

## **Ball Joint**

(See page SA-17)

**INSPECTION OF BALL JOINTS** 

# 1. INSPECT LOWER BALL JOINT FOR EXCESSIVE LOOSENESS

- (a) Jack up the front of the vehicle and support it with stands.
- (b) Make sure the front wheels are in a straight forward position, and depress the brake pedal.
- (c) Move the lower arm up and down and check that the lower ball joint has no excessive play.

  Maximum vertical play: 0 mm (0 in.)

## 2. INSPECT UPPER BALL JOINT FOR EXCESSIVE LOOSENESS

Move the wheel up and down and check that the upper ball joint has no excessive play.

Maximum vertical play: 2.3 mm (0.091 in.)

#### 3. INSPECT BALL JOINT ROTATION CONDITION

- (a) Remove the ball joint.
- (b) As shown in the figure, flip the ball joint stud back and forth 5 times before installing the nut.
- (c) Using a torque gauge, turn the nut continuously one turn every 2–4 seconds and take the torque reading on the 5th turn.

Torque (turning):

Lower ball joint 0.1 – 4.9 N-m (1– 50 kgf –cm, 1 – 43 in.–lbf) Upper ball joint 2.0 – 3.9 N-m

(20– 40 kgf –cm, 17 – 35 in.–lbf)

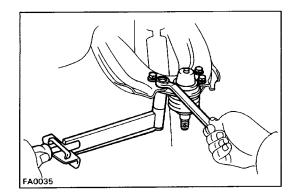
REMOVAL OF BALL JOINTS

1. REMOVE STEERING KNUCKLE

(See page SA-15)

2. REMOVE LOWER BALL JOINT FROM LOWER ARM

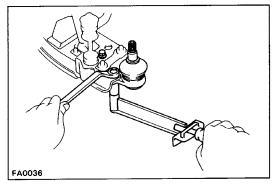
## 3. REMOVE UPPER BALL JOINT FROM UPPER ARM



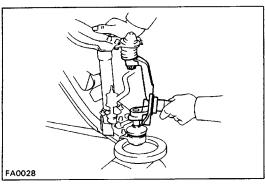
### **INSTALLATION OF BALL JOINTS**

1. INSTALL UPPER BALL JOINT TO UPPER ARM

Torque: 31 N-m (320 kgf-cm, 23 ft-lbf)



2. INSTALL LOWER BALL JOINT TO LOWER ARM Torque: 127 N-m (1,300 kgf-cm, 94 ft-lbf)



3. INSTALL STEERING KNUCKLE (See page SA-16)