

# Rear Axle

## DRIVE SHAFT SYSTEM

### 5. Rear Axle

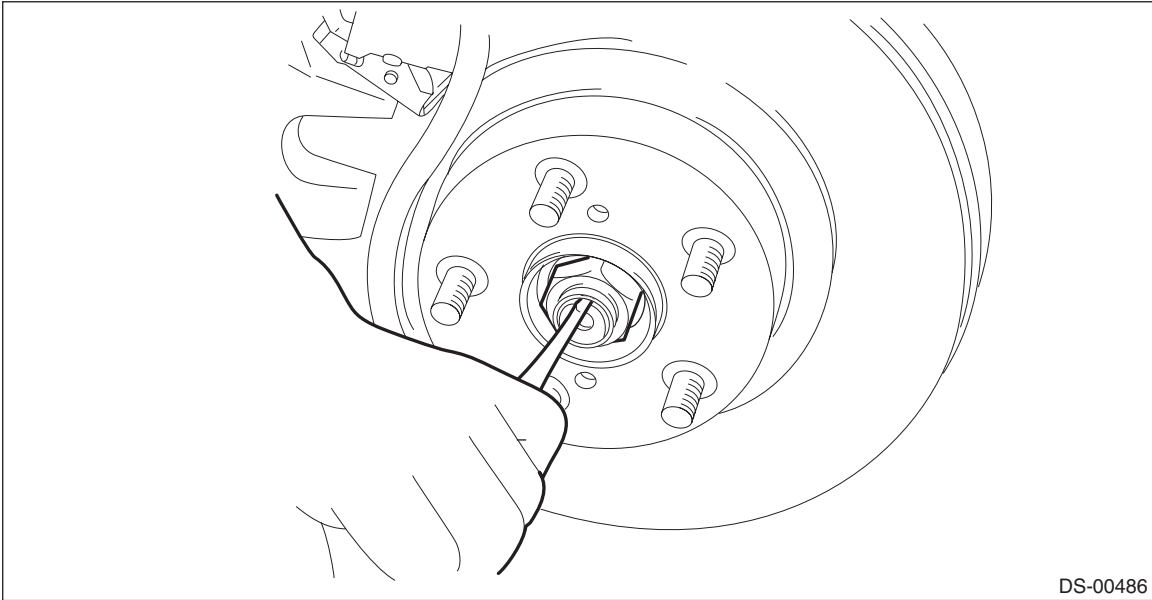
#### A: REMOVAL

- 1) Lift up the vehicle, and then remove the rear wheels.
- 2) Remove the axle nut.

#### CAUTION:

**Do not loosen the axle nut while the rear axle is loaded. Doing so may damage the hub bearing.**

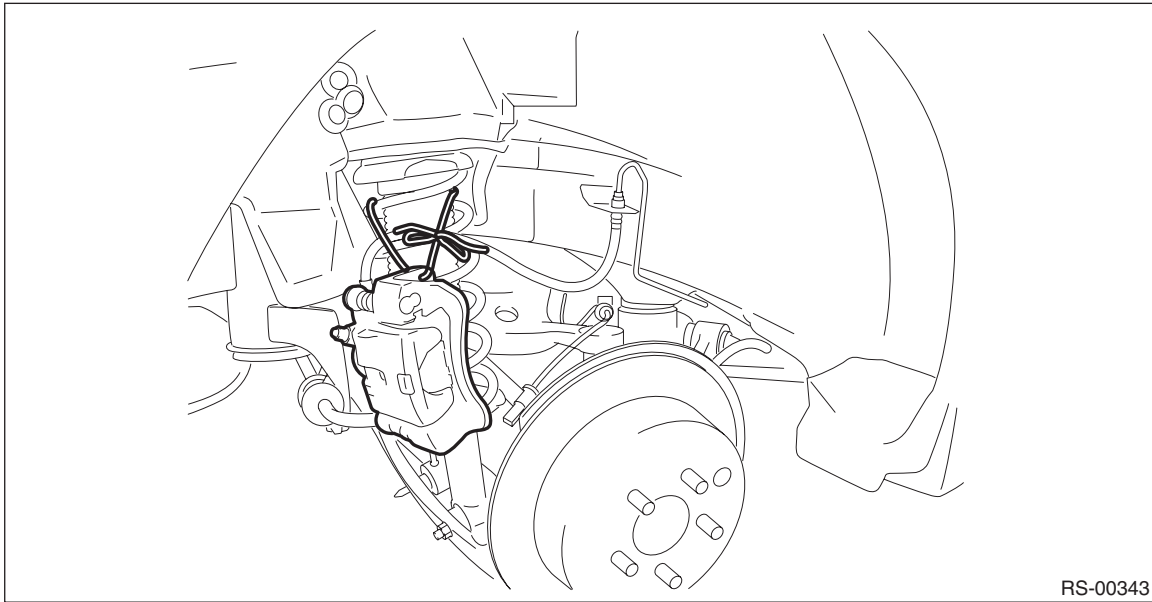
- (1) Lift the crimped section of axle nut.
- (2) Remove the axle nut using a socket wrench while depressing the brake pedal.



- 3) Remove the rear disc brake caliper from the rear axle housing.
  - (1) Remove the bolts, and remove the brake hose bracket and ABS wheel speed sensor.
  - (2) Remove the mounting bolts, and then remove the rear disc brake caliper.



(3) Prepare wiring harnesses etc. to be discarded, and suspend the rear disc brake caliper from the shock absorber with the harnesses.

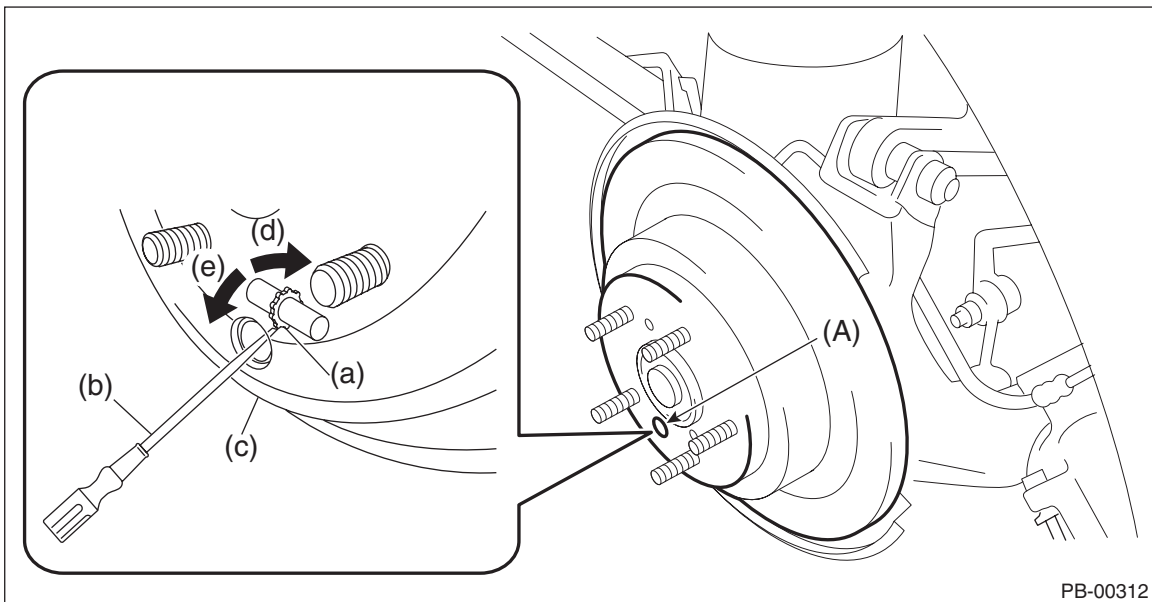


4) Remove the rear disc rotor.

**NOTE:**

If it is difficult to remove the disc rotor, perform the following two methods in order.

1. Remove the adjusting hole cover (A), insert the flat tip screwdriver, and rotate the adjusting screw until the brake shoe moves far enough to remove the disc rotor.

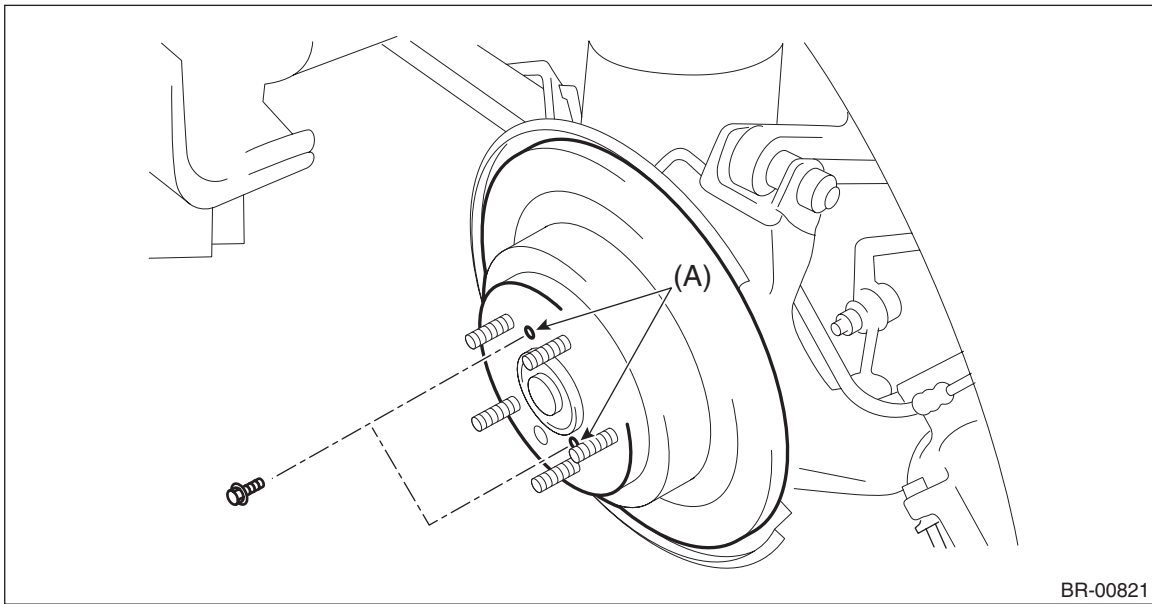


- |                          |                                |                                 |
|--------------------------|--------------------------------|---------------------------------|
| (a) Adjusting screw      | (c) Disc rotor                 | (e) Shorten the adjusting screw |
| (b) Flat tip screwdriver | (d) Extend the adjusting screw |                                 |

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2. When the disc rotor is difficult to be removed from the rear hub unit bearing, screw in 8 mm (0.31 in) bolt to the threaded part of the disc rotor (A), and remove the disc rotor.

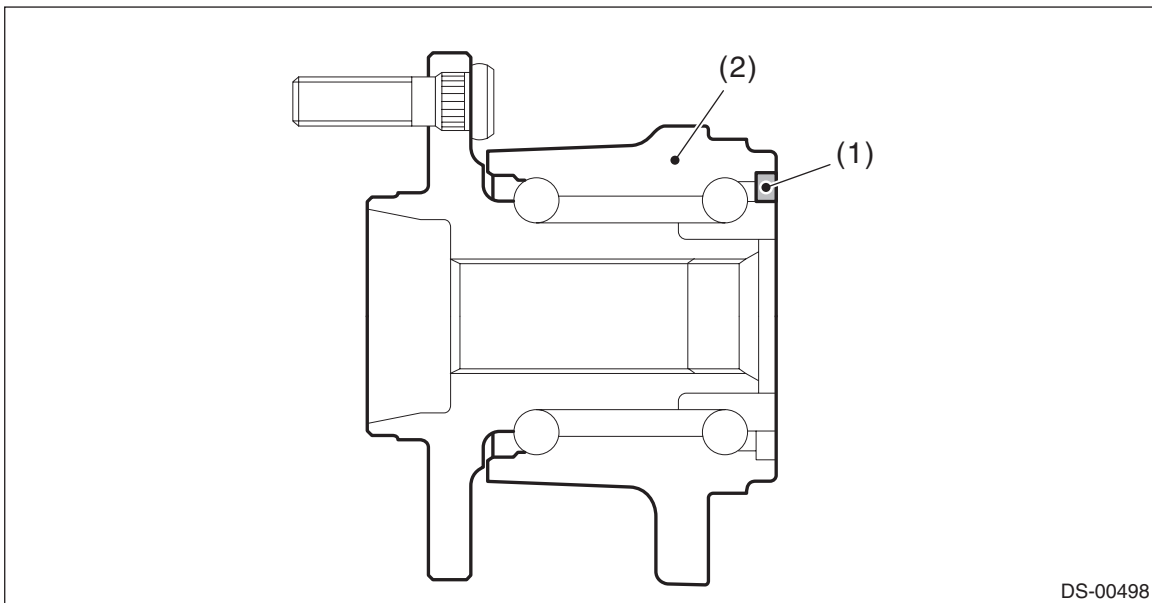


BR-00821

5) Remove the rear hub unit bearing.

#### CAUTION:

- Be careful not to damage the magnetic encoder.
- Do not get closer the tool which charged magnetism to magnetic encoder.

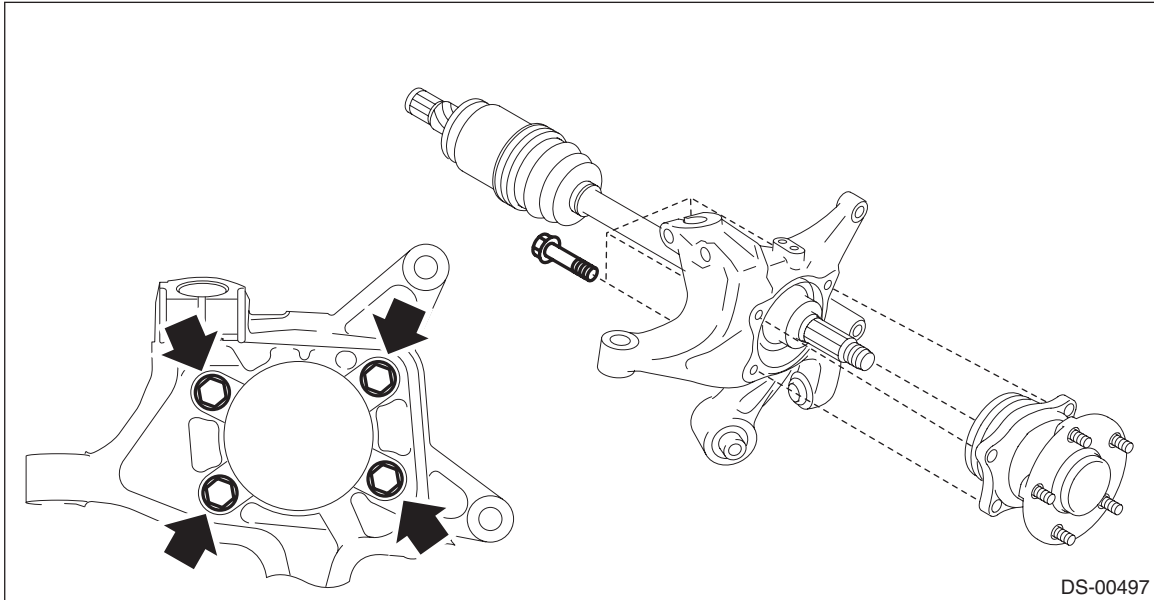


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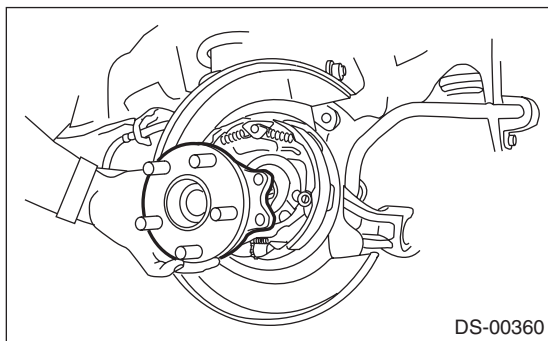
(1) Magnetic encoder

(2) Rear hub unit bearing

(1) Remove the bolt from the rear axle housing.



(2) Remove the rear hub unit bearing.



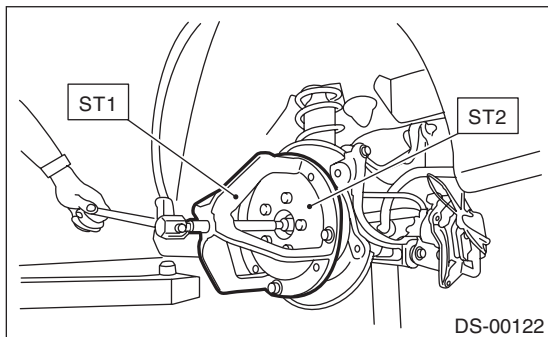
**NOTE:**

If it is hard to remove, use the ST.

**Preparation tool:**

**ST1: AXLE SHAFT PULLER (926470000)**

**ST2: AXLE SHAFT PULLER PLATE (28099PA110)**



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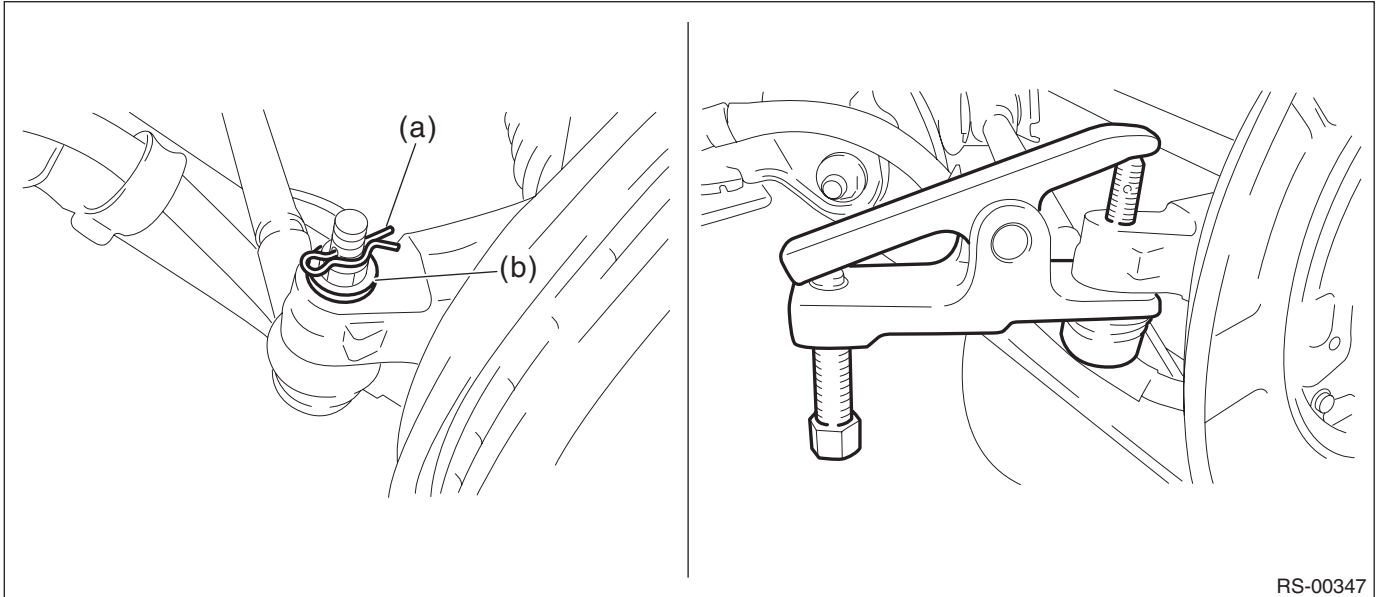
- 6) Remove the front lateral link.
  - (1) Remove the snap pin (a) and nut (b).
  - (2) Use a tie-rod ball joint puller to detach the ball joint.

**CAUTION:**

Be careful not to damage the boot of the joint.

**Preparation tool:**

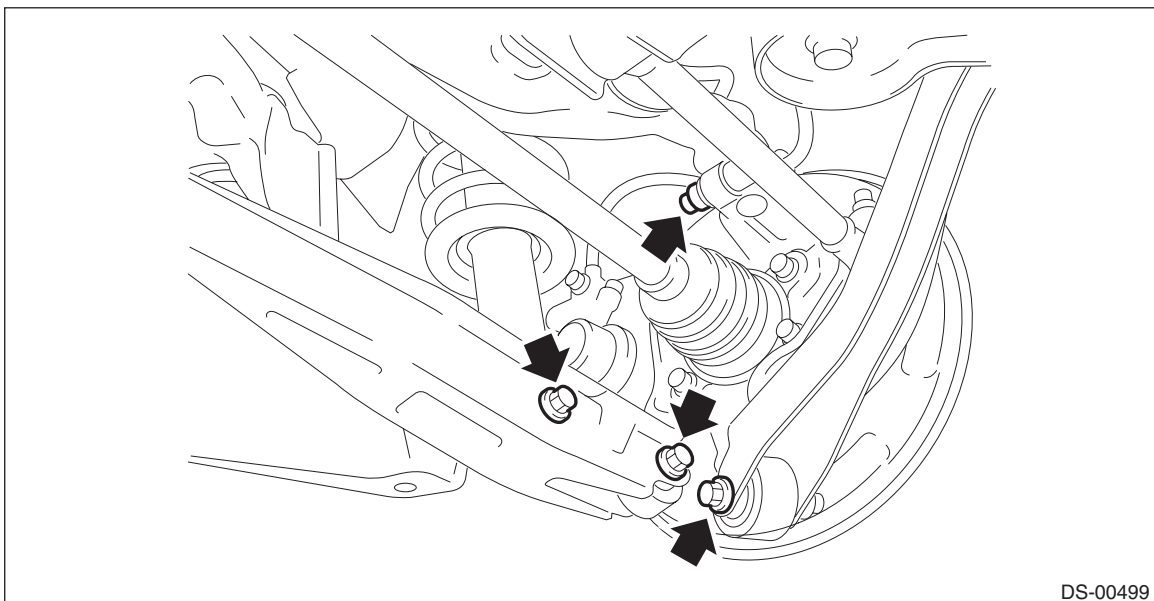
*Tie-rod ball joint puller*



- 7) Remove the rear axle housing.
  - (1) Remove the bolts for the upper arm, trailing link, and rear lateral link, and then separate the rear axle housing.

**CAUTION:**

Be careful not to damage the boot of the joint.



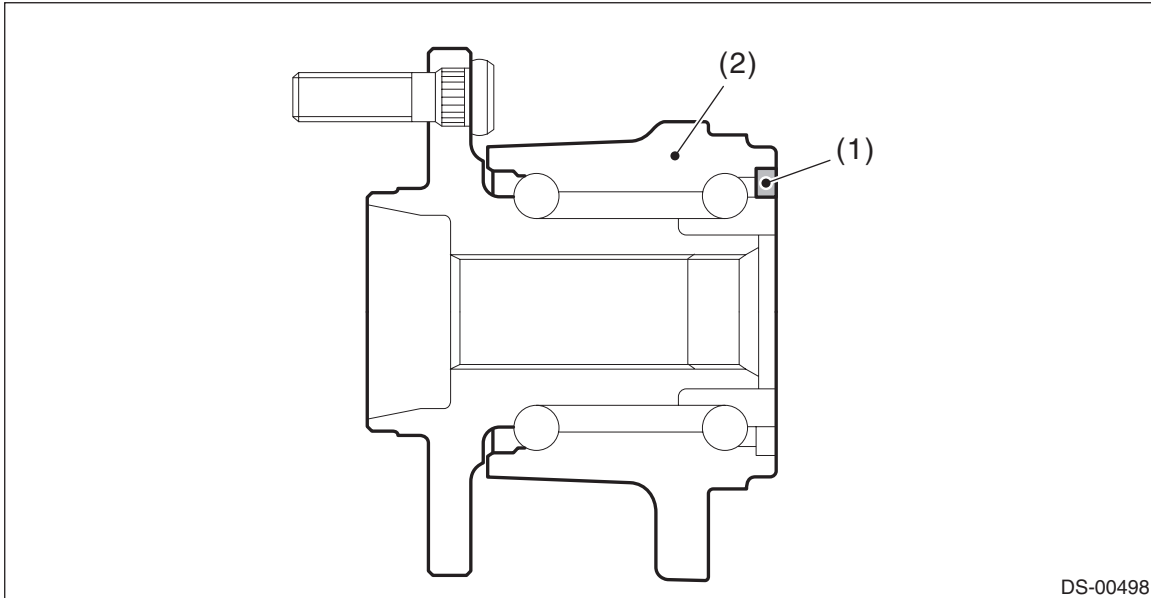
- (2) Remove the rear axle housing.

**B: INSTALLATION**

- 1) Temporarily tighten the rear axle housing to the upper arm.
- 2) Aligning with the mounting hole of the rear brake back plate, temporarily tighten the rear hub unit bearing to the rear axle housing.

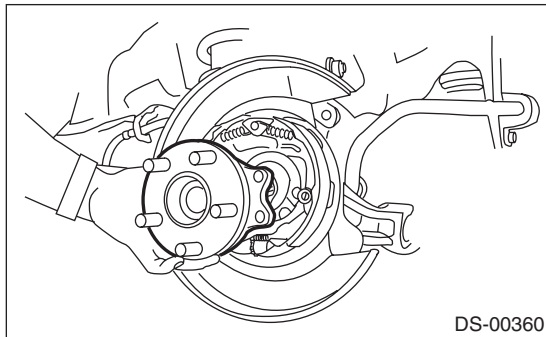
**CAUTION:**

- Be careful not to damage the magnetic encoder.
- Do not get closer the tool which charged magnetism to magnetic encoder.



(1) Magnetic encoder

(2) Rear hub unit bearing



- 3) Attach the rear drive shaft to the rear hub unit bearing.
- 4) Tighten the new axle nut temporarily.

**CAUTION:****Use new axle nuts.**

- 5) Attach the links to the rear axle housing and tighten them to the specified torque.

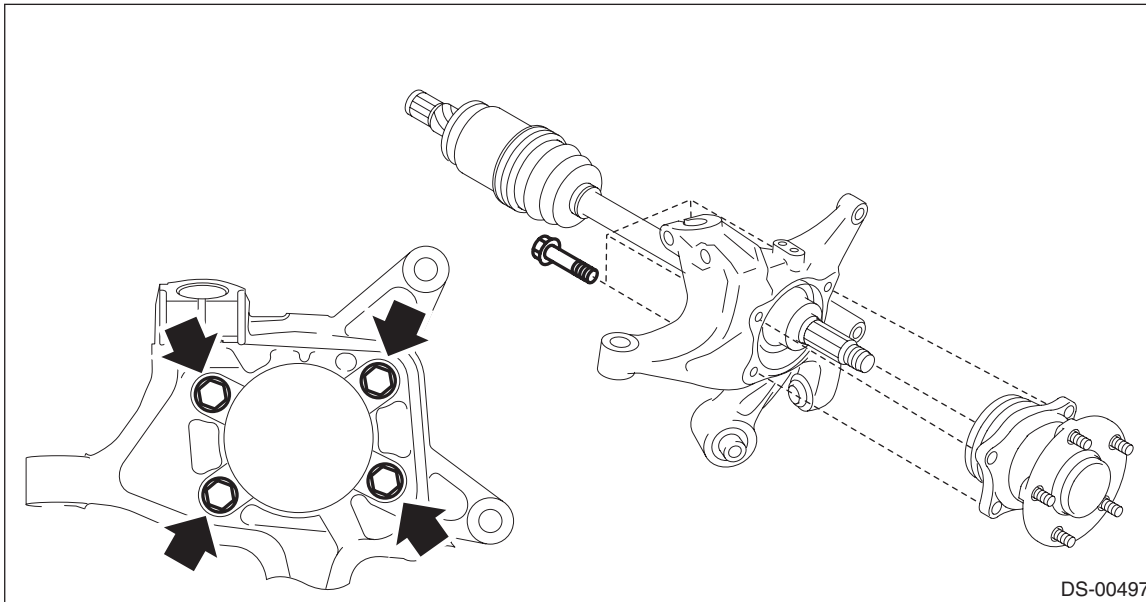
**CAUTION:****Be careful not to damage the boot of the joint.****Tightening torque:****Upper arm: 80 N·m (8.2 kgf-m, 59.0 ft-lb)****Front lateral link: 60 N·m (6.1 kgf-m, 44.3 ft-lb)****Rear lateral link: 80 N·m (8.2 kgf-m, 59.0 ft-lb)****Trailing link: 80 N·m (8.2 kgf-m, 59.0 ft-lb)**

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6) Tighten the rear hub unit bearing.



**Tightening torque:**

**65 N·m (6.63 kgf-m, 47.9 ft-lb)**

7) Install the rear disc rotor.

8) Install the rear disc brake.

**Tightening torque:**

**66 N·m (6.73 kgf-m, 48.7 ft-lb)**

9) Install the brake hose bracket and rear ABS wheel speed sensor.

**Tightening torque:**

**Brake hose bracket: 33 N·m (3.36 kgf-m, 24.3 ft-lb)**

**Rear ABS wheel speed sensor: 7.5 N·m (0.76 kgf-m, 5.5 ft-lb)**

10) While pressing the brake pedal, tighten the new axle nuts to the specified torque.

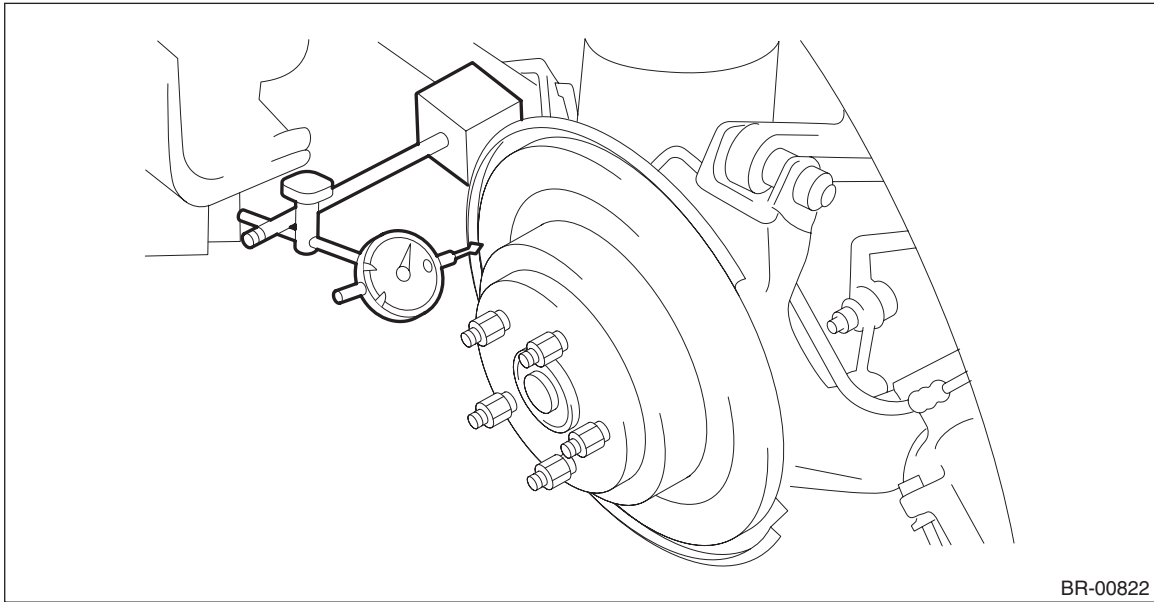
**CAUTION:**

**Do not load the rear axle before tightening the axle nut. Doing so may damage the hub bearing.**

**Tightening torque:**

**240 N·m (24.47 kgf-m, 177 ft-lb)**

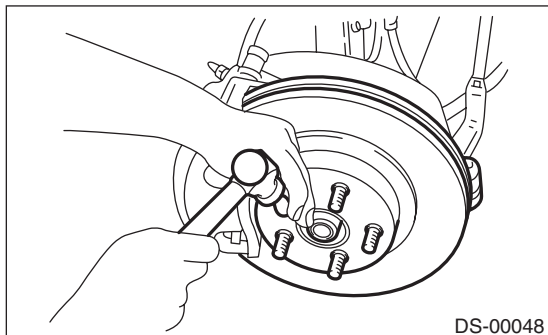
11) Inspect the lean of axis direction using a dial gauge. Replace the bearing if the load range exceeds the limitation.



**Service limit:**

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

12) After tightening the axle nut, lock it securely.



13) Install the rear wheels.

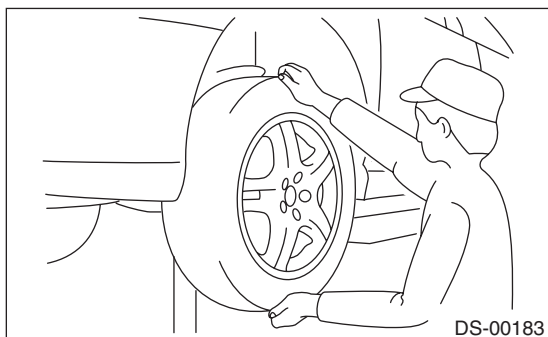
**Tightening torque:**

**120 N·m (12.24 kgf·m, 88.5 ft·lb)**

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

**CAUTION:**

**If there is any fault in the bearing, replace hub unit bearing.**





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15) Inspect the wheel alignment and adjust if necessary.

- Inspection:<Ref. to FS-9, INSPECTION, Wheel Alignment.>
- Adjustment:<Ref. to FS-14, ADJUSTMENT, Wheel Alignment.>

### **C: DISASSEMBLY**

For the removal procedure of bushing, refer to “Rear Trailing Link” in “REAR SUSPENSION”. <Ref. to RS-13, REAR AXLE HOUSING BUSHING, DISASSEMBLY, Rear Trailing Link.>

### **D: ASSEMBLY**

For the installation procedure of bushing, refer to “Rear Trailing Link” in “REAR SUSPENSION”. <Ref. to RS-15, REAR AXLE HOUSING BUSHING, ASSEMBLY, Rear Trailing Link.>