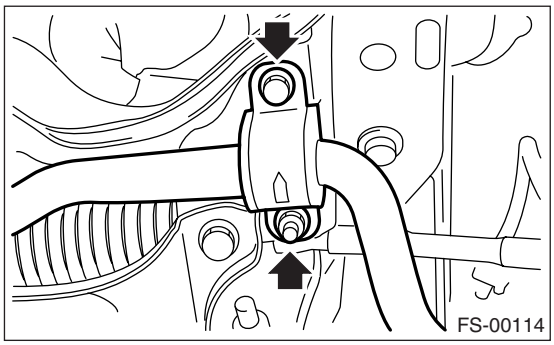
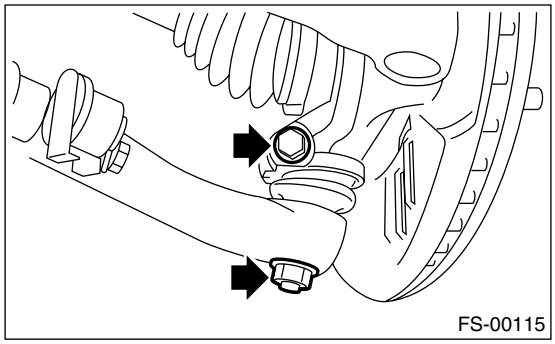
5. Front Ball Joint

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)

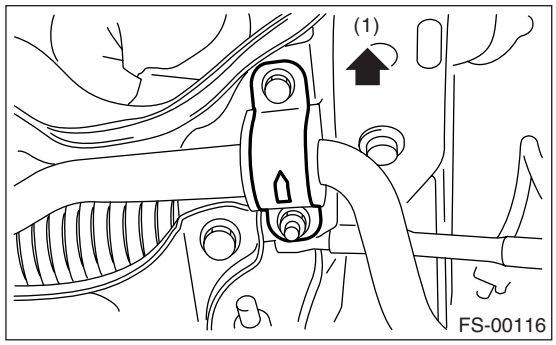
CAUTION:
Do not apply grease to the tapered portion of ball stud.

2) Install the ball joint into front arm.

Tightening torque (Castle nut)
Front arm:
39 N·m (4.0 kgf-m, 28.8 ft-lb)

3) Retighten the castle nut further 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 castle nut.
4) Install the stabilizer bracket.

NOTE:
Stabilizer bracket has an orientation, so install it with the arrow mark faced to the front side of vehicle.



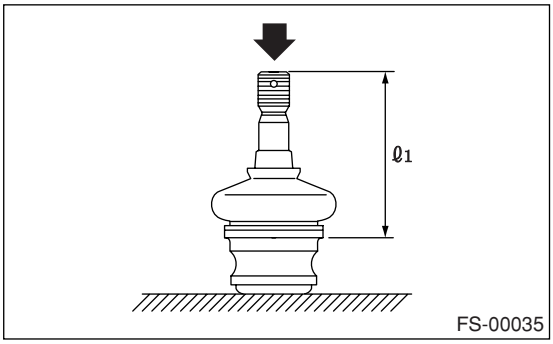
(1) Front side of vehicle

Tightening torque:
25 N·m (2.5 kgf-m, 18.1 ft-lb)

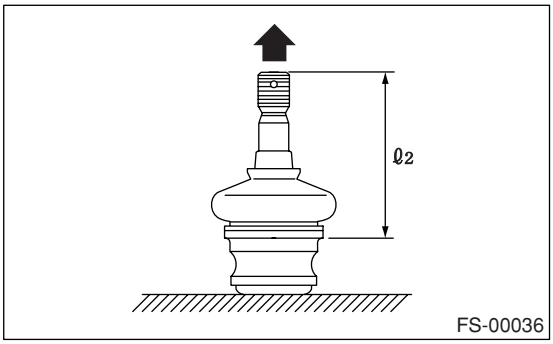
5) Install the front wheels.

C: INSPECTION

1) Measure the play of ball joint by the following procedures. Replace with a new one when the play exceeds specified value.
(1) With 686 N (70 kgf, 154 lb) loaded in direction shown in the figure, measure the dimension ℓ_1.



(2) With 686 N (70 kgf, 154 lb) loaded in direction shown in the figure, measure the dimension ℓ_2.



(3) Determine the plays from the following formula. $S = \ell_2 - \ell_1$

(4) Replace with a new one when the play exceeds specified value.

FRONT BALL JOINT

Specified play for replacement S:
Less than 0.3 mm (0.012 in)

2) When the play is within specified value, visually check the dust cover.
3) Remove the ball joint and cover, check them for wear, damage or cracks, and then replace them if any defective part is found.
4) If the dust cover is damaged, replace with a new ball joint.