

BUICK

All Rear Wheel Drive

DESCRIPTION

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

CHECKING & ADJUSTING

CHECKING

Angle at Rear Universal 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 – 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.

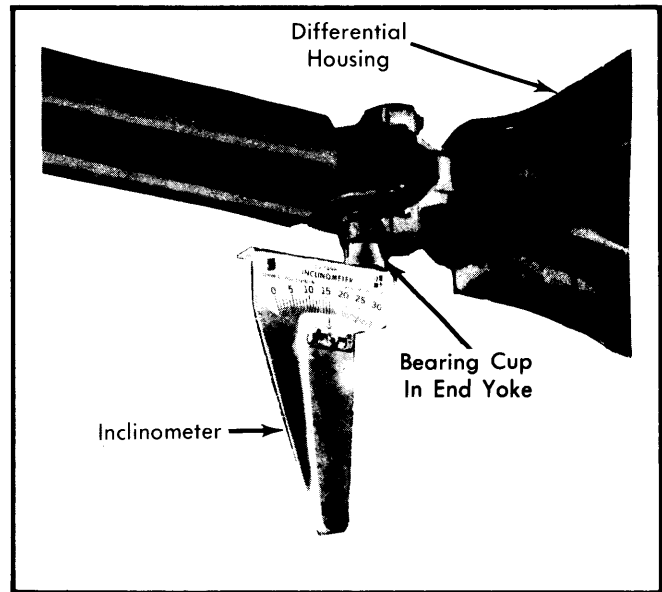


Fig. 2 Measuring Angle at Rear of Propeller Shaft. Bearing Cap Must Be Straight Up & Down.

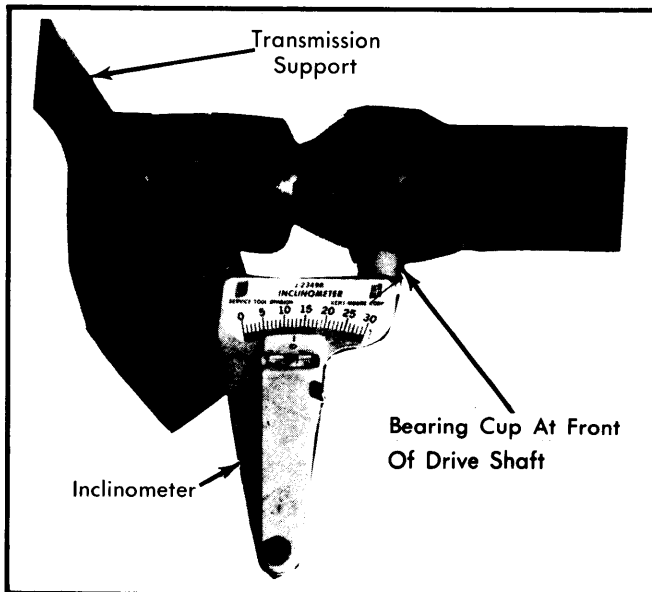


Fig. 1 Measuring Angle at Front of Propeller Shaft Using Inclinometer (J-23498)

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. Adding one shim will decrease front joint angle by 1/2° and increase differential joint angle by 1/4°.

NOTE – Production bolt is M 10 1.5 X 35 mm. When using two or more shims, an M 10 1.5 X 50 mm bolt must be used.

Rear Universal Joint Angle Adjustment – Corrections of ±1° can be made by loosening all rear suspension control arm bolts and repositioning pinion nose up or down. Rear upper control arms may be changed to further adjust universal joint angles. See Chart.

Universal Joint Angle Change with Rear Upper Control Arm

Application and Arm Type	Front Angle Change	Rear Angle Change
Regal		
+Arm	+1/3°	+1 3/4°
-Arm	-1/10°	-1 1/4°
Electra & LeSabre		
+Arm	+1/3°	+2°
-Arm	-1/3°	-2°

Correct Universal Joint Angle^①

Application	Height ^②	Front Joint	Rear Joint
Regal			
Coupe	5"	1/2°	1°
Sedan	4 3/4"	1/2°	1°
Wagon	5 5/8"	1/4°	1 1/3°
LeSabre			
7 1/2" Axle	6 1/4"	1 3/4°	2 1/2°
8 3/4" Axle	4 7/8"	2°	3°
Electra			
All Models	6 1/8"	2°	1 3/4°

① – Angles may be ± 1/2°.

② – Axle tube-to-frame height ± 1/4".