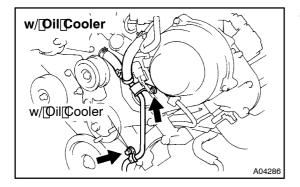
EM1LJ-01

REMOVAL

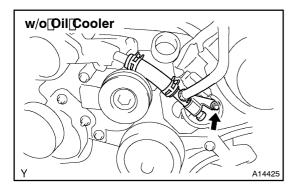
- 1. ☐ REMOVE[ENGINE[UNDER[COVER
- 2. DRAIN ENGINE COOLANT
- 3. REMOVE AIR CLEANER INLET
- 4. REMOVE Y-BANK COVER AND ENGINE ROOM SIDE COVERS
- 5. REMOVE AIR CLEANER ASSEMBLY AND INTAKE AIR CONNECTOR ASSEMBLY
- 6. REMOVE DRIVE BELT (See page CH-1)
- 7. REMOVE[RADIATOR[ASSEMBLY[[See[page[CO-20]]



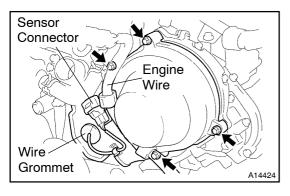
8. REMOVE LH NO. 3 TIMING BELT COVER

(a) w/ Oil Cooler:

Remove the cap nut and bolt, and disconnect the oil cooler pipe from the LH No. 3 timing belt cover and No. 1 drive belt idler pulley bracket.

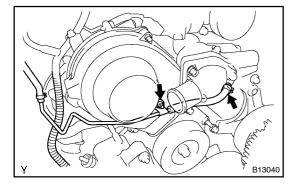


- (b) w/o Oil Cooler:
 - Remove the cap nut, and disconnect the No.3 water bypass pipe from the LH No. 3 timing belt cover.
- (c) Disconnect the 2 water bypass hoses from the oil cooler pipe or No.3 water bypass pipe.



- (d) Disconnect the engine wire from the 2 wire clamps.
- (e) Disconnect the camshaft position sensor connector.
- (f) Disconnect the camshaft position sensor wire from the wire clamp on the LH No. 3 timing belt cover.
- (g) Remove the wire grommet from the LH No. 3 timing belt cover.
- (h) Remove the 4 bolts.
- (i) Disconnect the LH No. 3 timing belt cover from the timing plate and camshaft bearing cap.

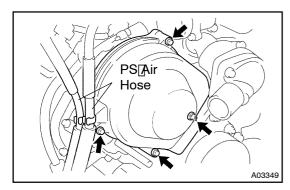
- (j) Disconnect[the[wire[clamp[for[the[sensor[from[the[]].H[]No. 3[timing[belt[cover.]]
- (k) Remove[the@onnector[holder[from[the]sensor@onnector.
- (I) Remove the LH No. 3 timing belt cover and gasket.



9. REMOVE[RH[NO.3[TIMING[BELT[COVER

- (a) Except Australia:

 Remove the cap hut and bolt, and disconnect he No. 2 water bypass pipe from the RH No. 3 timing belt over.

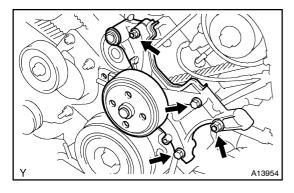


- (c) Disconnect he Psair hoses from he clamp on the RH No. Thing belt cover.
- (d) Except Australia:
 Remove The Toolts, RH No. Timing belt cover and gasket.
- (e) Australia:

 Remove[]he[cap[]hut,[3[]bolts,[]RH[]No.[3[]iming[]belt[cover and gasket.
- 10. REMOVE NO.2 TIMING BELT COVER

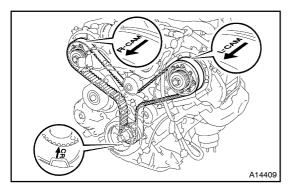
Remove the 2 bolts and timing belt cover.

11. DISCONNECT A/C COMPRESSOR FROM ENGINE (See page EM-85)



12. REMOVE NO.1 DRIVE BELT IDLER PULLEY

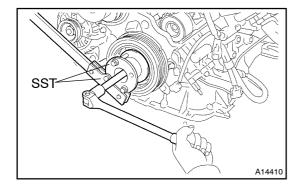
Remove the 2 bolts, 2 nuts and idler pulley.



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

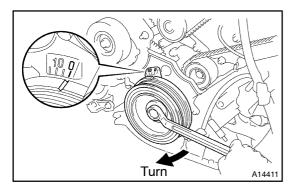
Check that there are 3 installation marks on the timing belt by turning the crankshaft pulley as shown in the illustration.

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



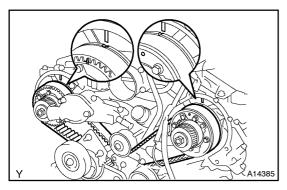
14. LOOSEN CRANKSHAFT PULLEY BOLT

Using SST, loosen the pulley bolt. SST 09213-70010, 09330-00021



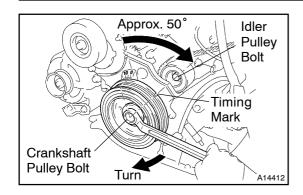
15. SET NO.1 CYLINDER TO APPROX. 50° ATDC/COM-PRESSION

(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 No.2 timing belt idler pulley bolt.

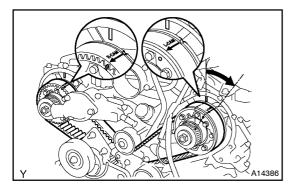
NOTICE:

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 15), causing damage. So always set the crankshaft pulley at the correct angle.

(d) Remove the crankshaft pulley bolt.

NOTICE:

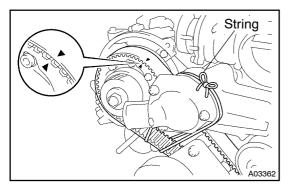
Do not turn the crankshaft pulley.



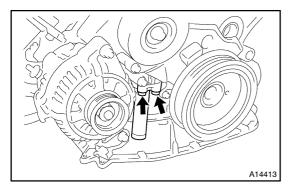
16. REMOVE TIMING BELT TENSIONER

HINT:

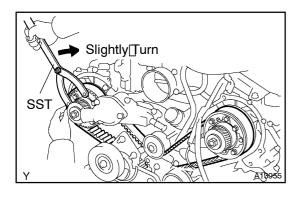
When re-using timing belt: If the installation marks have disappeared, before remove the timing belt, place 2 new installation marks on the timing belt to match the timing marks of the camshaft timing pulleys.



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.



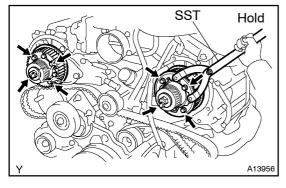
Alternately loosen the 2 bolts, and remove them, the belt tensioner and dust boot.



17. DISCONNECT TIMING BELT FROM CAMSHAFT TIMING PULLEYS

- (a) Using SST, loosen the tension between the LH and RH camshaft iming bulleys by slightly turning the RH camshaft iming bulley clockwise.

 SST 09960-10010 09962-01000, 09963-00350)
- (b) Disconnect he iming belt from he camshaft iming bulleys.



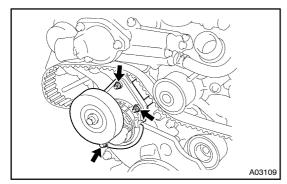
18. REMOVE CAMSHAFT TIMING PULLEYS

Using \$ST, remove the 4 bolts and timing pulley. Remove the 2 timing pulleys.

SST 09960-10010 09962-01000, 09963-00350)

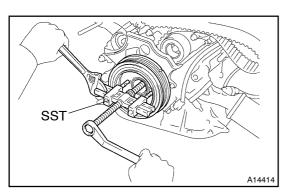
19. REMOVE[PS[PUMP[PULLEY[(See[page[\$R-29)]

20. REMOVE ALTERNATOR See page CH-6)



21. REMOVE DRIVE BELT TENSIONER

Remove the bolt, 2 nuts and belt tensioner.



22. 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.

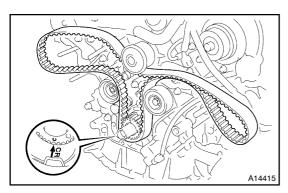
23. REMOVE NO.1 TIMING BELT COVER

Remove the 4 bolts, timing belt cover.

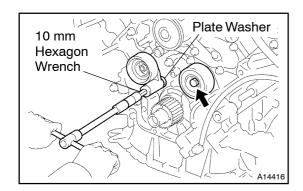
- 24. REMOVE TIMING BELT GUIDE
- 25. REMOVE TIMING BELT COVER SPACER
- 26. REMOVE TIMING BELT

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.



LEXUS[LS430[] (RM792E)

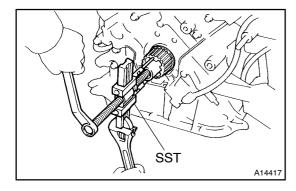


27. REMOVE NO.1 TIMING BELT IDLER PULLEY

Using a 10 mm hexagon wrench, remove the bolt, idler pulley and plate washer.

28. REMOVE NO.2 TIMING BELT IDLER PULLEY

Remove the bolt and 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.