ADJUSTMENT

ADJUSTMENT CAUTIONS

Before making front end alignment adjustments, check the following points:

1) Wheel bearings must be properly adjusted.

2) Steering linkage and suspension must not have excessive looseness. Check for wear in tie rod ball ends and ball joints.

3) Tires should be approximately equal in tread wear and and runnout must not be excessive. Tires and wheels should be in balance and tires inflated to proper pressure.

4) Car must be at curb weight with full fuel tank, no passenger load, spare tire in place but no load in trunk.

5) Car must be on level floor and at normal running height (bounce front end of car several times and allow it to settle to running height).

TOE-IN ADJUSTMENT

Measure toe-in with front wheels in "straight ahead" position and steering wheel centered (see NOTE). Adjust toe-in by loosening clamps and turning adjusting sleeve or adjustable end on right and left hand tie rods equally and in opposite directions to maintain steering wheel in centered position. *CAUTION – Face of tie rod end must be parallel with machined surface of steering rod end to prevent cocking and binding of the ball end in service.* When tightening clamps, make certain that clamp bolts are positioned so there will be no interference with other parts throughout entire travel of the linkage.

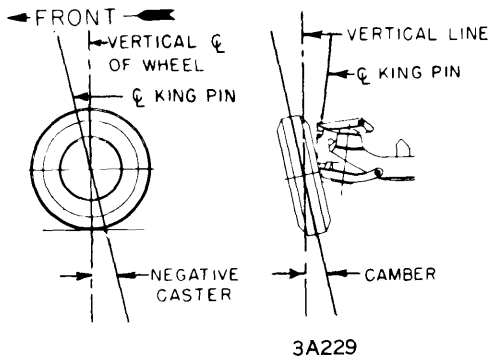
►*STEERING WHEEL CENTERING NOTE* – If steering wheel not "centered" with front wheels in straight ahead position, correct by shortening one tie rod adjusting sleeve and lengthening opposite sleeve, then adjust toe-in by turning both sleeves equally.

TOE-OUT ON TURNS

This is a check for bent or damaged parts and not a service adjustment. With caster, chamber, and toe-in properly adjusted, check toe-out with weight of car on wheels (use full-floating turn table under each wheel), repeating test with each wheel positioned for right and left turn. Incorrect toe-out generally indicates a bent steering arm. Replace arm. *CAUTION – Do not attempt to bend parts.* Recheck all front end adjustments.

STEERING AXIS INCLINATION

This "theoretical kingpin inclination" is a check for bent or damaged parts and not a service adjustment. Car must be level (crosswise and lengthwise) and camber should be within limits. If camber cannot be brought within limits, and steering axis inclination is correct, steering knuckle is bent. If camber and steering axis inclination are incorrect by approximately the same amount, upper or lower control arms are bent. Replace parts. *CAUTION – Do not attempt to correct by bending parts.*



WHEEL ALIGNMENT ANGLES

AMERICAN MOTORS

RAMBLER AMERICAN (1964-67)

Caster is adjusted by moving the two adjusting nuts on lower control arm threaded strut rod. Camber is adjusted by rotating lower control arm eccentric pivot bolt.

Caster

Adjust caster by backing off one nut and tightening opposite nut on strut rod at mounting bracket, then torque adjusting nuts to 60-70 ft. lbs. (1964-66); 80-90 ft. lbs. (1967).

Camber

Adjust camber by turning lower control arm eccentric pivot bolt as required, then torque pivot bolt locknut to 50-60 ft. lbs. (1964); 90-100 ft. lbs. (1965-67).

RAMBLER EXC. AMERICAN (1962-67) ALL MODELS (1968-69)

Caster and camber adjustments are made by turning upper control arm mounting bolts which are provided with eccentric washers. After adjustment, tighten eccentric bolt nuts to 50-55 ft. lbs.

Caster

Loosen attaching bolt nut and turn either front or rear eccentric bolt as necessary for correct caster.

Camber

Loosen attaching bolt nut and turn both front and rear eccentric bolts equally to obtain correct camber.

ALL MODELS (1970-73)

Caster adjustment is made by moving the two adjusting nuts on threaded strut rod. Camber adjustment is made by turning the lower control arm eccentric pivot bolt.

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AMERICAN MOTORS (Cont.)

Caster

Adjust by moving adjusting nuts forward or backward on strut rod threaded end. Tighten to 85 ft. lbs. when desired setting is achieved.

Camber

Adjust camber by turning lower control arm inner pivot bolt eccentric. Tighten pivot bolt locknut to 95 ft. lbs. when desired setting is achieved.

CHRYSLER CORP.

ALL MODELS (1961-69)

Caster and camber adjustments are made by rotating eccentric cam assemblies at inner end of upper control arm front and rear legs. *NOTE – On all models, except Chrysler, access holes to loosen upper control arm cam bolt nuts have been provided in fender side shields. Front access hole is covered by a splash shield.*

Caster

Adjust by turning **one** eccentric bolt at a time as necessary to obtain correct setting. *NOTE – Turning both eccentric bolts in opposite directions affects caster with a minimum amount of change in camber.*

Camber

Adjust camber by turning both eccentric bolts equally in same direction as necessary to obtain correct setting. *NOTE – Turning both eccentric bolts equally in same direction affects camber with a minimum amount of change in caster.*

ALL MODELS (1970-72)

Caster and camber adjustments are made by rotating eccentric cam assemblies at inner end of upper control arm front and rear legs. *NOTE – On all models, except Chrysler, access holes to loosen upper control arm cam bolt nuts have been provided in fender side shields. Front access hole is covered by a splash shield.*

Camber

Record initial camber reading before loosening cam bolt nuts. Camber setting should be held as close as possible to the specified setting. *NOTE – The equipment manufactures recommended procedure should always be followed.* Tighten cam bolt nut to 65 ft. lbs. (160 ft. lbs. Imperial).

Caster

Record initial caster reading before loosening cam bolt nuts. Caster setting should be held as nearly equal as possible on both wheels. *NOTE – The equipment manufactures recommended procedure should always be followed.* Tighten cam bolts to 65 ft. lbs. (160 ft. lbs. Imperial).

ALL MODELS (1973)

NOTE – Two types of camber/caster adjustment methods are used for 1973: the eccentric type and the slotted bar type, depending on car line.

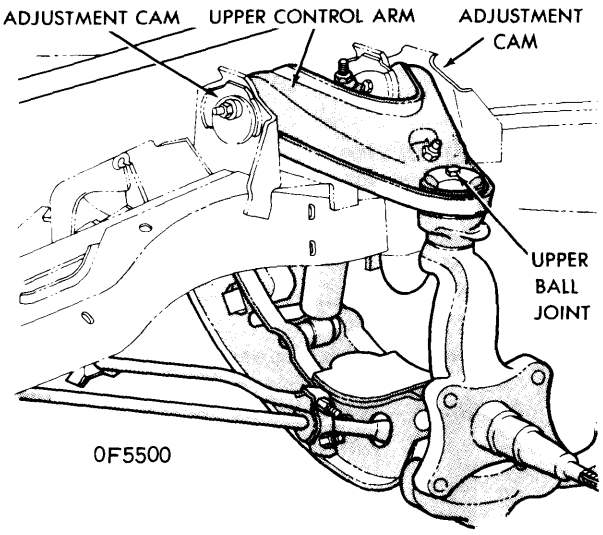
Caster/camber adjustments on eccentric type are made by rotating eccentric cam assemblies at inner end of upper control arm front and rear legs. Caster/camber adjustments on slotted bar type are made by loosening the bolts that attach bar to frame, and by moving bar in or out in elongated bolt holes.

Camber

Record initial camber reading before loosening cam bolt or bar bolts. Camber setting should be held as close as possible to the specified setting. After adjustment, tighten cam bolt nuts to 70 ft. lbs. and bar nuts to 160 ft. lbs.

Caster

Record initial caster reading before loosening cam bolt or bar bolts. Caster reading should be held as nearly equal as possible for both wheels. After adjustment, tighten cam bolt nuts to 70 ft. lbs. and bar nuts to 160 ft. lbs.



TYPICAL CASTER & CAMBER ADJUSTING CAMS

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