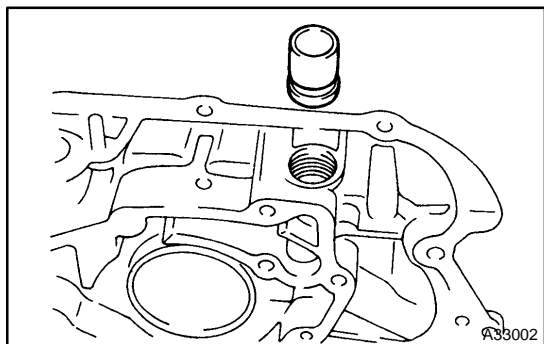


OVERHAUL

1. REMOVE OIL PUMP RELIEF VALVE

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



2. INSPECT OIL PUMP RELIEF VALVE

- (a) Apply a light coat of engine oil to the oil pump relief valve
 (b) Check that the valve falls smoothly into the valve hole by its own weight.

If it does not, replace the relief valve. If necessary, replace the oil pump assy.

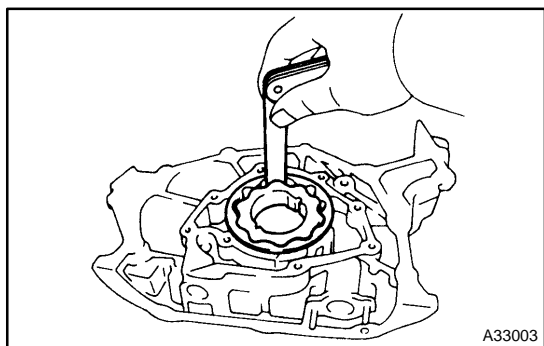
3. INSPECT OIL PUMP COVER

- (a) Remove the 10 screws and the oil pump cover.

4. INSPECT OIL PUMP ROTOR

- (a) Apply a light coat of engine oil to the oil pump rotor set and place them into the oil pump body. Check that the rotors revolve smoothly.

If the result is not as specified, replace the oil pump assy.



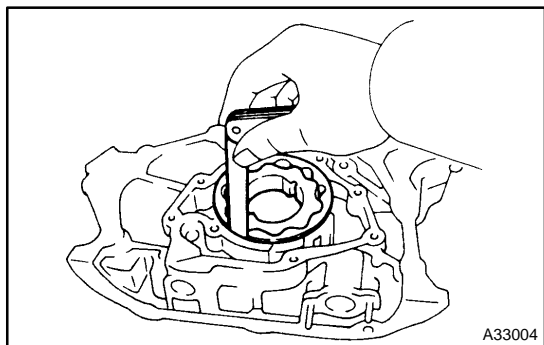
- (b) Check the tip clearance.

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

Standard: 0.060 to 0.180 mm (0.0024 to 0.0071 in.)

Maximum: 0.30 mm (0.0118 in.)

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



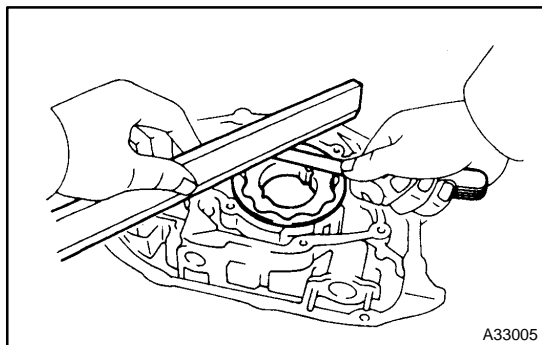
- (c) Check the body clearance between the driven rotor and pump body.

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

Standard: 0.250 to 0.325 mm (0.0098 to 0.0128 in.)

Maximum: 0.50 mm (0.0197 in.)

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



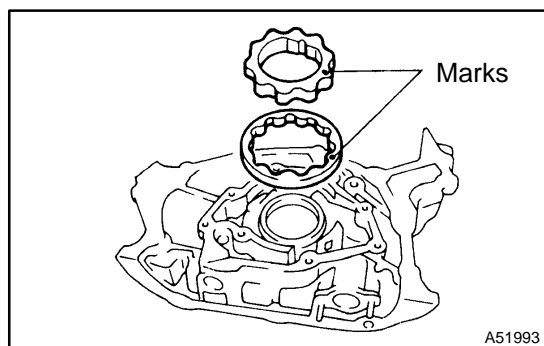
- (d) Check the side clearance.
- (1) Using a feeler gauge and precision straight edge, measure the clearance between the rotors and precision straight edge.

Standard: 0.030 to 0.090 mm (0.0012 to 0.0035 in.)

Maximum: 0.15 mm (0.0059 in.)

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

5. REMOVE OIL PUMP ROTOR



6. INSTALL OIL PUMP ROTOR

- (a) Apply a light coat of engine oil to the oil pump gear set and place it into the pump body with the marks facing the pump body cover side.

7. INSTALL OIL PUMP COVER

- (a) Install the oil pump cover with the 10 screws.

Torque: 10 N·m (102 kgf·cm, 7 ft·lbf)

8. INSTALL OIL PUMP RELIEF VALVE

- (a) Apply a light coat of engine oil to the relief valve, and insert the relief valve and spring into the pump body hole.

- (b) Install the plug.

Torque: 49 N·m (500 kgf·cm, 36 ft·lbf)