

BUICK PROPELLER SHAFT ALIGNMENT

Buick, All Models

DESCRIPTION

Measurements of front and rear universal joints is accomplished by means of an inclinometer. Readings must be made with car at curb height and with a full tank of gasoline. Jounce car up and down to assure curb height.

CHECKING & ADJUSTING

CHECKING

Angle at Rear Universal Joint (Single Joint) – 1) Place inclinometer on rear propeller shaft bearing cup. Center bubble in sight glass and record measurement. Bearing cup must be straight up and down and free of dirt.

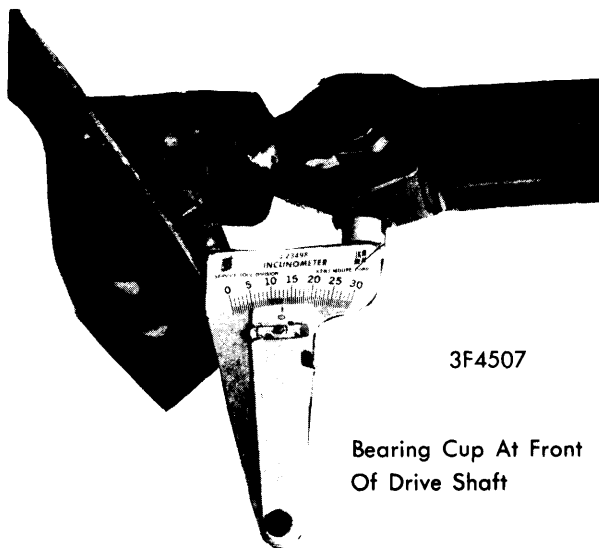
2) Rotate propeller shaft 90° and place inclinometer on rear drive yoke bearing cup. Center bubble in sight glass and record measurement. Subtract figures to obtain existing rear joint angle.

Angle at Front Universal Joint (Single Joint) – 1) Place inclinometer on front propeller shaft bearing cup. Center bubble in sight glass and record measurement.

2) Rotate propeller shaft 90° and place inclinometer on front slip spline yoke bearing cup. Center bubble in sight glass and record measurement. Subtract figures to obtain existing front universal joint angle.

Angle at Rear Universal Joint (Constant Velocity) – 1) Place inclinometer on rear drive shaft bearing cup. Center bubble in sight glass and record angle. Place inclinometer on rear flange yoke bearing cup. Center bubble in sight glass.

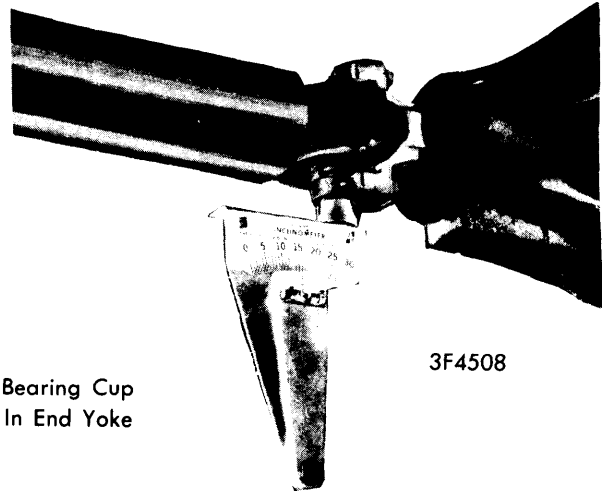
2) Subtract both fixtures to obtain rear joint angle.



ANGLE AT FRONT OF PROPELLER SHAFT

ADJUSTMENT

Front Universal Joint Angle – To correct angle between engine/transmission centerline and propeller shaft, add or remove shims between transmission rear bearing retainer and transmission mount. Tighten bolts to 53 ft. lbs.



ANGLE AT REAR OF PROPELLER SHAFT

Rear Universal Joint Angle (All Except Estate Wagon) – Corrections can be made by loosening all of the rear suspension control arm bolts and repositioning pinion nose up or down. Tighten bolts to 48 ft. lbs.

Rear Universal Joint Angle (Estate Wagon) – 1) Support rear wheels or axle housing and place floor stands forward of front leaf spring attaching points. Loosen, but do not remove "U" bolt attaching nuts.

2) "U" bolt nuts should be loosened three or four threads beyond bottom of bolts. Perform operation on one side at a time.

3) Install proper degree shim between upper spring plate cushion and spring. To decrease angle, install shim with thick end toward front of car. If necessary to increase angle, install shim with thick end toward rear of car.

4) Install spacers between upper and lower spring plates with thick end in same direction as thick end of shim. Torque "U" bolt nuts to 45 ft. lbs. and recheck angle.

UNIVERSAL JOINT ANGLES ①

| Application | Front | Rear |
|----------------------|-------|------|
| Century, Regal | 3¼° | 2¾° |
| Century Wagon..... | 2¾° | 2¾° |
| LeSabre | -¼° | 10° |
| Electra | 0° | 9¾° |
| Riviera | +¼° | 9¾° |
| Estate Wagon..... | 1¼° | 2° |
| Apollo | 1° | 2½° |

① – Angles are ± ½°.