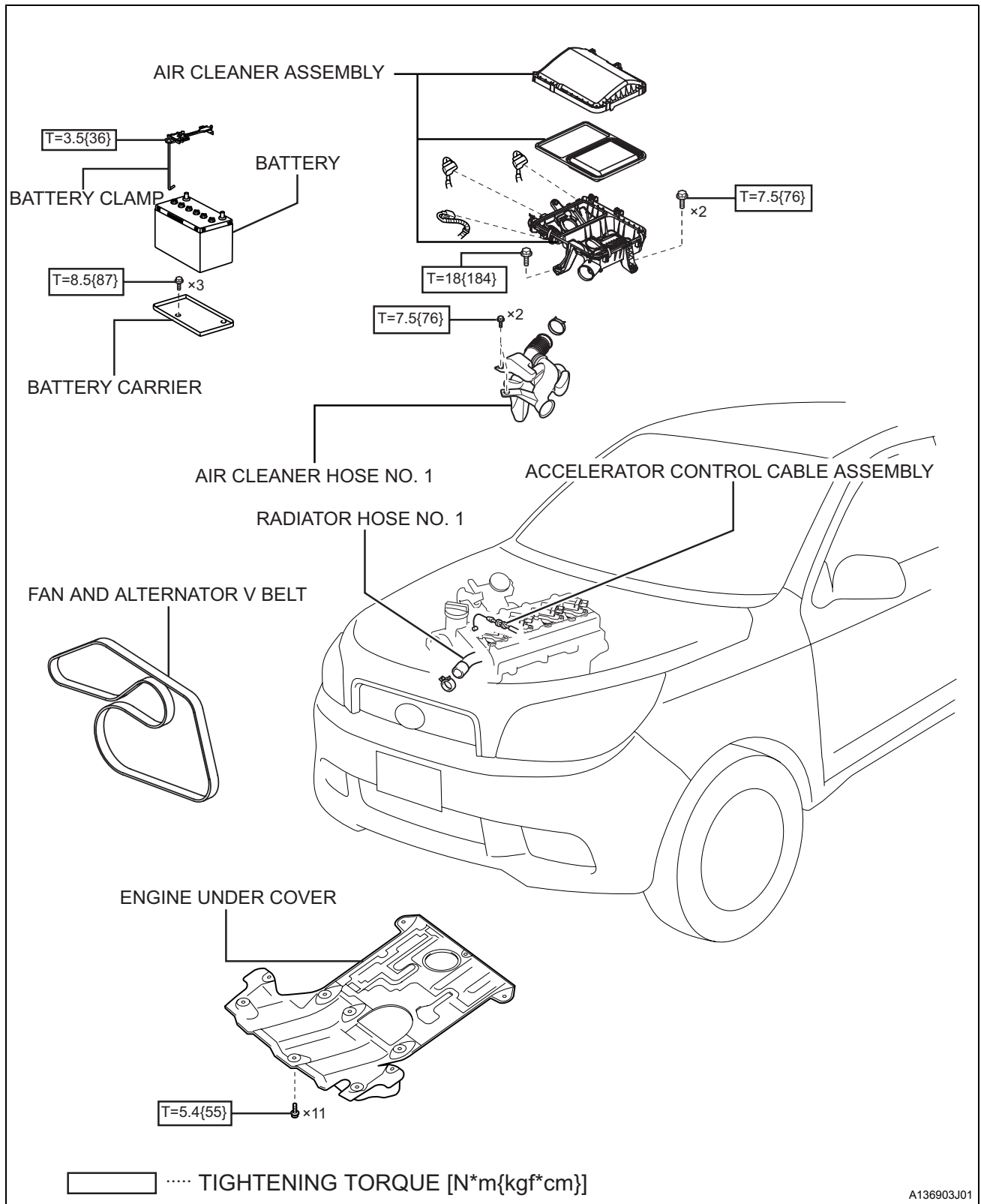


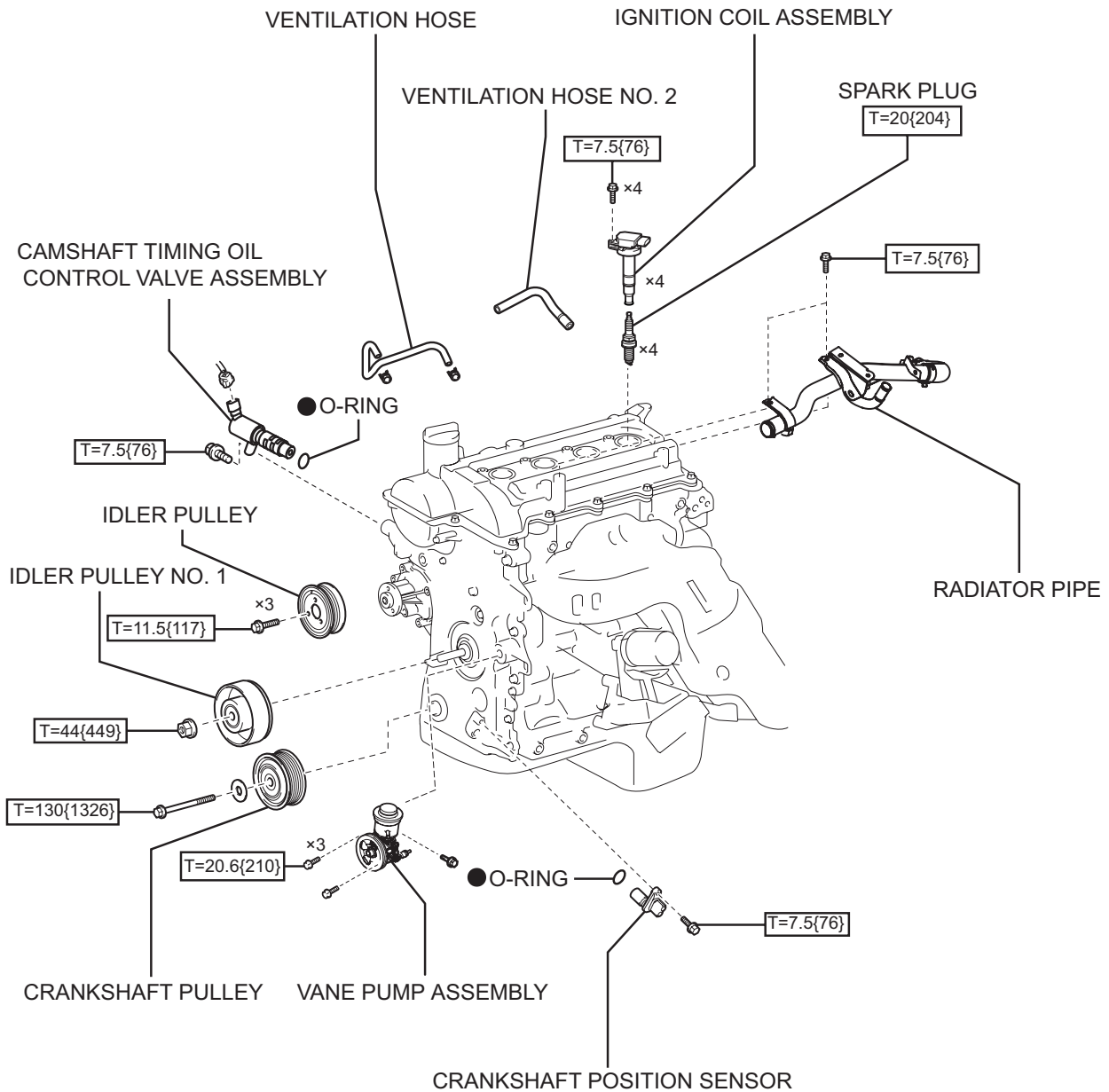
CHAIN (K3-VE)

COMPONENTS



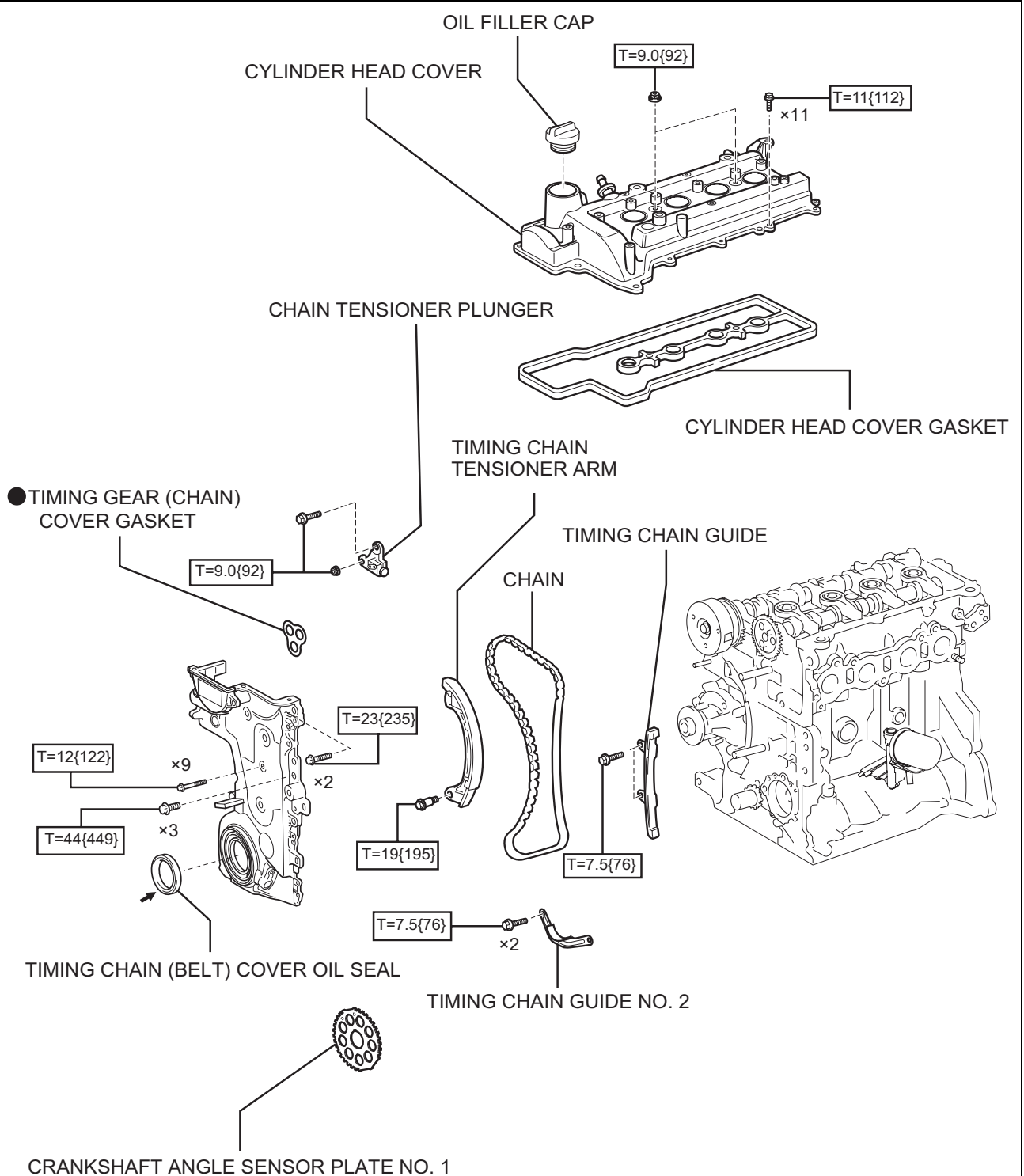
EM

EM



T [] TIGHTENING TORQUE [N*m{kgf*cm}]

● NON-REUSEABLE PART

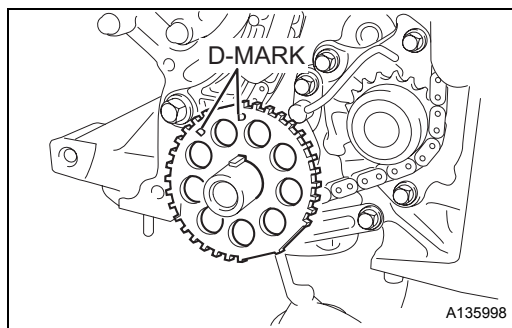


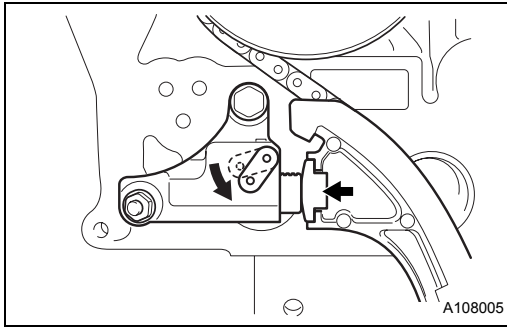
←..... MP GREASE

..... TIGHTENING TORQUE [N*m{kgf*cm}] ●..... NON-REUSEABLE PART

REMOVAL

1. **DISCONNECT NEGATIVE BATTERY TERMINAL**
(See page RS-164.)
2. **REMOVE BATTERY CARRIER** (See page EM-173)
3. **REMOVE ENGINE UNDER COVER**
4. **DRAIN ENGINE OIL**
5. **DRAIN ENGINE COOLANT** (See page CO-11)
6. **REMOVE AIR CLEANER ASSEMBLY** (See page EM-173)
7. **REMOVE RADIATOR HOSE NO. 1** (See page CO-22)
8. **REMOVE ACCELERATOR CONTROL CABLE ASSEMBLY** (See page EM-175)
9. **REMOVE FAN AND ALTERNATOR V BELT** (See page EM-12)
10. **REMOVE VANE PUMP WITH BRACKET** (See page EM-79)
11. **REMOVE FAN PULLEY** (See page CO-33)
12. **REMOVE IDLER PULLEY NO. 1** (See page EM-177)
13. **DISCONNECT VENTILATION HOSE** (See page EM-174)
14. **DISCONNECT VENTILATION HOSE NO. 2** (See page EM-174)
15. **REMOVE ENGINE ROOM MAIN WIRE** (See page EM-175)
16. **REMOVE RADIATOR PIPE** (See page EM-174)
17. **REMOVE IGNITION COIL ASSEMBLY** (See page EM-178)
18. **REMOVE CYLINDER HEAD COVER** (See page EM-178)
19. **REMOVE CRANKSHAFT PULLEY** (See page EM-179)
20. **REMOVE CAM POSITION SENSOR** (See page EM-179)
21. **REMOVE CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY**
(See page EM-180)
22. **REMOVE TIMING CHAIN (BELT) COVER** (See page EM-180)
23. **REMOVE TIMING CHAIN (BELT) COVER OIL SEAL** (See page EM-180)
24. **REMOVE CRANK ANGLE SENSOR PLATE NO. 1**
 - (a) Remove the crank angle sensor plate No. 1.
25. **REMOVE CHAIN TENSIONER PLUNGER**
 - (a) Move the stopper plate downward and hold it with the lock released.[*1]
HINT:
If it is difficult to release the stopper plate lock, use the hexagon head portion of the camshaft and rotate the camshaft a little to the right and left.

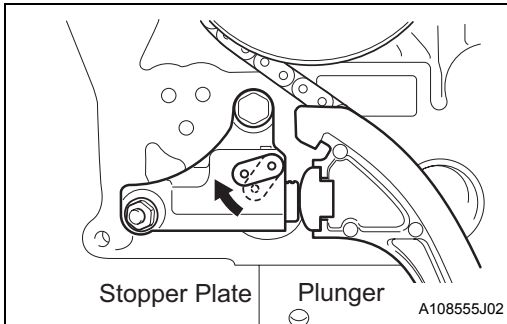




- (b) Under the conditions noted at [*1], use the hexagon head portion of the camshaft to rotate the camshaft a little to the right and hold.[*2]

HINT:

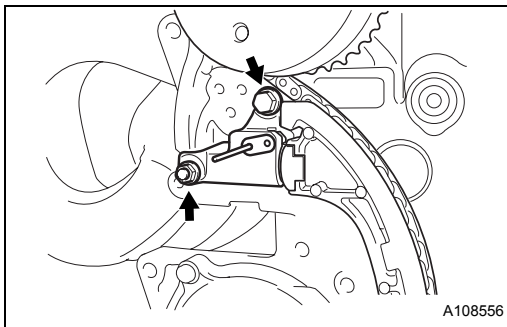
Rotating the camshaft to the right will press the tensioner plunger.



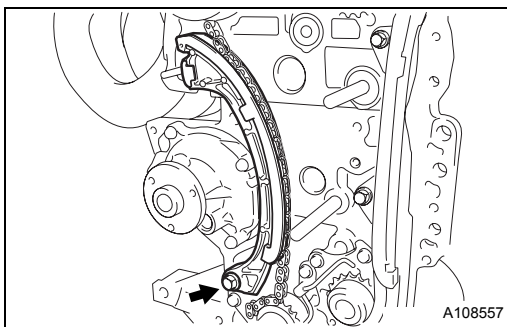
- (c) Under the conditions noted at [*2], align the stopper plate and the chain tensioner plunger hole.[*3]

HINT:

If the stopper plate and the chain tensioner plunger hole are difficult to align, rotate the camshaft a little to the left and then back a little to the right again to align them.

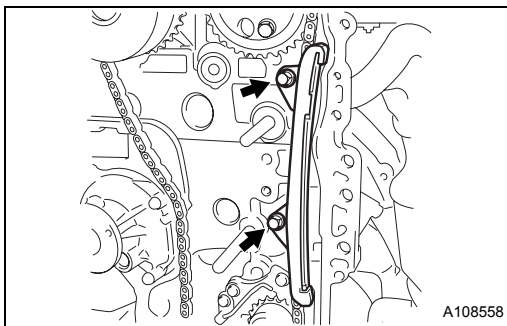


- (d) Under the conditions noted at [*3], insert a bar of 3 mm in diameter into the stopper plate and the chain tensioner plunger hole.
(e) Remove the bolt and nut and then remove the chain tensioner plunger.



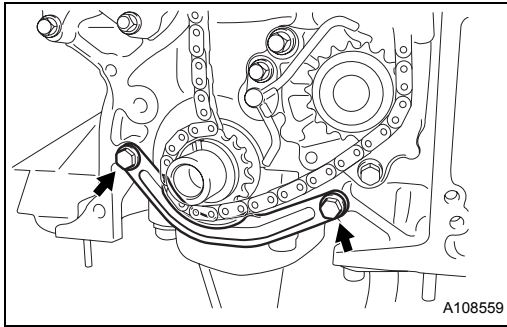
26. REMOVE TIMING CHAIN TENSION ARM

- (a) Remove the bolt and the timing chain tensioner arm.



27. REMOVE TIMING CHAIN GUIDE

- (a) Remove the 2 bolts and the timing chain guide.



28. REMOVE TIMING CHAIN GUIDE NO. 2

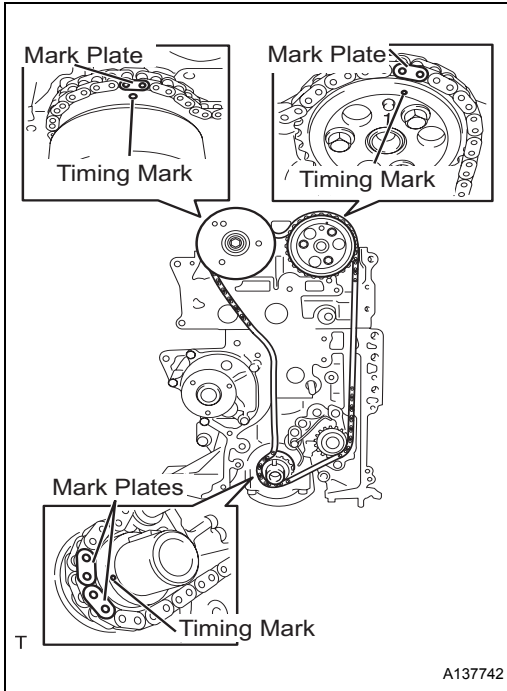
- (a) Remove the 2 bolts and the timing chain guide No. 2.

29. REMOVE CHAIN

INSTALLATION

1. INSTALL CHAIN

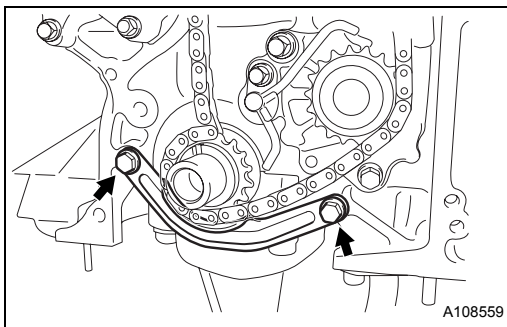
- (a) Align the mark plate (yellow) and the timing mark as shown in the illustration and install the chain.

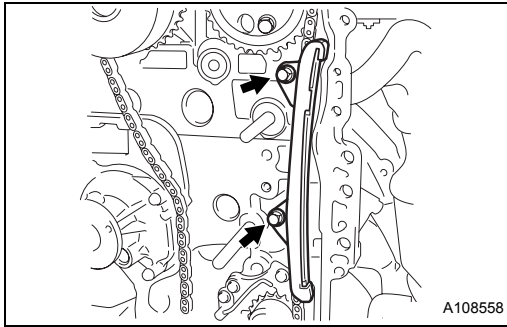


2. INSTALL TIMING CHAIN GUIDE NO. 2

- (a) Install the timing chain guide No. 2 with the 2 bolts.

Torque: 7.5 N*m (76 kgf*cm)

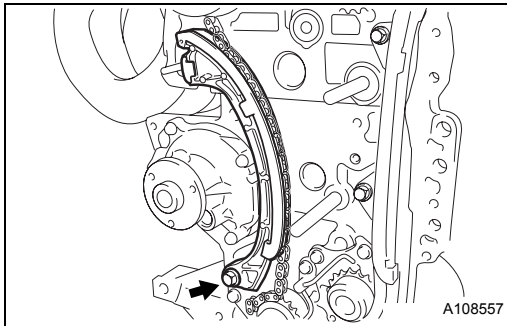




3. INSTALL TIMING CHAIN GUIDE

- (a) Install the timing chain guide with the 2 bolts.

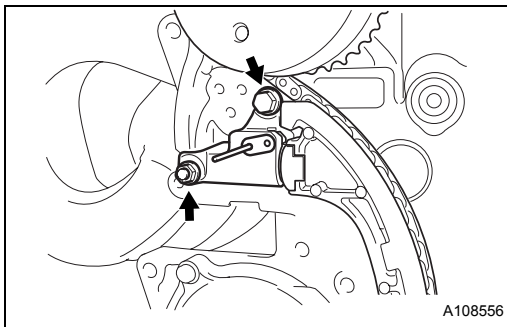
Torque: 7.5 N*m (76 kgf*cm)



4. INSTALL TIMING CHAIN TENSION ARM

- (a) Install the timing chain tension arm with the bolt.

Torque: 19 N*m (195 kgf*cm)



5. INSTALL CHAIN TENSIONER PLUNGER

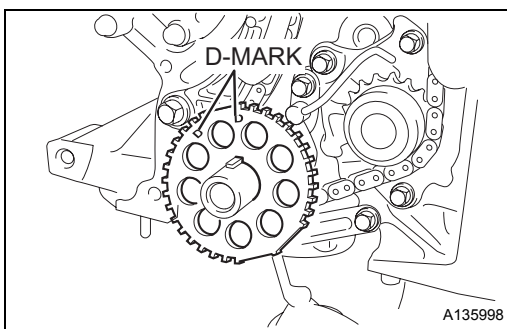
- (a) Install the chain tensioner plunger with the bolt and nut.

Torque: 9.0 N*m (92 kgf*cm)

HINT:

Using the hexagon wrench head portion of the camshaft, rotate the camshaft a little to the left, and with the chain slightly slack on the chain tensioner plunger side, attach the chain tensioner plunger.

- (b) Pull the 3 mm diameter bar out from the chain tensioner plunger.



6. INSTALL CRANK ANGLE SENSOR PLATE NO. 1

- (a) Install the crank angle sensor plate No. 1 so that the D mark is visible.

7. INSTALL TIMING CHAIN (BELT) COVER (See page EM-188)

8. INSTALL TIMING CHAIN (BELT) COVER OIL SEAL (See page EM-206)

9. INSTALL CRANK POSITION SENSOR (See page EM-92)

10. INSTALL CAMSHAFT TIMING OIL CONTROL VALVE ASSEMBLY (See page EM-189)

11. INSTALL CRANKSHAFT PULLEY (See page EM-189)

12. INSTALL CYLINDER HEAD COVER (See page EM-190)

13. INSTALL SPARK PLUG (See page EM-190)

14. INSTALL IGNITION COIL ASSEMBLY (See page EM-190)

15. INSTALL RADIATOR PIPE (See page EM-194)

16. REMOVE ENGINE ROOM MAIN WIRE (See page EM-193)

17. INSTALL VENTILATION HOSE (See page EM-193)

EM

18. INSTALL VENTILATION HOSE NO. 2 (See page EM-193)
19. INSTALL IDLER PULLEY NO. 1 (See page EM-191)
20. INSTALL FAN PULLEY (See page CO-33)
21. INSTALL VANE PUMP WITH BRACKET (See page EM-103)
22. INSTALL FAN AND ALTERNATOR V BELT (See page EM-12)
23. ADJUST FAN AND ALTERNATOR V BELT (See page EM-13)
24. CHECK FAN AND ALTERNATOR V BELT (See page EM-13)
25. INSTALL ACCELERATOR CONTROL CABLE ASSEMBLY (See page EM-193)
26. INSTALL RADIATOR HOSE NO. 1 (See page CO-25)
27. INSTALL AIR CLEANER ASSEMBLY (See page EM-194)
28. INSTALL AIR CLEANER HOSE NO. 1 (See page CO-26)
29. INSTALL BATTERY CARRIER (See page EM-194)
30. INSTALL BATTERY
31. CONNECT NEGATIVE BATTERY TERMINAL
Torque: 5.4 N*m (55 kgf*cm)
32. ADD ENGINE COOLANT (See page CO-11)
33. ADD ENGINE OIL
34. CHECK FOR ENGINE COOLANT LEAKS (See page CO-12)
35. CHECK FOR ENGINE OIL LEAKS
36. CHECK ENGINE OIL LEVEL (See page EM-195)
37. CHECK IGNITION TIMING (See page EM-4)
38. CHECK IDLE SPEED (See page EM-5)
39. INSTALL ENGINE UNDER COVER (See page EM-104)

