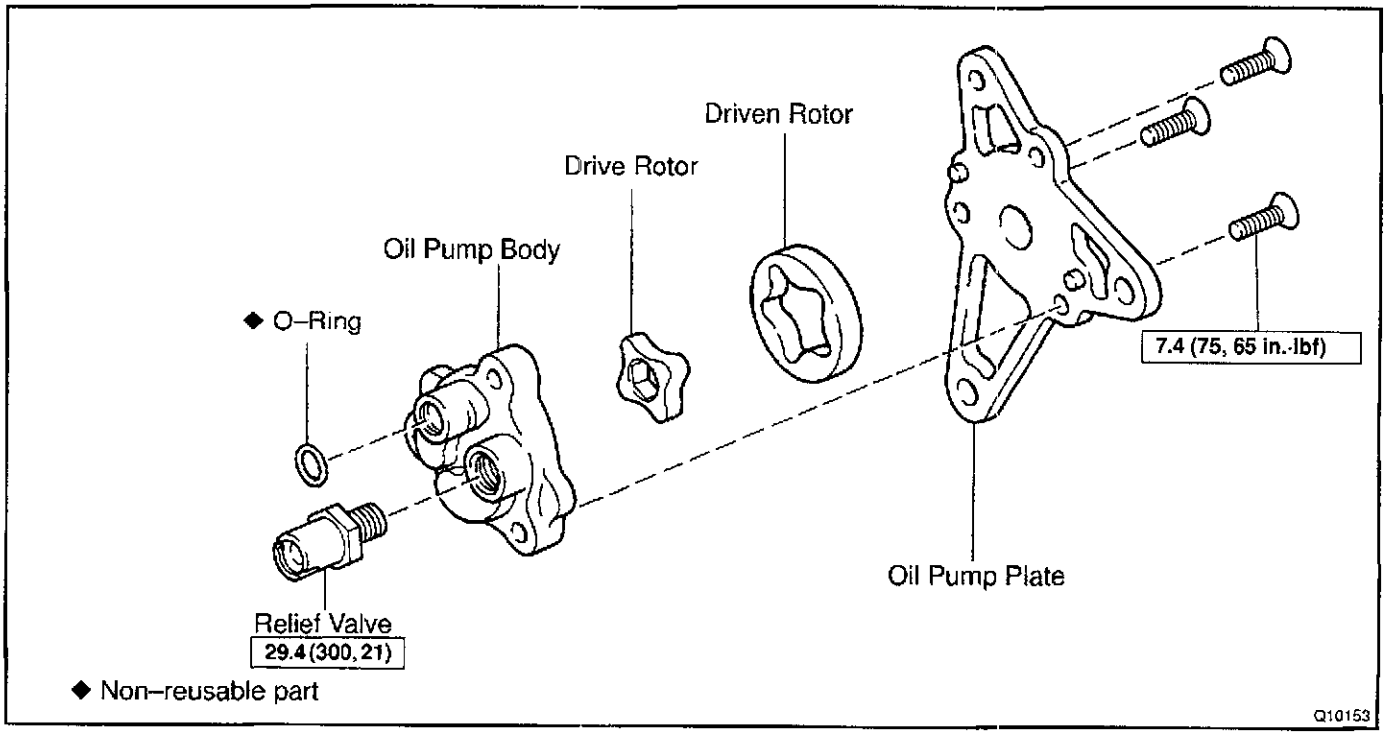
OIL PUMP BODY

COMPONENTS

TR036-01

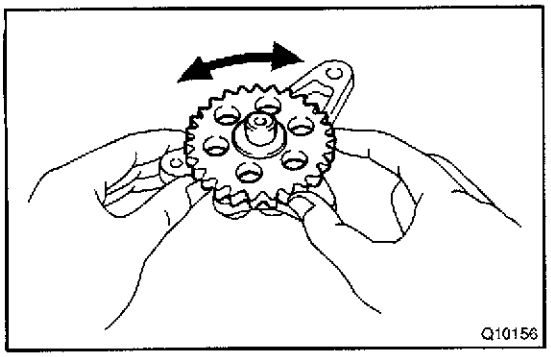


TR037-01

INSPECTION

1. CHECK OIL PUMP OPERATION

Install the oil pump drive gear to the drive rotor and check that the drive rotor turns smoothly.



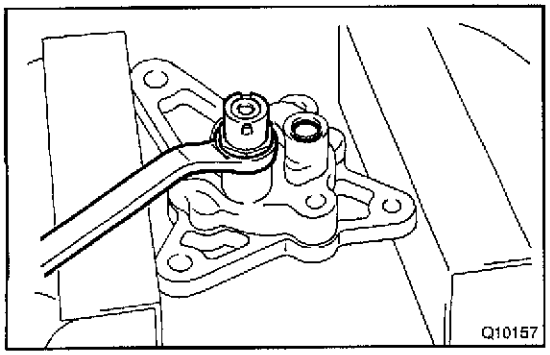
2. INSPECT ROTORS CLEARANCE

(a) Remove the relief valve and O–ring.

(1) Mount the oil pump plate in a vise.

(2) Remove the relief valve and O–ring from the oil pump body.

Torque: 29.4 N·m (300 kgf·cm, 21 ft·lbf)



HINT:

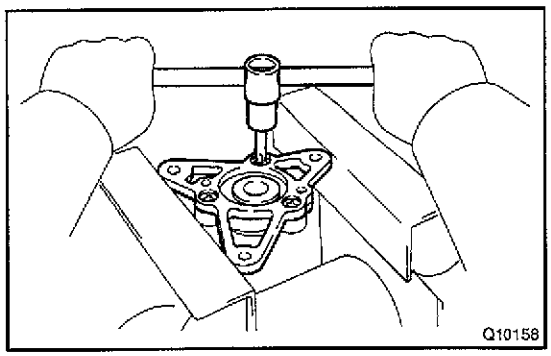
At the time of installation, coat a new O–ring with gear oil and install it to the oil pump body.

(b) Remove the oil pump plate.

(1) Using a torx socket wrench T30, remove the 3 torx screws.

Torque: 7.4 N·m (75 kgf·cm, 65 in.·lbf)

(2) Remove the oil pump plate.

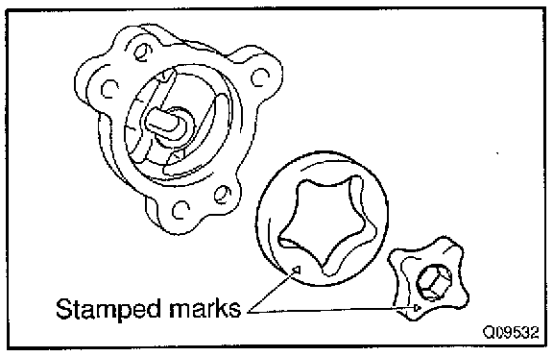


(c) Remove the drive rotor and driven rotor.

HINT:

At the time of installation, please refer to the following items.

- Apply gear oil to the both rotors.
- Align the stamped marks facing them upward.



(d) Inspect the driven rotor body clearance.

(1) Push the driven rotor to one side of the body.

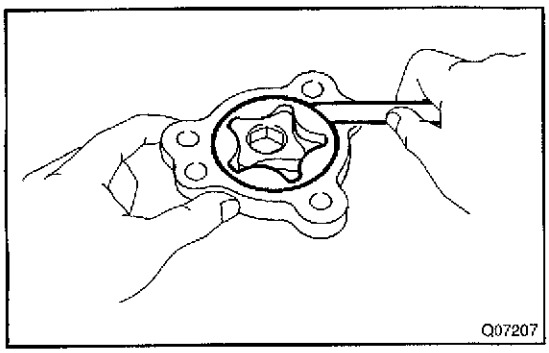
(2) Using a feeler gauge, measure the clearance.

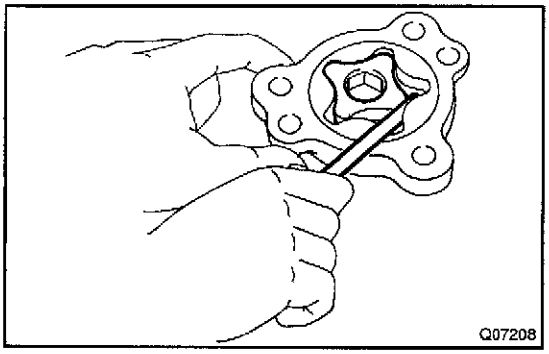
Standard clearance:

0.09 – 0.16 mm (0.0035 – 0.0063 in.)

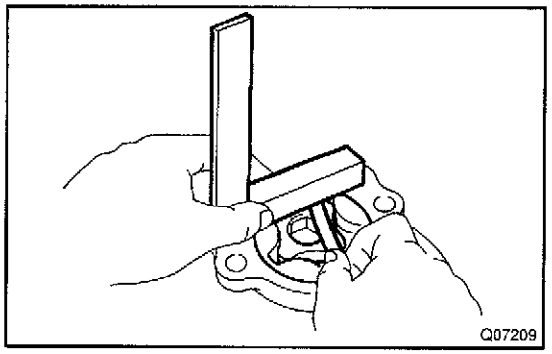
Maximum clearance: 0.16 mm (0.0063 in.)

If the clearance exceeds the maximum, replace the drive rotor, driven rotor or pump body.





(e) Inspect the both rotor tips clearance.
Using a feeler gauge, measure the clearance between both rotor tips.
Standard clearance:
0.05 – 0.15 mm (0.0020 – 0.0059 in.)
Maximum clearance: 0.15 mm (0.0059 in.)
If the clearance exceeds the maximum, replace the drive rotor, driven rotor or pump body.



(f) Inspect the both rotors side clearance.
Using a steel straight edge and feeler gauge, measure the clearance between the rotors and straight edge.
Standard clearance:
0.03 – 0.10 mm (0.0012 – 0.0039 in.)
Maximum clearance: 0.10 mm (0.0039 in.)
If the clearance exceeds the maximum, replace the drive rotor, driven rotor or pump body.

3. ASSEMBLE REMOVAL PARTS

HINT:
Assembly is in the reverse order of disassembly.