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Coding Information

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Title: Diagnosis of Chassis Wander Complaints

Applies To: Chassis

CHANGE LOG

Please refer to the change log text box below for recent changes to this article:

09/28/2023 - Updated article for CV 11/13/2019 - Author updated for feedback purposes
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DESCRIPTION

A simple steer axle caster check can be performed to address a chassis wander complaint after the dealer technician has verified the condition, the correct tire inflation and steering linkage/component function. Low or insufficient caster angle is a prime source for chassis wander complaints.

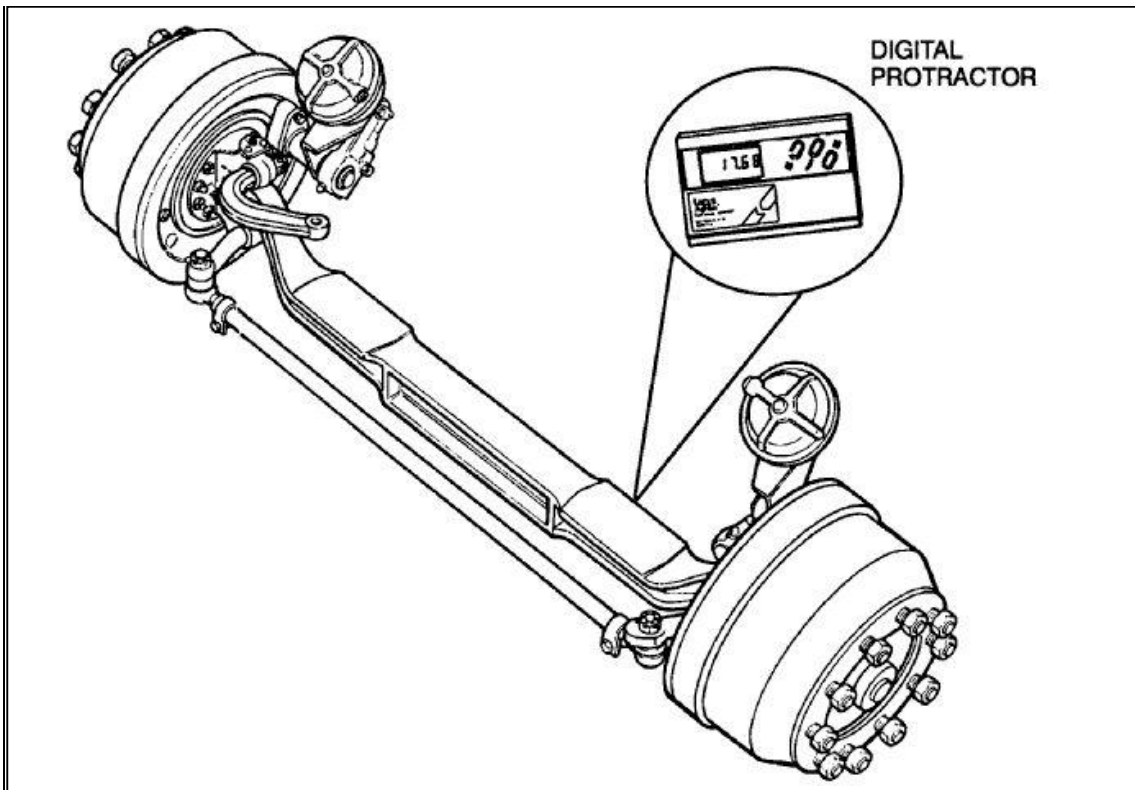
SERVICE PROCEDURE

WARNING: To prevent unexpected movement of the vehicle and possible serious personal injury or death, park the vehicle on a flat, level surface, set the parking brake, turn the engine off and chock the wheels to prevent vehicle from moving in both directions.

NOTE: Prior to performing this Service Procedure, ensure that the tire inflation is correct, and the steering linkage/ components are operating correctly.
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NOTE: An alignment rack or pit is not required for this basic check. Required is a level floor and a digital driveline angle measuring device (digital protractor), Part Number ZTSE4329 or equivalent (Figure 1).
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Figure 1 - Digital Protractor



1. Position chassis on a level floor. Vehicle load should be same as when symptom is occurring.
2. If the chassis is so equipped, verify the air suspension ride height is correctly set.
3. Place the digital protractor on the spring pads of the front steer axle parallel to the spring assembly.
4. Measure and record caster angle.
 - a. Positive caster is indicated if the rear of the steer axle spring pad is lower than the front.
 - b. Caster which is at or near the lower end of the specification may be increased to the upper end of the specification if the wander complaint persists. Technician manual (if it exists), or axle mfg. manual, or [IK articles](#) cites these values.
 - c. A half degree more caster wedge on the passenger side is desirable to reduce drifting right tendencies due to road crown.

NOTE:

Changing steering gears to correct wander complaints should only be considered as a last resort. A steering gear change is not likely to affect the complaint condition.

The International CV 4x4 cannot use a wedge to create 1/2 degree more caster on the passenger side. Use an aftermarket ball joint insert to modify the steer axle caster or camber on the the steer axle of a 4x4.

Available at [NAPA](#), [RockAuto](#), and other auto part retailers

[SPECIALTY PRODUCTS COMPANY <Link](#)

This sleeves will correct caster and camber on trucks equipped with the Dana 60 solid axle.

24230 - ADJUSTABLE TRUCK SLEEVE

This adjustable truck sleeve offers $\pm 2.75^\circ$ of camber and caster



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