

FRONT WHEEL ALIGNMENT INSPECTION

SA13W-02

1. MEASURE VEHICLE HEIGHT

Tire size	Front*1	Rear*2
185/60R14	188 mm (7.40 in.)	249 mm (9.80 in.)

*1: Front measuring point

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

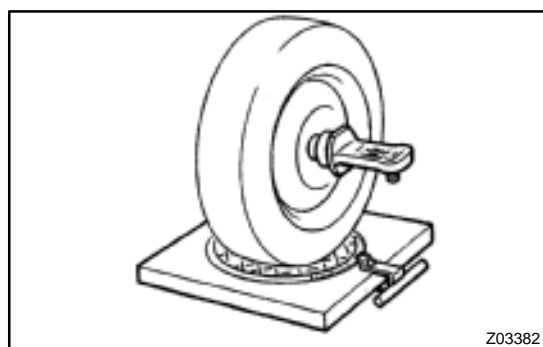
*2: Rear measuring point

Measure the distance from the ground to the center of the axle beam mounting bolt.

NOTICE:

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

If the vehicle height is not the specification, 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

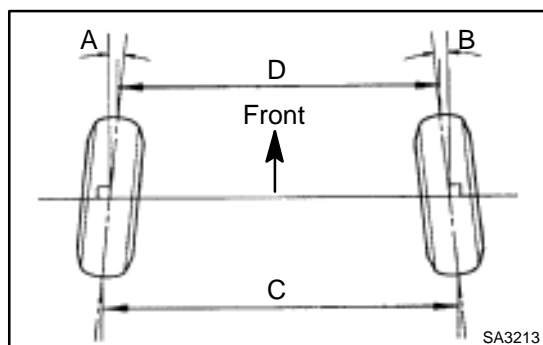
Follow the specific instruction of the equipment manufacturer.

3. INSPECT CAMBER, CASTER AND STEERING AXIS INCLINATION

Camber	Left-right error	$-0^{\circ}25' \pm 45'$ ($-0.42^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less
Caster	Left-right error	$1^{\circ}30' \pm 45'$ ($1.5^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less
Steering axis inclination	Left-right error	$12^{\circ}15' \pm 45'$ ($12.25^{\circ} \pm 0.75^{\circ}$) 45' (0.75°) or less

HINT:

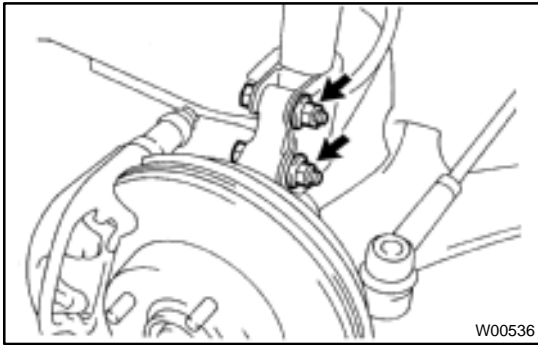
If the caster and steering axis inclination are not within the specification, after the camber has been correctly adjusted, recheck the suspension parts for damaged and/or worn out parts.



4. INSPECT TOE-IN

Toe-in (total)	A + B: $0^{\circ}06' \pm 12'$ ($0.1^{\circ} \pm 0.2^{\circ}$) C - D: 1 ± 2 mm (0.04 ± 0.08 in.)
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If the toe-in is not within the specification, adjust it at the rack ends.

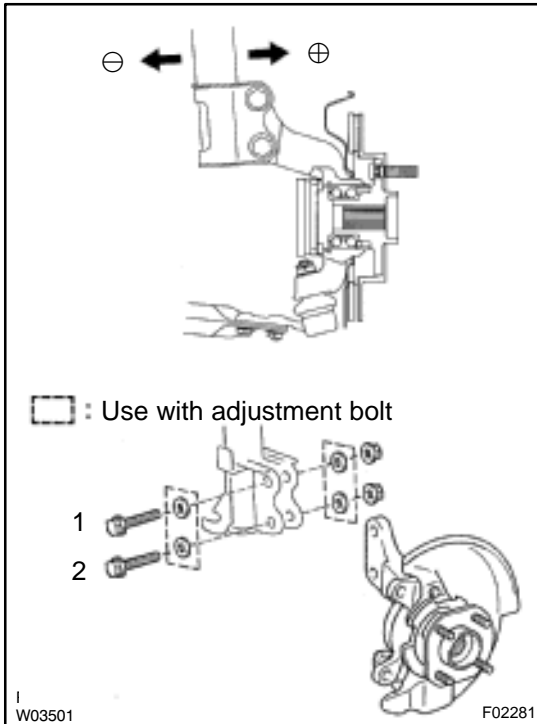


5. ADJUST CAMBER

NOTICE:

After the camber has been adjusted, inspect the toe-in.

- (a) Remove the front wheels.
- (b) Remove the 2 nuts on the lower side of the shock absorber.
- (c) Coat the threads of the nuts with engine oil.



- (d) Temporarily install the 2 nuts.
- (e) Adjust the camber by pushing or pulling the lower side of the shock absorber in the direction in which the camber adjustment is required.

- (f) Tighten the nuts.

Torque: 153 N·m (1,570 kgf·cm, 113 ft·lbf)

- (g) Install the front wheels.

Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

- (h) Check the camber.

HINT:

- Try to adjust the camber to the center value.
- Adjusting value for the set bolts is 6' – 30' (0.1° – 0.5°).

If the camber is not within the specification, using the table below, estimate of how much additional camber adjustment will be required, and select the camber adjusting bolt.

NOTICE:

Tighten the adjusting bolt with a washer for the bolt side and for the nut side.

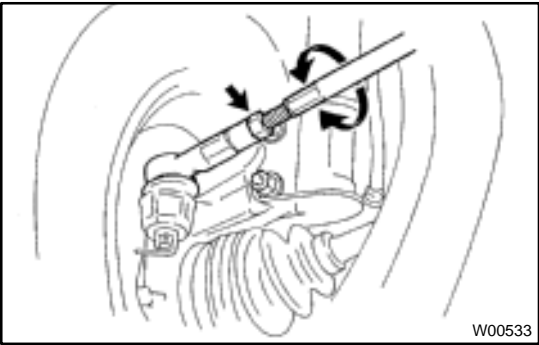
Bolt Adjusting Value	Set Bolt		Adjusting Bolt					
	90105-15001		90105-15004		90105-15005		90105-15006	
			1 Dot		2 Dots		3 Dots	
	1	2	1	2	1	2	1	2
15'	●			●				
30'	●					●		
45'	●							●
1°00'			●					●
1°15'					●			●
1°30'							●	●

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- (i) Follow the above mentioned steps again. Between step (b) and (c), exchange 1 or 2 selected bolts.

HINT:

When exchanging the 2 bolts, exchange 1 bolt for each time.



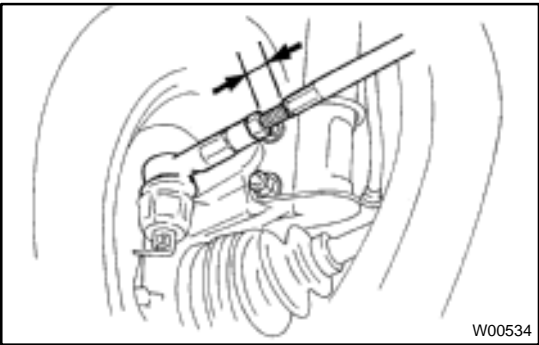
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6. ADJUST TOE-IN

- (a) Remove the boot clamps.
(b) Loosen the tie rod end lock nuts.
(c) 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.



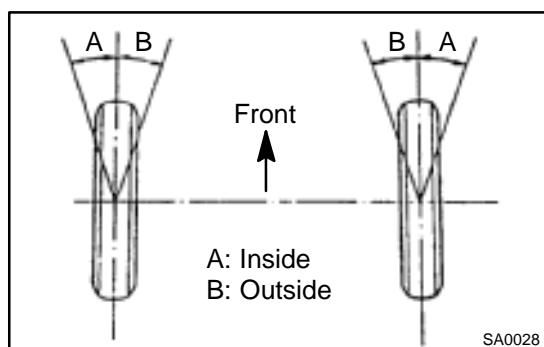
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- Make sure that the lengths of the left and right rack ends are the same.
Rack end length difference: 1.5 mm (0.059 in.) or less
- (d) Torque the tie rod end lock nuts.
Torque: 47 N·m (480 kgf·cm, 35 ft·lbf)

- (e) Place the boots on the seat and install the clamps to them.

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 (Reference)	$35^{\circ}45' \pm 2^{\circ}$ ($35.75^{\circ} \pm 2^{\circ}$)
Outside wheel (Reference)	$32^{\circ}05'$ (32.08°)

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