

### 7. Rear Drive Shaft

#### A: REMOVAL

- 1) Disconnect the ground cable from battery.
- 2) Lift-up the vehicle, and remove the rear wheel cap and wheels.

#### CAUTION:

**Be sure to loosen and retighten axle nut after removing wheel from vehicle. Failure to follow this rule may damage wheel bearings.**

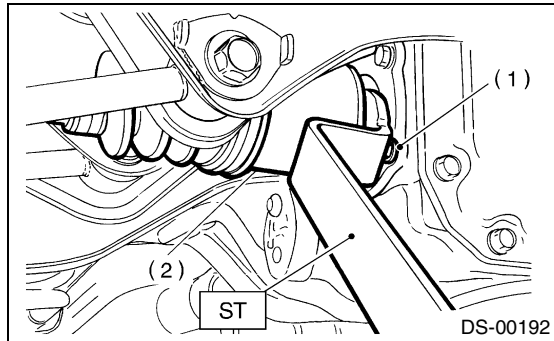
- 3) Unlock the axle nut.

- 4) Remove the DOJ from rear differential using ST.

ST 28099PA100 DRIVE SHAFT REMOVER

#### NOTE:

The side spline shaft circlip comes out together with the shaft.

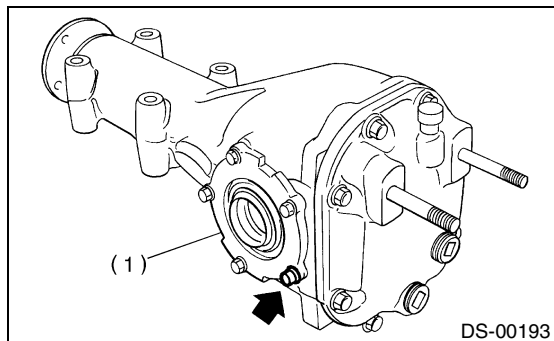


- (1) Bolt
- (2) DOJ

#### CAUTION:

**Be careful not to damage the side bearing retainer. Always use bolt as shown in figure, as supporting point for ST during removal.**

ST 28099PA100 DRIVE SHAFT REMOVER



- (1) Side bearing retainer

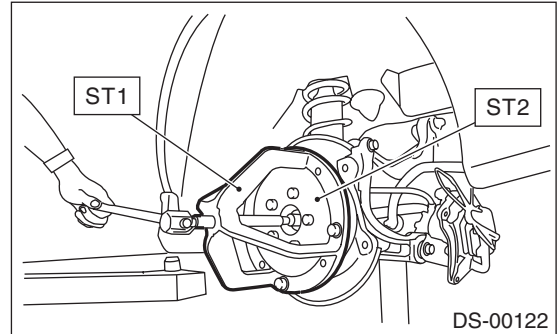
- 5) Remove the axle nut and drive shaft. If it is hard to remove, use ST1 and ST2.

ST1 926470000 AXLE SHAFT PULLER

ST2 927140000 AXLE SHAFT PULLER PLATE

#### CAUTION:

**Be careful not to damage tone wheel when removing rear drive shaft.**



# REAR DRIVE SHAFT

## DRIVE SHAFT SYSTEM

### B: INSTALLATION

1) Insert the BJ or EBJ into the rear hub splines.

#### CAUTION:

**Be careful not to damage tone wheel.**

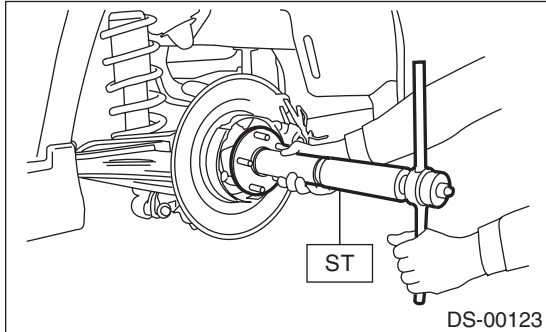
2) Using ST1 and ST2, pull the drive shaft into the place.

ST1 922431000 AXLE SHAFT INSTALLER

ST2 927390000 ADAPTER

#### CAUTION:

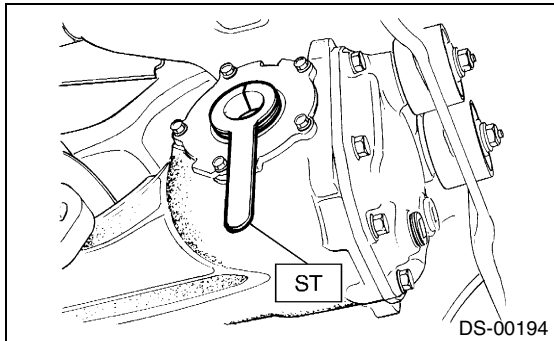
**Do not hammer drive shaft when installing it.**



3) Tighten the axle nut temporarily.

4) Using ST, install the DOJ into differential.

ST 28099PA090 SIDE OIL SEAL PROTECTOR

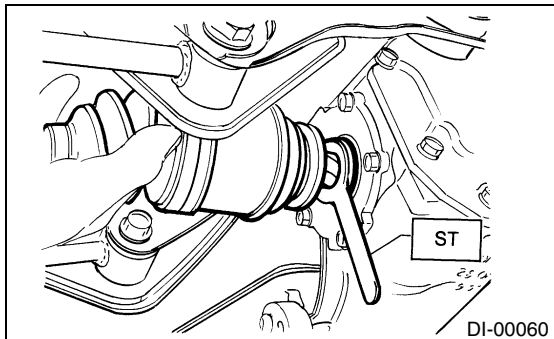


5) Insert the DOJ spline end into the bore of side oil seal, and remove ST.

#### CAUTION:

**Do not allow DOJ splines to damage side oil seal.**

ST 28099PA090 SIDE OIL SEAL PROTECTOR

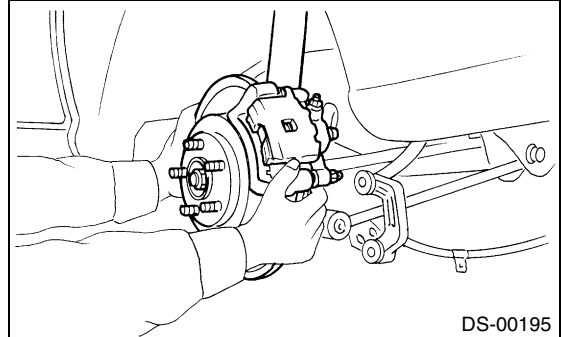


6) Align the DOJ and differential splines.

7) Push the housing to insert DOJ into the differential.

#### NOTE:

Make sure the DOJ is inserted properly.



#### CAUTION:

**Discard old self-locking nut. Replace with a new one.**

8) While depressing brake pedal, tighten the axle nut using a socket wrench.

#### Tightening torque:

**235 N·m (24 kgf-m, 174 ft-lb)**

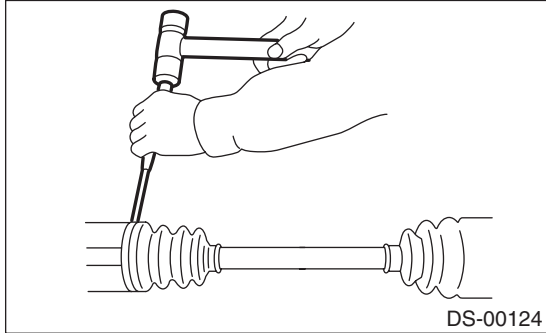
#### CAUTION:

- Use a new axle nut for rear use only.
- Always tighten axle nut before installing wheel on vehicle. If wheel is installed and comes in contact with ground when axle nut is loose, wheel bearings may be damaged.
- Be sure to tighten axle nut to specified torque. Do not overtighten it as this may damage wheel bearing.

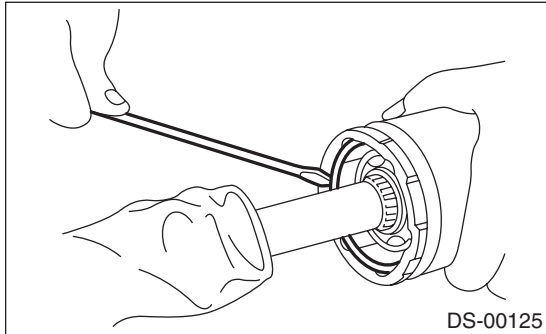
9) After tightening axle nut, lock it securely.

### C: DISASSEMBLY

- 1) Straighten the bent claw of larger end of DOJ boot.
- 2) Loosen the band by means of screwdriver or pliers with care of not damaging boot.



- 3) Remove the boot band on the small end of DOJ boot in the same manner.
- 4) Remove the larger end of DOJ boot from DOJ outer race.
- 5) Pry and remove the round circlip located at the neck of DOJ outer race with a screwdriver.



- 6) Take out the DOJ outer race from shaft assembly.

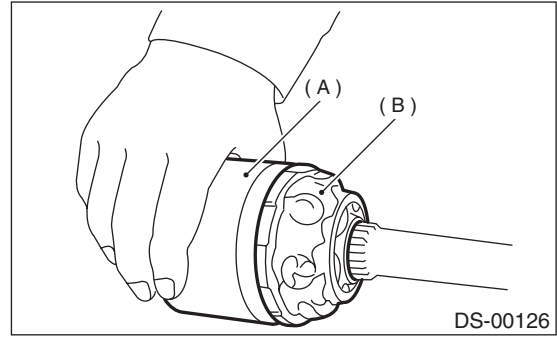
- 7) Wipe off the grease and take out balls.

#### CAUTION:

**The grease is a special grease (grease for constant velocity joint). Do not confuse with other greases.**

#### NOTE:

Disassemble exercising care not to lose balls (6 pcs).



- (A) Outer race
- (B) Grease

- 8) To remove the cage from the inner race, turn the cage by a half pitch to the track groove of the inner race and shift the cage.
- 9) Remove snap ring, which fixes inner race to shaft, by using pliers.
- 10) Take out the DOJ inner race.
- 11) Take off the DOJ cage from shaft and remove DOJ boot.

#### CAUTION:

**Be sure to wrap shaft splines with vinyl tape to prevent boot from scratches.**

- 12) Remove the BJ or EBJ boot in the same procedure as DOJ boot.
- 13) Thus, disassembly of axle is completed, but BJ or EBJ is unable to be disassembled.

## REAR DRIVE SHAFT

### DRIVE SHAFT SYSTEM

#### D: ASSEMBLY

##### CAUTION:

Use specified grease.

**BJ side (Non-turbo model):**

**Molylex No. 2 (Part No. 723223010)**

**EBJ side (Turbo model):**

**NTG 2218 (Part No. 28093AA000)**

**DOJ side:**

**VU-3A702 (Yellow) (Part No. 23223GA050)**

1) Install the BJ or EBJ boot in specified position, and fill it with 60 to 70 g (2.12 to 2.47 oz) of specified grease.

2) Place the DOJ boot at the center of shaft.

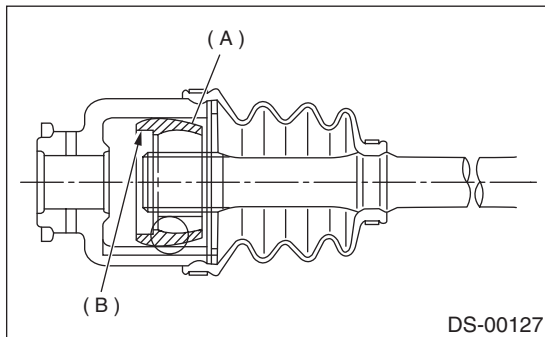
##### CAUTION:

**Be sure to wrap shaft splines with vinyl tape to prevent boot from scratches.**

3) Insert the DOJ cage onto shaft.

##### NOTE:

Insert the cage with the cut-out portion facing the shaft end, since the cage has an orientation.



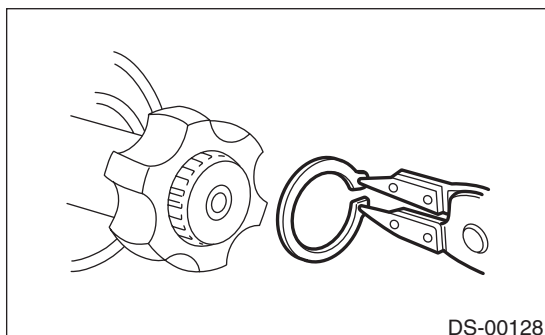
(A) Cage

(B) Cut-out portion

4) Install the DOJ inner race on shaft and fit snap ring with pliers.

##### NOTE:

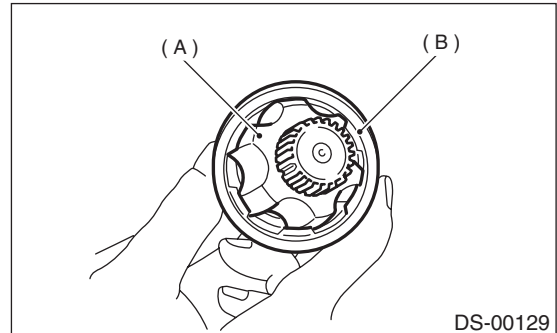
Confirm that the snap ring is completely fitted in the shaft groove.



5) Install the cage, which was previously fitted, to inner race fixed upon shaft.

##### NOTE:

Fit the cage with the protruded part aligned with the track on the inner race and then turn by a half pitch.



(A) Inner race

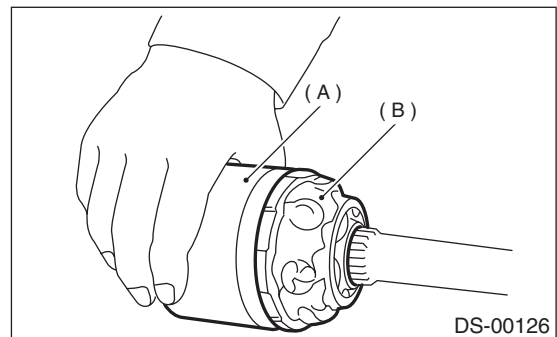
(B) Cage

6) Fill 80 to 90 g (2.82 to 3.17 oz) of specified grease into the interior of DOJ outer race.

7) Apply a coat of specified grease to the cage pocket and six balls.

8) Insert six balls into the cage pocket.

9) Align the outer race track and ball positions and place in the part where shaft, inner race, cage and balls are previously installed, and then fit outer race.



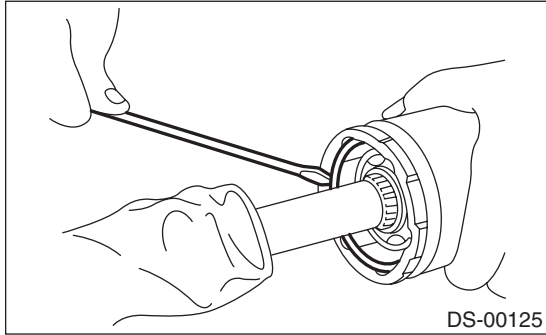
(A) Outer race

(B) Grease

10) Install the circlip in the groove on the DOJ outer race.

**NOTE:**

- Assure that the balls, cage and inner race are completely fitted in the outer race of DOJ.
- Exercise care not to place the matched position of circlip in the ball groove of outer race.
- Pull the shaft lightly and assure that the circlip is completely fitted in the groove.



11) Apply an even coat of the specified grease [20 to 30 g (0.71 to 1.06 oz)] to the entire inner surface of boot. Also apply grease to shaft.

12) Install the DOJ boot taking care not to twist it.

**NOTE:**

- The inside of the larger end of DOJ boot and the boot groove shall be cleaned so as to be free from grease and other foreign substances.
- When installing DOJ boot, position outer race of DOJ at center of its travel.

13) Put a band through the clip and wind twice in alignment with band groove of boot.

**CAUTION:**

**Use a new band.**

14) Pinch the end of band with pliers. Hold the clip and tighten securely.

**NOTE:**

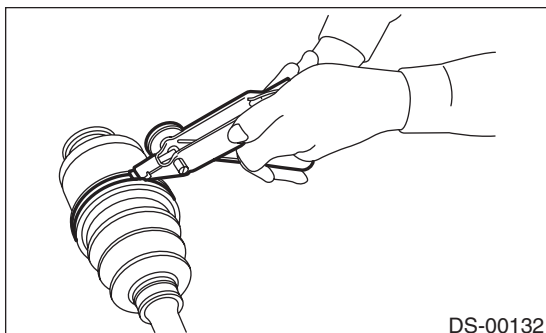
When tightening boot, exercise care so that the air within the boot is appropriate.

15) Tighten the band by using ST.

ST 925091000 BAND TIGHTENING TOOL

**NOTE:**

Tighten the band until it cannot be moved by hand.

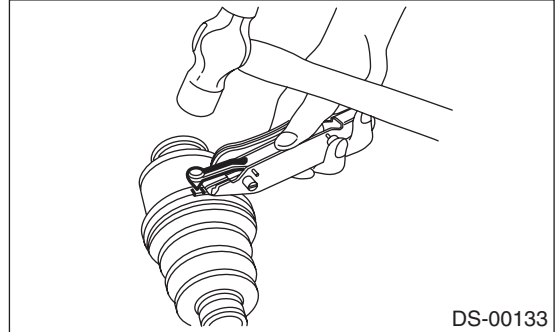


16) Tap on the clip with the punch provided at the end of ST.

ST 925091000 BAND TIGHTENING TOOL

**CAUTION:**

**Tap to an extent that the boot underneath is not damaged.**



17) Cut off the band with an allowance of about 10 mm (0.39 in) left from the clip and bend this allowance over the clip.

**CAUTION:**

**Be careful so that the end of the band is in close contact with clip.**

18) Fix up the boot on the BJ or EBJ in the same manner.

**NOTE:**

Extend and retract the DOJ to provide equal grease coating.

### E: INSPECTION

Check the removed parts for damage, wear, corrosion etc. If faulty, repair or replace.

1) DOJ (Double Offset Joint)

Check seizure, corrosion, damage, wear and excessive play.

2) Shaft

Check excessive bending, twisting, damage and wear.

3) BJ (Bell Joint) and EBJ (Eightball Bell Joint)

Check seizure, corrosion, damage and excessive play.

4) Boot

Check for wear, warping, breakage or scratches.

5) Grease

Check for discoloration or fluidity.