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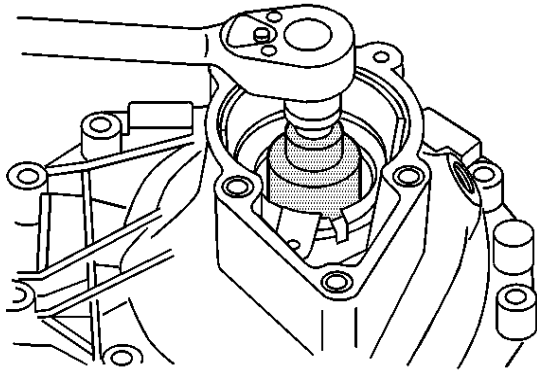
Document ID# 709448
2001 GMC Truck Jimmy - 4WD

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Backlash Inspection and Adjustment

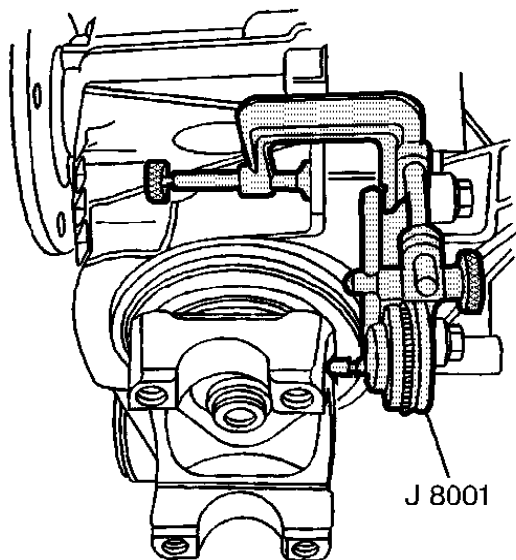
Tools Required

- [J 33792](#) Side Bearing Adjustment Wrench
- [J 42213](#) Adjuster Sleeve Socket



1. Slowly turn the [J 33792](#) clockwise until the right differential adjuster nut sleeve contacts the differential case bearing.
2. Install the [J 42213](#) to the left differential adjuster nut sleeve.
3. Slowly turn the [J 42213](#) clockwise until the left differential adjuster nut sleeve contacts the differential case bearing.
4. Mark the location of the adjuster nut sleeves in relation to the carrier halves.
Ensure that the notches in the adjusting sleeves can be counted when turned.
5. Using the [J 33792](#) , turn the right differential adjuster nut sleeve out two notches.
6. Using the [J 42213](#) , turn the left differential adjuster nut sleeve in one notch.
7. Rotate the pinion several times in order to seat the bearings.

Measuring Backlash



1. Install a dial indicator so the button contacts the outer edge of the pinion yoke. Ensure that the plunger is at a right angle to the pinion yoke.
2. Move the pinion yoke back and forth through the pinion flange's free play while not allowing the ring gear to move.
3. Record the dial indicator reading.
4. To determine the actual backlash, divide the dial indicator reading by 2.
An actual dial indicator reading of 0.16 mm (0.006 in) means that there is actually 0.08 mm (0.003 in) backlash. **Specification**

The backlash between the ring gear and the drive pinion should be between 0.08-0.25 mm (0.003-0.010 in) with a preferred specification of 0.13-0.18 mm (0.005-0.007 in).

Important

When adjusting the backlash, observe the following:

- Always turn the left and the right differential adjuster nut sleeves in equal amounts.
 - Turning the differential adjuster nut sleeves one notch will change the backlash about 0.08 mm (0.003 in).
 - Once the proper backlash is obtained, turn the left differential adjuster nut sleeve in one additional notch in order to preload the differential case side bearings.
5. If the backlash is too small, use the following procedure to adjust:
 - A. Increase the backlash by turning the left differential adjuster nut sleeve in one notch and the right differential adjuster nut sleeve out one notch.
 - B. Recheck the backlash and adjust as necessary.
 6. If the backlash is too large, use the following procedure to adjust:
 - A. Decrease the backlash by turning the right differential adjuster nut sleeve in one notch and the left differential adjuster nut sleeve out one notch.
 - B. Recheck the backlash and adjust as necessary.
 7. Once the proper backlash is obtained, turn the left differential adjuster nut sleeve in one additional notch using the [J 42213](#) in order to preload the differential case side bearings.
 8. Recheck the backlash and adjust as necessary.

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