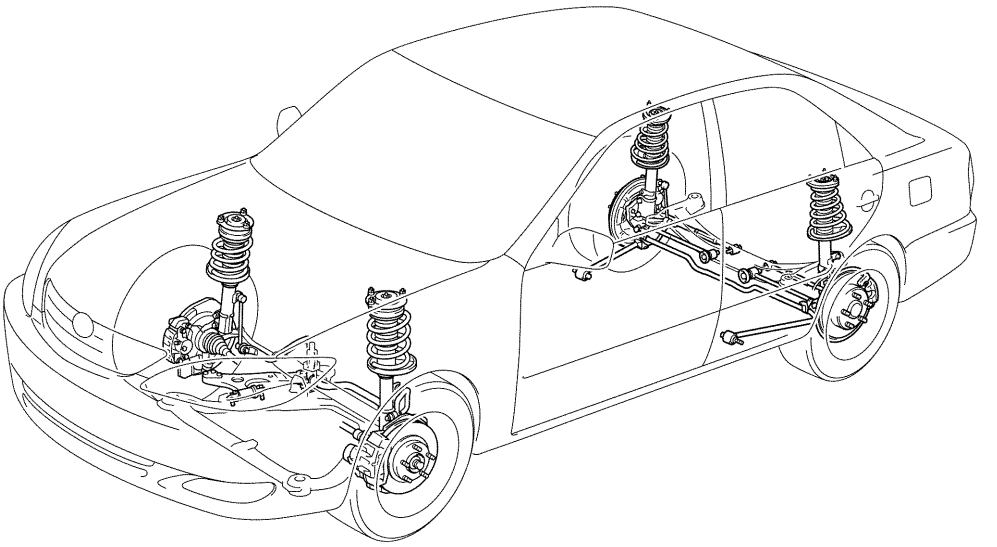
SUSPENSION AND AXLE

■SUSPENSION

1. General

- A MacPherson strut type independent suspension has been adopted for the front.
- A dual link MacPherson strut type independent suspension has been adopted for the rear.



208CH14

▶ Specification ◀

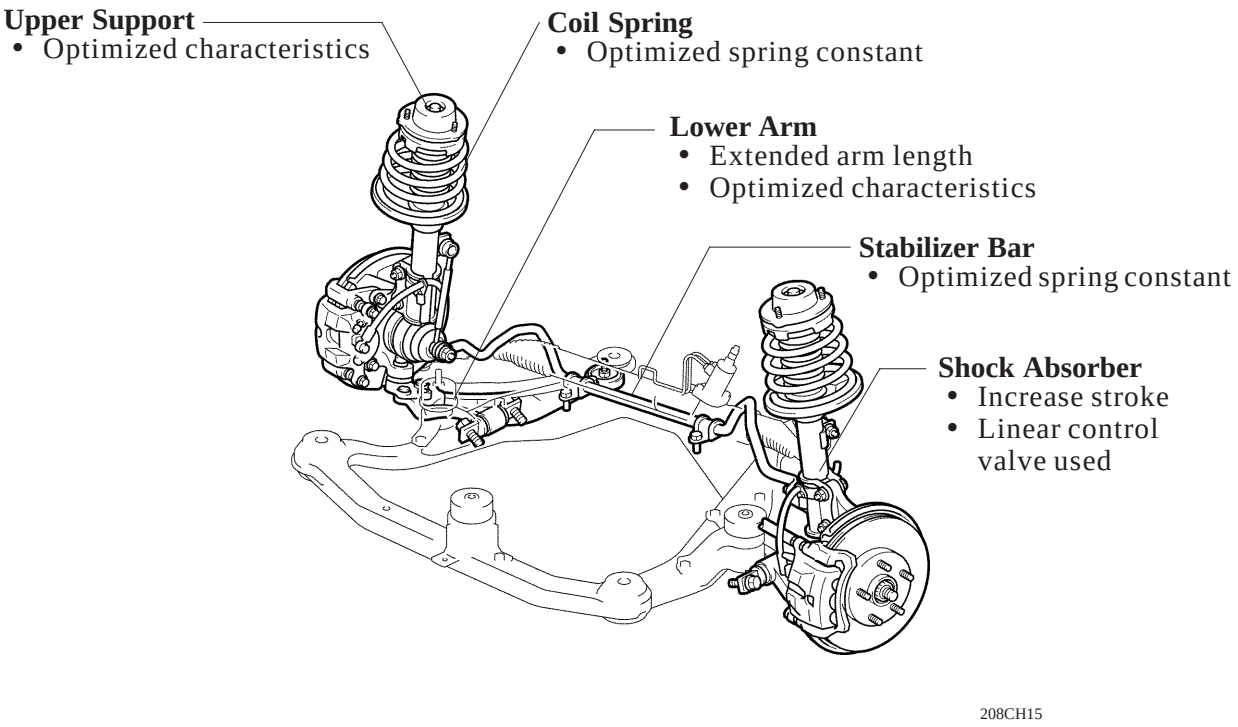
Front Wheel Alignment	Tread	mm (in.)	1546 (60.9)
	Caster*	degrees	2° 33’
	Camber*	degrees	–0°37’
	Toe-in*	mm (in.)	0
	King Pin Inclination*	degrees	11°13’
Rear Wheel Alignment	Tread	mm (in.)	1533 (60.3)
	Camber*	degrees	–1°13’
	Toe-in*	mm (in.)	4 (0.16)

*: Unload Vehicle Condition

2. Front Suspension

General

Through the optimal allocation of components, and the adoption of the nachlauf geometry, the front suspension realizes excellent riding comfort and controllability.

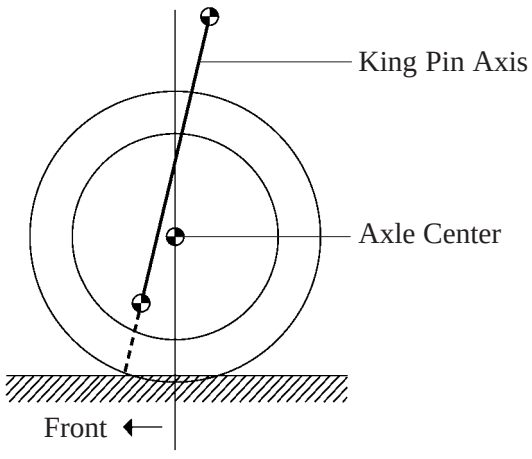


Service Tip

To prevent hazardous conditions, make sure to empty the gas from the shock absorber before discarding a low-pressure (N_2) gas sealed shock absorber. For details, refer to the Camry Chassis & Body Repair Manual (Pub. No. RM915E).

Nachlauf Geometry

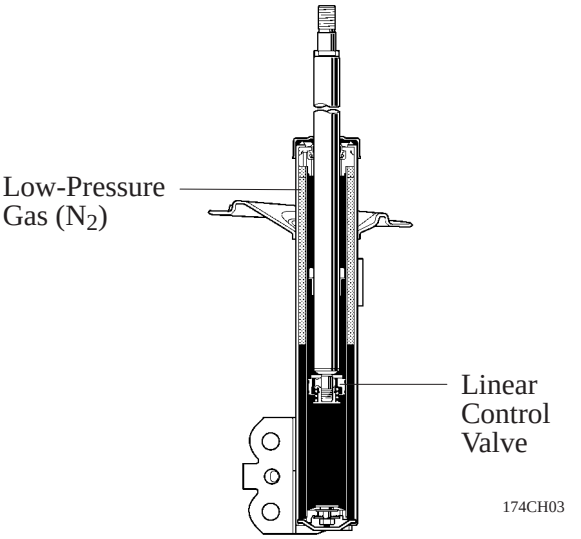
The front suspension adopts the nachlauf geometry in which the king pin axis is located ahead of the axle carrier.
As a result, excellent straightline stability has been realized and the steering feeling has been improved.



Shock Absorber

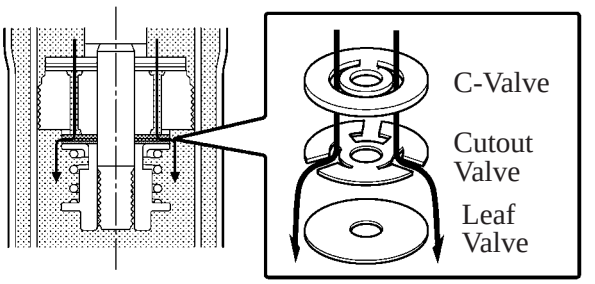
1) General

Low-pressure (N_2) gas sealed front shock absorbers with a linear control valve have been adopted to realize both driving stability and riding comfort.

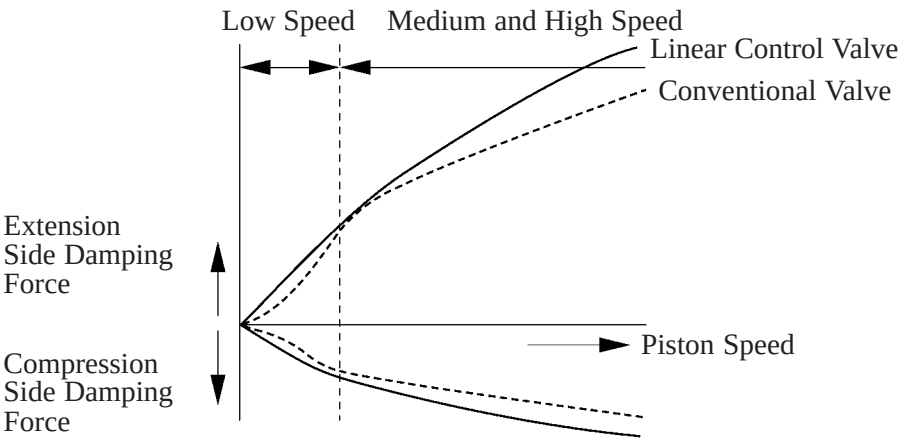


2) Construction of Linear Control Valve

The linear control valve consists of a C-valve, a cutout valve and a leaf valve. These valves adopt a laminate construction and form orifices. At low piston speeds, the oil flows through the cutouts of the valves to achieve a linear damping force.
Through the adoption of the linear control valve, the changes in the damping force are made constant at low piston speeds, thus making the vehicle behave more smoothly in relation to the steering operation.



Low Speeds 206CH29

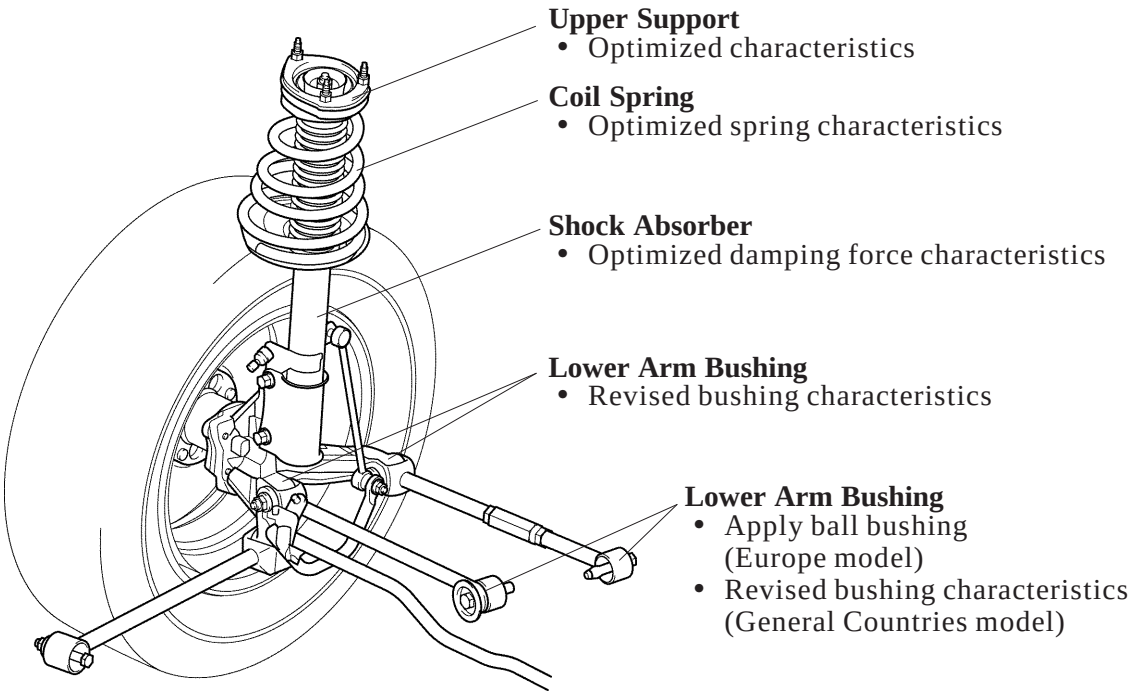


Damping Force Characteristics 199CH110

3. Rear Suspension

General

Rear suspension realizes excellent stability and controllability by optimizing the suspension geometry and the allocation of components.
The wheel stroke has been increased to ensure stability and ride comfort on rough roads.

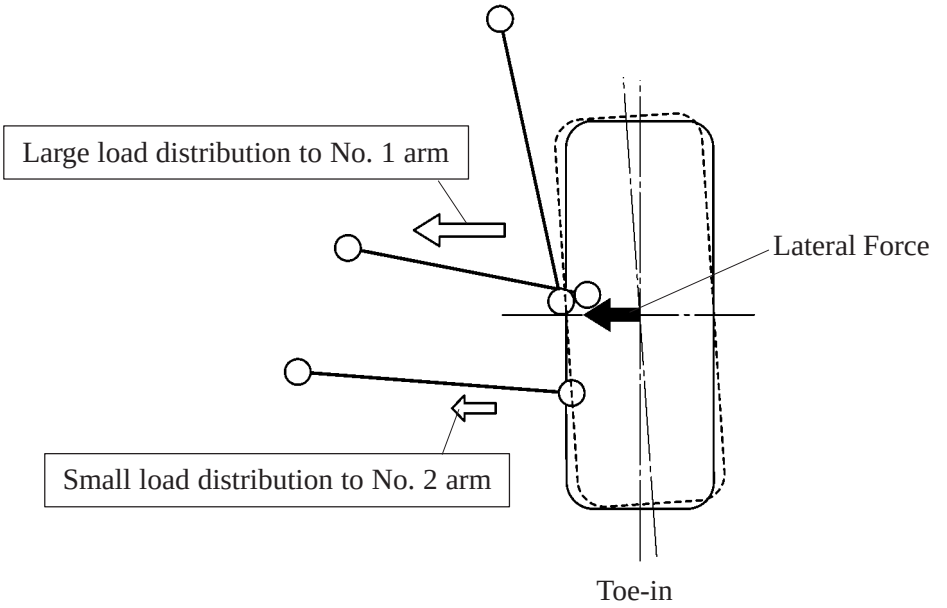


Service Tip

To prevent hazardous conditions, make sure to empty the gas from the shock absorber before discarding a low-pressure (N_2) gas sealed shock absorber. For details, refer to the Camry Chassis & Body Repair Manual (Pub. No. RM915E).

Cornering Geometry

When a lateral force is generated, the load becomes distributed to the No. 1 and No. 2 suspension arms as shown below. This causes the wheels to toe-in, in order to ensure the proper stability of the rear suspension.



Braking Geometry

When the longitudinal force is generated, the displacement locus of the No. 1 and No. 2 suspension arms will toe-in as shown below, in order to ensure the stability of the vehicle.

