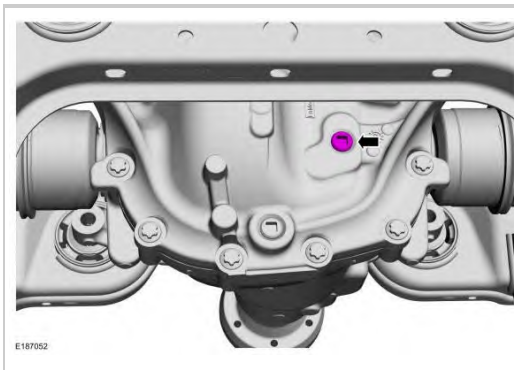




GENERAL PROCEDURES > RING GEAR BACKLASH ADJUSTMENT

Special Tool(s) / General Equipment

	205-220 Installer, Differential Shim TKIT-1985-FH
	308-021 (T75L-4201-A) Gauge, Clutch Housing
Dial Indicator	
Tire Lever	
Wooden Block	
Copper Hammer	

Adjustment

1.

Install the dial indicator gauge with holding fixture, with the dial indicator at a 90 degree angle from the ring gear tooth. Use the General Equipment: Dial Indicator



2.

Using the dial indicator check the ring gear backlash. Rotate the ring gear and carrier back and forth through the free play only. Refer to: Specifications . Use the General Equipment: Dial Indicator



3.

To correct for high or low backlash, increase the thickness of one differential bearing shim and decrease the thickness of the other differential bearing shim by the same amount.

If a zero backlash condition had occurred, add 0.50 mm (0.020 in) to the RH side shim and subtract 0.50 mm (0.020 in) from the LH side shim to allow a backlash indication. Recheck backlash.

Using the backlash chart, determine the thickness of differential shim needed: Refer to: Specifications .

 **NOTE:** The differential bearing caps and differential bearing cap bolts need to be installed in the same location as removed.

4.

1.

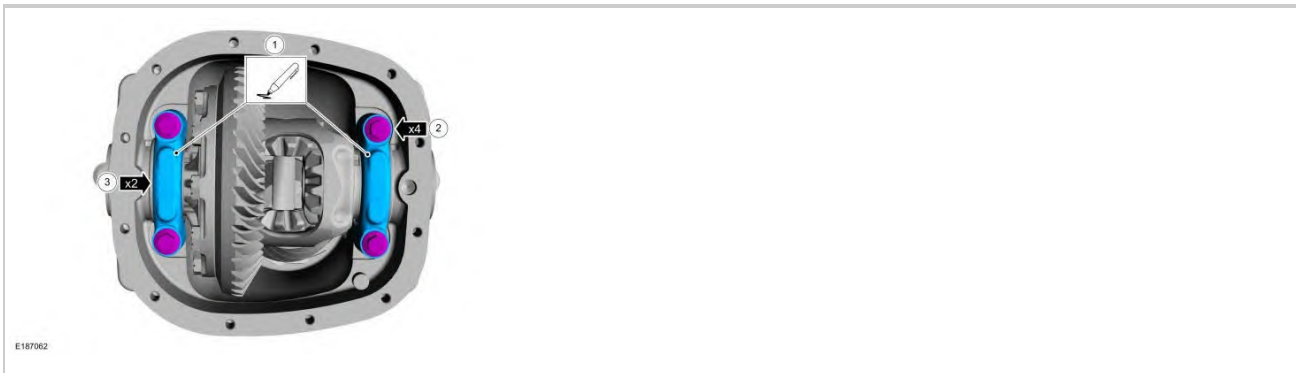
Mark the differential bearing caps.

2.

Remove the differential bearing cap bolts.

3.

Remove the differential bearing caps.



 **NOTE:** If the old differential bearing cups and shims are to be reused, they need to be installed in the same location as removed.

5.

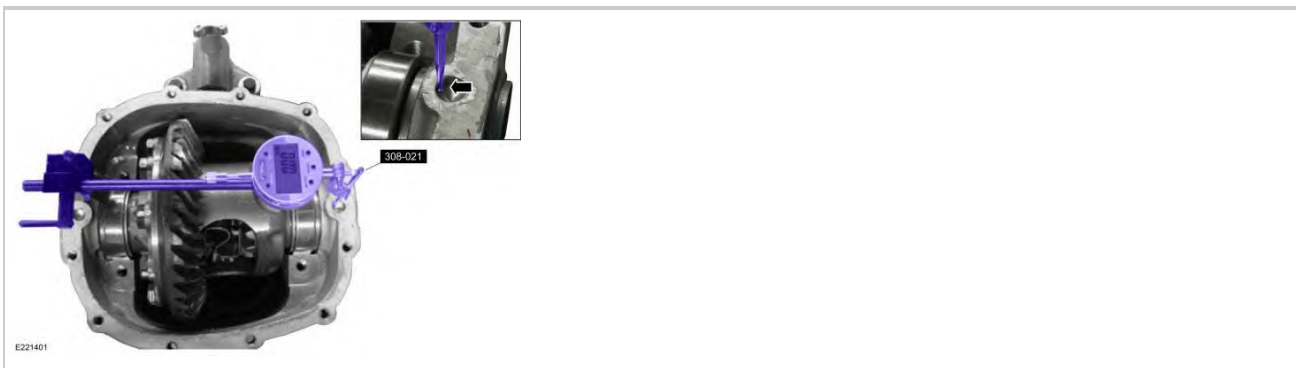
Mark the differential shims.

Mark the differential carrier bearing cups.



6.

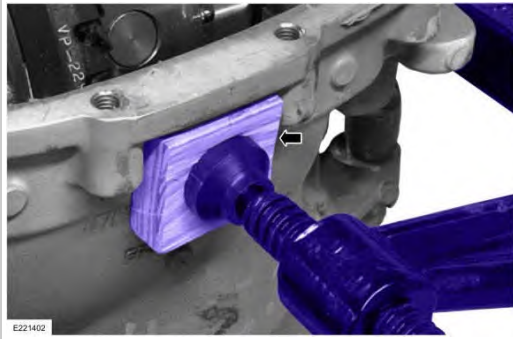
Install the Dial Indicator and special tool. Position the tip of the clutch housing gauge on the inside of the axle housing guide hole. Zero the dial indicator. Use Special Service Tool: 308-021(T75L-4201-A) Gauge, Clutch Housing. Use the General Equipment: Dial Indicator



7.

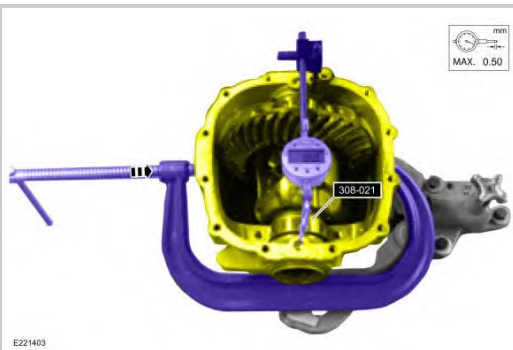
Install a 12" / 300mm C-Clamp on the axle housing at the 12:00 O'clock and 6:00 O'clock positions. Install 2" x 2" x 3/4" blocks of wood between the C-Clamp and the housing to prevent

housing cracks. Use the General Equipment: Wooden Block



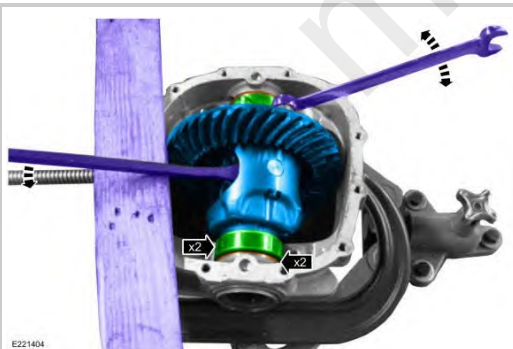
8.

Tighten the C-Clamp until the housing spreads 0.020" / 0.50mm.



9.

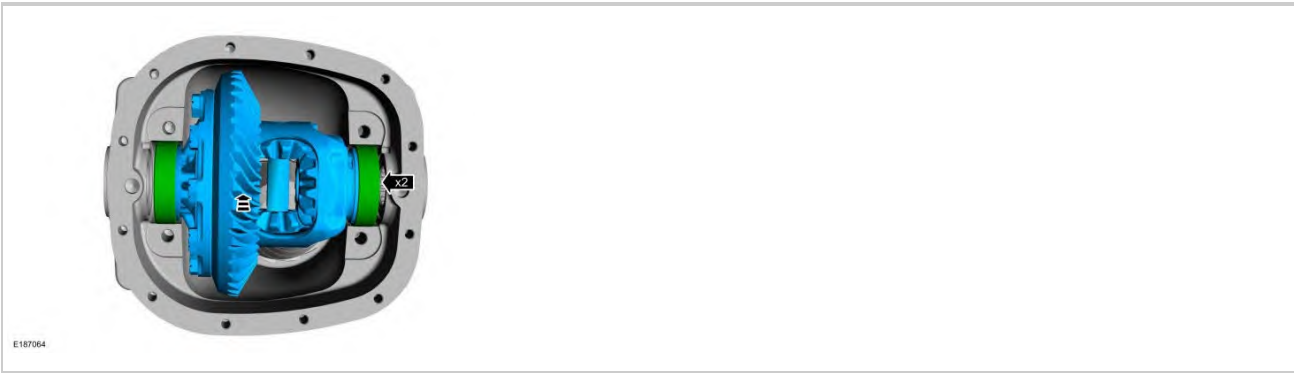
With the dial indicator removed. Position a wood block on the housing sealing surface. Using the tire lever, block of wood and a wrench remove the differential carrier, differential carrier bearing cups and the differential shims. Use the General Equipment: Tire Lever Use the General Equipment: Wooden Block



 **NOTE:** Have the selected shims available at this time. It will be required to hold the differential carrier and the differential carrier bearing cups in until shims are installed.

10.

Remove the dial indicator. Install the differential carrier and the differential carrier bearing cups.



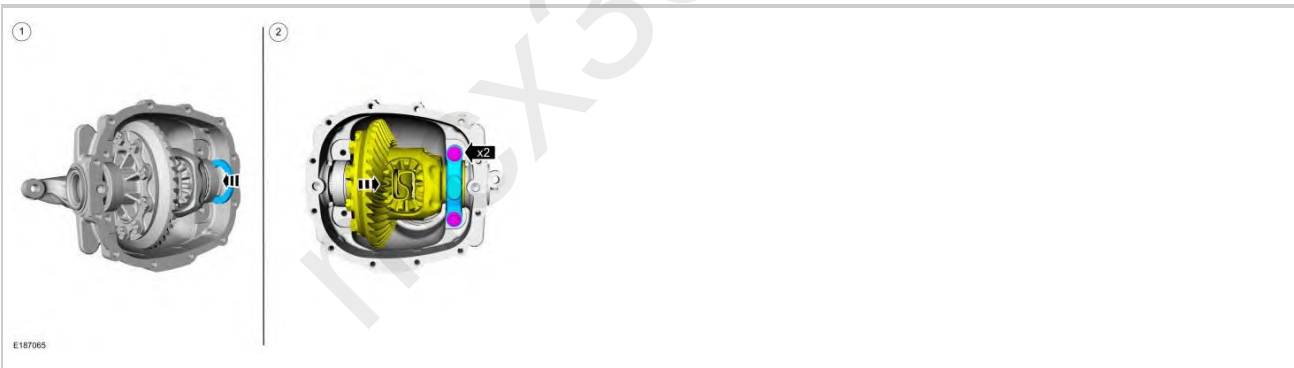
11.

 **NOTE:** Differential bearing shims are to be installed with the chamfer facing outboard.

Install the selected or original RH differential bearing shim. If the original RH shim is not available, install the largest shim available.

 **NOTE:** The differential bearing cap bolts should only be finger tight at this time.

Position the differential to the RH side of the differential housing. Install the RH differential bearing cap and the differential bearing cap bolts.



 **NOTE:** The C-Clamp can be removed after the selected ring gear backlash shim is installed.

12.

Using the special tool and a soft face copper mallet, install the LH selected differential bearing shim. If the selected or original LH shim is not available, use the largest shim that can be installed by hand. Use Special Service Tool: 205-220 Installer, Differential Shim. Use the General Equipment: Copper Hammer



 **NOTE:** The differential bearing cap bolts should only be finger tight at this time.

13.

Install the LH differential bearing cap and the differential bearing cap bolts.

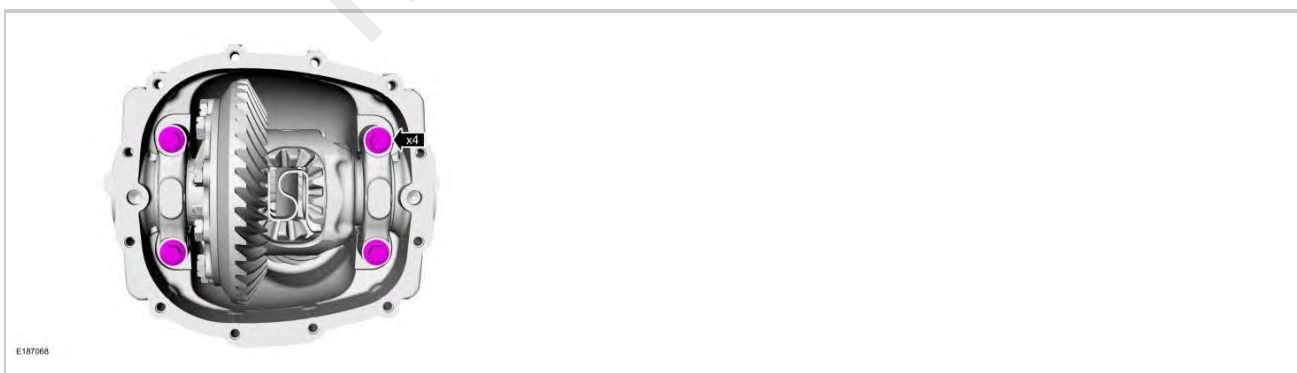


14.

Tighten the differential bearing cap bolts.

Torque

: 71 lb.ft (96 Nm)



15.

Rotate the differential several times, to assure the differential assembly rotates freely.