

# WHEEL ALIGNMENT

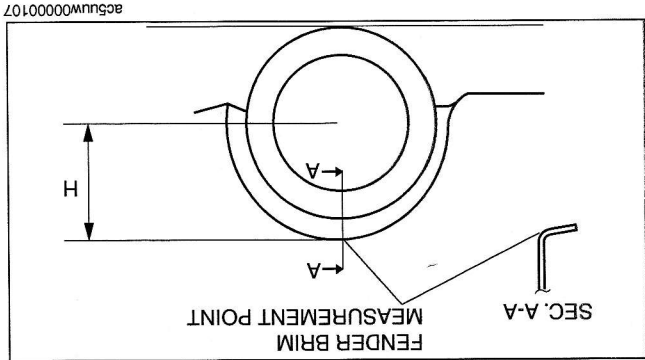
## 02-11 WHEEL ALIGNMENT

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### WHEEL ALIGNMENT PRE-INSPECTION

1. Park the vehicle on level ground, in an unloaded condition\*, with the wheels straight forward.
- \*: Unloaded condition.....Fuel tank is full. Engine coolant and engine oil are at specified level. Spare tire, jack and tools are in designated position.
2. Inspect the tire pressure.
- Adjust to the recommended pressure if necessary. (See 02-50-1 SUSPENSION TECHNICAL DATA.)
3. Inspect the wheel bearing play.
- Correct if necessary. (See 03-11-2 WHEEL HUB, STEERING KNUCKLE INSPECTION.)
4. Inspect the wheel runout.
- Correct if necessary. (See 02-50-1 SUSPENSION TECHNICAL DATA.)
5. Rock the vehicle, and verify that there is no looseness in the steering wheel joint and suspension ball joint.
6. Rock the vehicle, and verify that the shock absorber operates properly.
7. Measure height H from the center of the wheel to the fender brim.
8. Verify that the difference between the left and right dimension H is within the specification.
- If it exceeds the specification, repeat the Step 2-7.

Standard specification  
10 mm {0.39 in} or less



# WHEEL ALIGNMENT

## FRONT WHEEL ALIGNMENT

Id021100800200

### Front wheel alignment (Unloaded)\*1

Item					Fuel gauge indication				
Maximum steering angle		Inner		Empty	1/4	1/2	3/4	Full	
		Outer		37°48'					
[Tolerance ±3°]		30°54'							
Total toe-in	Tire	[Tolerance ±4 {0.2}]		2 {0.08}					
		Rim inner		1.0 {0.04}					
	[Tolerance ±3 {0.1}]		0°10'±0°20'						
	(degree)								
Caster angle*2 (Reference value)		6°19'		6°21'	6°24'	6°27'	6°29'		
Camber angle*2 (Reference value)		-0°20'		-0°21'	-0°21'	-0°21'	-0°22'		
Steering axis inclination (Reference value)		11°57'		11°58'	11°59'	11°59'	12°00'		

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

### Steering Angle Adjustment

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

**Standard length L**  
10.1—23.1 mm {0.398—0.909 in}

4. Turn the tie rods equally to provide the correct maximum steering angle.
5. Tighten the tie-rod end locknuts.

**Tightening torque**  
69—98 N·m {7.1—9.9 kgf·m, 51—72 ft·lbf}

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

### Total Toe-in Adjustment

1. Loosen the locknut of the tie-rod end.
2. Remove the rack boot clamp.
3. Adjust the total toe-in by rotating each tie rod (left and right) in the opposite directions by the same amount respectively.

### Note

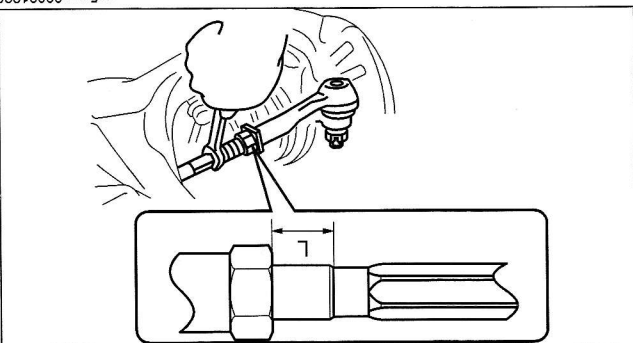
- Toe angle changes by approx. 6 mm {0.2 in} per one rotation of the tie rod for one wheel.
- Each tie rod has a right-hand thread. When increasing the toe-in angle, rotate the right tie rod toward the front of the vehicle and rotate the left tie rod toward the rear of the vehicle by the same amount.

4. Tighten the locknut of the tie-rod end.

**Tightening torque**  
69—98 N·m {7.1—9.9 kgf·m, 51—72 ft·lbf}

5. Verify that the rack boot does not have any twisting and install the rack boot clamp.

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## 02-11

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

1. Loosen the installation nut of the adjusting cam bolt.
2. Rotate the adjusting cam bolt in either direction to adjust the toe-in.

### 3. Tighten the nut.

Diagram illustrating the location of the **ADJUSTING CAM BOLT** on the front suspension assembly.