# FORD MOTOR CO.

## ALL MODELS

### RIDING HEIGHT

NOTE – *Before making wheel alignment adjustments, make sure front riding heights are within 1/8" of each other.*

1) With vehicle on level surface, fuel tank full and no other load, bounce both front and rear until suspension settles. On E100-350 models, place 2 height blocks 3½" high between top of axle and flange on lower part of jounce bracket on each axle.

2) Measure clearance at inside area of jounce bracket (toward wheel) between top of axle and spring seat lower surface on frame. On F100-350 and Bronco models, place 2 height blocks 5" high between top of axle and outside lip of jounce bumper on each axle.

3) Measure clearance at inside of spring seat lower surface (toward center of vehicle) between top of axle and spring seat lower surface. If clearance is not correct, height must be corrected by installing proper springs or use of shims.

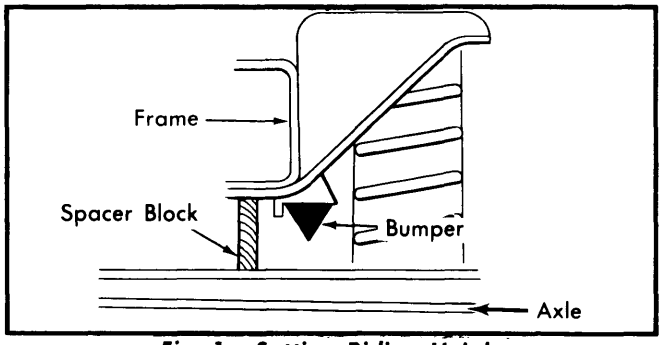


*Fig. 1 Setting Riding Height*

### CASTER

**All Models** – Caster is built-in at factory and no adjustment is provided. If not within limits, replace parts as required.

### CAMBER

**All 2-WD Models** – Camber is built-in at factory and no adjustment is provided. If not within limits, replace parts as required.

**All 4-WD Models** – Camber adjustment is provided by a series of interchangeable mounting sleeves for upper ball joint stud. Sleeves are available in 4 ranges of ½° increments from 1½° negative to 1½° positive.

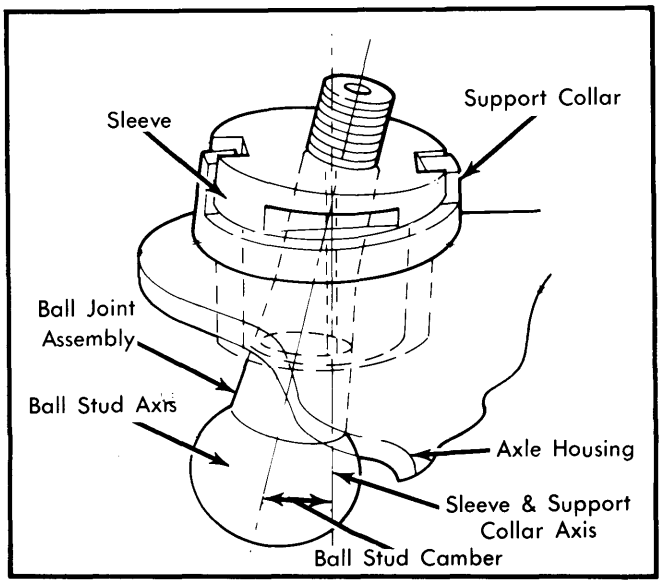


*Fig. 2 Camber Adjustment*

### TURNING ANGLE ADJUSTMENT

### (4-WD MODELS ONLY)

1) The turning angle stop screws are located on back side of steering knuckle, just above axle shaft centerline. To adjust, loosen stop screw lock nut.

2) Using full-floating turn table under each wheel, adjust turning angle to specifications by adjusting stop screw IN to increase and OUT to decrease turning angle.

**Turning Angle Adjustment (4-WD Models Only)**

| Application | Left Wheel | Right Wheel |
|---|---|---|
| F150 & Bronco | 36° | 36° |
| F250 | 33.4° | 33.4° |
| F350 | 30.3° | 30.3° |

# GENERAL MOTORS

## ALL MODELS

NOTE – *Difference in shim packs must not exceed .300". Front shim pack must be .100" minimum.*

### CAMBER

NOTE – *On 4-wheel drive models, camber is built-in at factory and no adjustment is provided. If not within limits, replace parts as required.*

**All Models** – Camber is changed by adding or subtracting shims from the upper control arm shaft. 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.*

### CASTER

NOTE – *On 4-wheel drive models, caster is built-in at factory and no adjustment is provided. If not within limits, replace parts as required.*

**All Models** – 1) Measure frame angle, in relation to level, directly behind cab. Using suitable alignment equipment,

## GENERAL MOTORS (Cont.)

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.

**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.

## INTERNATIONAL HARVESTER

### ALL MODELS

#### CAMBER

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

#### CASTER

Caster specifications are based on a vehicle design load, therefore frame must be level when caster is adjusted. Caster adjustment is accomplished by inserting a wedge between the spring and axle. To increase caster, insert wedge with thick portion toward rear of vehicle. To decrease caster, insert wedge with thick portion toward front of vehicle.

NOTE – *Possible causes of incorrect caster are sagging springs, bent or twisted axle or unequally tightened spring "U" bolts. In most cases, a twisted axle would be at fault if caster varies more than ½° between left and right.*

## JEEP

### ALL MODELS

#### CAMBER

Correct wheel camber of 1½° for CJ models and 0° for Cherokee, Wagoneer and Truck models is preset at time of manufacture and can not be adjusted. If not within limits, replace parts as required.

#### CASTER

Correct caster is preset at factory to 3° for CJ models, and 4° for all other models. Adjustment is made by inserting shim between spring and axle. To increase caster, insert thick portion toward rear of vehicle. To decrease caster, insert thick portion toward front of vehicle.

#### TURNING ANGLE ADJUSTMENT

**1)** The turning angle stop screws are located on back side of steering knuckle, just above axle centerline. To adjust, loosen lock nut on stop screw.

**2)** Using full-floating turn table under each wheel, adjust stop screw IN to increase turning angle and OUT to decrease turning angle. Tighten lock nut.

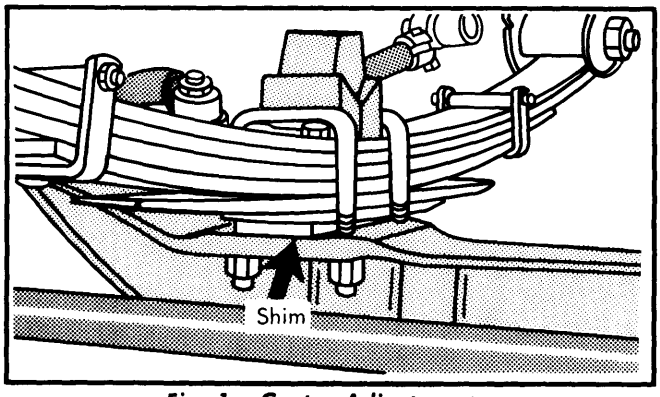


*Fig. 1 Caster Adjustment*

**Turning Angle Adjustment**

| Application | Left Wheel | Right Wheel |
|---|---|---|
| CJ | 31-32° | 31-32° |
| All Others | 37-38° | 37-38° |