

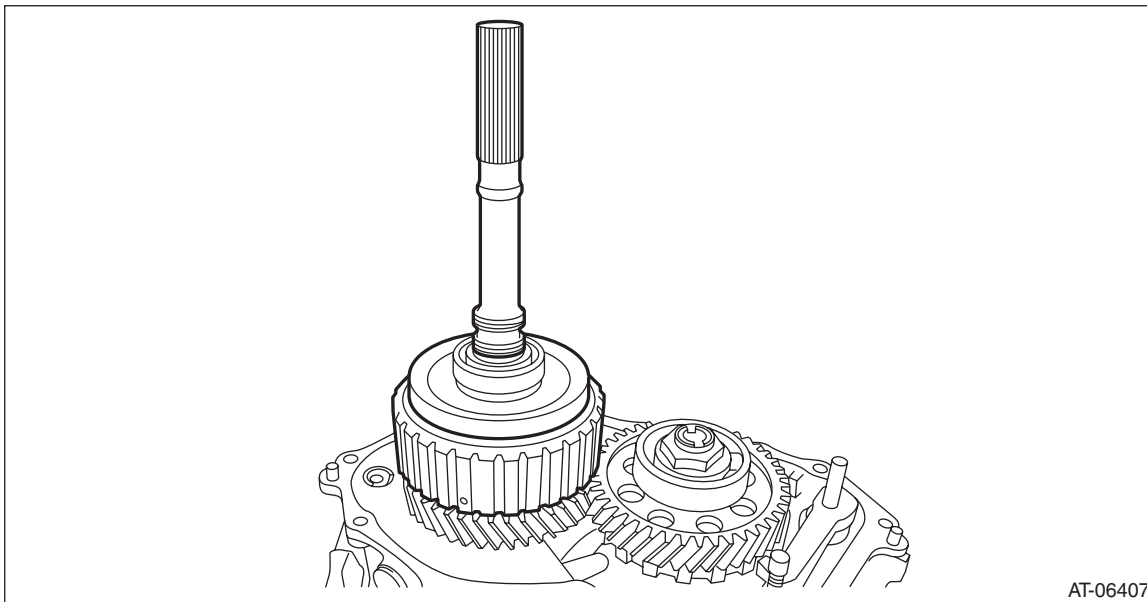
# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

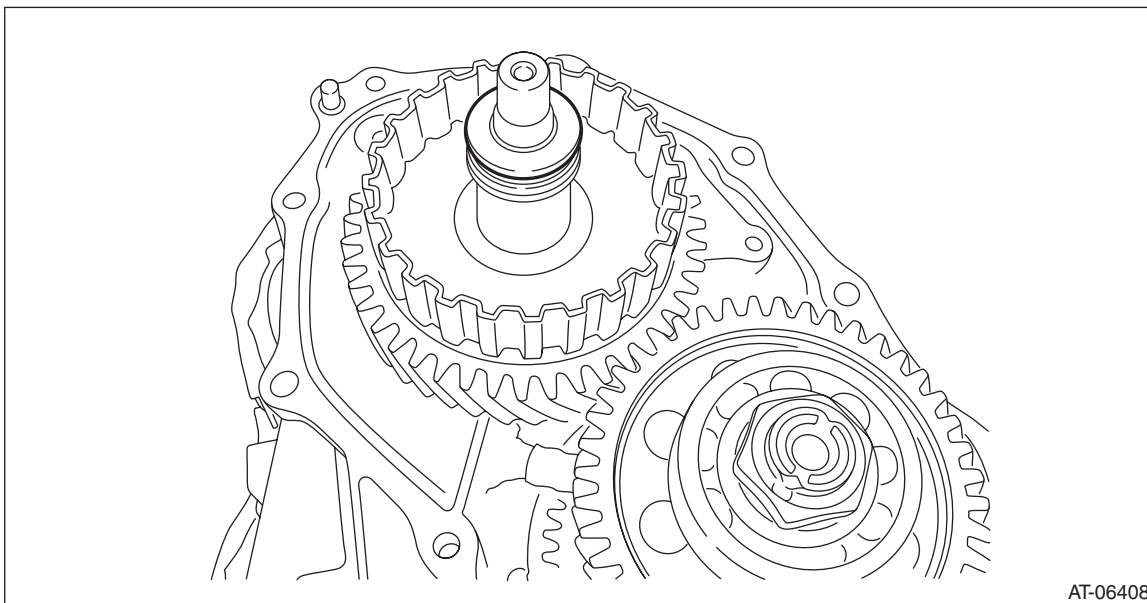
## 29. Transfer Clutch

### A: REMOVAL

- 1) Remove the transmission assembly from the vehicle. <Ref. to CVT-56, REMOVAL, Automatic Transmission Assembly.>
- 2) Remove the extension case. <Ref. to CVT-156, REMOVAL, Extension Case.>
- 3) Remove the transfer clutch assembly.



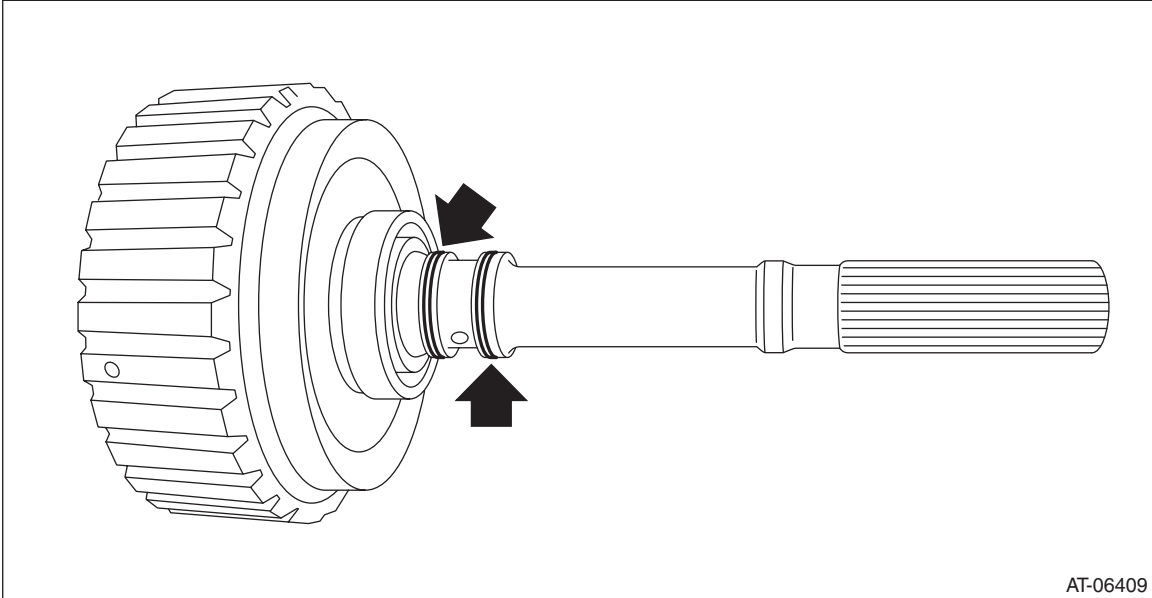
- 4) Remove the thrust bearing.



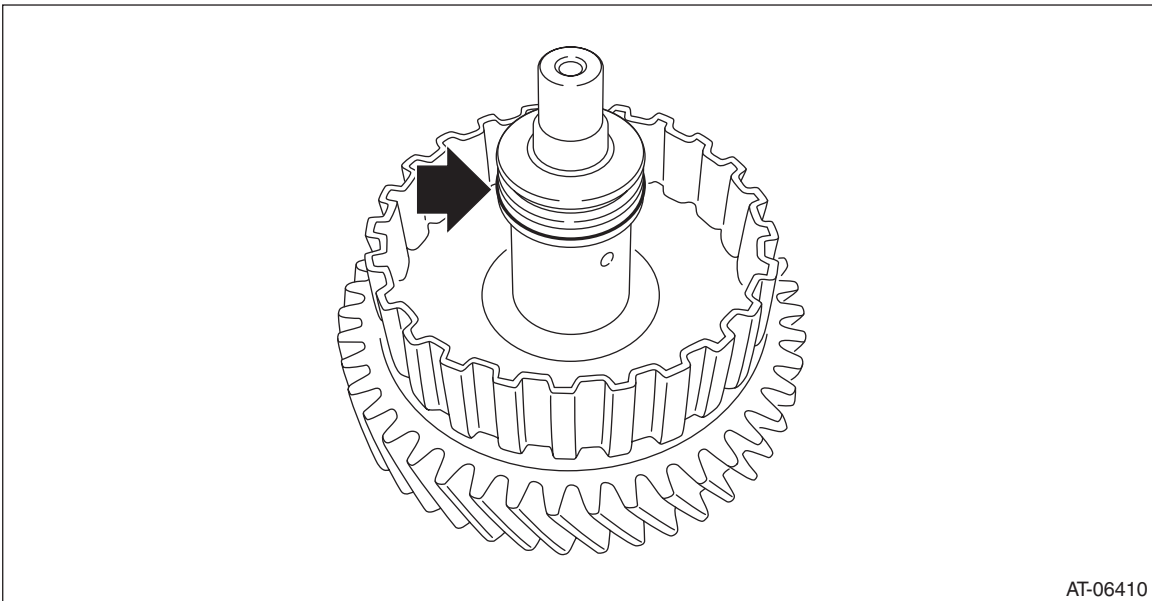
# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

5) Remove the seal ring from transfer clutch assembly.



6) Remove the seal ring from the transfer driven gear assembly.



# Transfer Clutch

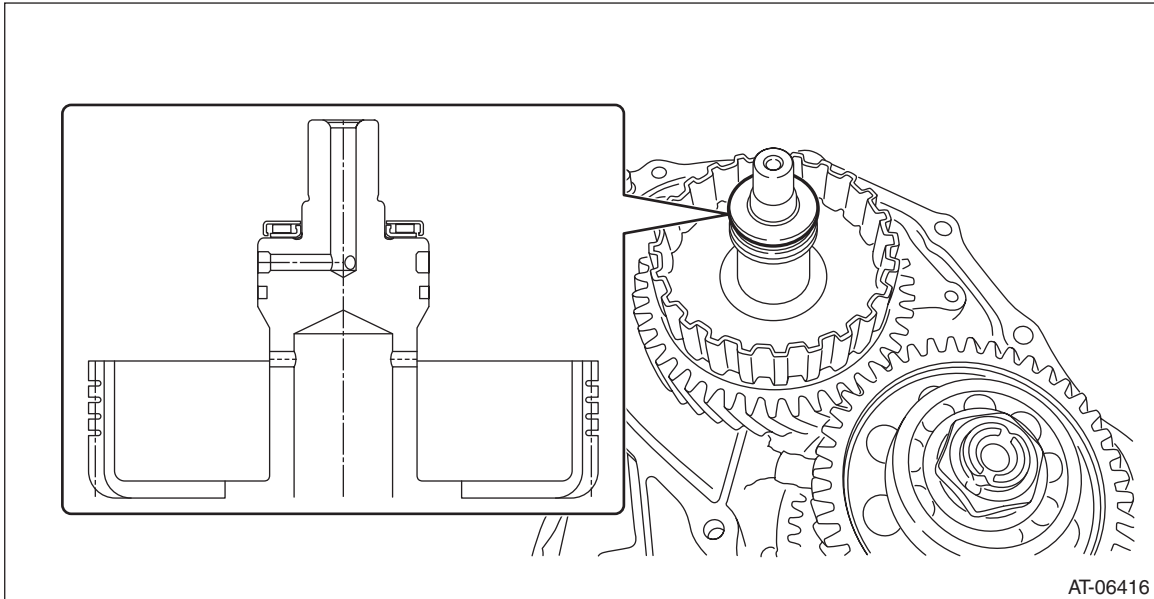
CONTINUOUSLY VARIABLE TRANSMISSION

## B: INSTALLATION

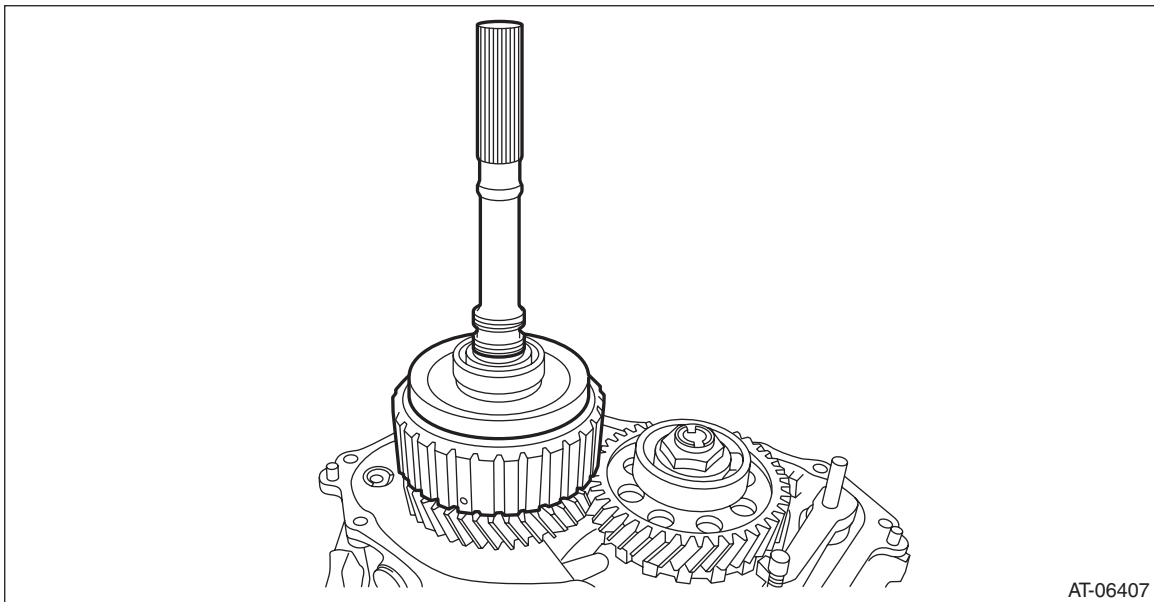
1) Install the thrust bearing.

NOTE:

Make sure to install in the right direction.



2) Install the transfer clutch assembly.



3) Select the transfer driven gear shim. <Ref. to CVT-172, ADJUSTMENT, Transfer Clutch.>

4) Attach the selected transfer driven gear shim to extension case with vaseline.

5) Remove the transfer clutch assembly.

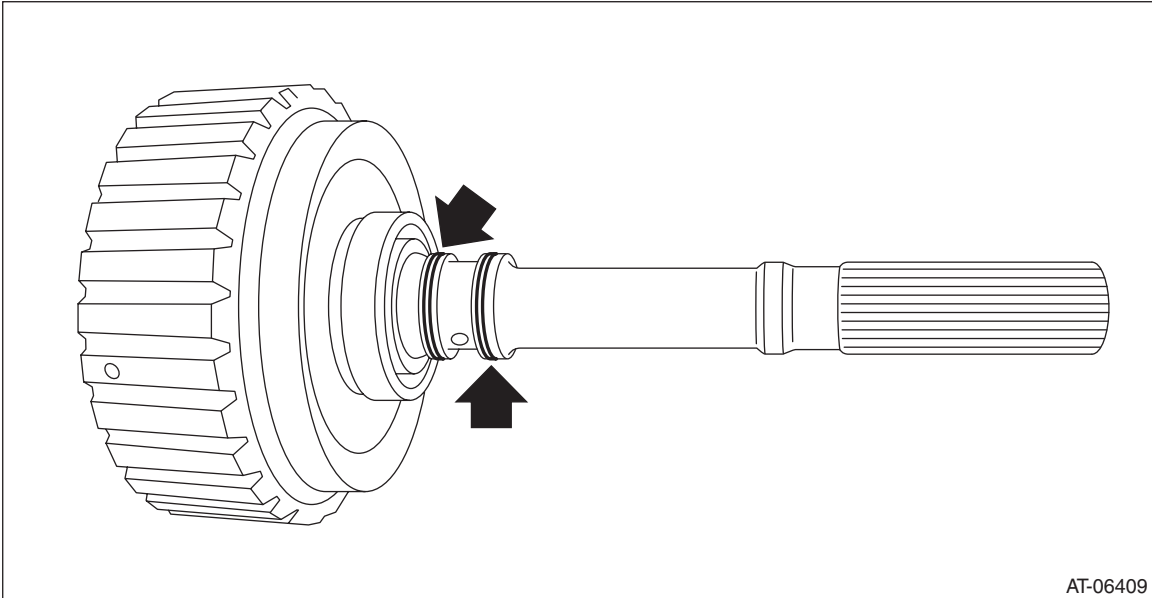
# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

6) Install the seal ring to the transfer clutch assembly.

**NOTE:**

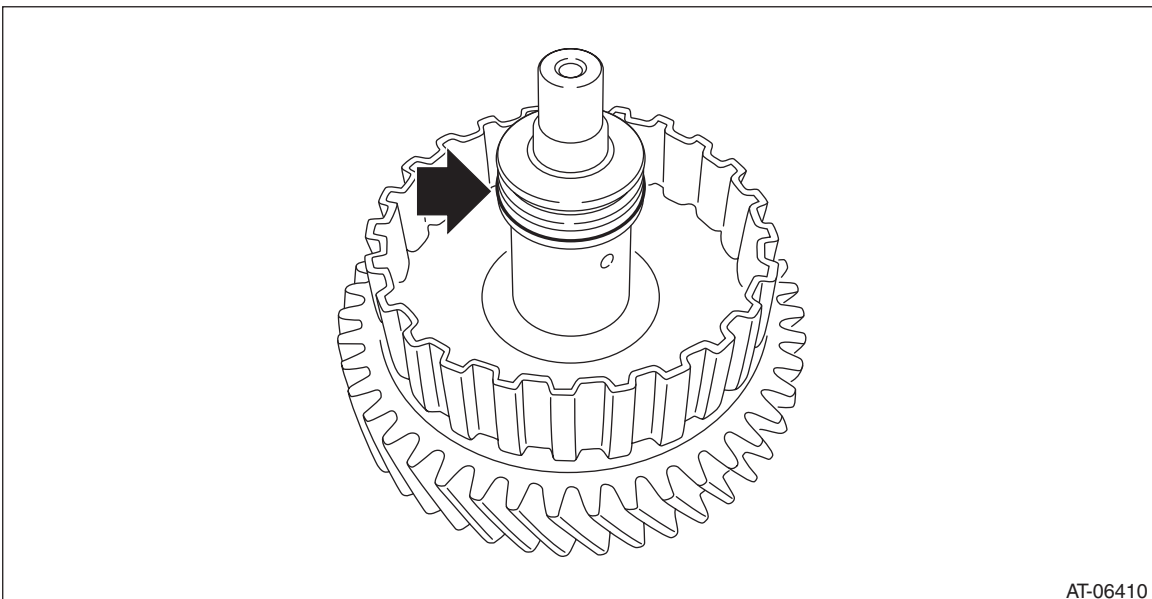
- Use a new seal ring.
- When installing the seal ring, do not expand the seal ring too much.
- Apply CVTF to the seal rings.



7) Install the seal ring to the transfer driven gear assembly.

**NOTE:**

- Use a new seal ring.
- When installing the seal ring, do not expand the seal ring too much.
- Apply CVTF to the seal rings.



8) Install the transfer clutch assembly.

9) Install the extension case. <Ref. to CVT-157, INSTALLATION, Extension Case.>

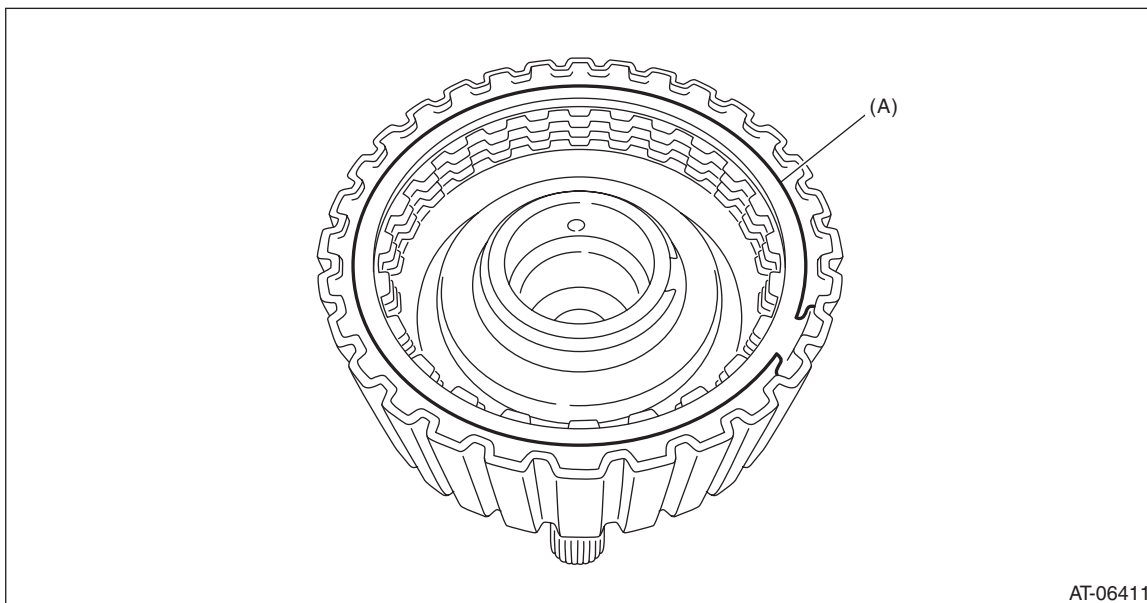
10) Install the transmission assembly to the vehicle. <Ref. to CVT-67, INSTALLATION, Automatic Transmission Assembly.>

# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

## C: DISASSEMBLY

1) Remove the snap ring, and then remove the retaining plate, drive plate and driven plate.

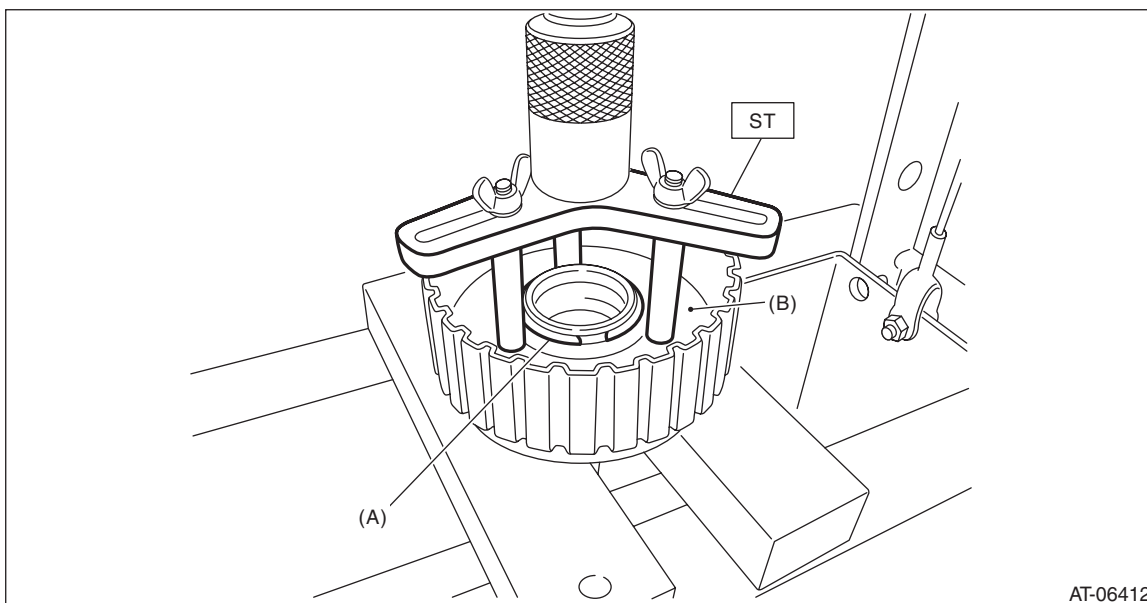


AT-06411

(A) Snap ring

2) Compress the return spring using the ST to remove the snap ring.

ST 18762AA000 COMPRESSOR SPECIAL TOOL



AT-06412

(A) Snap ring

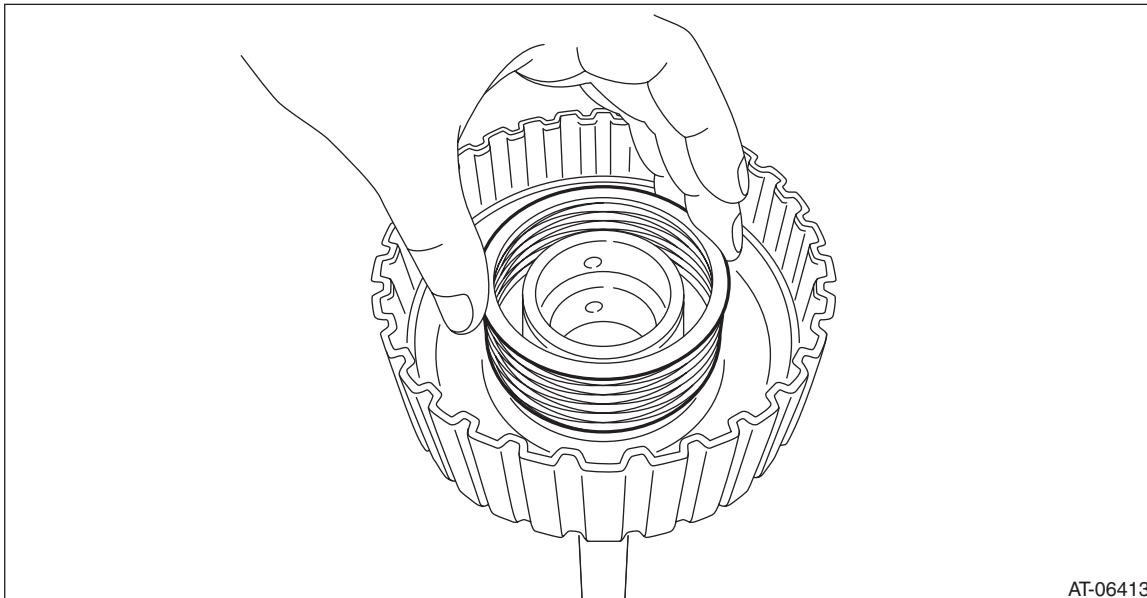
(B) Transfer clutch piston seal

3) Remove the transfer clutch piston seal.

# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

4) Remove the return spring.

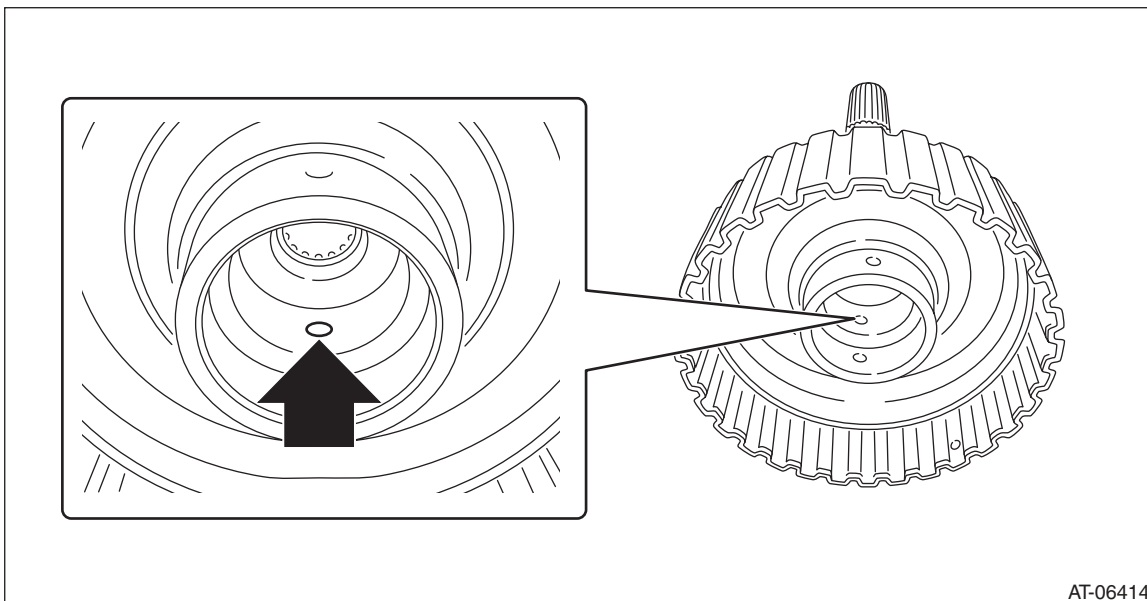


AT-06413

5) Remove the transfer clutch piston by blowing compressed air through transfer clutch assembly hole.

NOTE:

Plug the holes through which the compressed air is not blown.



AT-06414

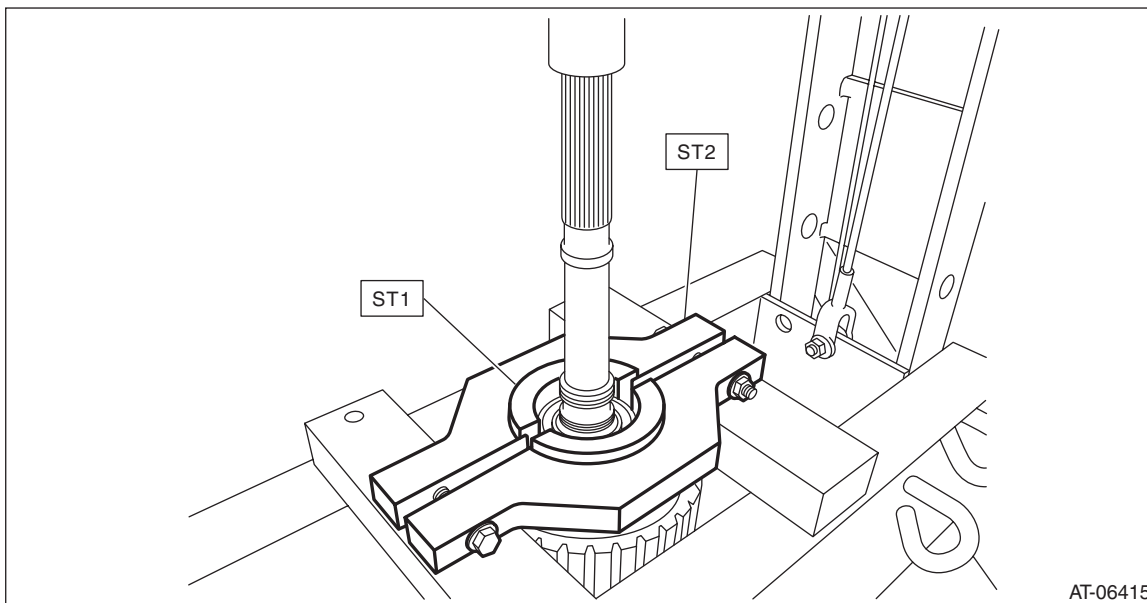
# Transfer Clutch

## CONTINUOUSLY VARIABLE TRANSMISSION

6) Remove the ball bearing using ST.

ST1 18767AA010 BEARING REMOVER

ST2 18723AA000 REMOVER



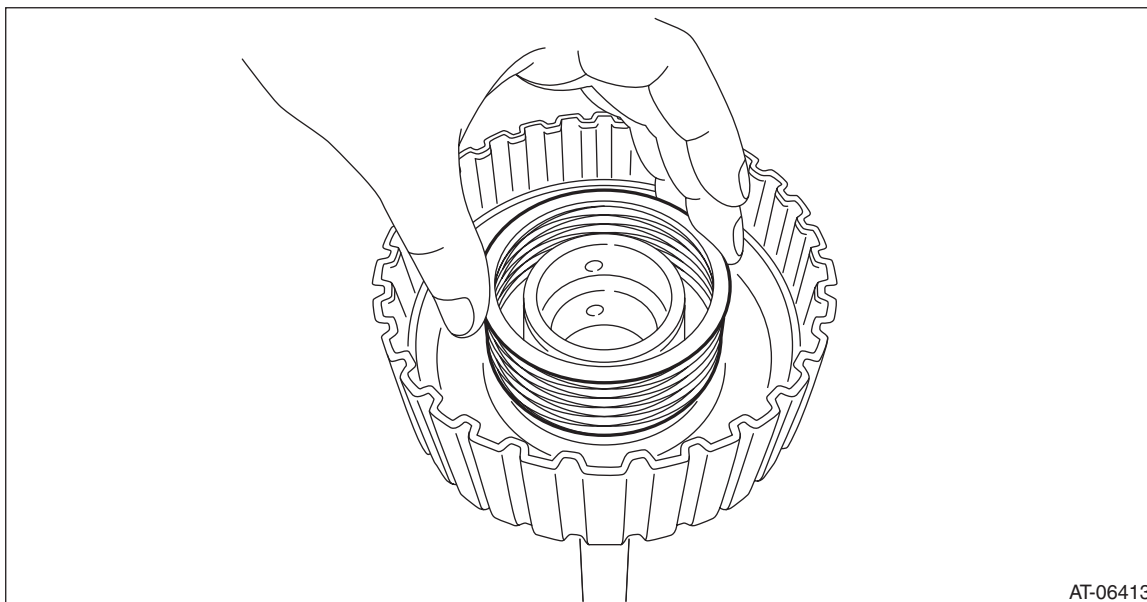
## D: ASSEMBLY

1) Install the transfer clutch piston.

NOTE:

Apply CVTF to the transfer clutch piston lip.

2) Install the return spring.



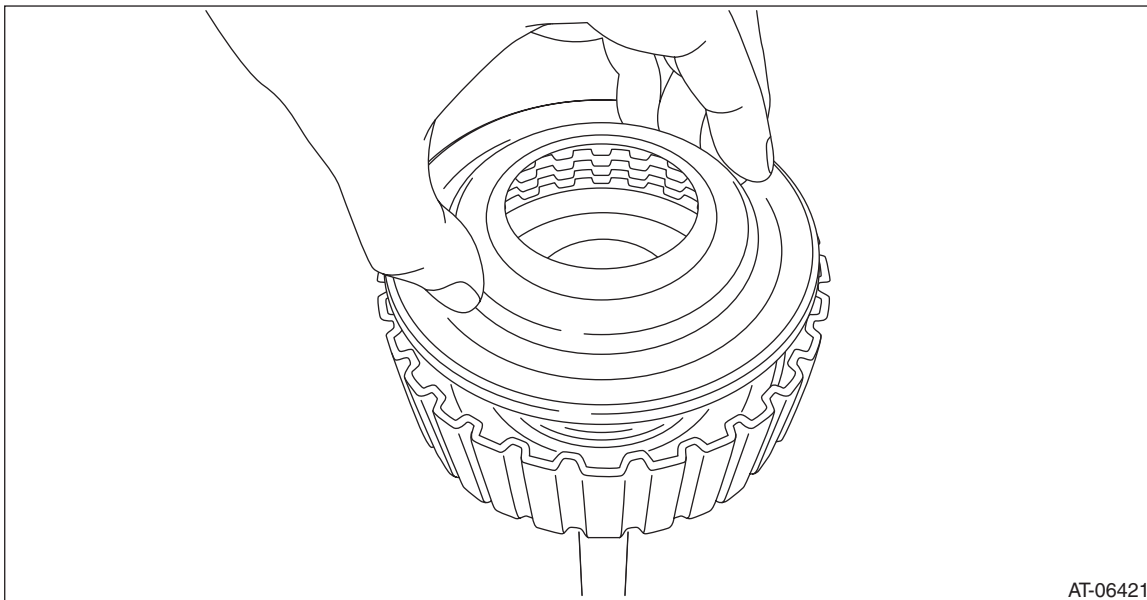
# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

3) Install the transfer clutch piston seal.

NOTE:

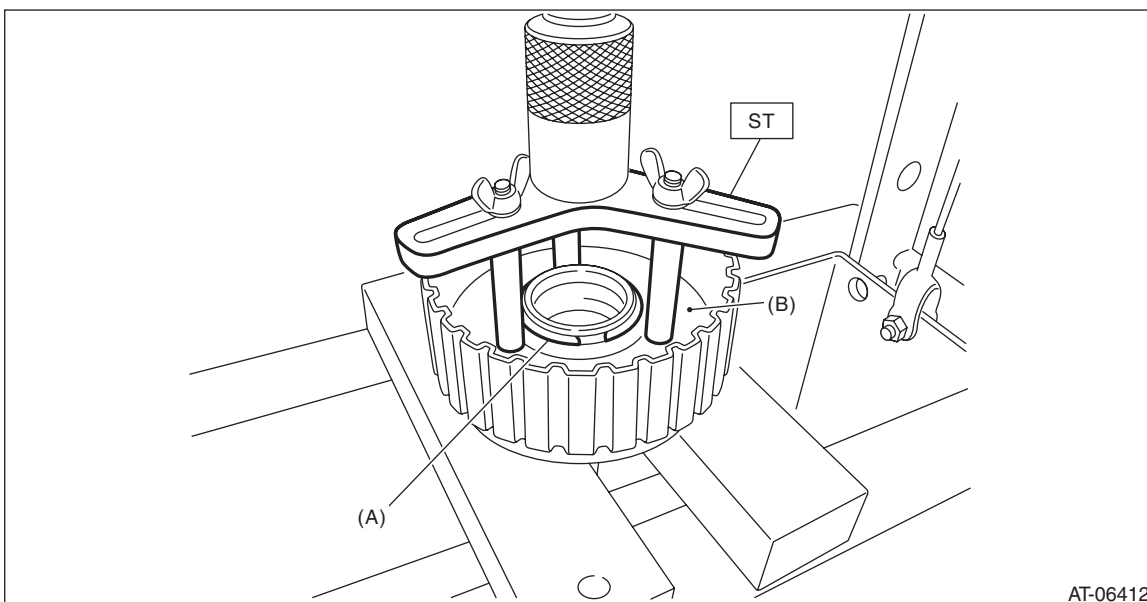
Apply CVTF to the lip section of transfer clutch piston seal.



AT-06421

4) Compress the return spring using the ST to install the snap ring.

ST 18762AA000 COMPRESSOR SPECIAL TOOL



AT-06412

(A) Snap ring

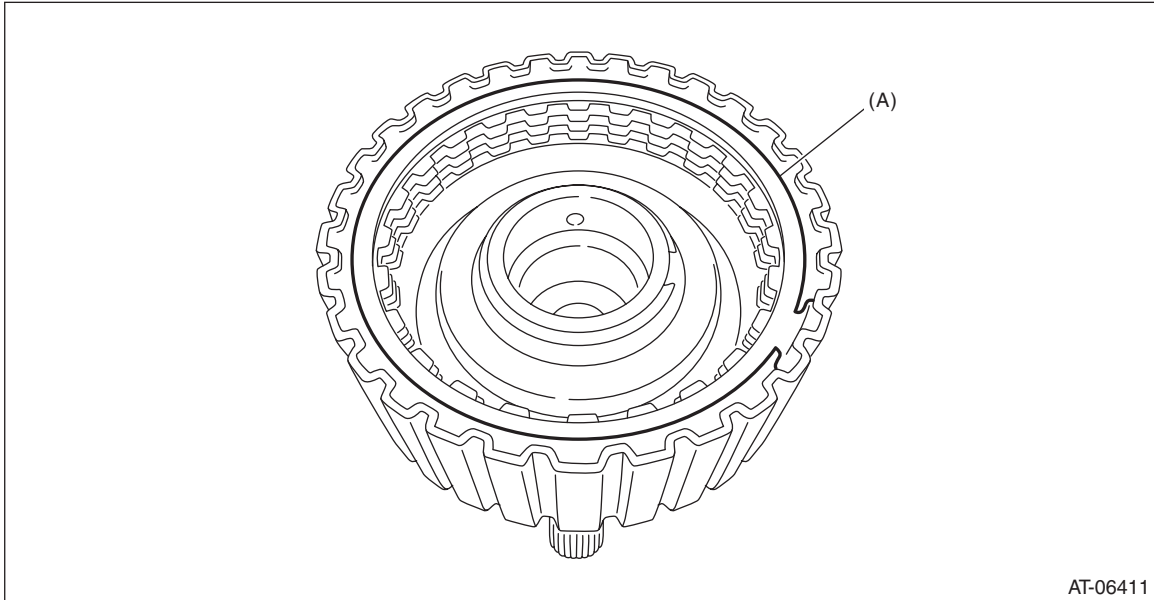
(B) Transfer clutch piston seal



# Transfer Clutch

## CONTINUOUSLY VARIABLE TRANSMISSION

5) Install the pressure plate, driven plate, drive plate and snap ring.

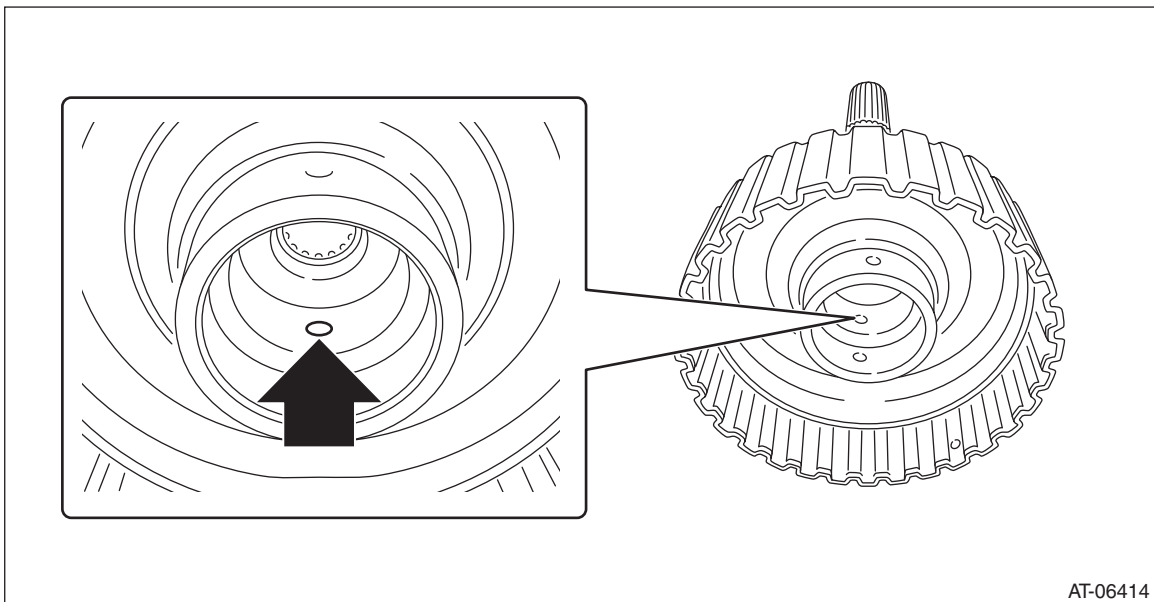


(A) Snap ring

6) Blow compressed air through transfer clutch assembly hole, and check the transfer clutch piston operation.

### NOTE:

Plug the holes through which the compressed air is not blown.



7) Before measuring clearance "A", place same thickness shims on both sides to prevent the plate from tilting.

# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

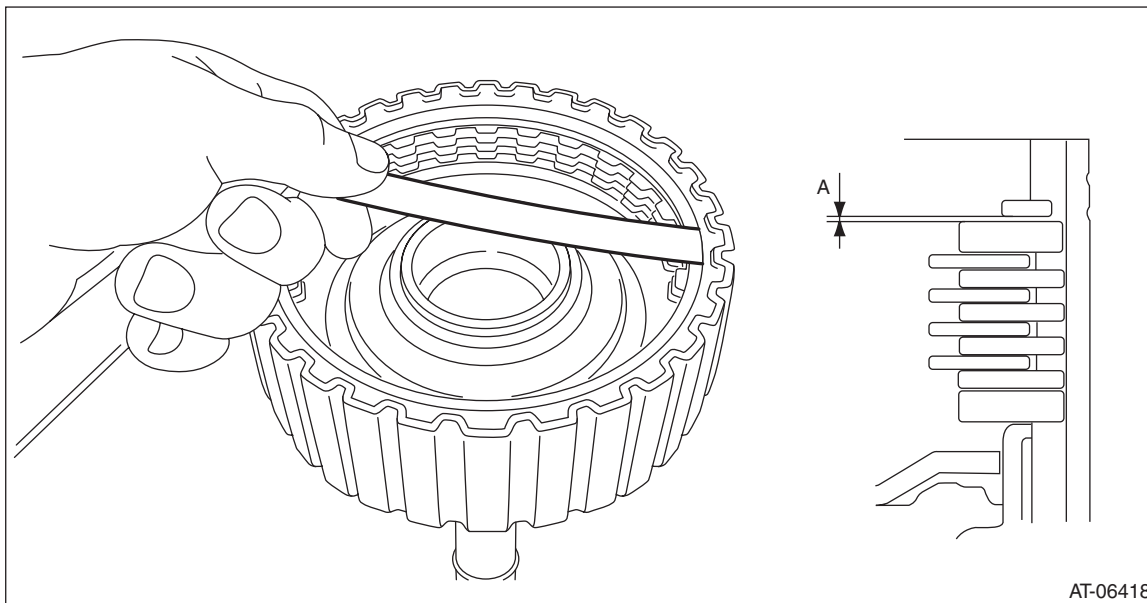
8) When clearance "A" exceeds the limit for use, replace the drive plate and driven plate as a set, and select and adjust the pressure plate within the initial specified value.

**Initial standard:**

**0.7 — 1.1 mm (0.028 — 0.043 in)**

**Limit thickness:**

**1.3 mm (0.051 in)**



Pressure plate	
Part No.	Thickness mm (in)
31593AA151	3.3 (0.130)
31593AA161	3.7 (0.146)

9) Recheck the clearance. <Ref. to CVT-171, INSPECTION, Transfer Clutch.>

# Transfer Clutch

## CONTINUOUSLY VARIABLE TRANSMISSION

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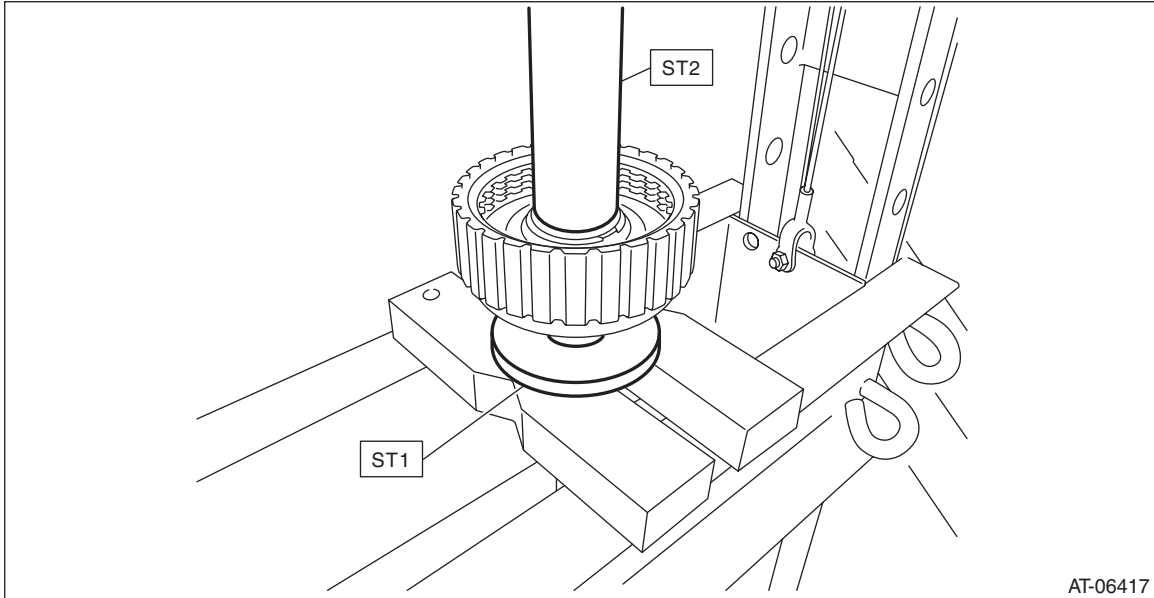
10) Using the ST, install the ball bearing.

**NOTE:**

Use a new ball bearing.

ST1 398177700 INSTALLER

ST2 499277000 INSTALLER



## E: INSPECTION

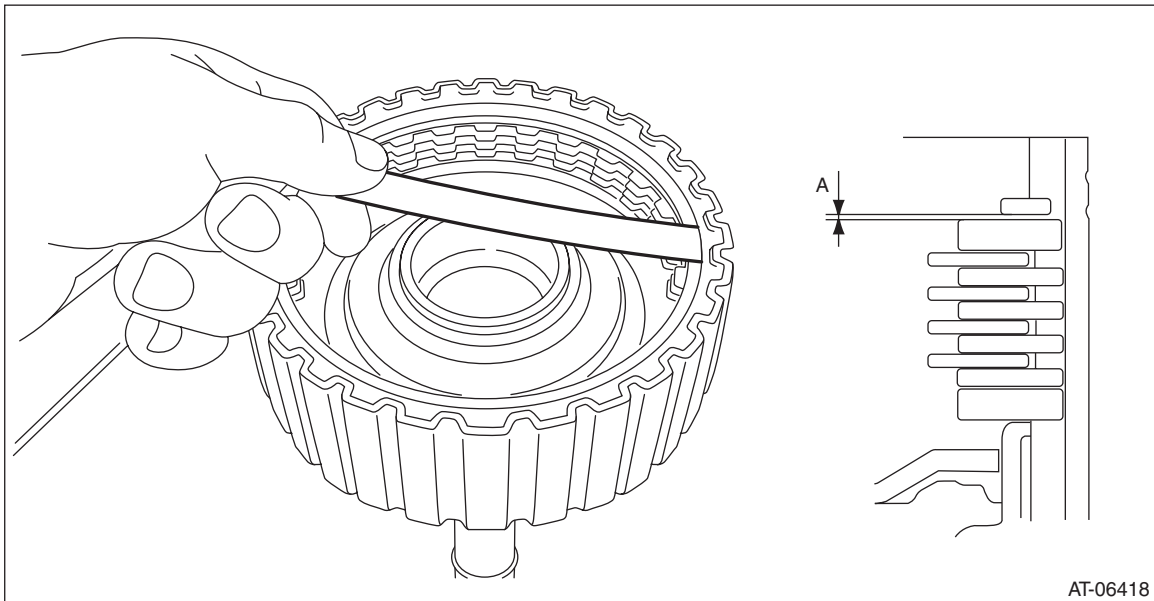
- Inspect the drive plate facing for wear and damage.
  - Driven plate for discoloration (burned color)
  - Make sure the snap ring is not worn and the return spring has no permanent distortion, damage, or deformation.
  - Check the lip seal for damage.
  - Inspect the extension end play, and adjust it to within the standard value. <Ref. to CVT-172, ADJUSTMENT, Transfer Clutch.>
- 1) Before measuring clearance “A” between snap ring and driven plate, place same thickness shims on both sides to prevent the plate from tilting.
  - 2) When clearance “A” exceeds the limit for use, replace the drive plate and driven plate as a set, and select the pressure plate within the initial specified value.

### **Initial standard:**

**0.7 — 1.1 mm (0.028 — 0.043 in)**

### **Limit thickness:**

**1.3 mm (0.051 in)**



- 3) Check for tight corner braking phenomenon when the vehicle is moved forward with the steering fully turned. If tight corner braking occurs, perform the following procedures.

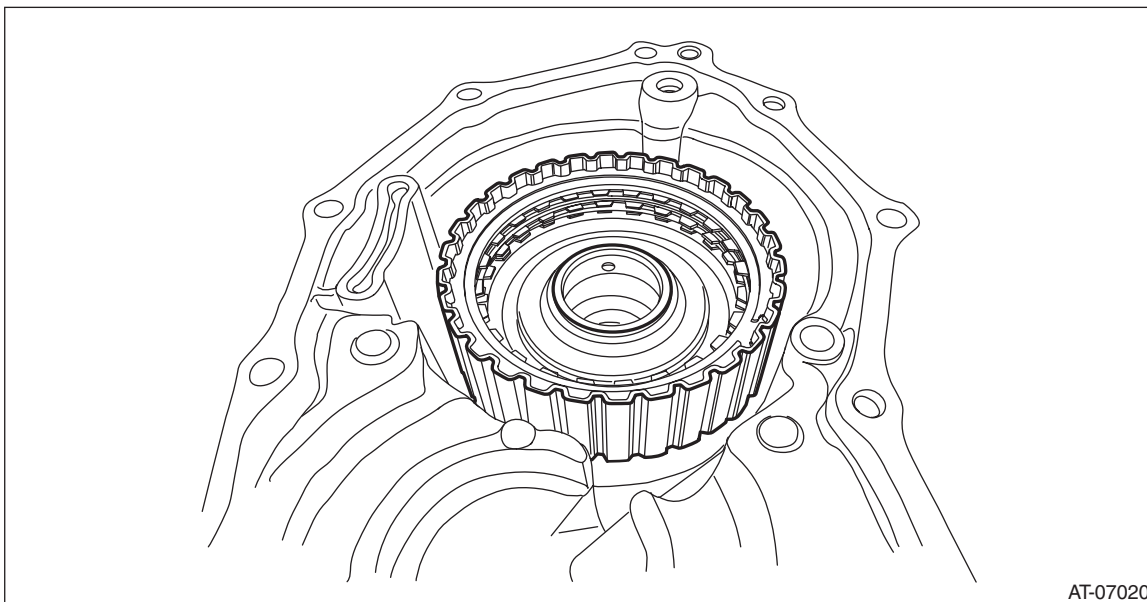
- (1) With the steering wheel held at fully turned position, drive the vehicle in “D” range and with vehicle speed at approx. 5 km/h (3 MPH) in both clockwise and counterclockwise directions for approx. ten times each, while repeating acceleration and braking intermittently.
- (2) If the tight corner braking phenomenon still persists, drive the vehicle again in a circle for several laps.

# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

## F: ADJUSTMENT

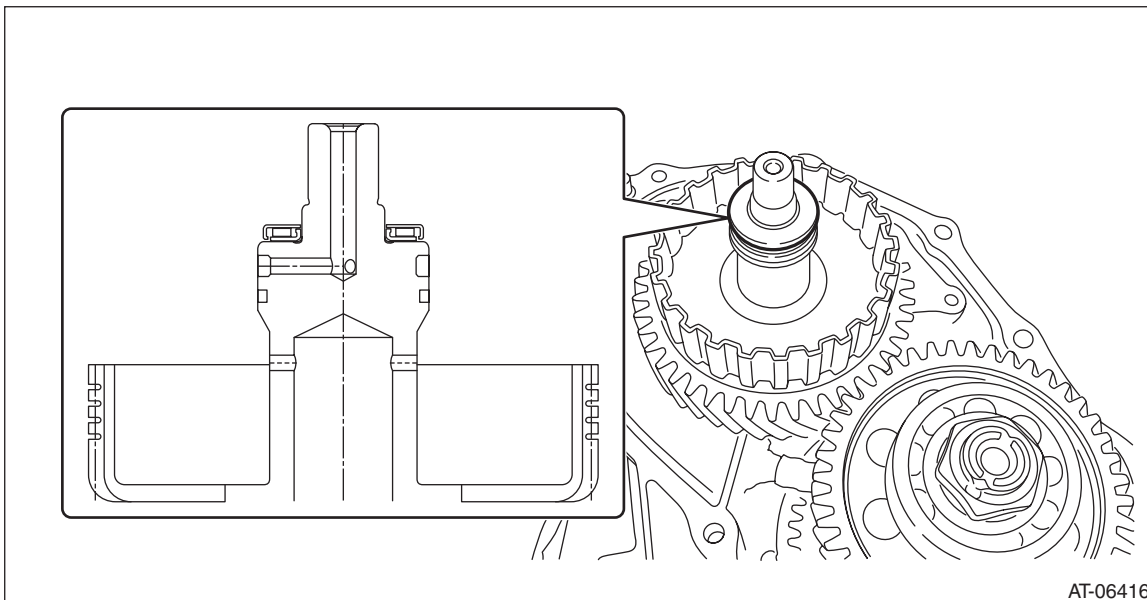
1) Install the transfer clutch assembly to the extension case with the transfer driven gear shims and thrust bearings removed.



2) Install the thrust bearing to the transfer driven gear.

NOTE:

Make sure to install in the right direction.

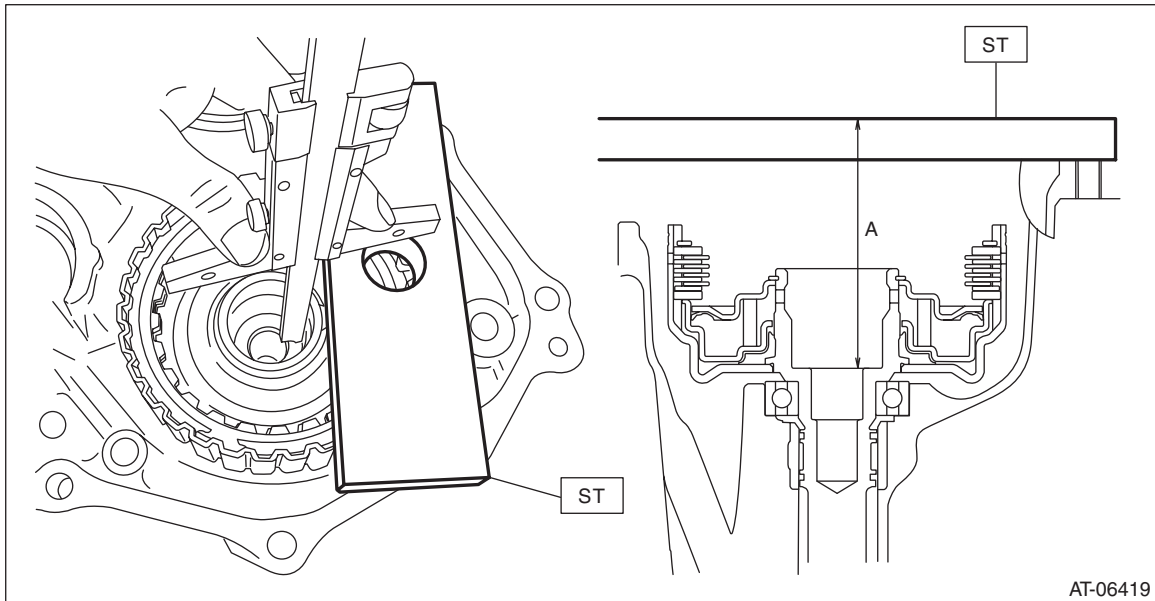


# Transfer Clutch

CONTINUOUSLY VARIABLE TRANSMISSION

3) Using the ST, measure the height “A” from the ST end face to the thrust bearing catch surface of the transfer clutch assembly.

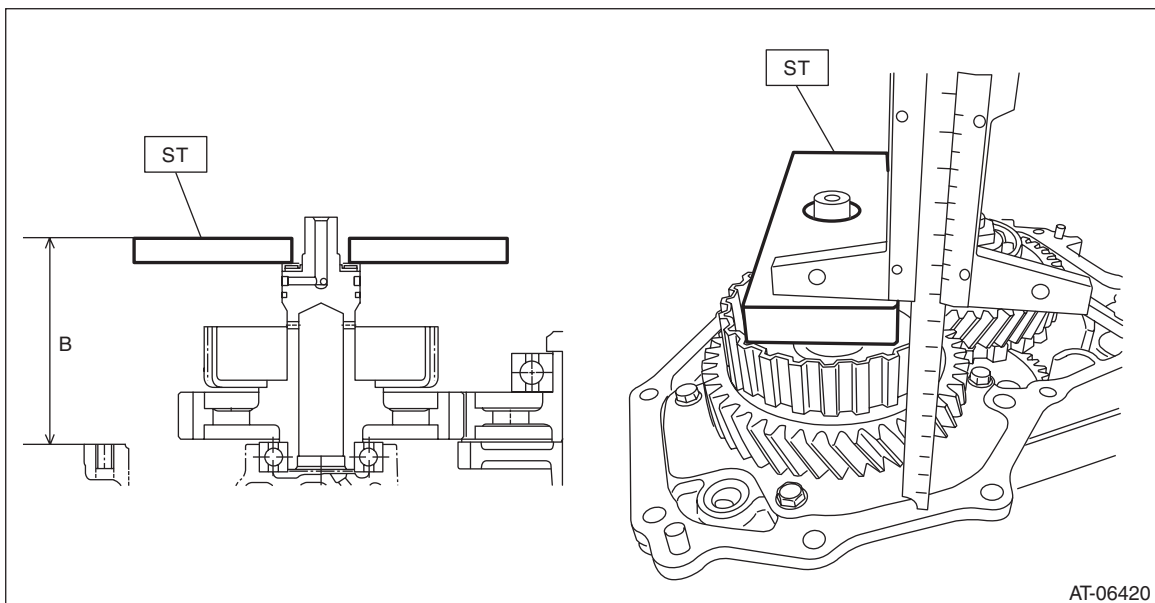
ST 499575500 GAUGE



AT-06419

4) Using the ST, measure the height “B” from the transmission case mating surface to the end of ST.

ST 499575500 GAUGE



AT-06420

5) Obtain the thickness of transfer driven gear shim using the following formula to select one to three transfer driven gear shims.

$$T \text{ (mm)} = A - B - (0.05 - 0.25)$$

$$[T \text{ (in)} = A - B - (0.002 - 0.01)]$$

T: Transfer driven gear shim thickness

A: Height from the ST end face to the transfer clutch assembly thrust bearing catch surface

B: Height from the mating surface of the transmission case to the end of the ST

0.05 — 0.25 mm (0.002 — 0.01 in): Clearance

Transfer driven gear shim	
Part No.	Thickness mm (in)
33280AA030	0.3 (0.012)
33280AA040	0.4 (0.016)
33280AA050	0.5 (0.020)