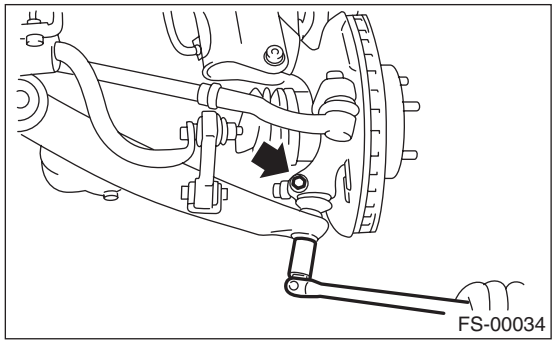
4. Front Ball Joint

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.

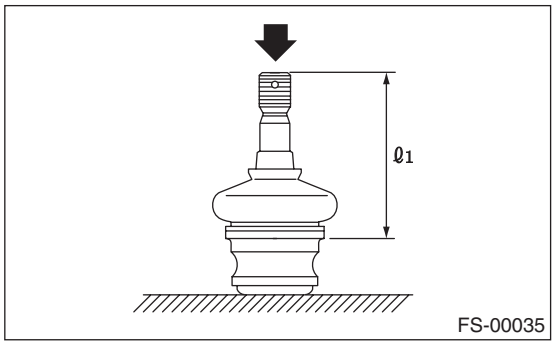
2) Connect the ball joint to transverse link.

Tightening torque (Castle nut):
40 N·m (4.1 kgf-m, 30 ft-lb)

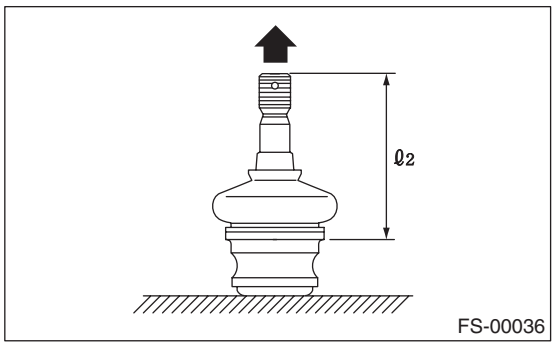
3) Tighten the castle nut further but within 60° until the hole in ball stud is aligned with a slot in castle nut. Then, insert a new cotter pin and bend it around the castle nut.
4) Install the front wheels.

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 ℓ_1.



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