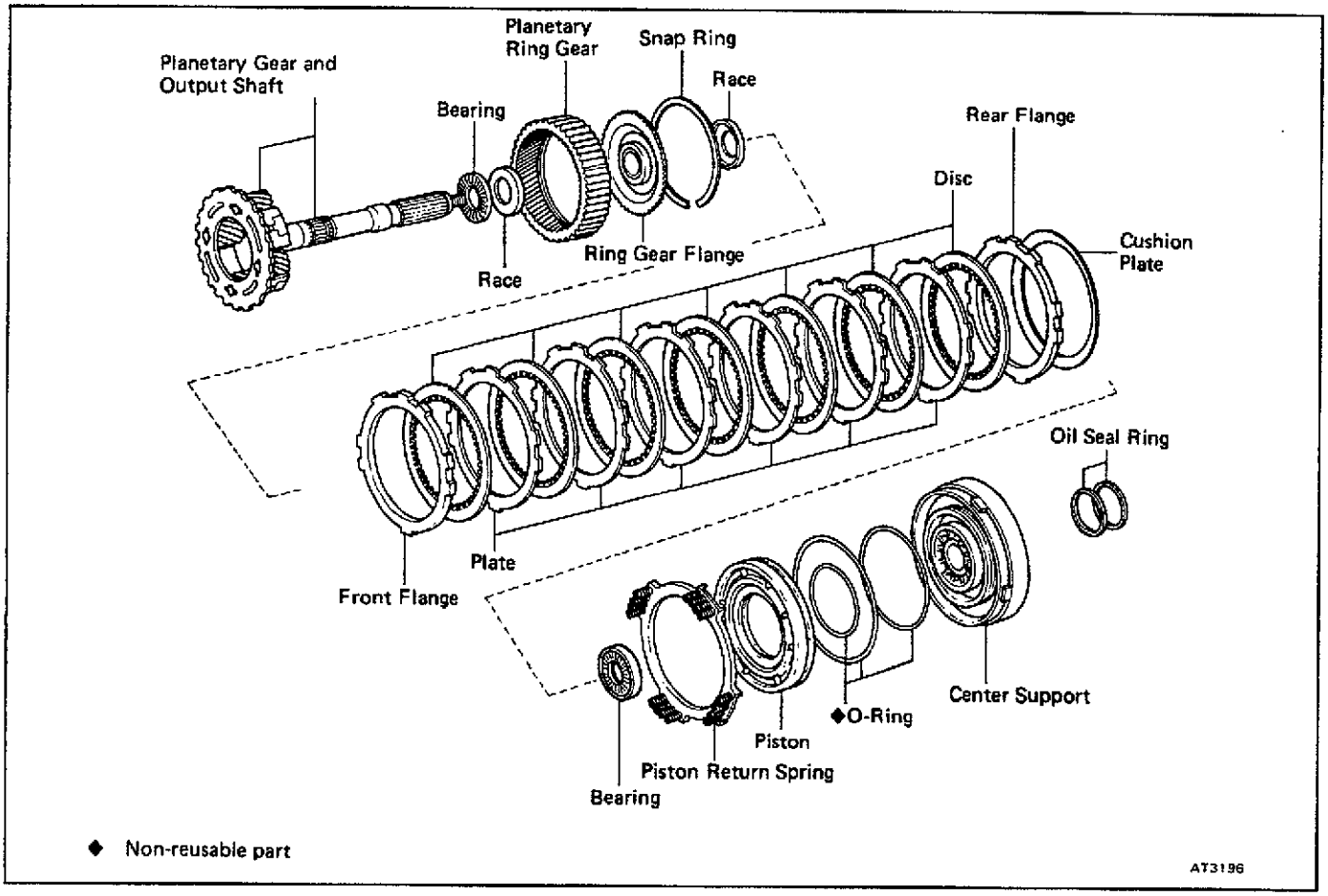
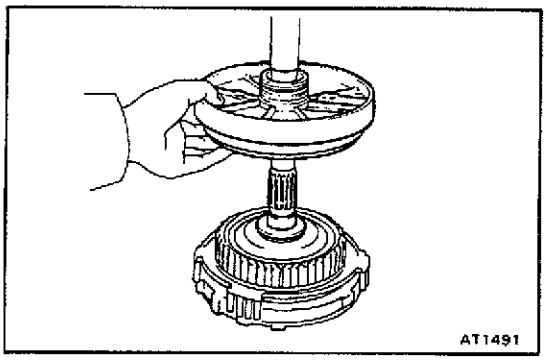
TRANSFER LOW SPEED BRAKE

COMPONENTS

AT0JR-01



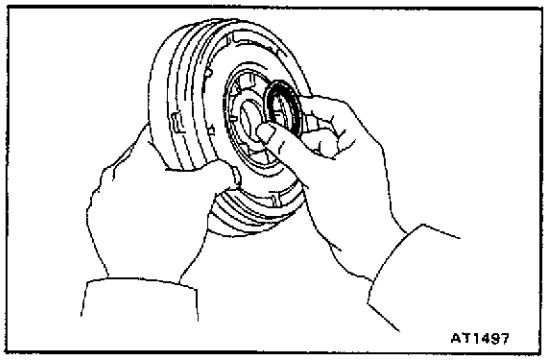


TRANSFER LOW SPEED BRAKE AND CENTER SUPPORT DISASSEMBLY

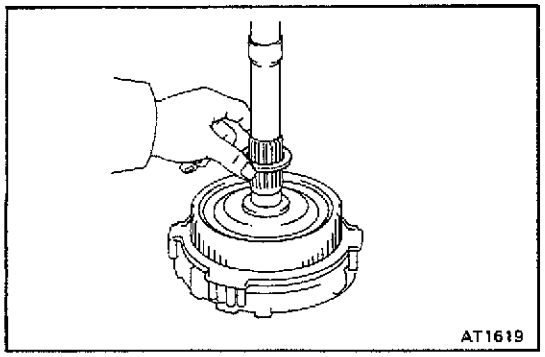
AT0J8-02

1. REMOVE TRANSFER CENTER SUPPORT

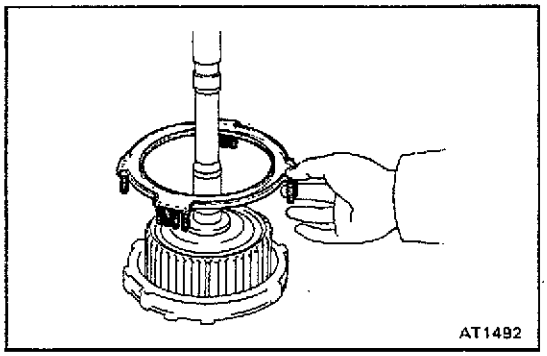
(a) Remove the center support from the output shaft.



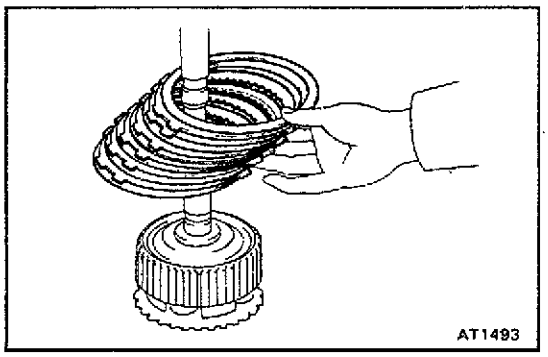
(b) Remove the assembled bearing and race from the center support.



(c) Remove the race from the output shaft.

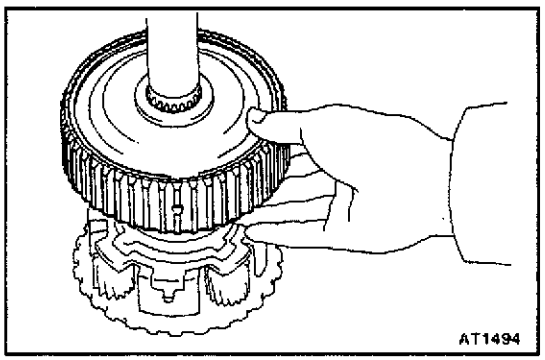


2. REMOVE PISTON RETURN SPRING

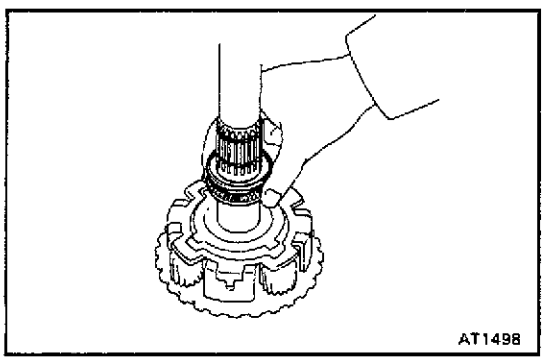


3. REMOVE CUSHION PLATE, REAR FLANGE, PLATES AND DISCS

Remove the cushion plate, rear flange, 6 plates and 7 discs.

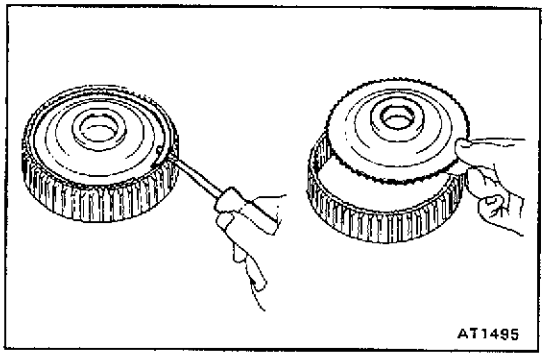


4. REMOVE PLANETARY RING GEAR FROM OUTPUT SHAFT



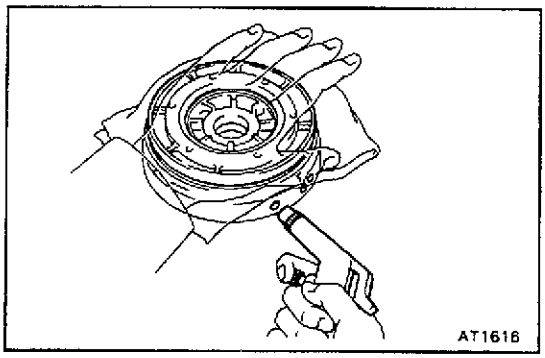
5. REMOVE RACE AND BEARING FROM PLANETARY GEAR

Remove the race and bearing from rear side of the planetary gear.



6. REMOVE PLANETARY RING GEAR FLANGE

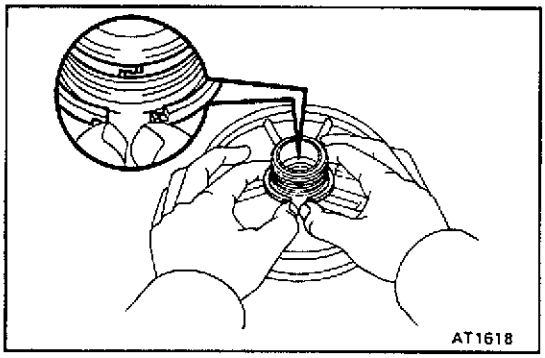
Remove the snap ring and ring gear flange.



7. REMOVE TRANSFER LOW SPEED BRAKE PISTON

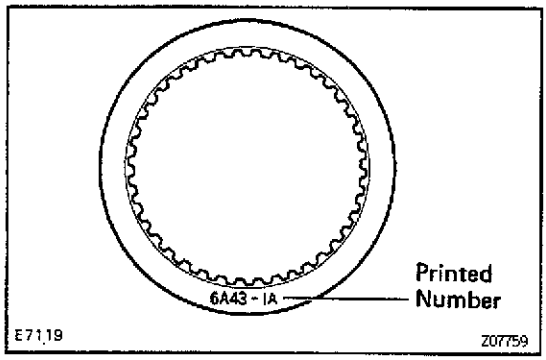
(a) Hold the low speed brake piston with hand, apply compressed air into the center support and remove the piston.

(b) Remove the 2 O–rings from the piston and an O–ring from the center support.



8. REMOVE OIL SEAL RINGS FROM CENTER SUPPORT

Push one end of the ring into the groove and unhook both ends of the ring by hands. Spread the ring apart and remove it.



TRANSFER LOW SPEED BRAKE AND CENTER SUPPORT INSPECTION

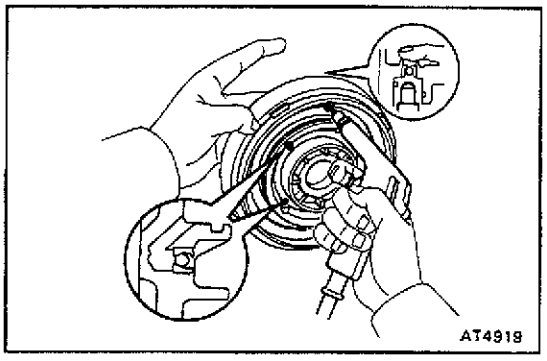
AT0JT–02

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:

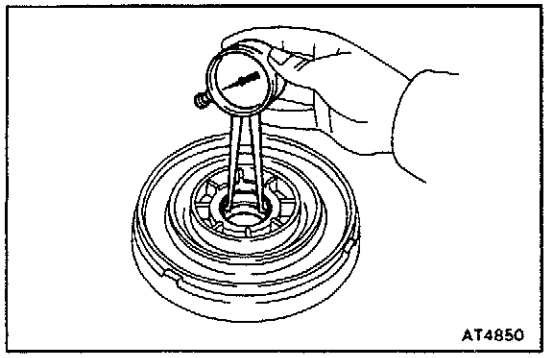
- If the lining of the disc is peeling off or discolored, or even if a part of the printed numbers are defaced, replace all discs.
- Before assembling new discs, soak them in ATF for at least 15 minutes.



2. CHECK CENTER SUPPORT

(a) Check that the check balls are free by shaking the center support.

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



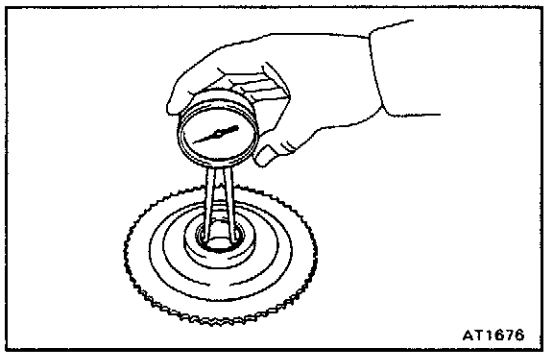
3. CHECK CENTER SUPPORT BUSHING

Using a dial indicator, measure the inside diameter of the center support bushing.

Maximum inside diameter:

35.08 mm (1.3811 in.)

If the inside diameter is greater than the maximum, replace the center support.



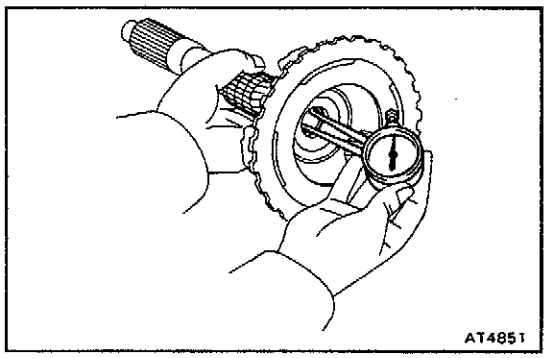
4. CHECK RING GEAR FLANGE BUSHING

Using a dial indicator, measure the inside diameter of the ring gear flange bushing.

Maximum inside diameter:

35.08 mm (1.3811 in.)

If the inside diameter is greater than maximum, replace the flange.



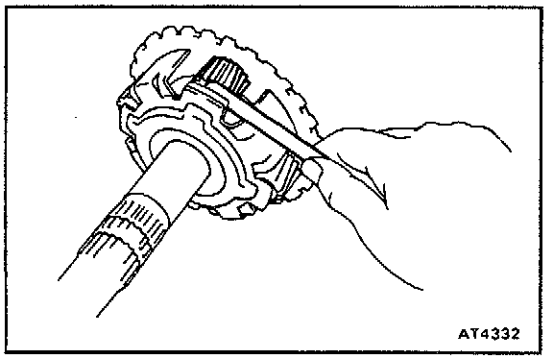
5. CHECK PLANETARY GEAR BUSHING

Using a dial indicator, measure the inside diameter of the planetary gear bushing.

Maximum inside diameter:

18.08 mm (0.7118 in.)

If the inside diameter is greater than the maximum, replace the planetary gear.



6. MEASURE PLANETARY PINION GEAR THRUST CLEARANCE

Using a feeler gauge, measure the planetary pinion gear thrust clearance.

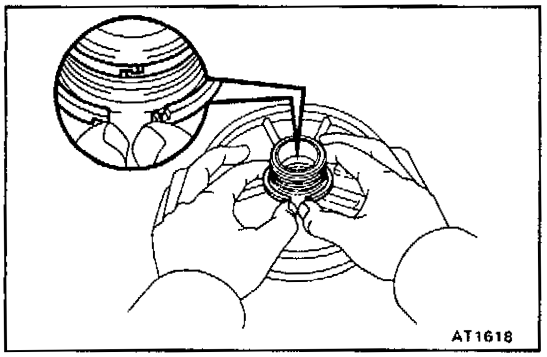
Standard clearance:

0.30 – 0.60 mm (0.0118 – 0.0236 in.)

Maximum clearance:

1.00 mm (0.0394 in.)

If the clearance is greater than the maximum, replace the planetary gear assembly.



AT0JU-02

TRANSFER LOW SPEED BRAKE AND CENTER SUPPORT ASSEMBLY

1. INSTALL OIL SEAL RINGS TO CENTER SUPPORT

(a) Coat the 2 oil seal rings with ATF.

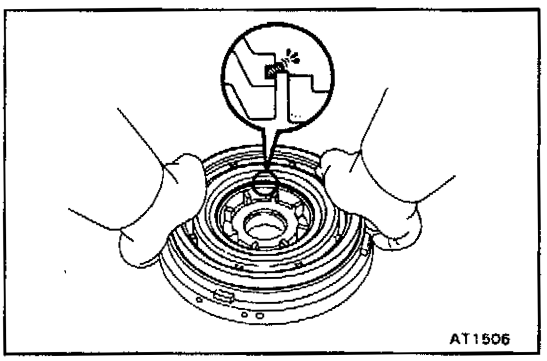
(b) Install the 2 oil seal ring to the center support groove, then snug them down by squeezing their ends together.

NOTICE: Do not spread the ring ends too much.

(c) Push the one end of the ring into the groove and hook both ends with hands.

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

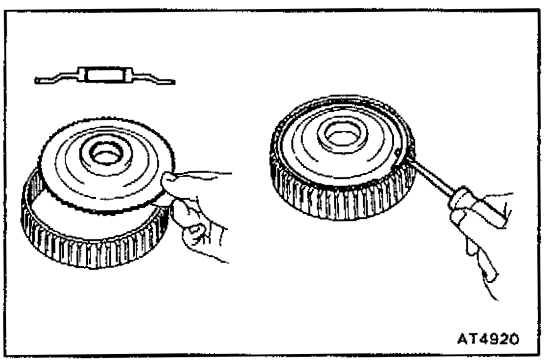
AT



2. INSTALL TRANSFER LOW SPEED BRAKE PISTON TO CENTER SUPPORT

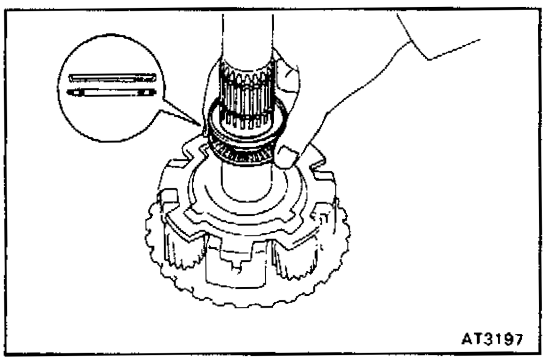
(a) Coat the new O–rings with ATF and install them on the piston and center support.

(b) Being careful not to damage the O–rings, press in the low speed brake piston into the center support with both hands.



3. INSTALL PLANETARY RING GEAR FLANGE

Install the flange into the ring gear and install the snap ring.



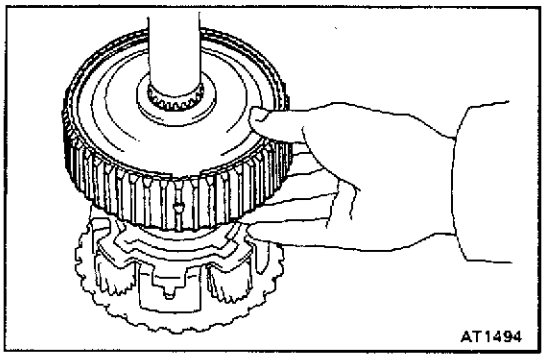
4. INSTALL BEARING AND RACE TO PLANETARY GEAR

Coat the bearing and race with petroleum jelly and install them onto the planetary gear.

Bearing and race diameter

mm (in.)

	Inside	Outside
Bearing	35.0 (1.378)	54.4 (2.142)
Race	36.3 (1.429)	53.9 (2.122)



5. **INSTALL PLANETARY RING GEAR TO OUTPUT SHAFT**