

# Wheel Alignment

## GENERAL MOTORS

### CHEVROLET & GMC (W/LEAF SPRINGS)

#### CAMBER

Camber is preset at factory, and no adjustment is provided. If not within limits, replace parts as necessary to correct.

#### CASTER

Caster adjustment is accomplished by inserting wedge between spring and axle. To increase caster, insert wedge with thick position toward rear of vehicle. To decrease caster, insert wedge with thick portion toward front of vehicle.

#### STEERING STOP SCREW

With front wheels in full right turn position, measure angle of horizontal wheel centerline. Adjust stop screw in steering knuckle until correct maximum angle is obtained. Repeat procedure with wheels in full left turn position. If after adjustment, tires have less than  $\frac{3}{8}$ " clearance from nearest chassis obstruction, readjust to obtain clearance.

### GMC MOTOR HOME (W/TORSION BARS)

#### RIDING HEIGHT

**Front** — Riding height is measured from floor-to-oval hole in frame approximately two feet behind centerline of front wheel. To adjust riding height, raise vehicle and support under frame. Clean threads of adjusting bolt and apply grease to threads. Turn adjusting bolt clockwise to raise vehicle, and counterclockwise to lower vehicle. **CAUTION** — Do not turn adjusting bolt while vehicle is on ground, as this will strip threads of adjusting bolt.

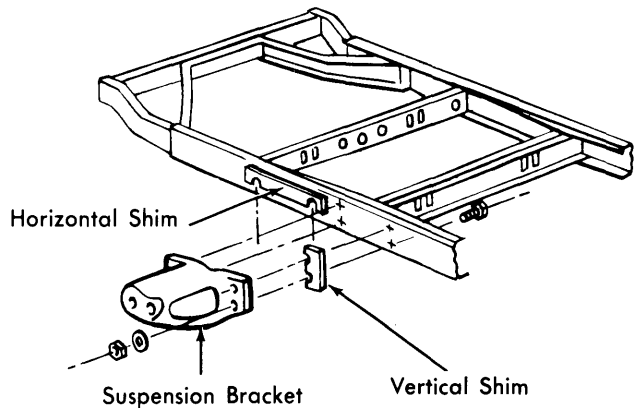
**Rear** — Riding height is measured from floor-to-oval hole in frame approximately four feet (depending on model) behind rear wheels. To adjust riding height, loosen adjustment nut on height control valve, and manually operate overtravel lever until correct riding height is obtained. Tighten adjustment nut to 70-80 ft. lbs.

#### CAMBER

**Front** — Camber is controlled by eccentric bolts which mount upper control arm to frame. To increase camber, loosen eccentric bolt lock nuts and turn both eccentric bolts an equal amount to force upper control arm outward. To decrease camber, turn both bolts an equal amount to pull upper control

arm inward. **NOTE** — Turning both bolts an equal amount will change camber without affecting caster. Tighten eccentric bolt lock nuts.

**Rear** — Adjustment of rear wheel camber is accomplished by inserting shims between rear suspension mounting bracket and frame. Raise vehicle and LOOSEN suspension mounting bracket bolts. Insert horizontal shims between frame and bracket to increase camber. Remove shims to decrease camber. **NOTE** — Vertical shims are used to control rear wheel toe-in, and should be left in place when adjusting camber.



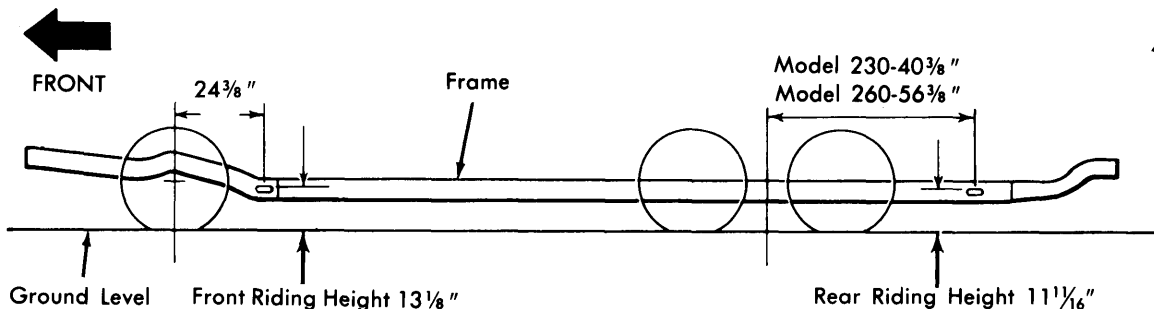
4GM15

#### SHIM LOCATION

#### CASTER

**Front** — Caster is controlled by eccentric bolts which mount upper control arm to frame. To obtain positive caster, loosen forward eccentric bolt lock nut and turn eccentric bolt to force forward part of control arm outward, or loosen rear eccentric bolt lock nut and turn eccentric bolt to pull rear of control arm inward. To obtain negative caster, loosen eccentric bolt lock nut and turn forward eccentric bolt lock nut and turn forward eccentric bolt to pull front part of control arm inward, or loosen rear eccentric bolt lock nut and turn eccentric bolt to force rear of control arm outward. Tighten eccentric bolt lock nuts to 110 ft. lbs.

**Rear** — Caster is factory preset, and no adjustment is provided.



4GM14

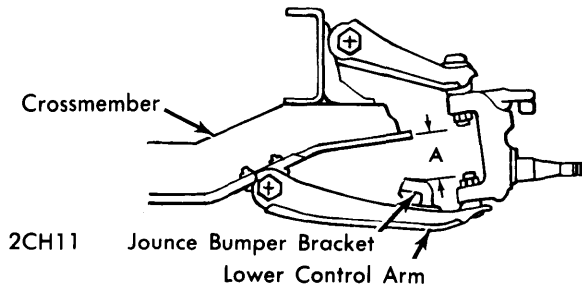
#### GMC MOTOR HOME RIDING HEIGHT

## GENERAL MOTORS (Cont.)

### CHEVROLET & GMC (W/COIL SPRINGS)

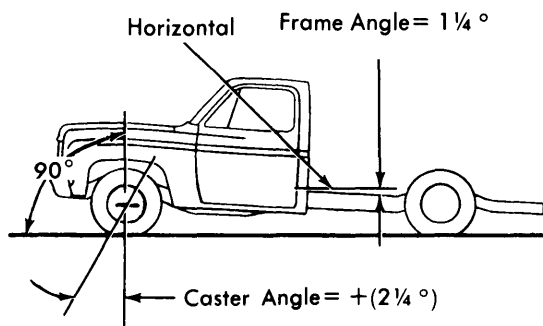
#### CAMBER

1965-71 — Determine existing camber, using suitable alignment equipment, and measure distance from top of jounce bumper bracket on lower control arm to bottom surface of frame crossmember. To increase camber, add equal amounts of shims to both upper control arm attaching bolts. To decrease camber, subtract equal amounts of shims from both control arm attaching bolts. *NOTE — By adding or subtracting equal amounts of shims, camber may be corrected without affecting caster.*



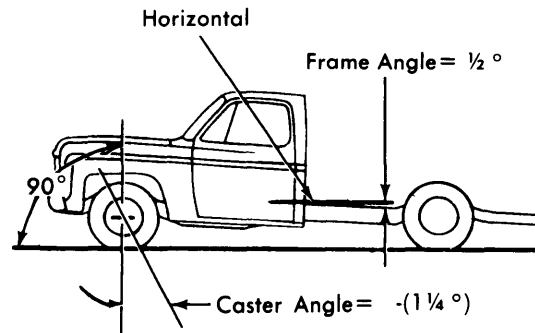
#### AXLE GAP

A



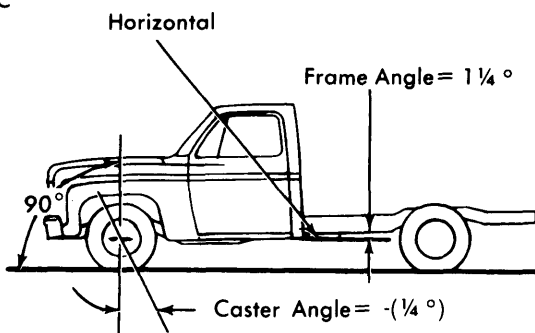
Corrected Caster Angle =  $+1^\circ$

B



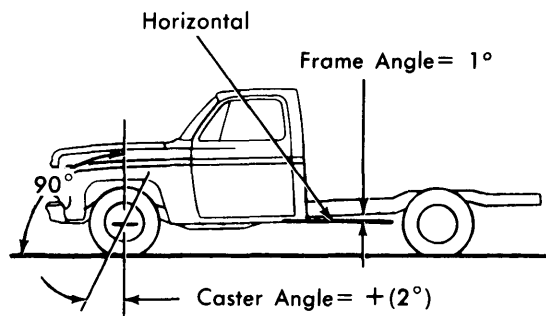
Corrected Caster Angle =  $-1\frac{3}{4}^\circ$

C



Corrected Caster Angle =  $+1^\circ$

D



Corrected Caster Angle =  $+3^\circ$

3CH13

#### DETERMINING CORRECTED CASTER ANGLE

1972-74 — Procedure for these vehicles is same as for earlier vehicle, except that camber is not affected by control arm bumper-to-crossmember clearance.

#### CASTER

1) Measure frame angle, in relation to level, directly behind cab. Using suitable alignment equipment, determine existing caster. Combine frame angle with caster angle to determine corrected caster angle as follows:

A) — If frame is down in rear, frame angle must be subtracted from positive caster angle.

B) — If frame is down in rear, frame angle must be added to negative caster angle.

C) — If frame is up in rear, frame angle must be subtracted from negative caster angle.

D) — If frame is up in rear, frame angle must be added to positive caster angle.

2) Measure distance from top of jounce bumper bracket on lower control arm to bottom of frame crossmember. Determine correct caster angle for measured clearance and adjust. To increase caster, add shims between forward upper control arm attaching bolt and frame, or subtract shims from rear attaching bolt. To decrease caster, subtract shims from forward bolt, or add shims to rear bolt.