CHRYSLER CORP. (Cont.)

5) Tighten pivot bar nuts to 150 ft. lbs. when adjustment is complete.

All Models (Front Wheel Drive) – 1) To adjust camber, loosen cam and through bolts on each side. *See Fig. 10.* Rotate upper cam and bolt to move top of wheel in or out to specified camber. Tighten bolts to 90 ft. lbs.

2) To adjust camber of rear wheels, add .010" shims between spindle mounting surface and spindle mounting plate. *See Fig. 10.*

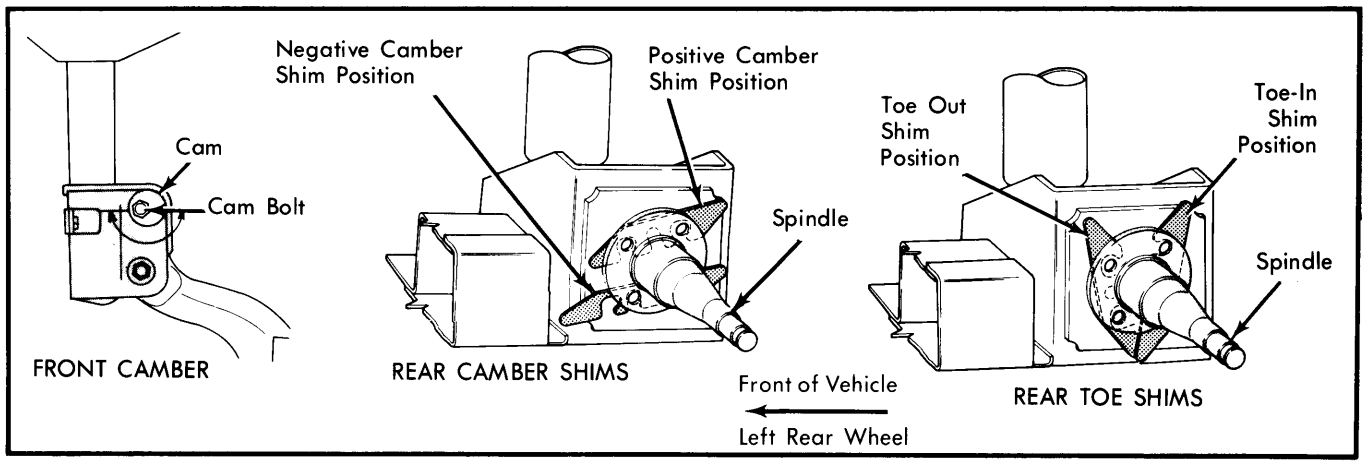

Fig. 10 Adjusting Front Camber, Rear Camber and Toe-In on Front Wheel Drive Models

FORD MOTOR CO.

TIRE INFLATION (COLD)

Inflate tires to manufacturer's specifications found on decal. Decal may be located on glove box door, rear edge of driver's door, or pillar on driver's side.

CASTER & CAMBER

Ford, Lincoln Town Car, Mark VI and Mercury – 1) If adjustment is required, install alignment tools (T79P-3000-A or equivalent) into frame holes and tighten tool hook nuts finger tight against upper arm inner shaft. Tighten nuts 1 additional hex flat (1/6 turn) and loosen shaft-to-frame attaching bolts enough to unload lock washers.

2) Tap bolt heads to assure loosening of lower assemblies. To increase positive caster, tighten tool front hook nut and/or loosen rear hook nut. To decrease caster, tighten rear hook nut and/or loosen front hook nut. To decrease positive camber, loosen hook nuts equally. To increase positive camber, tighten hook nuts equally.

3) When caster and camber are properly set, tighten upper inner shaft-to-frame attaching bolts to 120-140 ft. lbs. Check toe-in and steering wheel spoke position. Adjust as required.

All Other Models – Caster and camber are set at the factory and cannot be adjusted. Only toe-in is adjustable.

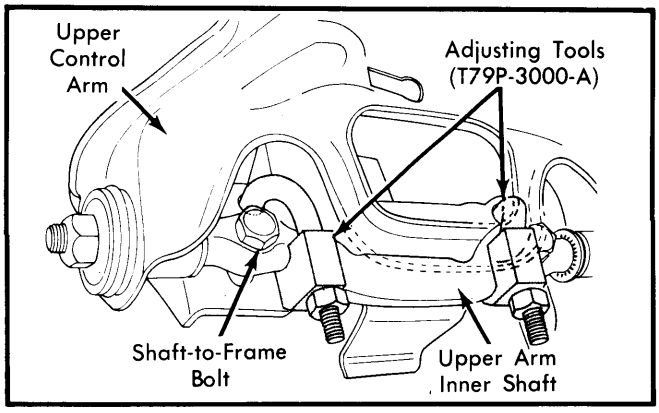

Fig. 11 Caster and Camber Adjustment (Ford, Lincoln Town Car, Mark VI and Mercury)

GENERAL MOTORS

BUICK

TIRE INFLATION (COLD)

Before checking wheel alignment, tires must be inflated to manufacturer's specifications listed on tire placard located on left front door.

RIDING HEIGHT

Vehicle must be on smooth level floor, fuel tank full, trunk empty and doors closed. Measure height from floor to top of wheel well opening. *See Fig. 12.* Height should be as specified ±3/8" and not more then 3/8" difference between left and right sides on Skylark. On all other models, height should be as specified ±1 1/4" with no more than 1" side-to-side difference. If not within specifications, it may be necessary to replace springs.

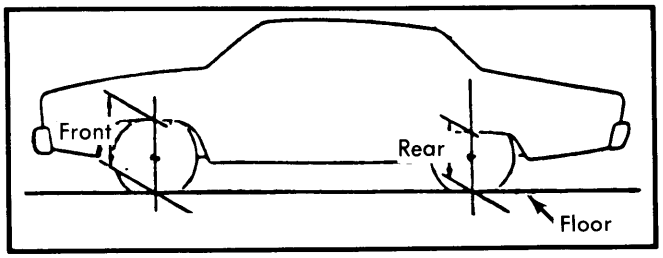

Fig. 12 Riding Height Measuring Points

GENERAL MOTORS (Cont.)

Riding Height Specifications

Application	Front (Inches)	Rear (Inches)
Century & Regal		
Sedan & Coupe	26.7	26.0
Wagon	26.9	16.5
LeSabre & Estate Wagon		
Sedan & Coupe	28.6	27.0
Wagon	28.7	27.3
Electra	28.6	23.6
Riviera	28.6	27.3
Skylark	26.4	25.8

CASTER

NOTE — *Caster is not adjustable on Skylark. Refer to Fig. 15 in CADILLAC section illustrating caster and camber adjustment on all models except Skylark and Riviera.*

All Models (Except Skylark and Riviera) — Loosen nuts attaching upper control arm pivot shaft to frame. To increase positive caster, remove shims from front bolt and add them to rear bolt. To decrease caster (negative), add shims to front and remove them from rear bolt. Tighten control arm shaft nuts and recheck caster.

Riviera — To adjust caster, note camber, then hold front cam bolt (inner end of upper control arm) and loosen nut. Turn bolt to obtain ¼ of the desired caster change. Hold bolt and tighten nut, then repeat on rear bolt, turning cam bolt so that original camber is restored. Tighten nuts to 80 ft. lbs. while holding bolt head.

NOTE — *At front cam bolt, positive camber change produces positive caster change and negative camber change results in negative caster change.*

CAMBER

NOTE — *Refer to Fig. 15 in CADILLAC section for illustration of camber adjustment on all models except Skylark and Riviera.*

All Models (Except Skylark and Riviera) — Loosen nuts attaching upper control arm pivot shaft to frame. To increase camber (positive), remove equal thickness of shims from front and rear bolts. To decrease camber (negative), add equal thickness of shims to front and rear bolts. Tighten control arm shaft nuts and recheck camber.

Skylark — To adjust camber, loosen nuts on cam and through bolts, then rotate cam bolt to move upper steering knuckle in or out. Cam must be seated between inner and outer guide surfaces. Check camber and tighten nuts to 140 ft. lbs. *See Fig. 13.*

NOTE — *Top bolt must be loose whenever camber is adjusted or damage to outer cam guide may occur.*

Riviera — Loosen nuts on one cam bolt (inner end of upper control arm) and turn bolt ½ of needed correction. Hold bolt and tighten nut in this position. Repeat operation on remaining bolt to obtain remaining correction. Setting camber in this manner will not affect caster.

NOTE — *Due to torsion bar suspension on Riviera models, it is possible to adjust front trim height.*

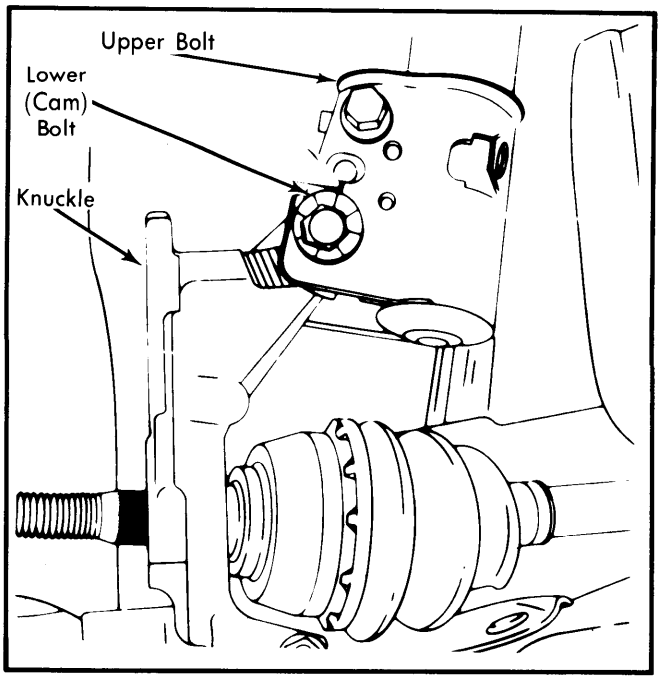

Fig. 13 Camber Adjustment (Skylark)

REAR WHEEL ALIGNMENT (RIVIERA)

See CADILLAC, Rear Wheel Alignment (Eldorado & Seville)

CADILLAC

TIRE INFLATION (COLD)

Before checking alignment, ensure that tires are inflated to manufacturer's specifications found on tire placard at rear of driver's door.

RIDING HEIGHT

Before checking riding height, trunk must be empty (except for spare tire and jack), front seat all way to rear, and fuel tank full. Normalize springs by working bumper up and down, then release bumper and let car assume normal position. If car is equipped with Automatic Level Control, deflate system using service valve and disconnect air line from superlift port on control valve. Check riding height as follows:

Front (Eldorado & Seville) — Measure distance from lower edge of front shock absorber dust tube to centerline of lower attachment. Distance should be within specifications, and equal within ⅜" on each side. If not within specifications adjust at torsion bar adjusting bolt. Clockwise rotation of bolt increases front height while counterclockwise rotation decreases height.

NOTE — *Alternate dimension of 11.06-11.85" between centers of shock absorber mounting studs may be used.*

Front (All Others) — Measure distance from center of lower control arm bushing bolt head to horizontal line from lowest point on inboard corner of lower ball joint. Distance should be

GENERAL MOTORS (Cont.)

within specifications, and equal from side to side within 3/8". If heights are not equal, replace spring on low side.

Rear (Eldorado & Seville) – Place weight in trunk and turn on ignition, energizing electronic level control compressor. Turn ignition switch off and remove weight. Wait 30 seconds and measure between bottom of rear control arm flange and frame. Distance should be within specifications and equal within 3/8" from side to side.

Rear (All Others) – Measure distance from top of axle housing straight up to lower underside of frame. Distance should be within specifications, and equal within 1/2" on each side. If not within specifications, replace spring on low side.

Riding Height Specifications

Application	Front	Rear
All Models (Exc. Eldorado & Seville)		
Standard		
6.0L	1.79-2.57"	5.11-5.90"
Diesel	1.84-2.63"	5.12-5.91"
Electronic Level Control		
6.0L	1.71-2.49"	4.75-5.54"
Diesel	1.77-2.55"	4.76-5.55"
Eldorado		
6.0L	5.24-6.03"	4.99-5.78"
Diesel	5.24-6.03"	4.95-5.74"
Seville		
6.0L	5.24-6.03"	5.05-5.82"
Diesel	5.24-6.03"	5.00-5.79"

CASTER & CAMBER

Eldorado & Seville – **1)** Loosen nuts on upper control arm front and rear cam bolts, note camber reading. Rotate front bolt to correct for half of incorrect reading. Rotate rear bolt to bring camber reading to O°, then tighten front and rear cam bolts.

2) Check caster and if no adjustment is necessary, tighten cam nuts to 95 ft. lbs. If caster adjustment is necessary, loosen front and rear cam bolts and rotate front bolt so camber changes an amount equal to 1/4 of desired caster change.

3) If adjusting for excessive negative caster, rotate front bolt to increase positive camber; if adjusting for excessive positive caster, rotate front bolt to increase negative camber.

4) Rotate rear cam bolt until camber setting returns to 0°. Tighten cam nuts to 95 ft. lbs. and recheck adjustments. See *Fig. 14*.

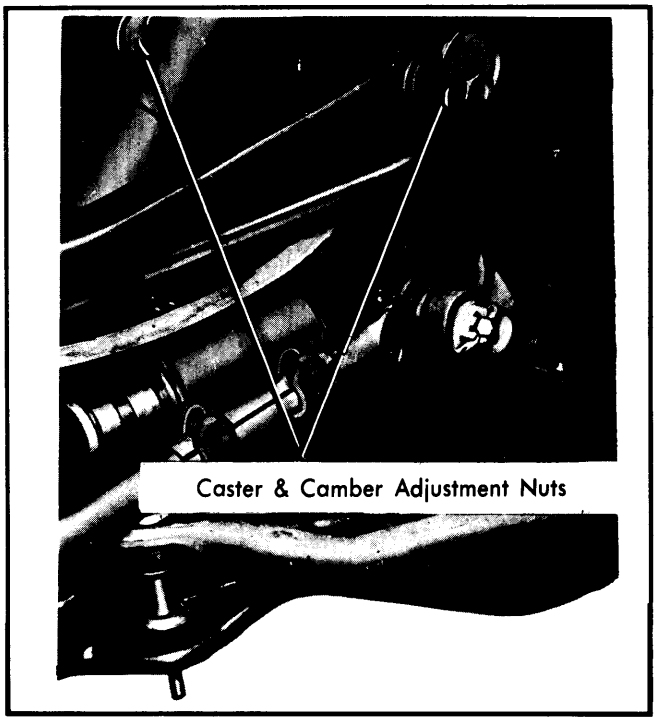

Fig. 14 Eldorado & Seville Caster & Camber Cam Locations

All Other Models – **1)** To adjust caster, loosen nuts and bolts attaching upper control arm to frame. To increase caster (positive), remove shims from the front bolt and add them to the rear bolt. To decrease caster (negative), add shims to the front bolt and remove shims from the rear bolt. Tighten control arm shaft nuts to 75 ft. lbs.

NOTE – *Difference between front and rear shim packs must not exceed .40".*

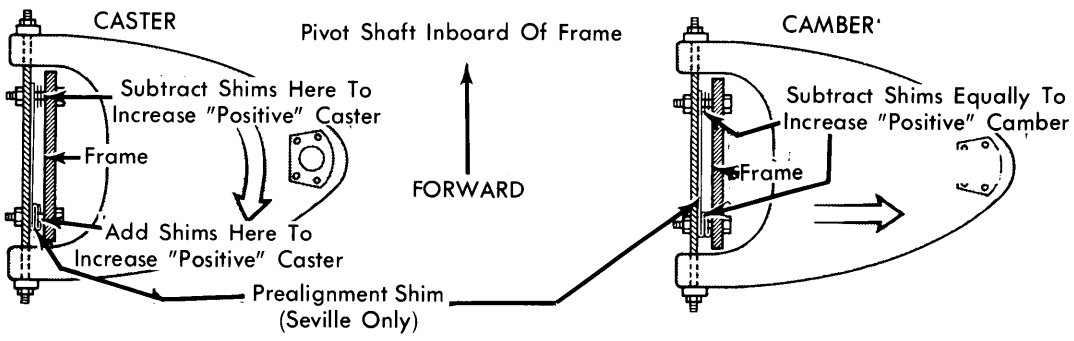

Fig. 15 Caster and Camber Adjustment (All Models Exc. Eldorado & Seville)