

CASTER, CAMBER & TOE-IN ADJUSTMENT (Cont.)

GENERAL MOTORS

REAR WHEEL DRIVE VEHICLES

CASTER

All Models (Except Camaro and Firebird) – Loosen nuts attaching upper control arm pivot shaft to frame. To increase caster (positive), remove shims from front bolt and add them to rear bolt. To decrease caster (negative), add shims to front and remove from rear bolt. Tighten control arm shaft nuts and recheck caster. See Fig. 10.

Camaro and Firebird – Caster can be adjusted by moving the position of the upper strut mount assembly. Adjust by loosening the 3 nuts on top of the mount. Tap mount forward with a rubber mallet to adjust caster. Tighten nuts. See Fig. 10.

CAMBER

All Models (Except Camaro and Firebird) – 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 shim to front and rear bolts. Tighten control arm shaft and nuts and recheck camber. See Fig. 10.

Camaro & Firebird – Camber can be adjusted by moving the position of the upper strut mount assembly. Adjust by loosening 3 nuts at top of mount. Install alignment tool (J-29724), and tighten turn-buckle until the proper camber reading is obtained. Tighten 3 nuts to specifications. See Fig. 10.

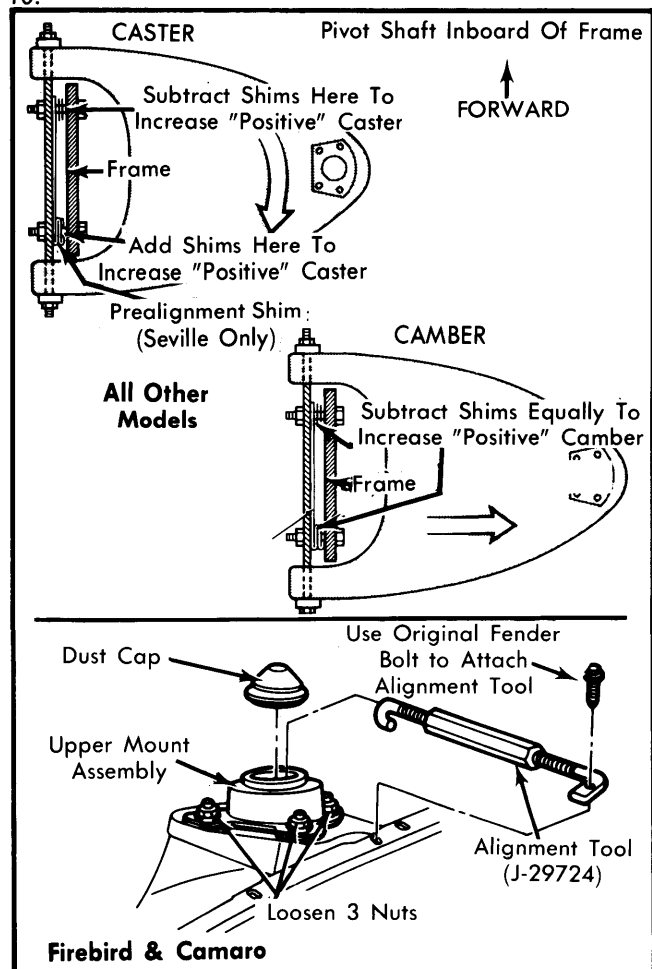


Fig. 10 Caster and Camber Adjustment Rear Wheel Drive Vehicles

FRONT WHEEL DRIVE VEHICLES

CASTER & CAMBER

Front Wheels (Eldorado, Riviera, Seville & Toronado) –

1) Loosen nuts on upper suspension arm front and rear cam bolts. Note camber reading and rotate front bolt to correct for $\frac{1}{2}$ of incorrect reading or as near as possible. Rotate rear cam bolt to bring camber reading to "0".

2) Tighten front and rear bolts and check caster. If caster requires adjustment, loosen front and rear cam bolt nuts. Using camber scale on alignment equipment, rotate front bolt so that camber changes an amount equal to $\frac{1}{4}$ of the desired caster change.

3) Rotate rear bolt until camber setting returns to its corrected position. Tighten upper suspension arm cam nuts. Hold head of bolt securely (any movement of cam will affect final setting and will require a recheck of camber and caster adjustments).

Rear Wheels All Models – Caster and camber is not adjustable. When checking toe-in of rear wheels, caster and camber can be checked. If rear wheels do not line up to specifications. Check for bent or damaged parts.

TOE-IN

Front Wheels – Toe-in can be changed by changing the length of the tie rods. When tie rods are mounted ahead of the steering knuckle they must be decreased in length in order to increase toe-in.

1) Loosen clamp bolts at each end of steering tie rod adjustment sleeve.

2) With steering wheel set in straight ahead position, turn tie rod adjusting sleeves to obtain the proper toe-in adjustment.

3) When adjustment is completed, check to see that the number of threads showing on each end of sleeve are equal and that the tie rod end housing are at right angles to steering arm. Position tie rod clamps and sleeves as shown in Fig. 11. Tighten to specifications.

Rear Wheels (Eldorado, Riviera, Seville & Toronado) – 1)

Turn ignition key "ON" with weight in trunk to energize ELC compressor. Turn "OFF" key and remove weight from vehicle trunk. Wait 30 second for it to exhaust.

2) Place tape on floor from alignment wheel plate rearward for 20 feet. See Fig. 12. Back vehicle onto alignment machine as straight as possible, with rear wheels on wheel plates.

3) Place straightedge against a rib of the front tire and record the distance from straightedge to tape guide line. Move straightedge to the same rib of the rear tire and measure to guide line.

Wheel Alignment

CASTER, CAMBER & TOE-IN ADJUSTMENT (Cont.)

GENERAL MOTORS (Cont.)

4) The rear track of these vehicles is $1\frac{1}{4}$ " wider than the front wheels. So the vehicle will be square on the alignment machine when the rear dimension is the same as the front plus $\frac{3}{8}$ " (suitable range of squariness is $\frac{3}{8}$ " to $\frac{7}{8}$ " over front measurement).

NOTE — With vehicle backed on alignment machine, toe-in will be read as toe-out.

5) Toe adjustments are made at inner pivot bushings. Loosen nut and bolt at inner bushing. Use pry bar, if necessary. See Fig. 13. Move control arm rearward to increase toe-in and forward to increase toe-out. Tighten bushing nut to specifications and recheck toe setting.

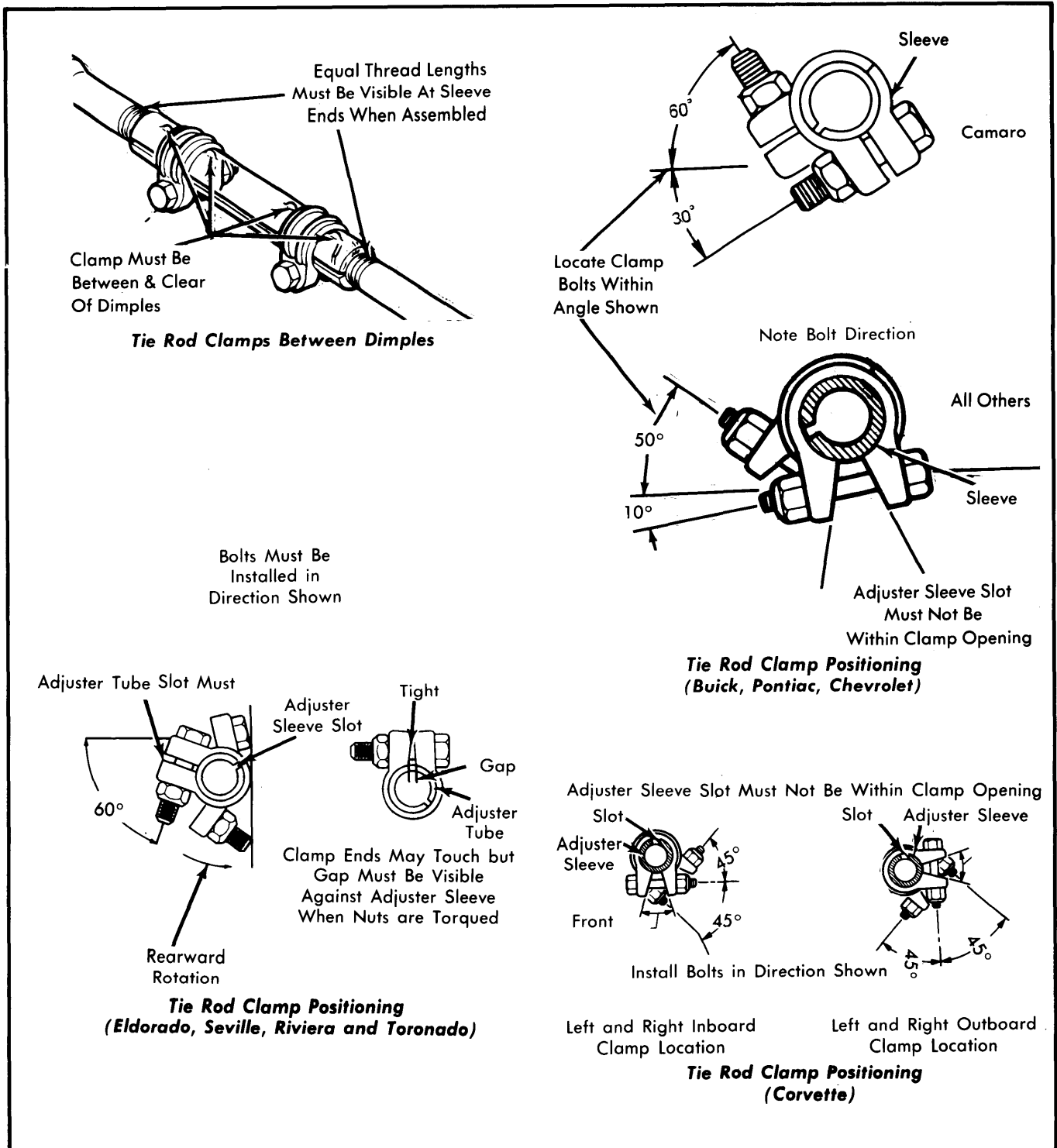


Fig. 11 Toe-In Adjuster Tube Clamp & Bolt Position

CASTER, CAMBER & TOE-IN ADJUSTMENT (Cont.)

GENERAL MOTORS (Cont.)

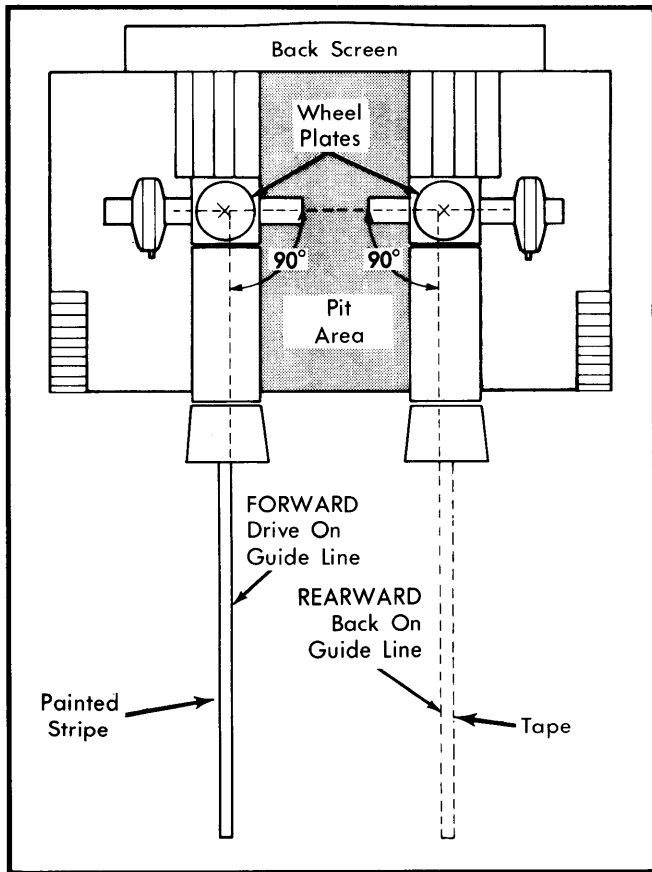


Fig. 12 Typical Alignment Machine Set Up For Rear Wheel Alignment

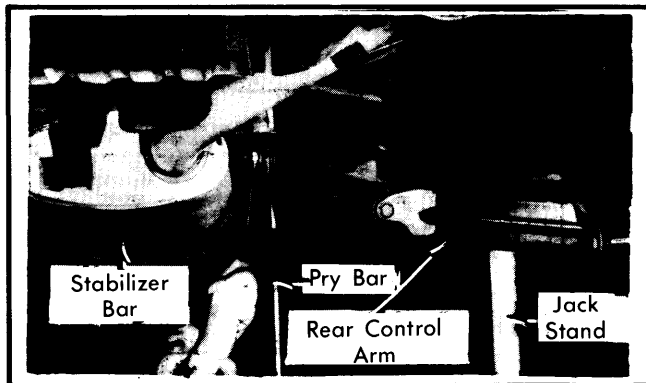


Fig. 13 Adjusting Rear Wheel Alignment Eldorado, Riviera, Seville & Toronado

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs. (N·m)
Rear Wheel Drive	
Pivot Shaft-to-Frame	
Buick	
Electra & LeSabre	75 (100)
Regal	45 (60)
Cadillac	72 (98)
Chevrolet	
Corvette	50 (75)
Chevette	47 (64)
Camaro	65 (90)
Malibu, Monte Carlo & El Camino	45 (60)
Impala & Caprice	73 (97)
Oldsmobile	
88 & 98	75 (100)
Cutlass	48 (60)
Pontiac	
Firebird	65 (90)
Grand Prix & Bonneville	85 (115)
T1000	47 (64)
Tie Rod Clamps	
All Models	15 (20)
Strut Mounting Bolts	
Firebird & Camaro	21 (28)
Front Wheel Drive	
Cam Bolt	
Buick Riviera	80 (110)
Cadillac Eldorado & Seville	70 (95)
Oldsmobile Toronado	70 (95)
Tie Rod Clamp	
All Models (Except Skyhawk)	15 (20)
Buick Skyhawk	25 (33)
Tie Rod Jam Nut	
All Models	40 (60)
Bushing Mounting Bolt	
All Models	70 (95)
Strut-to-Knuckle Bolt	
All Models	140 (190)