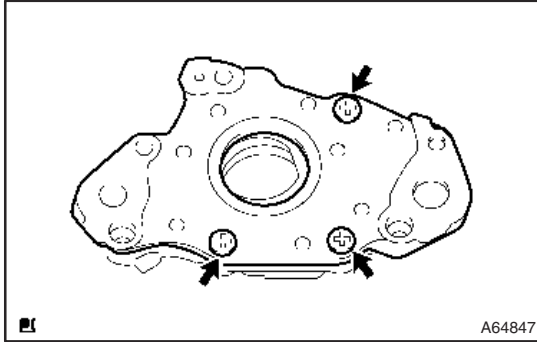
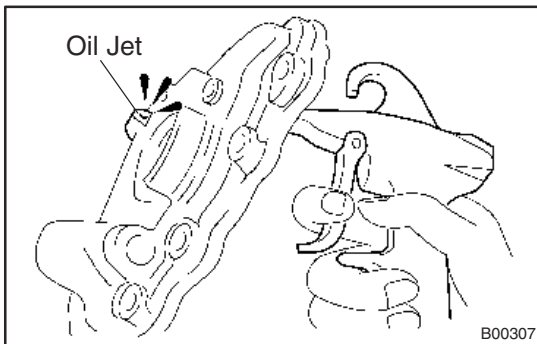
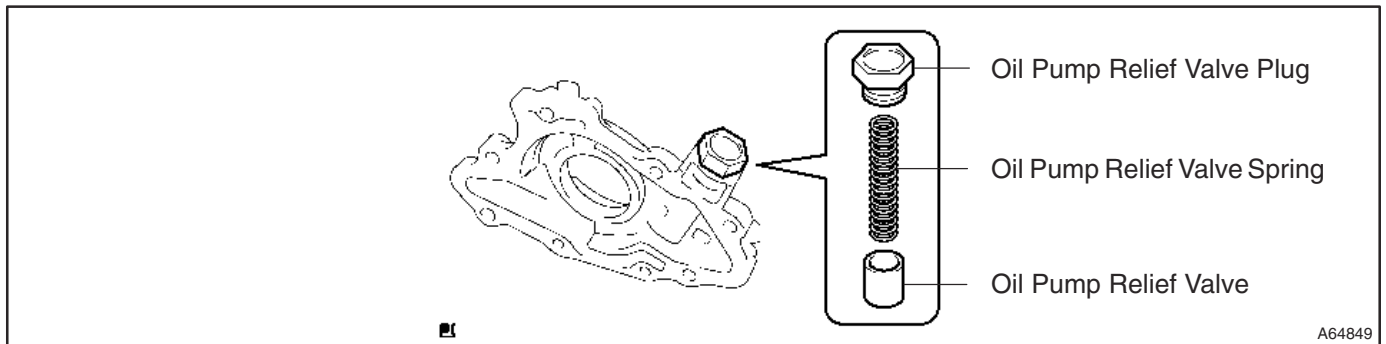


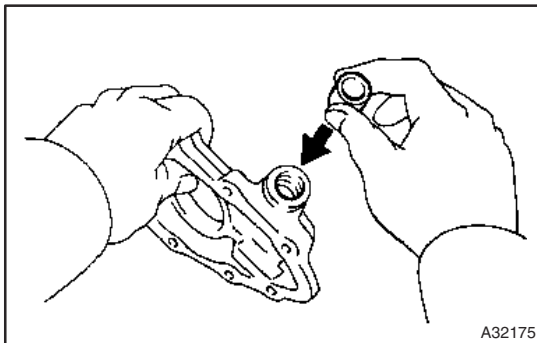
OVERHAUL



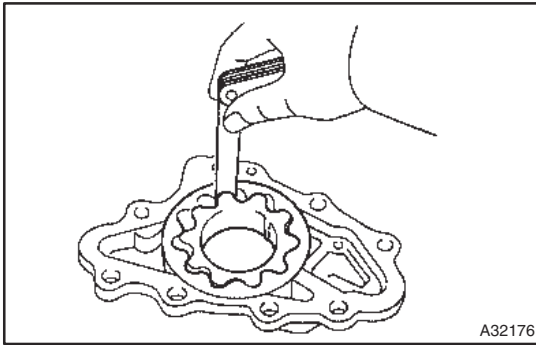
- 1. REMOVE OIL PUMP DRIVE AND DRIVEN ROTORS**
 - (a) Remove the 3 screws, then remove the oil pump cover.
 - (b) Remove the oil pump drive and driven rotors from the oil pump.
- 2. REMOVE OIL PUMP RELIEF VALVE**
 - (a) Remove the oil pump relief valve plug, then remove the oil pump relief valve spring and oil pump relief valve from the oil pump.



- 3. INSPECT OIL JET**
 - (a) Apply air pressure to the path in the illustration, then check the oil jet for damage or clogging. If air does not blow out of the oil jet, replace the oil pump.



- 4. INSPECT VALVE, OIL PUMP RELIEF**
 - (a) Coat the oil pump relief valve with engine oil, then check that it falls smoothly into the valve hole under its own weight. If this does not occur, replace the oil pump.



5. INSPECT ROTOR TIP CLEARANCE

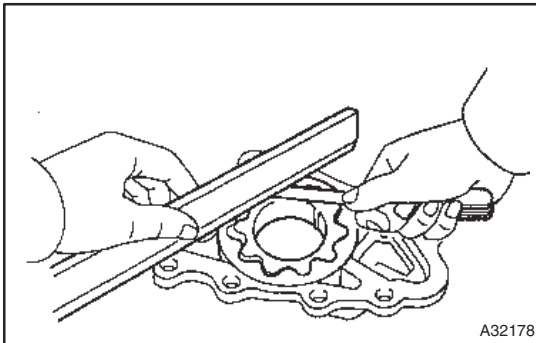
- (a) Using a feeler gauge, measure the clearance between the drive and driven rotor tips.

Standard tip clearance:

0.040 to 0.160 mm (0.0016 to 0.0063 in.)

Maximum tip clearance: 0.160 mm (0.0063 in.)

If the tip clearance is greater than maximum, then replace the oil pump.



6. INSPECT ROTOR SIDE CLEARANCE

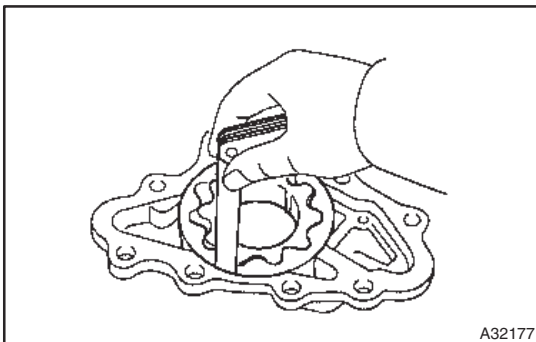
- (a) Using a feeler gauge and precision straight edge, measure the clearance between the 2 rotors and precision straight edge.

Standard side clearance:

0.025 to 0.071 mm (0.0010 to 0.0028 in.)

Maximum side clearance: 0.071 mm (0.0028 in.)

If the side clearance is greater than maximum, then replace the oil pump.



7. INSPECT ROTOR BODY CLEARANCE

- (a) Using a feeler gauge, measure the clearance between the driven rotor and oil pump body.

Standard body clearance:

0.260 to 0.325 mm (0.0102 to 0.0128 in.)

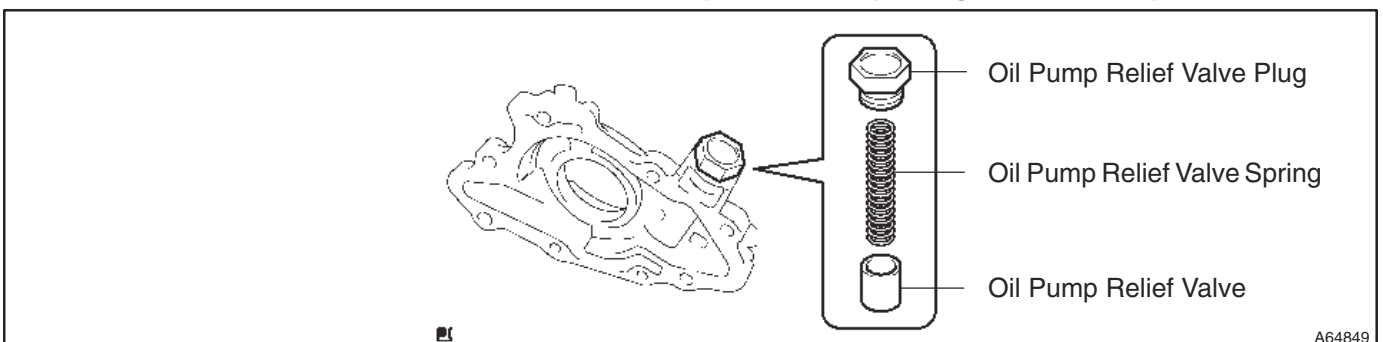
Maximum body clearance: 0.325 mm (0.0128 in.)

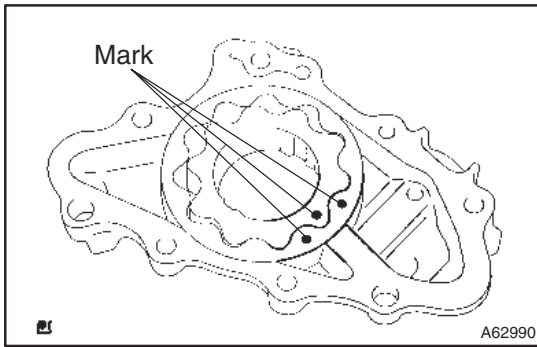
If the body clearance is greater than maximum, then replace the oil pump.

8. INSTALL OIL PUMP RELIEF VALVE

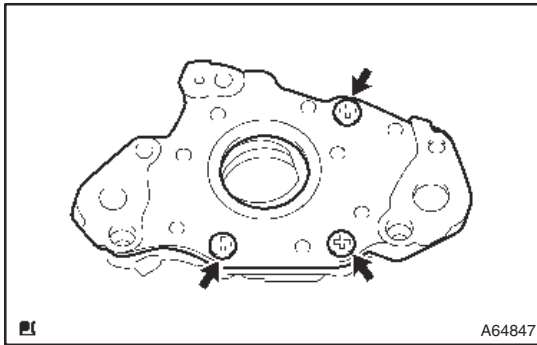
- (a) Coat the oil pump relief valve with engine oil, then insert the oil pump relief valve and oil pump relief spring onto the valve hole.
- (b) Install the oil pump relief valve plug.

Torque: 37 N·m (377 kgf·cm, 27 ft·lbf)





- 9. INSTALL OIL PUMP DRIVE AND DRIVEN ROTORS**
- (a) Coat the oil pump drive and driven rotors with engine oil, and place them into the oil pump with the marks facing the oil pump cover side.



- (b) Install the oil pump cover with the 3 screws.
Torque: 10 N·m (102 kgf·cm, 7.0 ft·lbf)