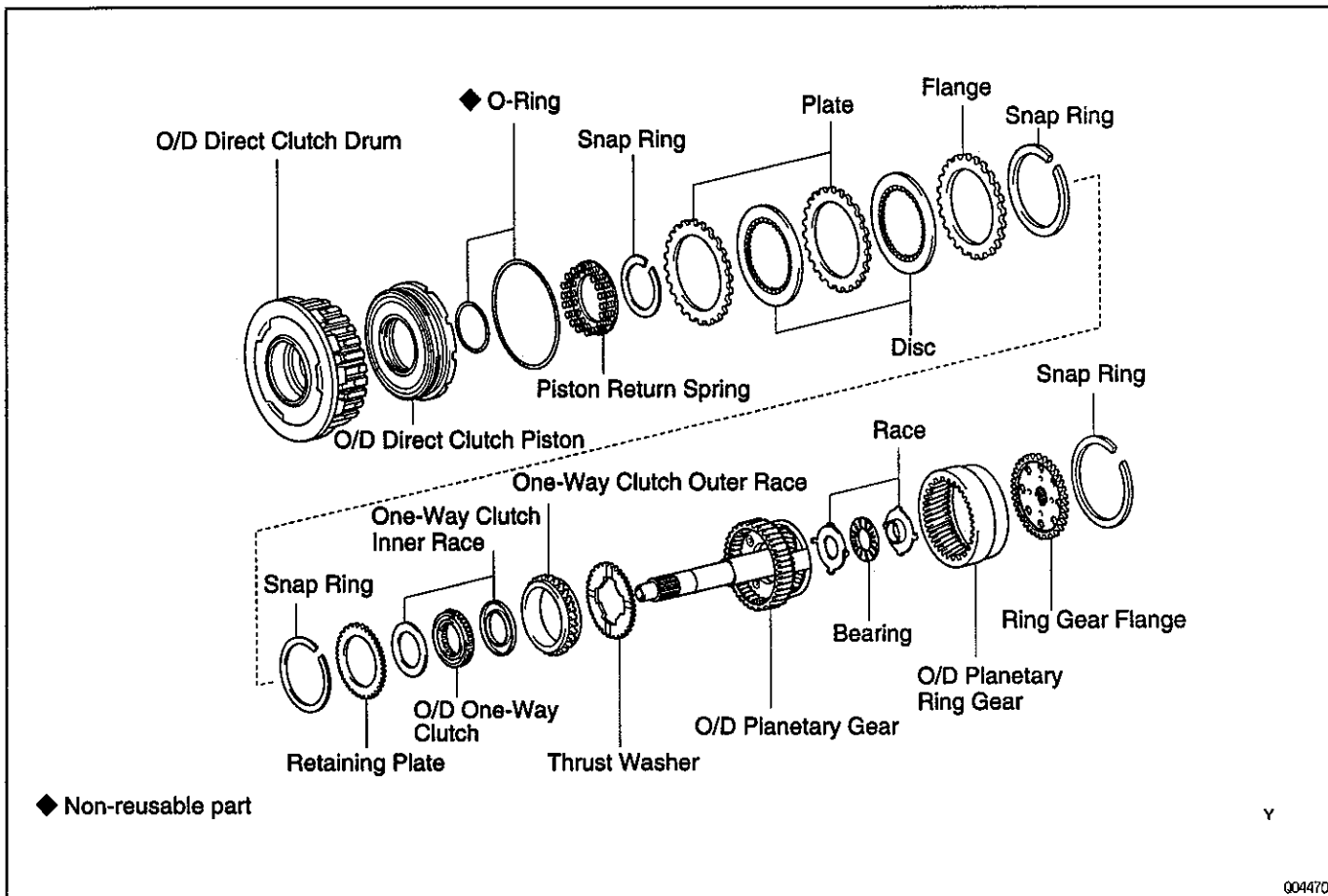
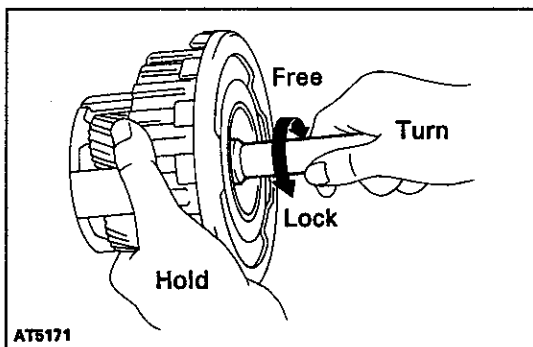


OVERDRIVE DIRECT CLUTCH COMPONENTS

ATODN-02

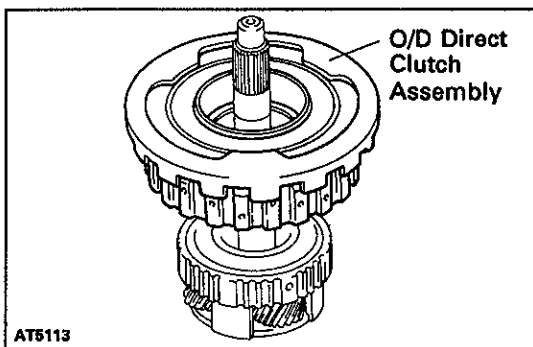


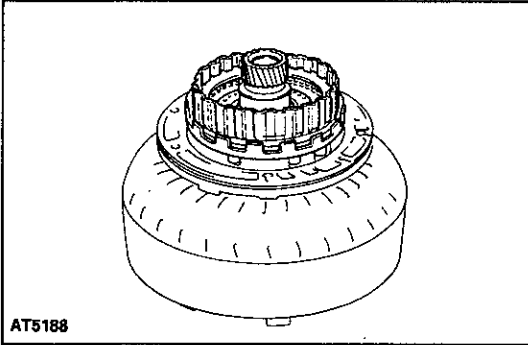
ATODP-02



OVERDRIVE PLANETARY GEAR, OVERDRIVE DIRECT CLUTCH AND OVERDRIVE ONE-WAY CLUTCH DISASSEMBLY

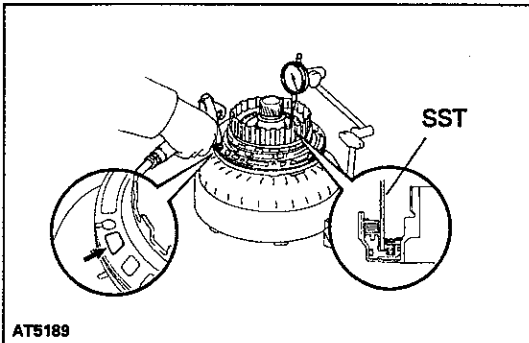
1. **CHECK OPERATION OF ONE-WAY CLUTCH**
 Hold the O/D direct clutch drum and turn the input shaft.
 Check that the input shaft turns freely clockwise and locks counterclockwise.
2. **REMOVE OVERDRIVE DIRECT CLUTCH ASSEMBLY FROM OVERDRIVE PLANETARY GEAR**





3. CHECK PISTON STROKE OF OVERDRIVE DIRECT CLUTCH

- (a) Place the oil pump onto the torque converter clutch, and then place the O/D direct clutch assembly onto the oil pump.



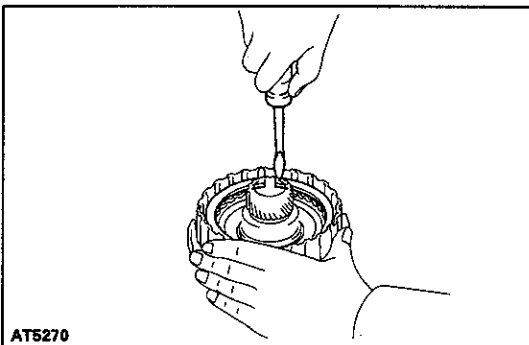
- (b) Using SST and a dial indicator, measure the O/D direct clutch piston stroke, applying and releasing the compressed air (392–785 kPa, 4–8 kgf/cm² or 57–114 psi), as shown.

SST 09350–30020 (09350–06120)

Piston stroke:

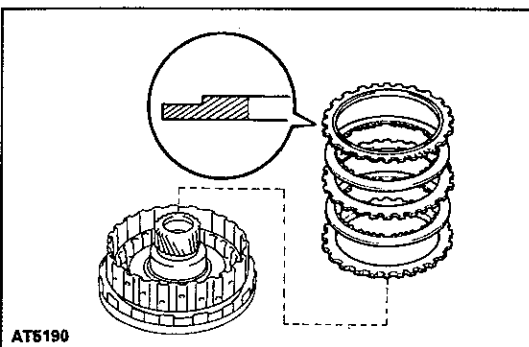
1.45–1.70 mm (0.057–0.067 in.)

If the values are nonstandard, inspect the discs.

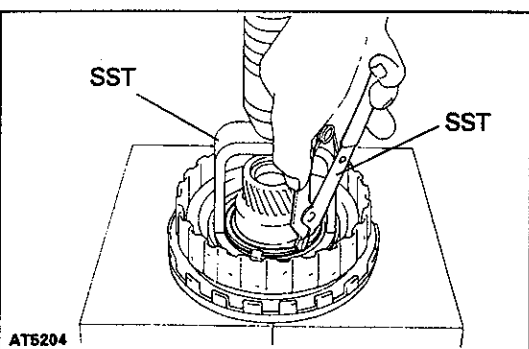


4. REMOVE FLANGE, PLATES AND DISCS

- (a) Using a screwdriver, remove the snap ring from the O/D direct clutch drum.



- (b) Remove the flange, 2 plates and 2 discs.



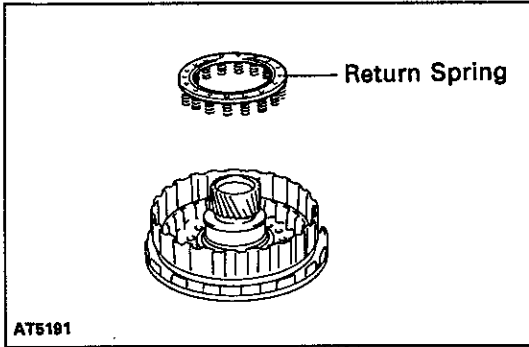
5. REMOVE PISTON RETURN SPRING

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

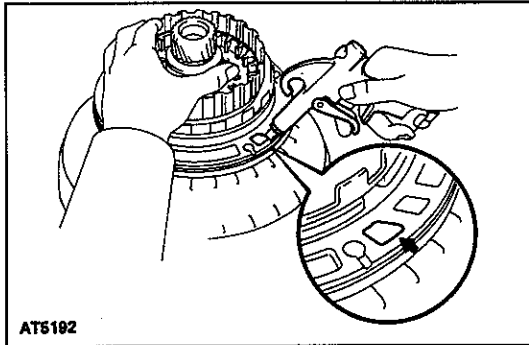
SST 09350–30020 (09350–07040)

- (b) Using SST, remove the snap ring.

SST 09350–30020 (09350–07070)



(c) Remove the piston return spring.



6. REMOVE OVERDRIVE DIRECT CLUTCH PISTON

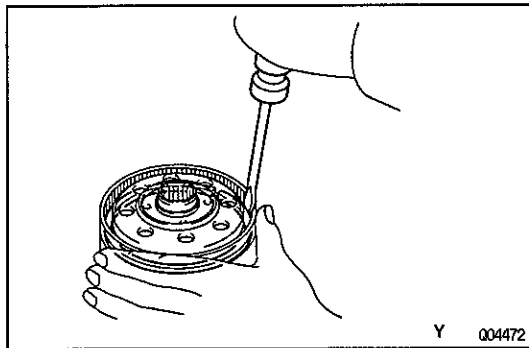
(a) Place the oil pump onto the torque converter clutch and then place the O/D direct clutch onto the oil pump.

(b) Hold the O/D direct clutch piston, apply compressed air to the oil pump to remove the O/D direct clutch piston.

(c) Remove the O/D direct clutch piston.

HINT: If the piston is at an angle and cannot be removed, press down on the side jutting out and again apply compressed air, or else wind vinyl tape around the piston end and remove it with needle nose pliers.

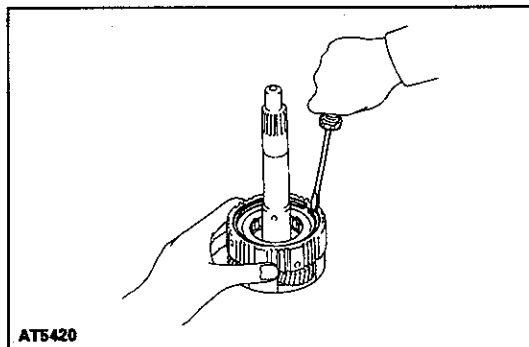
(d) Remove the 2 O-rings from the piston.



7. REMOVE RING GEAR FLANGE

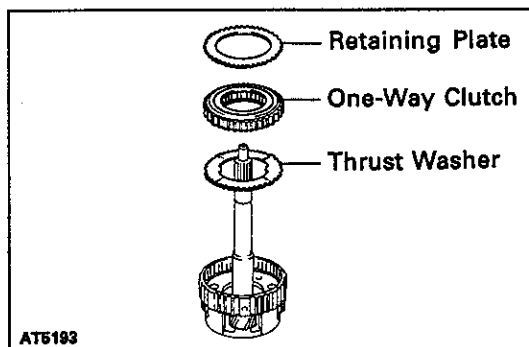
(a) Using a screwdriver, remove the snap ring.

(b) Remove the ring gear flange.



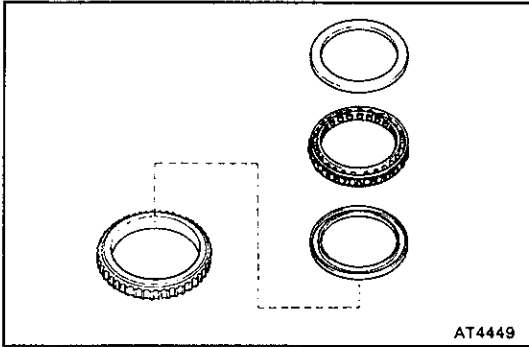
8. REMOVE RETAINING PLATE

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

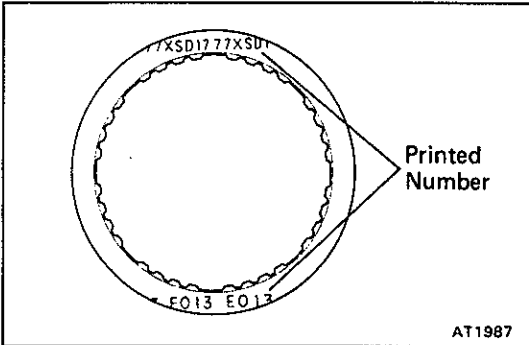


(b) Remove the retaining plate, one-way clutch and thrust washer.

AT



9. REMOVE ONE-WAY CLUTCH FROM OUTER RACE



OVERDRIVE PLANETARY GEAR AND OVERDRIVE DIRECT CLUTCH INSPECTION

1. INSPECT DISC AND FLANGE

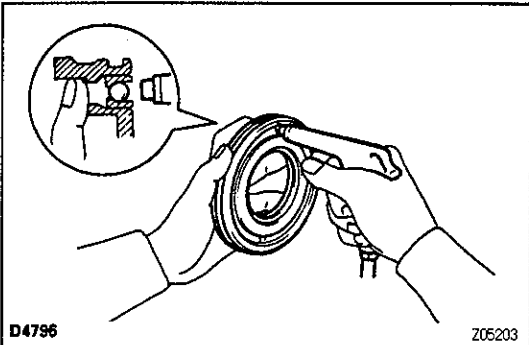
Check to see if the sliding surface of the disc, plate and flange are worn or burnt. If necessary, replace them.

HINT:

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

2. CHECK OVERDRIVE DIRECT CLUTCH PISTON

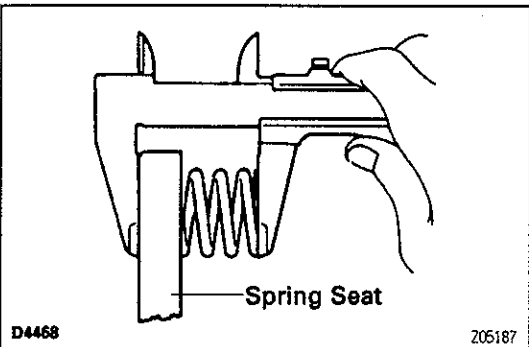
- (a) Check that the check ball is free by shaking the piston.
- (b) Check that the valve does not leak by applying low-pressure compressed air.



3. CHECK OVERDRIVE DIRECT CLUTCH RETURN SPRING

Check the spring free length together with the spring seat.

Standard free length:
15.8 mm (0.622 in.)



4. CHECK OVERDRIVE DIRECT CLUTCH DRUM BUSHINGS

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

Maximum inside diameter:
27.11 mm (1.0673 in.)

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

