

## FRONT WHEEL ALIGNMENT INSPECTION

SA1FZ-06

### 1. MEASURE VEHICLE HEIGHT (See page [SS-59](#))

Measuring points:

- A: Ground clearance of the front drive shaft center
- B: Ground clearance of the front adjusting cam bolt center
- C: Ground clearance of the rear axle shaft center
- D: Ground clearance of the leaf spring front side bushing center

Vehicle height:

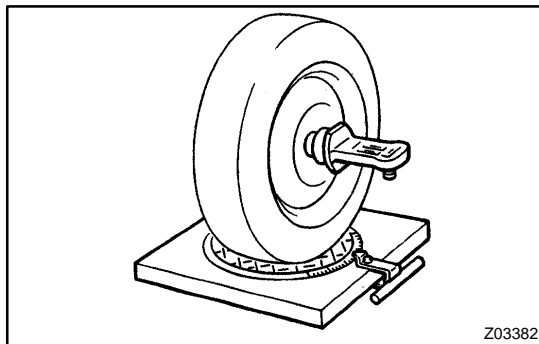
Front:  $A - B$

Rear:  $C - D$

#### NOTICE:

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

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



### 2. INSTALL CAMBER-CASTER-KINGPIN GAUGE OR POSITION VEHICLE ON WHEEL ALIGNMENT TESTER

Follow the specific instructions of the equipment manufacturer.

### 3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION (See page [SS-59](#))

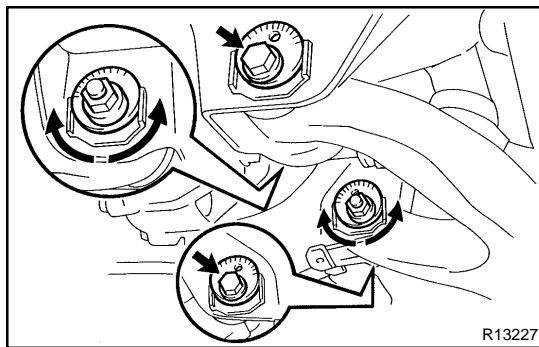
If the steering axis inclination is not within the specified value, after the camber and caster have been correctly adjusted, re-check the steering knuckle and front wheel for bearing or looseness.

### 4. ADJUST CAMBER AND CASTER

- (a) Loosen the front and/or rear adjusting cam set bolts.
- (b) Adjust the camber and caster by front and/or rear adjusting cams (See adjustment chart).

HINT:

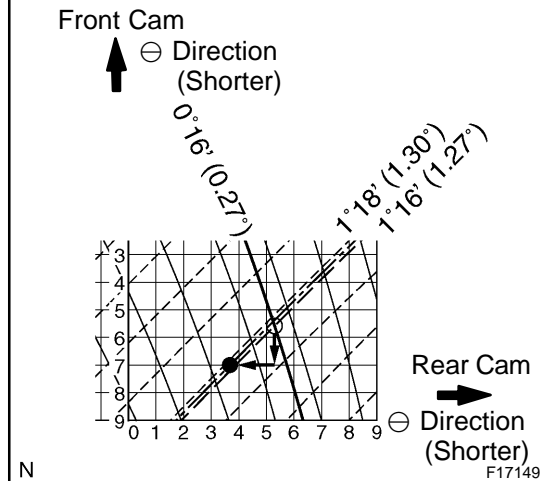
Try to adjust the camber and caster to the center of the specified values.



**Example**

- = Standard value point  
○ = Measured value point

—— Camber  
----- Caster



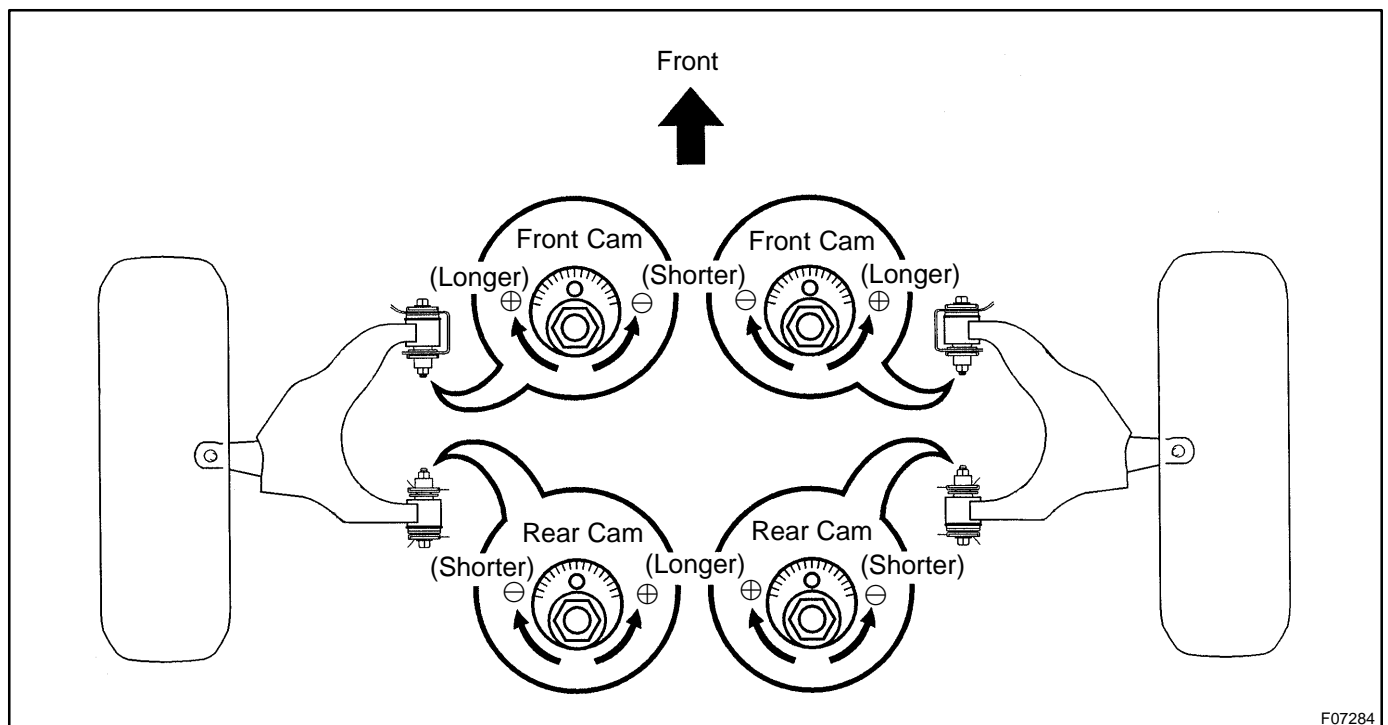
- (c) How to read adjustment chart (Example).
- (1) Find the applicable wheel alignment standard value for the particular model.
  - (2) Mark the selected standard value on the adjustment chart.

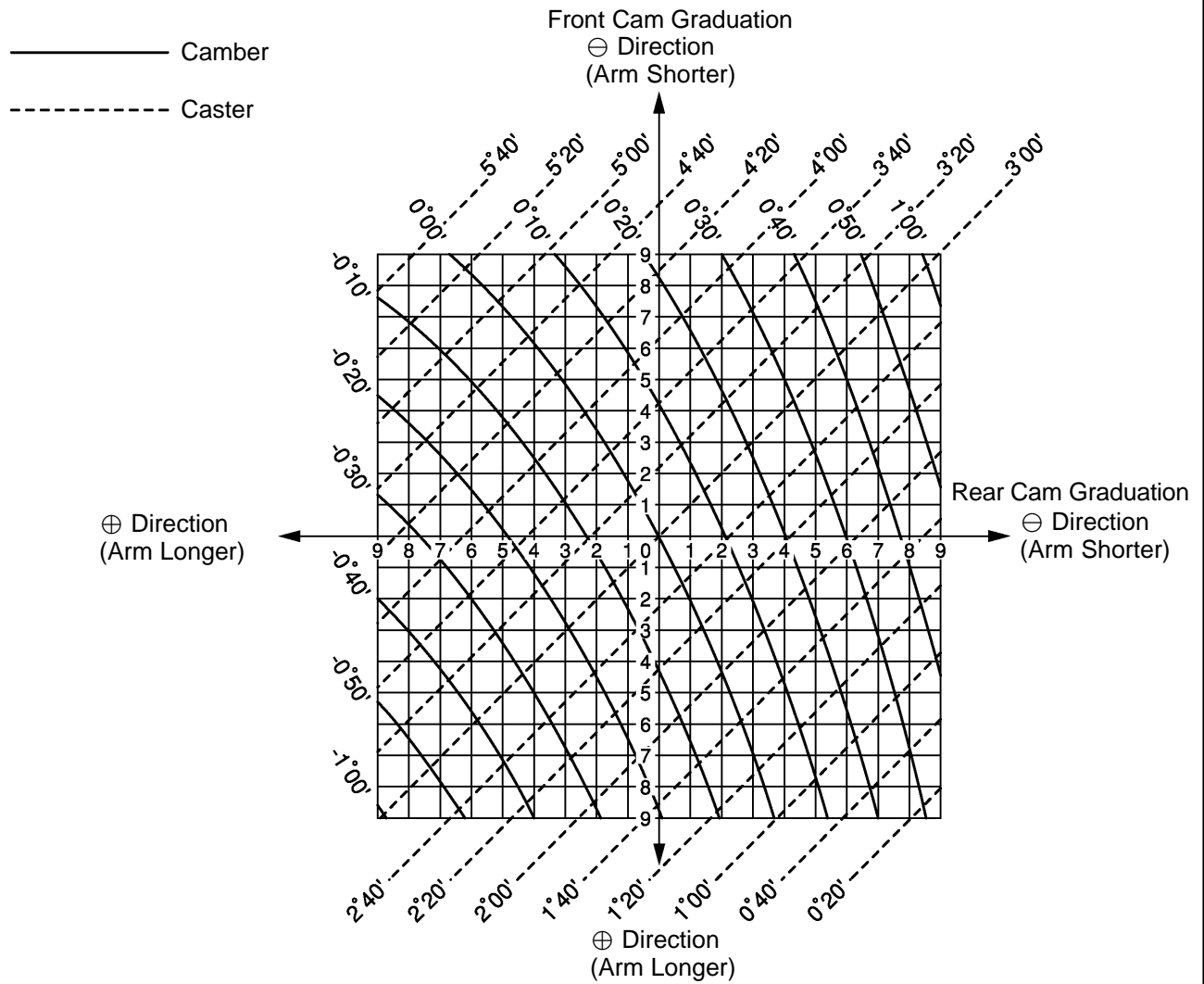
**Example:****Camber: 0°16' (0.26°)****Caster: 1°17' (1.28°)**

- (3) Measure the present wheel alignment value with the vehicle in non-loaded condition.
- (4) Mark the measured present value on the adjustment chart.

**Example:****Camber: 0°50' (0.83°)****Caster: 1°18' (1.30°)**

- (5) As shown in the example chart, read the distance from the measured value to the standard value, and adjust the front and/or rear adjusting cams accordingly.

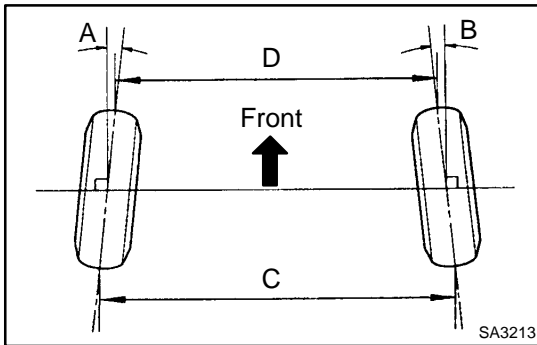
**Amount to turn adjusting cams (by graduation):****Example:****Front cam: 1.4 ⊕ Direction****Rear cam: 1.5 ⊕ Direction**



C

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- (d) Torque the front and/or rear adjusting cam set bolts.  
**Torque: 130 N·m (1,325 kgf·cm, 96 ft·lbf)**

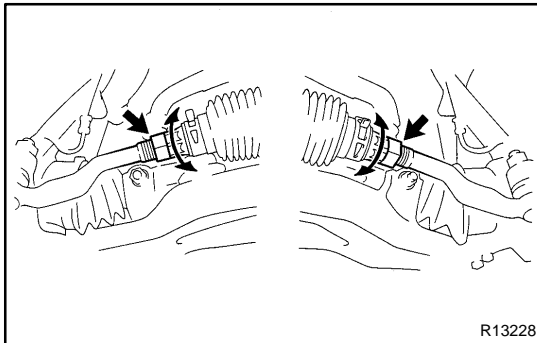


### 5. INSPECT TOE-IN (See page [SS-59](#))

If the toe-in is not within the specified value, adjust the rack ends.

### 6. ADJUST TOE-IN AND WHEEL ANGLE

- (a) Remove the 2 clips.

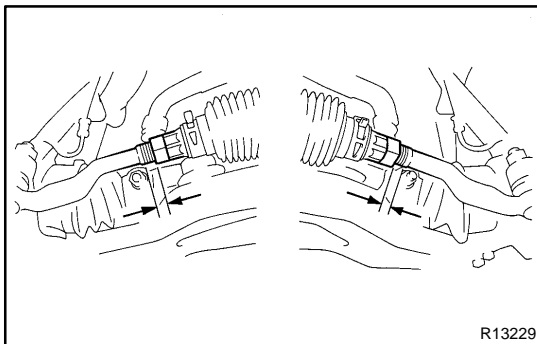


- (b) Loosen the tie rod end lock nuts.

- (c) Turn the right and left rack ends by an equal amount to adjust the toe-in.

HINT:

Try to adjust the toe-in to the center of the specified value.



- (d) Make sure that the lengths of the right and left rack ends are the same.

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

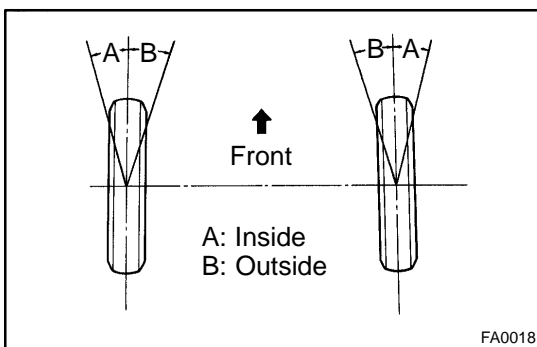
- (e) Tighten the tie rod end lock nuts.

**Torque: 55 N·m (560 kgf-cm, 41 ft-lbf)**

- (f) Place the boots on the seats and install the clips.

HINT:

Make sure that the boots are not twisted.



- (g) Inspect the wheel angle See page [SS-59](#).

Turn the steering wheel fully and measure the turning angle.

### Wheel turning angle:

If the right and left wheel turning angles differ from the specified value, readjust the toe-in and wheel angle within the specified value. At this time, make sure that the lengths of the right and left rack ends are the same.

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