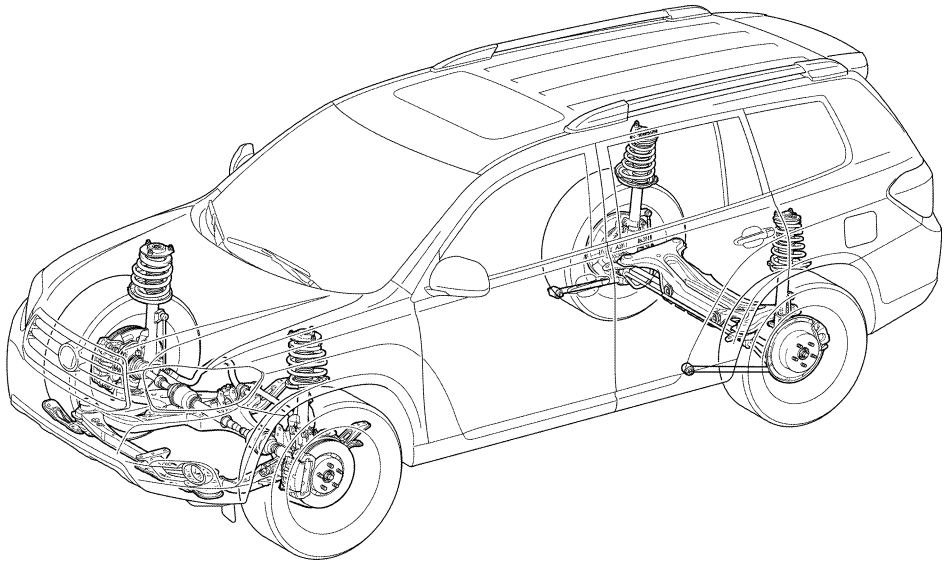
SUSPENSION AND AXLE

■SUSPENSION

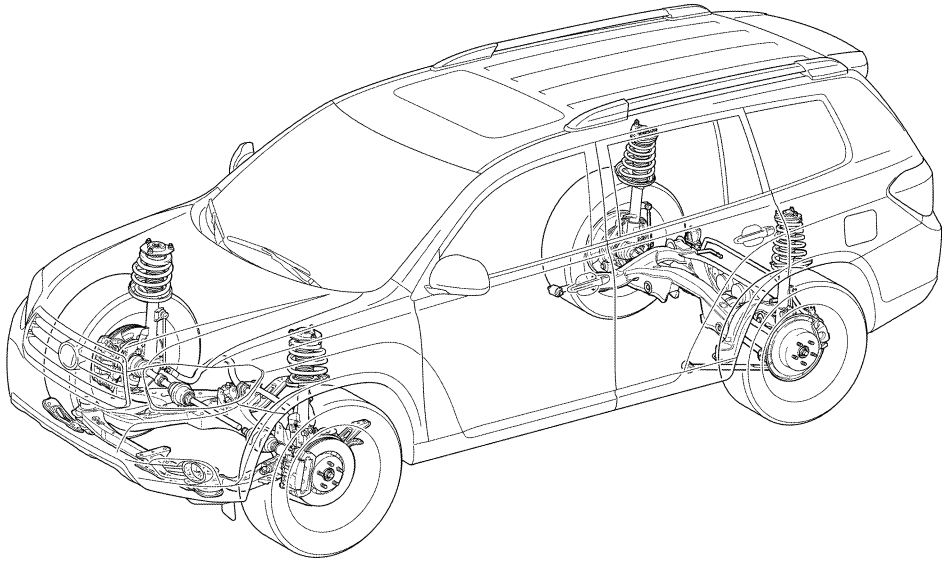
1. General

- A MacPherson strut type independent suspension is used for the front.
- A dual link MacPherson strut type independent suspension is used for the rear.
- High spring rate type coil springs and high damping force type shock absorber assemblies are used on the sport grade.



06J0CH19Z

2WD Model



06J0CH20Z

4WD Model

2. Specifications

▶ Wheel Alignment ◀

Model			2WD	4WD
Front Wheel Alignment	Type		MacPherson Strut	MacPherson Strut
	Tread*	mm (in.)	1625 (64.0)	1625 (64.0)
	Caster*	degrees	2° 37’	2° 37’
	Camber*	degrees	-0° 38’	-0° 38’
	Toe-in*	mm (in.)	0.9 (0.04)	0.9 (0.04)
	King Pin Inclination*	degrees	11° 01’	11° 01’
Rear Wheel Alignment	Type		Dual Link MacPherson Strut	Dual Link MacPherson Strut
	Tread*	mm (in.)	1630 (64.2)	1625 (64.0)
	Camber*	degrees	-1° 03’	-0° 39’
	Toe-in*	mm (in.)	4.4 (0.17)	3.8 (0.15)

*: Unloaded Vehicle

▶ Coil Spring and Shock Absorber Assembly ◀

Grade				SPORT		Except SPORT	
Models				2WD	4WD	2WD	4WD
Front Coil Spring Size	Height	mm (in.)		351.0 (13.8)	356.5 (14.0)	363.5 (14.3)	369.0 (14.5)
	Inner Diameter	mm (in.)		151.8 (5.9)	151.8 (5.9)	154.0 (6.0)	154.0 (6.0)
Rear Coil Spring Size	Height	mm (in.)		362.5 (14.2)	361.5 (14.2)	366.0 (14.4)*1 370.5 (14.5)*2	368.0 (14.4)*1 371.0 (14.6)*2
	Inner Diameter	mm (in.)		88.5 - 142.0 (3.4 - 5.5)	88.5 - 142.0 (3.4 - 5.5)	88.5 - 142.0 (3.4 - 5.5)	88.5 - 142.0 (3.4 - 5.5)
Spring Rate	Front	N/mm		34.5	34.5	32.0	32.0
	Rear	N/mm		33.5	37.5	31.5	34.0
Front Shock Absorber Assembly	Compression Damping Force	N	Piston Speed 0.1 m/s	549	549	471	471
			Piston Speed 0.3 m/s	888	888	770	770
	Rebound Damping Force	N	Piston Speed 0.1 m/s	652	652	515	515
			Piston Speed 0.3 m/s	1158	1158	1010	1010
Rear Shock Absorber Assembly	Compression Damping Force	N	Piston Speed 0.1 m/s	417	500	348	422
			Piston Speed 0.3 m/s	697	824	564	667
	Rebound Damping Force	N	Piston Speed 0.1 m/s	603	613	569	613
			Piston Speed 0.3 m/s	1109	1123	1040	1074

*1: N Grade

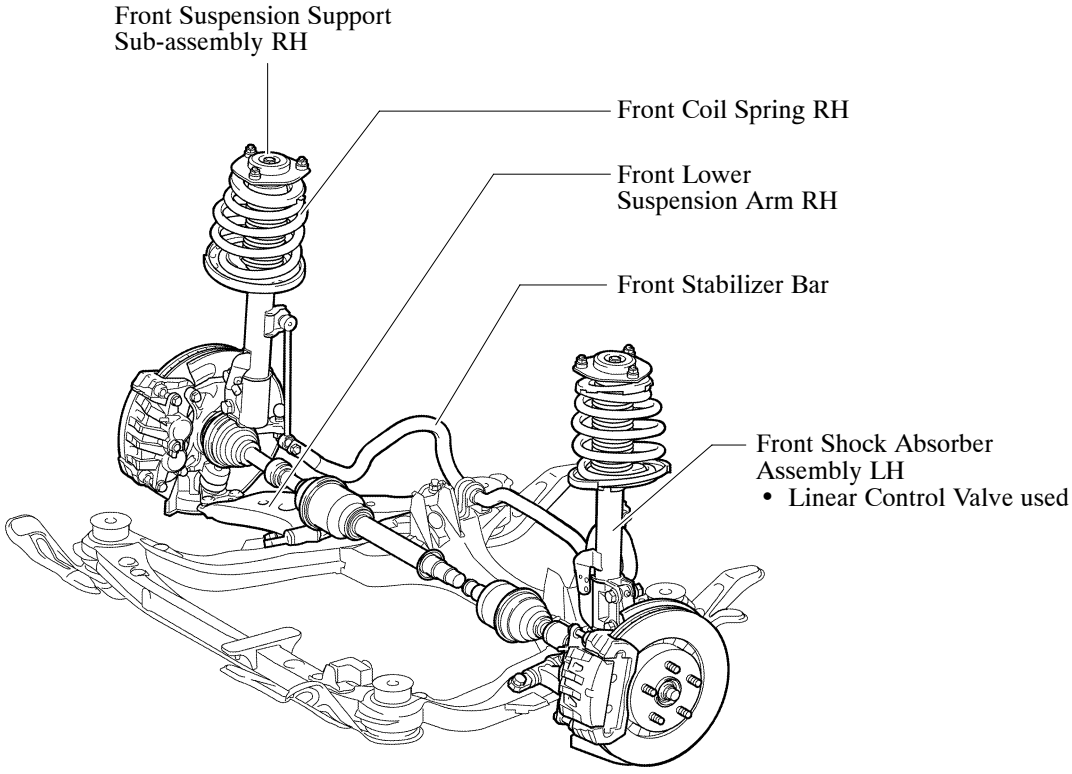
*2: M/Limited Grades

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3. Front Suspension

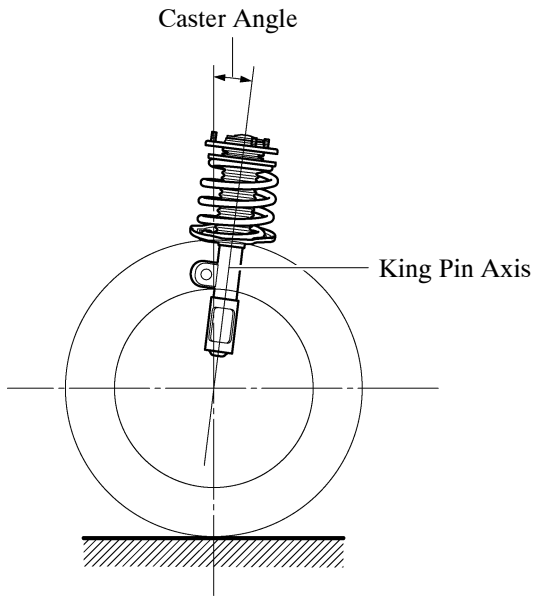
General

Through the optimal allocation of components, the front suspension ensures excellent riding comfort and controllability.



Optimized Caster

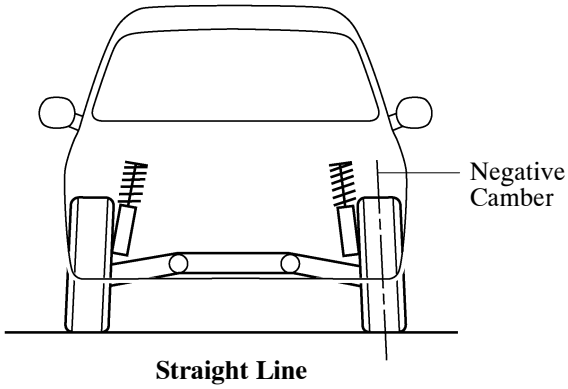
Optimum caster angle and trail values are featured to provide straight-line stability during low-speed and high-speed ranges and assist steering response at high-speeds.



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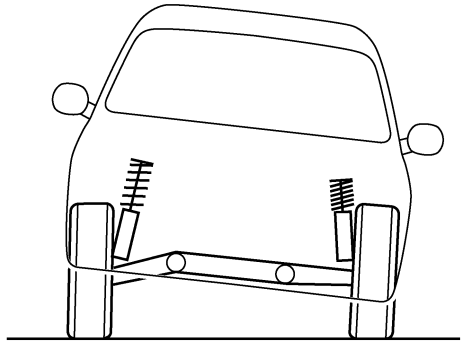
Negative Camber

The front suspension uses negative camber to reduce the ground contact camber angle of the outer wheel during turning (cornering), and provide excellent cornering performance.



Straight Line

181CH23

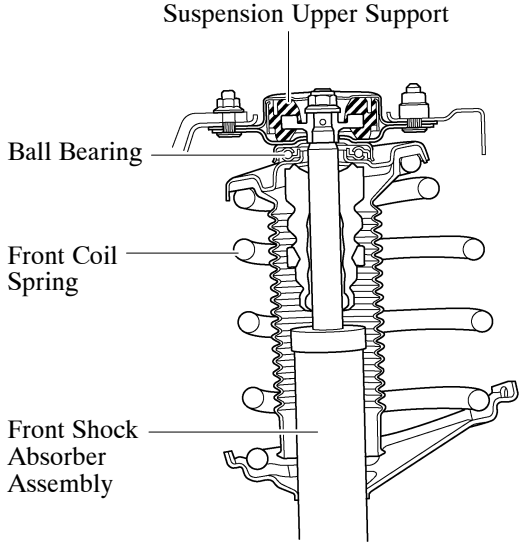


Cornering

181CH24

Front Coil Spring

The center axis of the coil spring is slanted toward the outside of the vehicle compared to the center axis of the front shock absorber assembly. As a result, friction and lateral force applied to the shock absorber are reduced.

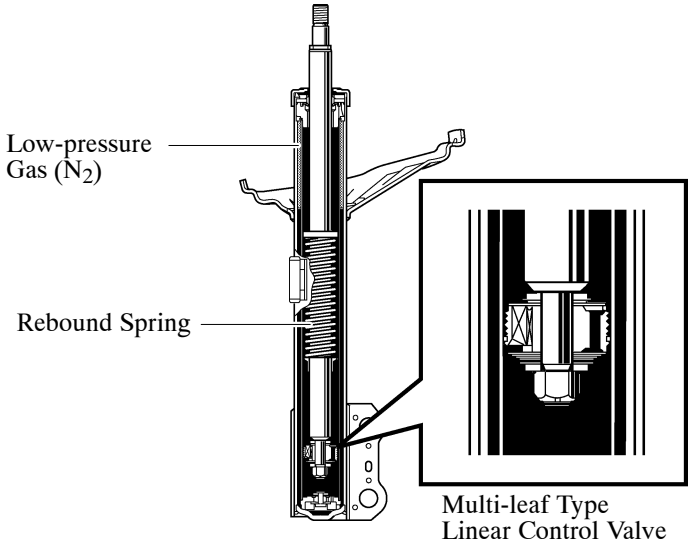


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Front Shock Absorber Assembly

1) General

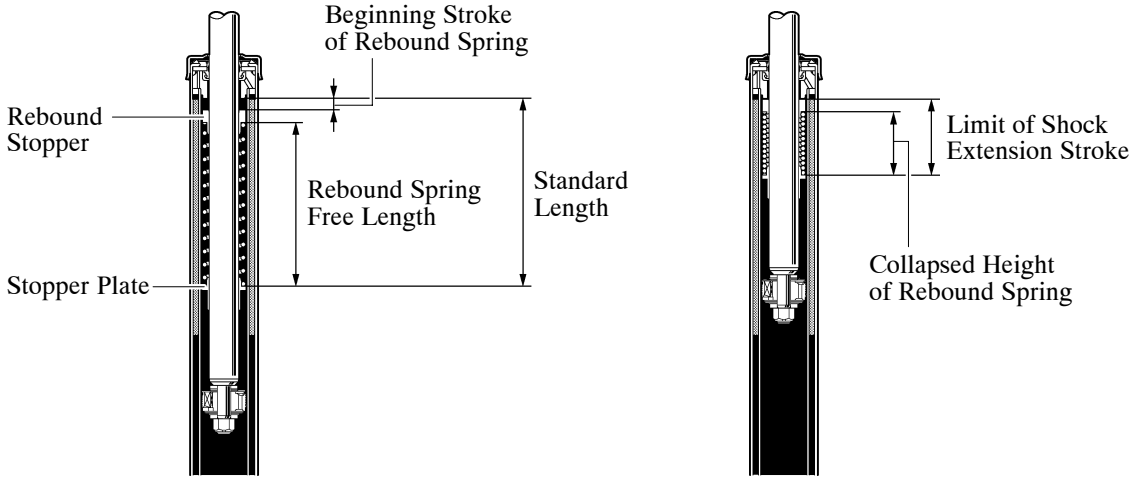
- Low-pressure (N_2) gas sealed front shock absorber assembly with a linear control valve are used to realize both driving stability and riding comfort.
- A multi-leaf type linear control valve is used to attain linear damping force characteristics.
- A rebound spring is used to ensure vehicle stability during cornering.



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2) Rebound Spring

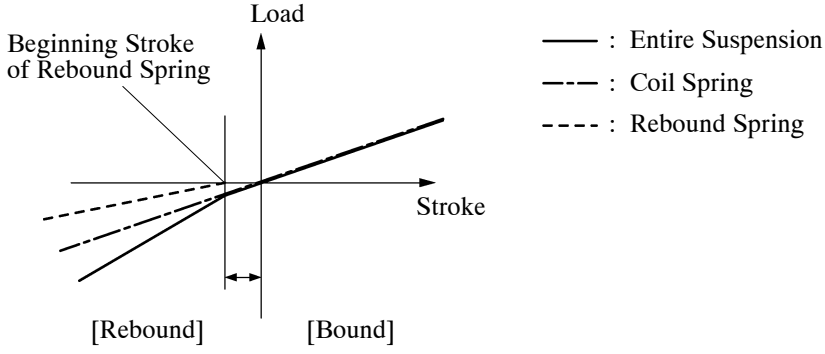
The built-in rebound spring is designed to function with the coil spring in order to restrain suspension extension during rebound. Also, in order to realize a soft and comfortable ride, only the coil springs are used when the suspension stroke is small during normal driving. However, when cornering, load is removed from the inner wheels, the functions of both the rebound spring and the coil spring interact and the extension of the suspension is restrained. As a result, the vehicle has excellent maneuverability and stability.



Typical Condition **Fully Extended**

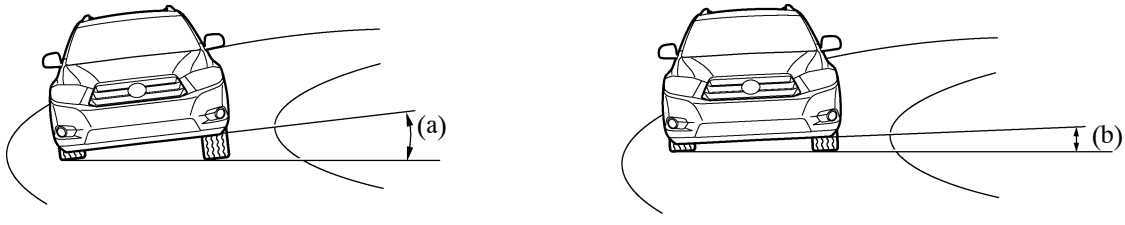
06J0CH29C

▶ Characteristics of Shock Absorber with Built-in Rebound Spring ◀



06J0CH39C

▶ During Cornering ◀



Without Rebound Springs **With Rebound Springs**

Roll Angle: (a) > (b)

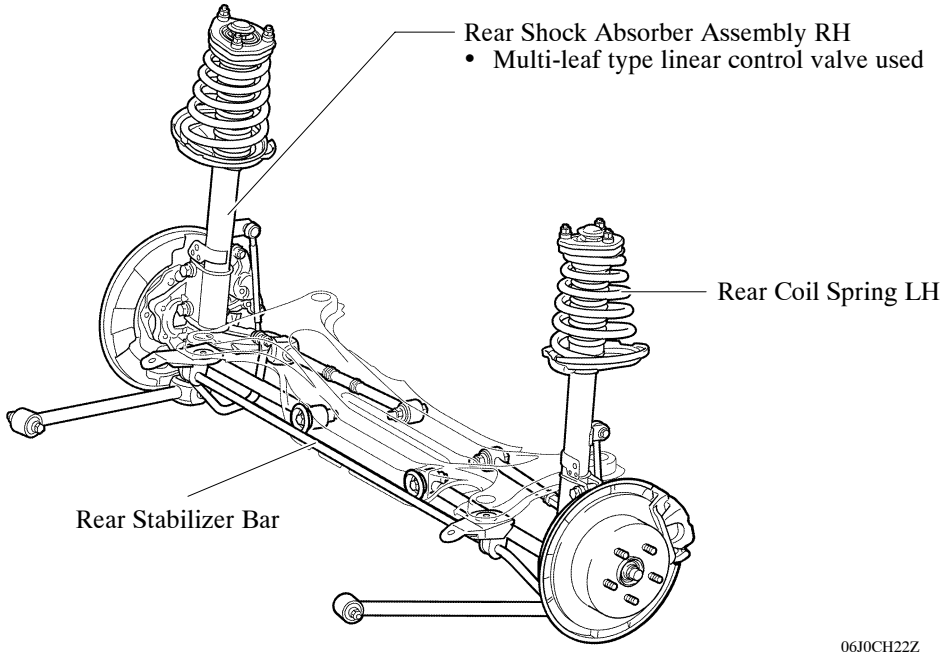
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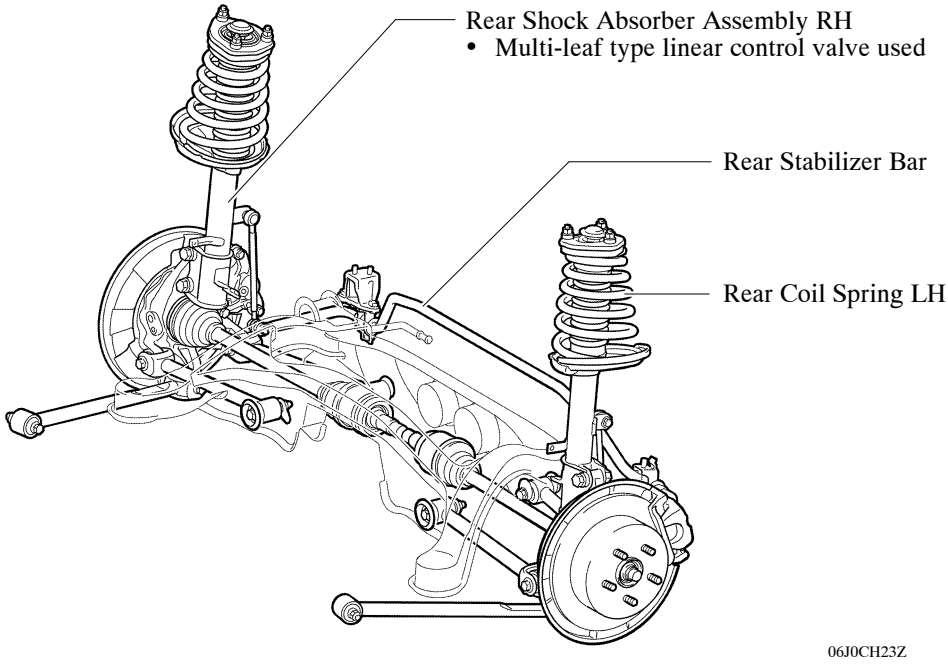
4. Rear Suspension

General

Rear suspension realizes excellent stability and controllability by optimizing the suspension geometry and the allocation of components.



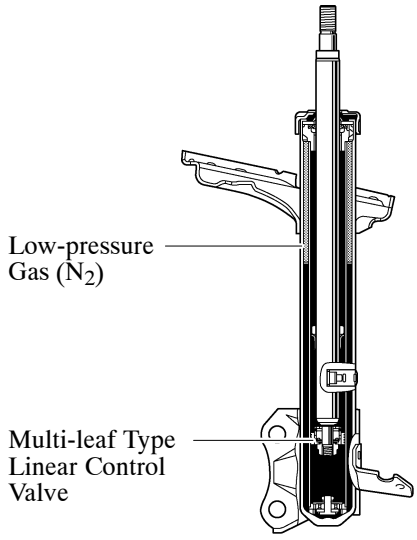
2WD Model



4WD Model

Rear Shock Absorber Assembly

- Low-pressure (N_2) gas sealed rear shock absorber assemblies with a linear control valve realize driving stability and riding comfort.
- As with the rear shock absorber assembly, a multi-leaf type linear control valve is used in order to attain the linear damping force characteristics.



06J0CH115C