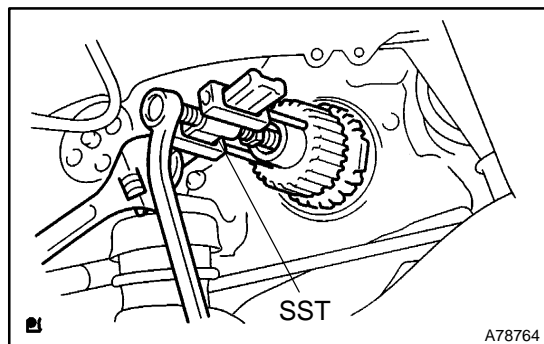


# OIL PUMP SEAL (1MZ-FE/3MZ-FE)

141IN-02

## REPLACEMENT

1. REMOVE FRONT WHEEL RH
2. REMOVE FRONT FENDER APRON SEAL RH
3. REMOVE V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1  
(See page 14-140)
4. REMOVE VANE PUMP V BELT (See page 14-140)
5. REMOVE ENGINE MOVING CONTROL ROD (See page 14-164)
6. REMOVE ENGINE MOUNTING STAY NO.2 RH (See page 14-164)
7. REMOVE GENERATOR BRACKET NO.2
8. REMOVE CRANKSHAFT PULLEY (See page 14-186)
9. REMOVE TIMING BELT NO.1 COVER (See page 14-186)
10. REMOVE TIMING BELT NO.2 COVER (See page 14-186)
11. REMOVE ENGINE MOUNTING BRACKET RH
12. REMOVE TIMING BELT GUIDE NO.2
13. REMOVE TIMING BELT (See page 14-186)

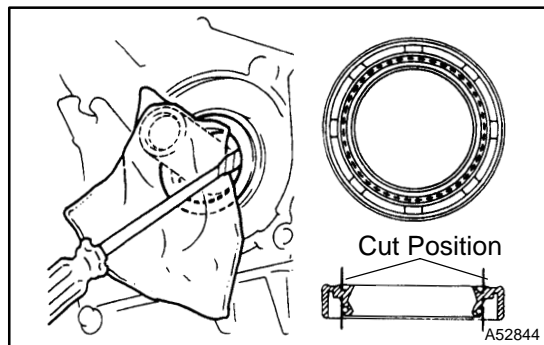


### 14. REMOVE CRANKSHAFT TIMING PULLEY

- (a) Remove the bolt and the timing belt plate.
- (b) Install the pulley bolt to the crankshaft.
- (c) Using SST, remove the crankshaft timing pulley.  
SST 09950-50013 (09951-05010, 09952-05010, 09953-05020, 09954-05010)

#### NOTICE:

- Do not scratch the sensor part of the crankshaft timing pulley.
- Before using SST, apply lubricating oil on the threads and tip of the center bolt 150.



### 15. REMOVE OIL PUMP SEAL

- (a) Using a knife, cut through the oil seal lip.
- (b) Using a screwdriver with its tip wrapped in tape, pry out the oil seal.

#### NOTICE:

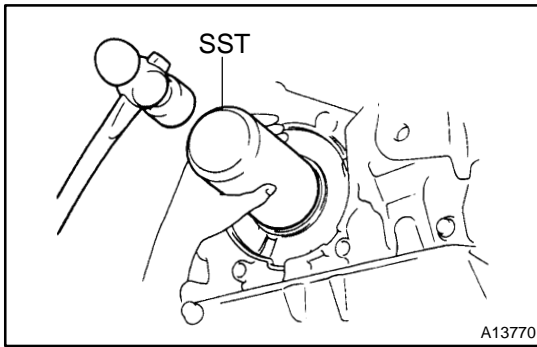
After the removal, check the crankshaft for damage. If it is damaged, smooth the surface with 400-grit sandpaper.

### 16. INSTALL OIL PUMP SEAL

- (a) Apply MP grease to a new oil seal lip.

#### NOTICE:

Keep the lip free of foreign matter.

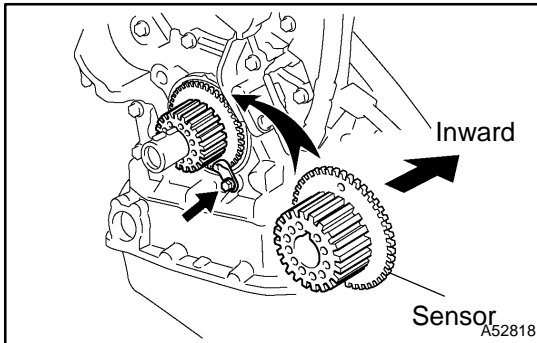


- (b) Using SST and a hammer, tap in the oil seal until its surface is flush with the oil pump edge.

SST 09223-00010

**NOTICE:**

- Be careful not to tap the oil seal slantingly.
- Wipe off extra grease on the crankshaft.



**17. INSTALL CRANKSHAFT TIMING PULLEY**

- (a) Align the keyway of the pulley with the key located on the crankshaft and slide the pulley into place.

**NOTICE:**

**Do not scratch the sensor part of the crankshaft timing pulley.**

- (b) Install the timing belt plate with the bolt.

**Torque: 8.0 N·m (82 kgf·cm, 71 in.-lbf)**

18. INSPECT TIMING BELT (See page [14-186](#))
19. INSTALL TIMING BELT (See page [14-186](#))
20. INSTALL TIMING BELT GUIDE NO.2 (See page [14-186](#))
21. INSTALL ENGINE MOUNTING BRACKET RH  
Torque: 28 N·m (286 kgf·cm, 21 ft·lbf)
22. INSTALL TIMING BELT NO.2 COVER (See page [14-186](#))
23. INSTALL TIMING BELT NO.1 COVER (See page [14-186](#))
24. INSTALL CRANKSHAFT PULLEY (See page [14-186](#))
25. INSTALL GENERATOR BRACKET NO.2  
Torque: 28 N·m (286 kgf·cm, 21 ft·lbf)
26. INSTALL ENGINE MOUNTING STAY NO.2 RH (See page [14-164](#))
27. INSTALL ENGINE MOVING CONTROL ROD (See page [14-164](#))
28. INSTALL VANE PUMP V BELT (See page [14-140](#))
29. INSTALL V (COOLER COMPRESSOR TO CRANKSHAFT PULLEY) BELT NO.1  
(See page [14-140](#))
30. INSPECT DRIVE BELT TENSION (See page [14-136](#))
31. INSTALL FRONT WHEEL RH
32. CHECK FOR ENGINE OIL LEAKS