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MEASURING PINION DEPTH (1-2-3 BLOCK METHOD)

This method will allow you to check and adjust pinion depth without pressing the pinion bearing on and off of the pinion multiple times.

- 1) Carefully remove any sharp edges or burrs from the carrier bearing housing and caps to avoid any inaccuracy or marring of the hubs.
- 2) Place the pinion bearing in the pinion race and place the 1-2-3 block directly on top of the pinion bearing. Then place the appropriate target plate on top of the 1-2-3 block.
- 3) Select the appropriate hubs and lightly oil the bores to prevent galling. Carefully insert the Cross Shaft into the Hubs. Place this assembly in the case and tighten main cap bolts to 25 ft.-lbs.
- 4) Slide the Indicator and Cross Shaft as close as possible to pinion gear, minimizing any overhang of the Target Plate. Be sure to retract the indicator plunger shaft just enough to clear the Target Plate to prevent bending the indicator.
- 5) Make sure the Indicator shaft end is seated on the target plate and note the reading on the dial. Multiply the small counter number by 0.100" and add the thousandths pointer reading to get your INDICATOR READING. Subtract your INDICATOR READING from the CALIBRATED DEPTH (3.375 for the long extension, 2.500 for the intermediate, and 1.900 for the short) and then add the height of the block to obtain your MEASURED HOUSING DEPTH. Subtract the MASTER HOUSING DIMENSION from the MEASURED HOUSING DEPTH to get the amount of shim required.

Example: If the reading on the indicator is 0.680" (six complete revolutions plus reading), subtracting from 3.375 would equal 2.695". Add 2" for the thickness of the 1-2-3 block and this equals 4.695. This is the MEASURED HOUSING DEPTH. Subtracting 4.670 (The master housing dimension for this example) equals 0.025" shim.

Figure 1: Set-Up

