# 4. Front Hub Unit Bearing

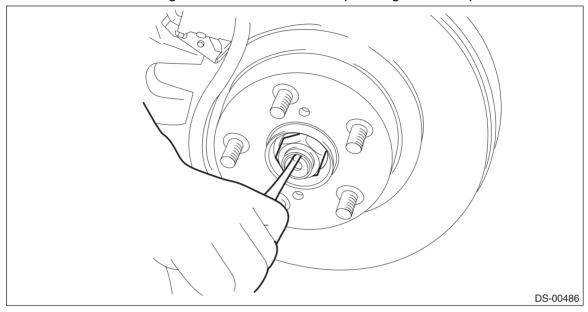
### A: REMOVAL

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

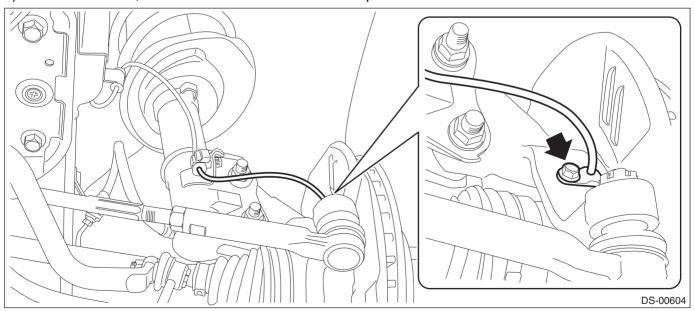
#### **CAUTION:**

Do not loosen the nut - axle while the front axle is loaded. Doing so may damage the hub unit COMPL.

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



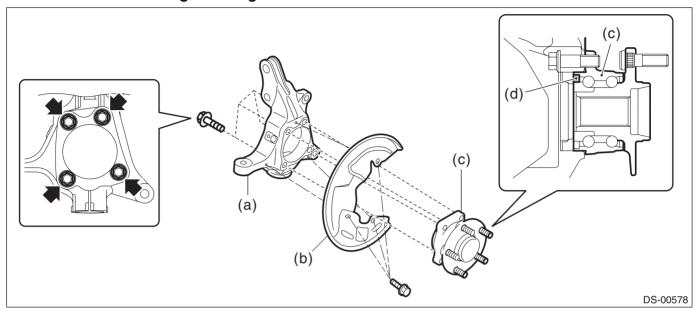
- 3) Remove the disc brake assembly. <Ref. to BR-25, REMOVAL, Front Disc Brake Assembly.>
- 4) Remove the disc rotor. <Ref. to BR-22, REMOVAL, Front Disc Rotor.>
- 5) Remove the bolts, and remove the front ABS wheel speed sensor.



6) Remove the hub unit COMPL - front axle.

#### **CAUTION:**

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



- (a) Housing ASSY front axle
- (c) Hub unit COMPL front axle
- (d) Magnetic encoder

(b) Back plate - front brake

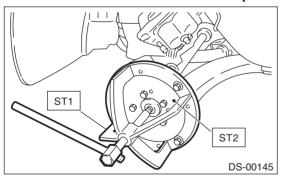
#### NOTE:

If it is hard to remove, use the ST.

## Preparation tool:

ST1: AXLE SHAFT PULLER (926470000)

ST2: AXLE SHAFT PULLER PLATE (28099PA110)

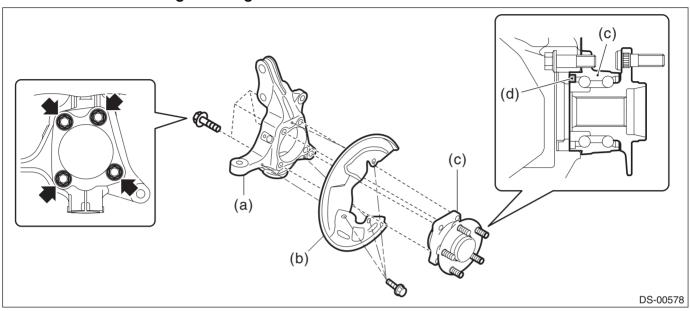


#### **B: INSTALLATION**

1) Tighten the back plate - front brake and the hub unit COMPL - front axle to the housing assembly - front axle with bolts.

#### **CAUTION:**

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



- (a) Housing ASSY front axle
- (c) Hub unit COMPL front axle
- (d) Magnetic encoder

(b) Back plate - front brake

### Tightening torque:

Back plate - front brake: 18 N⋅m (1.8 kgf-m, 13.3 ft-lb) Hub unit COMPL - front axle: 65 N⋅m (6.6 kgf-m, 47.9 ft-lb)

2) Install the front drive shaft assembly.

## **CAUTION:**

- · Do not hammer the drive shaft assembly when installing.
- Use new nut axle.
  - (1) Insert the drive shaft assembly into the hub spline, and pull it into the specified position.
  - (2) Tighten the new nut axle temporarily.
- 3) Install the disc rotor to the hub unit COMPL front axle.
- 4) Install the disc brake assembly to the housing assembly front axle.

### Tightening torque:

STI model: 155 N·m (15.8 kgf-m, 114.3 ft-lb)

Except for STI model: 80 N·m (8.2 kgf-m, 59.0 ft-lb)

5) Install the brake hose bracket.

#### Tightening torque:

33 N·m (3.4 kgf-m, 24.3 ft-lb)

6) Install the front ABS wheel speed sensor.

#### Tightening torque:

7.5 N·m (0.8 kgf-m, 5.5 ft-lb)

7) While depressing the brake pedal, tighten new nuts - axle to the specified torque.

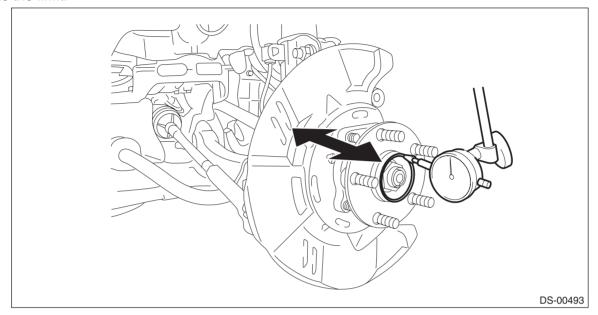
#### **CAUTION:**

Do not load the front axle before tightening the nut - axle. Doing so may damage the hub unit COMPL.

## Tightening torque:

220 N·m (22.4 kgf-m, 162.3 ft-lb)

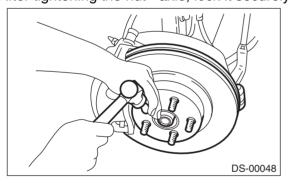
8) Inspect the lean of axis direction using a dial gauge. Replace the hub unit COMPL - front axle if the play exceeds the limit.



### Service limit:

Maximum: 0.05 mm (0.0020 in)

9) After tightening the nut - axle, lock it securely.

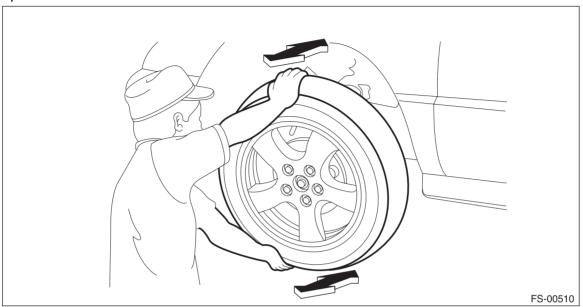


10) Install the front wheels, and perform the following inspections.

#### Tightening torque:

### 120 N⋅m (12.2 kgf-m, 88.5 ft-lb)

- 1. Check the wheels for smooth rotation.
- 2. Check that there is no play by moving the upper and lower portions of front tire in an axial direction with the brake pedal released.



- Play exists  $\rightarrow$  Check the hub unit COMPL front axle. <Ref. to DS-31, INSPECTION, Front Hub Unit Bearing.>
- 3. Check that there is no play by moving the upper and lower portions of front tire in an axial direction with the brake pedal depressed.
  - Play exists → Replace the ball joint assembly. <Ref. to FS-33, REMOVAL, Front Ball Joint.>

#### C: DISASSEMBLY

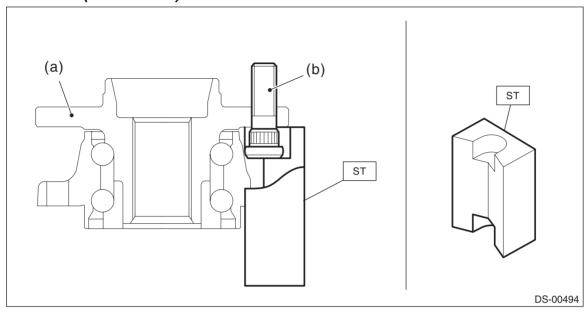
Using the ST or a hydraulic press, push out the bolt - hub (b) from the hub unit COMPL - front axle (a).

#### **CAUTION:**

- Be careful not to hammer the bolts hub. This may deform the hub unit COMPL.
- Do not reuse the bolt hub.

#### Preparation tool:

ST: HUB STAND (28399AG000)



#### NOTE:

Since the hub unit COMPL can not be disassembled, only bolts - hub can be removed.

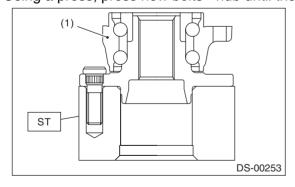
### D: ASSEMBLY

1) Install the hub unit COMPL to the ST securely.

## Preparation tool:

### ST: HUB STAND (28099PA080)

2) Using a press, press new bolts - hub until their seating surfaces contact the hub unit COMPL.



(1) Hub unit COMPL - front axle

#### NOTE:

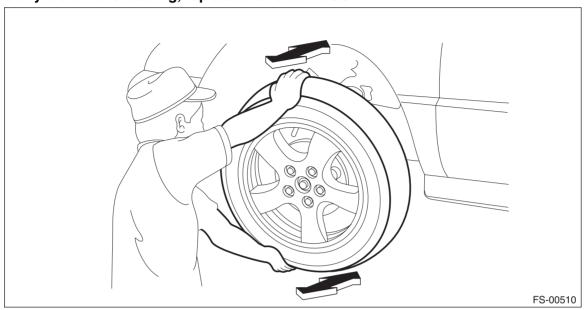
Use the 12 mm (0.47 in) dia. holes in the HUB STAND to prevent bolts from tilting.

## **E: INSPECTION**

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

#### **CAUTION:**

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



2) Inspect the lean of axis direction using a dial gauge. Replace the hub unit COMPL if the play exceeds the limit.

### Service limit:

Maximum: 0.05 mm (0.0020 in)

