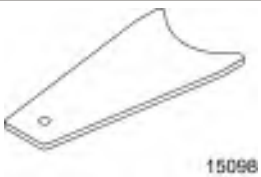


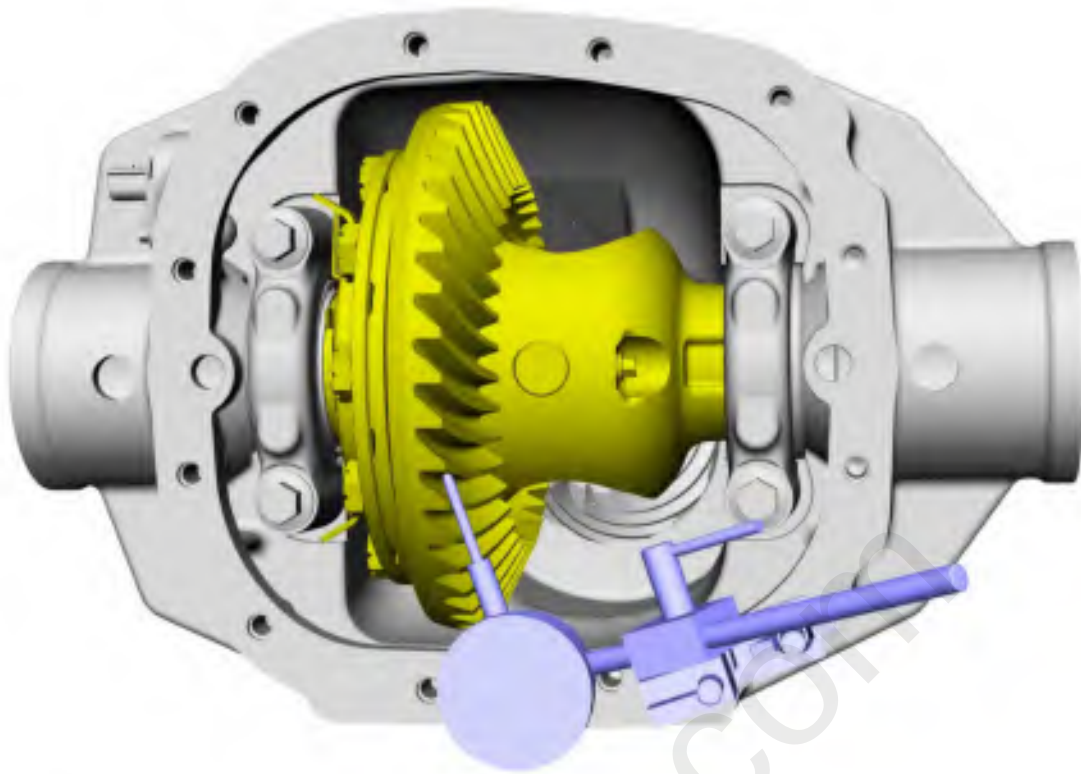
Ring Gear Backlash Adjustment

Special Tool(s) / General Equipment

	205-220 Installer, Differential Shim TKIT-1985-FH
Dial Indicator	
Copper Hammer	

Adjustment

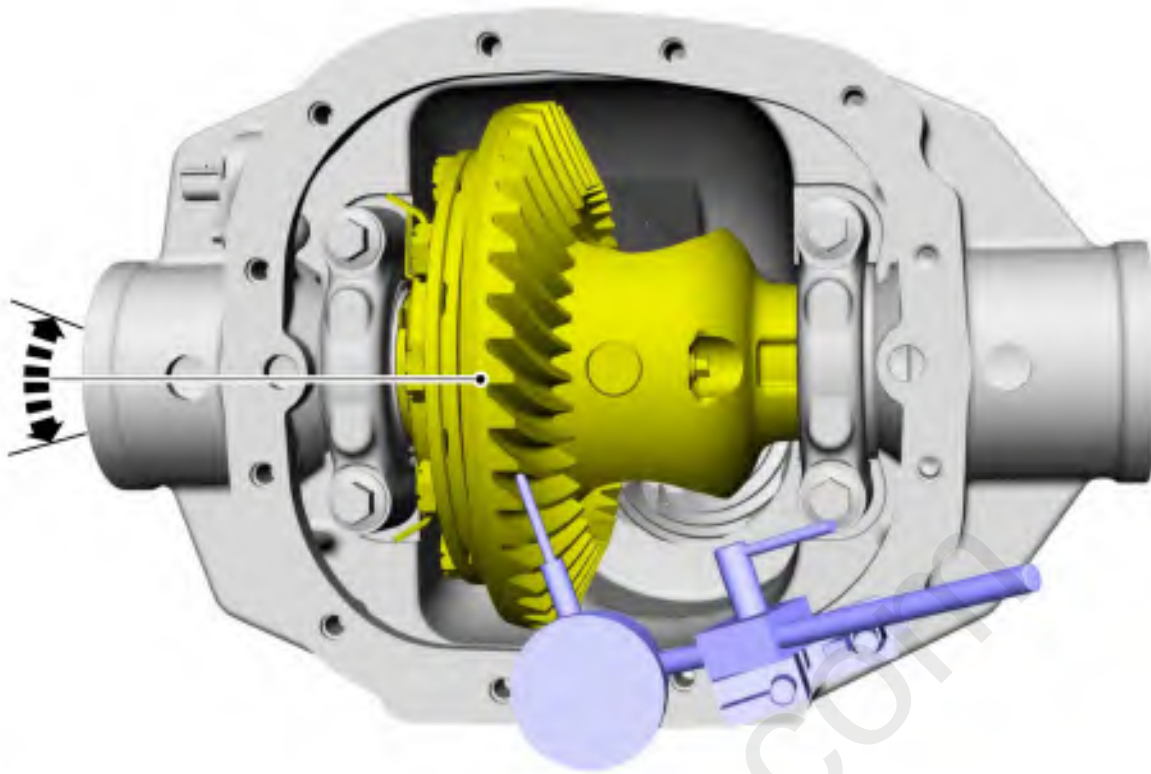
1. Remove the differential housing cover.
Refer to: [Differential Housing Cover](#) (205-02A Rear Drive Axle/Differential - Vehicles With: Ford 8.8 Inch Ring Gear, Removal and Installation).
2. Install the dial indicator gauge with holding fixture, with the dial indicator at a 90 degree angle from the ring gear tooth.
Use the General Equipment: Dial Indicator



E194837



3. 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](#) (205-02A Rear Drive Axle/Differential - Vehicles With: Ford 8.8 Inch Ring Gear, Specifications).
Use the General Equipment: Dial Indicator



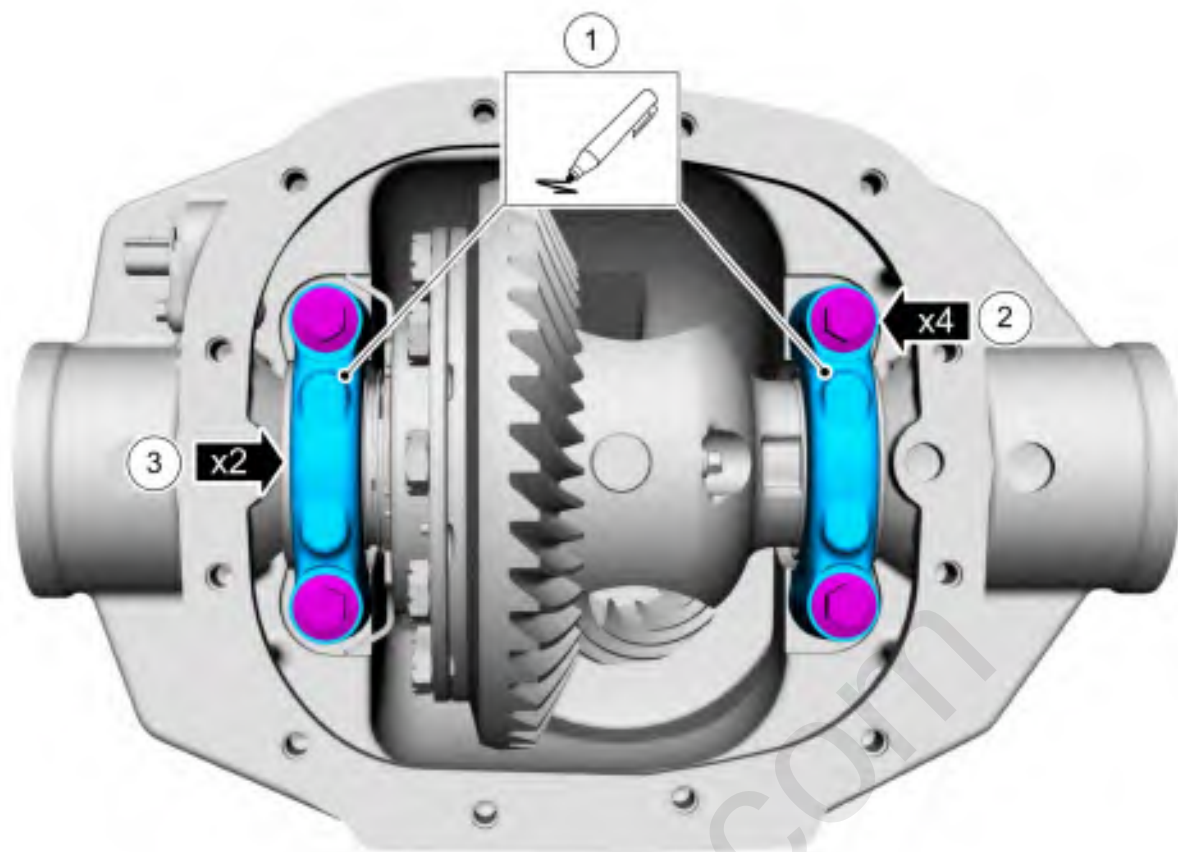
- To correct for high or low backlash, increase the thickness of one differential bearing shim and decrease the thickness of the other differential bearing shim by the same amount.
- If a zero backlash condition had occurred, add 0.50 mm (0.020 in) to the RH side shim and subtract 0.50 mm (0.020 in) 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](#) (205-02A Rear Drive Axle/Differential - Vehicles With: Ford 8.8 Inch Ring Gear, Specifications).

5. If a backlash correction is to be made, remove the axle shafts.

Refer to: [Axle Shaft](#) (205-02A Rear Drive Axle/Differential - Vehicles With: Ford 8.8 Inch Ring Gear, Removal and Installation).

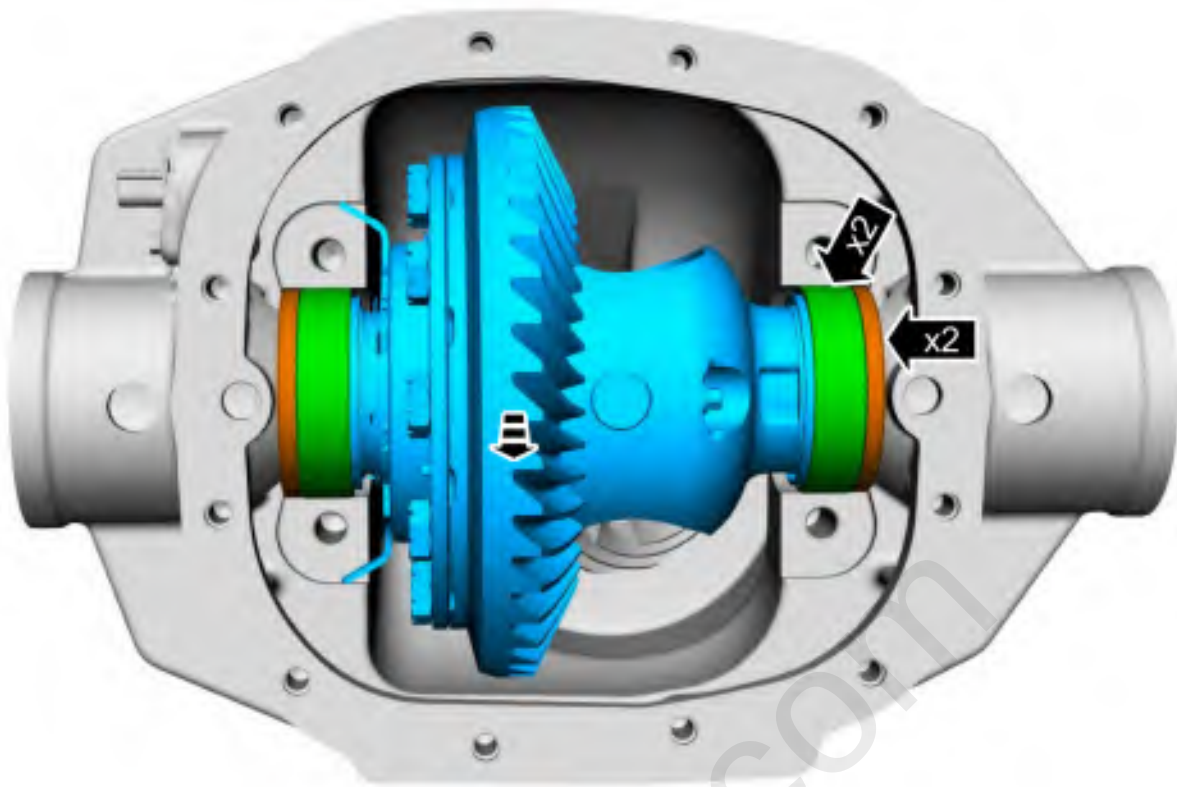
6. **NOTE:** *The differential bearing caps and differential bearing cap bolts need to be installed in the same location as removed.*

1. Mark the differential bearing caps.
2. Remove the differential bearing cap bolts.
3. Remove the differential bearing caps.



E194839

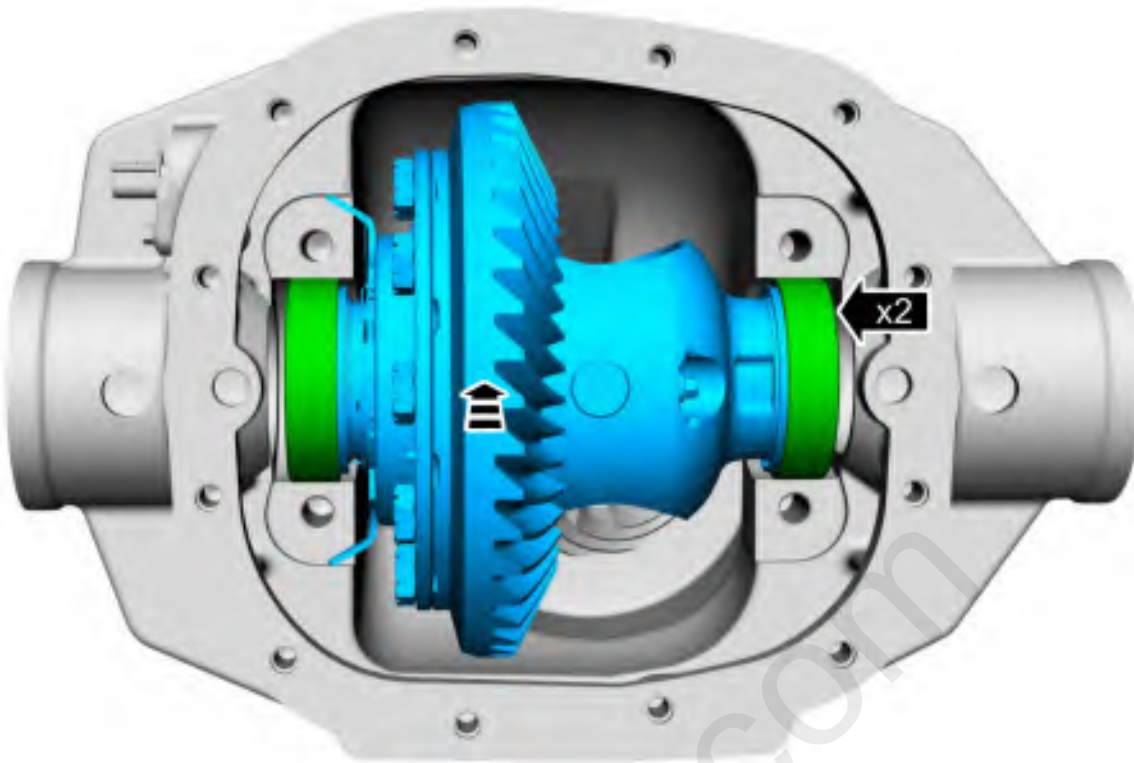
7. Remove the differential carrier, differential carrier bearing cups and the differential shims.



E194840

8. **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.

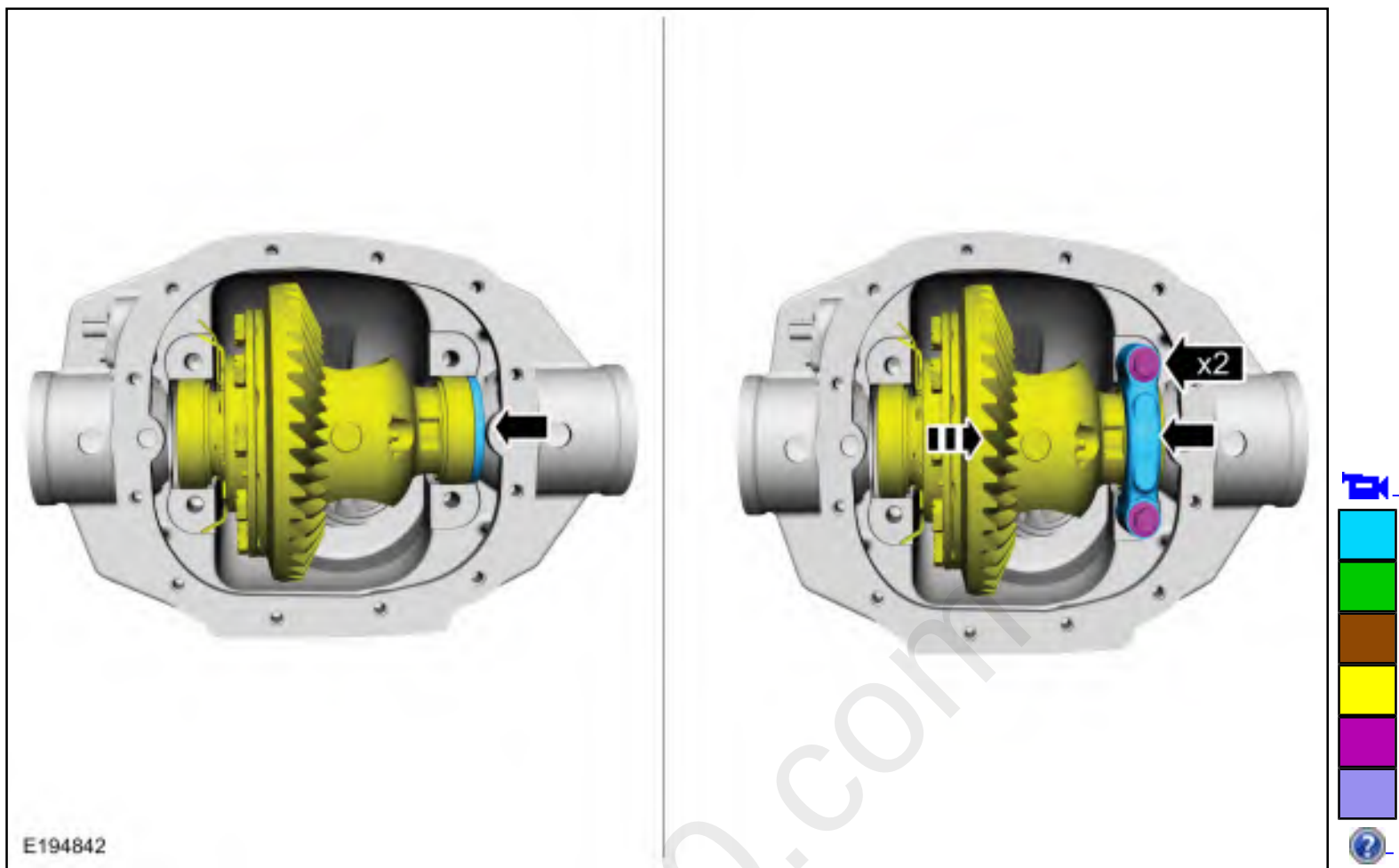
Install the differential carrier and the differential carrier bearing cups.



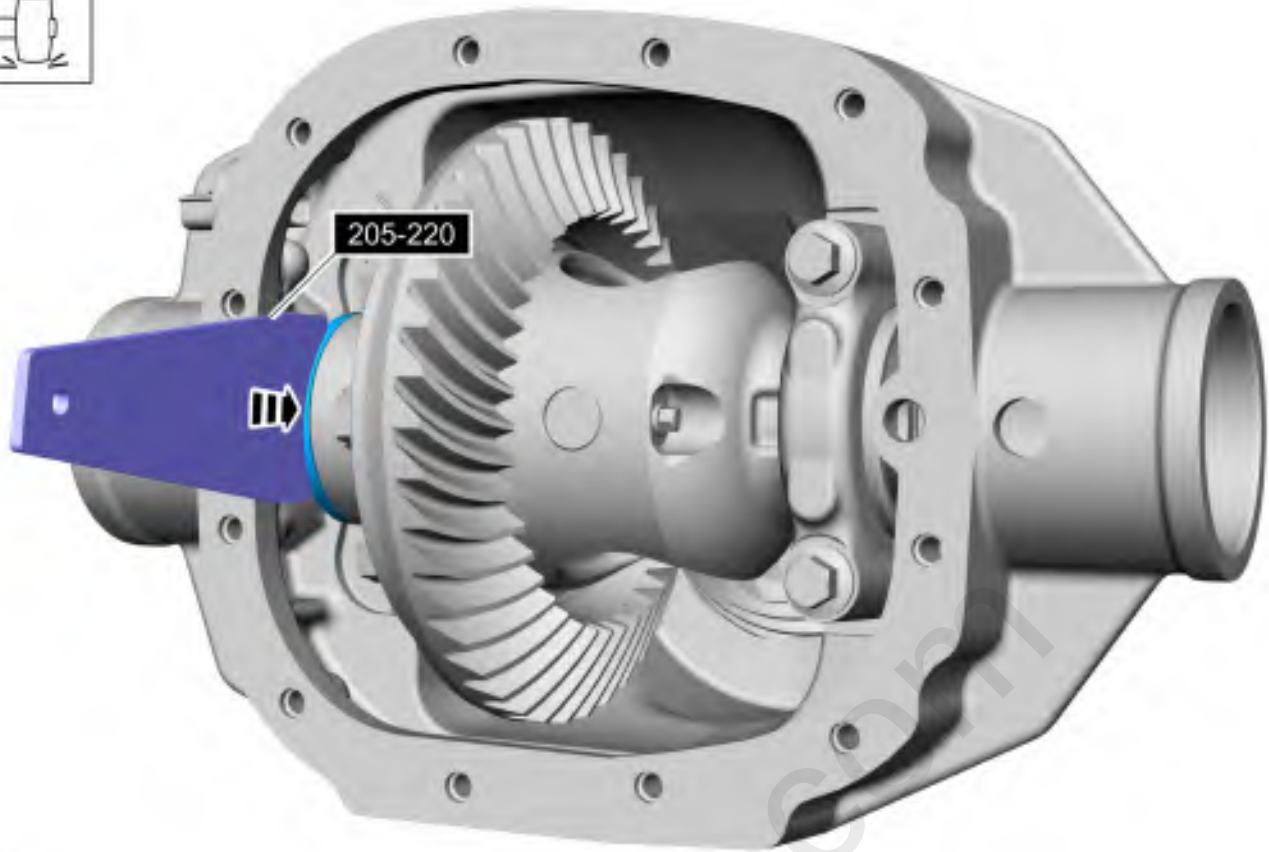
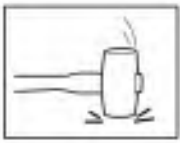
E194841

1. Install the RH selected ring gear back lash shim.
2. **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.



10. Using the special tool and a soft face copper mallet, install the LH selected ring gear back lash shim.
Use Special Service Tool: 205-220 Installer, Differential Shim.
Use the General Equipment: Copper Hammer

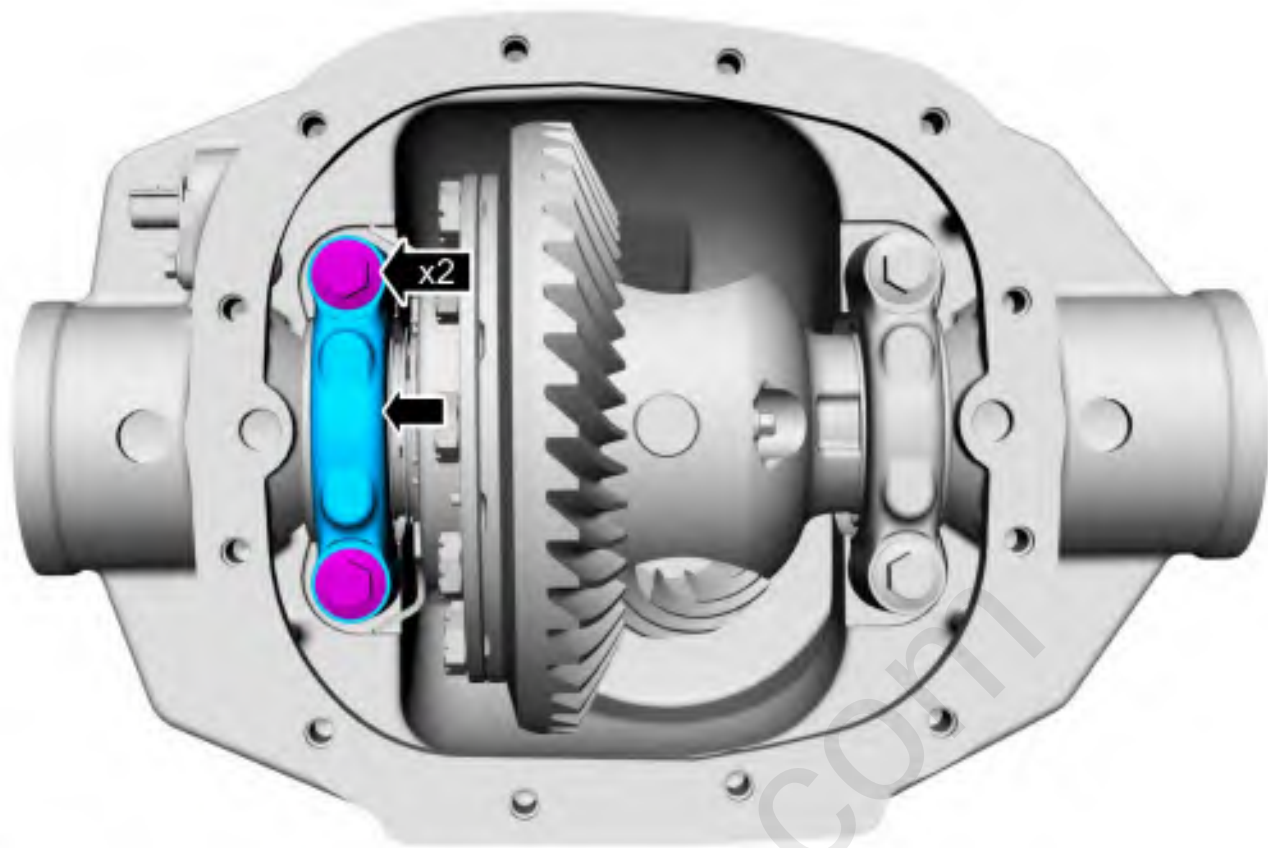


E194843



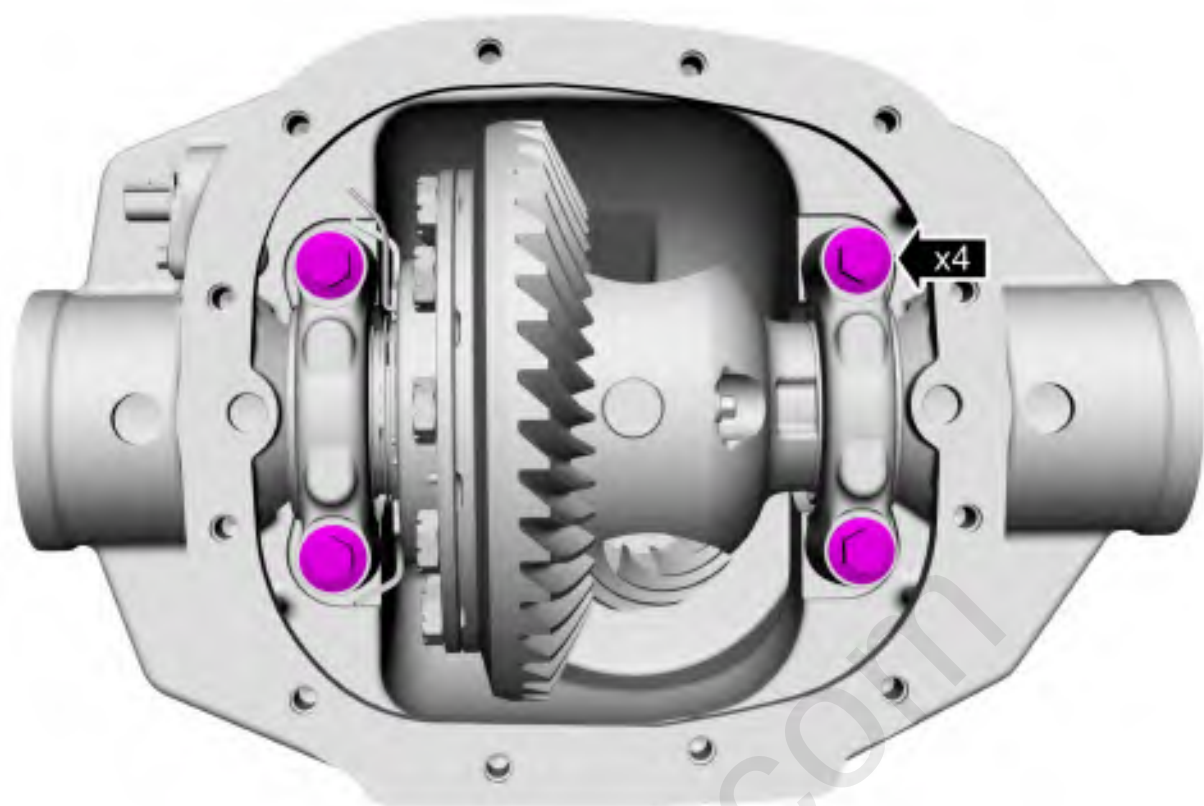
11. **NOTE:** *The differential bearing cap bolts should only be finger tight at this time.*

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



E194844

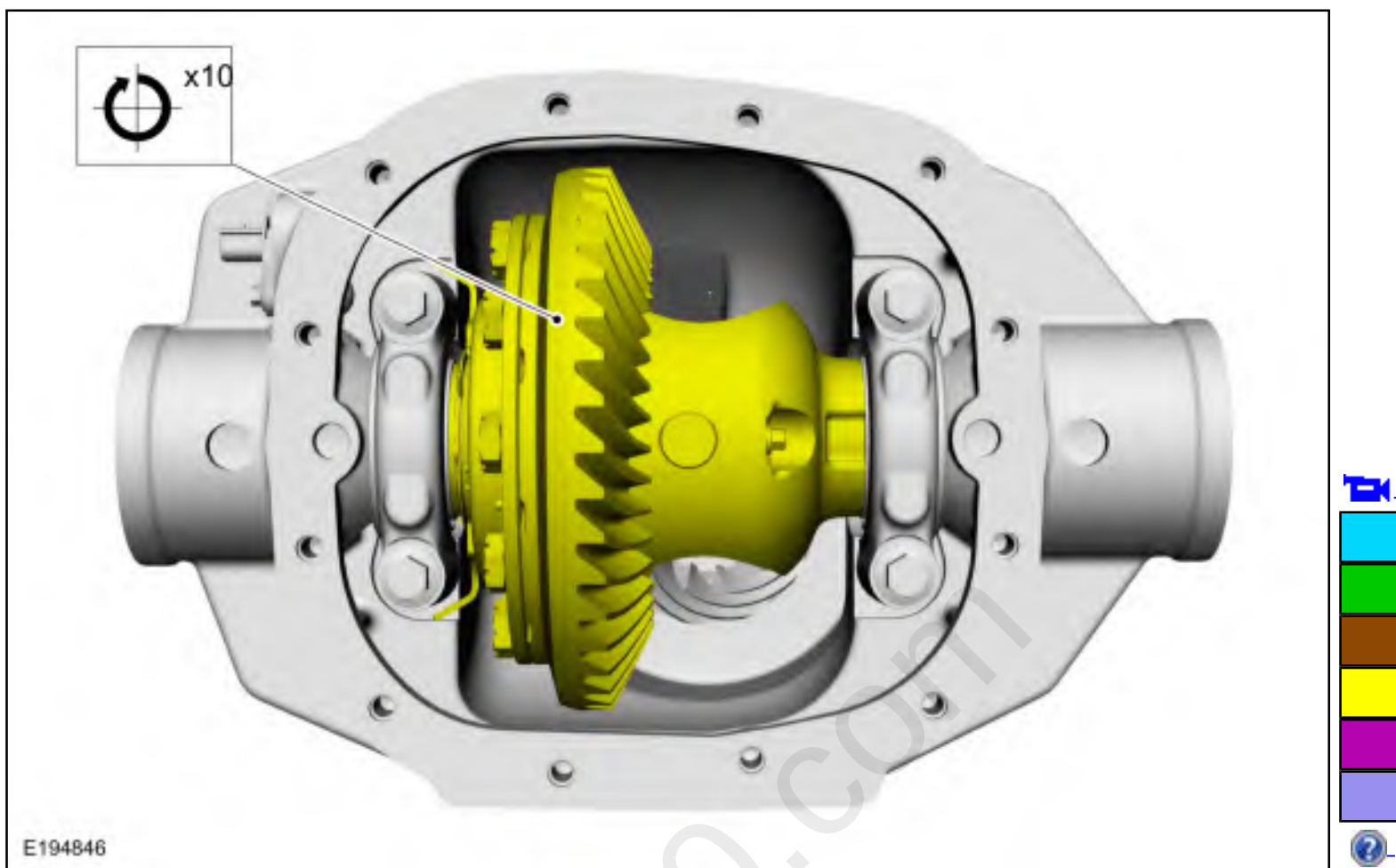
12. Tighten the differential bearing cap bolts.
Torque: 83 lb.ft (112 Nm)



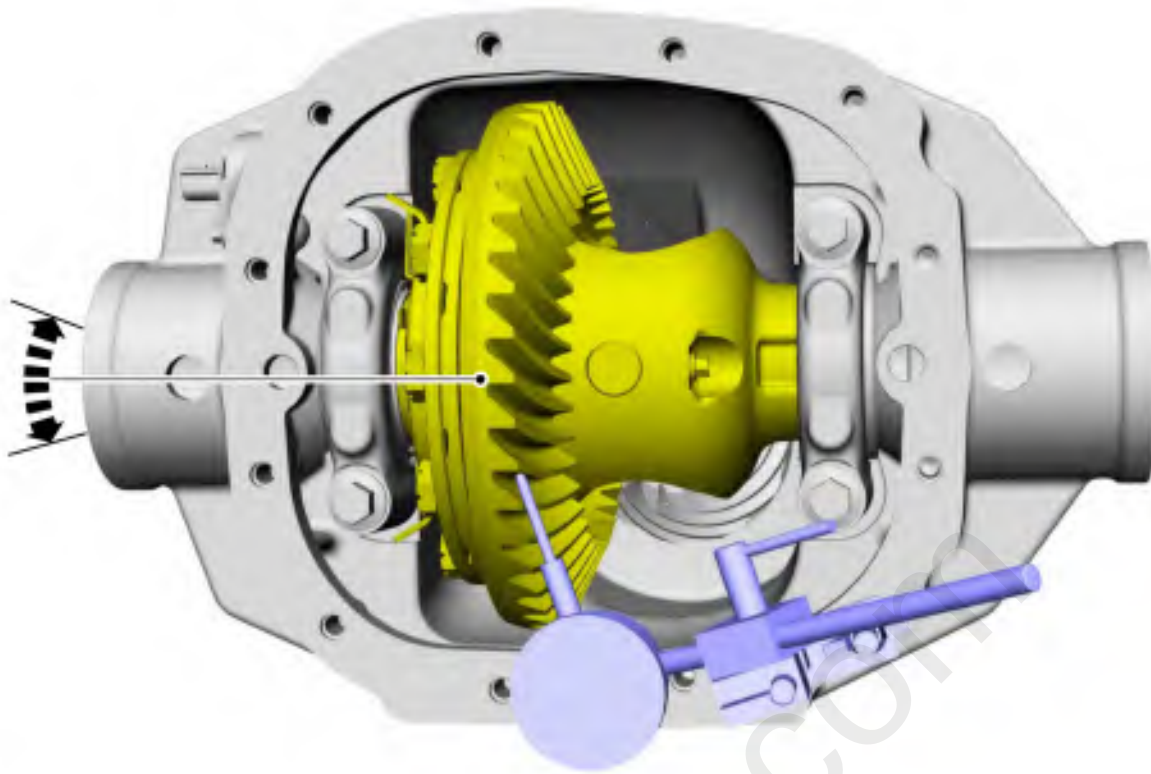
E194845



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



14. Using the dial indicator gauge with holding fixture, do a final check of the ring gear backlash.
Use the General Equipment: Dial Indicator



E194838

15. Verify an acceptable ring gear tooth pattern check.
Refer to: [Rear Drive Axle and Differential](#) (205-02A Rear Drive Axle/Differential - Vehicles With: Ford 8.8 Inch Ring Gear, Diagnosis and Testing).
16. Install the axle shafts.
Refer to: [Axle Shaft](#) (205-02A Rear Drive Axle/Differential - Vehicles With: Ford 8.8 Inch Ring Gear, Removal and Installation).
17. Install the differential housing cover.
Refer to: [Differential Housing Cover](#) (205-02A Rear Drive Axle/Differential - Vehicles With: Ford 8.8 Inch Ring Gear, Removal and Installation).