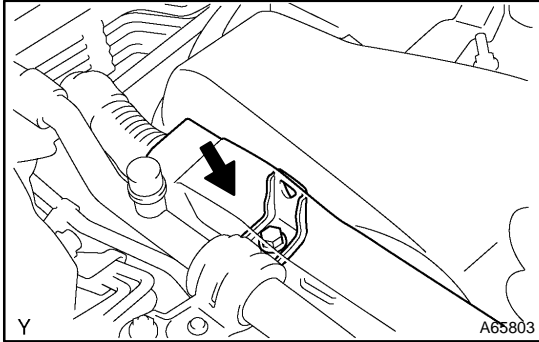


TIMING GEAR COVER OIL SEAL (2ZZ-GE)

REPLACEMENT

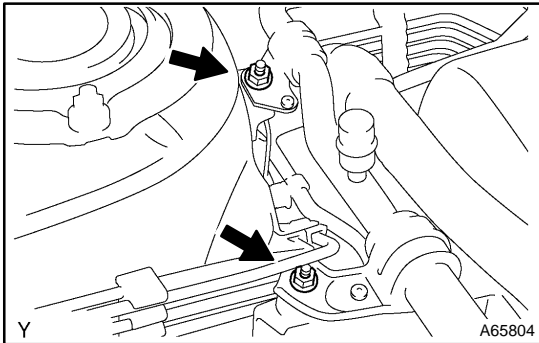
140RG-01

1. REMOVE ENGINE UNDER COVER RH



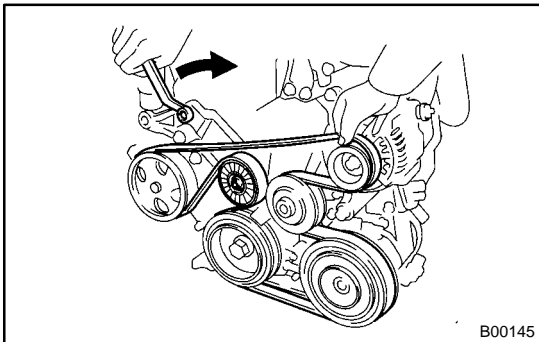
2. REMOVE WIRE HARNESS CLAMP

- (a) Disconnect the engine wire harness.
- (b) Remove the bolt and wiring harness clamp bracket.



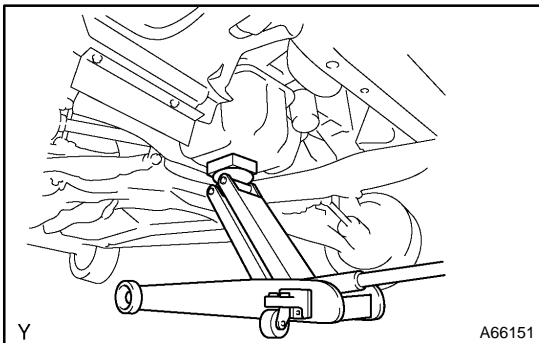
3. DISCONNECT SUCTION HOSE SUB-ASSY

- (a) Remove the 2 nuts installing the suction hose sub-assy.
- (b) Disconnect the suction hose sub-assy.



4. REMOVE FAN AND GENERATOR V BELT

- (a) Turn the drive belt tensioner slowly clockwise and loosen it. Then, remove the drive belt and put back the drive belt tensioner little by little and fix it quietly.

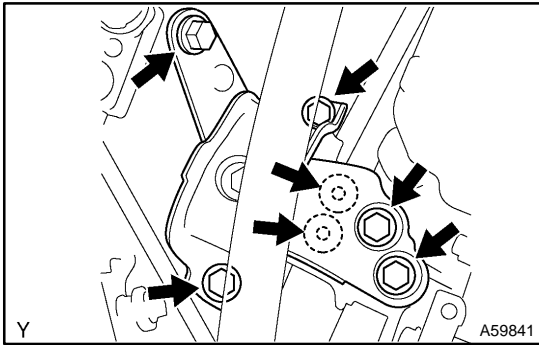


5. REMOVE ENGINE MOUNTING INSULATOR SUB-ASSY RH

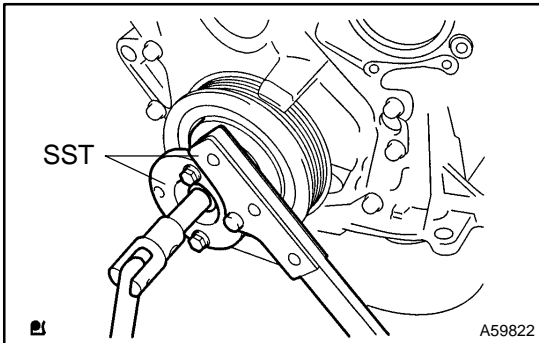
- (a) Set the jack to the engine.

HINT:

Place a wooden block between the jack and engine.

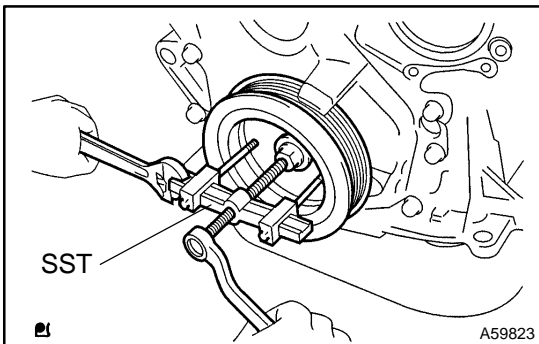


- (b) Remove the 5 bolts, 2 nuts and engine mounting insulator sub-assy RH.

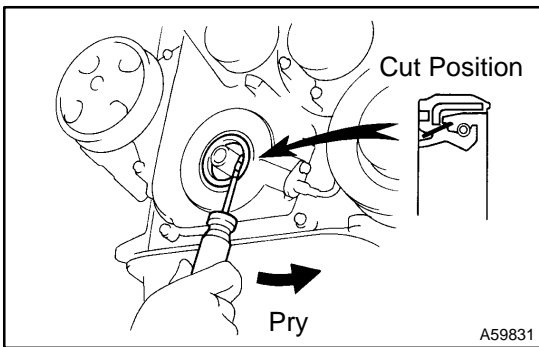


6. REMOVE CRANKSHAFT PULLEY

- (a) Using SST, remove the pulley bolt.
SST 09213-70011 (09213-70020), 09330-00021



- (b) Using SST, remove the crankshaft pulley.
SST 09950-50013 (09951-05010, 09952-05010, 09954-05021, 09953-05020, 09957-04010)

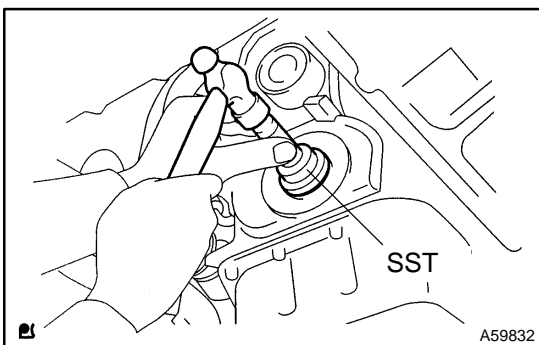


7. REMOVE TIMING GEAR COVER OIL SEAL

- (a) Using a knife, cut off the oil seal lip.
- (b) Using a screwdriver with taping its tip, pry out the oil seal.

NOTICE:

After the removal, check if the crankshaft is not damaged. If there is, mend it with a sandpaper (#400).



8. INSTALL TIMING GEAR COVER OIL SEAL

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

NOTICE:

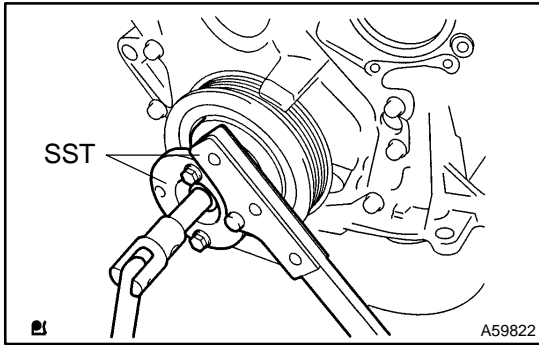
Keep the lip off foreign materials.

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

SST 09223-22010

NOTICE:

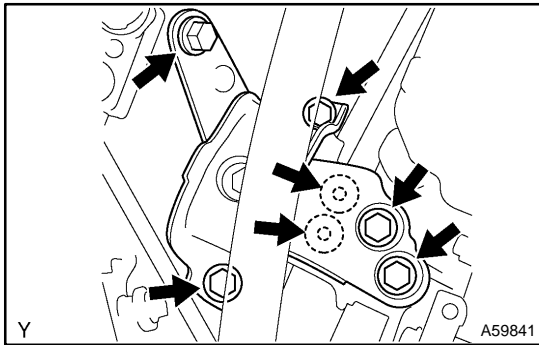
Wipe off extra grease on the crank shaft.

**9. INSTALL CRANKSHAFT PULLEY**

- (a) Align the pulley set key with the key groove of the pulley, and slide on the pulley.
- (b) Using SST, install the pulley bolt.

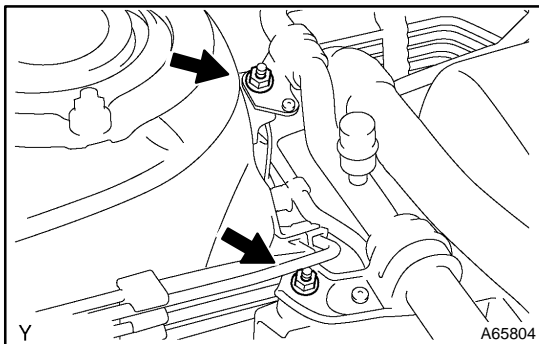
Torque: 118 N·m (1,203 kgf·cm, 87 ft·lbf)

SST 09213-70011 (09213-70020), 09330-00021

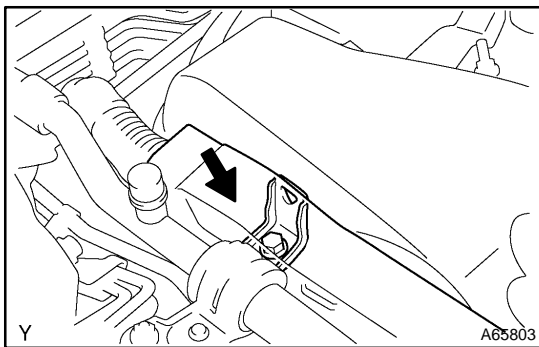
**10. INSTALL ENGINE MOUNTING INSULATOR SUB-ASSY RH**

- (a) Install the engine mounting insulator sub-assy RH with the 5 bolts and the 2 nuts.

Torque: 52 N·m (530 kgf·cm, 38 ft·lbf)

**11. INSTALL SUCTION HOSE SUB-ASSY**

Torque: 9.8 N·m (100 kgf·cm, 87 in·lbf)

**12. INSTALL WIRE HARNESS CLAMP**

Torque: 10 N·m (102 kgf·cm, 7 ft·lbf)

13. CHECK ENGINE OIL LEAK