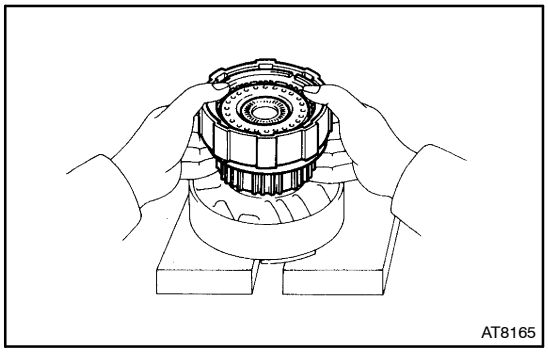
400X4–01

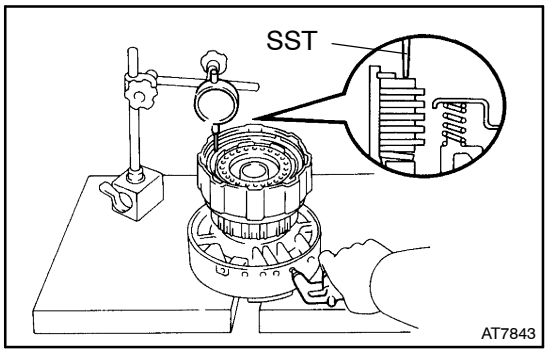
OVERHAUL



1. FIX FORWARD CLUTCH ASSY

(a) Place wooden blocks or similar objects to prevent forward clutch shaft from touching the work stand, and place the O/D support on them.

(b) Place the forward clutch onto the O/D support.



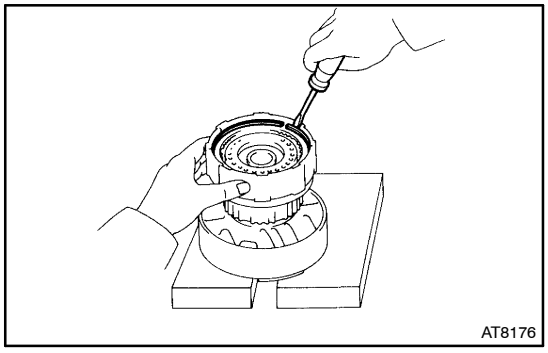
2. INSPECT PISTON STROKE OF FORWARD CLUTCH

(a) Using SST and a dial indicator, measure the forward clutch piston stroke while applying and releasing compressed air (392 – 785 kPa, 4.0 – 8.0 kgf/cm^2, 57 –114 psi).

SST 09350–30020 (09350–06120)

Piston stroke: 0.6 – 1.0 mm (0.024 – 0.039 in.)

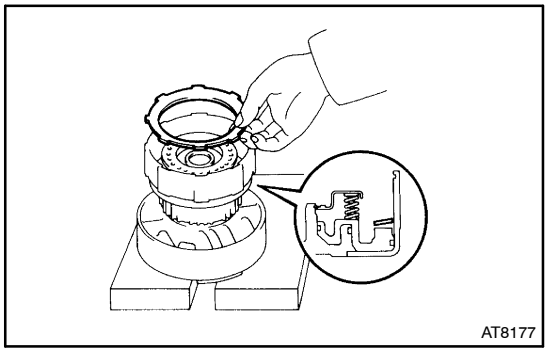
If the piston strokes are outside the standard, inspect the discs.



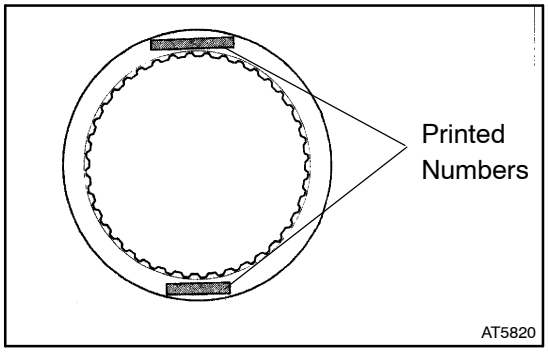
3. REMOVE FORWARD MULTIPLE DISC CLUTCH CLUTCH DISC

(a) Using a screwdriver, remove the snap ring from the forward clutch drum.

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



(c) Remove the cushion plate.

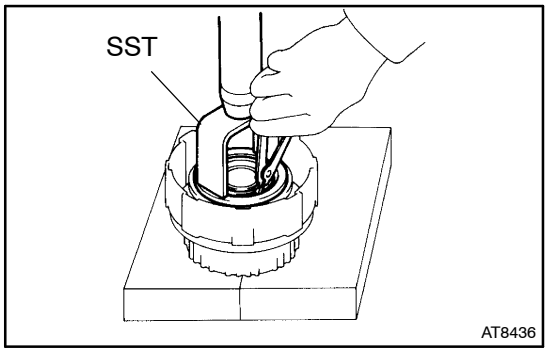


4. INSPECT FORWARD MULTIPLE DISC CLUTCH CLUTCH DISC

(a) Check to see if the sliding surfaces 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 is defaced, replace all discs.

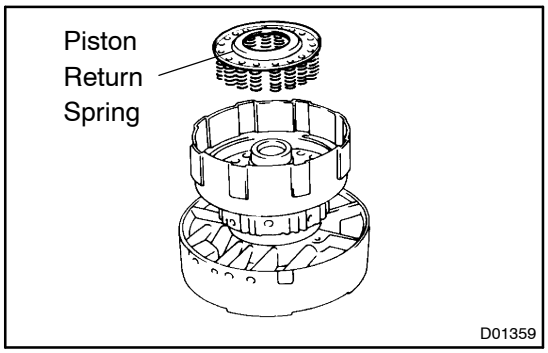


5. REMOVE FORWARD CLUTCH RETURN SPRING SUB–ASSY

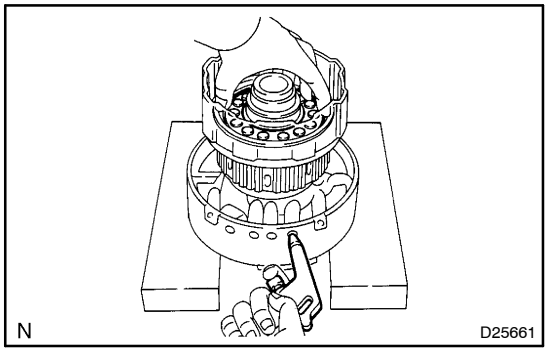
(a) Place SST on the spring retainer and compress the return spring with a press.

SST 09350–30020 (09350–07040, 09350–07070)

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



(c) Remove the piston return spring.

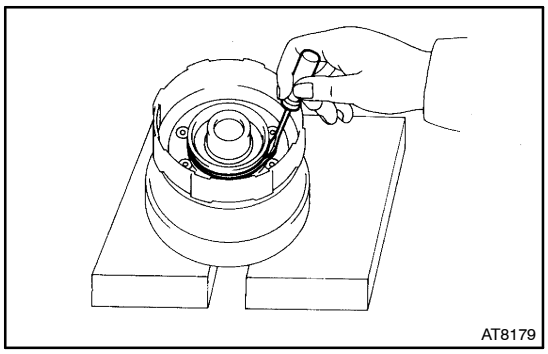


6. REMOVE FRONT CLUTCH PISTON SUB–ASSY

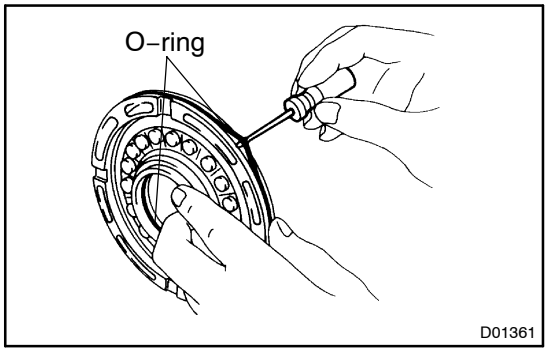
(a) Place the forward clutch drum onto the O/D support.

(b) Hold the forward clutch piston by hand, and apply compressed air (196 kPa, 2.0 kgf/cm^2, 28.5 psi) to the O/D support to remove the forward clutch piston.

(c) Remove the forward clutch piston.

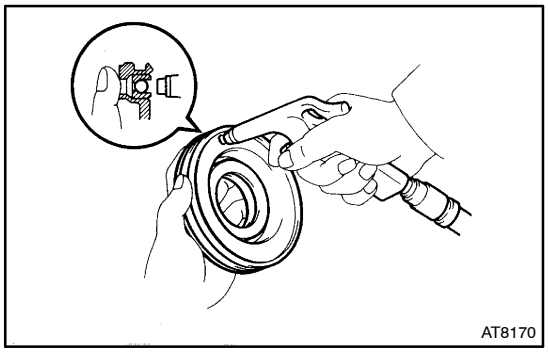


(d) Remove the O– ring from the forward clutch drum.



7. REMOVE FORWARD CLUTCH PISTON O–RING

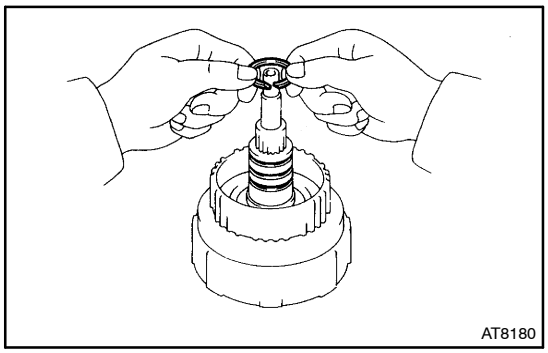
(a) Using a small screwdriver, remove the 2 O–rings.



8. INSPECT FRONT CLUTCH PISTON SUB–ASSY

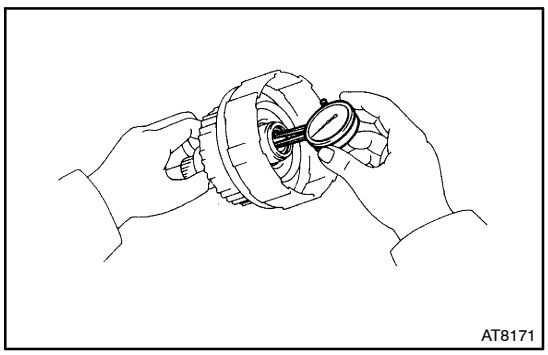
(a) Check that the check ball is free by shaking the piston.

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



9. REMOVE INPUT SHAFT OIL SEAL RING

(a) Remove the 3 oil seal rings from the forward clutch drum groove.

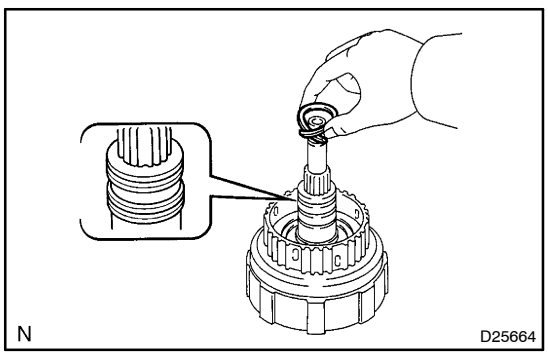


10. INSPECT INPUT SHAFT SUB–ASSY

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

Maximum inside diameter: 24.08 mm (0.948 in.)

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



11. INSTALL INPUT SHAFT OIL SEAL RING

(a) Coat the 3 oil seal rings with ATF.

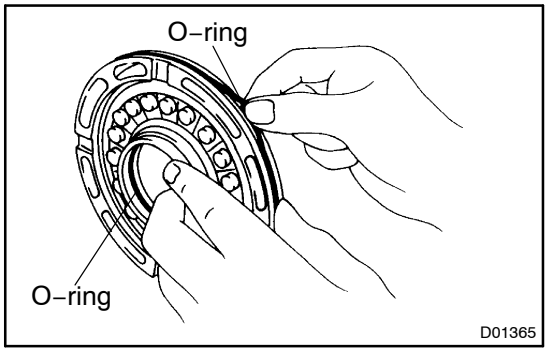
(b) Squeeze the ends of the 3 oil seal rings together with the wrap distance 8 mm or less, and then install them to the forward clutch drum groove.

NOTICE:

Do not over–spread the ring ends.

HINT:

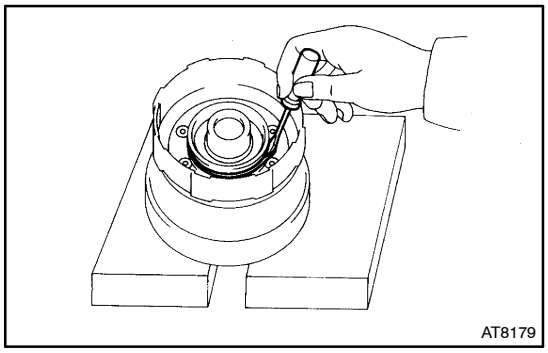
After installing the oil seal rings, check that they rotate smoothly.



12. INSTALL FORWARD CLUTCH PISTON O–RING

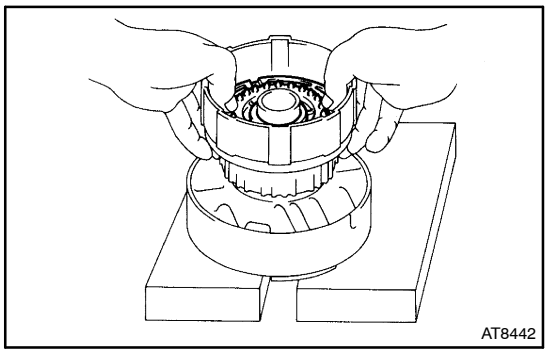
(a) Coat a new O–ring with ATF and install it on the forward clutch drum.

(b) Coat 2 new O–rings with ATF and install them on the forward clutch piston.

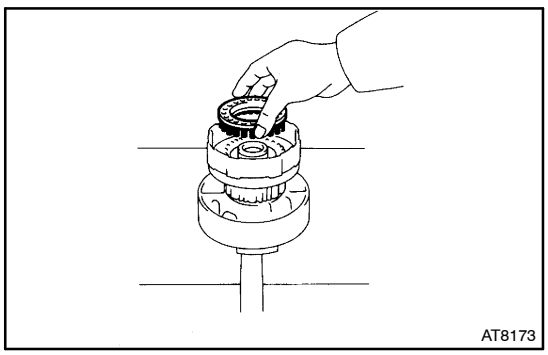


13. INSTALL FRONT CLUTCH PISTON SUB–ASSY

(a) Coat new O–rings with ATF, and install them on the forward clutch piston with a screwdriver.

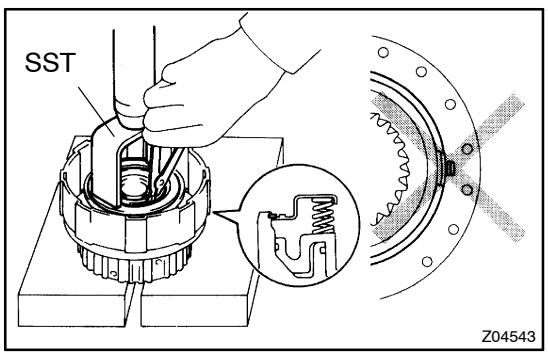


(b) Being careful not to damage the O–rings, and press the clutch piston into the forward clutch drum with both hands.



14. INSTALL FORWARD CLUTCH RETURN SPRING SUB–ASSY

(a) Install the piston return spring.

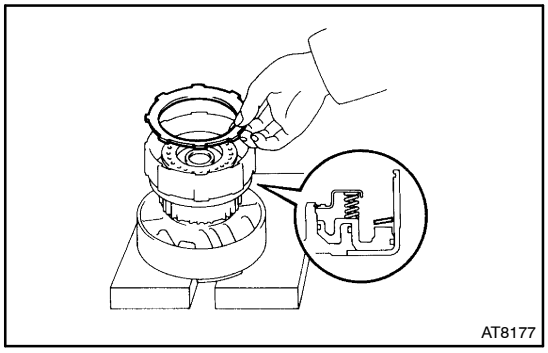


(b) Place SST on the spring retainer, and compress the return spring with a shop press.
SST 09350–30020 (09350–07040, 09350–07070)

(c) Install the snap ring with snap ring pliers.

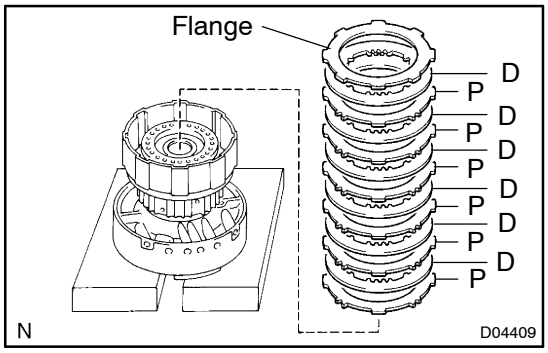
NOTICE:

Be sure the end gap of the snap ring is not aligned with the cutout portion of the forward clutch drum.



15. INSTALL FORWARD MULTIPLE DISC CLUTCH CLUTCH DISC

(a) Install the cushion plateWITHits rounded end down.



(b) Install the 6 plates and discs.

Install in order: P = Plate D = Disc

P – D – P – D – P – D – P – D –P – D – P – D

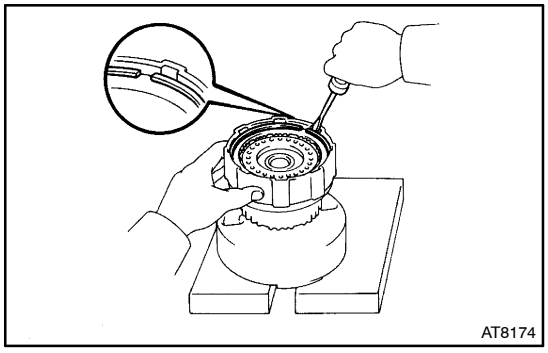
(c) Install the flange with the rounded edge facing downward.

HINT:

There are 8 different thicknesses for the flange.

Flange thickness:

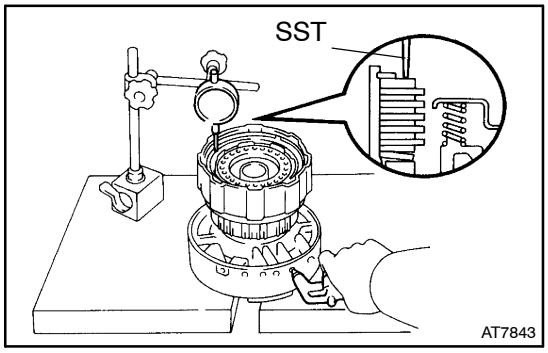
No.	Thickness	No.	Thickness
61	3.0 mm (0.118 in.)	44	3.8 mm (0.150 in.)
60	3.2 mm (0.126 in.)	42	4.0 mm (0.157 in.)
45	3.4 mm (0.134 in.)	63	4.2 mm (0.165 in.)
62	3.6 mm (0.142 in.)	64	4.4 mm (0.173 in.)



(d) Using a screwdriver, install the snap ring.

NOTICE:

Be sure the end gap of the snap ring is not aligned with the cutout portion of the forward clutch drum.



16. INSPECT PISTON STROKE OF FORWARD CLUTCH

(a) Using SST and a dial indicator, measure the forward clutch piston stroke while applying and releasing compressed air (392 – 785 kPa, 4.0 – 8.0 kgf/cm^2, 57 – 114 psi).

SST 09350–30020 (09350–06120)

Piston stroke: 0.6 – 1.0 mm (0.023 – 0.039 in.)

If the piston stroke is outside the standard, inspect the discs.