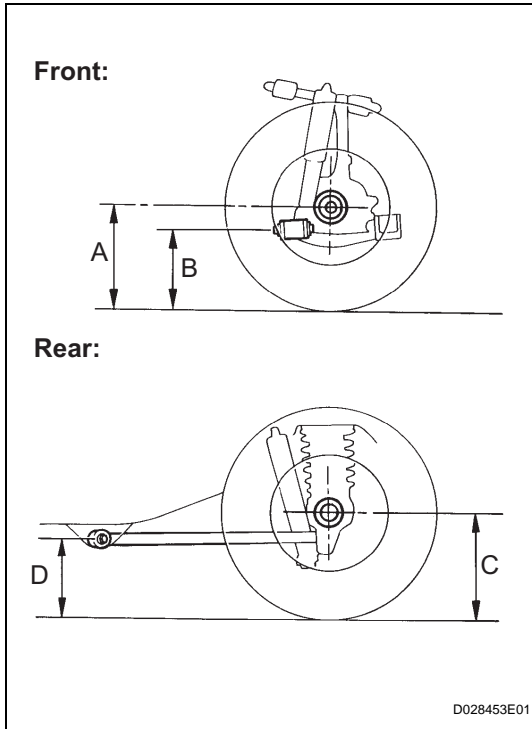


FRONT WHEEL ALIGNMENT

ADJUSTMENT

1. **INSPECT TIRES** (See page [TW-1](#))
2. **MEASURE VEHICLE HEIGHT**
Vehicle height



Vehicle Model	A-B	C-D
GSJ10L-GKASKA	115.9 mm (4.56 in.)	81.4 mm (3.20 in.)
GSJ15L-GKFSKA	87.0 mm (3.43 in.)	61.4 mm (2.42 in.)
GSJ15L-GKASKA	87.0 mm (3.43 in.)	61.6 mm (2.43 in.)

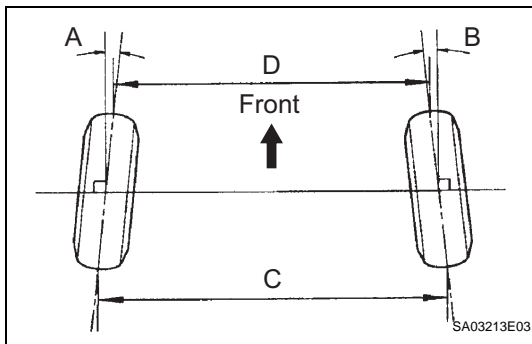
Measuring points:

- A:**
Ground clearance of front wheel center
- B:**
Ground clearance of adjustment cam bolt center
- C:**
Ground clearance of rear wheel center
- D:**
Ground clearance of lower control arm set bolt center

NOTICE:

Before inspecting the wheel alignment, check the vehicle height.

Bounce the vehicle up and down at the corners to stabilize the suspension before inspecting the vehicle height.



3. **INSPECT TOE-IN**
Toe-in

A+B	C-D
0°05' +- 0°10' (0.08° +- 0.16°)	1.0 +- 2.0 mm (0.04 +- 0.08 in.)

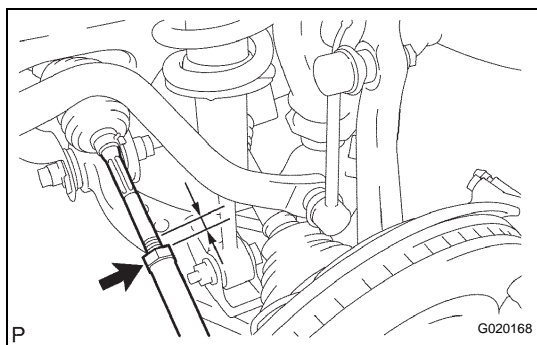
If the toe-in is not within the specified range, adjust it at the rack ends.

4. **ADJUST TOE-IN**

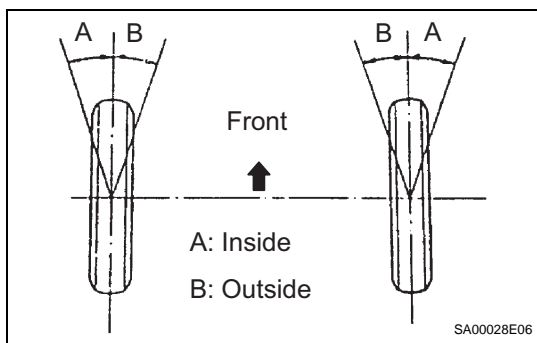
- (a) Remove the rack boot set clips.
- (b) Loosen the tie rod end lock nuts.
- (c) Turn the right and left rack ends uniformly to adjust the toe-in.

HINT:

Try to adjust the toe-in to the middle of the specified range.



- (d) Make sure that the lengths of the right and left rack ends are the same.
- (e) Torque the tie rod end lock nuts.
Torque: 88 N*m (897 kgf*cm, 65 ft.*lbf)
- (f) Place the boots on the seats and install the clips.
HINT:
Make sure that the boots are not twisted.



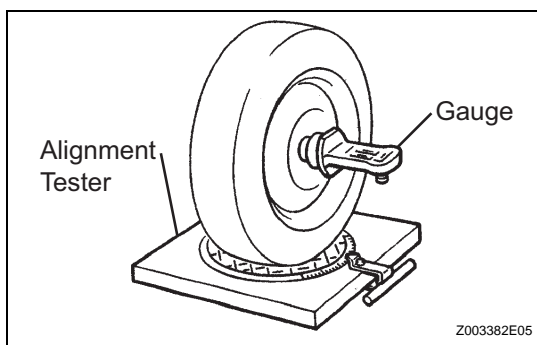
5. INSPECT WHEEL TURNING ANGLE

- (a) Turn the steering wheel fully, and measure the wheel turning angle.

Wheel turning angle

Vehicle Model	Inside wheel	Outside wheel (Reference)
GSJ10L-GKASKA	32°45' (30°45' to 33°45') 32.75° (30.75° to 33.75°)	28°56' (28.93°)
GSJ15L-GKFSKA	33°10' (31°10' to 34°10') 33.17° (31.17° to 34.17°)	29°38' (29.63°)
GSJ15L-GKASKA	33°10' (31°10' to 34°10') 33.17° (31.17° to 34.17°)	29°38' (29.63°)

If the right and left turning angles of the inside and outside wheels are not within the specified ranges, check the right and left rack end lengths.



6. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

- (a) Install the camber-caster-kingpin gauge and position the front wheel on the wheel alignment tester.
- (b) Inspect the camber, caster and steering axis inclination.

Camber, caster and steering axis inclination

Vehicle Model	Camber	Caster	Steering Axis Inclination
GSJ10L-GKASKA	-0°34' +- 30' (-0.57° +- 0.50°)	3°34' +- 30' (3.57° +- 0.50°)	12°55' +- 30' (12.92° +- 0.50°)
GSJ15L-GKFSKA	0°09' +- 30' (0.15° +- 0.50°)	2°49' +- 30' (2.82° +- 0.50°)	12°21' +- 30' (12.35° +- 0.50°)
GSJ15L-GKASKA	0°09' +- 30' (0.15° +- 0.50°)	2°49' +- 30' (2.82° +- 0.50°)	12°21' +- 30' (12.35° +- 0.50°)

NOTICE:

- Perform the inspection while the vehicle is empty (without spare tires or tools on board).
- The tolerance for the difference between the left and right wheels is 30' (0.50°) or less for both the camber and caster.

If the steering axis inclination is not as specified after the camber and caster have been correctly adjusted, recheck the steering knuckle and front wheel for distortion and slack.

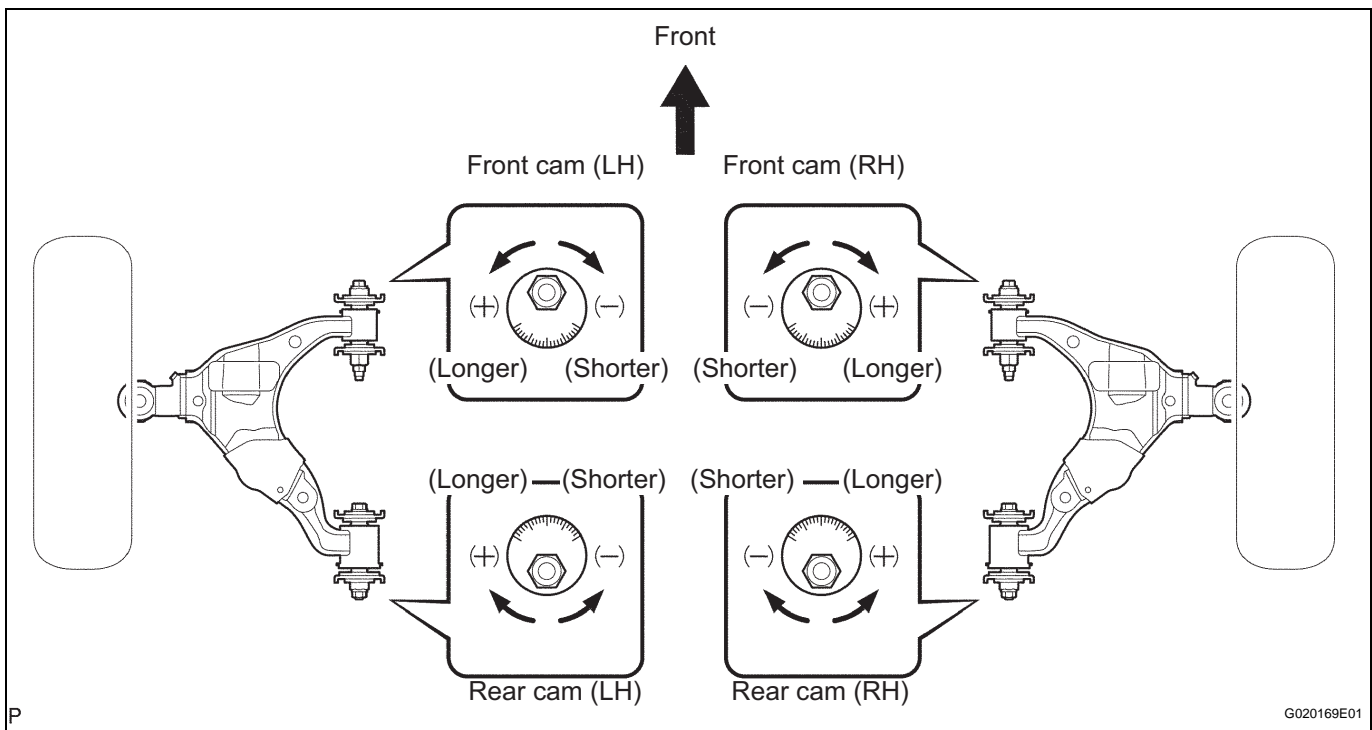
7. ADJUST CAMBER AND CASTER**NOTICE:**

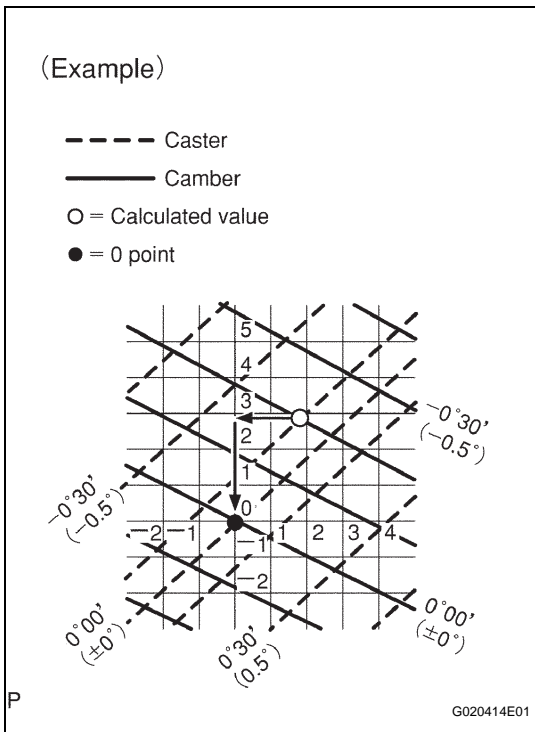
Inspect the toe-in after the camber has been adjusted.

- Loosen the nut and bolt.
- Turn camber adjust cam No. 2 and the toe adjust cam and adjust the camber and the caster.

HINT:

Try to adjust the camber and caster to the central values.





(c) How to read the adjustment chart (using examples).

(1) Measure the present alignment.

Camber:
 0°15' (0.25°)

Caster:
 2°45' (2.75°)

(2) Calculate the difference between the standard value (A) and the measured value (B) on the adjustment chart.

Standard value:

Camber:
 0°35' (0.58°)

Caster:
 2°55' (2.92°)

Formula:
 B - A = C

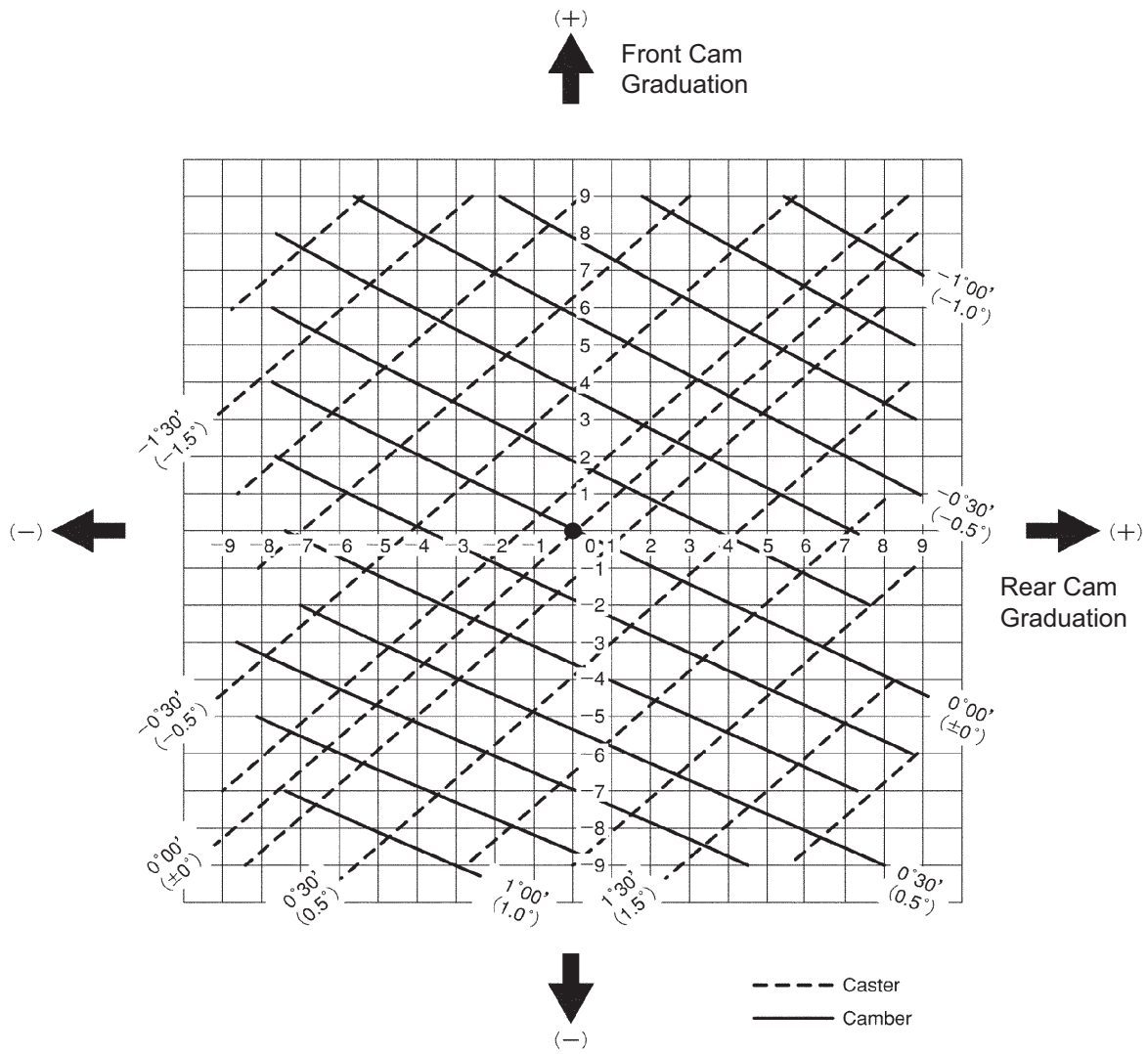
Camber:
 0°15' - (0°35') = -0°20'

Caster:
 2°45' - (2°55') = -0°10'

(3) As shown in the chart, read the distance from the marked point to 0 point, and adjust the front and/or rear adjusting cams accordingly.

Toe adjust cam:
 - (Shorter) 2.8

Camber adjust cam:
 - (Shorter) 1.8



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