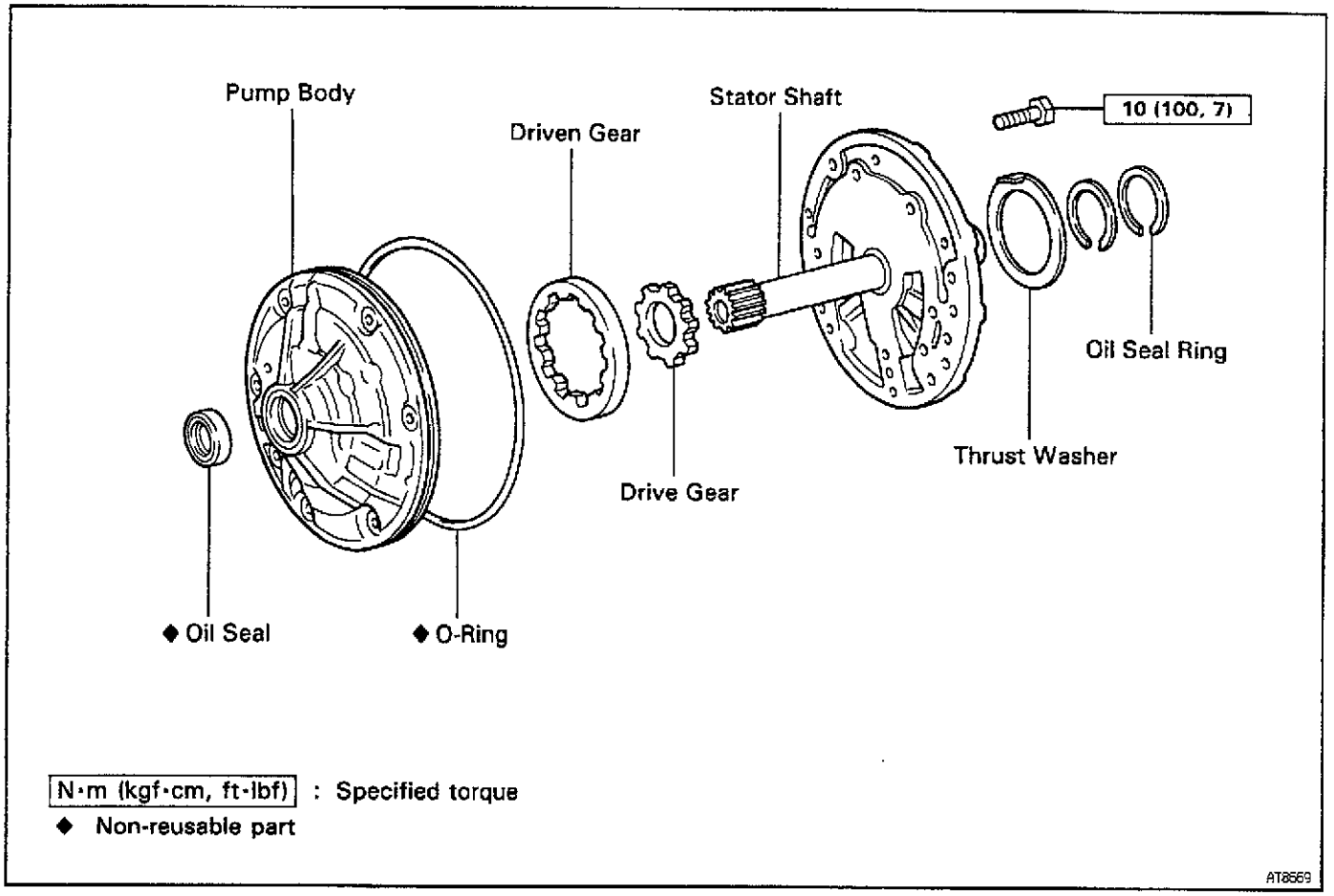
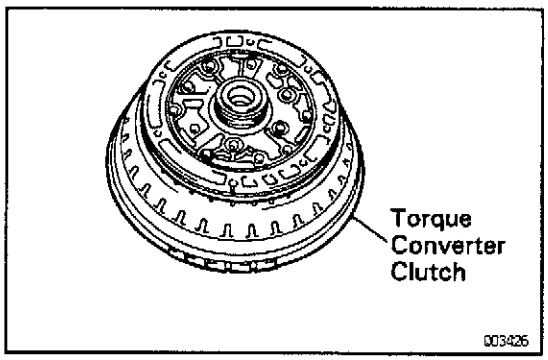
OIL PUMP

COMPONENTS

AXOAL--0A

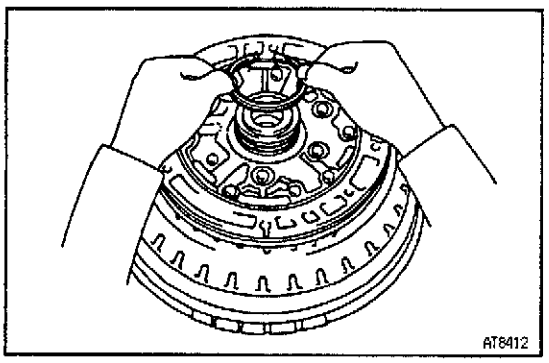




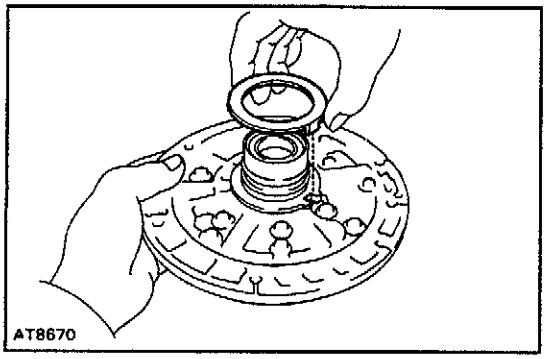
OIL PUMP DISASSEMBLY

AT0FV--02

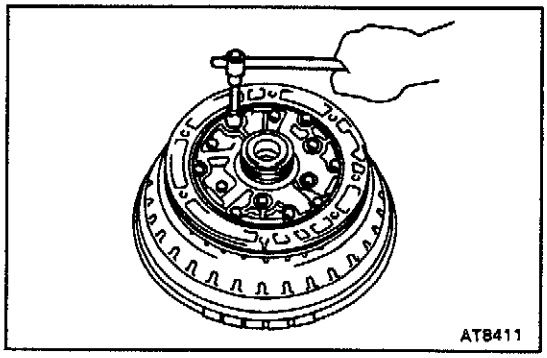
1. **USE TORQUE CONVERTER CLUTCH AS WORK STAND**
   Place the oil pump body on the torque converter clutch.



2. **REMOVE OIL SEAL RINGS**
   Remove the 2 oil seal rings from the stator shaft back side.



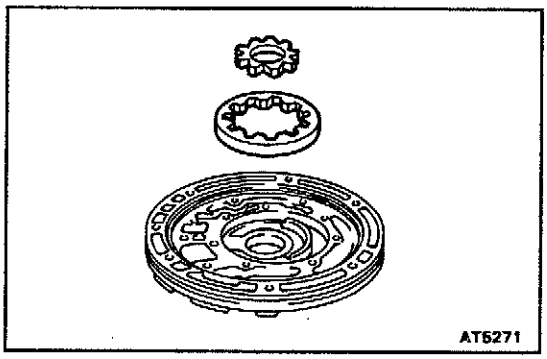
3. REMOVE THRUST WASHER FROM STATOR SHAFT BACK SIDE



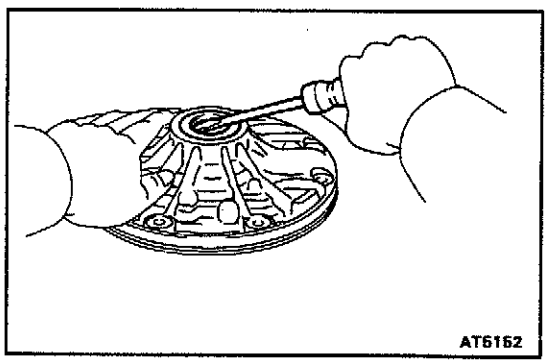
4. REMOVE STATOR SHAFT

(a) Remove the 13 bolts, and then remove the stator shaft from the oil pump body.

(b) Remove the oil pump body from the torque converter clutch.

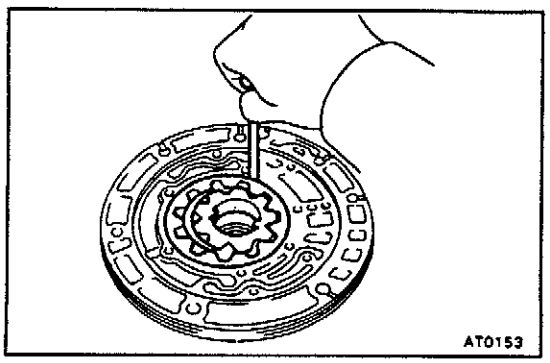


5. REMOVE OIL PUMP DRIVE GEAR AND DRIVEN GEAR



6. REMOVE OIL SEAL

Pry off the oil seal with a screwdriver.



OIL PUMP INSPECTION

AX0AN-0C

1. CHECK BODY CLEARANCE OF DRIVEN GEAR

Push the driven gear to one side of the body.

Using a feeler gauge, measure the clearance.

Standard body clearance:

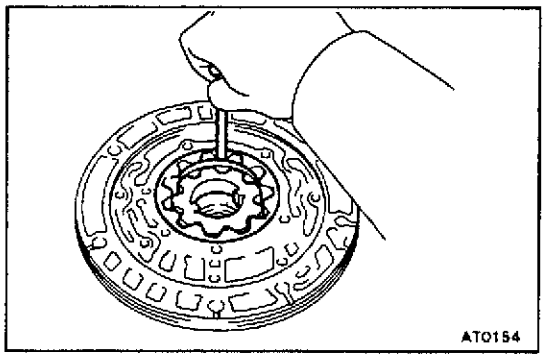
0.07—0.15 mm (0.0028—0.0059 in.)

Maximum body clearance:

0.3 mm (0.012 in.)

If the body clearance is greater than the maximum, replace the drive gear, driven gear or pump body.

AT



2. CHECK TIP CLEARANCE OF DRIVEN GEAR

Measure between the driven gear teeth and the crescent–shaped part of the pump body.

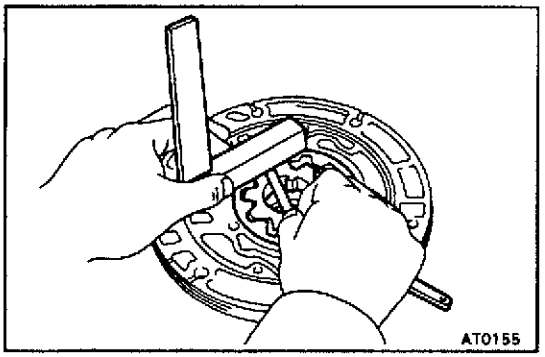
Standard tip clearance:

0.11–0.14 mm (0.0043–0.0055 in.)

Maximum tip clearance:

0.3 mm (0.012 in.)

If the tip clearance is greater than the maximum, replace the drive gear, driven gear or pump body.



3. CHECK SIDE CLEARANCE OF BOTH GEARS

Using a steel straight edge and a feeler gauge, measure the side clearance of both gears.

Standard side clearance:

0.02–0.05 mm (0.0008–0.0020 in.)

Maximum side clearance:

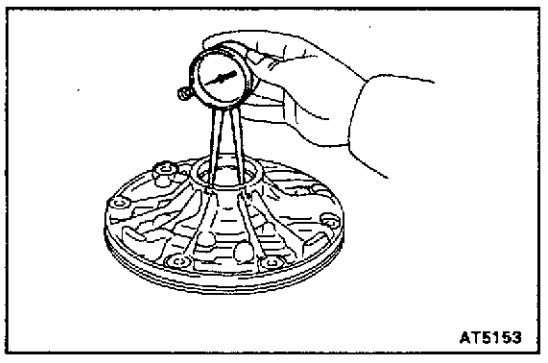
0.1 mm (0.004 in.)

If the side clearance is greater than the maximum, select and replace the gears as a set.

Drive gear and driven gear thicknesses

mm (in.)

Mark	Thickness	
1	9.440–9.449	(0.3717–0.3720)
2	9.450–9.459	(0.3720–0.3724)
3	9.460–9.470	(0.3724–0.3728)
4	9.471–9.480	(0.3720–0.3724)
5	9.481–9.490	(0.3729–0.3736)



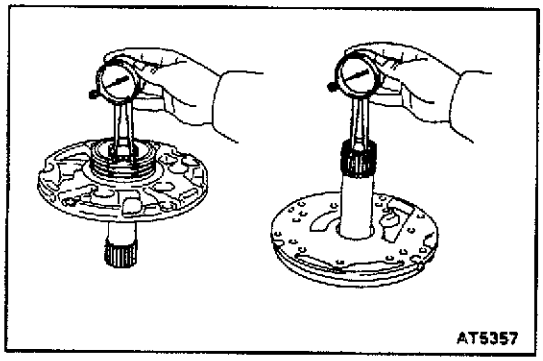
4. CHECK OIL PUMP BODY BUSHING

Using a dial indicator, measure the inside diameter of the oil pump body bushing.

Maximum inside diameter:

38.19 mm (1.5035 in.)

If the inside diameter is greater than the maximum, replace the oil pump body.



5. CHECK STATOR SHAFT BUSHINGS

Using a dial indicator, measure the inside diameter of the stator shaft bushing.

Maximum inside diameter:

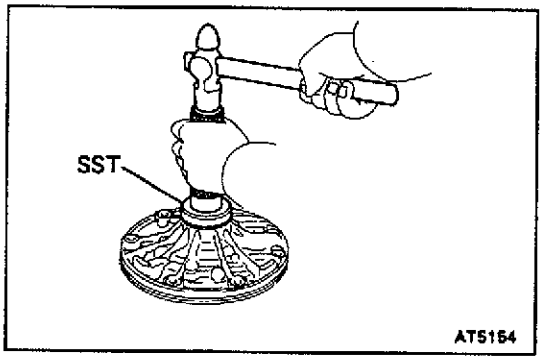
Front side 21.58 mm (0.8496 in.)

Rear side 27.08 mm (1.0661 in.)

If the inside diameter is greater than the maximum, replace the stator shaft.

OIL PUMP ASSEMBLY

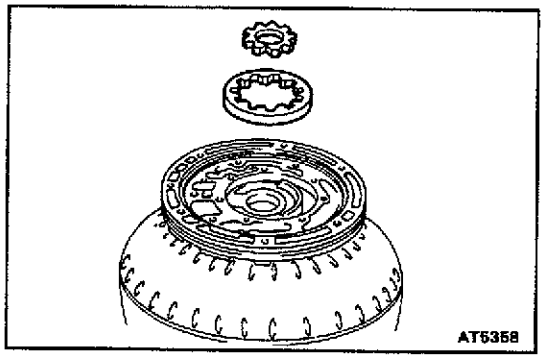
AXOAP-0C



1. INSTALL FRONT OIL SEAL

(a) Using SST and a hammer, install a new oil seal. The seal end should be flush with the outer edge of the pump body.
SST 09350–30020 (09351–32140)

(b) Coat the oil seal lip with MP grease.

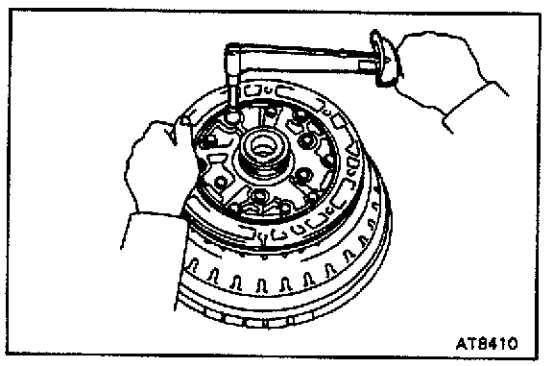


2. INSTALL DRIVEN GEAR AND DRIVE GEAR TO OIL PUMP BODY

(a) Place the oil pump body on the torque converter clutch.

(b) Coat the driven gear and drive gear with ATF.

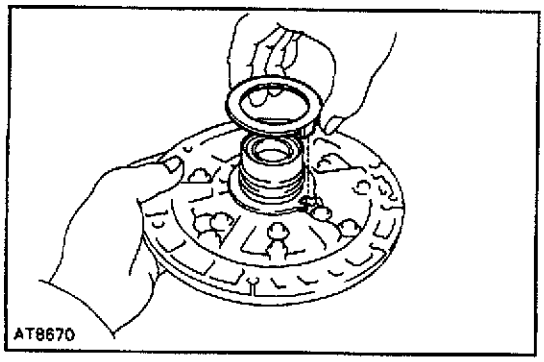
(c) Install the driven gear and drive gear.



3. INSTALL STATOR SHAFT TO PUMP BODY

(a) Align the stator shaft with each bolt hole.

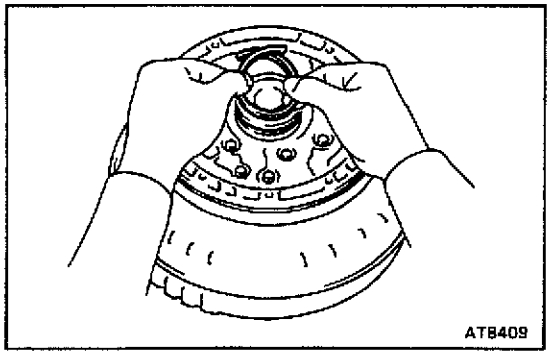
(b) Tighten the 13 bolts.
Torque: 10 N·m (100 kgf·cm, 7 ft·lbf)



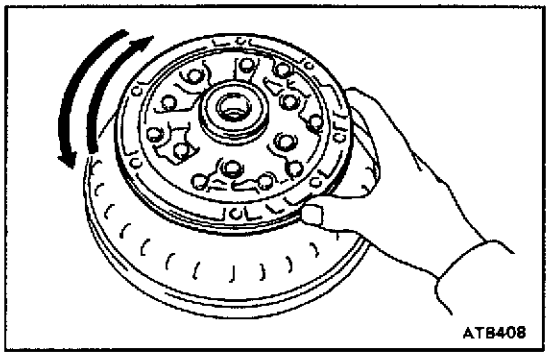
4. INSTALL THRUST WASHER

(a) Coat the thrust washer with petroleum jelly.

(b) Align the tab of the washer with the hollow of the pump body.



AT



5. INSTALL OIL SEAL RINGS

(a) Coat the 2 oil seal rings with ATF.

(b) Install the 2 oil seal rings to the stator shaft groove, then snug them down by squeezing their ends together.

NOTICE: Do not spread the ring ends too much.

HINT: After installing the oil seal rings, check that they rotate smoothly.

6. CHECK OIL PUMP DRIVE GEAR ROTATION

Make sure the drive gear rotates smoothly.