4. Rear Axle

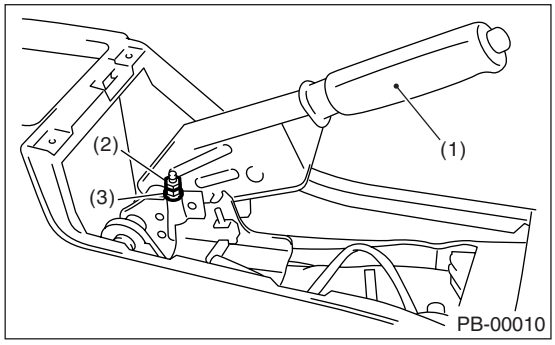
A: REMOVAL

1. DISC BRAKE

1) Disconnect the ground cable from battery.
2) Lift-up the vehicle, and remove the rear wheel.
3) Unlock the axle nut.
4) Remove the axle nut using a socket wrench with brake pedal depressed.

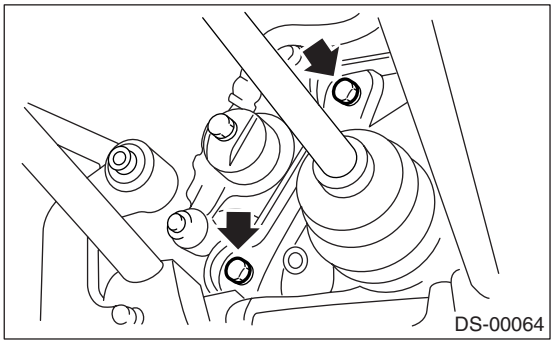
CAUTION:
Remove the axle nut with vehicle weight not applied on axle. Failure to follow this rule may damage the wheel bearings.

5) Return the parking brake lever and loosen adjusting nut.



(1) Parking brake lever
(2) Lock nut
(3) Adjusting nut

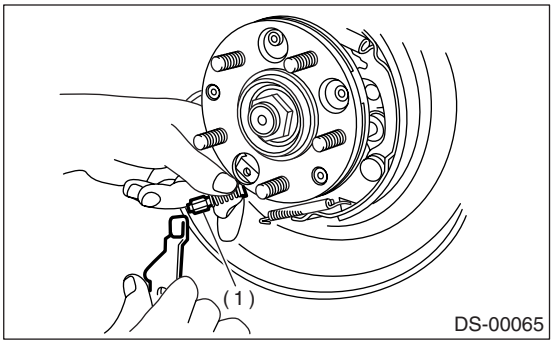
6) Remove the disc brake caliper from back plate, and suspend it from strut using a piece of wire.



7) Remove the disc rotor from hub.

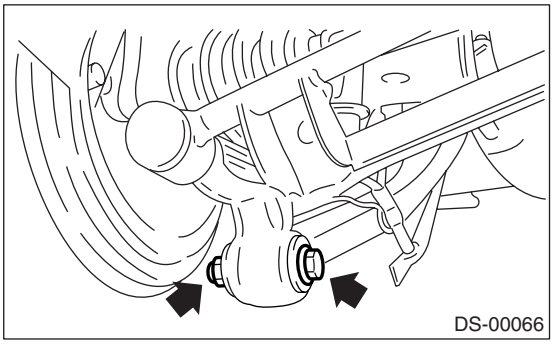
NOTE:
If the disc rotor seizes up within hub, drive it out by installing an 8 mm (0.31 in) bolt into bolt hole in disc rotor.

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

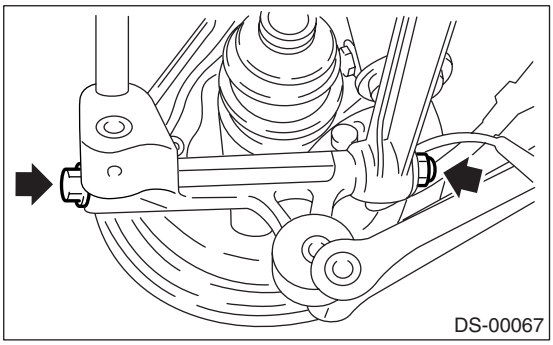


(1) Cable end

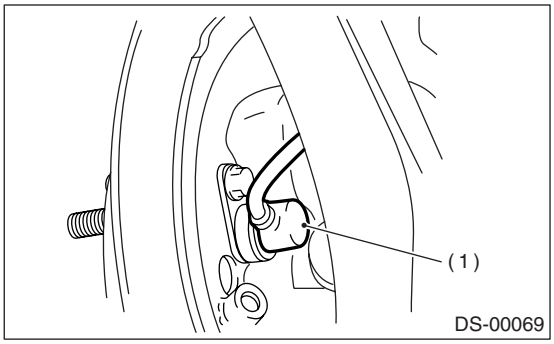
9) Disconnect the rear stabilizer from rear lateral link.
10) Remove the bolts which secure trailing link assembly to rear housing.



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



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

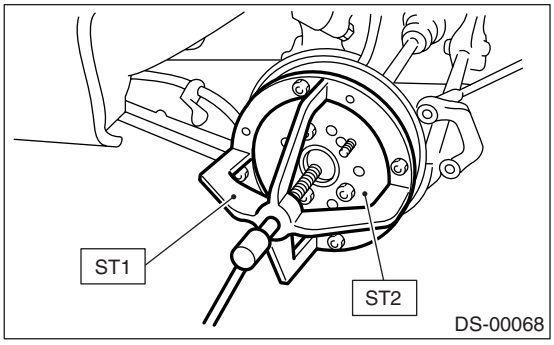


(1) ABS wheel speed sensor

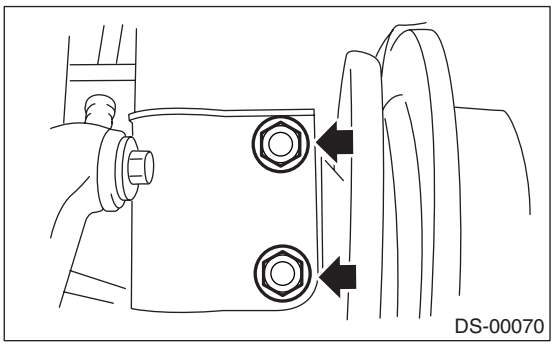
13) Disengage the BJ assembly from housing splines, and then remove the rear drive shaft assembly.
If it is hard to remove, use the STs.

ST1	926470000	AXLE SHAFT PULLER
ST2	927140000	AXLE SHAFT PULLER PLATE

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



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

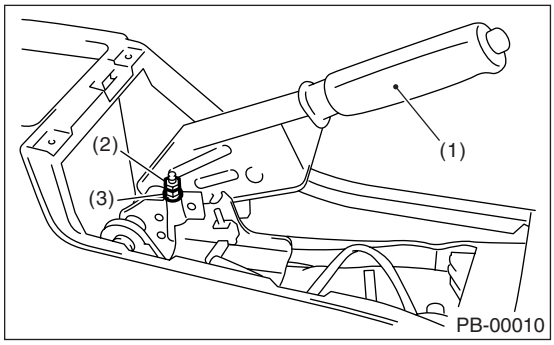


2. DRUM BRAKE

1) Disconnect the ground cable from battery.
2) Lift-up the vehicle, and remove rear wheel.
3) Unlock the axle nut.
4) Remove the axle nut using a socket wrench with parking brake applied.

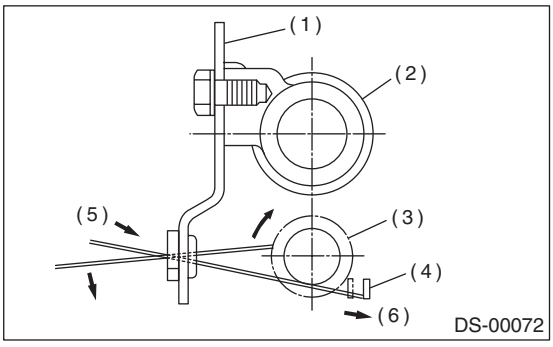
CAUTION:
Remove the axle nut with vehicle weight not applied on axle. Failure to follow this rule may damage the wheel bearings.

5) Return the parking brake lever and loosen adjusting nut.



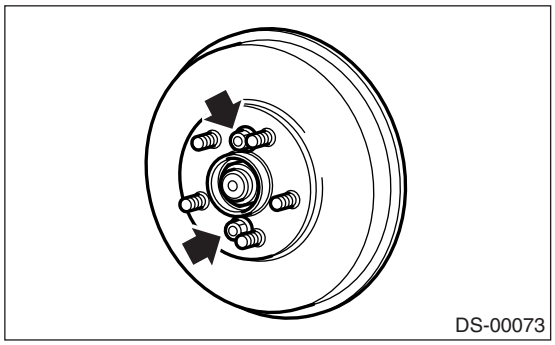
(1) Parking brake lever
(2) Lock nut
(3) Adjusting nut

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

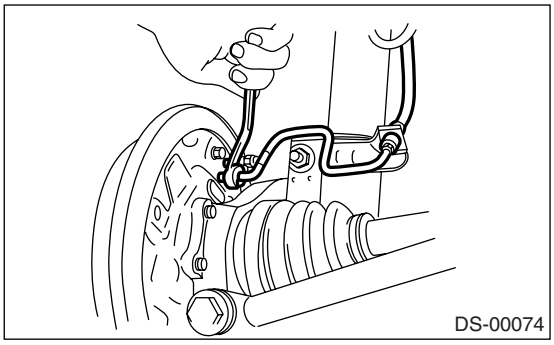


(1) Back plate
(2) Wheel cylinder
(3) Adjuster ASSY pawls
(4) Adjusting lever
(5) Tightening direction
(6) Push

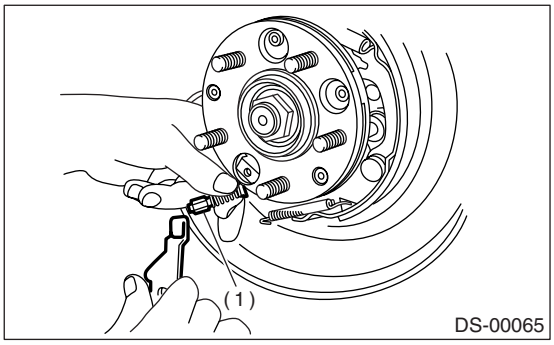
NOTE:
If the brake drum is difficult to remove, drive it out by installing two 8 mm (0.31 in) bolts into bolt hole in brake drum.



8) Using a flare-nut wrench, disconnect the brake hose from wheel cylinder. Cover the open end of wheel cylinder to prevent entry of foreign particles.

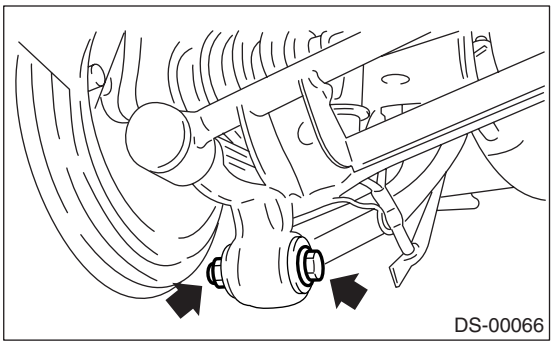


9) Cover the open end of brake pipe with vinyl sheet or equivalent to prevent brake fluid from spilling.
10) Disconnect the parking brake cable end from the parking brake lever.

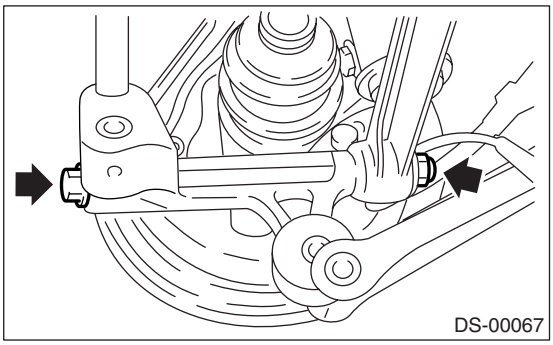


(1) Cable end

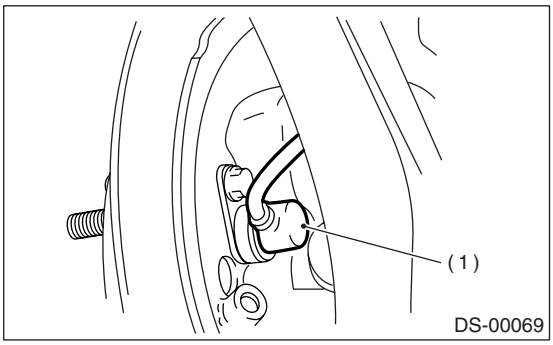
11) Disconnect the rear stabilizer from rear lateral link. Remove the bolts which secure trailing link assembly to rear housing.



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



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



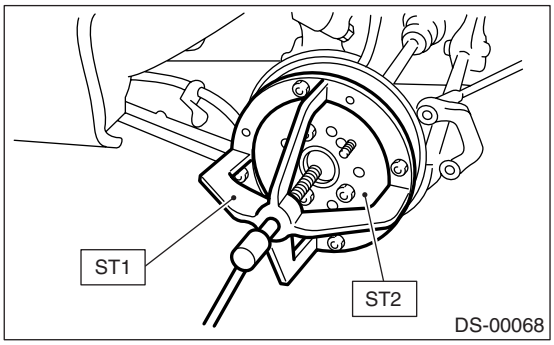
(1) ABS wheel speed sensor

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

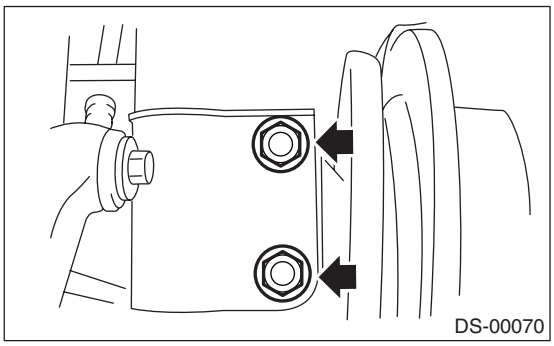
NOTE:
If it is hard to remove, use the STs.

ST1	926470000	AXLE SHAFT PULLER
ST2	927140000	AXLE SHAFT PULLER PLATE

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



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



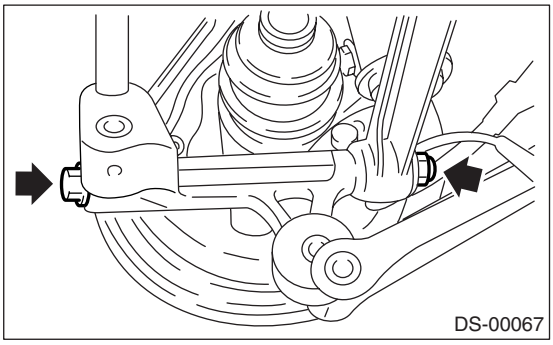
B: INSTALLATION

1. DISC BRAKE

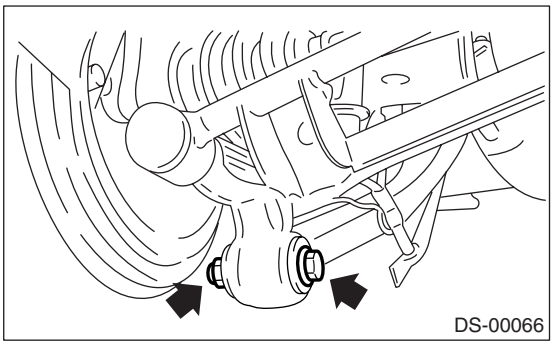
1) Temporarily tighten the rear axle to strut.
2) Insert the rear drive shaft into rear axle.

CAUTION:
Be careful not to damage the inner oil seal lip.

3) Temporarily tighten the axle nut.
4) Using a new self-locking nut, install the rear housing assembly and rear lateral link assembly.



5) Using a new self-locking nut, temporarily install the rear housing assembly and trailing link assembly.



6) Tighten the rear housing assembly and strut assembly using a new self-locking nut.

Tightening torque:
196 N·m (20 kgf-m, 145 ft-lb)

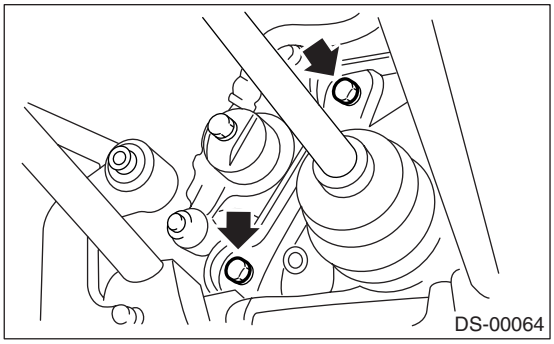
7) Using a new self-locking nut, install the rear stabilizer and rear lateral link.

Tightening torque:
44 N·m (4.5 kgf-m, 32.5 ft-lb)

8) Connect the parking brake cable to parking brake lever.
9) Install the disc rotor on rear housing assembly.

10) Install the disc brake caliper on back plate.

Tightening torque:
52 N·m (5.3 kgf-m, 38.3 ft-lb)

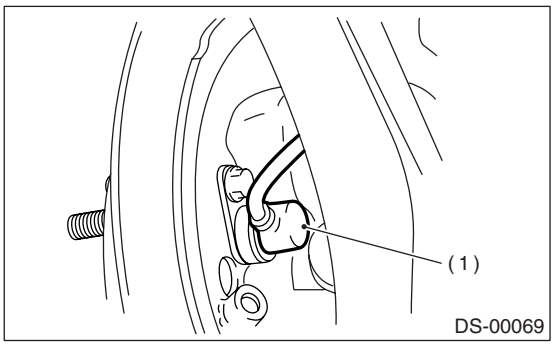


11) Adjust the parking brake lever stroke by turning adjuster.
12) While applying the parking brake, tighten a new axle nut using a socket wrench. Lock the axle nut after tightening.

Tightening torque:
186 N·m (19 kgf-m, 137 ft-lb)

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

13) Install rear ABS wheel speed sensor.



(1) ABS wheel speed sensor

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

Tightening torque:
88 N·m (9.0 kgf-m, 65 ft-lb)

15) Make the tires contact the ground fully.

CAUTION:
Make the tires contact the ground fully and the vehicle be in curb weight whenever carrying out the tightening of bush portions.

16) Tighten the installation bolt of rear housing assembly and lateral link assembly.

Tightening torque:
140 N·m (14.3 kgf-m, 103 ft-lb)

17) Tighten the installation bolt of rear housing assembly and trailing link assembly.

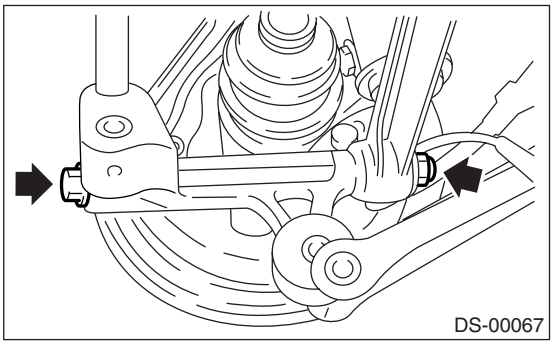
Tightening torque:
90 N·m (9.2 kgf-m, 66 ft-lb)

2. DRUM BRAKE

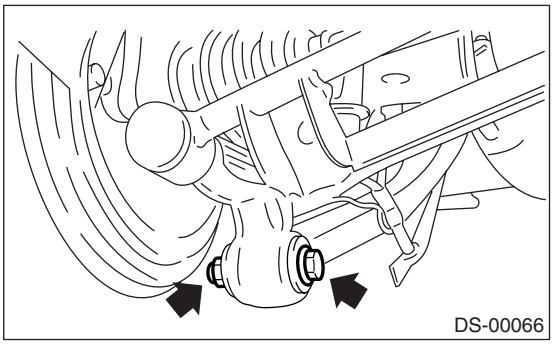
1) Temporarily tighten the rear axle to strut.
2) Insert the rear drive shaft to rear axle.

CAUTION:
Be careful not to damage the inner oil seal lip.

3) Temporarily tighten the axle nut.
4) Using a new self-locking nut, temporarily install the rear housing assembly and rear lateral link assembly.



5) Using a new self-locking nut, temporarily install the rear housing assembly and trailing link assembly.



6) Tighten the rear housing assembly and strut assembly using a new self-locking nut.

Tightening torque:
196 N·m (20 kgf-m, 145 ft-lb)

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

Tightening torque:
44 N·m (4.5 kgf-m, 32.5 ft-lb)

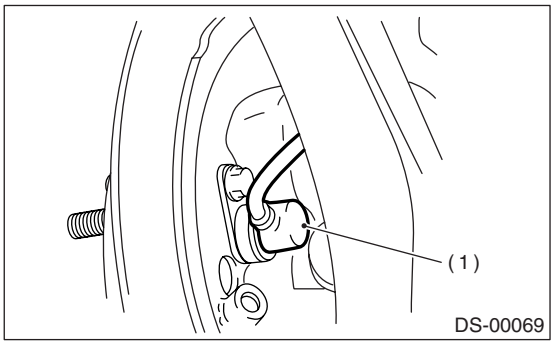
8) Connect the parking brake cable to parking brake lever.
9) Clean the brake pipe connection. Using a flare-nut wrench, connect the brake pipe to wheel cylinder.
10) Connect the parking brake cable to lever.

11) Install the brake drum on rear housing assembly.
12) Bleed the air from brake system. <Ref. to BR-39, REPLACEMENT, Brake Fluid.>
13) Adjust the parking brake lever stroke by turning adjuster.
14) While applying the parking brake, tighten axle nut using a socket wrench. Lock the axle nut after tightening.

Tightening torque:
186 N·m (19 kgf-m, 137 ft-lb)

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

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



(1) ABS wheel speed sensor

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

Tightening torque:
88 N·m (9.0 kgf-m, 65 ft-lb)

17) Make the tires contact the ground fully.

CAUTION:
Make the tires contact the ground fully and the vehicle be in curb weight whenever carrying out the tightening of bush portions.

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

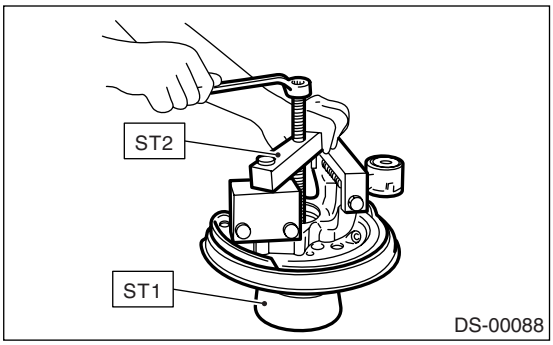
Tightening torque:
140 N·m (14.3 kgf-m, 103 ft-lb)

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

Tightening torque:
90 N·m (9.2 kgf-m, 66 ft-lb)

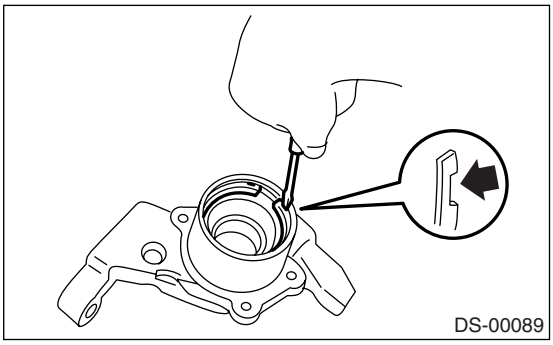
C: DISASSEMBLY

1) Using the ST1 and ST2, remove the hub from rear housing.
ST1 927080000 HUB STAND
ST2 927420000 HUB REMOVER

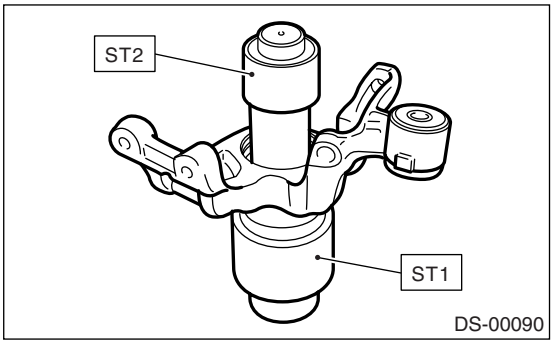


2) Remove the back plate from rear housing
3) Using a flat tip screwdriver, remove the outer and inner oil seals.
4) Using a flat tip screwdriver, remove the snap ring.

CAUTION:
Be careful not to damage the housing at removal.



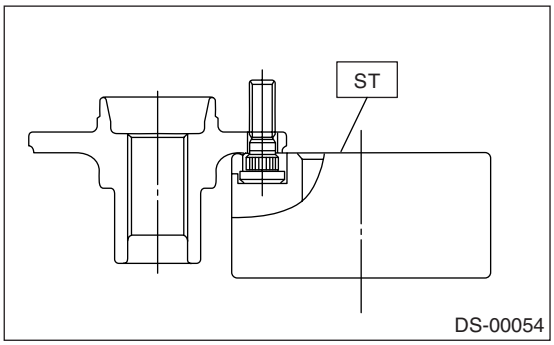
5) Using the ST1 and ST2, remove the bearing by pressing inner race.
ST1 927430000 HOUSING STAND
ST2 927440000 BEARING REMOVER



6) Remove the tone wheel bolts, and then remove the tone wheel from hub (model equipped with ABS).

7) Using the ST, press the hub bolt out.
ST 927080000 HUB STAND

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



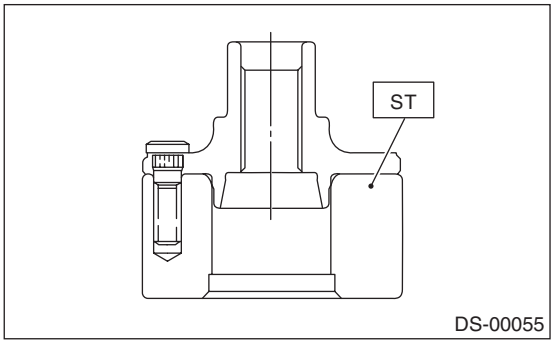
D: ASSEMBLY

NOTE:
When the hub is to be removed from housing, replace the bearing set and oil seal with new ones.

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

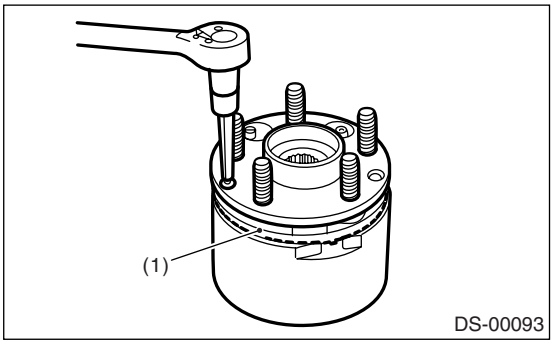
NOTE:
- Ensure the hub bolt closely contacts hub.
- Use a 12 mm (0.47 in) hole in the ST to prevent the hub bolt from tilting during installation.

ST 927080000 HUB STAND



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

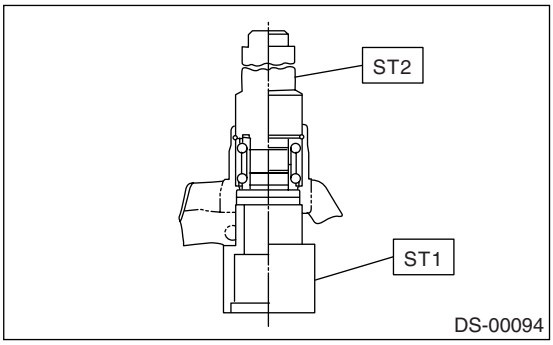
NOTE:
- Ensure the tone wheel closely contacts hub.
- Be careful not to damage the tone wheel teeth.



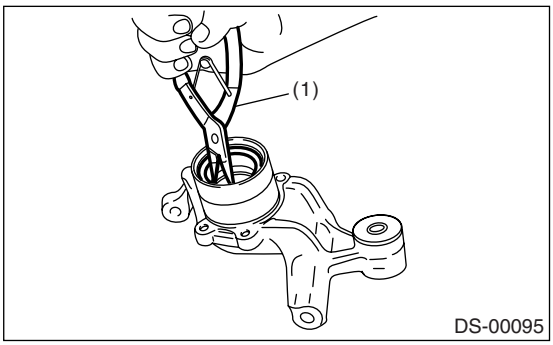
(1) Tone wheel

3) Clean the housing interior completely. Using the ST1 and ST2, press the bearing into housing.
ST1 927430000 HOUSING STAND
ST2 927440000 BEARING REMOVER

CAUTION:
- **Always press the outer race when installing bearing.**
- **Be careful not to remove the plastic lock from inner race when installing bearing.**

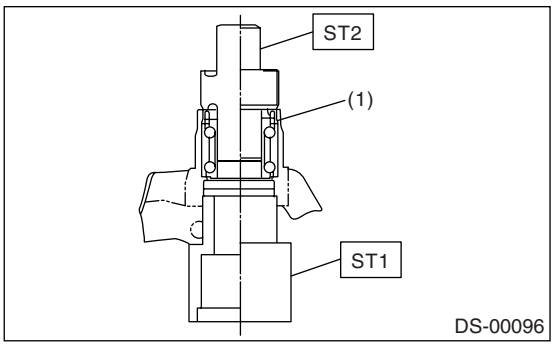


4) Using pliers, install the snap ring firmly.



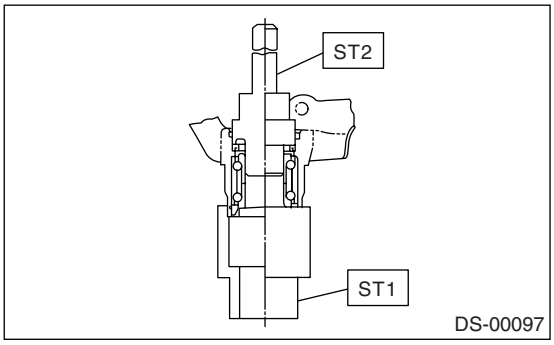
(1) Pliers

5) Using the ST1 and ST2, press the outer oil seal unit it comes in contact with snap ring.
ST1 927430000 HOUSING STAND
ST2 927460000 OIL SEAL INSTALLER

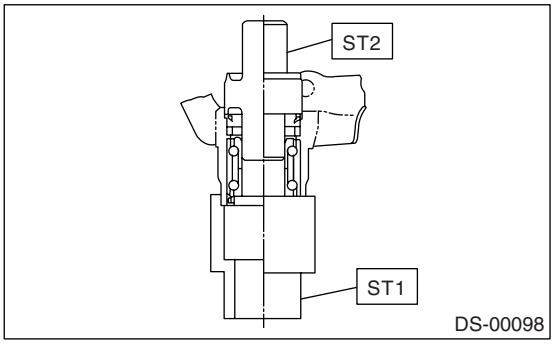


(1) Snap ring

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



8) Using the ST1 and ST2, press the sub seal into place.
ST1 927430000 HOUSING STAND
ST2 927460000 OIL SEAL INSTALLER



9) Apply sufficient grease to oil seal lip.

Grease:
SHELL 6459N

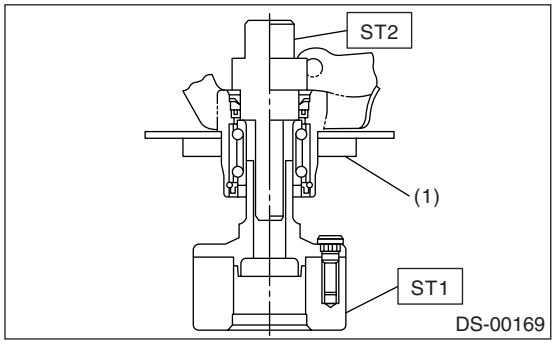
NOTE:
If specified grease is not available, remove the bearing grease and apply Auto Rex A instead.

CAUTION:
Do not mix different types of grease.

10) Install the back plate to rear housing.

Tightening torque:
52 N·m (5.3 kgf-m, 38.3 ft-lb)

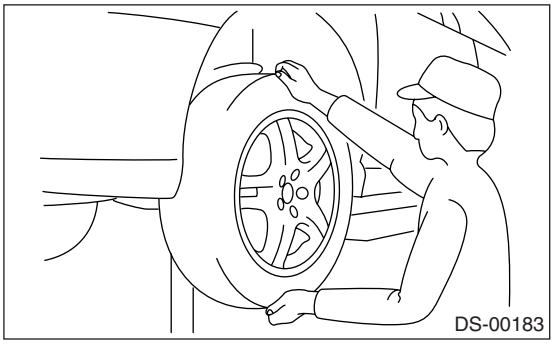
11) Using the ST1 and ST2, press the baring into hub.
ST1 927080000 HUB STAND
ST2 927450000 HUB INSTALLER



(1) Back plate

E: INSPECTION

1) Moving the rear tire up and down by hand, check that there is no shakiness in the bearing, and check that the wheel rotates smoothly.



2) Inspect the lean of axis direction using a dial gauge. Replace the hub bearing if the load range exceed the limitation.

Limit:
Maximum: 0.05mm (0.0020 in)