GENERAL MOTORS (Cont.)

NOTE – *Bolts are splined to frame and should not be turned. Loosen only the nuts. Do not remove weight of vehicle from front wheels.*

2) To decrease positive caster (increase negative caster), add shims at front bolt. To increase positive caster (decrease negative caster), remove shims at front bolts.

Toronado – 1) Note camber reading before adjusting caster. Hold front cam bolt and loosen nut. Turn cam to obtain a change equal to ¼ of the desired caster change. See *Fig. 31*.

NOTE – *At front cam bolt, a positive camber change produces a positive caster change, and a negative camber change produces a negative caster change.*

2) Hold cam bolt in position while tightening nut to 110 ft. lbs. Then hold rear cam bolt and loosen nut. Turn cam bolt to return CAMBER to its original setting. Hold cam bolt and tighten nut to 110 ft. lbs. Recheck both camber and caster settings.

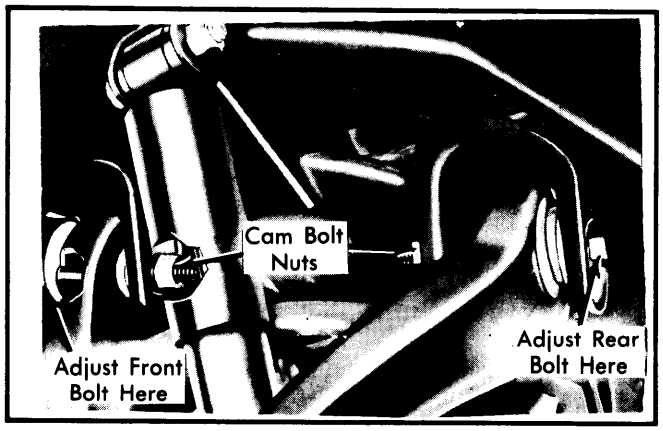

Fig. 31 Caster and Camber Adjustment (Toronado)

CAMBER

All Models (Except Omega and Toronado) – 1) Loosen pivot shaft-to-frame nuts. See *Fig. 30*.

NOTE – *Bolts are splined to frame and should not be turned. Loosen nuts only. Do not remove weight of vehicle from front wheels when adjusting shims.*

2) To increase positive camber, remove shims at both front and rear bolts. To decrease positive camber, add shims at both front and rear bolts.

NOTE – *By adding or subtracting an equal amount of shims from front and rear bolts, camber can be changed without affecting caster adjustment.*

Toronado – 1) Adjustment is made by rotating eccentric cam assemblies at inner end of upper control arm front and rear legs. Hold 1 cam bolt and loosen nut. Turn cam to obtain change equal to ½ the needed corrections.

2) Hold cam bolt in this position while tightening nut to 110 ft. lbs. to maintain setting. Then, follow the same procedure with the other cam assembly. Caster setting then will not be affected. See *Fig. 31*.

Omega – Check camber and turn wheels to gain access to strut attaching nuts. Loosen upper and lower locking nuts enough to allow movement of steering knuckle. Turn wheels straight ahead and rotate cam bolt (lower) to adjust camber. Tighten lock nuts to 140 ft. lbs. See *Fig. 32*.

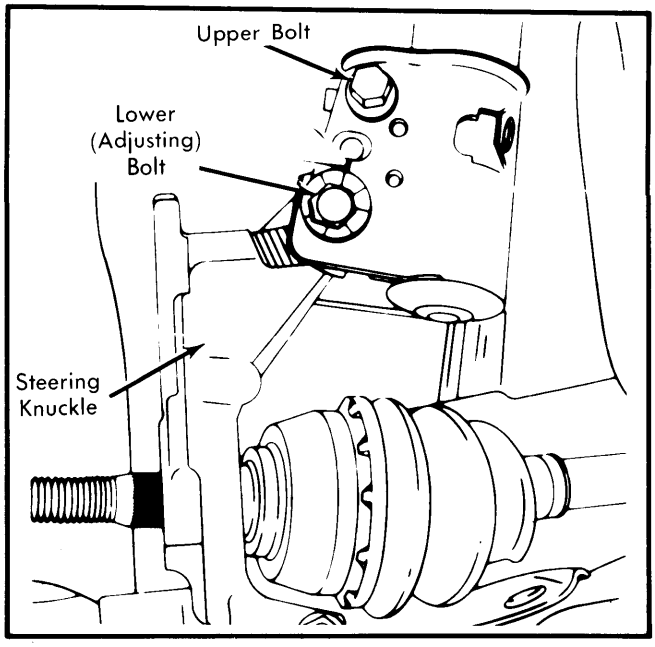

Fig. 32 Camber Adjustment (Omega)

REAR WHEEL ALIGNMENT (TORONADO)

See CADILLAC, Rear Wheel Alignment (Eldorado).

PONTIAC

TIRE INFLATION (COLD)

Before attempting wheel alignment adjustments, tires must be inflated to specified pressures shown on vehicle placard label.

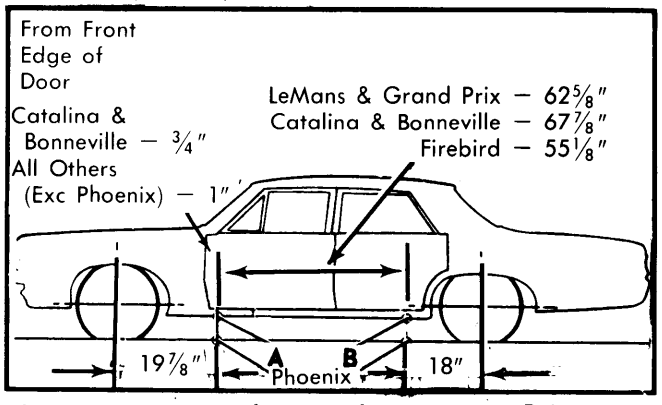

Fig. 33 Pontiac Riding Height Measuring Points

RIDING HEIGHT

Check riding height with full gas tank, front seat rearward, tire pressure as specified, doors closed and trunk empty. With vehi-

GENERAL MOTORS (Cont.)

cle on level floor, bounce several times and allow to settle. Measure heights as shown in *Fig. 33*. Measured heights, side-to-side and front-to-rear tolerances should not differ from specifications more than ±¾".

NOTE – *For Phoenix, measure front height 19⅞" behind centerline of front wheel. Measure rear height 18" ahead of centerline of rear wheel.*

Riding Height Specifications

Application	Front "A" (Inches)	Rear "B" (Inches)
Bonneville & Catalina	10¼	10¼
Firebird	8½	7⅞
Grand Prix	9¾	9¾
LeMans Station Wagon	10¼	10⅜
LeMans All Others	10¼	10¼
Phoenix	9¼	9⅜

CASTER

NOTE – *Caster is not adjustable on Phoenix.*

All Models (Except Phoenix) – To adjust caster, loosen control arm pivot shaft-to-frame nuts. To decrease caster, add shims to front bolt and remove shims from rear bolts. To increase positive caster, remove shims from front bolt and add to rear. A normal shim pack will leave at least 2 threads exposed beyond nut. If shim pack thickness difference between front and rear exceeds .40", check for damaged control arms and related parts. *See Fig. 34.*

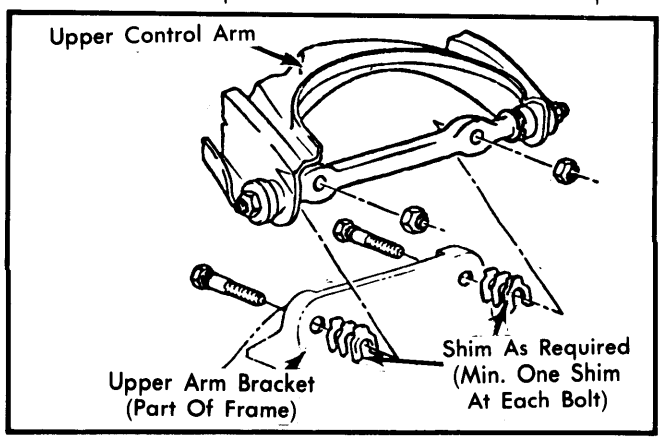

Fig. 34 Pontiac Caster and Camber Adjustment (Except Phoenix)

CAMBER

All Models (Except Phoenix) – To adjust camber, loosen pivot shaft-to-frame mounting nuts and remove or insert equal thickness of shims from front and rear bolts. If difference between front and rear shim pack thickness exceeds .40", check control arms and related parts for damage. *See Fig. 34.*

Phoenix – To adjust camber, loosen upper and lower locking nuts on strut enough to allow steering knuckle to move. Turn cam (lower) bolt to specified camber. Ensure that cam is seated between inner and outer guide surfaces and tighten nuts. *See Fig. 35.*

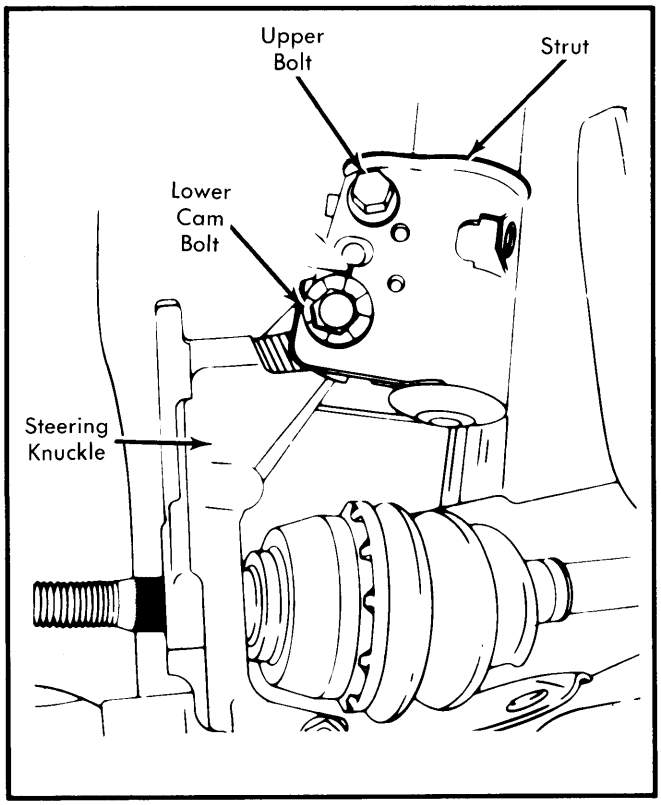

Fig. 35 Camber Adjustment (Phoenix)