## FORD MOTOR CO. PROPELLER SHAFT ALIGNMENT

**Ford Motor Co.**

### DESCRIPTION

Pinion nose and propeller shaft angle are controlled by two upper control arms on all models equipped with coil springs. Whenever control arms are removed, pinion nose angle must be adjusted.

### CHECKING & ADJUSTMENT

**Checking – 1)** Apply load to attain curb height shown in pinion angle table. Height is measured from top of axle housing tube to bumper bracket on bottom of side rail (outer edge of side rail on Ford, Mercury, Continental and Mark VI). Position "V" magnet of Tool T68P-4602-A on drive shaft away from welds and balance weights.

**2)** From left side of vehicle, position tool on "V" magnet with adjusting screw to left. Adjust dial on tool until left side of bubble is on zero line. Position tool on "U" joint bearing cap with tool in same relative position as it was on "V" magnet. Ford, Mercury, Continental and Mark VI models require placing tool on bearing cap of circular flange.

NOTE – *Snap ring must be removed and reinstalled after reading is completed on circular flange cap bearings.*

**3)** Read position of bubble's left hand edge on scale to determine driveshaft pinion angle. Compare to angle specifications shown in table. If pinion angle is not within specifications, adjust to tolerances given in table.

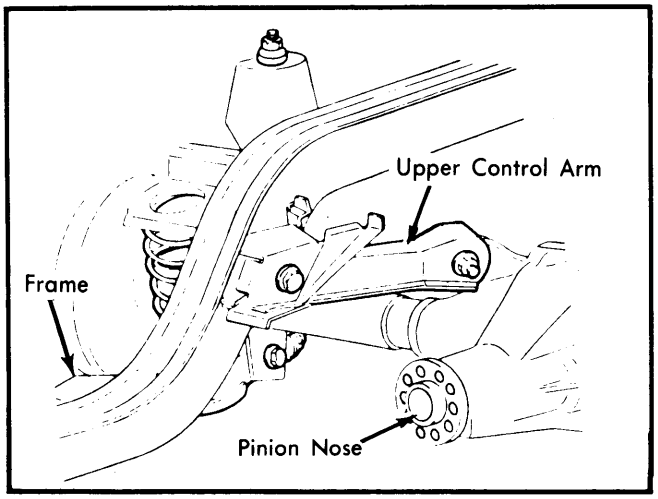


***Fig. 1 Pinion Angle Adjustment***

**Adjustment – 1)** If angle is not within specifications, raise and support vehicle at side frame rails. Lower and support rear axle and differential pinion nose. Disconnect parking brake cable from upper arm retainer. Remove upper arms one at a time to prevent axle from rolling.

**2)** Insert wide flat tool (screwdriver) in eccentric inner sleeve (accessible through hole made by removal of attaching bolt). Rotate cam clockwise to raise or counterclockwise to lower pinion angle.

**3)** Reinstall upper arms and install new pivot bolts and nuts with nut facing inboard. Recheck pinion angle and tighten pivot bolt with vehicle at controlled height.

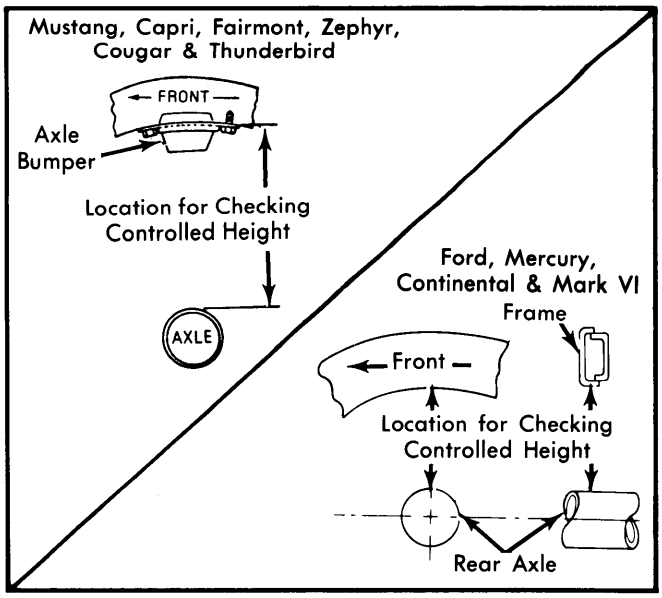


***Fig. 2 Location for Measuring Control Height***

NOTE – *Left and right upper arms must have same setting.*

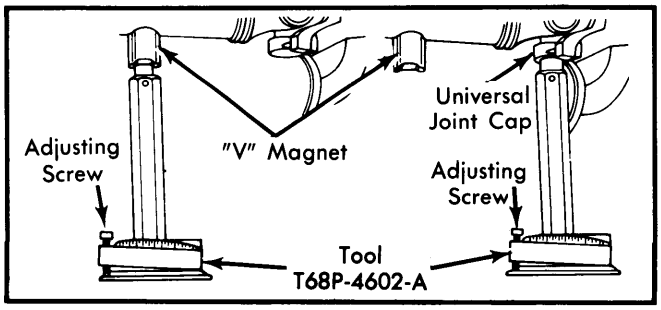


***Fig. 3 Measuring Differential Nose Angle***

**Pinion Angle Degree & Controlled Height**

| Application | Degree | Controlled Height |
|---|---|---|
| Mustang & Capri | | |
| 6¾" Axle | 3° ± ½° | 5.29" |
| 7½" Axle | 3⅓° ± ½° | 5.07" |
| Fairmont & Zephyr | | |
| Sedan | | |
| 6¾" Axle | 3⅓° ± ½° | 5.77" |
| 7½" Axle | 3¾° ± ½° | 5.55" |
| Station Wagon | | |
| 6¾" Axle | 3⅙° ± ½° | 6.10" |
| 7½" Axle | 3½° ± ½° | 5.88" |
| Ford & Mercury | | |
| Sedan | | |
| 7½" Axle | 1⅔° | 5.94" |
| 8½" Axle | 1° | 5.94" |
| Station Wagon | | |
| 7½" Axle | ⅓° | 6.38" |
| 8½" Axle | ¼° | 6.38" |
| Cougar & Thunderbird | 1⅙° | 6.08" |
| Continental & Mark VI | | |
| 7½" Axle | 1½° | 5.94" |
| 8½" Axle | 1° | 5.94" |