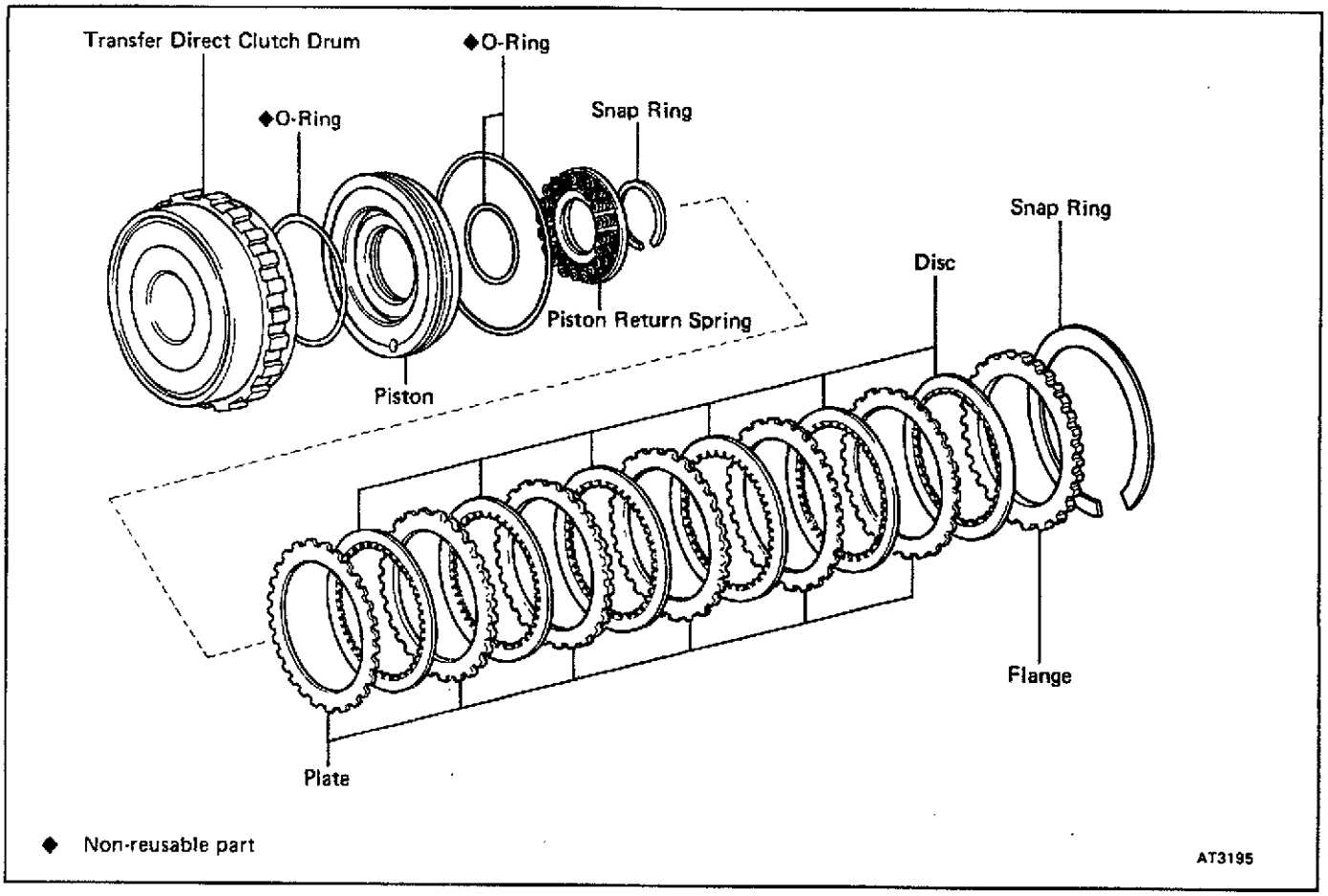
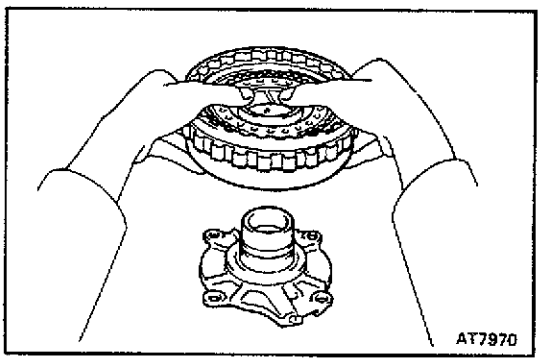
TRANSFER DIRECT CLUTCH
COMPONENTS

AT0JM-01



AT

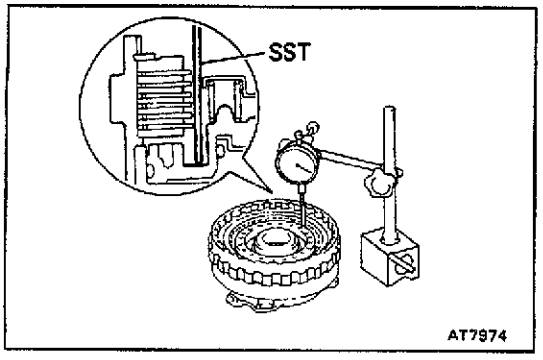


AT0JN-02

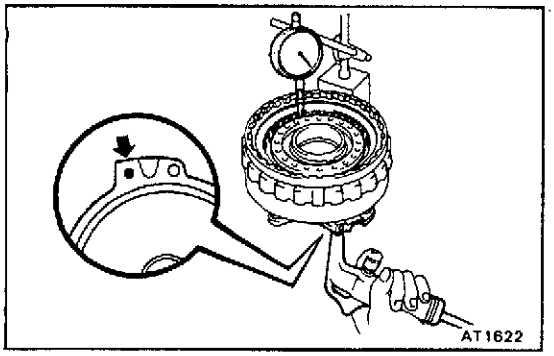
TRANSFER DIRECT CLUTCH DISASSEMBLY

1. **CHECK PISTON STROKE OF TRANSFER DIRECT CLUTCH**

(a) Install the direct clutch onto the transfer front support.



(b) Place SST and a dial indicator onto the transfer direct clutch piston, as shown in the illustration.
SST 09350–30020 (09350–06120)

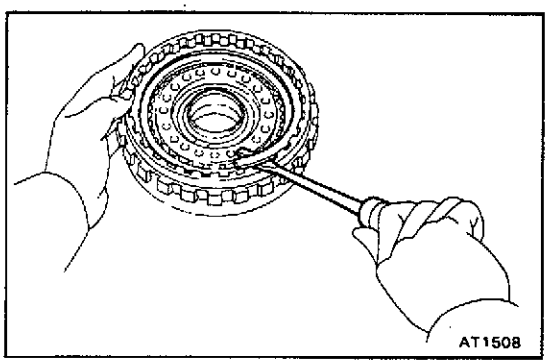


(c) Measure the piston stroke while applying and releasing compressed air (392 – 785 kPa, 4 – 8 kgf/cm², 57 – 114 psi).

Piston stroke:

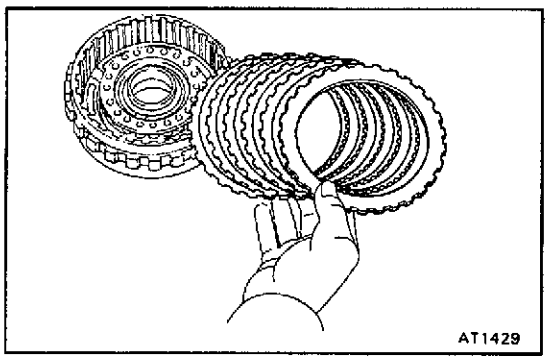
2.28 – 2.68 mm (0.0898 – 0.1055 in.)

If the values are non–standard, inspect the discs.

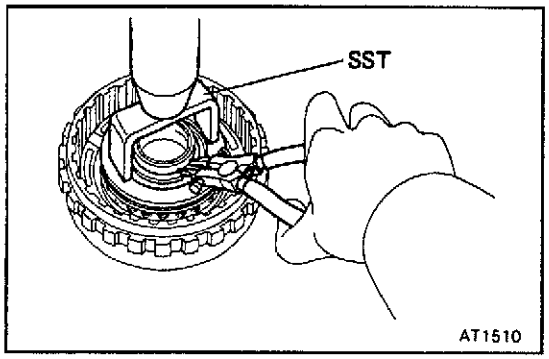


2. REMOVE FLANGE, PLATES AND DISCS

(a) Remove the snap ring from the clutch drum.



(b) Remove the flange, 6 plates and 6 discs.

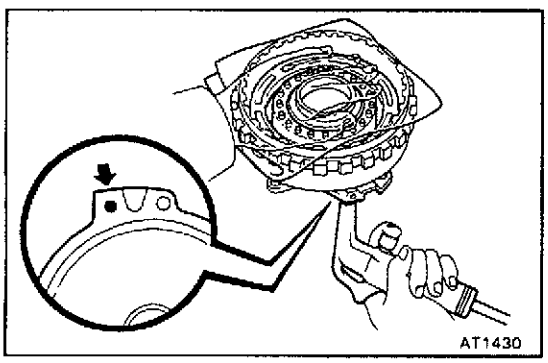


3. REMOVE PISTON RETURN SPRING

(a) Place SST on the return spring and compress the spring with a shop press.
SST 09320–89010

(b) Using snap ring pliers, remove the snap ring.

(c) Remove the piston return spring.



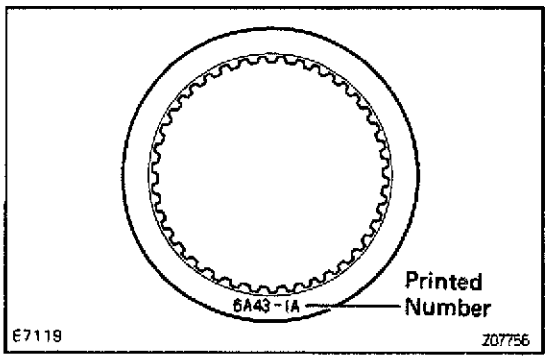
4. REMOVE TRANSFER DIRECT CLUTCH PISTON

(a) Place the direct clutch on the transfer front support.

(b) Hold the transfer direct clutch piston with hand, apply compressed air to the front support to remove the piston.

(c) Remove the transfer direct clutch piston.

(d) Remove the 2 O–rings from the piston and an O–ring from the drum.



TRANSFER DIRECT CLUTCH INSPECTION

ATOJF-02

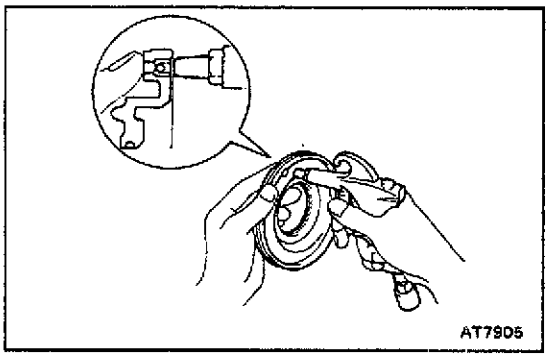
1. INSPECT DISC, PLATE AND FLANGE

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 numbers are defaced, replace all discs.
- Before assembling new discs, soak them in ATF for at least 15 minutes.

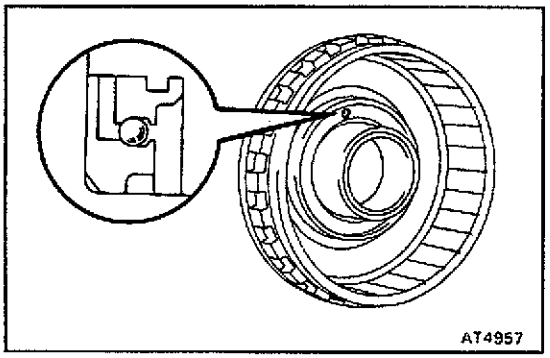
AT



2. CHECK TRANSFER DIRECT CLUTCH PISTON

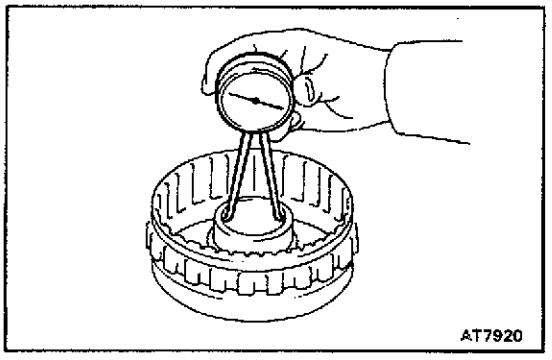
(a) Check that the check ball is free by shaking the piston.

(b) Check that the valve does not leak by applying low–pressure compressed air.



3. CHECK TRANSFER DIRECT CLUTCH DRUM CHECK BALL

Check that the check ball is free by shaking the drum.



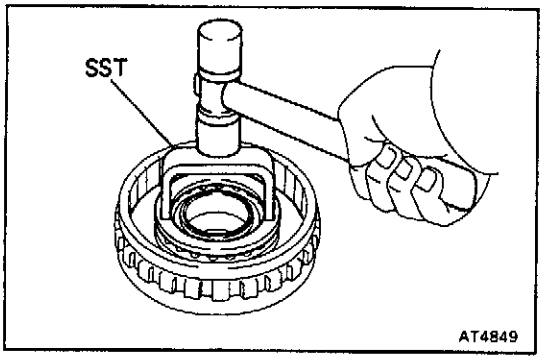
4. CHECK TRANSFER DIRECT CLUTCH DRUM BUSHING

Using a dial indicator, measure the inside diameter of the clutch drum bushing.

Maximum inside diameter:

47.65 mm (1.8760 in.)

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



TRANSFER DIRECT CLUTCH ASSEMBLY AT0JO-02

1. INSTALL PISTON TO TRANSFER DIRECT CLUTCH DRUM

(a) Coat the 2 new O–rings with ATF and install them on the piston and drum.

(b) Place SST on the transfer direct clutch piston.
SST 09320–89010

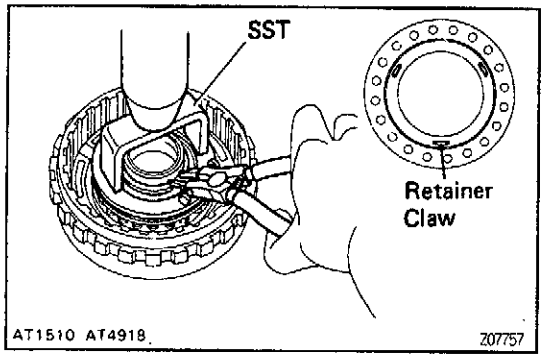
(c) Being careful not to damage the O–rings, tap the piston into the drum with plastic hammer.

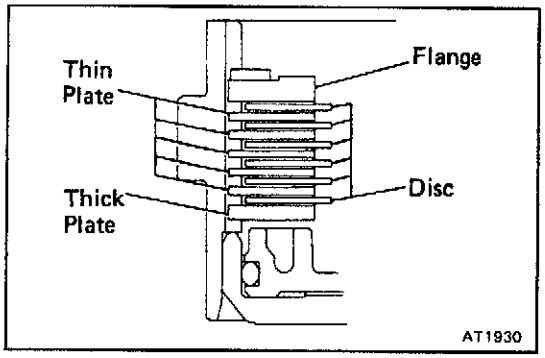
2. INSTALL PISTON RETURN SPRING

(a) Install the piston return spring.

(b) Place SST on the spring retainer, and compress the spring with a shop press.
SST 09320–89010

(c) Install the snap ring with snap ring pliers. Be sure the end gap of the snap ring is not aligned with the spring retainer claw.

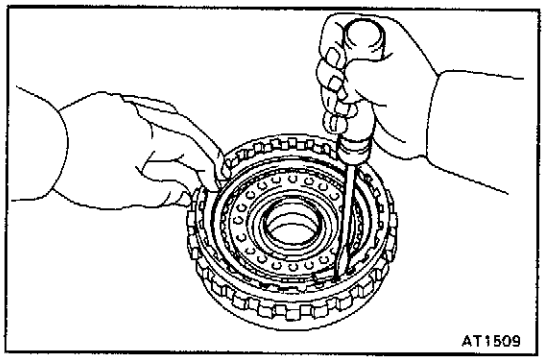




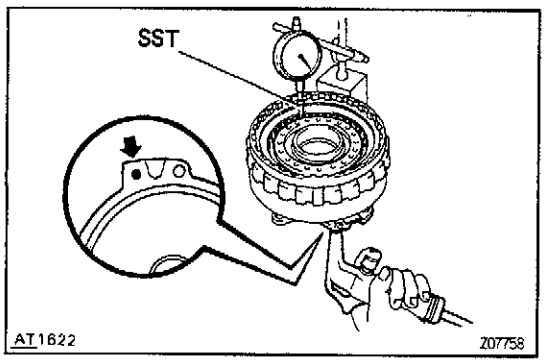
3. INSTALL PLATES, DISCS AND FLANGE

(a) Install the plates and discs.
Install in order: P = Plate D = Disc
P (Thick)–D–P (Thin)–D–P (Thin)–D–P (Thin)–D–P (Thin)–D–P (Thin)–D

(b) Install the flange, the flat end facing downward.



(c) Install the snap ring with a screwdriver.



4. CHECK PISTON STROKE OF TRANSFER DIRECT CLUTCH

(a) Install the direct clutch onto the transfer front support.

(b) Using SST and a dial indicator, measure the piston stroke while applying and releasing compressed air (392 – 785 kPa, 4 – 8 kgf/cm², 57 – 114 psi).
SST 09350–30020 (09350–06120)

Piston stroke:

2.28 – 2.68 mm (0.0898 – 0.1055 in.)

If the piston stroke is less than the limit, parts may have been assembled incorrectly, check and reassemble again.

If the piston stroke is non–standard, select another flange.

HINT: There are 4 different thicknesses for the flange.

Flange thickness

mm (in.)

Thickness	Thickness
3.9 (0.154)	4.3 (0.169)
4.1 (0.161)	4.5 (0.117)