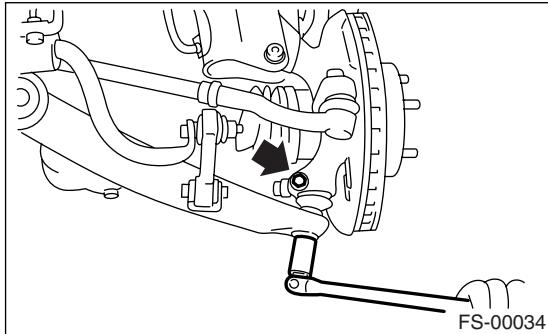


## 4. Front Ball Joint

### A: REMOVAL

- 1) Remove the wheels.
- 2) Pull out the cotter pin from the ball stud, remove the castle nut, and extract the ball stud from the transverse link.
- 3) Remove the bolts which secure the ball joint to the housing.



- 4) 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, 37 ft-lb)**

#### **CAUTION:**

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

- 2) Connect the ball joint to transverse link.

#### **Tightening torque (Castle nut):**

**40 N·m (4.1 kgf-m, 30 ft-lb)**

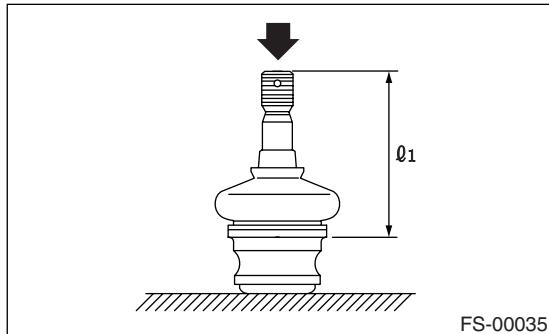
- 3) Tighten the castle nut further but within 60° until the hole in ball stud is aligned with a slot in castle nut. Then, insert a new cotter pin and bend it around the castle nut.

- 4) Install the front wheels.

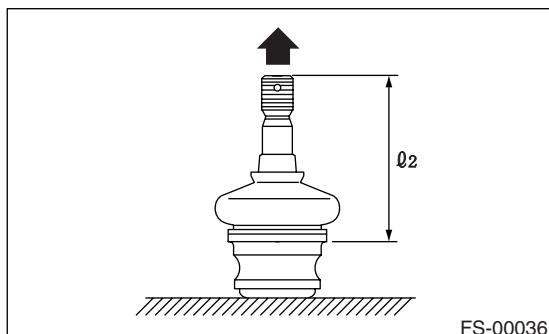
### C: INSPECTION

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

(1) While applying 686 N (70 kgf, 154 lb) of force in the direction shown in the figure, measure dimension  $\ell_1$ .



(2) While applying 686 N (70 kgf, 154 lb) of force in the direction shown in the figure, measure dimension  $\ell_2$ .



(3) Determine free play using the following formula.

$$S = \ell_2 - \ell_1$$

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

#### **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.