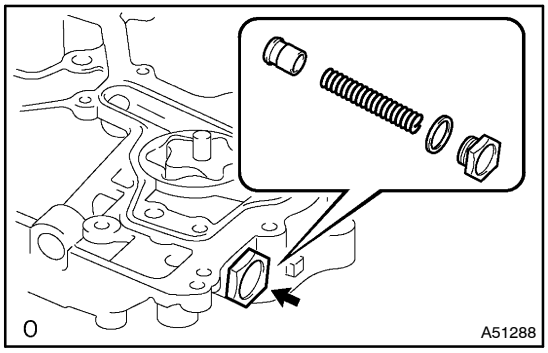
TIMING GEAR CASE ASSY (1KD–FTV)(From August, 2004)

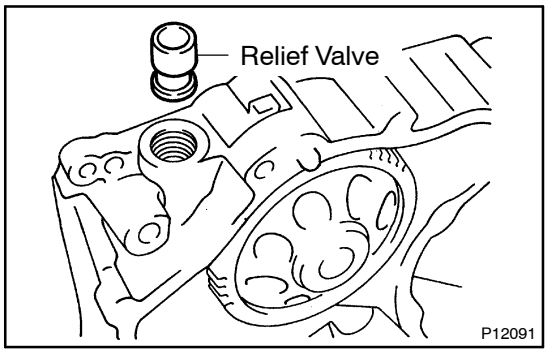
170N7–02

OVERHAUL



1. REMOVE OIL PUMP RELIEF VALVE

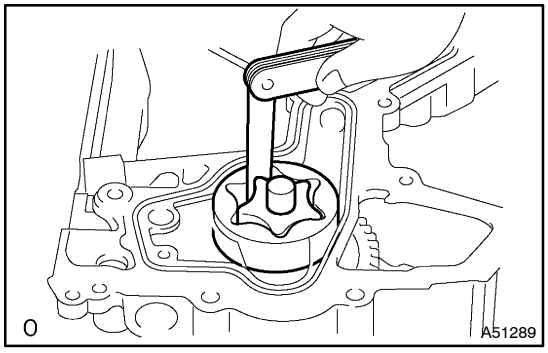
(a) Remove the plug, gasket, spring and relief valve from the timing gear case assy.



2. INSPECT OIL PUMP RELIEF VALVE

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

If it doesn't fall smoothly, replace the relief valve. If the problem still continues, replace the oil pump assembly.



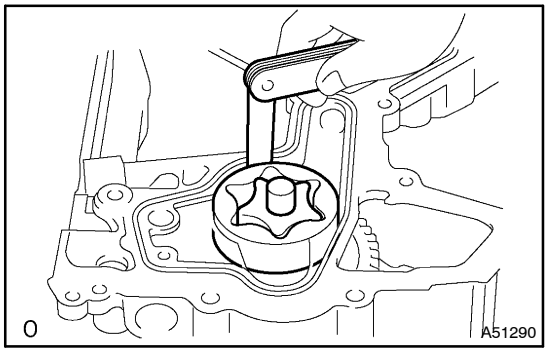
3. INSPECT TIMING GEAR CASE ASSY

(a) 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 0.160 mm (0.0024 to 0.0063 in.)
Maximum tip clearance: 0.21 mm (0.0083 in.)

If the tip clearance is greater than the maximum, replace the timing gear case.

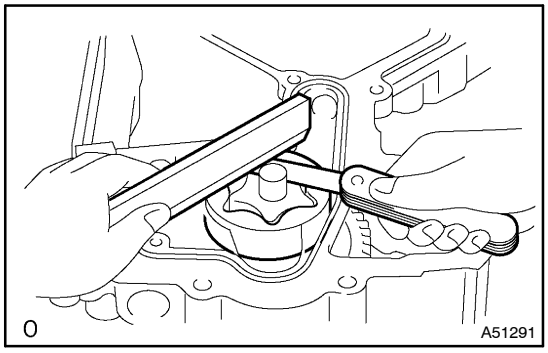


(b) Inspect the rotor body clearance.

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

Standard body clearance:
0.100 to 0.170 mm (0.0039 to 0.0067 in.)
Maximum body clearance: 0.20 mm (0.0079 in.)

If the body clearance is greater than the maximum, replace the timing gear case.

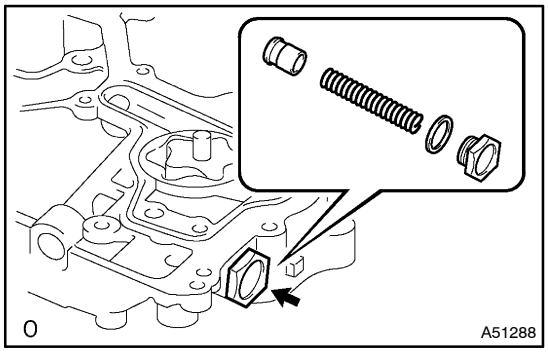


(c) Inspect the rotor side clearance.

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

Standard side clearance:
0.030 to 0.090 mm (0.0012 to 0.0035 in.)
Maximum side clearance: 0.15 mm (0.0059 in.)

If the side clearance is greater than the maximum, replace the timing gear case.



4. INSTALL OIL PUMP RELIEF VALVE

(a) Install the relief valve and spring to the timing gear case.

(b) Install a new gasket and plug.

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