loosen the 4 nuts holding the fluid coupling to the fan bracket.
 - (b) Remove the generator drive belt.
(See page [CH-7](#))
 - (c) Remove the 4 nuts, the fan, fluid coupling assembly and fan pulley.
8. **REMOVE RADIATOR ASSEMBLY**
(See page [CO-17](#))
9. **REMOVE DRIVE BELT IDLER PULLEY**
Remove the pulley bolt, cover plate and idler pulley.



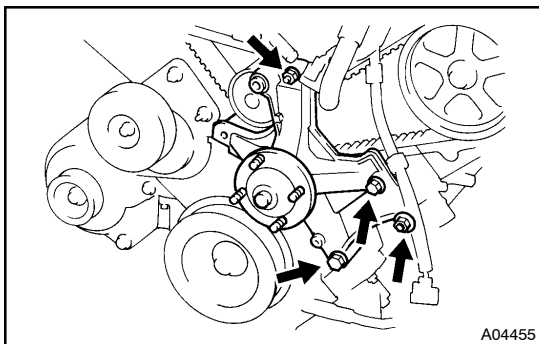
10. **REMOVE RH NO.3 TIMING BELT COVER**
Remove the 3 bolts, nut RH No.3 timing belt cover.

**11. REMOVE LH NO.3 TIMING BELT COVER**

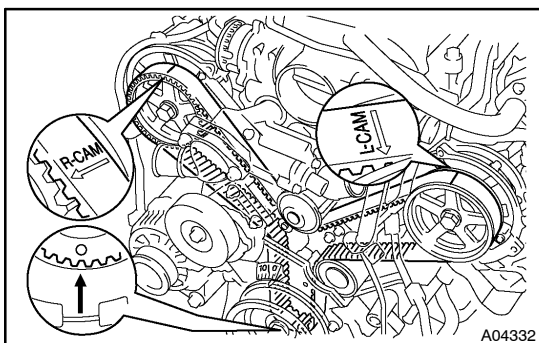
- (a) Disconnect the engine wire from the 2 wire clamps.
- (b) Remove the 4 bolts and nut.
- (c) Disconnect the camshaft position sensor wire from the wire clamp on the LH No.3 timing belt cover.
- (d) Disconnect the sensor connector from the connector bracket.
- (e) Disconnect the sensor connector.
- (f) Remove the wire grommet from the LH No.3 timing belt cover.
- (g) Remove the LH No.3 timing belt cover.
- (h) Remove the oil cooler pipe and 2 bolts.

**12. REMOVE NO.2 TIMING BELT COVER**

Remove the 2 bolts and No.2 timing belt cover.

13. DISCONNECT A/C COMPRESSOR FROM ENGINE
(See page [EM-76](#))**14. REMOVE FAN BRACKET**

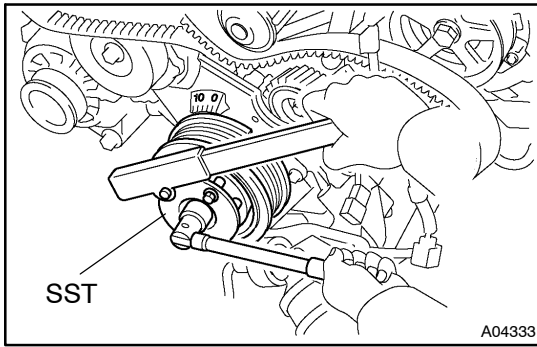
Remove the 2 bolts, 2 nuts and fan bracket.

**15. 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:

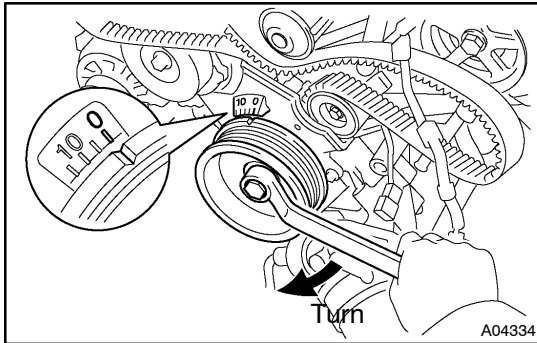
If the installation marks have disappeared, place a new installation mark on the timing belt before removing each part.



16. LOOSEN CRANKSHAFT PULLEY BOLT

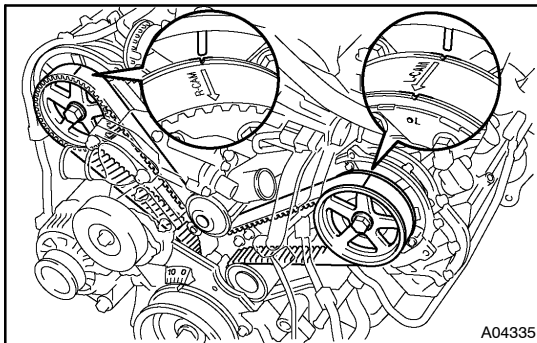
Using SST, loosen the pulley bolt.

SST 09213-70011 (90105-08076),
09330-00021

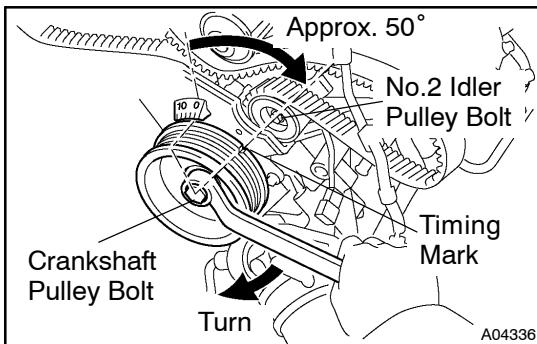


17. SET NO.1 CYLINDER TO APPROX. 50° ATDC/COMPRESSION

- (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.

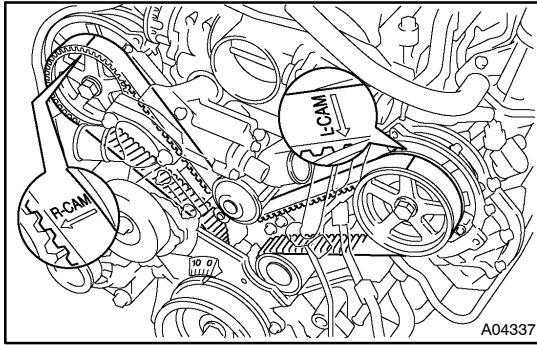
NOTICE:

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:

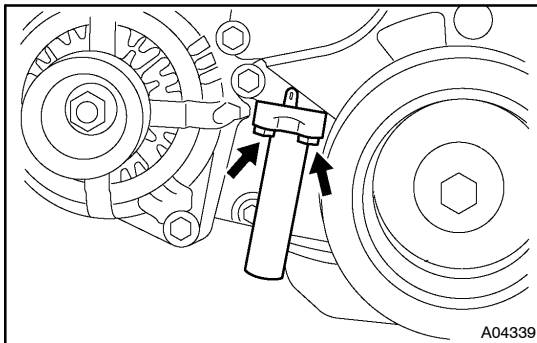
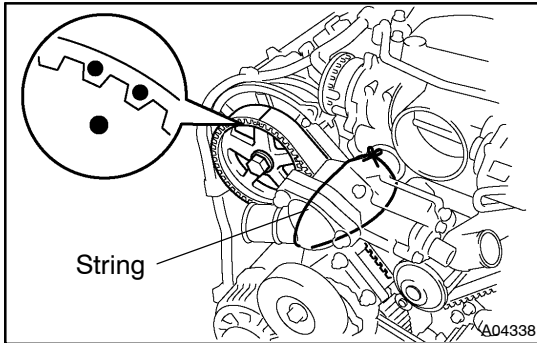
Do not turn the crankshaft pulley.



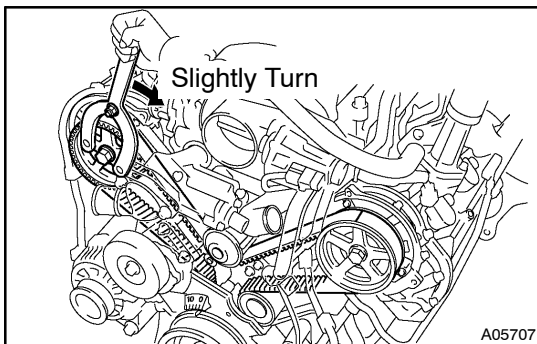
18. REMOVE TIMING BELT TENSIONER

HINT:

- When re-using timing belt:
If the installation marks have disappeared, before remove the timing belt, place 2 new installation marks on the timing belt to match the timing marks of the camshaft timing pulleys.
- When replacing timing belt tensioner only:
To avoid meshing of the timing pulley and timing belt, secure one of them with string. And place matchmarks on the timing belt and RH camshaft timing pulley.

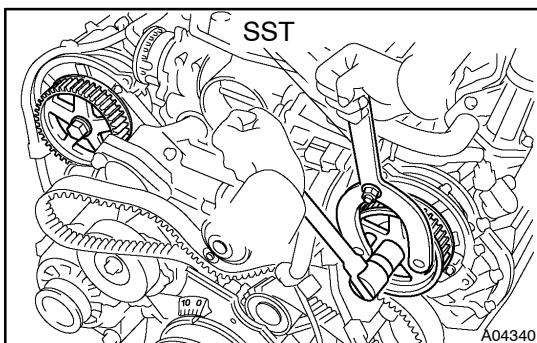


Alternately loosen the 2 bolts, and remove them, the belt tensioner and dust boot.



19. DISCONNECT TIMING BELT FROM CAMSHAFT TIMING PULLEYS

- Using SST, loosen the tension spring between the LH and RH camshaft timing pulleys by slightly turning the LH camshaft timing pulley clockwise.
SST 09960-10010 (09962-01000, 09963-01000)
- Disconnect the timing belt from the camshaft timing pulleys.



20. REMOVE CAMSHAFT TIMING PULLEYS

Using SST, remove the bolt and timing pulley. Remove the 2 timing pulleys.

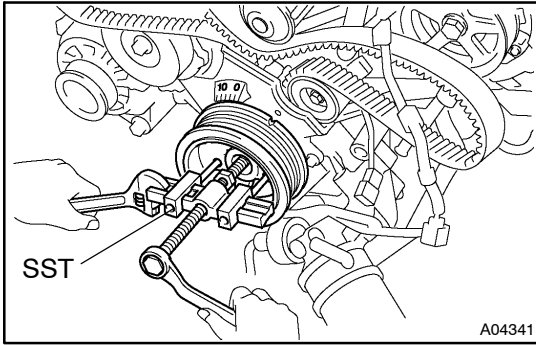
SST 09960-10010 (09962-01000, 09963-01000)

21. REMOVE GENERATOR

(See page [CH-7](#))

22. REMOVE DRIVE BELT TENSIONER

Remove the bolt, 2 nuts and belt tensioner.

**23. REMOVE CRANKSHAFT PULLEY**

Using SST, remove the crankshaft pulley.

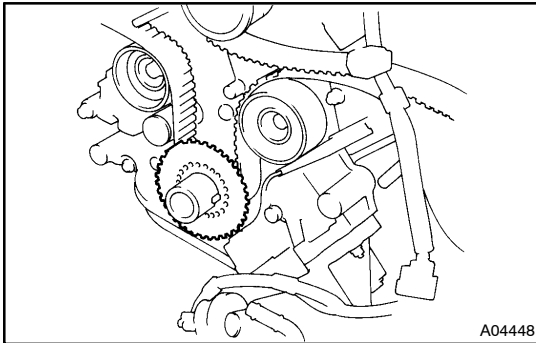
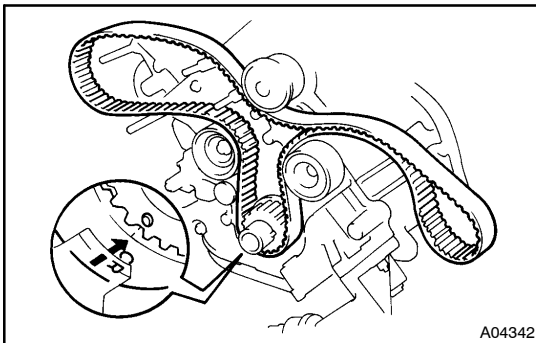
SST 09950-50012 (09951-05010, 09952-05010, 09953-05010, 09953-05020, 09954-05020)

NOTICE:

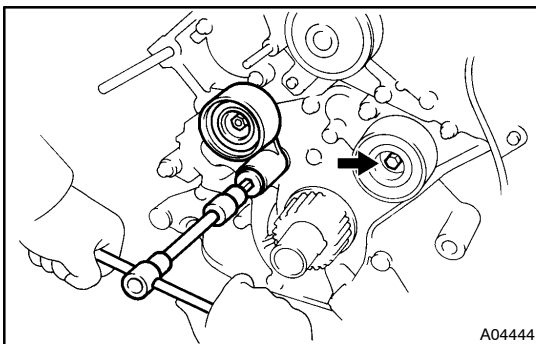
Do not turn the crankshaft pulley.

24. REMOVE NO.1 TIMING BELT COVER

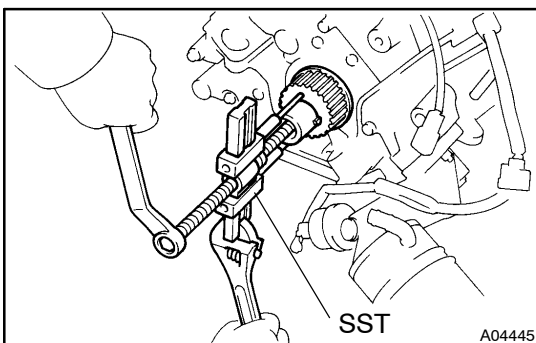
Remove the 4 bolts, timing belt cover.

**25. REMOVE TIMING BELT GUIDE****26. REMOVE TIMING BELT COVER SPACER****27. REMOVE TIMING BELT****HINT:**

If re-using the belt and the installation mark has disappeared from it, place a new installation mark on the timing belt to the match the dot mark of the crankshaft timing pulley.

**28. REMOVE NO.1 IDLER PULLEY AND NO.2 IDLER PULLEY**

- (a) Using a 10 mm hexagon wrench, remove the bolt, No.1 idler pulley and plate washer.
- (b) Remove the bolt and No.2 idler pulley.

**29. REMOVE CRANKSHAFT TIMING PULLEY**

Using SST, remove the timing pulley.

SST 09950-50012 (09951-05010, 09952-05010, 09953-05010, 09953-05020, 09954-05010)

NOTICE:

Do not turn the timing pulley.