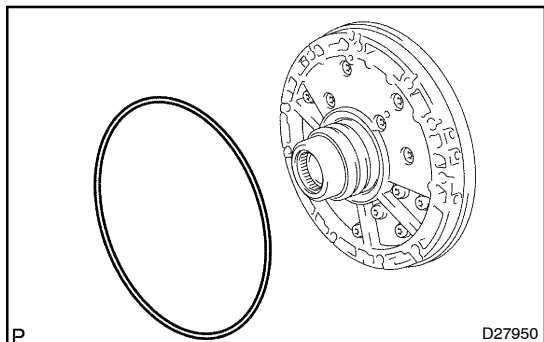
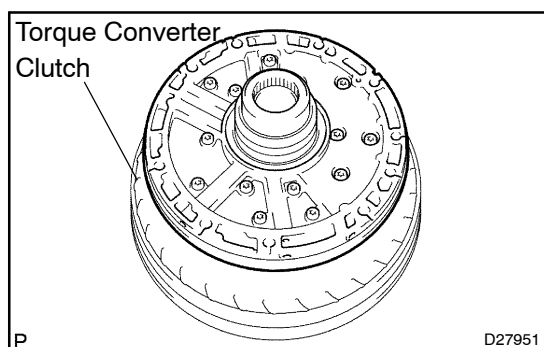


# OVERHAUL



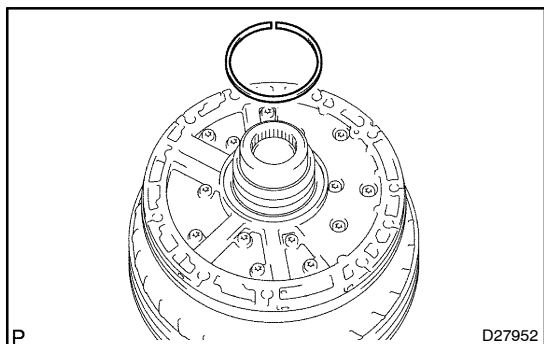
## 1. REMOVE FRONT OIL PUMP BODY O-RING

- (a) Remove the O-ring from the oil pump assy.



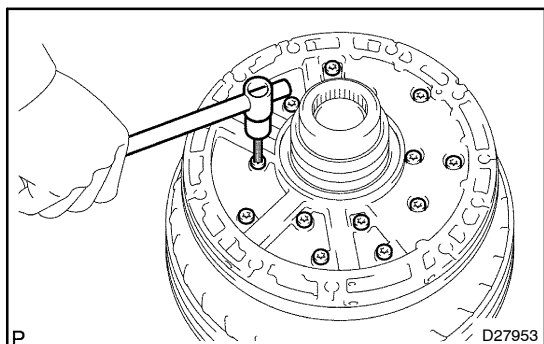
## 2. FIX OIL PUMP ASSY

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



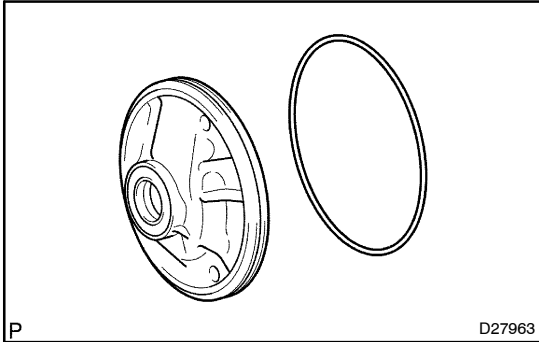
## 3. REMOVE CLUTCH DRUM OIL SEAL RING

- (a) Remove the 3 oil seal rings.



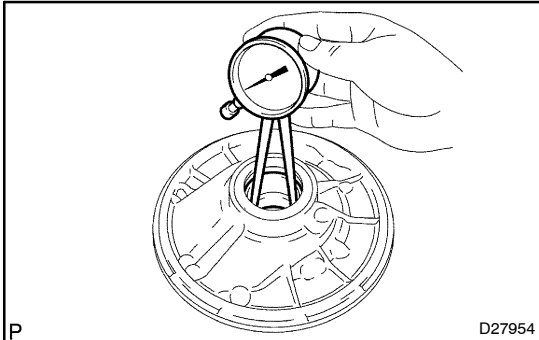
## 4. REMOVE STATOR SHAFT ASSY

- (a) Remove the 14 bolts, and then remove the stator shaft from the oil pump body.



### 5. REMOVE FRONT OIL PUMP BODY O-RING

- Remove the O-ring from the oil pump body.
- Remove the oil pump body from the torque converter clutch.

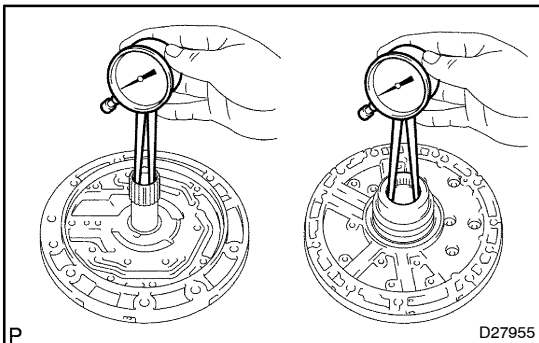


### 6. INSPECT FRONT OIL PUMP BODY SUB-ASSY

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

**Maximum inside diameter: 38.188 mm (1.504 in.)**

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



### 7. INSPECT STATOR SHAFT ASSY

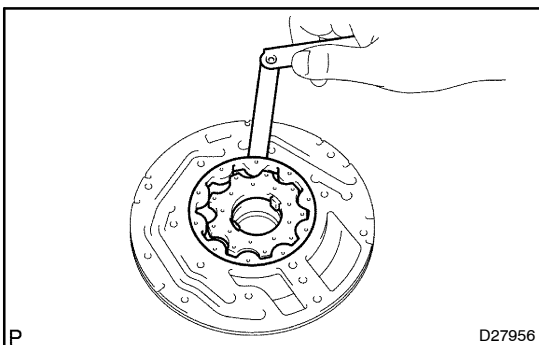
- Using a dial indicator, measure the inside diameter of the stator shaft bushing.

**Maximum inside diameter:**

**Front side: 21.577 mm (0.850 in.)**

**Rear side: 32.08 mm (1.263 in.)**

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



### 8. INSPECT CLEARANCE OF OIL PUMP ASSEMBLY

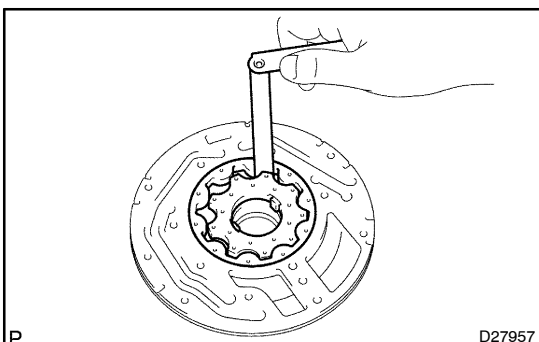
- Push the driven gear to one side of the body.
- Using a feeler gauge, measure the clearance.

**Standard body clearance:**

**0.10 – 0.17 mm (0.0039 – 0.0067 in.)**

**Maximum body clearance: 0.17 mm (0.0067 in.)**

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



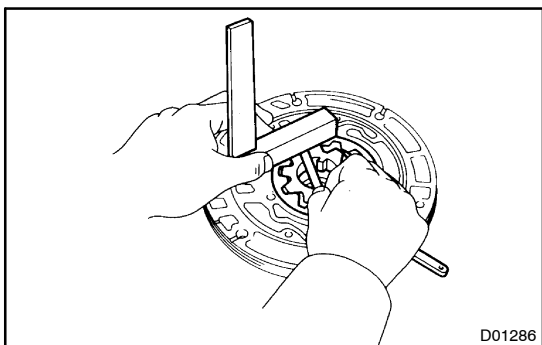
- Using a feeler gauge, measure the clearance between the driven gear teeth and the drive gear teeth.

**Standard tip clearance:**

**0.070 – 0.150 mm (0.0028 – 0.0059 in.)**

**Maximum tip clearance: 0.150 mm (0.0059 in.)**

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



- (d) 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 – 0.002 in.)**

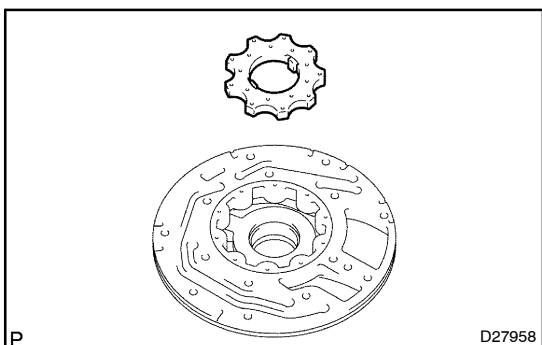
**Maximum side clearance: 0.05 mm (0.002 in.)**

- (e) There are 5 different thickness for the drive and driven gears.

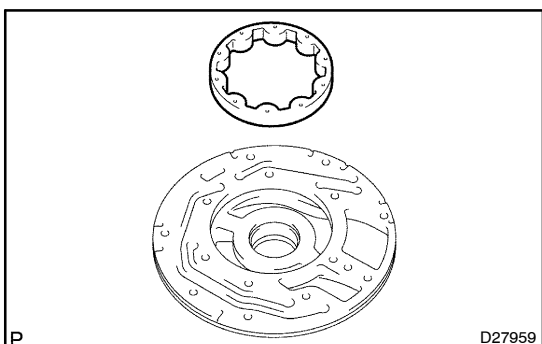
**Drive and driven gears thickness: mm (in.)**

| Mark | Thickness                        |
|------|----------------------------------|
| 0    | 10.74 – 10.749 (0.4228 – 0.4232) |
| 1    | 10.75 – 10.759 (0.4232 – 0.4236) |
| 2    | 10.76 – 10.77 (0.4236 – 0.424)   |
| 3    | 10.771 – 10.78 (0.4241 – 0.4244) |
| 4    | 10.781 – 10.79 (0.4244 – 0.4248) |

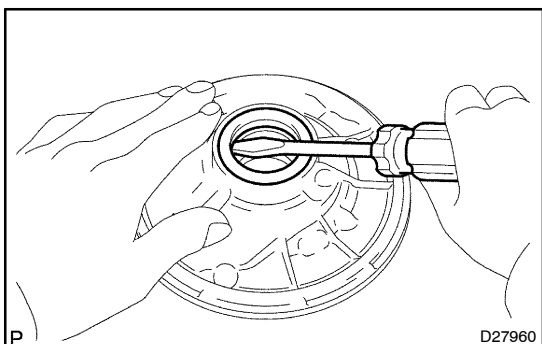
If the side clearance is greater than the maximum, replace the drive gear, the driven gear or the pump body.



## 9. REMOVE FRONT OIL PUMP DRIVE GEAR



## 10. REMOVE FRONT OIL PUMP DRIVEN GEAR

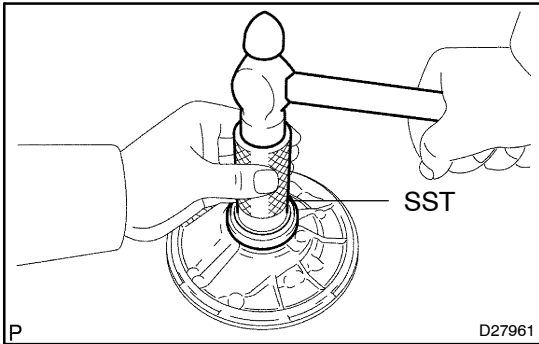


## 11. REMOVE FRONT OIL PUMP OIL SEAL

- (a) Using a screwdriver, remove the oil seal.

**NOTICE:**

**Be careful not to damage the bushing and the oil pump body.**

**12. INSTALL FRONT OIL PUMP OIL SEAL**

- (a) Using SST and a hammer, install a new oil seal.

HINT:

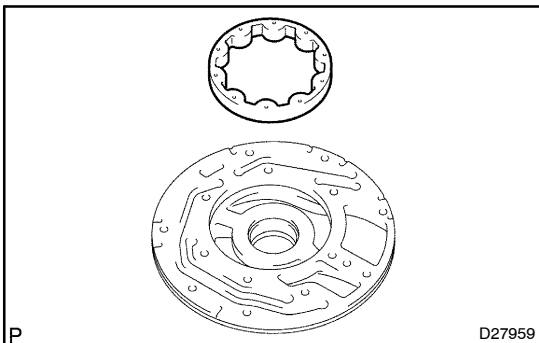
The oil seal end should be flush with the outer edge of the pump body.

SST 09350-30020 (09351-32140)

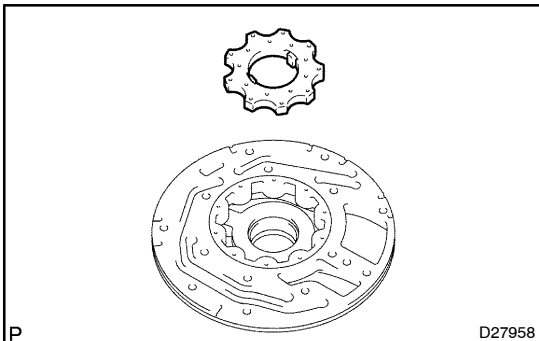
- (b) Coat the oil seal lip with MP grease.

**13. FIX FRONT OIL PUMP BODY SUB-ASSY**

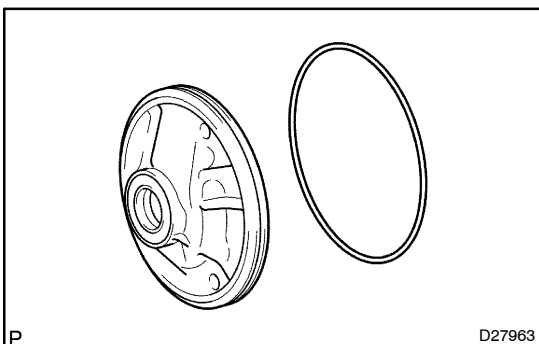
- (a) Place the oil pump body on the torque converter clutch.

**14. INSTALL FRONT OIL PUMP DRIVEN GEAR**

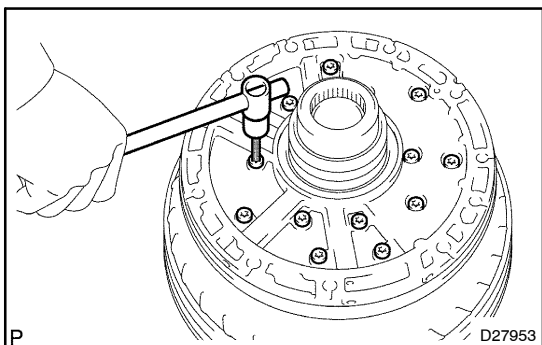
- (a) Coat the driven gear with ATF.
- (b) Install the driven gear to the oil pump body.

**15. INSTALL FRONT OIL PUMP DRIVE GEAR**

- (a) Coat the drive gear with ATF.
- (b) Install the drive gear to the oil pump body.

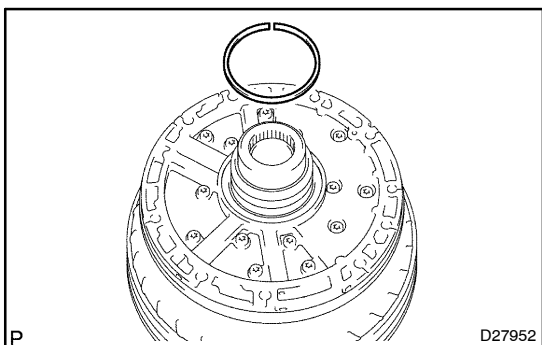
**16. INSTALL FRONT OIL PUMP BODY O-RING**

- (a) Install the O-ring to the oil pump body.

**17. INSTALL STATOR SHAFT ASSY**

- (a) Align the stator shaft with each bolt hole.
- (b) Install the 14 bolts.

**Torque: 12 N·m (122 kgf·cm, 9 ft·lbf)**

**18. INSTALL CLUTCH DRUM OIL SEAL RING**

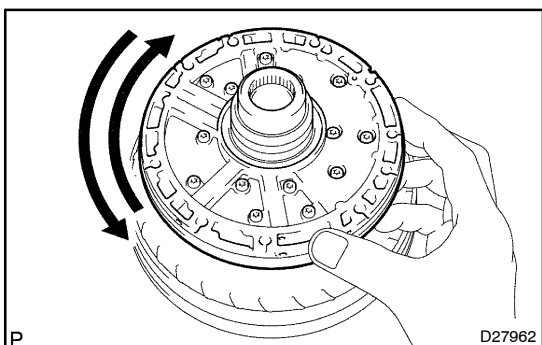
- (a) Coat the 3 oil seal rings with ATF.
- (b) Squeeze the ends of the 3 oil seal rings together with the wrap distance 8 mm or less, and then install them to the starter shaft groove.

**NOTICE:**

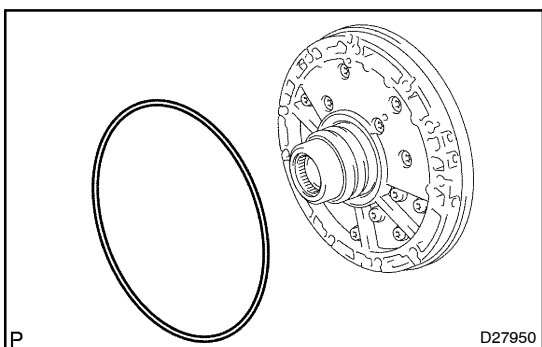
**Do not over-spread the ring ends.**

**HINT:**

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

**19. INSPECT OIL PUMP DRIVE GEAR ROTATION**

- (a) Make sure the drive gear rotates smoothly.
- (b) Remove the oil pump assy from the torque converter.

**20. INSTALL FRONT OIL PUMP BODY O-RING**

- (a) Install the O-ring to the oil pump assy.