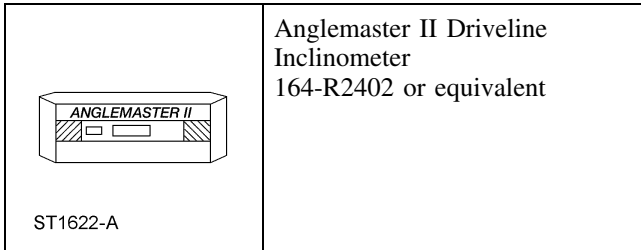


# GENERAL PROCEDURES

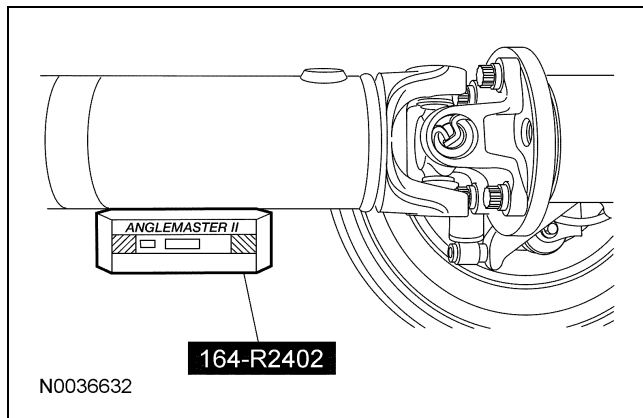
## Driveline Angle Measurement

### Special Tool(s)

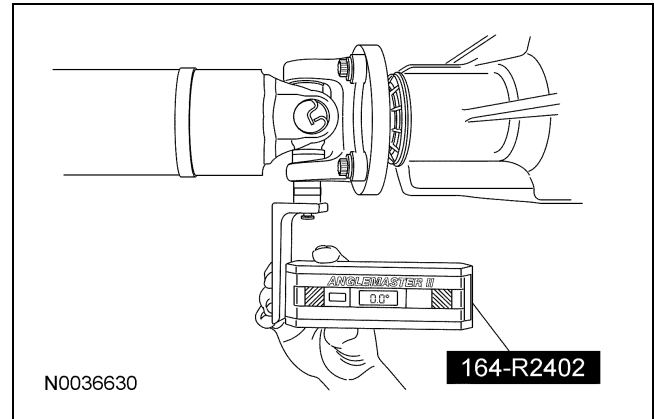


**NOTE:** An incorrect driveline angle can cause a vibration or shudder. For additional information, refer to Section 100-04.

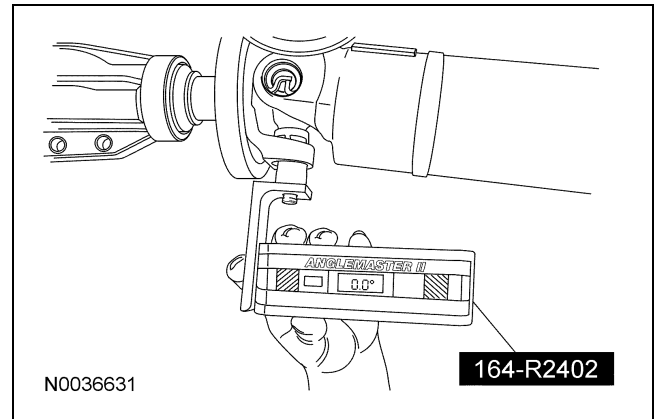
1. Preliminary setup procedures.
  - 1 Inspect the U-joints for correct operation.
  - 2 Park the vehicle on a level surface such as a drive-on hoist or back onto a front end alignment rack.
  - 3 Verify the curb position ride height is within specifications with the vehicle unloaded, and all of the tires are inflated to their normal operating pressures.
  - 4 Rotate the transmission output yoke until vertical. This will simplify taking measurements.
  - 5 Calibrate the special tool by placing the tool on clean, flat level section of the frame rail and press the ALT-ZERO button.
2. Using the special tool, measure the slope of the components. Record the measurements and the direction of the component's slope.



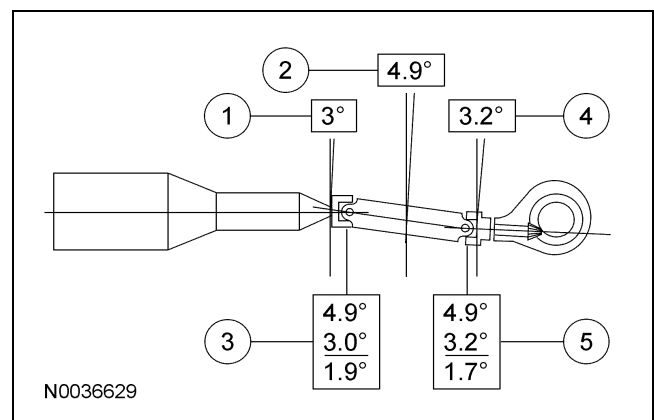
3. To check the pinion angle, rotate the driveshaft so the axle flange yoke is parallel to the floor. If equipped, remove the U-joint snap ring and install the special tool.



4. To check the engine angle, rotate the driveshaft so the slip yoke ear is parallel to the floor. If equipped, remove the U-joint snap ring and install the special tool.



5. Calculate the difference in the slope of the components to determine the U-joint operating angle.



**GENERAL PROCEDURES (Continued)**

Item	Part Number	Description
1	—	Output yoke slope
2	—	Driveshaft slope
3	—	Driveshaft slope minus (-) the output yoke slope equals the transmission/driveshaft operating angle
4	—	Pinion flange slope

(Continued)

Item	Part Number	Description
5	—	Driveshaft slope minus (-) the pinion flange slope equals the driveshaft/axle operating angle

- When 2 connected components slope in the same direction, subtract the smaller number from the largest to find the U-joint operating angle. When 2 connected components slope in the opposite direction, add the measurements to find the U-joint operating angle.
- The U-joint operating angle is the angle formed by 2 yokes connected by a cross and bearing kit. Ideally, the operating angles on each end of the driveshaft must:
  - be equal or within 1 degree of each other.
  - have a 3 degree maximum operating angle.
  - have a least 1/2 of 1 degree continuous operating angle.

If the driveline angle is not the cause, carry out the NVH test to determine whether the concern is caused by a condition in the axle. Refer to Section 100-04.