

02-11 WHEEL ALIGNMENT

WHEEL ALIGNMENT

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WHEEL ALIGNMENT PRE-INSPECTION

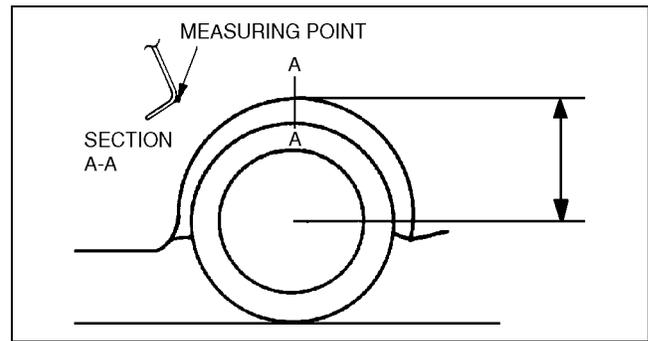
A3U021101013W01

1. Inspect the tire inflation, and adjust to the recommended pressure as necessary.
2. Inspect the front wheel for bearing play and correct it if necessary. (See 03-11-1 Wheel Bearing Play Inspection.)
3. Inspect the wheel and tire runouts. (See 02-50-1 SUSPENSION TECHNICAL DATA.)
4. Inspect the ball joints and steering linkage for excessive looseness.
5. Shake the vehicle to inspect the operation of the shock absorbers.

Note

- The vehicle must be on level ground and unloaded.
- Unloaded ... Fuel tank is full. Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions.

6. Measure the height from the center of the wheel to the fender brim. The difference between the left and right measurement must not exceed **10 mm {0.39 in}**.



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FRONT WHEEL ALIGNMENT

A3U021101015W01

Specification (Unloaded)*1

Item		Fuel gauge indication				
		Empty	1/4	1/2	3/4	Full
Total toe-in	(mm {in})	2±4 {0.08±0.16}				
	(degree)	0°12'±24'				
Maximum steering angle	Inner	37°±3°				
	Outer	33°±3°				
Caster angle*2		1°46'±1°	1°49'±1°	1°51'±1°	1°53'±1°	1°56'±1°
Camber angle*2		-0°48'±1°			-0°49'±1°	
Kingpin angle (reference value)		12°34'		12°35'		12°36'

*1 : Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions.
 *2 : Difference between left and right must not exceed **1°30'**.

Maximum Steering Angle Adjustment

1. Loosen the tie-rod end locknuts.
2. Remove the steering gear boot clamp.

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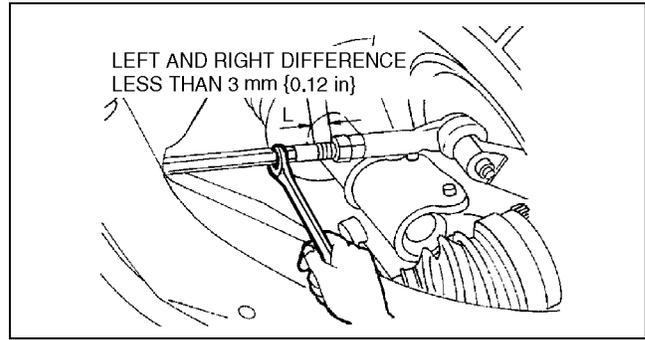
- Turn the left and right tie rods to equalize the length L.

Maximum left/right difference
3 mm {0.12 in}

Note

- Turn the tie rods equally.

- Turn the tie rod to provide the correct maximum steering angle.
- Tighten the tie-rod end locknuts.



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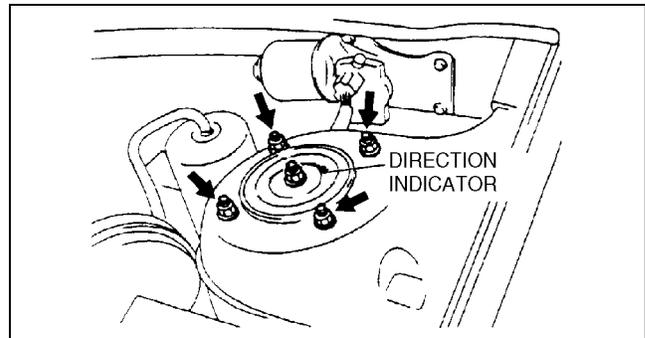
Tightening torque
68.7—98.0 N·m {7.0—10.0 kgf·m, 50.7—72.3 ft·lbf}

- Verify that the boot is not twisted, and install the boot clamp.
- Adjust the toe-in after adjusting the steering angle.

Camber and Caster Adjustment

- Jack up the front of the vehicle and support it on safety stands.
- Remove the mounting block nuts.
- Push the mounting block downward, and turn it to the desired position.

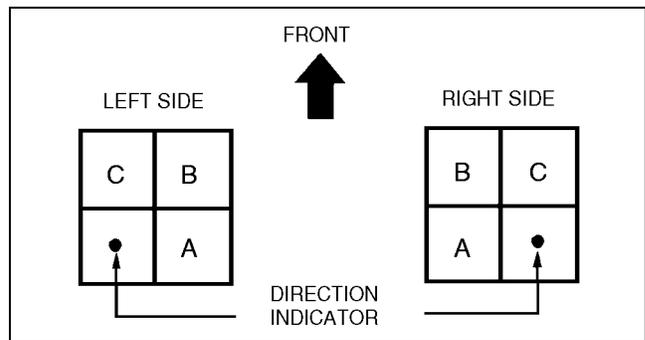
Direction indicator position	Adjustment valve from original position	
	Camber angle	Caster angle
A	+30'	0°
B	+30'	+30'
C	0°	+30'



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- Install and tighten the mounting nuts to the specified torque.

Tightening torque
47—62 N·m {4.7—6.4 kgf·m, 34—46 ft·lbf}



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Total Toe-in Adjustment

- Center the steering wheel and confirm that the vehicle wheels/tires are pointing straight.
- Remove the steering gear boot clamp.
- Loosen the left and right tie rod locknuts and turn the tie rods equally. Both tie rods are right threaded, so turning the right tie rod toward the front of the vehicle and the left toward the rear increases toe-in.

Note

- Turning both tie rods one complete turn changes toe-in by **about 6 mm {0.24 in} (0°36')**.

- Tighten the tie rod locknuts to the specified torque.

Tightening torque
68.7—98.0 N·m {7.0—10.0 kgf·m, 50.7—72.3 ft·lbf}

- Verify that the boot is not twisted, and install the boot clamp.

WHEEL ALIGNMENT

REAR WHEEL ALIGNMENT

A3U021101016W01

Specification (Unloaded)*1

Fuel gauge indication		Empty	1/4	1/2	3/4	Full
Total toe-in	(mm {in})	2±4 {0.08±0.16}				
	(degree)	0°12'±24'				
Camber angle*2 (reference value)	14, 15 inch wheel	-0°23'±1°	-0°25'±1°	-0°27'±1°	-0°29'±1°	-0°31'±1°
	16 inch wheel	-0°27'±1°	-0°29'±1°	-0°31'±1°	-0°32'±1°	-0°34'±1°
Thrust angle (reference value)		0°±48'				

*1 : Engine coolant and engine oil are at specified levels. Spare tire, jack and tools are in designated positions.
Adjust to the median when carrying out wheel alignment.

*2 : Difference between left and right must not exceed 1°30'.

Total Toe-in Adjustment

- Loosen the cam nut on the lateral link.
- Turn the adjusting cam bolt as indicated to adjust the toe-in.

	Left wheel	Right wheel
Toe-in direction	Counterclockwise	Clockwise
Toe-out direction	Clockwise	Counterclockwise

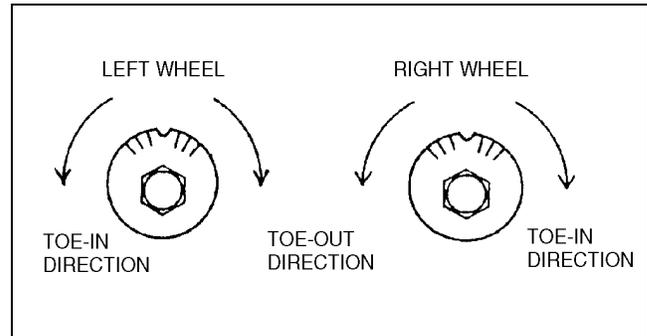
Note

- Turning the adjusting cam bolt one complete turn changes the toe-in **about 3.0 mm {0.12 in} (0°18')**.

- Tighten the cam nut.

Tightening torque

50—69 N·m {5.1—7.1 kgf·m, 37—50 ft·lbf}



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