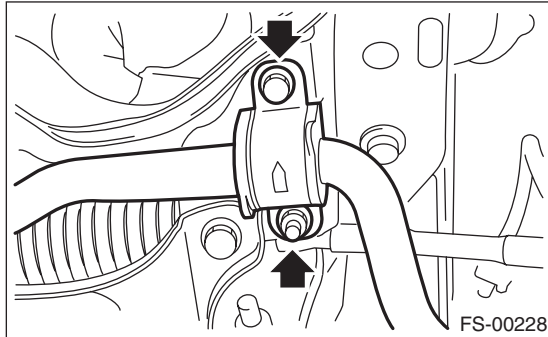


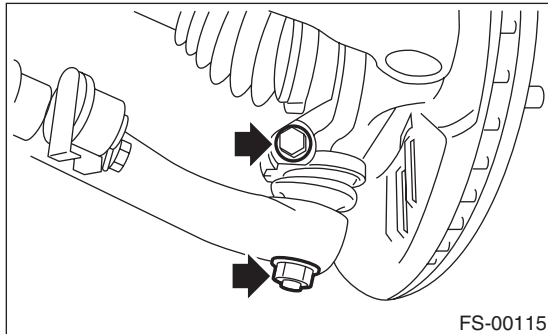
### 5. Front Ball Joint

#### A: REMOVAL

- 1) Lift-up the vehicle, and remove the front wheels.
- 2) Remove the both sides of stabilizer bracket.



- 3) Pull out the pin from ball stud, remove the castle nut, and extract the ball stud from front arm.
- 4) Remove the bolt installing ball joint to housing.



- 5) Extract the ball joint from housing.

#### B: INSTALLATION

- 1) Insert the ball joint into housing.

**Tightening torque (Bolt):**  
**50 N·m (5.1 kgf-m, 36.9 ft-lb)**

#### CAUTION:

**Do not apply grease to the tapered portion of ball stud.**

- 2) Install the ball joint into front arm.

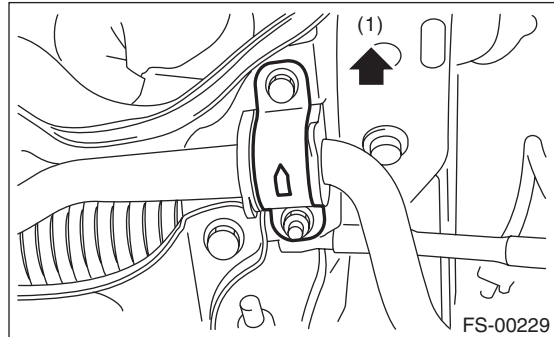
**Tightening torque (castle nut):**  
**Front arm (aluminium type):**  
**30 N·m (3.1 kgf-m, 22 ft-lb)**  
**Front arm (steel type):**  
**39 N·m (4.0 kgf-m, 28.8 ft-lb)**

- 3) Retighten the castle nut further up to 60° until the hole in the ball stud is aligned with a slot in castle nut. Then, insert a new cotter pin and bend it around the castle nut.

- 4) Install the stabilizer bracket.

#### NOTE:

The stabilizer bracket has a set orientation. Install it with the arrow mark facing the upper side of the vehicle.



(1) Front side of vehicle

#### Tightening torque:

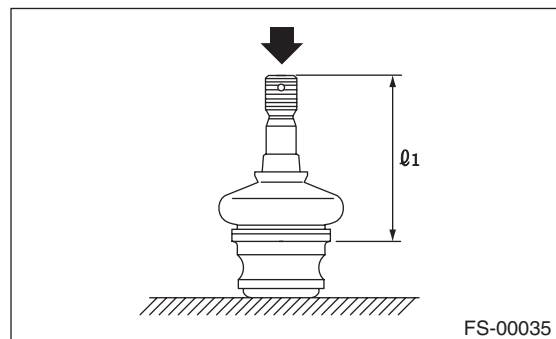
**25 N·m (2.5 kgf-m, 18.1 ft-lb)**

- 5) Install the front wheels.

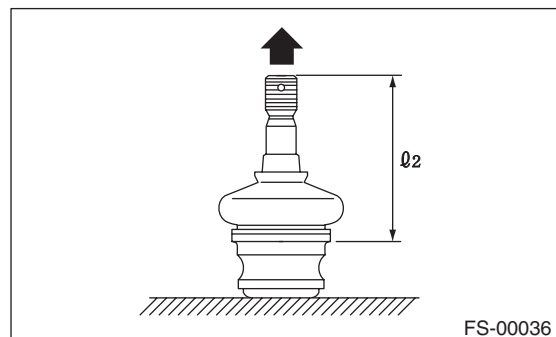
#### C: INSPECTION

- 1) Measure the play of the ball joint using the following procedures. Replace with a new part if the play exceeds specification.

- (1) With 686 N (70 kgf, 154 lb) loaded in direction shown in the figure, measure the length  $Q_1$ .



- (2) With 686 N (70 kgf, 154 lb) loaded in direction shown in the figure, measure the length  $Q_2$ .



(3) Determine free play using the following formula.

$$S = \varnothing_2 - \varnothing_1$$

(4) Replace with a new part if the play exceeds specification.

## **Front ball joint**

### **Specification for replacement S:**

**Less than 0.3 mm (0.012 in)**

2) If the play is within specification, visually check the dust cover.

3) Remove the ball joint and cover, and check for wear, damage or cracks. If any damage is found, replace the corresponding part.

4) If the dust cover is damaged, replace with a new ball joint.