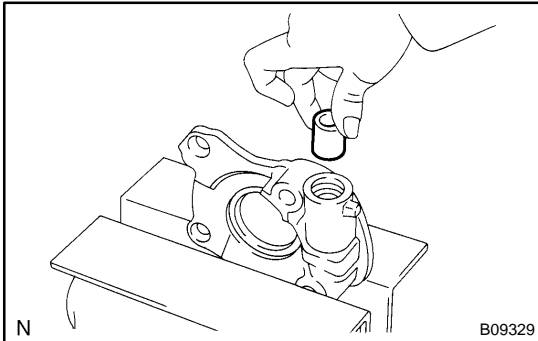


OVERHAUL

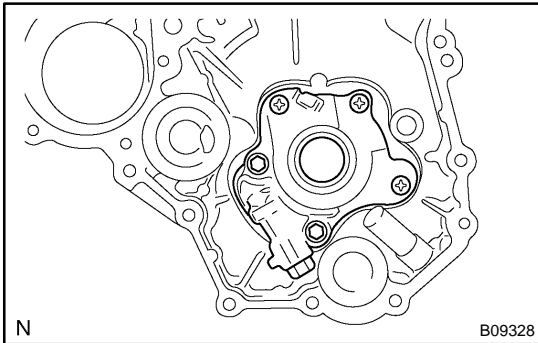
1. REMOVE OIL PUMP RELIEF VALVE

- (a) Remove the plug, spring and relief valve.



2. INSPECT OIL PUMP RELIEF VALVE

- (a) Coat the valve with engine oil and check that it falls smoothly into the valve hole by its own weight.



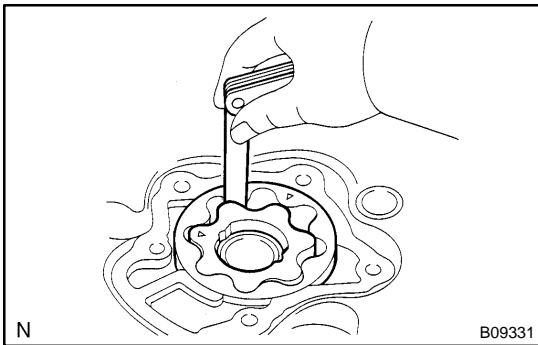
3. INSPECT OIL PUMP ASSY

- (a) Remove the oil pump cover.
 (1) Remove the 2 bolts and 3 screws, and then remove the oil pump cover.
 (b) Remove the oil pump gear set.

NOTICE:

Do not change the arrangement, and / or turn over the two removed rotors.

- (c) Inspect the oil pump gear set.
 (1) Coat the oil pump gear set with engine oil and place them into the oil pump body. Check that the rotors revolve smoothly.

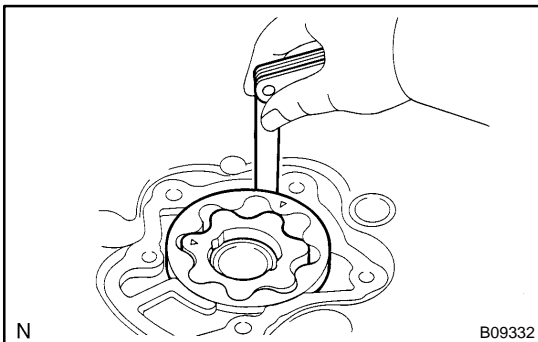


- (d) Inspect the rotor tip clearance.
 (1) Using a feeler gauge, measure the clearance between the drive and driven rotor tips.

Standard tip clearance:

0.060 to 0.180 mm (0.0024 to 0.0071 in.)

Maximum tip clearance: 0.28 mm (0.0110 in.)

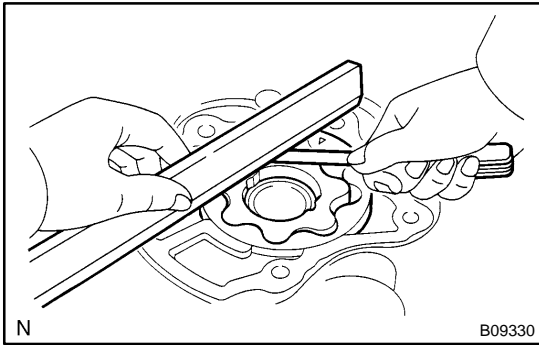


- (e) Inspect the rotor body clearance.
 (1) Using a feeler gauge, measure the clearance between the driven rotor and the oil pump body.

Standard body clearance:

0.250 to 0.325 mm (0.0098 to 0.0128 in.)

Maximum body clearance: 0.425 mm (0.0167 in.)

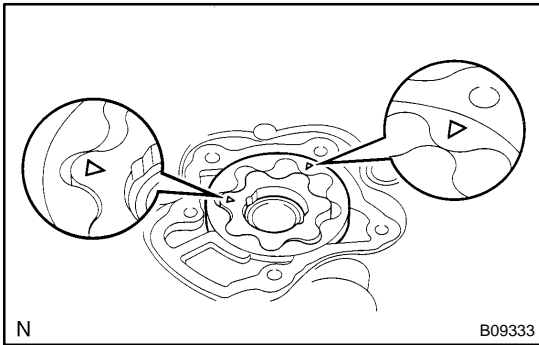


- (f) Inspect the rotor side clearance.
- (1) Using a feeler gauge and precision straight edge, measure the clearance between the rotors and precision straight edge.

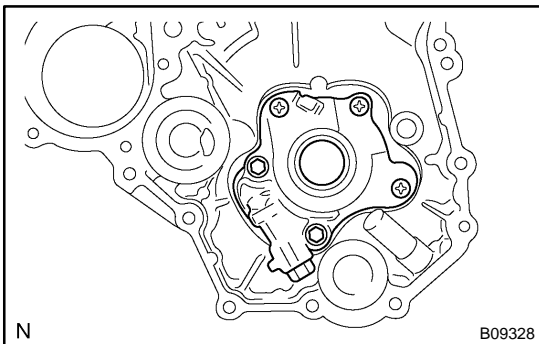
Standard side clearance:

0.03 to 0.09 mm (0.0012 to 0.0035 in.)

Maximum side clearance: 0.15 mm (0.0059 in.)



- (g) Install the oil pump gear set.
- (1) Coat the oil pump gear set with engine oil and place it into pump body with the marks facing the pump body cover side.



- (h) Install the oil pump cover.
- (1) Install the oil pump cover with the 2 bolts and 3 screws.

Torque:

Bolt 8.8 N·m (90 kgf·cm, 78 in·lbf)

Screw 10 N·m (105 kgf·cm, 7.6 ft·lbf)

4. INSTALL OIL PUMP RELIEF VALVE

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

Torque: 25 N·m (255 kgf·cm, 18 ft·lbf)