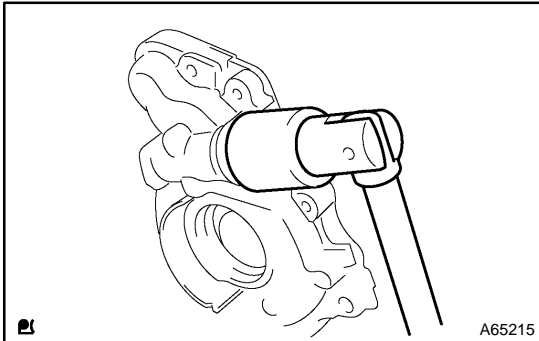
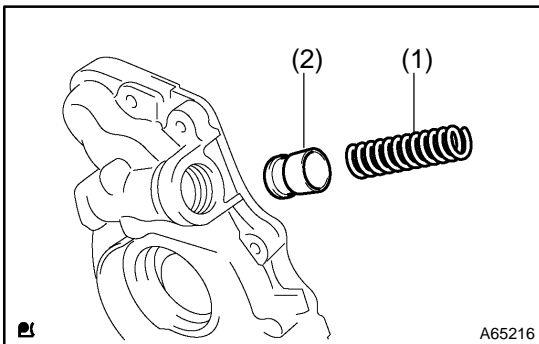


OVERHAUL

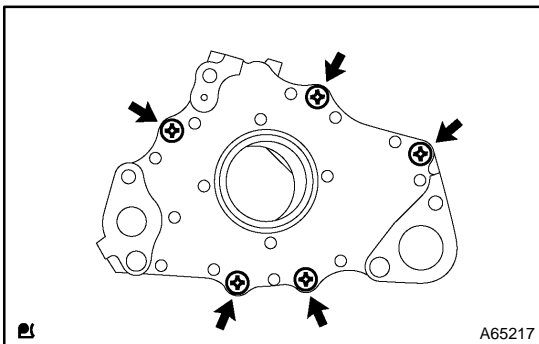


1. REMOVE OIL PUMP RELIEF VALVE

- (a) Using a 28 mm socket wrench, remove the oil pump relief valve plug.

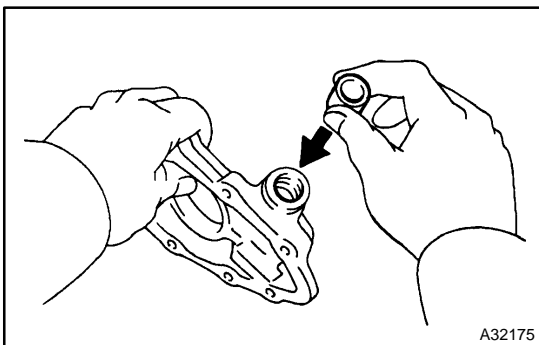


- (b) Remove the oil pump relief valve spring and oil pump relief valve.
 - (1) Oil pump relief valve spring
 - (2) Oil pump relief valve

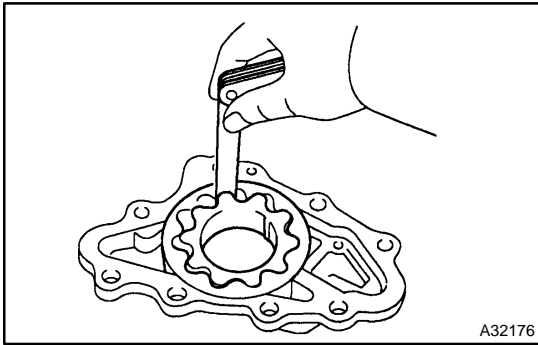


2. INSPECT OIL PUMP ASSY

- (a) Remove the 5 screws and oil pump cover.

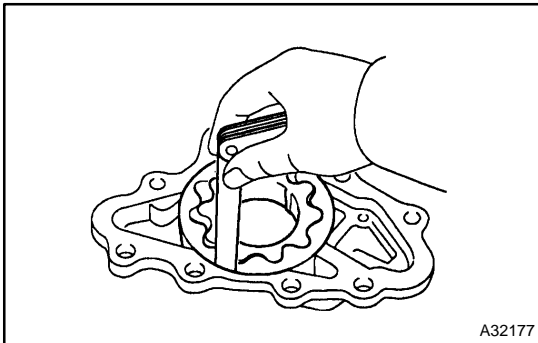


- (b) Check the oil pump relief valve.
 - (1) Coat the valve with engine oil, then check that it falls smoothly into the valve hole by its own weight.
- (c) Check the oil pump rotor.
 - (1) Coat the oil pump gear set with engine oil, then place it into the oil pump body. Check that the rotor revolves smoothly.



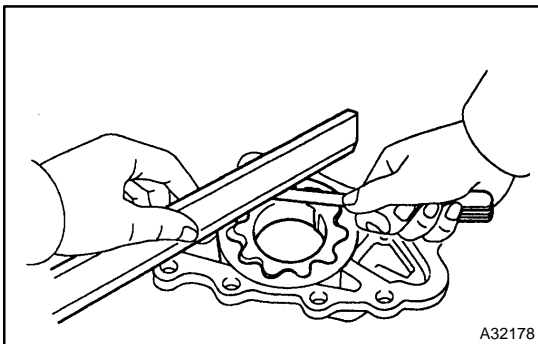
- (d) Check the rotor tip clearance.
 (1) Using a feeler gauge, measure the clearance between the drive and driven rotor tips.

Standard tip clearance:
0.060 to 0.180 mm (0.0024 to 0.0071 in.)
Maximum tip clearance:
0.35 mm (0.0138 in.)



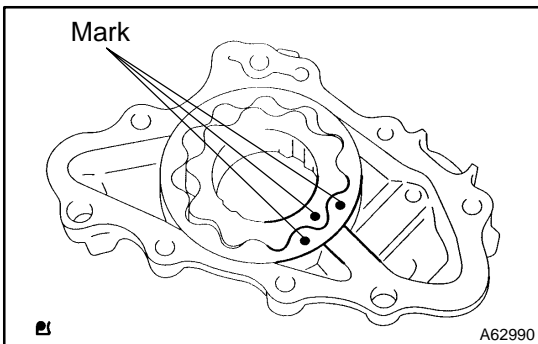
- (e) Check the body clearance.
 (1) Using a feeler gauge, measure the clearance between the driven rotor and body.

Standard body clearance:
0.125 to 0.180 mm (0.0049 to 0.0071 in.)
Maximum body clearance:
0.325 mm (0.0128 in.)

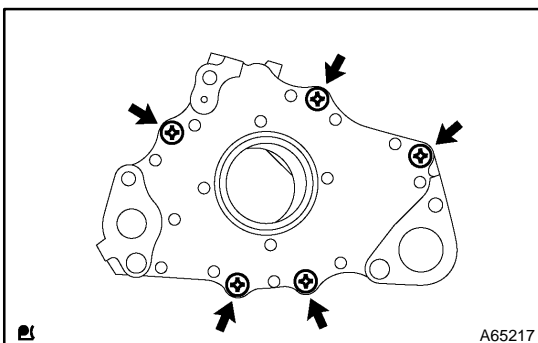


- (f) Check the rotor side clearance.
 (1) Using a feeler gauge and precision straight edge, measure the clearance between the rotors and precision straight edge.

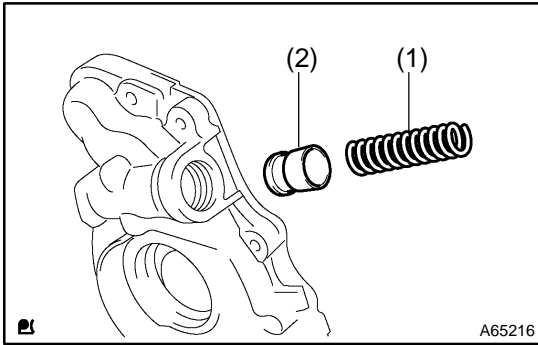
Standard side clearance:
0.030 to 0.080 mm (0.0012 to 0.0032 in.)
Maximum side clearance:
0.16 mm (0.0063 in.)



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



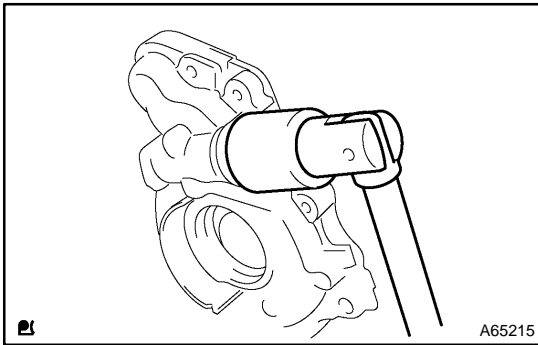
- (h) Install the oil pump cover with 5 screws.
Torque: 10 N·m (105 kgf·cm, 8 ft·lbf)



3. INSTALL OIL PUMP RELIEF VALVE

(a) Install the oil pump relief valve spring and oil pump relief valve.

- (1) Oil pump relief valve spring
- (2) Oil pump relief valve



(b) Using a 28 mm socket wrench, install the oil pump relief valve plug.

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