

# UNDERDRIVE CLUTCH ASSY (U241E)

## OVERHAUL

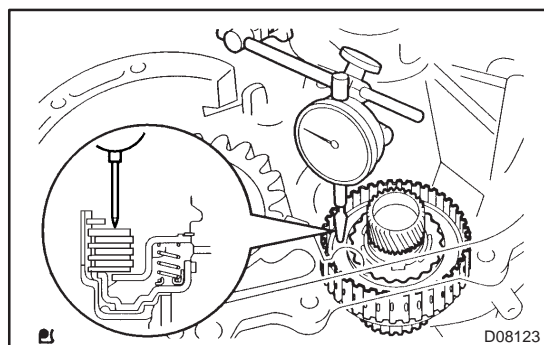
4006T-01

### 1. INSPECT UNDERDRIVE PACK CLEARANCE

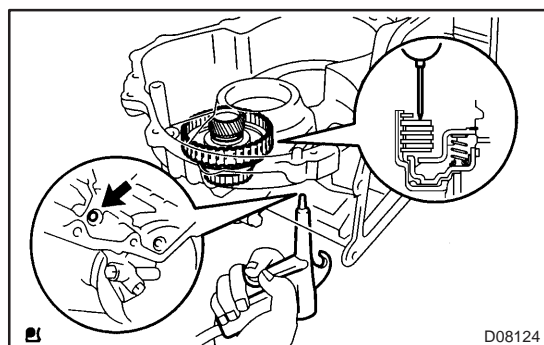
- (a) Inspect the U/D clutch to the transaxle case.

#### NOTICE:

**Be careful not to damage the oil seal rings.**



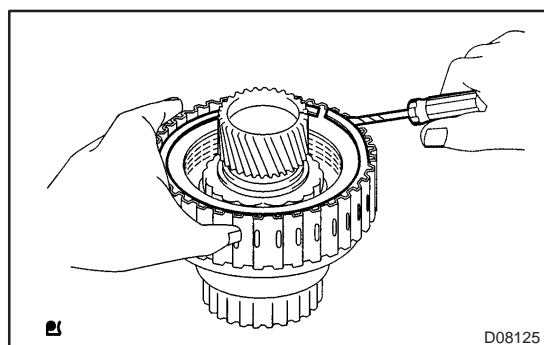
- (b) Install a dial indicator as shown in the illustration.



- (c) Measure the U/D clutch pack clearance while applying and releasing compressed air (392 kPa, 4.0 kgf/cm<sup>2</sup>, 57 psi).

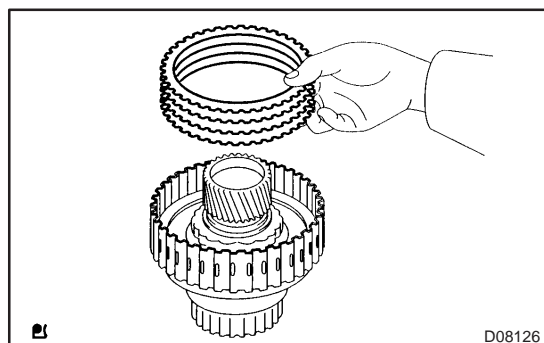
**Pack clearance: 1.51 – 1.90 mm (0.0594 – 0.0748 in.)**

If the pack clearance is non-standard, inspect the discs, plates and flange.

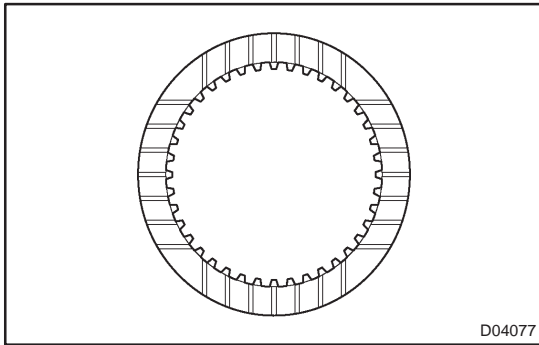


### 2. REMOVE UNDERDRIVE CLUTCH DISC NO.1

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



- (b) Remove the flange, 3 discs and 3 plates from the U/D clutch drum.

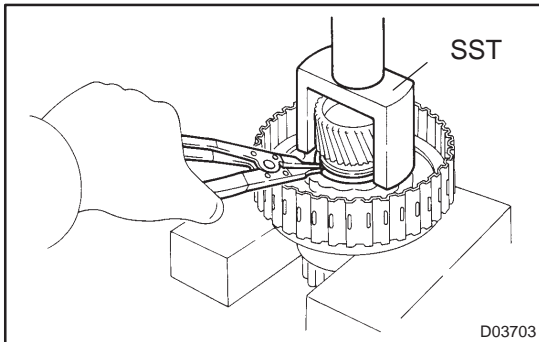


### 3. INSPECT UNDERDRIVE CLUTCH DISC NO.1

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

#### HINT:

- If the lining of the disc is peeling off or discolored, or even if a part of the printed mark is defaced, replace all discs.
- Before assembling new discs, soak them in ATF for at least 15 minutes.

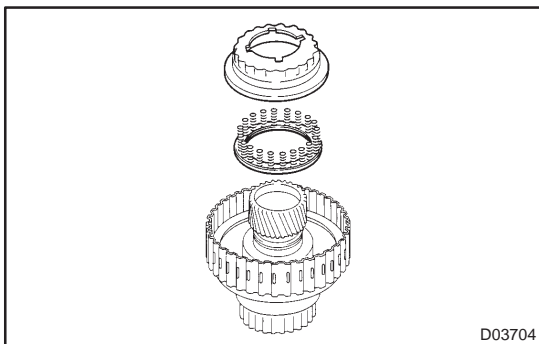


### 4. REMOVE UNDERDRIVE CLUTCH PISTON SET

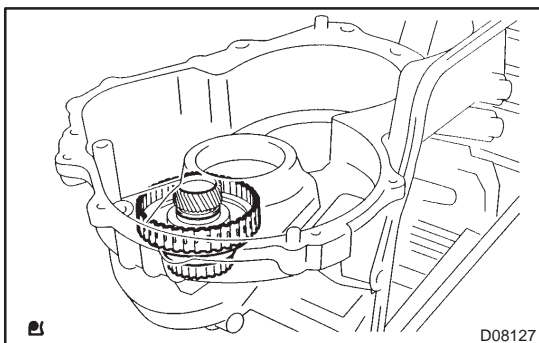
- (a) Place SST on the clutch balancer and compress the spring with a press.  
SST 09350-32014 (09351-32070)
- (b) Using a snap ring expander, remove the snap ring.

#### NOTICE:

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



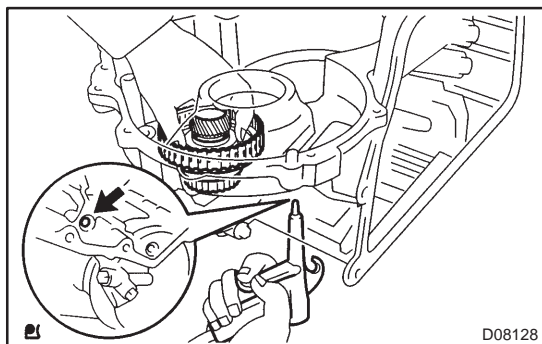
- (c) Remove the clutch balancer and piston return spring from the U/D clutch drum.



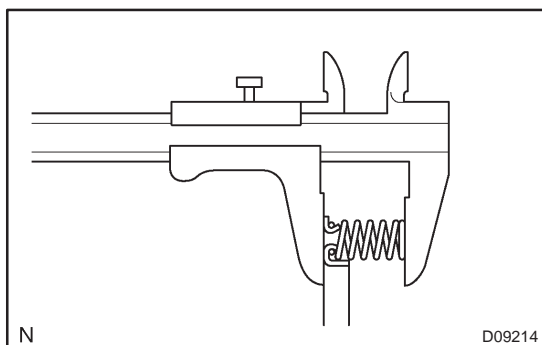
- (d) Install the U/D clutch to the transaxle case.

#### NOTICE:

**Be careful not to damage the oil seal rings.**

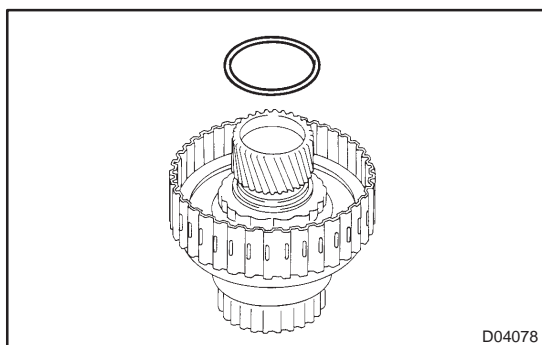


- (e) Holding the U/D clutch piston with your hand, apply compressed air (392 kPa, 4.0 kgf/cm<sup>2</sup>, 57 psi) to the transaxle case to remove the U/D clutch piston.

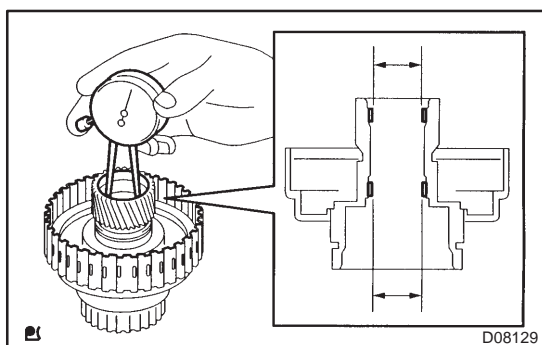


## 5. INSPECT UNDERDRIVE CLUTCH RETURN SPRING SUB-ASSY

- (a) Using vernier calipers, measure the free length of the spring together with the spring seat.  
**Standard free length: 17.14 mm (0.6748 in.)**



## 6. REMOVE UNDERDRIVE CLUTCH DRUM O-RING



## 7. INSPECT UNDERDRIVE CLUTCH DRUM SUB-ASSY

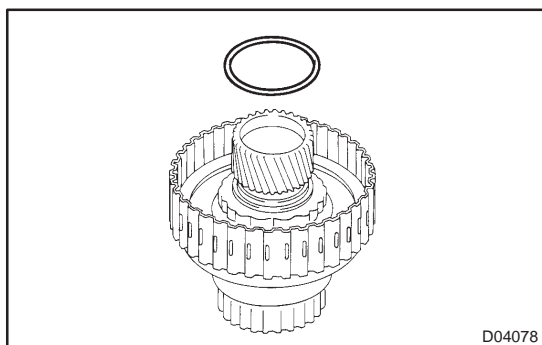
- (a) Using a dial indicator, measure the inside diameter of the U/D clutch drum bushing.

**Standard drum bushing:**

**32.56 – 32.58 mm (1.2818 – 1.2826 in.)**

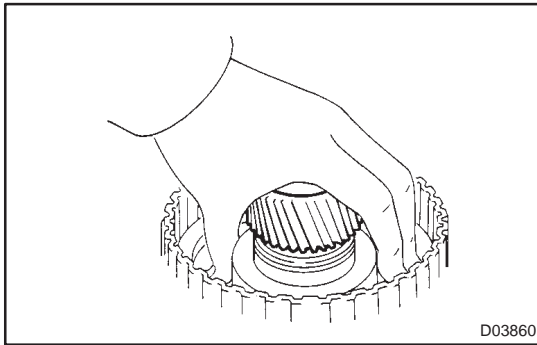
**Maximum drum bushing: 32.63 mm (1.2846 in.)**

If the inside diameter is greater than the maximum, replace the U/D clutch drum.



## 8. INSTALL UNDERDRIVE CLUTCH DRUM O-RING

- (a) Coat a new O-ring with ATF and install it to the U/D clutch drum.

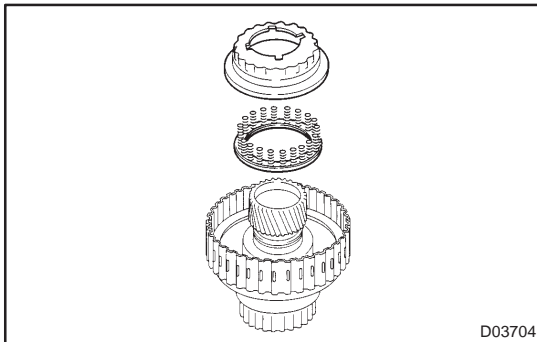


## 9. INSTALL UNDERDRIVE CLUTCH PISTON SET

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

### NOTICE:

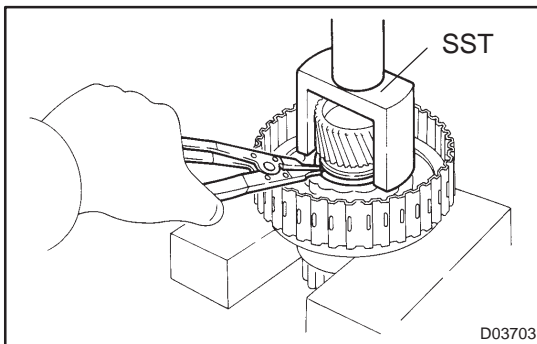
**Be careful not to damage the O-ring.**



- (b) Install the piston return spring and clutch balancer to the U/D clutch drum.

### NOTICE:

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



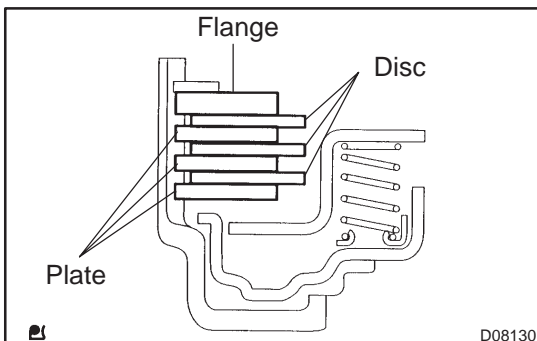
- (c) Place SST on the clutch balancer and compress the piston return spring with a press.

SST 09350-32014 (09351-32070)

- (d) Using a snap ring expander, install the snap ring to U/D clutch drum.

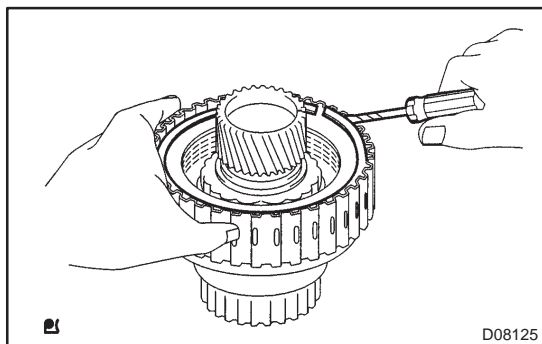
### NOTICE:

- Be sure the end gap of the snap ring is not aligned with the clutch balancer's claw.
- Stop the press when the spring sheet is lowered to the place 1 – 2 mm (0.039 – 0.078 in.) from the snap ring groove.
- This prevents the spring sheet from being deformed.
- Do not expand the snap ring excessively.



## 10. INSTALL UNDERDRIVE CLUTCH DISC NO.1

- (a) Install the 3 plates, 3 discs and flange.



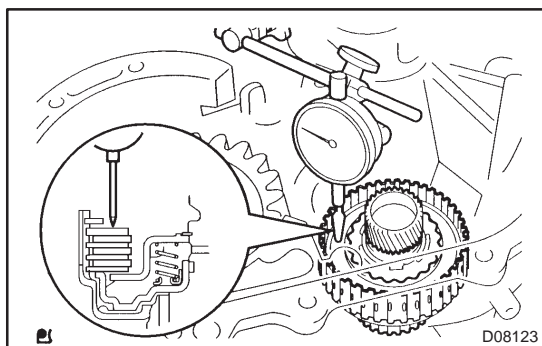
- (b) Using a screwdriver, install the snap ring.
- (c) Check that the end gap of the snap ring is not aligned with one of the cutouts.

## 11. INSPECT UNDERDRIVE PACK CLEARANCE

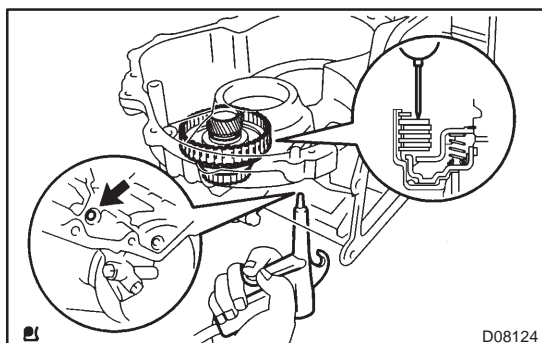
- (a) Install the U/D clutch to the transaxle case.

### NOTICE:

**Be careful not to damage the oil seal rings.**



- (b) Set a dial indicator as shown in the illustration.



- (c) Measure the U/D clutch piston stroke while applying and releasing compressed air (392 kPa, 4.0 kgf/cm<sup>2</sup>, 57 psi).

**Park clearance: 1.51 – 1.90 mm (0.0594 – 0.0748 in.)**

If the pack clearance is less than the minimum, parts may have been assembled incorrectly, so check and reassemble again. If the park clearance is non-standard, select another flange.

### HINT:

There are 3 flanges in different thickness.

**Flange thickness: mm (in.)**

No.	Thickness	No.	Thickness
A	3.0 (0.118)	C	3.4 (0.134)
B	3.2 (0.126)	–	–