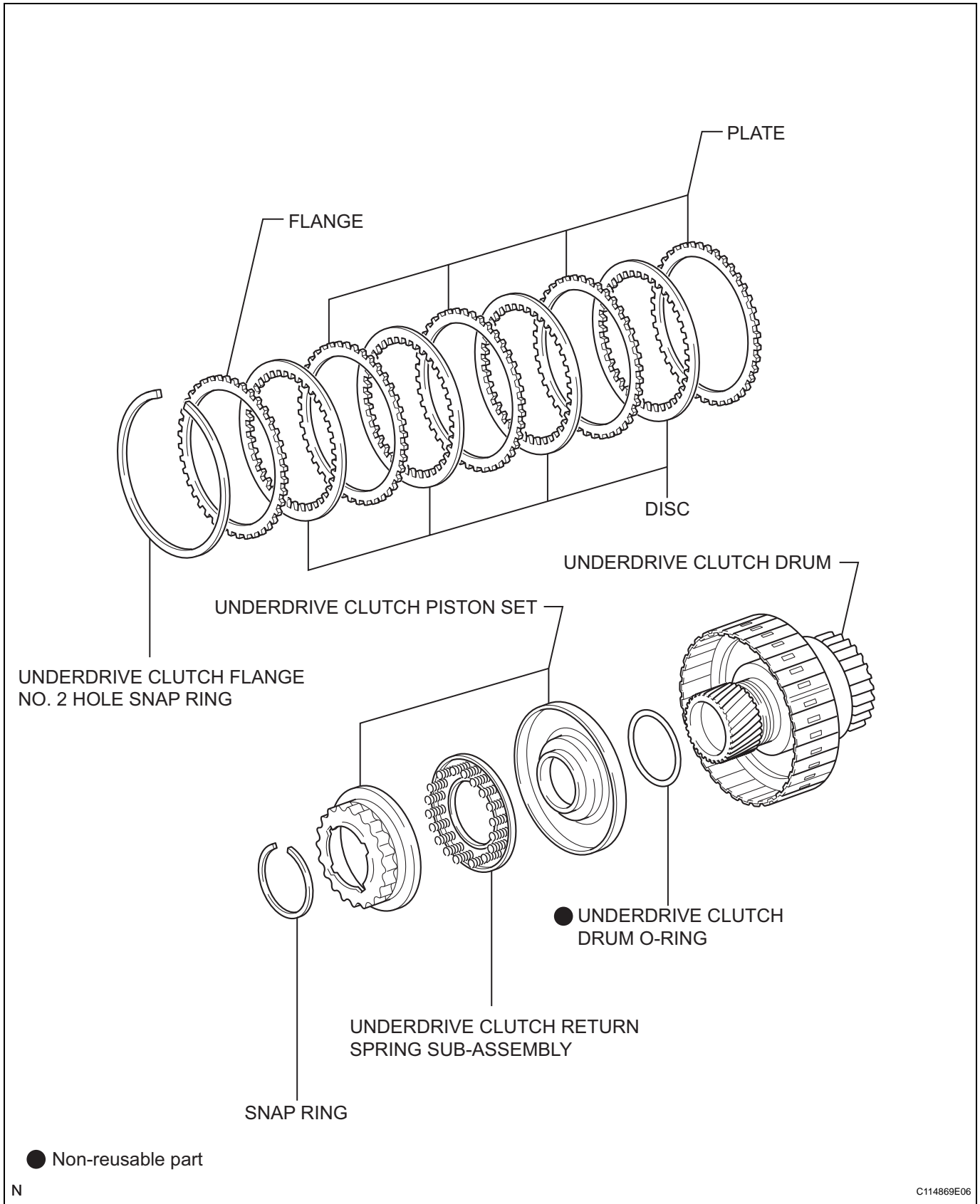


UNDERDRIVE CLUTCH

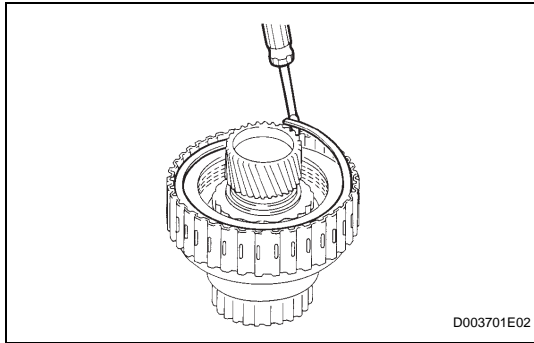
COMPONENTS

AX



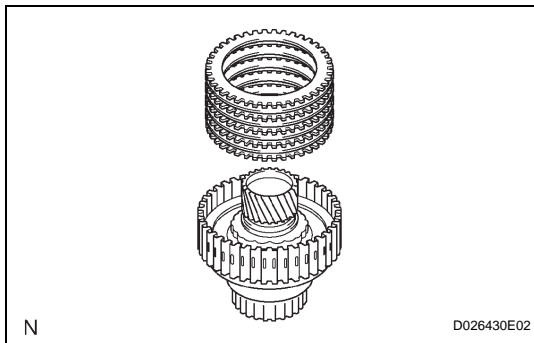
DISASSEMBLY

1. **INSPECT UNDERDRIVE PACK CLEARANCE** (See page [AX-277](#))



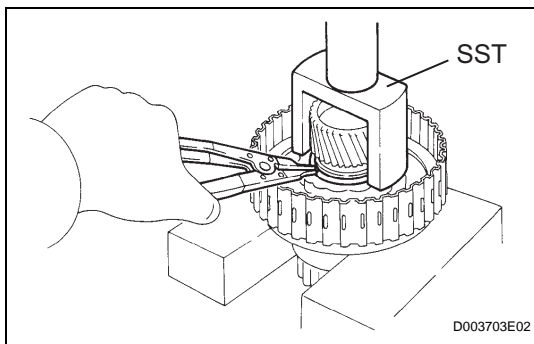
2. **REMOVE UNDERDRIVE CLUTCH FLANGE NO. 2 HOLE SNAP RING**

(a) Using a screwdriver, remove the snap ring.



3. **REMOVE NO. 1 UNDERDRIVE CLUTCH DISC**

(a) Remove the flange, 4 discs and 4 plates from the underdrive clutch drum.



4. **REMOVE UNDERDRIVE CLUTCH RETURN SPRING SUB-ASSEMBLY**

(a) Place SST on the clutch balancer and compress the spring with a press.

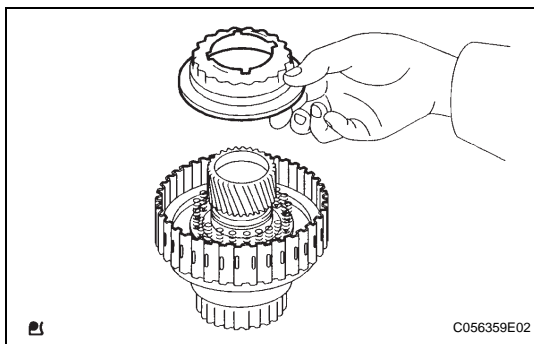
SST 09350-32014

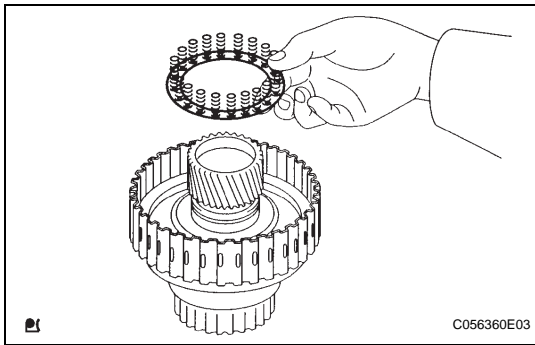
(b) Using a snap ring expander, remove the snap ring.

NOTICE:

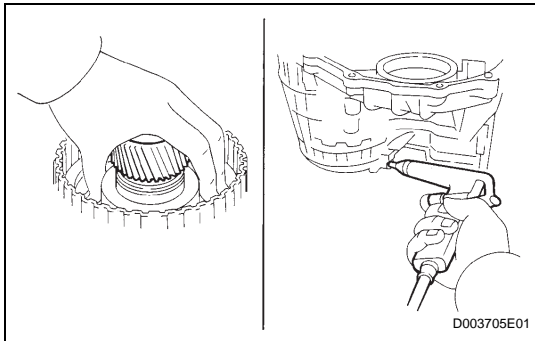
- **Stop the press when the spring seat is lowered to a position 1 to 2 mm (0.039 to 0.078 in.) from the snap ring groove. This prevents the spring seat from being deformed.**
- **Do not expand the snap ring excessively.**

(c) Remove the clutch balancer from the underdrive clutch drum.



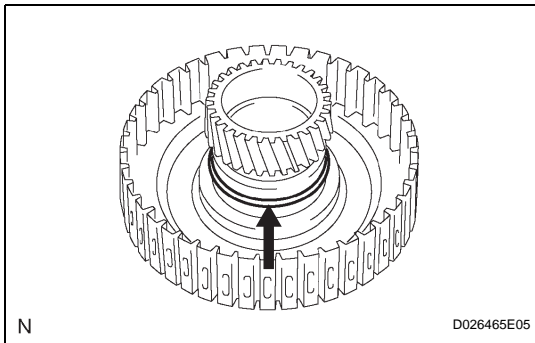


- (d) Remove the return spring from the underdrive clutch drum.



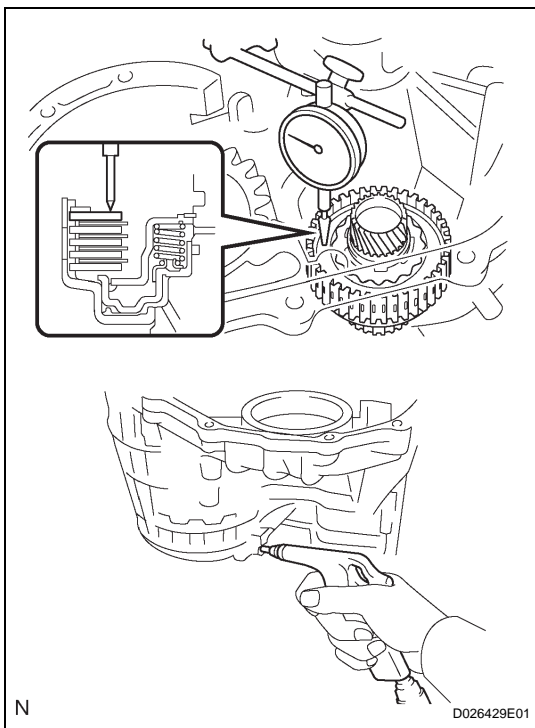
5. REMOVE UNDERDRIVE CLUTCH PISTON SET

- (a) Install the underdrive clutch to the transaxle case.
NOTICE:
Be careful not to damage the oil seal ring.
 (b) Holding the underdrive clutch piston by hand, apply compressed air (392 kPa, 4.0 kgf/cm², 57 psi) to the transaxle case to remove the underdrive clutch piston.



6. REMOVE UNDERDRIVE CLUTCH DRUM O-RING

- (a) Using a screwdriver, remove the O-ring from the underdrive clutch drum.



INSPECTION

1. INSPECT UNDERDRIVE PACK CLEARANCE

- (a) Install the underdrive clutch to the transaxle case.
NOTICE:
Be careful not to damage the oil seal rings.
 (b) Install a dial indicator as shown in the illustration.
 (c) Measure the underdrive clutch pack clearance while applying and releasing compressed air (392 kPa, 4.0 kgf/cm², 57 psi).

Standard pack clearance:

1.51 to 1.71 mm (0.0594 to 0.0673 in.)

If the pack clearance is not as specified, inspect the discs, plates and flange.

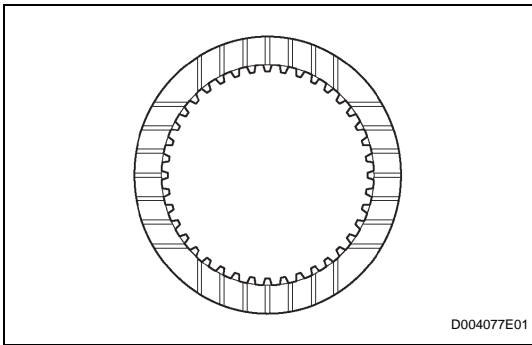
HINT:

There are 5 different thicknesses flanges available.

Standard flange thickness

| Mark | Thickness | Mark | Thickness |
|------|--------------------|------|--------------------|
| 1 | 3.0 mm (0.118 in.) | 4 | 3.6 mm (0.122 in.) |
| 2 | 3.2 mm (0.126 in.) | 5 | 3.8 mm (0.130 in.) |
| 3 | 3.4 mm (0.134 in.) | - | - |

AX

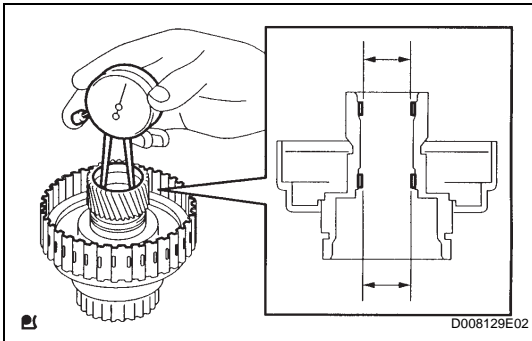


2. INSPECT NO. 1 UNDERDRIVE CLUTCH DISC

- (a) Check if the sliding surface of the disc, plate and flange are worn or burnt. If necessary, replace them.

NOTICE:

- If the lining of the disc comes off or is discolored, or if a part of the groove is worn, replace all the discs.
- Before installing new discs, immerse them in ATF for at least 15 minutes.



3. INSPECT UNDERDRIVE CLUTCH DRUM SUB-ASSEMBLY

- (a) Using a caliper gauge, measure the inside diameter of the underdrive clutch drum bushing.

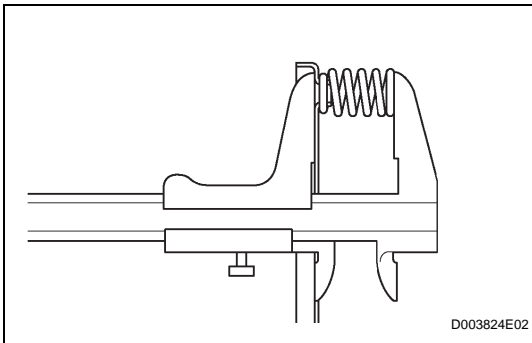
Standard drum bushing:

37.06 to 37.08 mm (1.4591 to 1.4598 in.)

Maximum drum bushing:

37.13 mm (1.4618 in.)

If the inside diameter is greater than the maximum, replace the underdrive clutch drum sub-assembly.



4. INSPECT UNDERDRIVE CLUTCH RETURN SPRING SUB-ASSEMBLY

- (a) Using a vernier caliper, measure the free length of the spring together with the spring seat.

Standard free length:

17.14 mm (0.6752 in.)

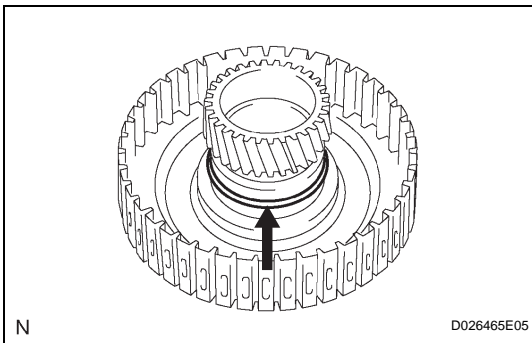
REASSEMBLY

1. INSTALL UNDERDRIVE CLUTCH DRUM O-RING

- (a) Coat a new O-ring with ATF, and install it to the underdrive clutch drum.

NOTICE:

Make sure that the O-ring is not twisted or pinched.

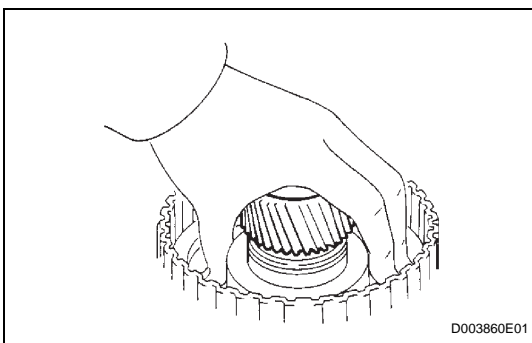


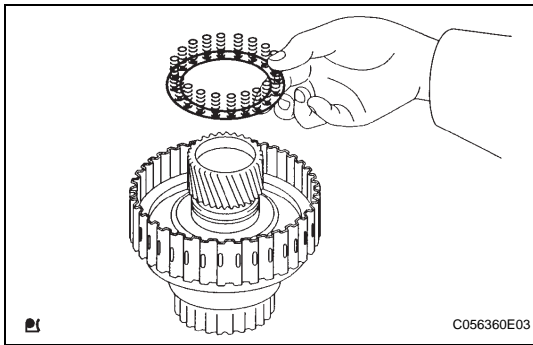
2. INSTALL UNDERDRIVE CLUTCH PISTON SET

- (a) Coat the underdrive clutch piston with ATF, and install it to the underdrive clutch piston drum.

NOTICE:

- Be careful not to damage the O-ring.
- Be careful not to damage the lip of the piston.





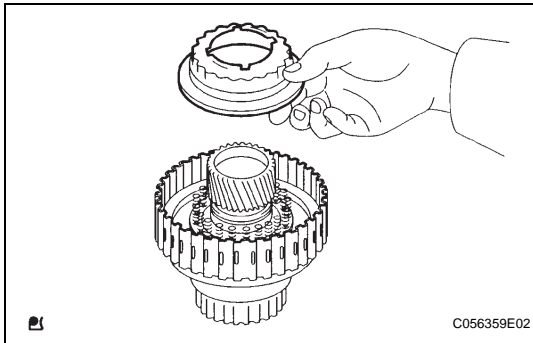
3. INSTALL UNDERDRIVE CLUTCH RETURN SPRING SUB-ASSEMBLY

- (a) Install the return spring to the underdrive clutch drum.

NOTICE:

After installing the spring sub-assembly, check that all of the springs fit in the piston correctly.

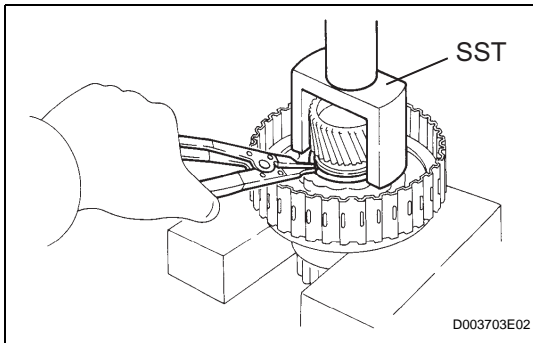
- (b) Coat the clutch balancer with ATF.



- (c) Install the clutch balancer to the underdrive clutch drum.

NOTICE:

Be careful not to damage the lip of the clutch balancer.



- (d) Place SST on the clutch balancer and compress the piston return spring with a press.

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- (e) Using a snap ring expander, install the snap ring to the underdrive clutch drum.

- (f) Be sure that the end gap of the snap ring is not aligned with the spring retainer claw.

NOTICE:

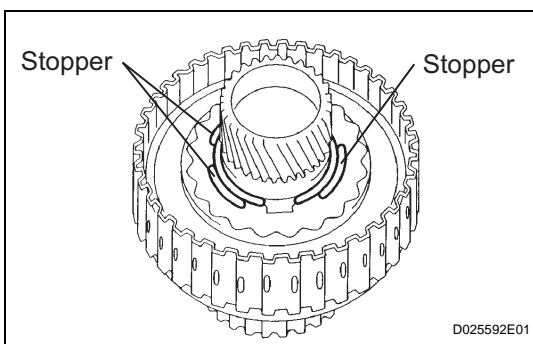
- Stop the press when the spring seat is lowered to a position 1 to 2 mm (0.039 to 0.078 in.) from the snap ring groove. This prevents the spring seat from being deformed.

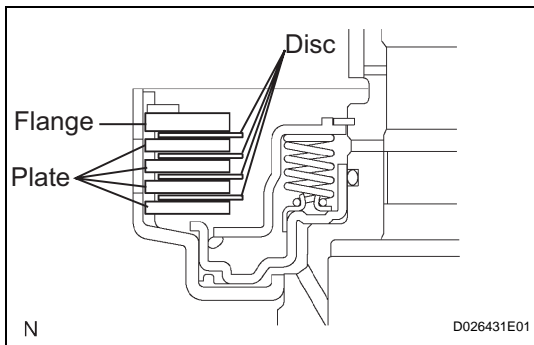
- Do not expand the snap ring excessively.

- (g) Set the end gap of the snap ring in the underdrive clutch drum as shown in the illustration.

NOTICE:

The end gap of the snap ring should not align with any of the stoppers.



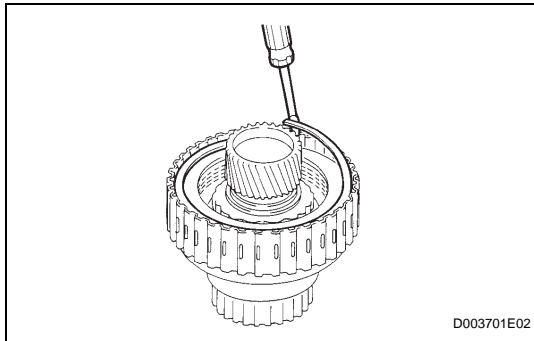


4. INSTALL NO. 1 UNDERDRIVE CLUTCH DISC

- (a) Coat the 4 discs with ATF.
- (b) Install the 4 plates, 4 discs and flange to the underdrive clutch drum.

NOTICE:

Make sure that the plates, discs and flange are installed as shown in the illustration.



5. INSTALL 1ST AND REVERSE BRAKE RETURN SPRING SHAFT SNAP RING

- (a) Using a screwdriver, install the underdrive clutch flange hole snap ring.
- (b) Check that the end gap of the snap ring is not aligned with one of the cutouts.

NOTICE:

The snap ring should be fully engaged in the groove of the drum.

6. INSPECT UNDERDRIVE PACK CLEARANCE (See page [AX-277](#))