

4. Rear Axle

A: REMOVAL

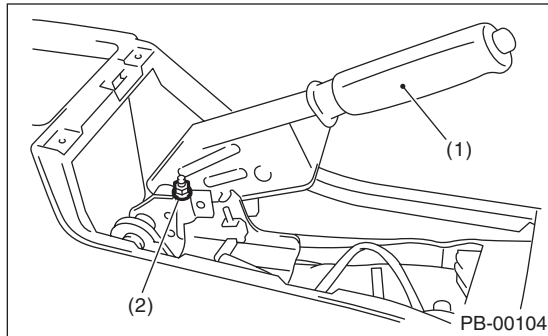
1. DISC BRAKE

- 1) Disconnect the ground cable from the battery.
- 2) Lift-up the vehicle, and then remove the rear wheels.
- 3) Lift the crimped section of axle nut.
- 4) While applying the parking brake, remove the axle nut using a socket wrench.

CAUTION:

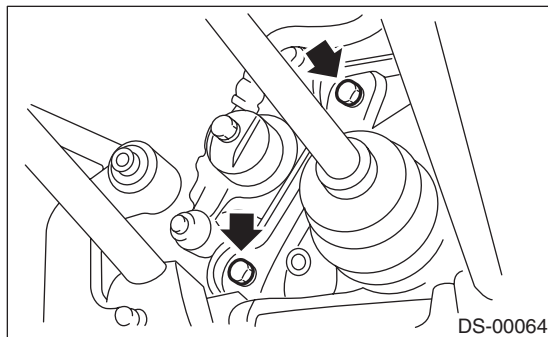
Remove the axle nut while there is no load being applied to the axle. Failure to do so may damage the wheel bearings.

- 5) Return the parking brake lever and loosen the self locking nut.



- (1) Parking brake lever
- (2) Self-locking nut

- 6) Remove the disc brake caliper from the back plate, and suspend it from strut using a piece of wire.

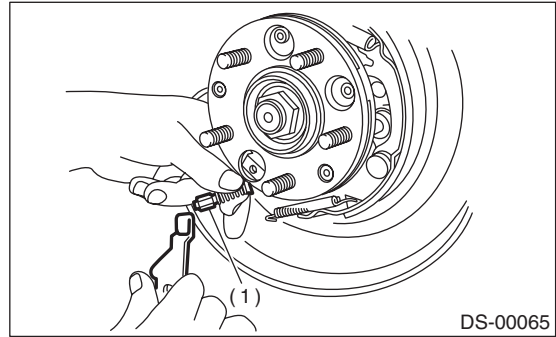


- 7) Remove the disc rotor from the hub.

NOTE:

If the disc rotor seizes up within hub, drive disc rotor out by installing an 8 mm bolt in screw hole on the rotor.

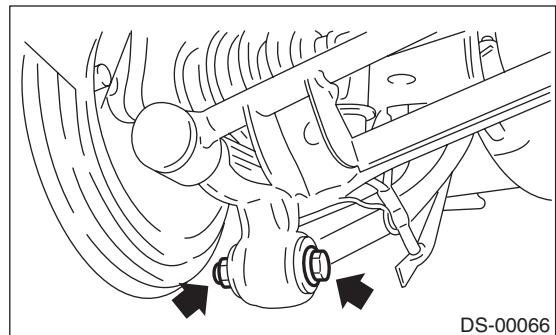
- 8) Disconnect the parking brake cable end from the parking lever.



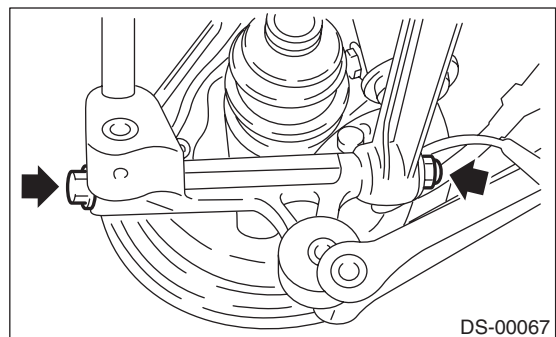
- (1) Cable end

- 9) Disconnect the rear stabilizer from the rear lateral link.

- 10) Remove the bolts which secure the trailing link assembly to the rear housing.



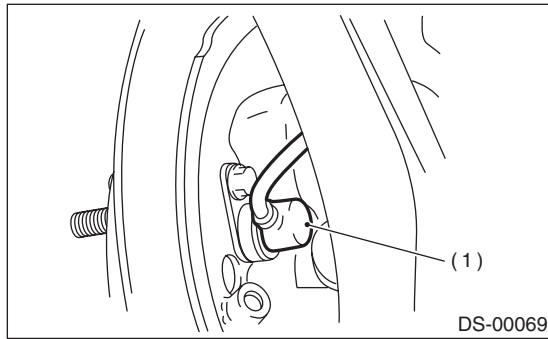
- 11) Remove the bolts which secure the lateral assembly to the rear housing.



Rear Axle

DRIVE SHAFT SYSTEM

12) Remove the rear ABS wheel speed sensor from the back plate.



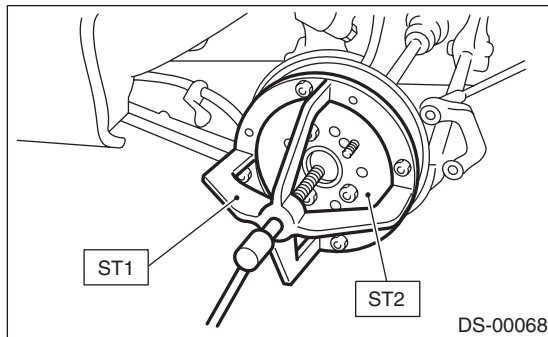
(1) ABS wheel speed sensor

13) Disengage the BJ assembly from the hub splines, and remove the rear drive shaft assembly. If it is hard to remove, use the STs.

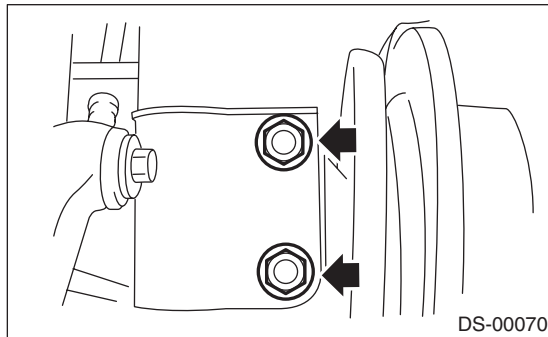
ST1 926470000 AXLE SHAFT PULLER
ST2 927140000 AXLE SHAFT PULLER PLATE

CAUTION:

- Be careful not to damage the oil seal lip when removing the rear drive shaft.
- When rear drive shaft is to be replaced, also replace the inner oil seal with a new seal.



14) Remove the bolts which secure the rear housing to strut, and separate the two.



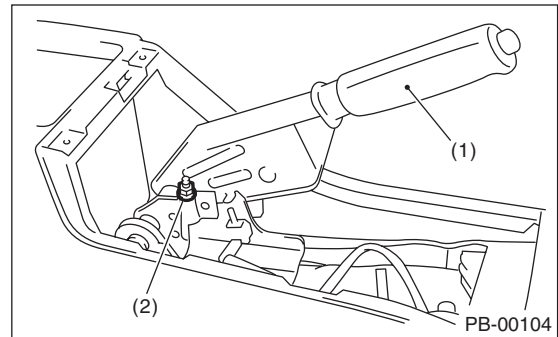
2. DRUM BRAKE

- 1) Disconnect the ground cable from the battery.
- 2) Lift-up the vehicle, and then remove the rear wheels.
- 3) Lift the crimped section of axle nut.
- 4) While applying the parking brake, remove the axle nut using a socket wrench.

CAUTION:

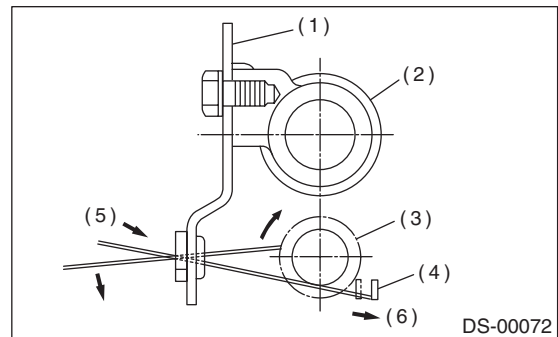
Remove the axle nut while there is no load being applied to the axle. Failure to do so may damage the wheel bearings.

- 5) Return the parking brake lever and loosen the self locking nut.



(1) Parking brake lever
(2) Self-locking nut

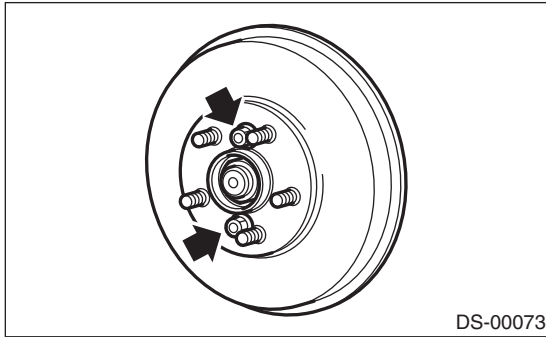
- 6) Remove the brake drum from hub.
- 7) If it is difficult to remove brake drum, remove the adjusting hole cover from the back plate, and then turn the adjusting screw using a slot-type screwdriver until the brake shoe separates from the drum.



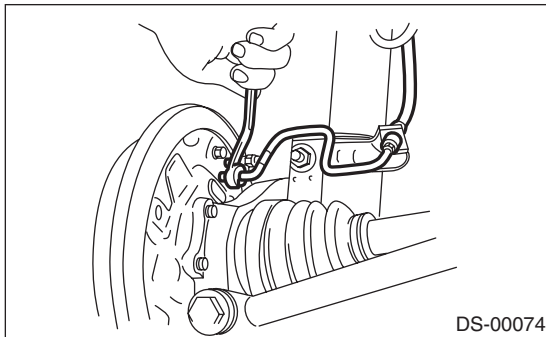
(1) Back plate
(2) Wheel cylinder
(3) Adjuster ASSY pole
(4) Adjusting lever
(5) Tightening direction
(6) Press

NOTE:

If the disc rotor seizes up within hub, drive disc rotor out by installing an 8 mm bolt in screw hole on the rotor.

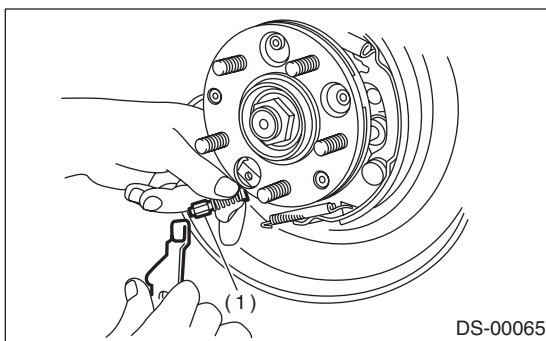


8) Using a flare-nut wrench, disconnect the brake pipe from the wheel cylinder. Place a cover on the brake pipe attachment hole of the wheel cylinder, to prevent entry of foreign particles.



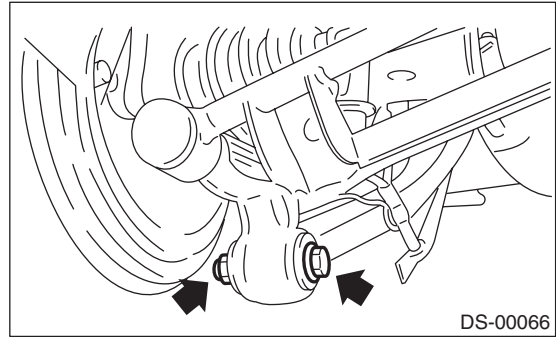
9) Cover the end of the brake pipe with a vinyl sheet or equivalent to prevent brake fluid from leaking out.

10) Disconnect the parking brake cable end from the parking brake lever.

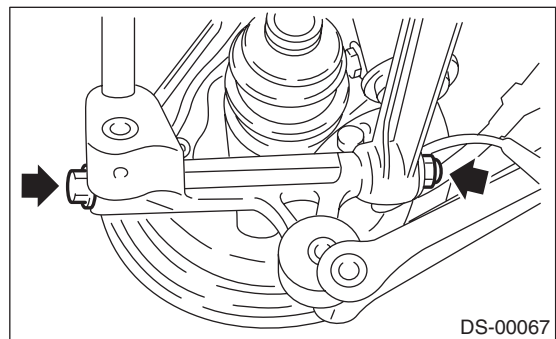


(1) Cable end

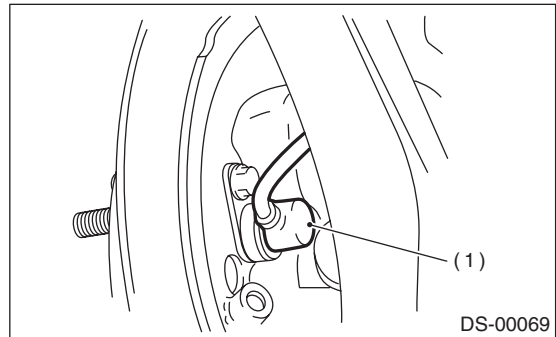
11) Disconnect the rear stabilizer from the rear lateral link. Remove the bolts which secure the trailing link assembly to the rear housing.



12) Remove the bolts which secure the lateral link assembly to the rear housing.



13) Remove the rear ABS wheel speed sensor from the back plate.



(1) ABS wheel speed sensor

Rear Axle

DRIVE SHAFT SYSTEM

14) Disengage the BJ assembly from the hub splines, and remove the rear drive shaft assembly.

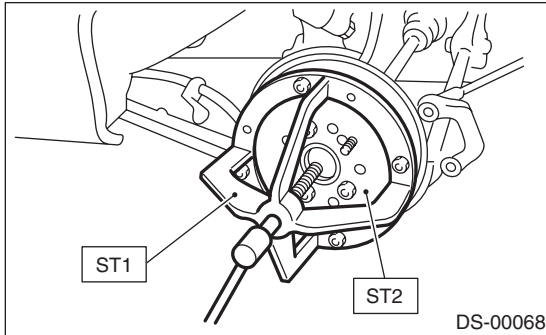
NOTE:

If it is hard to remove, use the STs.

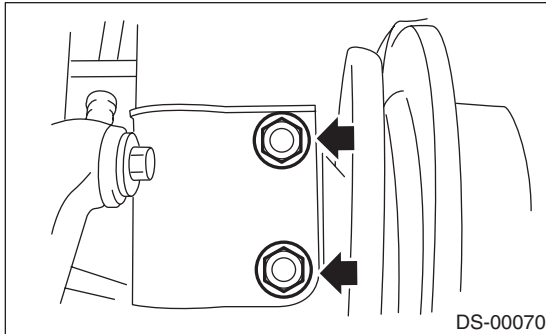
ST1 926470000 AXLE SHAFT PULLER
ST2 927140000 AXLE SHAFT PULLER
PLATE

CAUTION:

- Be careful not to damage the oil seal lip when removing the rear drive shaft.
- When rear drive shaft is to be replaced, also replace the inner oil seal with a new seal.



15) Remove the bolts which secure the rear housing to strut, and separate the two.



B: INSTALLATION

1. DISC BRAKE

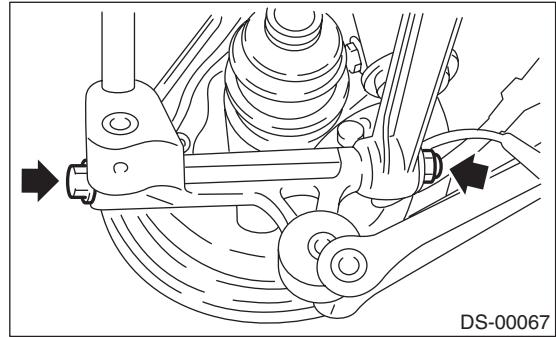
- 1) Temporarily tighten the rear axle to the strut.
- 2) Insert the rear drive shaft into the rear axle.

CAUTION:

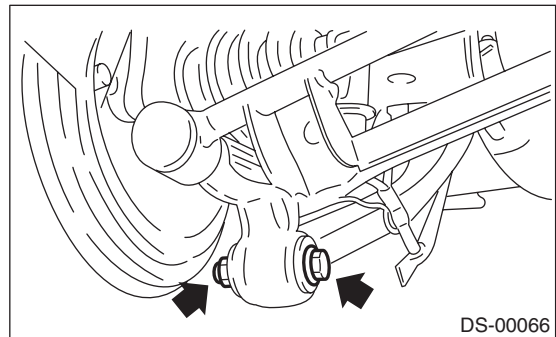
Be careful not to damage the inner oil seal lip.

- 3) Tighten the axle nut temporarily.

4) Using new self-locking nuts, temporarily attach the rear housing assembly and the rear lateral link assembly.



5) Using new self-locking nuts, temporarily attach the rear housing assembly and the trailing link assembly.



6) Using new self-locking nuts, secure the rear housing assembly and the strut assembly.

Tightening torque:

196 N·m (20 kgf·m, 145 ft·lb)

7) Using new self-locking nuts, install the rear stabilizer and rear lateral link.

Tightening torque:

44 N·m (4.5 kgf·m, 32.5 ft·lb)

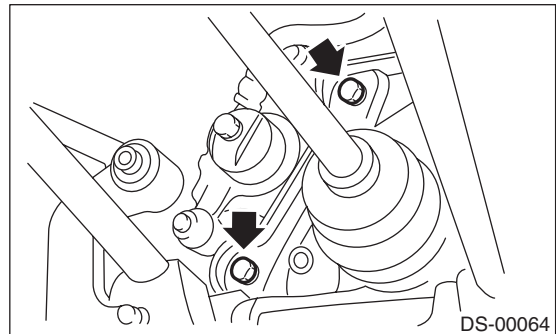
8) Connect the parking brake cable to the parking brake lever.

9) Install the disc rotor on the rear housing assembly.

10) Install the disc brake caliper on the back plate.

Tightening torque:

52 N·m (5.3 kgf·m, 38.3 ft·lb)



- 11) Adjust the parking brake lever stroke by turning the adjuster. <Ref. to PB-5, ADJUSTMENT, Parking Brake Lever.>
 12) While applying the parking brake, tighten a new axle nut using the socket wrench. After tightening, crimp the axle nut.

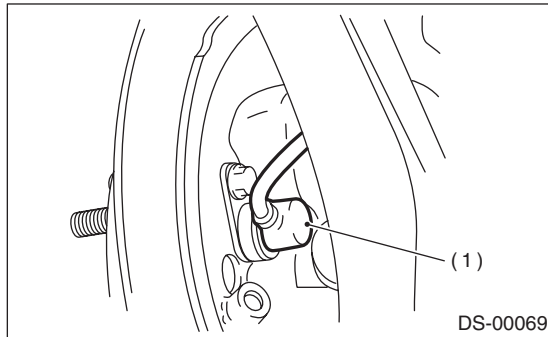
Tightening torque:

190 N·m (19.4 kgf·m, 140 ft·lb)

CAUTION:

Do not overtighten it as this may damage the wheel bearing.

- 13) Install the rear ABS wheel speed sensor.



(1) ABS wheel speed sensor

- 14) Install the wheel and tighten the wheel nuts to specified torque.

Tightening torque:

100 N·m (10.2 kgf·m, 73.8 ft·lb)

- 15) Make the tires completely touch the ground.

CAUTION:

Always tighten bushings with wheels in full contact with the ground and the vehicle at curb weight.

- 16) Tighten the rear housing assembly and lateral link assembly installation bolts.

Tightening torque:

140 N·m (14.3 kgf·m, 103 ft·lb)

- 17) Tighten the rear housing assembly and trailing link assembly installation bolts.

Tightening torque:

90 N·m (9.2 kgf·m, 66 ft·lb)

2. DRUM BRAKE

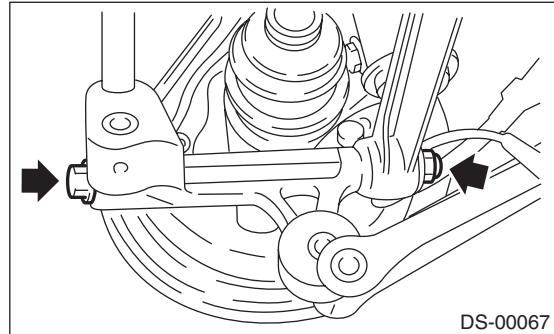
- 1) Temporarily tighten the rear axle to the strut.
 2) Insert the rear drive shaft into the rear axle.

CAUTION:

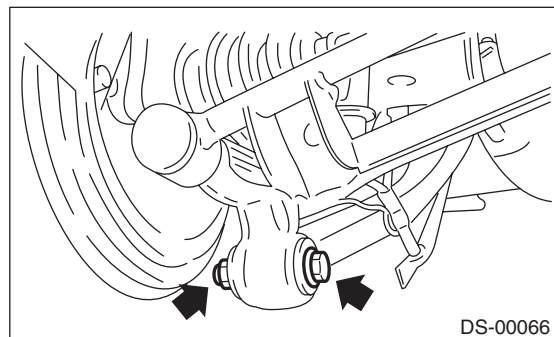
Be careful not to damage the inner oil seal lip.

- 3) Tighten the axle nut temporarily.

- 4) Using new self-locking nuts, temporarily attach the rear housing assembly and the rear lateral link assembly.



- 5) Using new self-locking nuts, temporarily attach the rear housing assembly and the trailing link assembly.



- 6) Using new self-locking nuts, secure the rear housing assembly and the strut assembly.

Tightening torque:

196 N·m (20 kgf·m, 145 ft·lb)

- 7) Using new self-locking nuts, install the rear stabilizer and rear lateral link.

Tightening torque:

44 N·m (4.5 kgf·m, 32.5 ft·lb)

- 8) Connect the parking brake cable to the parking brake lever.

- 9) Clean the brake pipe connection. Using a flare-nut wrench, connect the brake pipe to the wheel cylinder.

- 10) Connect the parking brake cable to the lever.

- 11) Install the brake drum on the rear housing assembly.

- 12) Bleed air from brake system. <Ref. to BR-41, REPLACEMENT, Brake Fluid.>

- 13) Adjust the parking brake lever stroke by turning the adjuster. <Ref. to PB-5, ADJUSTMENT, Parking Brake Lever.>

- 14) While applying the parking brake, remove the axle nut using a socket wrench. After tightening, crimp the axle nut.

Tightening torque:

190 N·m (19.4 kgf·m, 140 ft·lb)

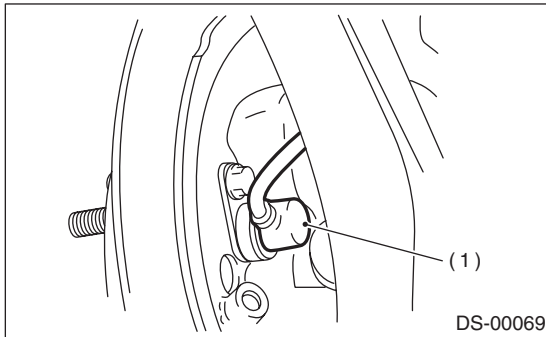
Rear Axle

DRIVE SHAFT SYSTEM

CAUTION:

Do not overtighten it as this may damage the wheel bearing.

15) Attach the rear ABS wheel speed sensor to the back plate.



(1) ABS wheel speed sensor

16) Install the wheel and tighten the wheel nuts to specified torque.

Tightening torque:

100 N·m (10.2 kgf·m, 73.8 ft·lb)

17) Make the tires completely touch the ground.

CAUTION:

Always tighten bushings with wheels in full contact with the ground and the vehicle at curb weight.

18) Tighten the rear housing assembly and lateral link assembly installation bolts.

Tightening torque:

140 N·m (14.3 kgf·m, 103 ft·lb)

19) Tighten the rear housing assembly and trailing link assembly installation bolts.

Tightening torque:

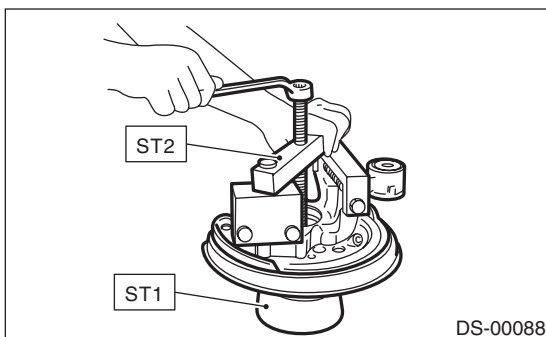
90 N·m (9.2 kgf·m, 66 ft·lb)

C: DISASSEMBLY

1) Using ST1 and ST2, remove the hub from the rear housing.

ST1 927080000 HUB STAND

ST2 927420000 HUB REMOVER



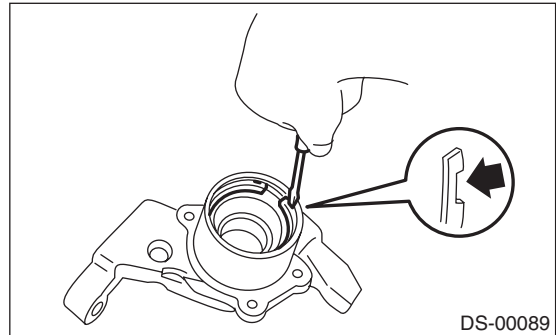
2) Remove the back plate from the rear housing.

3) Remove the outer and inner oil seals using a flat tip screwdriver.

4) Remove the snap ring using a flat tip screwdriver.

CAUTION:

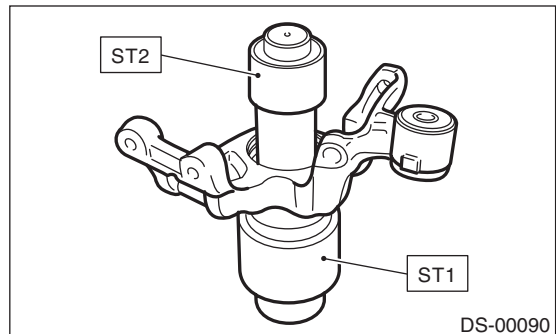
Be careful not to damage housing during removal.



5) Using ST1 and ST2, remove the bearing by pressing the inner race.

ST1 927430000 HOUSING STAND

ST2 927440000 BEARING REMOVER



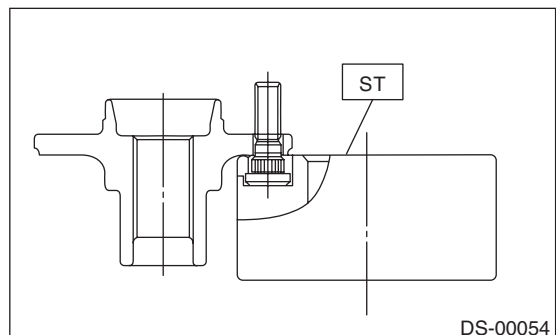
6) Remove the tone wheel bolts and remove the tone wheel from the hub.

7) Using ST, press the hub bolt out.

ST 927080000 HUB STAND

CAUTION:

Be careful not to hammer the hub bolts. This may deform the hub.



D: ASSEMBLY

NOTE:

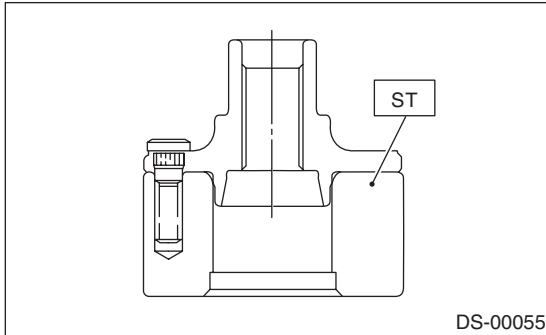
When the hub is removed from the housing, replace the bearing set and oil seal.

1) Using the ST, press the new hub bolt into place.

NOTE:

- Make sure the hub bolt contacts the hub.
- Use the 12 mm (0.47 in) hole in the ST to prevent the hub bolt from tilting during installation.

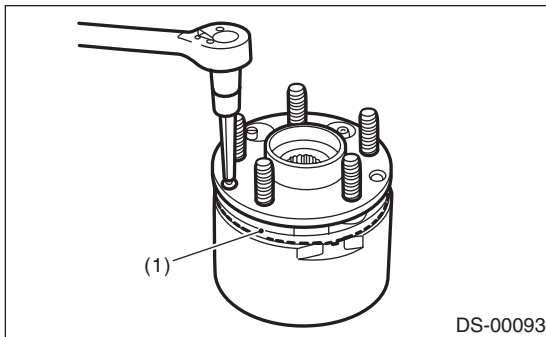
ST 927080000 HUB STAND



2) Remove the foreign particles (dust, rust, etc.) from the mating surfaces of hub tone wheel, and install the tone wheel to the hub.

NOTE:

- Make sure the tone wheel contacts the hub.
- Be careful not to damage the tone wheel teeth.



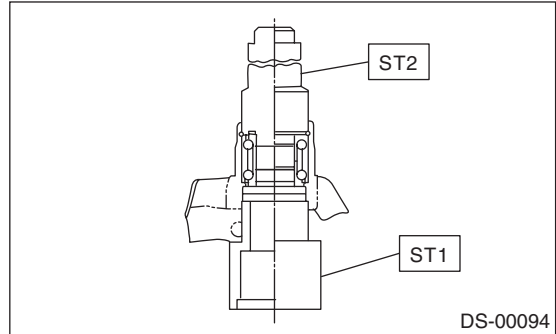
(1) Tone wheel

3) Clean the housing interior completely. Using ST1 and ST2, press the bearing into the housing.

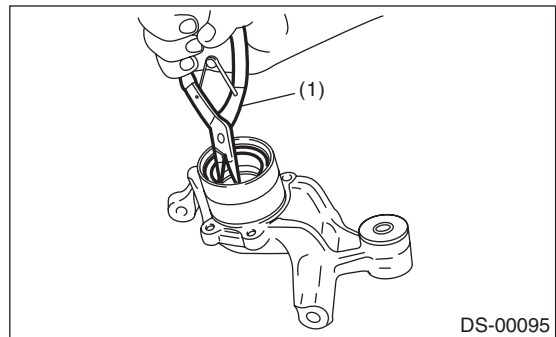
ST1 927430000 HOUSING STAND
ST2 927440000 BEARING REMOVER

CAUTION:

- Always press the outer race when installing bearings.
- Be careful not to remove the plastic lock from the inner race when installing the bearings.



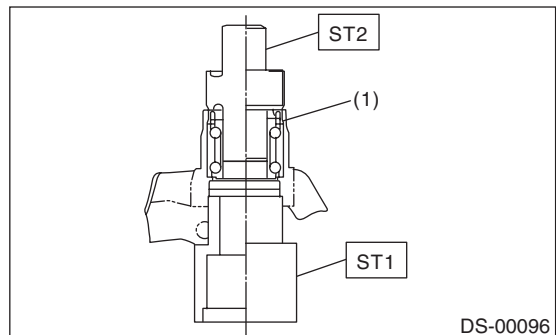
4) Using a pliers, securely install the snap ring.



(1) Pliers

5) Using the ST1 and ST2, press the outer oil seal until it comes in contact with snap ring.

ST1 927430000 HOUSING STAND
ST2 927460000 OIL SEAL INSTALLER

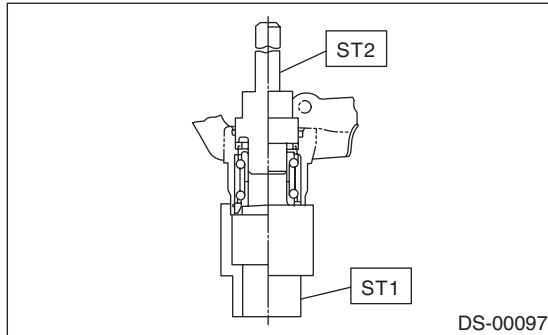


(1) Snap ring

Rear Axle

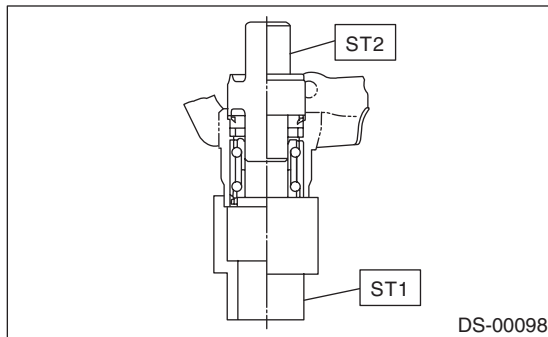
DRIVE SHAFT SYSTEM

- 6) Invert both ST1 and housing (up and down).
 - 7) Using ST2, press the inner oil seal into the housing until it touches the bottom.
- ST1 927430000 HOUSING STAND
ST2 927460000 OIL SEAL INSTALLER



- 8) Using ST1 and ST2, press the sub seal into place.

ST1 927430000 HOUSING STAND
ST2 927460000 OIL SEAL INSTALLER



- 9) Apply sufficient grease to the oil seal lip.

Grease:

SHELL 6459N

NOTE:

If specified grease is not available, remove the bearing grease and apply Auto Rex A instead.

CAUTION:

Do not mix different types of grease.

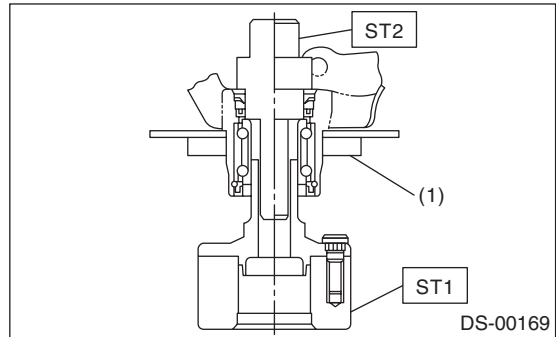
- 10) Install the back plate to the rear housing.

Tightening torque:

52 N·m (5.3 kgf·m, 38.3 ft·lb)

- 11) Using ST1 and ST2, press the bearing into the hub.

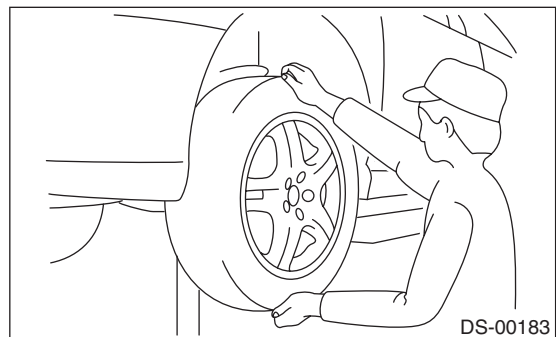
ST1 927080000 HUB STAND
ST2 927450000 HUB INSTALLER



(1) Back plate

E: INSPECTION

- 1) While moving the rear tire up and down by hand, check that there is no looseness of the bearing, and check that the wheel rotates smoothly.



- 2) Inspect the play in the axial direction using a dial gauge. Replace the hub bearing if the play exceeds the limit value.

Limit:

Max:

0.05 mm (0.0020 in)

