

### 4. Rear Axle

#### A: REMOVAL

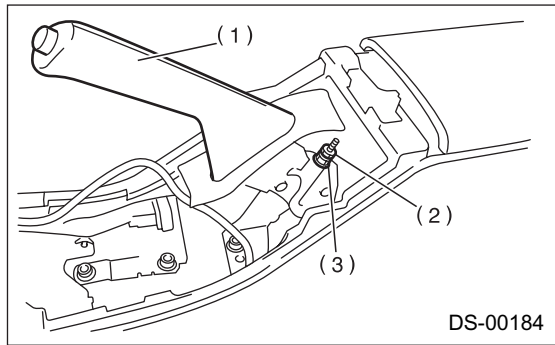
##### 1. DISC BRAKE

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

##### CAUTION:

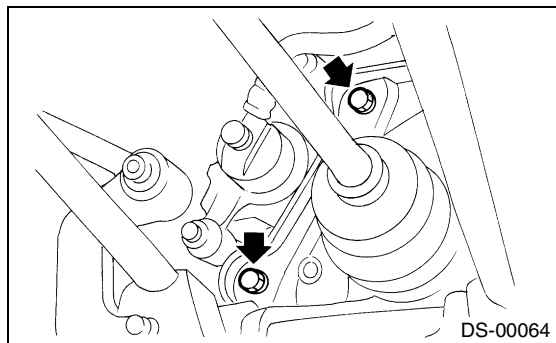
**Be sure to loosen and retighten the axle nut after removing wheel from vehicle. Failure to follow this rule may damage wheel bearings.**

- 3) Unlock the axle nut.
- 4) Remove the axle nut using a socket wrench.
- 5) Return the parking brake lever and loosen the adjusting nut.



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

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

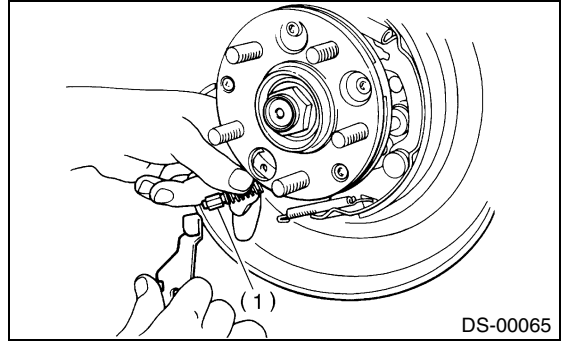


- 7) Remove the disc rotor from the hub.

##### NOTE:

If disc rotor seizes up within hub, drive it out by installing an 8-mm bolt into bolt hole in disc rotor.

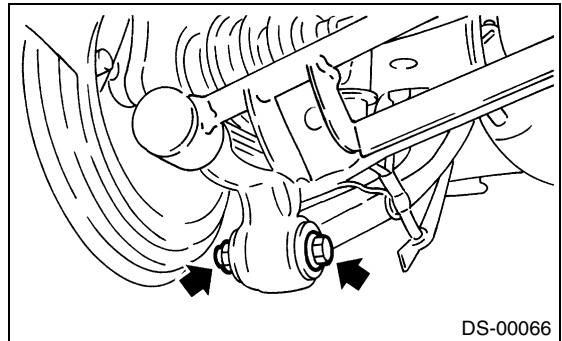
- 8) Disconnect the parking brake cable end.



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

##### CAUTION:

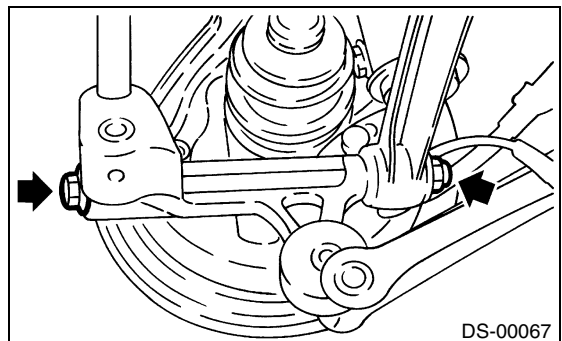
**Discard old self-locking nut. Replace with a new one.**



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

##### CAUTION:

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



## REAR AXLE

### DRIVE SHAFT SYSTEM

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

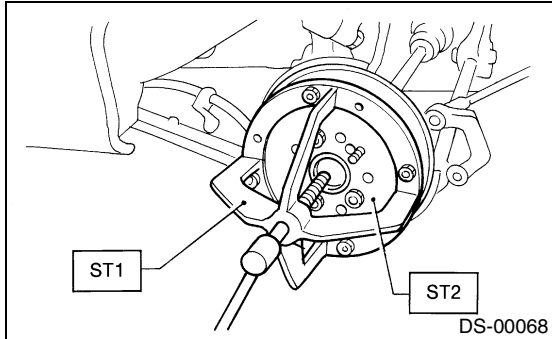
If it is hard to remove, use STs.

ST1 926470000 AXLE SHAFT PULLER

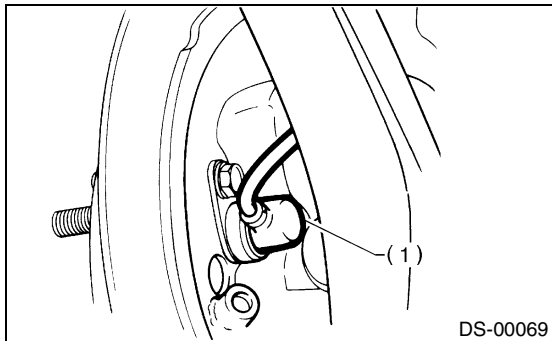
ST2 927140000 AXLE SHAFT PULLER  
PLATE

#### CAUTION:

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

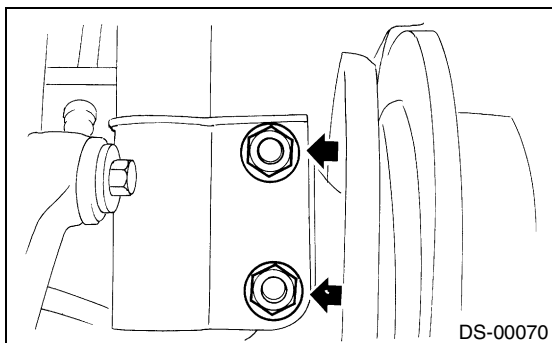


13) Remove the rear ABS sensor from the back plate.



(1) ABS sensor

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



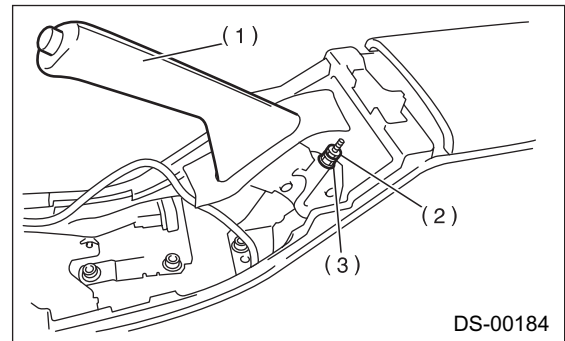
## 2. DRUM BRAKE

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

#### CAUTION:

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

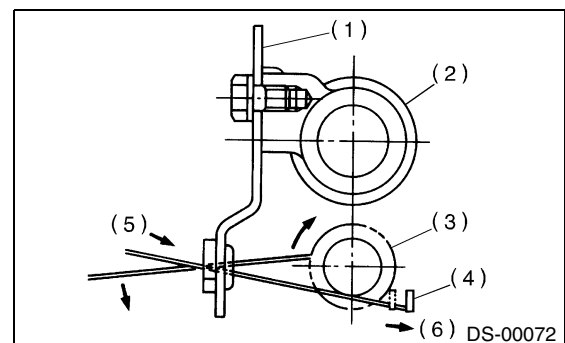
- 3) Unlock the axle nut.
- 4) Remove the axle nut using a socket wrench.
- 5) Return the parking brake lever and loosen the adjusting nut.



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

6) Remove the brake drum from hub.

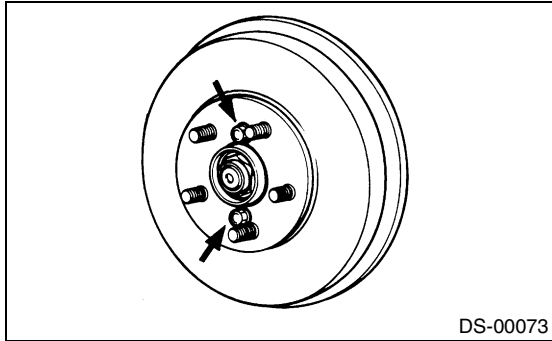
7) If it is difficult to remove brake drum, remove the adjusting hole cover from the back plate, and then turn the adjusting screw using a slot-type screwdriver until the brake shoe separates from the drum.



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

### NOTE:

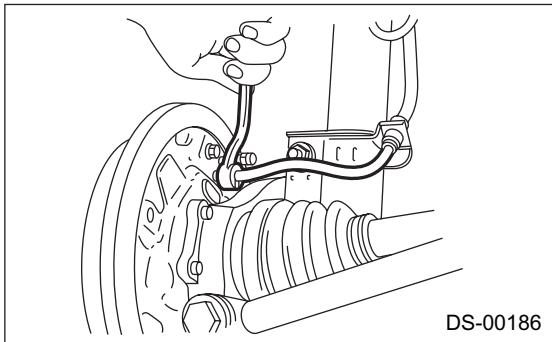
If brake drum is difficult to remove, drive it out by installing an 8-mm bolt into bolt hole in brake drum.



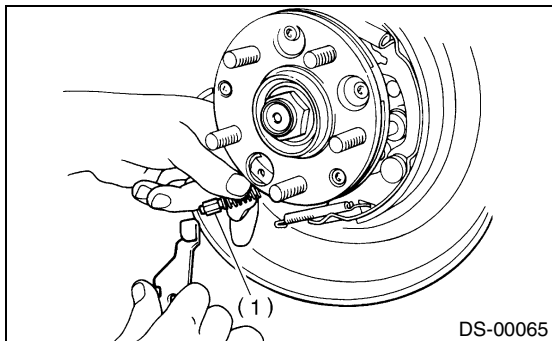
8) Using a flare-net wrench, disconnect the brake hose from the wheel cylinder.

### CAUTION:

**Cover open end of wheel cylinder to prevent entry of foreign particles.**



9) Disconnect the parking brake cable end.



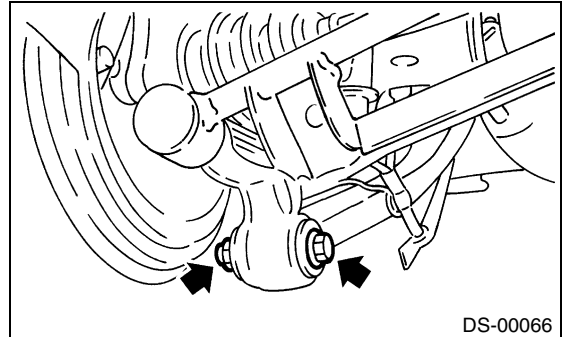
(1) Cable end

10) Disconnect the rear stabilizer from the rear lateral link.

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

### CAUTION:

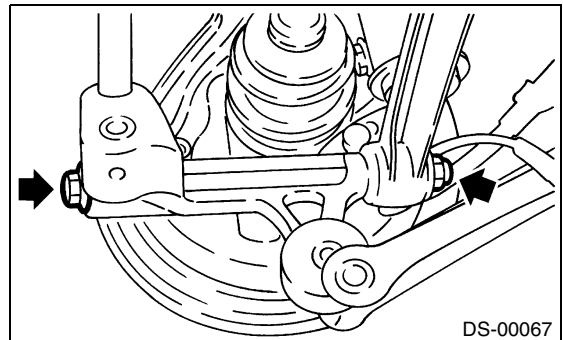
**Discard old self-locking nut. Replace with a new one.**



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

### CAUTION:

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



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

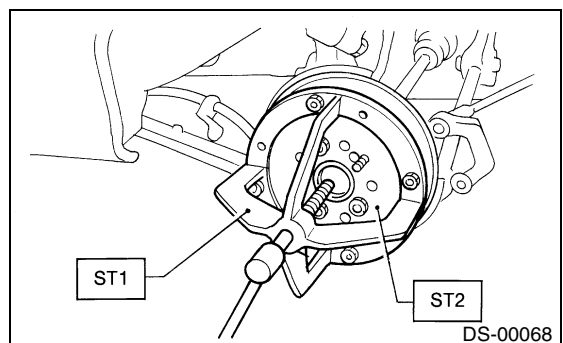
If it is hard to remove, use STs.

ST1 926470000 AXLE SHAFT PULLER

ST2 927140000 AXLE SHAFT PULLER PLATE

### CAUTION:

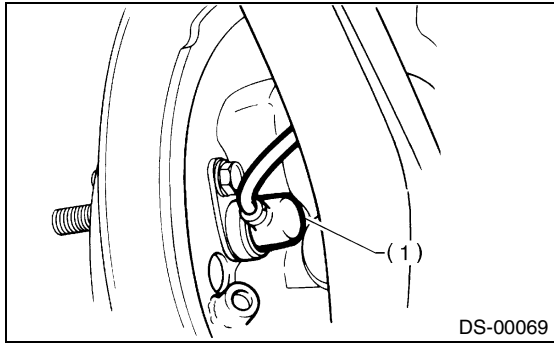
- Be careful not to damage the oil seal lip when removing rear drive shaft.
- When rear drive shaft is to be replaced, also replace inner oil seal with a new one.



## REAR AXLE

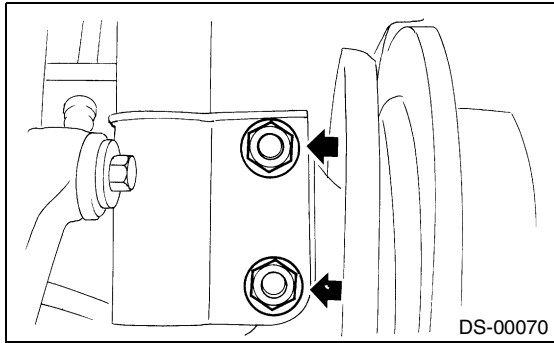
### DRIVE SHAFT SYSTEM

- 14) Remove the rear ABS sensor from the back plate.



(1) ABS sensor

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



## B: INSTALLATION

### 1. DISC BRAKE

- 1) Connect the rear housing assembly and strut assembly.

#### CAUTION:

Use a new self-locking nut.

#### Tightening torque:

**196 N·m (20 kgf-m, 145 ft-lb)**

- 2) Fit the BJ (bell joint) to the rear housing splines.

#### CAUTION:

Be careful not to damage inner oil seal lip.

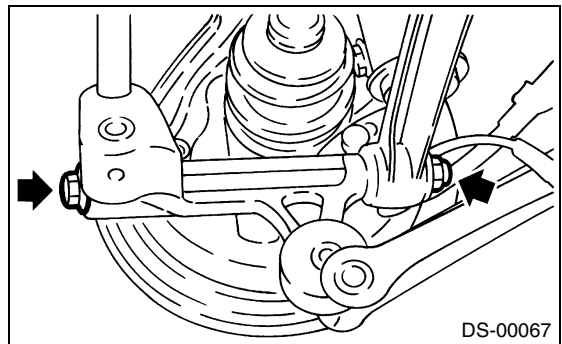
- 3) Connect the rear housing assembly to the lateral link assembly.

#### CAUTION:

Use a new self-locking nut.

#### Tightening torque:

**137 N·m (14 kgf-m, 101 ft-lb)**



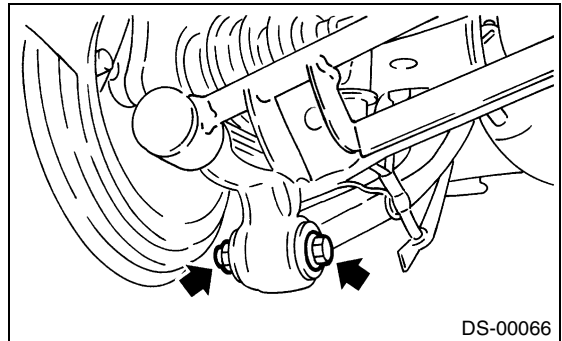
- 4) Connect the rear housing assembly to the trailing link assembly.

#### CAUTION:

Use a new self-locking nut.

#### Tightening torque:

**113 N·m (11.5 kgf-m, 83 ft-lb)**



- 5) Connect the rear stabilizer to the rear lateral link.

#### CAUTION:

Use a new self-locking nut.

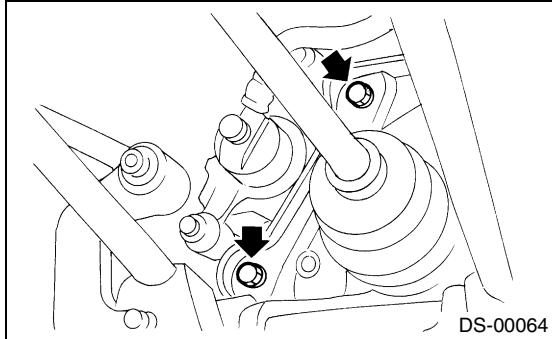
#### Tightening torque:

**44 N·m (4.5 kgf-m, 32.5 ft-lb)**

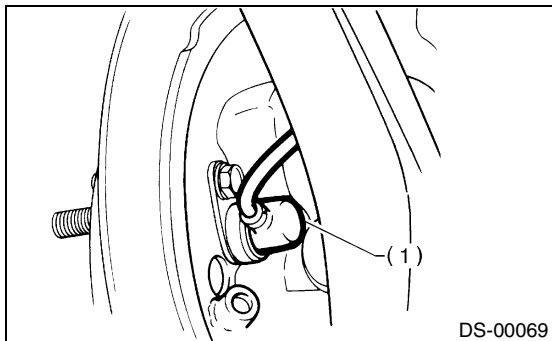
- 6) Connect the parking brake cable to the parking brake.
- 7) Install the disc rotor on the rear housing assembly.
- 8) Install the disc brake caliper on the back plate.

**Tightening torque:**

**190 N·m (5.3 kgf-m, 140 ft-lb)**



- 9) Install the rear ABS sensor and brake cable bracket.



(1) ABS sensor

- 10) Bleed air from brake system. <Ref. to BR-42, REPLACEMENT, Brake Fluid.>
- 11) Adjust the parking brake lever stroke by turning adjuster.
- 12) Move the brake lever back to apply brakes. While depressing brake pedal, tighten the axle nut using a socket wrench. Lock the axle nut after tightening.

**Tightening torque:**

**186 N·m (19 kgf-m, 137 ft-lb)**

**CAUTION:**

- Use a new axle nut.
- 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.

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

**Tightening torque:**

**90 N·m (9.2 kgf-m, 66.5 ft-lb)**

## 2. DRUM BRAKE

- 1) Connect the rear housing assembly and strut assembly.

**CAUTION:**

**Use a new self-locking nut.**

**Tightening torque:**

**196 N·m (20 kgf-m, 145 ft-lb)**

- 2) Fit the BJ (bell joint) to rear housing splines.

**CAUTION:**

**Be careful not to damage inner oil seal lip.**

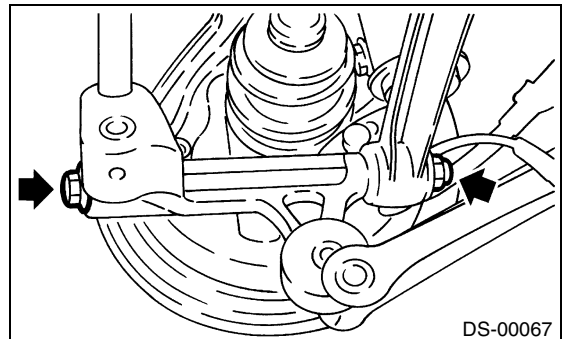
- 3) Connect the rear housing assembly to the lateral link assembly.

**CAUTION:**

**Use a new self-locking nut.**

**Tightening torque:**

**137 N·m (14 kgf-m, 101 ft-lb)**



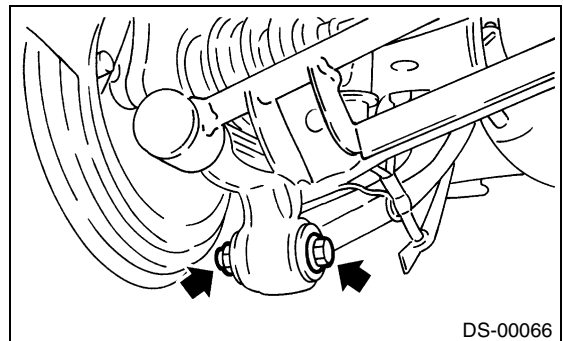
- 4) Connect the rear housing assembly to the trailing link assembly.

**CAUTION:**

**Use a new self-locking nut.**

**Tightening torque:**

**113 N·m (11.5 kgf-m, 83 ft-lb)**



- 5) Connect the rear stabilizer to the rear lateral link.

**CAUTION:**

**Use a new self-locking nut.**

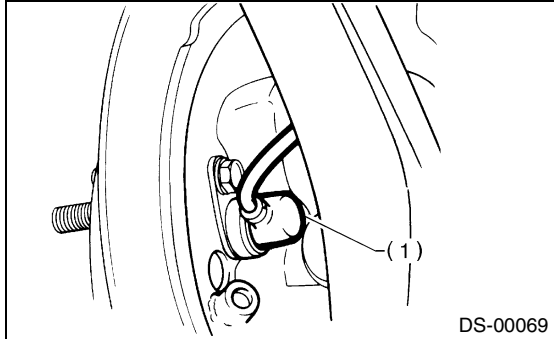
## REAR AXLE

### DRIVE SHAFT SYSTEM

#### **Tightening torque:**

**44 N·m (4.5 kgf-m, 32.5 ft-lb)**

- 6) Connect the parking brake cable to the parking brake.
- 7) Clean the brake pipe connection. Using a flare-nut wrench, connect the brake pipe to the wheel cylinder.
- 8) Connect the rear ABS sensor to the back plate.



(1) ABS sensor

- 9) Connect the parking brake cable to the lever.
- 10) Install the brake drum on the rear housing assembly.
- 11) Bleed air from brake system. <Ref. to BR-42, REPLACEMENT, Brake Fluid.>
- 12) Adjust the parking brake lever stroke by turning adjuster.
- 13) Move the brake lever back to apply brakes. While depressing brake pedal, tighten the axle nut using a socket wrench. Lock the axle nut after tightening.

#### **Tightening torque:**

**190 N·m (19 kgf-m, 140 ft-lb)**

#### **CAUTION:**

- Use a new axle nut.
- 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.

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

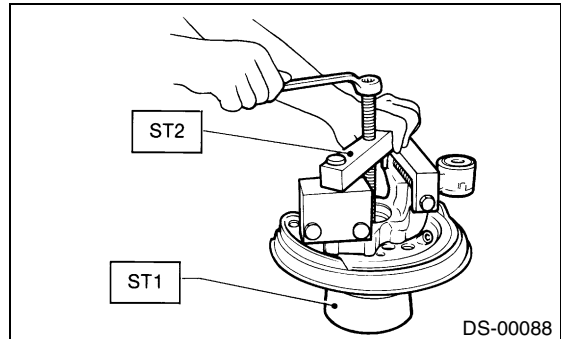
#### **Tightening torque:**

**90 N·m (9.2 kgf-m, 66.5 ft-lb)**

## **C: DISASSEMBLY**

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

ST 927080000 HUB STAND  
ST 927420000 HUB REMOVER



- 2) Remove the back plate from the rear housing
- 3) Using a standard screwdriver, remove the outer and inner oil seals.

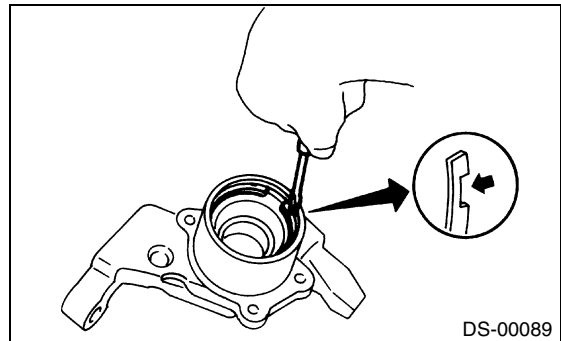
#### **CAUTION:**

**Use new oil seals.**

- 4) Using flat bladed screwdriver, remove the snap ring.

#### **CAUTION:**

**Be careful not to damage housing at removal.**

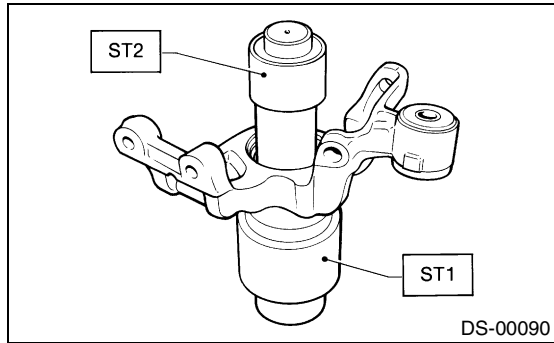


- 5) Using ST1 and ST2, remove the bearing by pressing inner race.

ST1 927430000 HOUSING STAND  
ST2 927440000 BEARING REMOVER

### CAUTION:

- If the hub was removed, replace the bearing with a new one.
- Do not re-use bearing after removal.



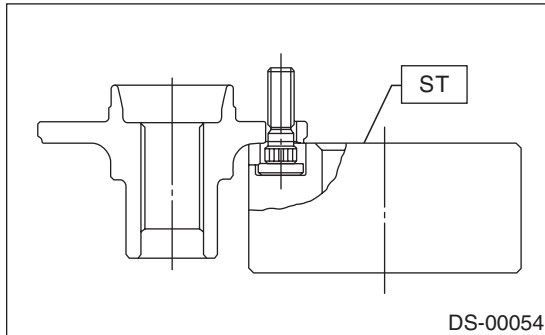
6) Remove the tone wheel bolts and remove the tone wheel from the hub.

7) Using ST, press the hub bolt out.

ST 927080000 HUB STAND

### CAUTION:

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



## D: ASSEMBLY

### CAUTION:

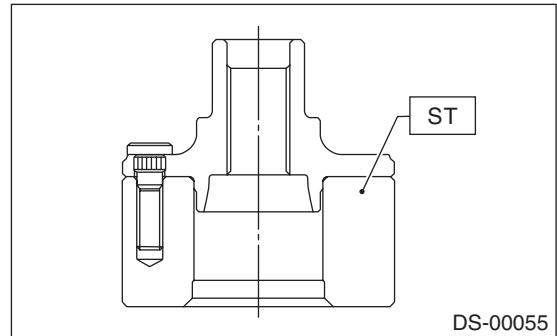
When the hub is to be removed from housing, replace the bearing set and oil seal with new ones.

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

### CAUTION:

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

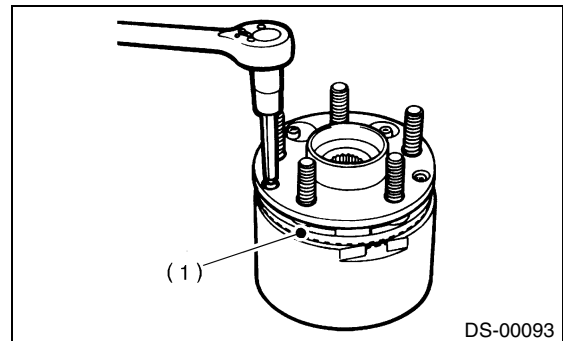
ST 927080000 HUB STAND



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

### CAUTION:

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



(1) Tone wheel

## REAR AXLE

### DRIVE SHAFT SYSTEM

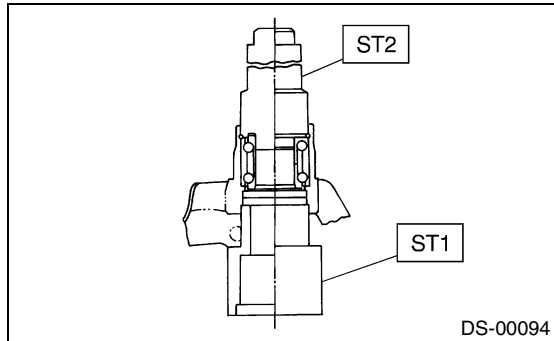
3) Clean the housing interior completely. Using ST1 and ST2, press the bearing into the housing.

ST1 927430000 HOUSING STAND

ST2 927440000 BEARING REMOVER

#### CAUTION:

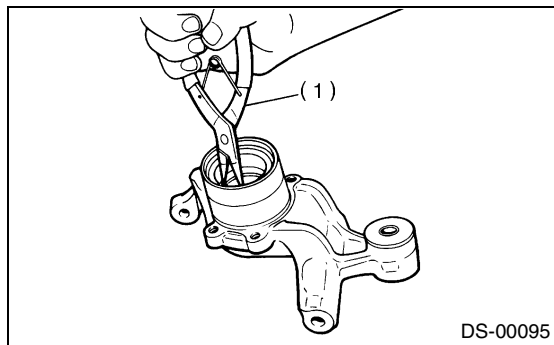
- Always press outer race when installing bearing.
- Be careful not to remove plastic lock from inner race when installing bearing.
- Do not apply pressure more than 30 kN (3.1 ton, 2.8 US ton, 3.1 Imp ton).



4) Using plier, install the snap ring.

#### CAUTION:

Ensure snap ring fits in groove properly.



(1) Plier

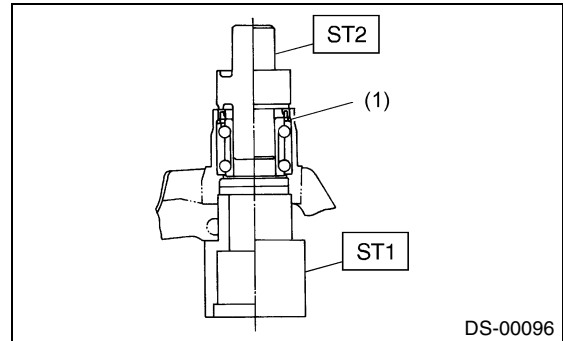
5) Using ST1 and ST2, press the outer oil seal unit it comes in contact with snap ring.

ST1 927430000 HOUSING STAND

ST2 927460000 OIL SEAL INSTALLER

#### CAUTION:

Do not apply pressure more than 3.92 kN (0.4 ton, 0.4 US ton, 0.4 Imp ton).



(1) Snap ring

6) Invert both ST1 and housing.

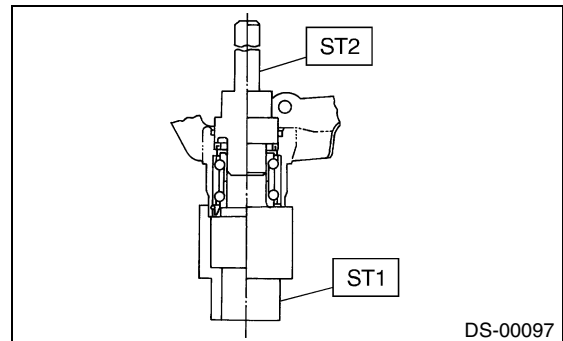
7) Using ST2, press the inner oil seal into the housing until it touches bottom.

ST1 927430000 HOUSING STAND

ST2 927460000 OIL SEAL INSTALLER

#### CAUTION:

Do not apply pressure more than 3.92 kN (0.4 ton, 0.4 US ton, 0.4 Imp ton).



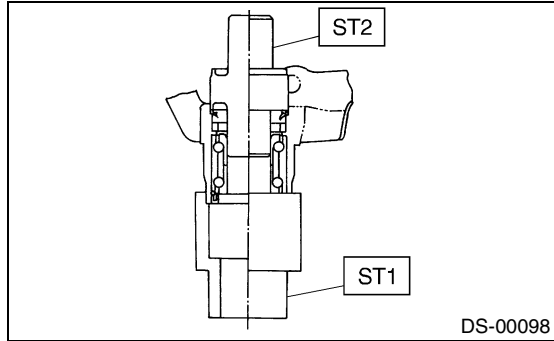


8) Using ST1 and ST2, press the sub seal into place.

ST1 927430000 HOUSING STAND  
ST2 927460000 OIL SEAL INSTALLER

**CAUTION:**

Do not apply pressure more than 3.92 kN (0.4 ton, 0.4 US ton, 0.4 Imp ton).



9) Apply the sufficient grease to oil seal lip.

**Specified grease:**  
**SHELL 6459N**

**CAUTION:**

- If specified grease is not available, remove bearing grease and apply Auto Rex A instead.
- Do not mix different types of grease.

10) Install back plate to rear housing.

**Tightening torque:**

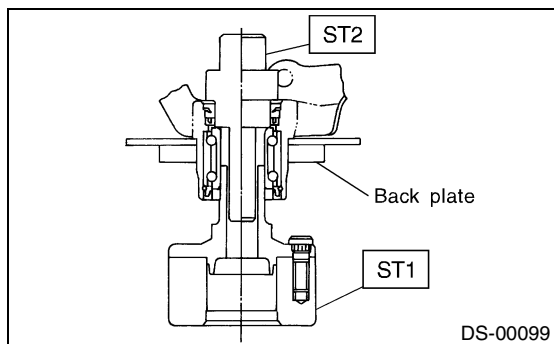
**52 N·m (5.3 kgf-m, 38.3 ft-lb)**

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

ST1 927080000 HUB STAND  
ST2 927450000 HUB INSTALLER

**CAUTION:**

Do not apply pressure more than 25 kN (2.5 ton, 2.3 US ton, 2.5 Imp ton).



### E: INSPECTION

1) Inspect the rattle and lean of axis direction of the removed parts as the same procedure of Front Axle <Ref. to DS-22, INSPECTION, Front Axle.>

**The lean of axis direction**

**Maximum: 0.05mm (0.0020in)**

2) Inspect the removed parts for wear and damage. If defective, replace with a new one.