

4. Front Hub Unit Bearing

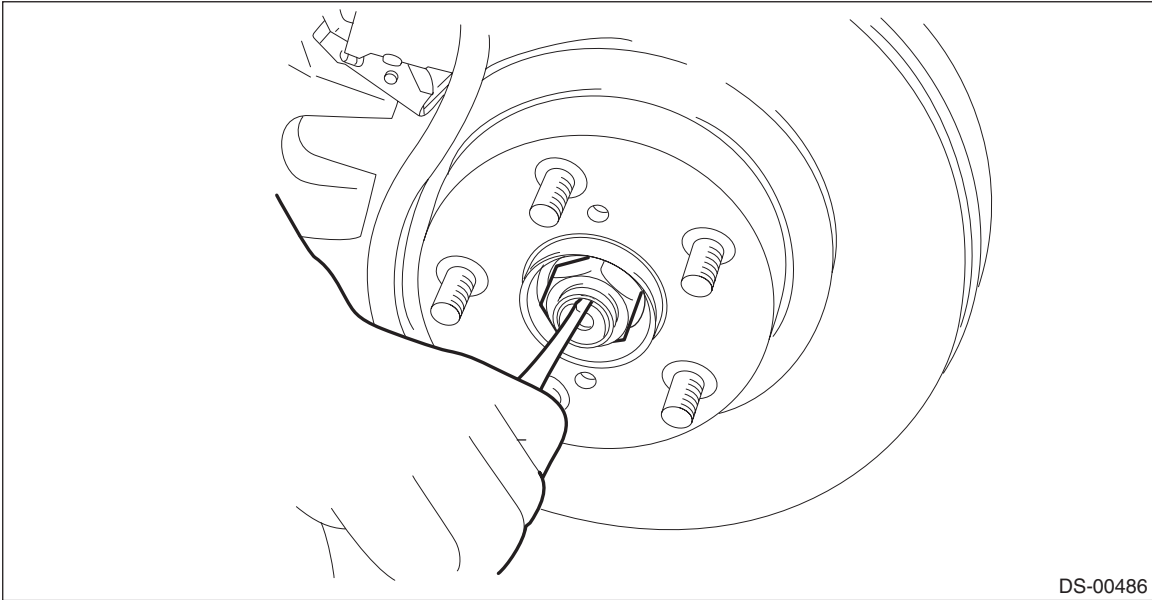
A: REMOVAL

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

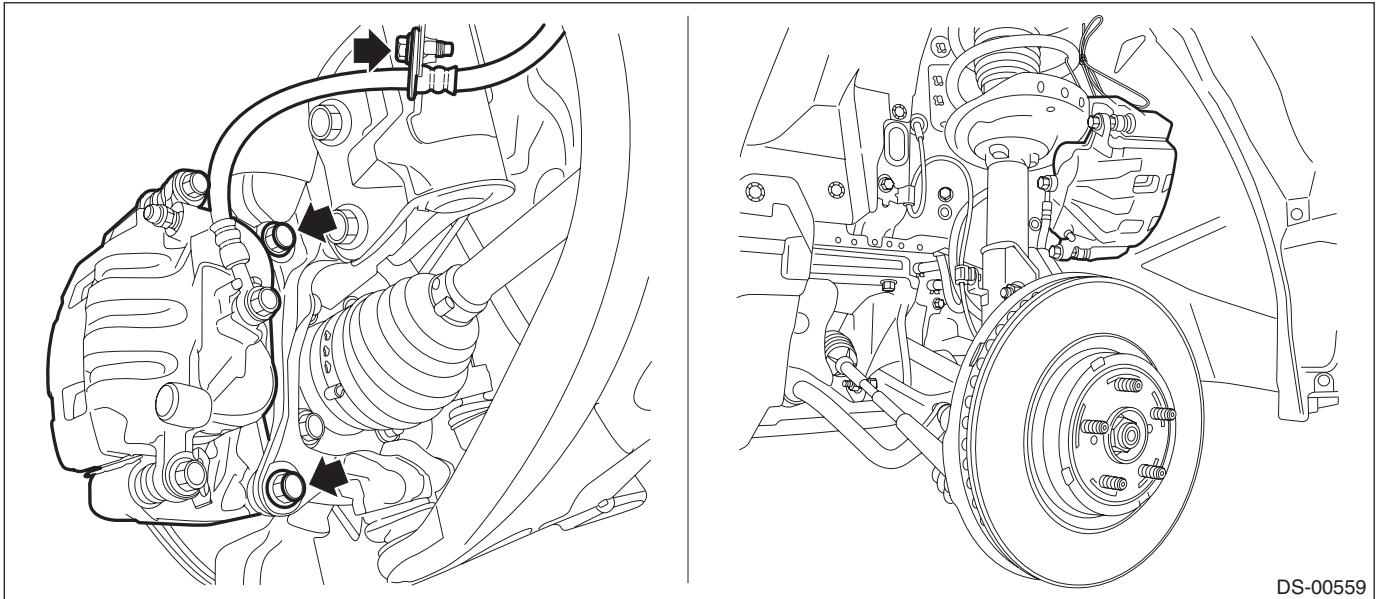
CAUTION:

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.



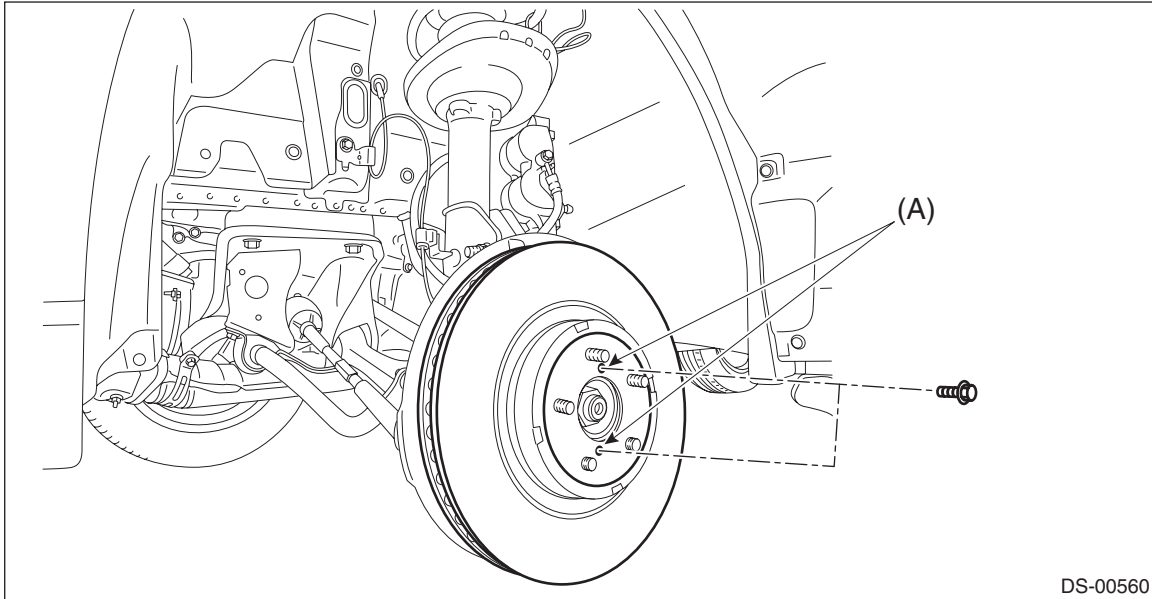
- 3) Remove the caliper body assembly from the housing assembly - front axle.
 - (1) Remove the mounting bolts, and then remove the caliper body assembly.
 - (2) Prepare wiring harnesses etc. to be discarded, and suspend the caliper body assembly from the strut assembly.



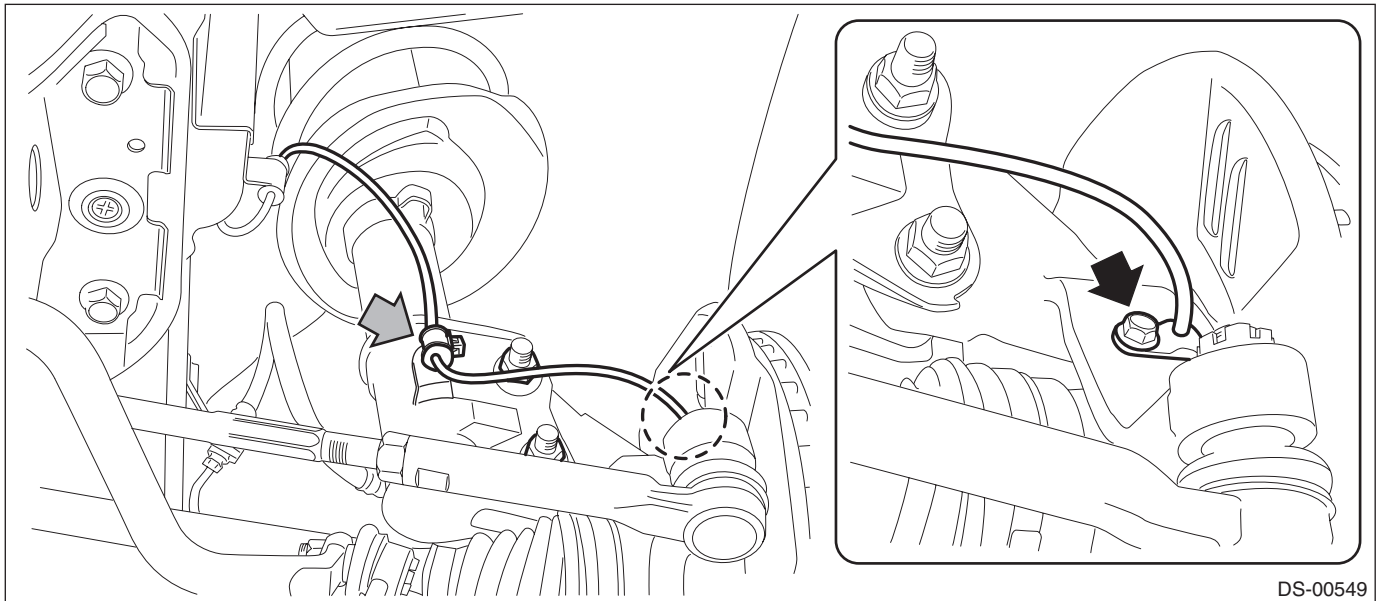
4) Remove the disc rotor.

NOTE:

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



5) Remove the bolts, and remove the front ABS wheel speed sensor.



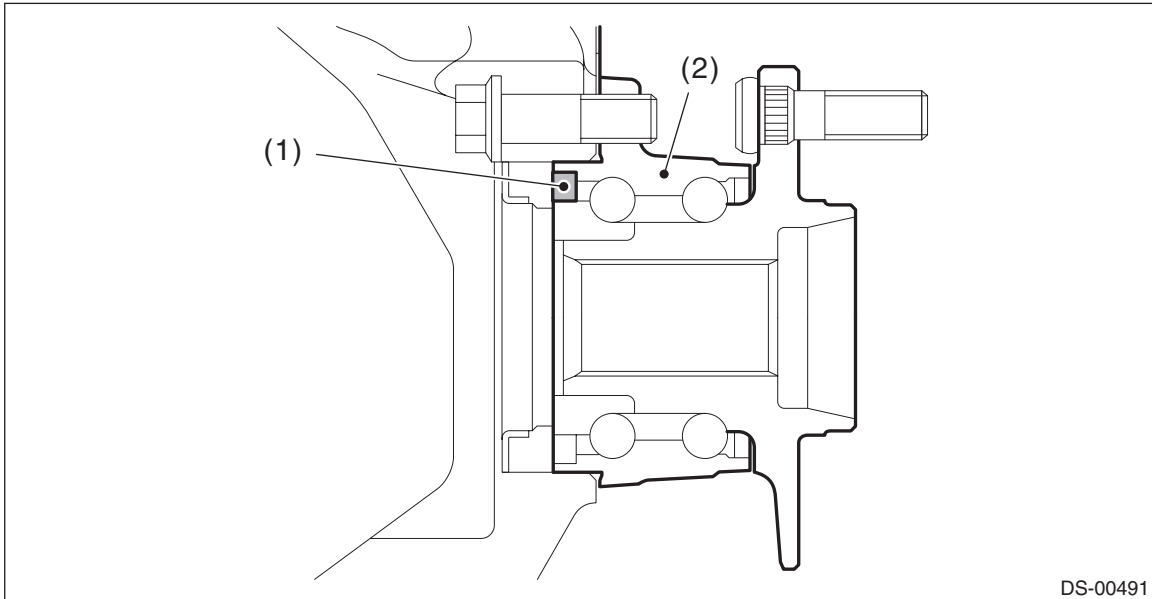
Front Hub Unit Bearing

DRIVE SHAFT SYSTEM

6) Remove the bolts from the housing assembly - front axle, and then remove the hub unit COMPL - front axle.

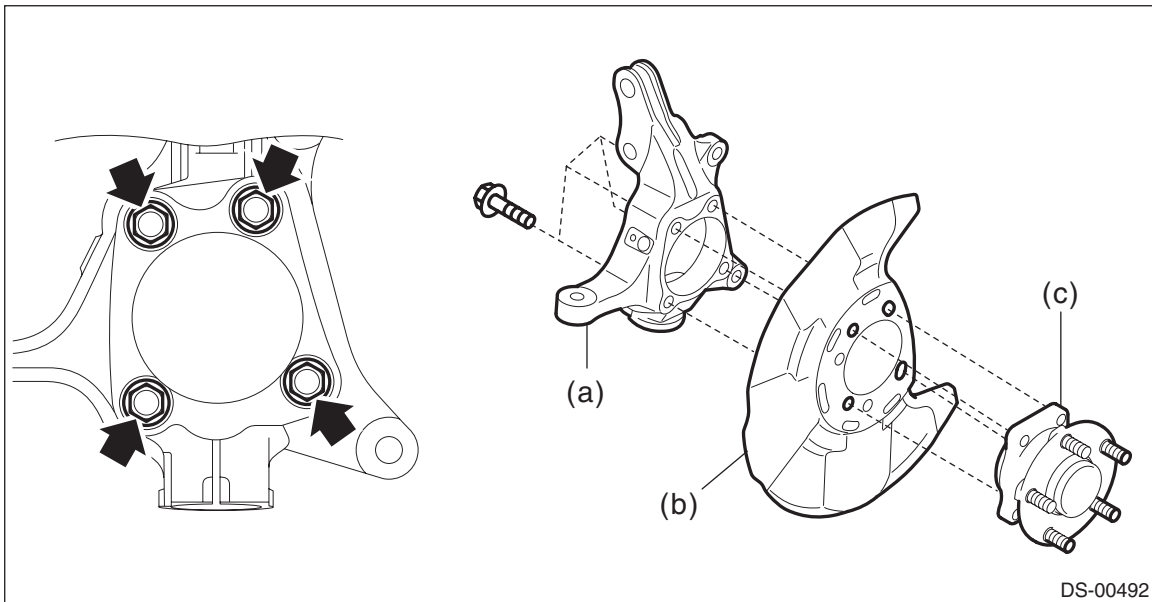
CAUTION:

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



(1) Magnetic encoder

(2) Hub unit COMPL - front axle



(a) Housing ASSY - front axle

(b) Back plate - front brake

(c) Hub unit COMPL - front axle

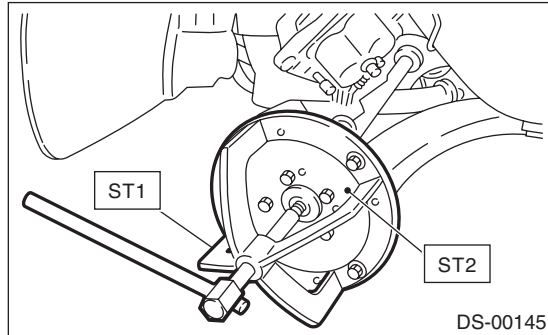
NOTE:

If it is hard to remove, use the ST.

Preparation tool:

ST1: AXLE SHAFT PULLER (926470000)

ST2: AXLE SHAFT PULLER PLATE (28099PA110)

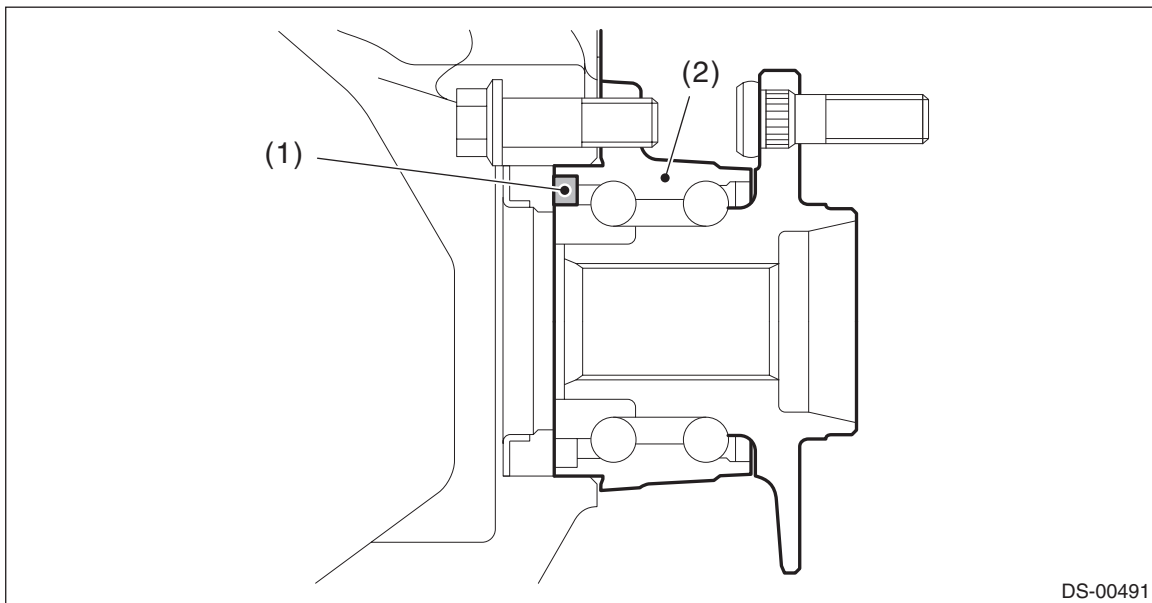


B: INSTALLATION

1) Place the back plate - front brake between the housing assembly - front axle and the hub unit COMPL - front axle, and tighten the bolt.

CAUTION:

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

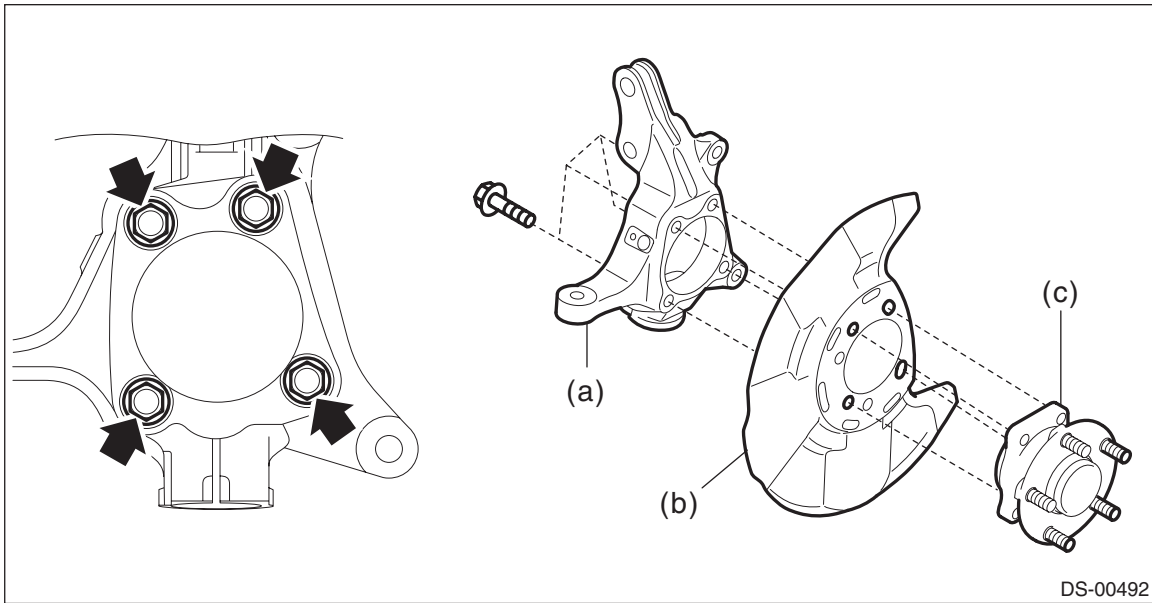


(1) Magnetic encoder

(2) Hub unit COMPL - front axle

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(a) Housing ASSY - front axle

(b) Back plate - front brake

(c) Hub unit COMPL - front axle

Tightening torque:

65 N·m (6.63 kgf-m, 47.9 ft-lb)

2) Install the front axle shaft assembly.

CAUTION:

- Do not tap the axle shaft using a hammer when installing axle shaft assembly.

- Use new nut - axle.

(1) Insert the axle shaft assembly into the hub spline, and pull in the axle shaft assembly into specified position.

(2) Temporarily tighten the nut - axle.

3) Install the disc rotor to the hub unit COMPL - front axle.

4) Install the caliper body assembly to the housing assembly - front axle.

Tightening torque:

80 N·m (8.16 kgf-m, 59.0 ft-lb)

5) Install the front ABS wheel speed sensor.

Tightening torque:

7.5 N·m (0.76 kgf-m, 5.5 ft-lb)

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

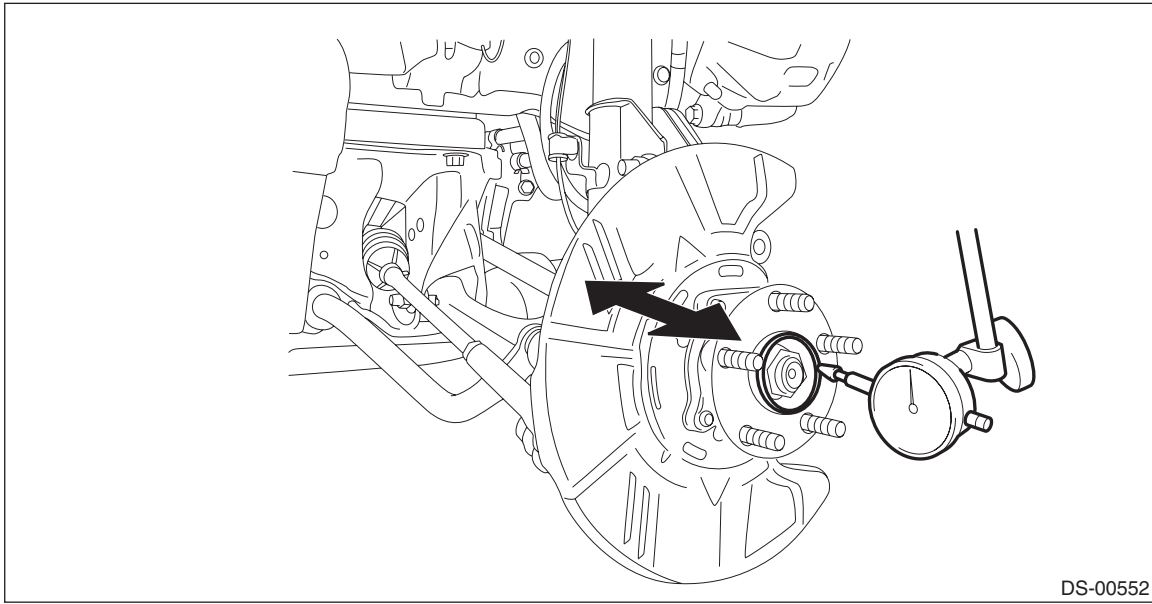
CAUTION:

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

Tightening torque:

220 N·m (22.43 kgf-m, 162.3 ft-lb)

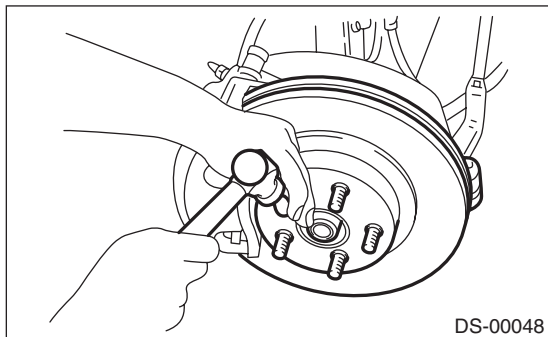
7) Inspect the lean of axis direction using a dial gauge. Replace the hub unit COMPL - front axle if the play exceeds the limit.



Service limit:

Maximum: 0.05 mm (0.0020 in)

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



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

Tightening torque:

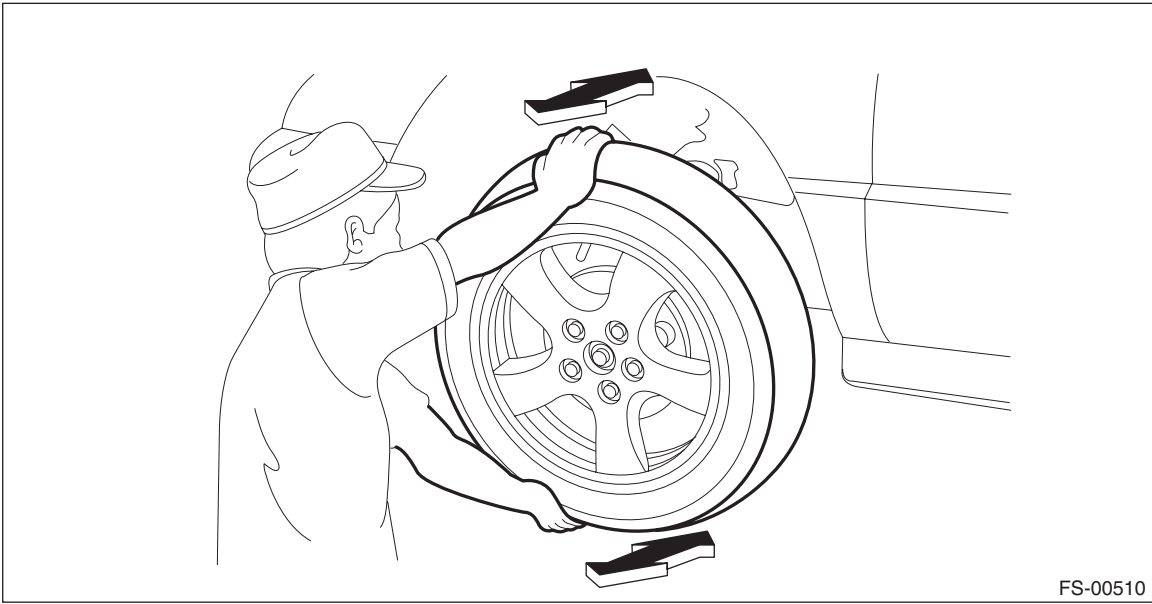
120 N·m (12.24 kgf-m, 88.5 ft-lb)

1. Check the wheels for smooth rotation.

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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** → Check the hub unit COMPL - front axle. <Ref. to DS-33, 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-31, REMOVAL, Front Ball Joint.>

C: DISASSEMBLY

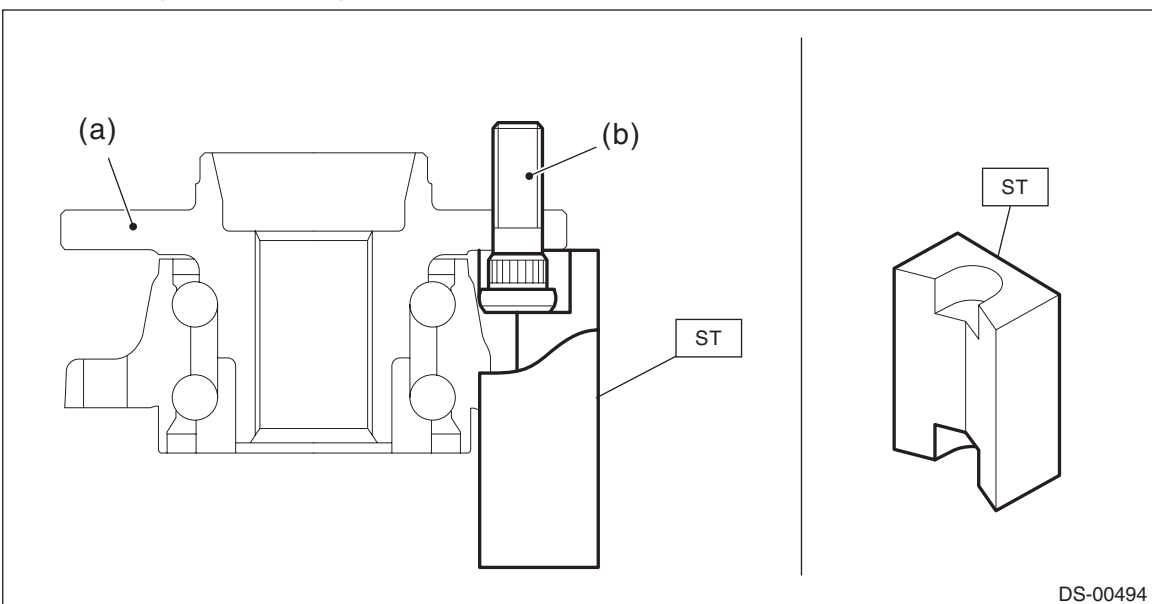
Using the ST or a hydraulic press, push out the bolt - hub (b) from the hub unit COMPL - front axle (a).

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.

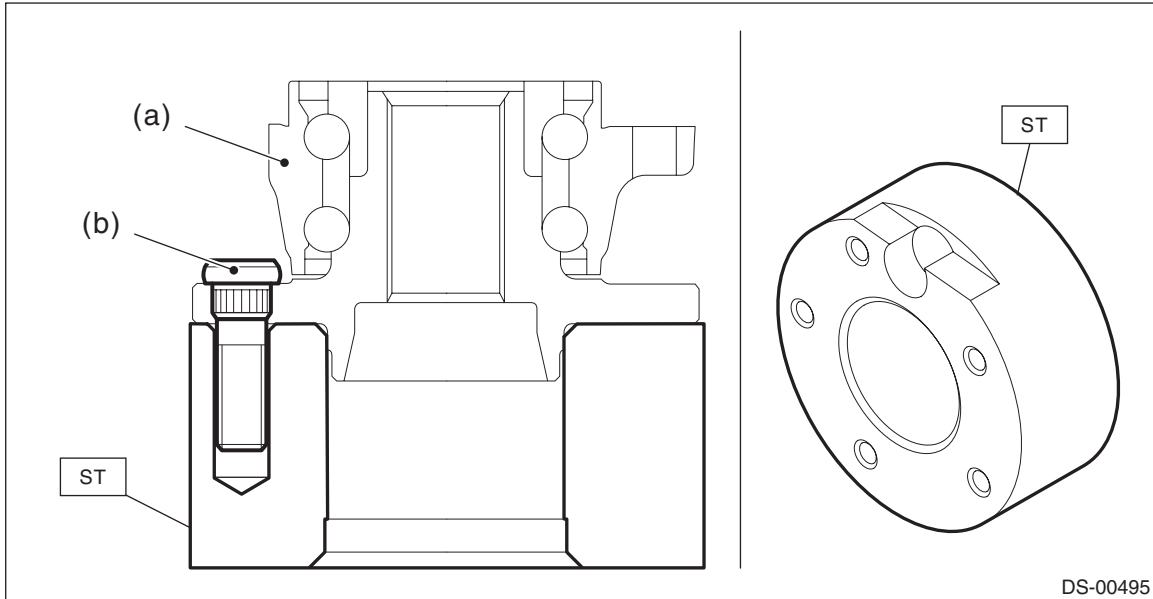
D: ASSEMBLY

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

PREPARATION TOOL:

ST: HUB STAND (927080000)

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



NOTE:

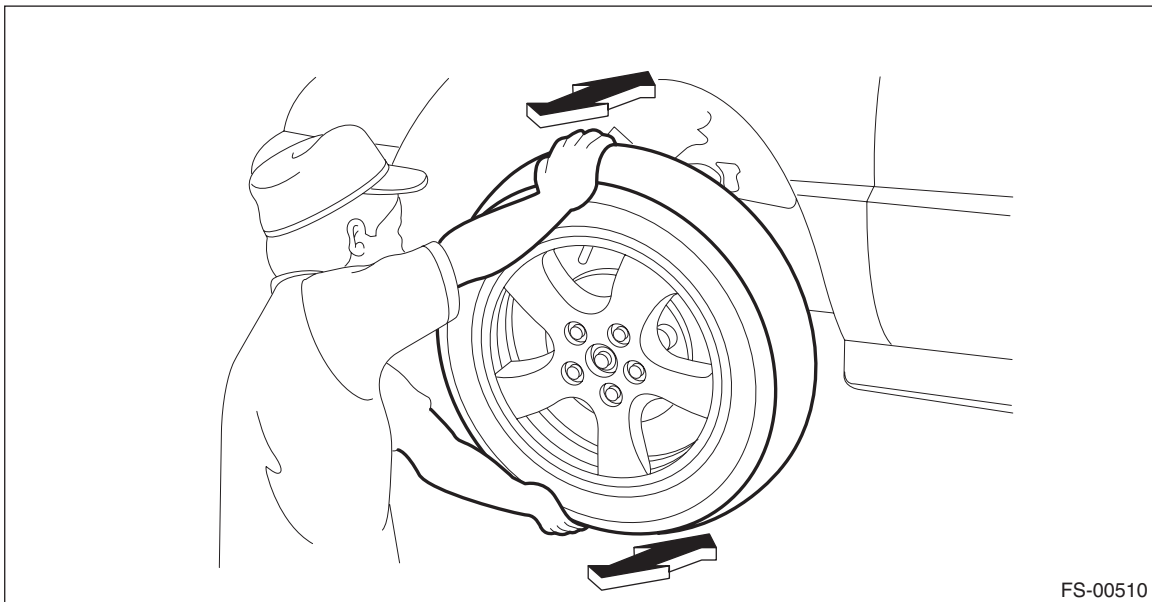
Use the 12 mm (0.47 in) dia. holes in the HUB STAND to prevent bolts from tilting.

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.



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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)

