DESCRIPTION AND OPERATION

SUSPENSION SYSTEM

The front caster and camber are adjusted by means of removing set shims at the upper control arm-to-frame mounting bolts and installing washers (W-705040-S426) to allow the arm to be adjusted in the frame slots. A caster split adjustment can be made by turning an adjustment bolt located on the RH lower arm rearward frame mountings. Front toe is adjusted by the use of the front wheel spindle tie-rod. The rear camber is adjusted by removing the set shim from the rearward lower control arm to frame mounting bolt and installing a washer (W-705040-S426) to allow the arm to be adjusted in the frame slot. The rear toe is adjusted by the use of the rear toe link.

Camber

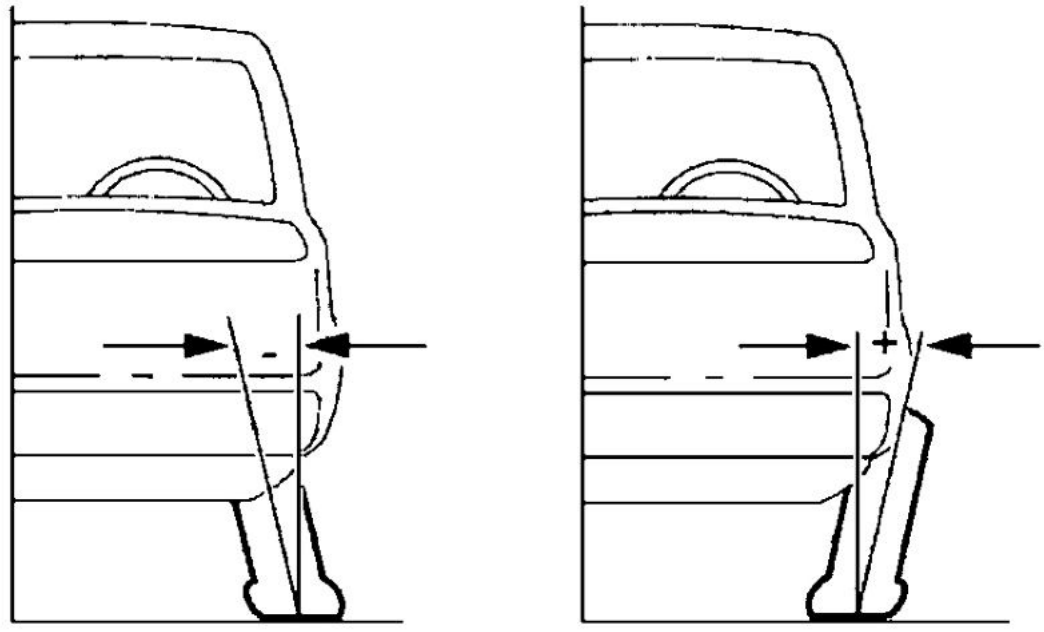

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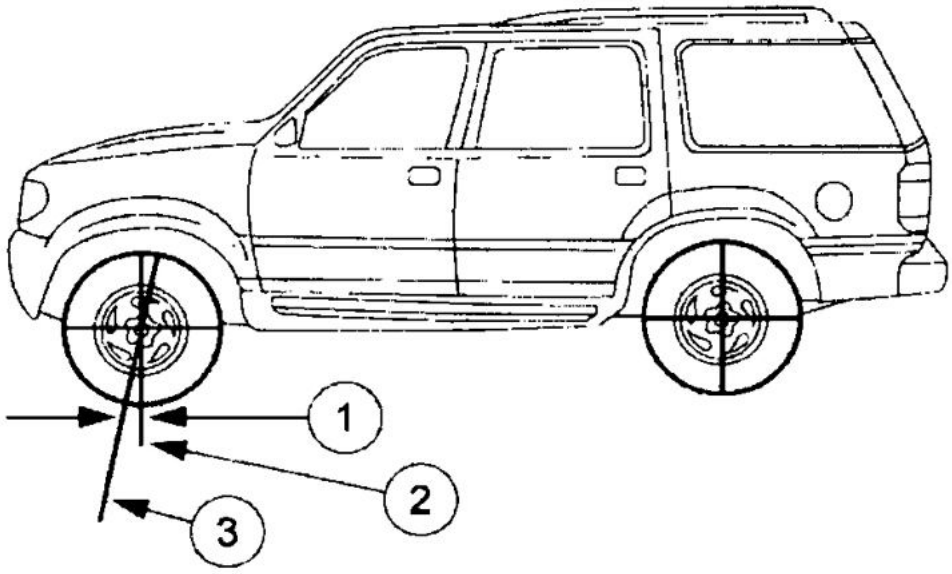
Fig. 1: Identifying Negative And Positive Camber
Courtesy of FORD MOTOR CO.

Camber is the vertical tilt of the wheel when viewed from the front. Camber can be positive or negative and has a direct effect on tire wear.

Caster



Item	Description
1	Positive caster
2	True vertical
3	Steering axis

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Fig. 2: Identifying Positive Caster, True Vertical And Steering Axis
Courtesy of FORD MOTOR CO.

Caster is the deviation from vertical of an imaginary line drawn through the ball joints when viewed from the side. The caster specifications in this article will give the vehicle the best directional stability characteristics when loaded and driven. The caster setting is not related to tire wear.

Toe

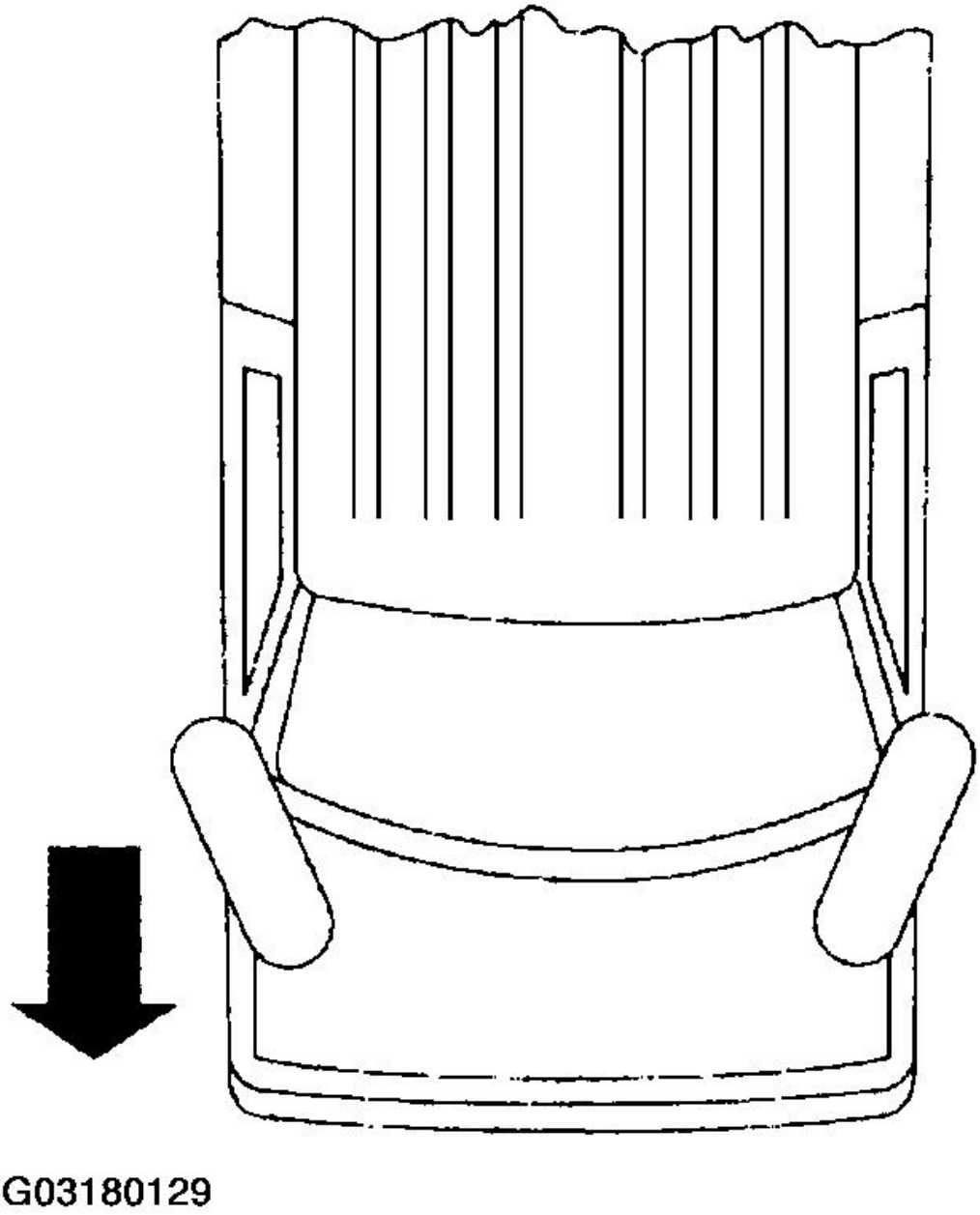


Fig. 3: Identifying Positive Toe (Toe In)
Courtesy of FORD MOTOR CO.

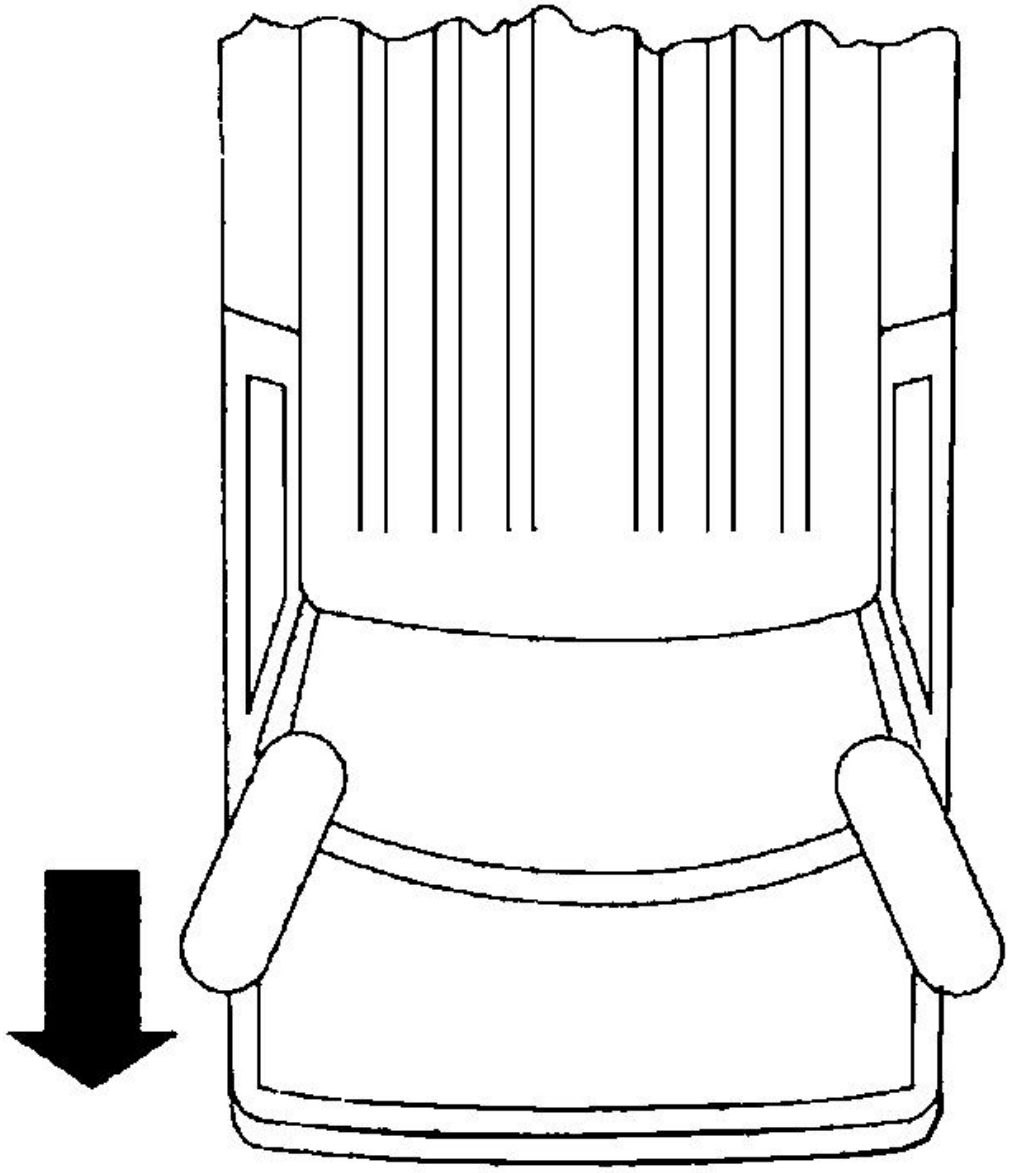
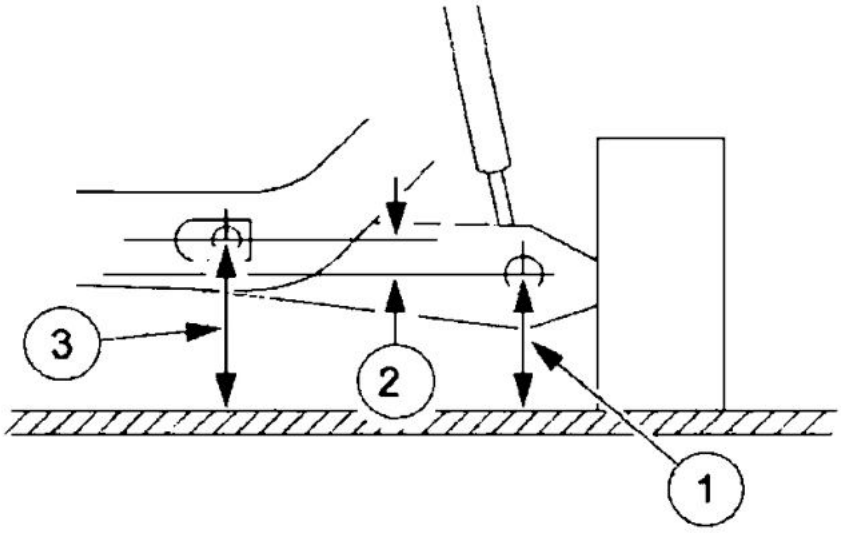


Fig. 4: Identifying Negative Toe (Toe Out)
Courtesy of FORD MOTOR CO.

The vehicle toe setting:

- affects tire wear and directional stability.
- must be checked after adding aftermarket equipment, such as a snowplow or body.

Ride Height



Item	Description
1	Distance between the ground and center of shock absorber mounting bolt
2	Ride height = 3-1
3	Distance between the ground and the center of the lower arm mounting bolt

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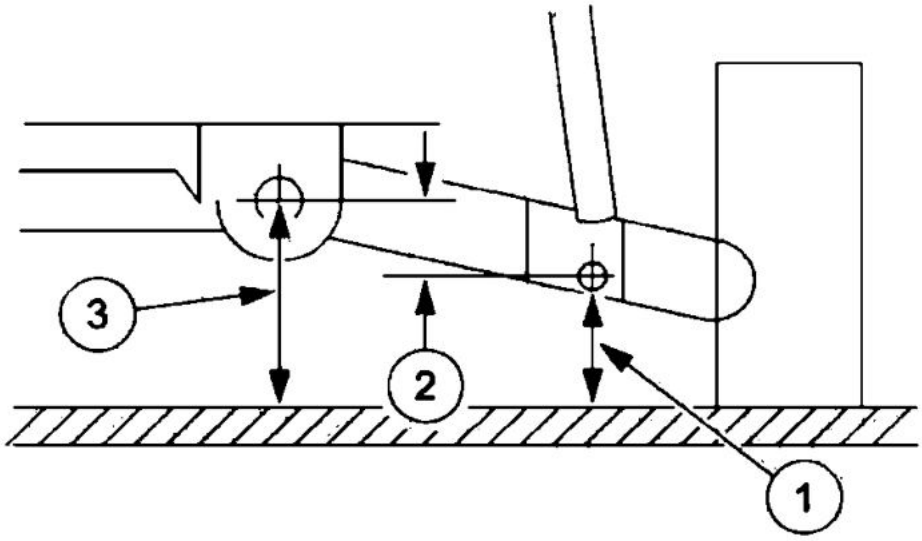
Fig. 5: Measuring Front Ride Height
Courtesy of FORD MOTOR CO.



Item	Description
1	Distance between the ground and center of shock absorber mounting bolt
2	Ride height = 3-1
3	Distance between the ground and the center of the lower arm mounting bolt

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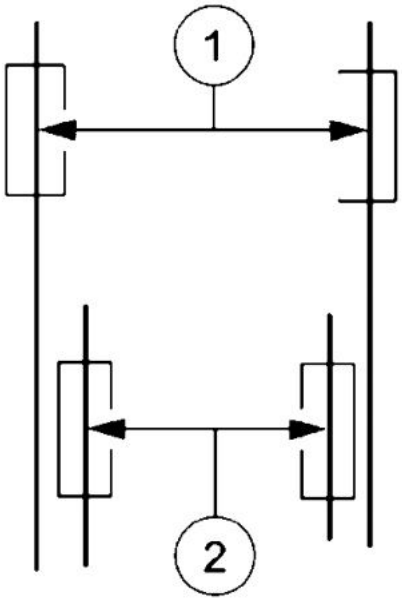
Fig. 6: Measuring Rear Ride Height
Courtesy of FORD MOTOR CO.

Wheel Track



Item	Description
1	Front track
2	Rear track

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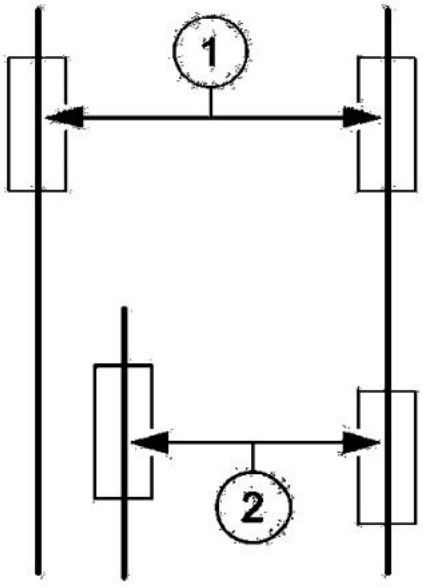
Fig. 7: Identifying Wheel Track
Courtesy of FORD MOTOR CO.

Dogtracking



Item	Description
1	Front track
2	Rear Track Dogtracking

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Fig. 8: Identifying Dogtracking
Courtesy of FORD MOTOR CO.

Dogtracking is the condition in which the rear axle is not square to the chassis. Heavily crowned roads can give the illusion of dogtracking.

Wander

Wander is the tendency of the vehicle to require frequent, random left and right steering wheel (3600) corrections to maintain a straight path down a level road.

Shimmy

Shimmy, as observed by the driver, is large, consistent, rotational oscillations of the steering wheel resulting from large, side-to-side (lateral) tire/wheel movements.

Shimmy is usually experienced near 64 km/h (40 mph), and can begin or be amplified when the tire contacts pot holes or irregularities in the road surface.

Nibble

Sometimes confused with shimmy, nibble is a condition resulting from tire interaction with various road

surfaces and observed by the driver as small rotational oscillations of the steering wheel.

Poor Returnability/Sticky Steering

Poor returnability and sticky steering is used to describe the poor return of the steering wheel to center after a turn or the steering correction is completed.

Drift/Pull

Pull is a tugging sensation, felt by the hands on the steering wheel, that must be overcome to keep the vehicle going straight.

Drift describes what a vehicle with this condition does with hands off the steering wheel.

- A vehicle-related drift/pull, on a flat road, will cause a consistent deviation from the straight-ahead path and require constant steering input in the opposite direction to counteract the effect.
- Drift/pull may be induced by conditions external to the vehicle (i.e., wind, road camber).