

# Wheel Alignment

## WHEEL ALIGNMENT PROCEDURES (Cont.)

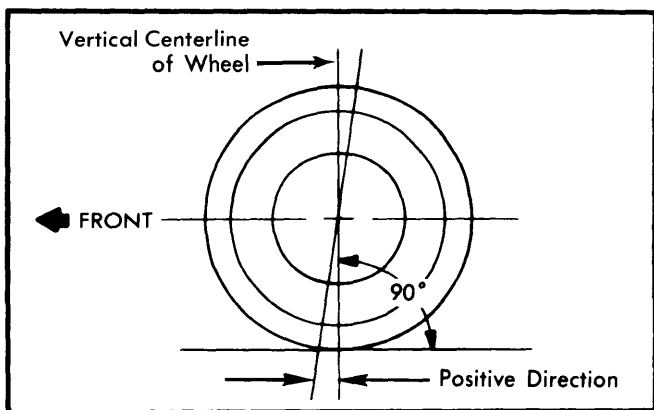


Fig. 4 Determining Caster Angle

### TOE-IN ADJUSTMENT

Toe-in is the difference in the distance measured between the front and rear of the front wheels. To adjust:

- 1) Measure toe-in with front wheels in straight ahead position and steering wheel centered. To adjust toe-in, loosen clamps and turn adjusting sleeve or adjustable end on right and left hand tie rods. See Figs. 2 and 5.
- 2) Turn equally and in opposite directions to maintain steering wheel in centered position.

**CAUTION** — Face of tie rod end must be parallel with machined surface of steering rod end to prevent cocking and binding of the ball end in service.

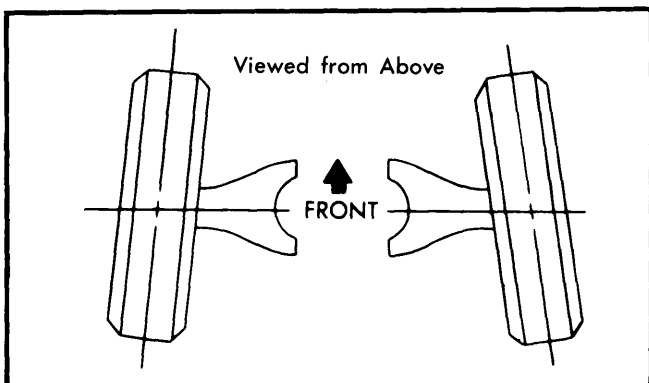


Fig. 5 Illustrating Wheel Toe-In

- 3) When tightening clamps, make certain that clamp bolts are positioned so there will be no interference with other parts throughout the entire travel of linkage.

### TOE-OUT ON TURNS

- 1) Toe-out is a check for bent or damaged parts, and not a service adjustment. With caster, camber, and toe-in properly adjusted, check toe-out with weight of car on wheels. See Fig. 6.
- 2) Use a full floating turn table under each wheel, repeating test with each wheel positioned for right and left turns.
- 3) Incorrect toe-out generally indicates a bent steering arm. Replace arm and recheck all wheel alignment adjustments.

**CAUTION** — Do not attempt to correct by straightening parts.

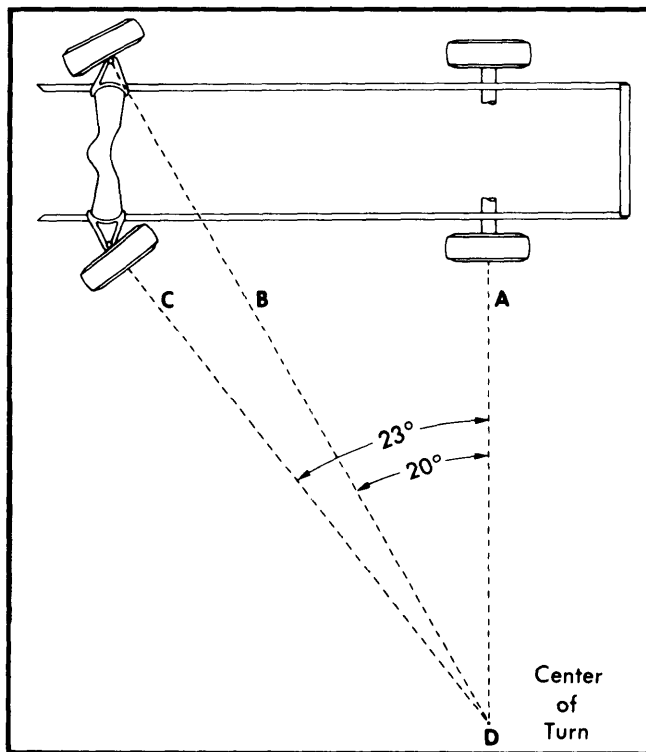


Fig. 6 Wheel Toe-Out on Turns

### STEERING AXIS INCLINATION

- 1) Axis inclination is a check for bent or damaged parts, and not a service adjustment. Car must be level (both crosswise and lengthwise) and camber should be properly adjusted. See Fig. 7.
- 2) If camber cannot be brought within limits and steering axis inclination is correct, steering knuckle is bent. If camber and steering axis inclination are both incorrect by approximately the same amount, the upper and lower control arms are bent. Replace parts, and recheck all front end adjustments.

**CAUTION** — Do not attempt to correct by straightening parts.

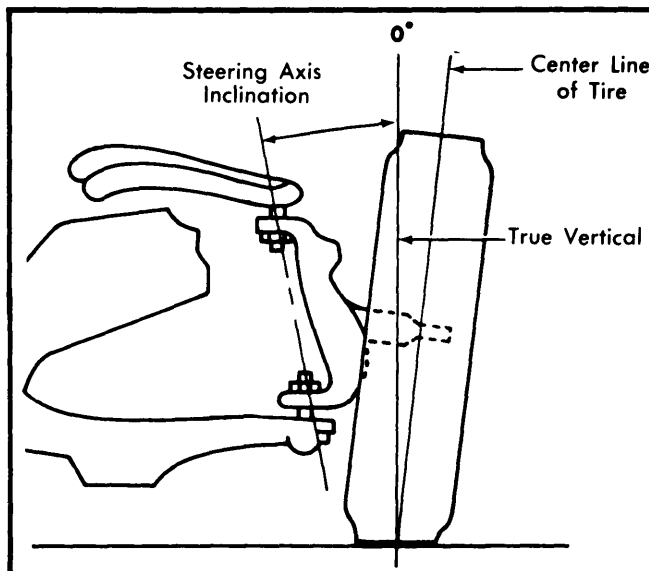


Fig. 7 Checking Steering Axis Inclination