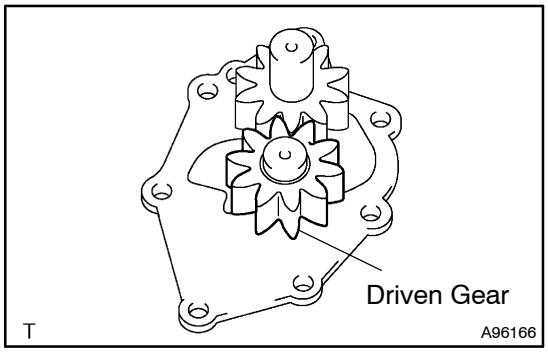
OIL PUMP ASSY (N04C–TF)

170L7–01

OVERHAUL

1. REMOVE OIL PUMP ASSY



2. REMOVE OIL PUMP DRIVEN GEAR

(a) Remove the driven gear from the oil pump.

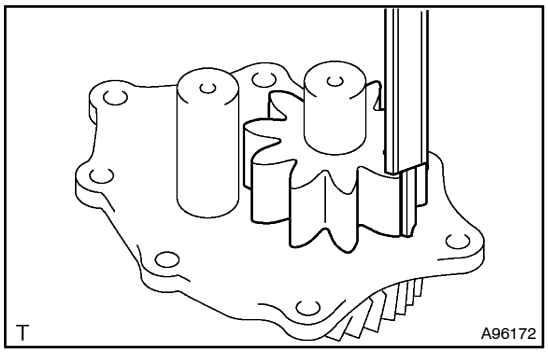
NOTICE:

Since the driven gear is a press–fit type, it cannot be disassembled.

3. INSPECT OIL PUMP ASSY

(a) Visually check each part of the oil pump for damage or wear.

If damage or wear is excessive, replace the oil pump assy with a new one.

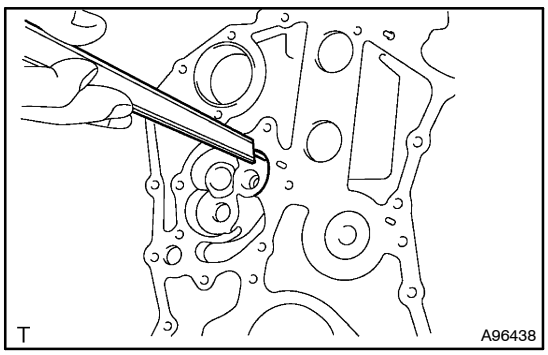


(b) Inspect the clearance between the driven gear and cylinder block.

(1) Using a vernier caliper, measure the length of the driven gear.

Standard:

27.02 to 27.04 mm (1.0638 to 1.0645 in.)



(2) Using a vernier caliper, measure the depth of the cylinder block.

Standard:

27.03 to 27.07 mm (1.0642 to 1.0657 in.)

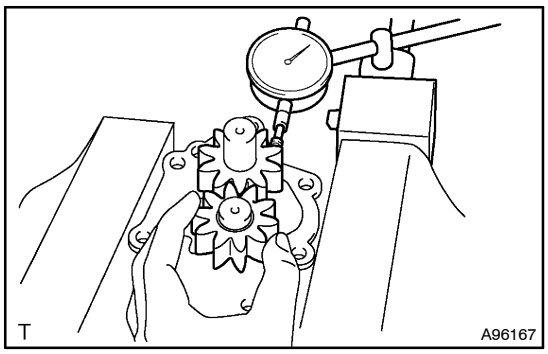
(3) Add the measurement of the cylinder block to the thickness of the gasket. From this total, subtract the measurement of the driven gear.

Standard:

0.05 to 0.13 mm (0.0019 to 0.0051 in.)

Maximum: 0.17 mm (0.0066 in.)

If the clearance is greater than the maximum, replace the oil pump assy or cylinder block.



(c) Inspect the backlash between the drive gear and driven gear.

(1) Using a vise, fix the oil pump.

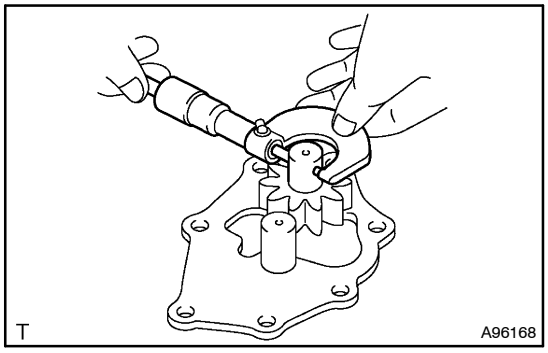
(2) Using a dial gauge, measure the backlash between the drive gear and driven gear.

Standard backlash:

0.091 to 0.217 mm (0.0036 to 0.0085 in.)

Maximum backlash: 0.25 mm (0.0098 in.)

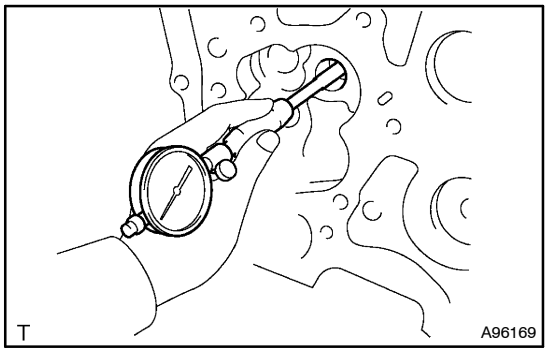
If the backlash is greater than the maximum, replace the oil pump assy with a new one.



(d) Inspect the clearance between the drive gear shaft and drive gear bush.

(1) Using a micrometer, measure the diameter of the drive gear shaft.

Standard shaft diameter:
18.088 to 18.106 mm (0.7121 to 0.7128 in.)
Minimum shaft diameter: 18.062 mm (0.7111 in.)



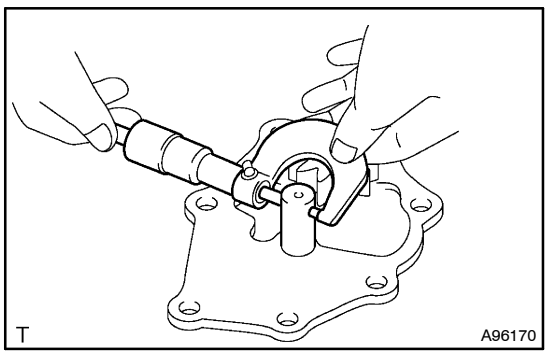
(2) Using a dial gauge, measure the inside diameter of the drive gear bush.

Standard bush inside diameter:
18.146 to 18.173 mm (0.7144 to 0.7155 in.)
Maximum bush inside diameter: 18.20 mm (0.7165 in.)

(3) Subtract the diameter measurement of the drive gear shaft from the inside diameter measurement of the drive gear bush.

Standard clearance:
0.040 to 0.085 mm (0.0016 to 0.0033 in.)
Maximum clearance: 0.10 mm (0.0039 in.)

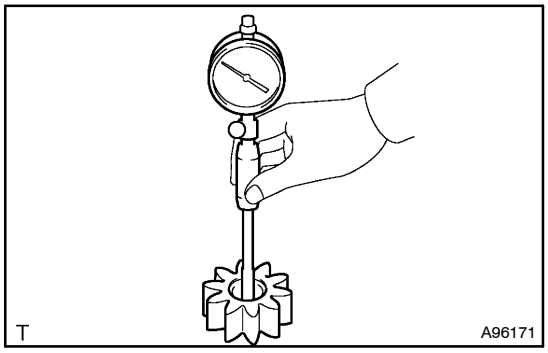
If the clearance is greater than the maximum, replace the oil pump assy or drive gear bush.



(e) Inspect the clearance between the driven gear shaft and driven gear bush.

(1) Using a micrometer, measure the diameter of the driven gear shaft.

Standard shaft diameter:
17.979 to 17.997 mm (0.7078 to 0.7085 in.)
Minimum shaft diameter: 17.97 mm (0.7075 in.)



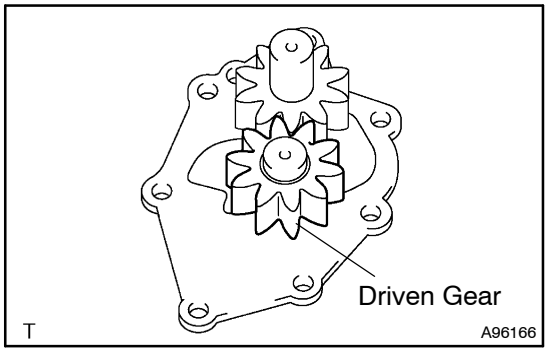
(2) Using a dial gauge, measure the inside diameter of the driven gear bush.

Standard bush inside diameter:
18.037 to 18.054 mm (0.7101 to 0.7108 in.)
Maximum bush inside diameter: 18.07 mm (0.7114 in.)

(3) Subtract the diameter measurement of the driven gear shaft from the inside diameter measurement of the driven gear bush.

Standard clearance:
0.040 to 0.075 mm (0.0016 to 0.0030 in.)
Maximum clearance: 0.10 mm (0.0039 in.)

If the clearance is greater than the maximum, replace the driven gear or oil pump assy.



4. INSTALL OIL PUMP DRIVEN GEAR

(a) Install the driven gear to the oil pump.

5. INSTALL OIL PUMP ASSY