

## FRONT WHEEL ALIGNMENT INSPECTION

SA0R3-02

### 1. MEASURE VEHICLE HEIGHT

| Tire size     | Front* <sup>1</sup> mm (in.) | Rear* <sup>2</sup> mm (in.) |
|---------------|------------------------------|-----------------------------|
| 225/55R16 94V | 239 (9.41)                   | 225 (8.86)                  |

#### \*1: Front measuring point

Measure the distance from the ground to the center of the lower suspension arm mounting bolt.

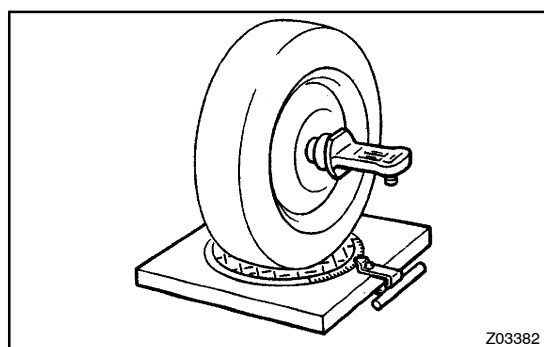
#### \*2: Rear measuring point

Measure the distance from the ground to the center of the No.2 lower suspension arm mounting bolt.

#### NOTICE:

**Before inspecting the wheel alignment, adjust the vehicle height to the specification.**

If the vehicle height is not within the specification, try to adjust it by pushing down on or lifting the body.



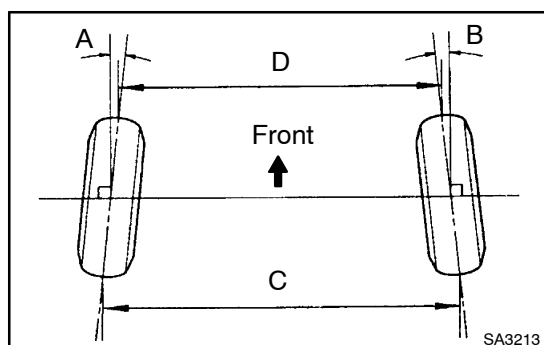
### 2. INSTALL CAMBER-CASTER-KINGPIN GAUGE ONTO WHEEL ALIGNMENT TESTER

Follow the specific instructions of the equipment manufacturer.

### 3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

|                           |  |
|---------------------------|--|
| Camber                    | $-0^{\circ}18' \pm 30'$ ( $-0.3^{\circ} \pm 0.5^{\circ}$ ) |
| Left-right error          | 30' (0.5°) or less   |
| Caster                    | $7^{\circ}28' \pm 30'$ ( $7.47^{\circ} \pm 0.5^{\circ}$ )  |
| Left-right error          | 30' (0.5°) or less   |
| Steering axis inclination | $8^{\circ}54' \pm 30'$ ( $8.9^{\circ} \pm 0.5^{\circ}$ )   |
| Left-right error          | 30' (0.5°) or less   |

If the camber is not within the specification, adjust it by adjusting cam.



### 4. INSPECT TOE-IN

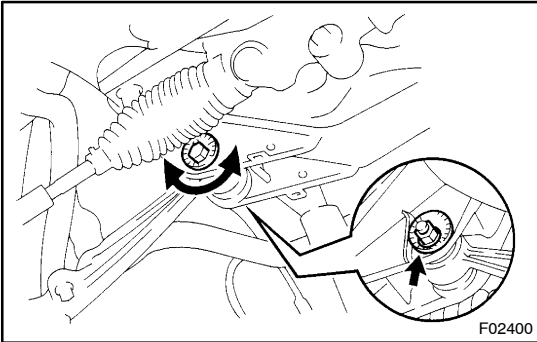
|                |  |
|----------------|--|
| Toe-in (total) | A + B: $0^{\circ}09' \pm 12'$ ( $0.15^{\circ} \pm 0.2^{\circ}$ )<br>C - D: $1.5 \pm 2$ mm ( $0.06 \pm 0.08$ in.) |
|----------------|--|

If the toe-in is not within the specification, adjust it at the rack ends.

## 5. ADJUST CAMBER

### HINT:

- After adjusting the camber, inspect the caster and toe-in.
- Try adjusting the camber to the center value of the specification.



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- Loosen the camber adjusting cam nut of the lower suspension arm.
- Turn the camber adjusting cam of the lower suspension arm and adjust the camber.

### HINT:

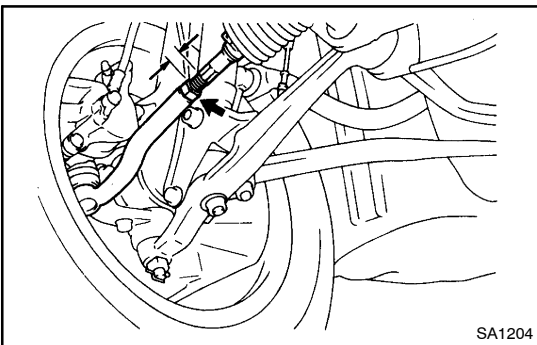
Camber changes about 5' (0.08°) with each graduation of the adjusting cam.

- Torque the camber adjusting cam nut of lower suspension arm.

**Torque: 172 N·m (1,755 kgf·cm, 127 ft·lbf)**

## 6. ADJUST TOE-IN

- Remove the boot clips.



SA1204

- Loosen the tie rod end lock nuts.
- Turn the left and right rack ends an equal amount to adjust the toe-in.

### HINT:

- Try to adjust the toe-in to the center value.
- Make sure that the lengths of the left and right rack ends are same.

**Rack end length difference: 1.5 mm (0.059 in.) or less**

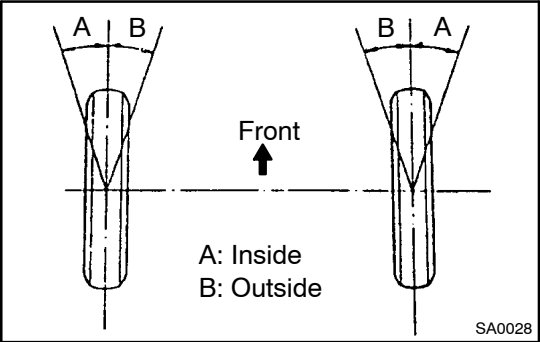
- Torque the tie rod end lock nuts.

**Torque: 56 N·m (570 kgf·cm, 41 ft·lbf)**

- Place the boot on the seat and clamp it.

### HINT:

Make sure that the boots are not twisted.



7. INSPECT WHEEL ANGLE

Turn the steering wheel fully, and measure the turning angle.

|                           |  |
|---------------------------|--|
| Inside wheel              | 38°51' (36°51' – 39°51')<br>38.85° (36.85° – 39.85°) |
| Outside wheel (Reference) | 32°08'<br>32.13°                                     |

If the wheel angles differ from the standard of the specification, inspect the toe-in.