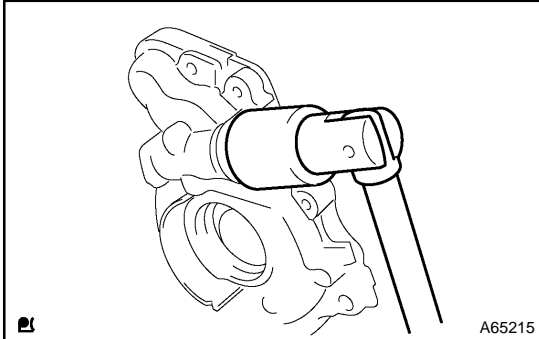
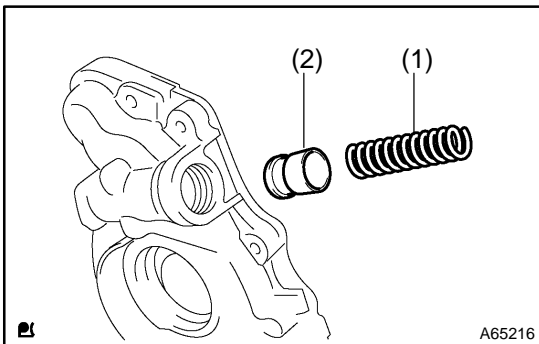


OVERHAUL



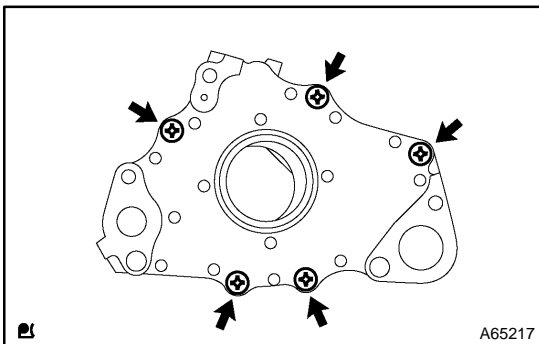
1. REMOVE OIL PUMP RELIEF VALVE

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



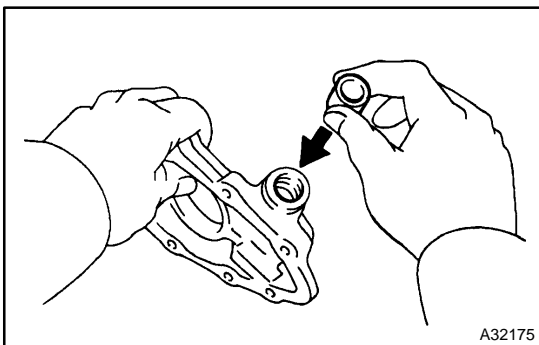
- (b) Remove the oil pump relief valve spring and oil pump relief valve.

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



2. INSPECT OIL PUMP ASSY

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

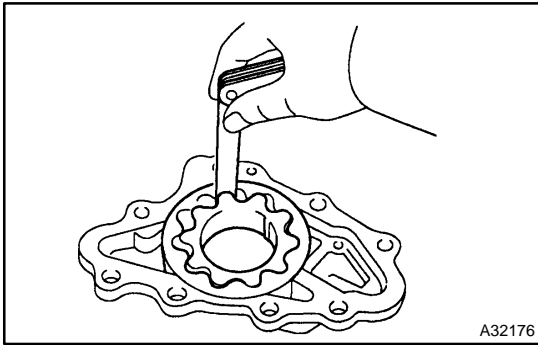


- (b) Inspect oil pump relief valve.

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

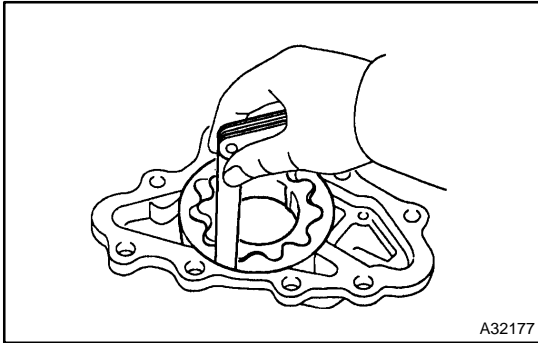
- (c) Inspect oil pump rotor sub-assembly.

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



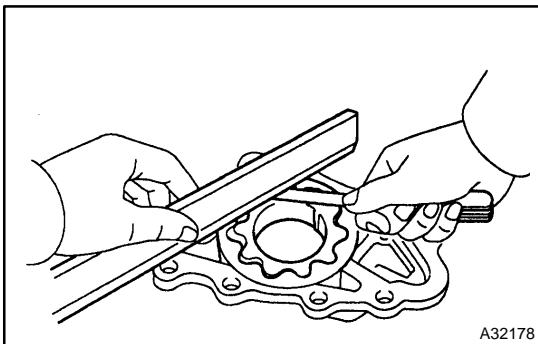
- (d) Inspect rotor tip clearance.
 (1) Using a feeler gauge, measure the clearance between the drive and driven rotor tips.

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



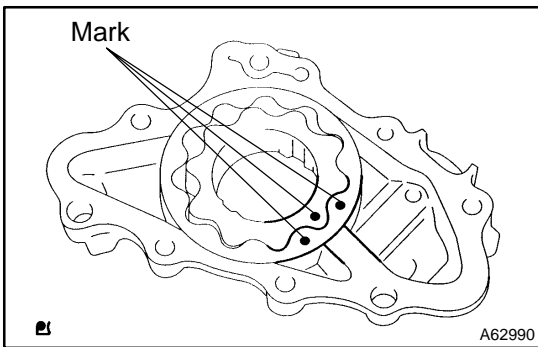
- (e) Inspect body clearance.
 (1) Using a feeler gauge, measure the clearance between the driven rotor and body.

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

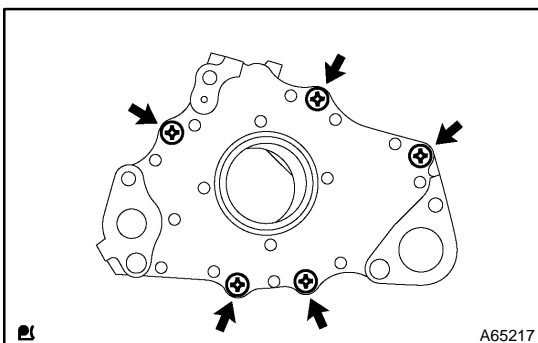


- (f) Inspect rotor side clearance.
 (1) Using a feeler gauge and precision straight edge, measure the clearance between the rotors and precision straight edge.

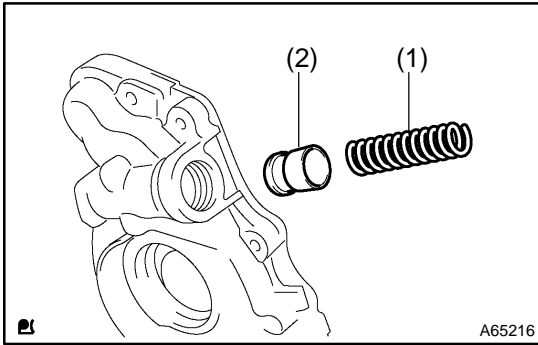
Standard side clearance:
0.030 – 0.080 mm (0.0012 – 0.0032 in.)
Maximum side clearance:
0.16 mm (0.0063 in.)



- (g) Install oil pump rotor sub-assembly.
 (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.



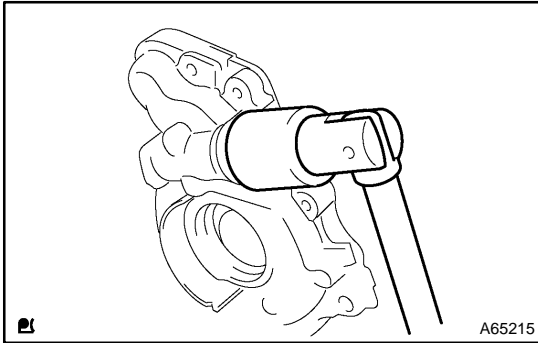
- (h) Install the oil pump cover with 5 screws.
Torque: 10 N·m (105 kgf·cm, 8.0 ft·lbf)



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)