

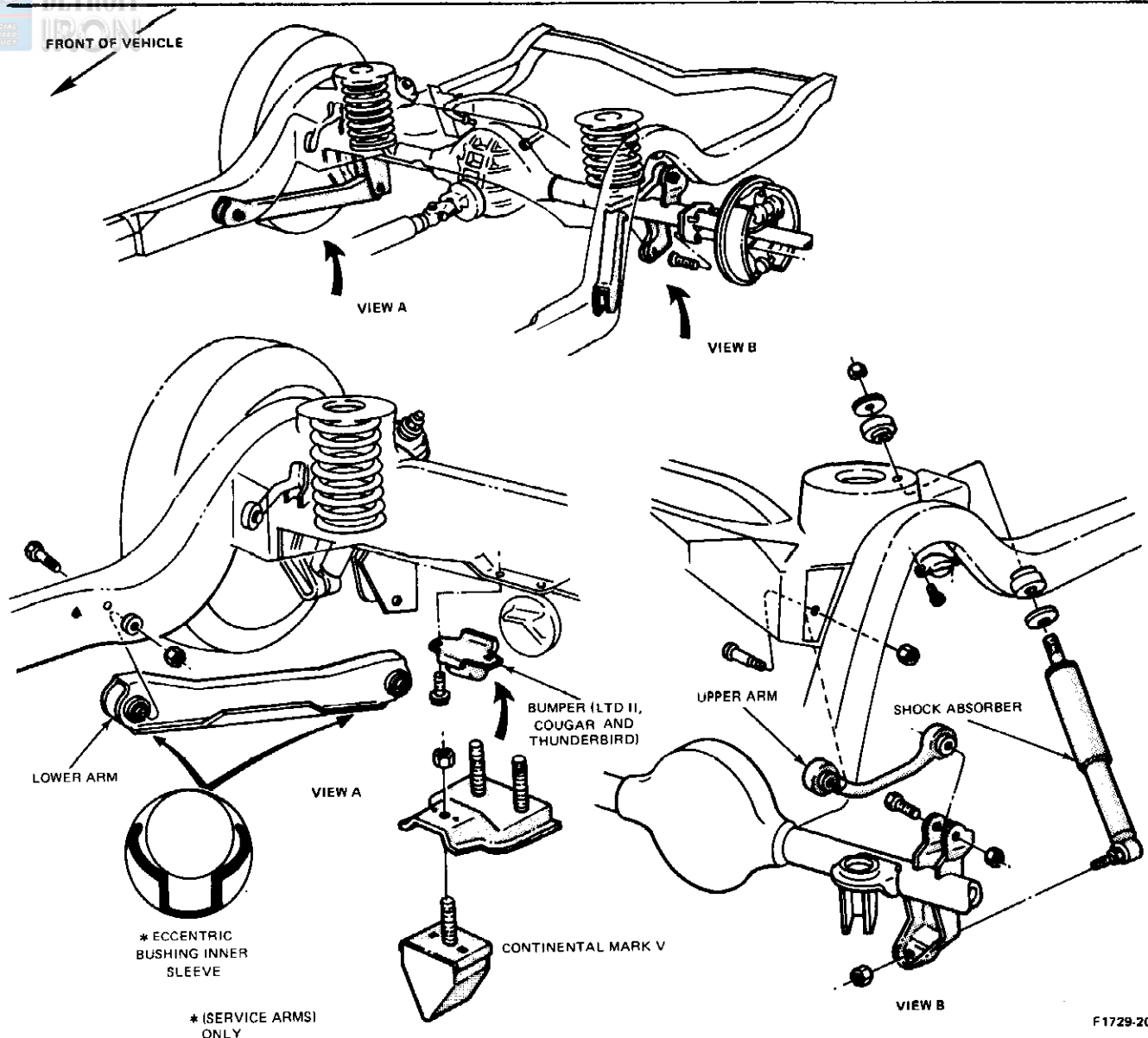


FIG. 1 Rear Suspension—LTD II/Cougar/Thunderbird/Continental Mark V

On LTD II, Cougar, Thunderbird, and Continental Mark V units, two upper arms (which are not interchangeable) attach at the rear to brackets near the outer ends of the axle housing. The forward ends are connected to frame crossmember brackets.

All lower arms attach similarly to the frame side members and axle brackets.

On Ford, Mercury, and Lincoln Continental vehicles, a track bar is connected between the upper arm bracket on the axle housing and a mounting bracket on the left frame side rail.

A rear stabilizer bar is standard on all Continental Mark V, Thunderbird and Cougar XR-7 vehicles, but

available only on LTD II, Cougar and Ranchero with handling option. It is attached to left- and right-side brackets and two axle brackets (Fig. 14).

The rear suspension is a four link coil spring suspension design. The rear axle is suspended from the body by two upper arms which control side to side movement and two lower arms which control forward and rearward movement. Shock absorbers are located on each side. Each coil spring is mounted between an upper seat which is welded to the body and a lower seat which is part of the lower arm assembly. The shock absorbers are attached to an upper shock bracket welded to the body and the lower shock bracket which is welded to the rear axle tubes. (Fig. 3)

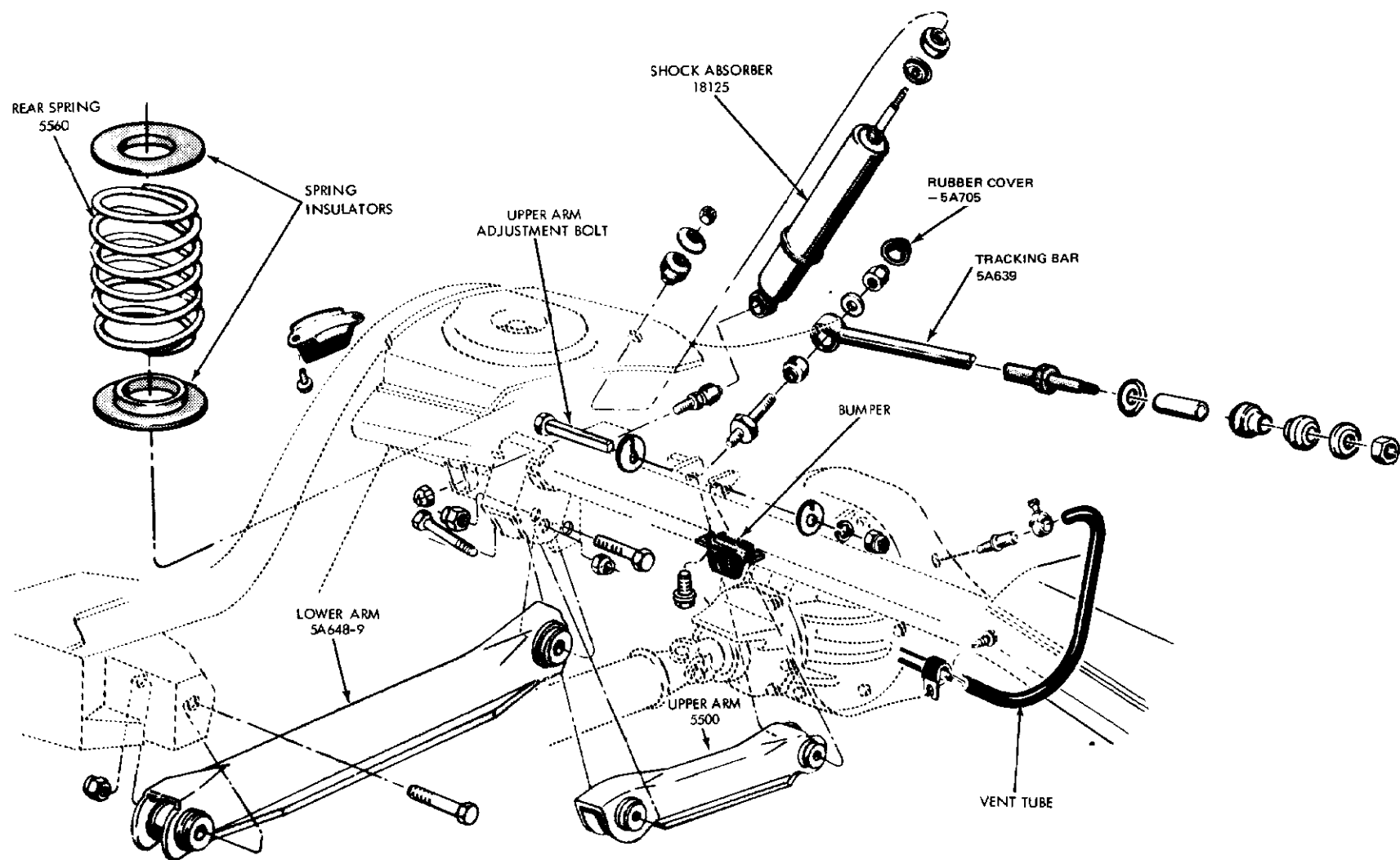


FIG. 2 Rear Suspension—Ford/Mercury/Lincoln Continental

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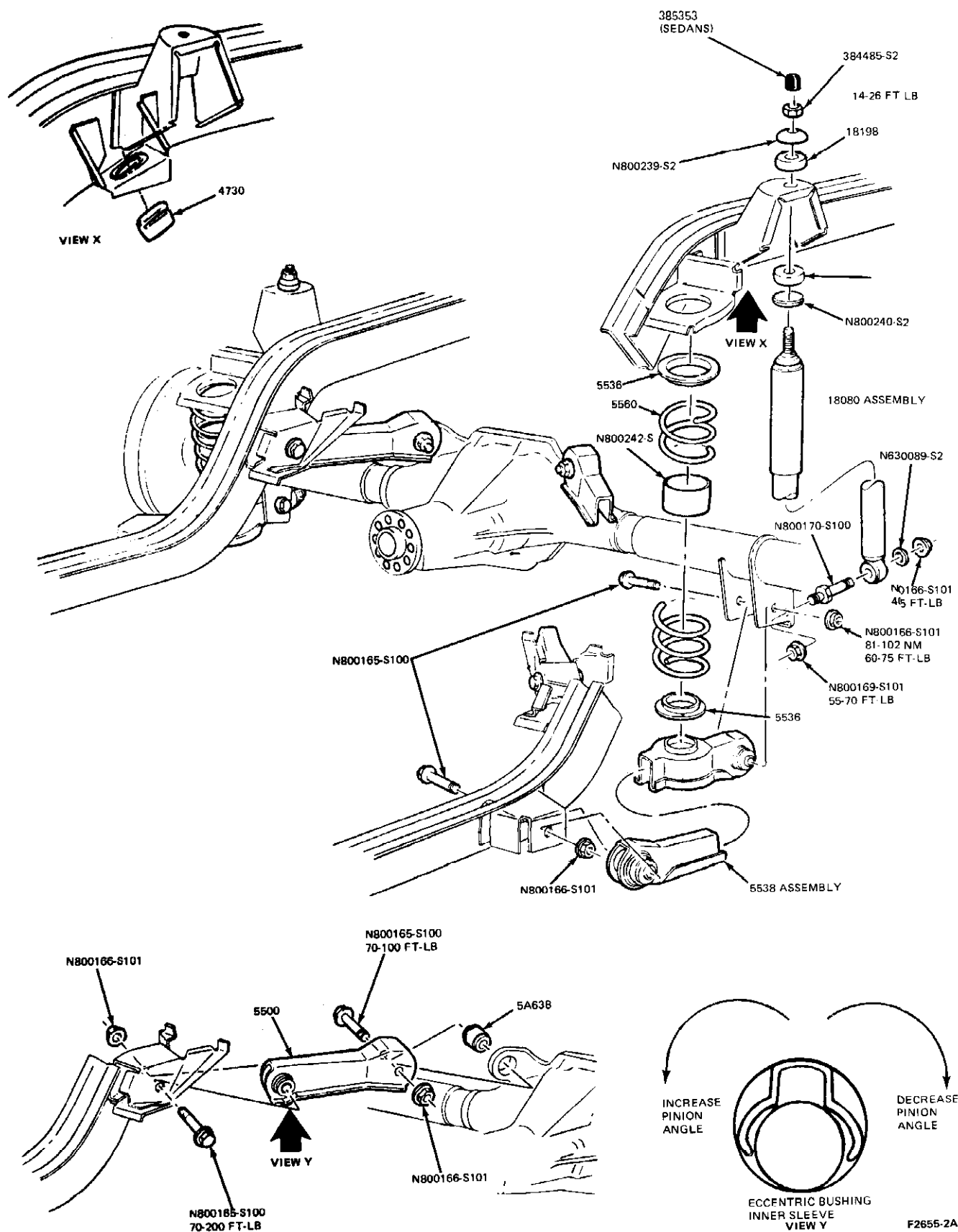


FIG. 3 Rear Suspension—Fairmont/Zephyr

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ADJUSTMENTS

DRIVE SHAFT—PINION ANGLE

The pinion drive shaft working angle must be checked and adjusted to specification whenever the rear axle has been removed.

CHECKING PROCEDURE

On LTD II, Cougar, Thunderbird and Continental Mark V vehicles, a load must be applied to attain a height of 4.82 inches, measured from the top of the axle housing to a point on the frame side rail, adjacent to the jounce bumper rear mounting bolt head. On Ford, Mercury, and Lincoln Continental units, loading is required to attain a controlled height of 5.70 inches, measured as described above. See the illustration in the Specifications section at the end of this Part.

1. Position the vee-magnet (part of Tool T68P-4602-A) on the drive shaft away from welds and balance weights (Fig. 3).
2. From the left side of the vehicle, position the magnetized Tool T68P-4602-A on the vee-magnet with the adjusting screw to the left (Fig. 4). Adjust the dial on the tool with the adjusting screw until the left-hand edge of the bubble is exactly on the zero line.
3. Now, position the magnetized tool on a U-joint bearing cap as shown in Figure 5, with the tool in the same relative position as it was on the Vee-magnet (Fig. 4).
4. Read the position of the bubble's lefthand edge on the scale to determine the drive shaft pinion angle. Compare to the degree specification in the chart at the end of the Part. If adjustment is necessary, adjust to within plus or minus 30 minutes.

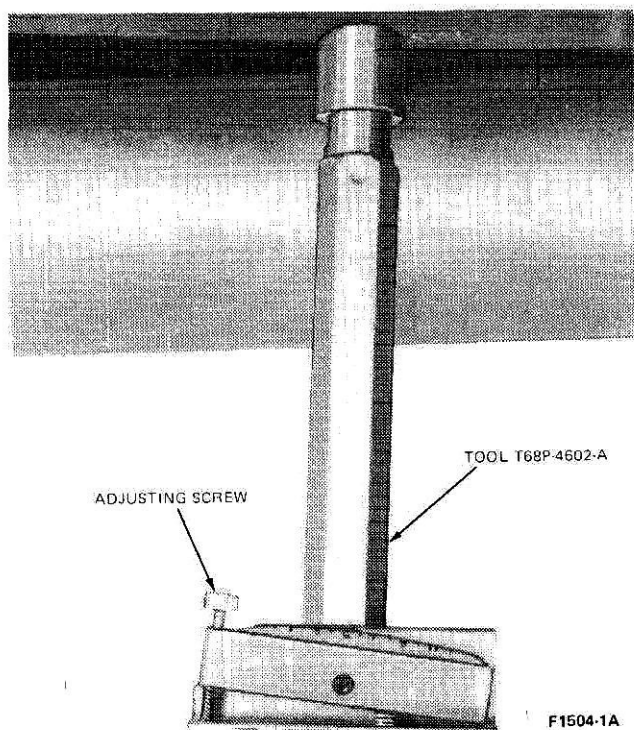


FIG. 4 Positioning Tool on Vee-Magnet

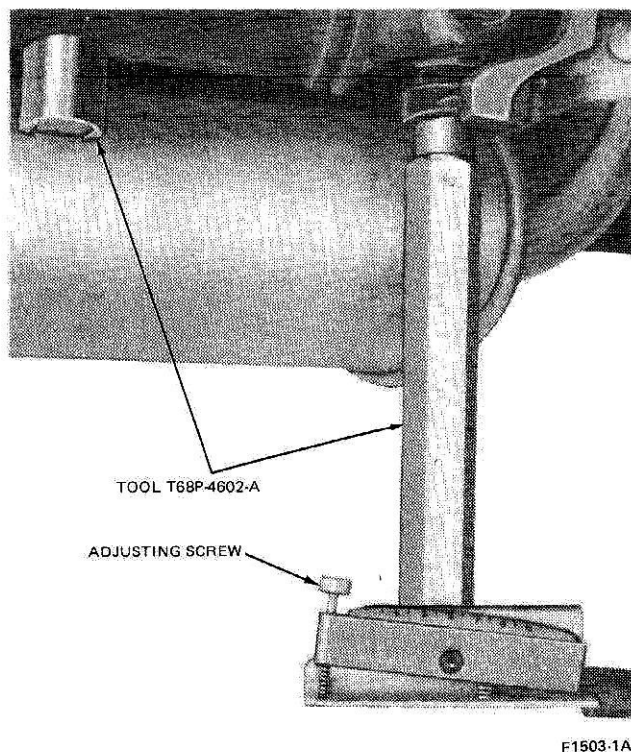


FIG. 5 Measuring Pinion Angle

SINGLE UPPER ARM

If the pinion angle is not within specifications, adjust the pinion angle as follows:

The upper arm-to-axle housing bolt and two eccentric washers form an adjusting cam mechanism (Fig. 6) which will tilt the axle housing to the required angle.

1. Raise the vehicle on a hoist and loosen the upper arm pivot nut at the axle attachment.
2. Replace with new bolt, nut, and lock washers.

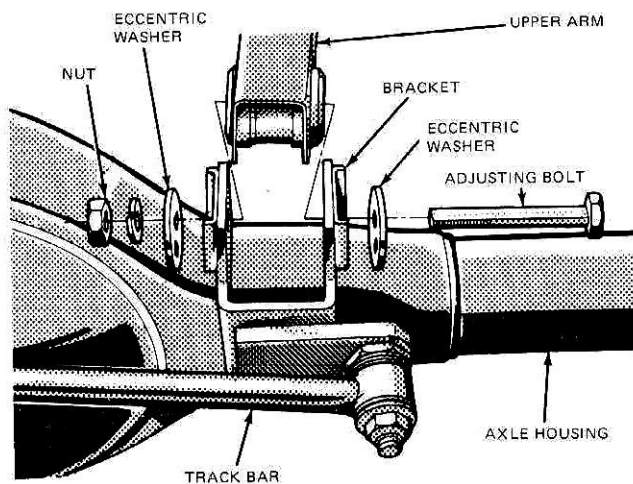


FIG. 6 Pinion Angle Adjustment

3. If the angle is less than specifications, rotate the adjusting cam, so as to move bolt forward, and recheck the angle. If the angle is more than specification adjust accordingly and recheck the angle.
4. When the axle housing is adjusted in such a way that the driveshaft angle reading is within specifications, torque the nut to specifications.
5. Lower the vehicle and road test for proper axle operation.

DOUBLE UPPER ARMS (EXCEPT FAIRMONT/ZEPHYR)

If the pinion angle is not within specifications, adjust the pinion angle as follows:

1. Raise the vehicle on a hoist.
2. Place safety stands under the frame side rails and lower the rear axle hoist sufficiently to unload the axle.
3. Place a jacking stand under the rear axle pinion housing and raise it to unload the arm bushings.
4. Remove the lower arm front and rear attaching bolts from both arms.
5. Remove the arms from the car.
6. LTD II, Thunderbird, and Cougar models require a service arm kit, that contains new arms and adjusting cams. Continental Mark V models require replacement of nonserrated inner sleeve of the lower arm bushings, with adjusting cam from service kit D20Z-5K751-B.
7. Use Tool T72P-5538-A to insert in the slot in the eccentric inner sleeve (accessible through the hole from which the attaching bolt was removed).
8. Now rotate the eccentric bushing clockwise or counterclockwise to raise or lower the pinion nose angle to specification (Fig. 6).

If further adjustment is required to get the angle within specification, the eccentric bushing at the rear of each arm may also be adjusted by following the front eccentric procedure.

9. Install new nuts and bolts. Flanged nuts and bolts are required at frame attachment.
10. When the necessary adjustment has been made, lower the hoist to load the arms and torque the nuts to specification while holding the bolt heads with a wrench.

DOUBLE UPPER ARMS (FAIRMONT/ZEPHYR)

On the Fairmont/Zephyr vehicle a load must be applied to attain a curb height of 5.55" on sedans, and 5.88" on the station wagon. This height is measured from the top of the axle housing tube to the jounce bumper bracket on the bottom of the side rail (See Specifications).

1. Position the vee-magnet (part of tool T68P-4602-A) on the driveshaft away from welds and balance weights (Fig. 4).
2. From the left side of the vehicle, position the magnetized tool T68P-4602-A on the vee-magnet with the adjusting screw to the left (Fig. 4). Adjust the dial on the tool until the left hand edge of the bubble is exactly on the zero line.
3. Position the magnetized tool on a "U" joint bearing cap as shown in (Fig. 5) with the tool in the same relative position as it was on the vee-magnet.
4. Read the position of the bubble's left hand edge on the scale to determine the driveshaft pinion angle. Compare to the pinion angle specification at the end of this Part.

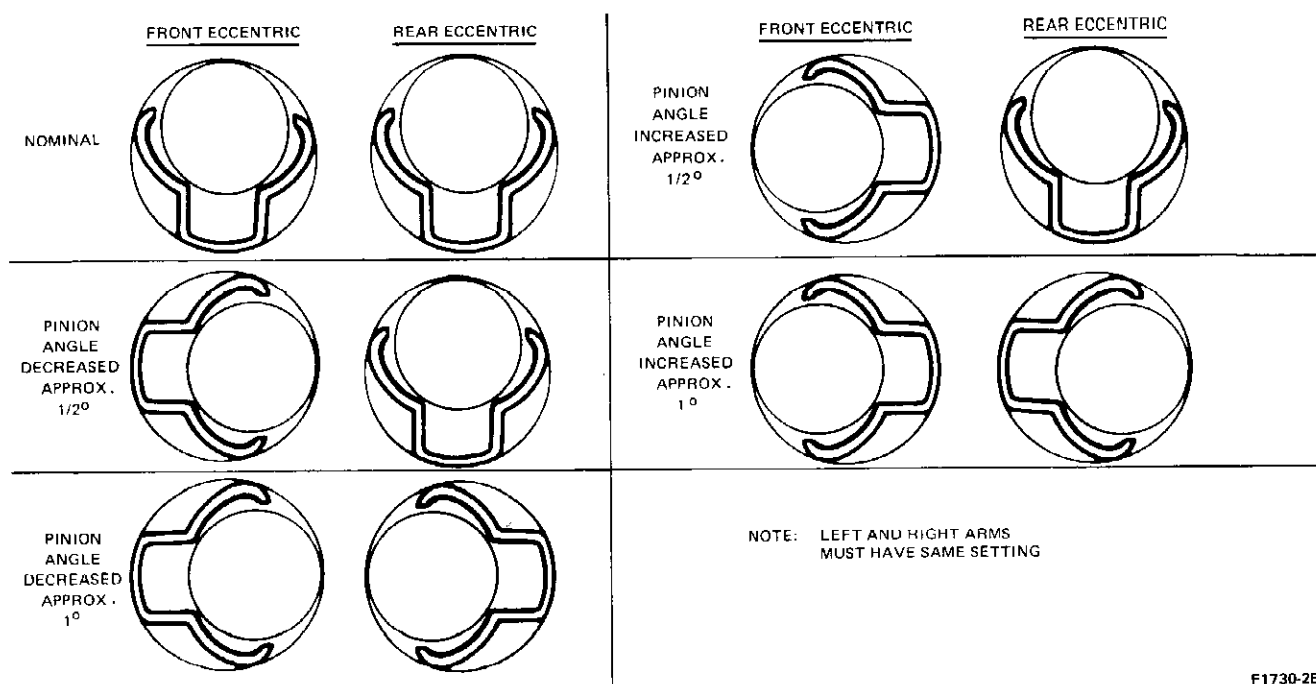


FIG. 7 Eccentric Bushing Inner Sleeve Positions

If the pinion angle is not within specifications, adjust the pinion angle as follows:

1. Remove the upper arms as outlined in Upper Arm Removal.
2. Using a fabricated tool as shown in Fig. 8, insert the tool in the slot in the eccentric inner sleeve (accessible through the hole from which the attaching bolt was removed). NOTE: If the cam ap-

pears to be rusty, tap the cam with a drift to remove the rust so the cam will rotate.

3. Now rotate the eccentric bushing clockwise or counter-clockwise to raise or lower the pinion nose angle to Specification (given at the end of this Part).
4. After the adjustment is performed install the upper arms as outlined in Upper Arm Installation.

REMOVAL AND INSTALLATION

REAR SHOCK ABSORBER — (EXCEPT FAIRMONT/ZEPHYR)

Removal and Installation

1. Raise the vehicle on a hoist.
2. Remove the shock absorber attaching nut, washer, and insulator from the stud on the upper side of the spring upper seat. Compress the shock absorber to clear the hole in the spring seat, and remove the inner insulator and washer from the upper attaching stud.
3. Remove the self-locking attaching nut, and disconnect the shock absorber lower stud from the mounting bracket on the rear axle housing (Figs. 1 and 2).

shock absorber in this position, install the outer insulator, washer, and a new stud nut on the upper side of the spring upper seat. Torque the nut to specifications.

6. Extend the shock absorber and place the lower stud in the mounting bracket hole on the rear axle housing. Install a new self-locking attaching nut and torque to specification.

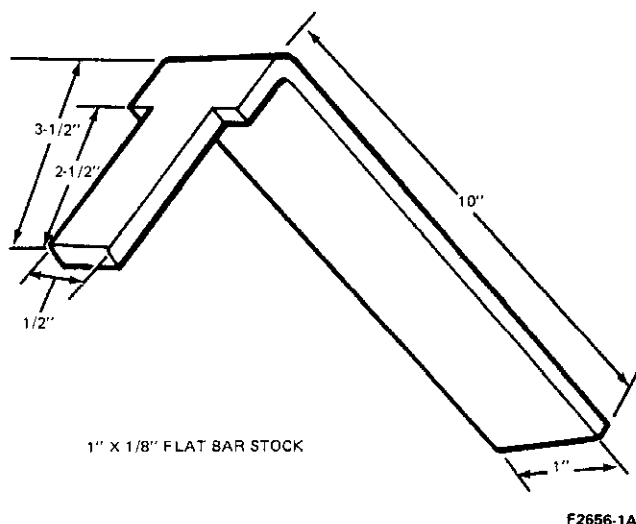
FAIRMONT/ZEPHYR

Removal (Refer to Fig. 3)

1. Open the trunk (sedan) or remove side panel trim covers (station wagon) to gain access to the upper shock attachment.
2. Remove rubber cap from shock absorber stud (sedans).
3. Remove shock absorber attaching nut, washer and insulator.
4. Raise vehicle on hoist supporting rear axle.
5. Compress the shock absorber to clear the hole in the upper shock tower.
6. Remove the lower shock absorber nut and washer from the shock mounting stud, and remove the shock absorber.

Installation (Refer to Fig. 3)

1. Expel all air from the new shock absorber. See: Shock Absorber Checks in Part 14-01.
2. With shock absorber in compressed position place the lower shock mounting eye over the stud in the lower mounting bracket and install washer and new self-locking attaching nut. Do not torque at this time.
3. Place the inner washer and insulator on the upper attaching stud.
4. Extend shock absorber and position upper stud into hole in upper shock.
5. While holding shock in this position, torque lower attaching nut to 40-55 ft-lb.
6. Lower vehicle and install insulator, outer washer and a new nut to upper shock stud. Torque the nut to 14-26 ft-lb. Install side panel trim covers on station wagons and rubber cap on sedans.



**FIG. 8 Fabricated Cam Adjuster
Tool — Fairmont/Zephyr**

4. Expel all air by performing Step 3, On Vehicle Tests (See: Shock Absorber Checks.), in Part 14-01.
5. Place the inner washer and insulator on the upper attaching stud, and position the shock absorber so that the upper attaching stud enters the hole in the spring upper seat. While holding the