

205-02 Rear Drive Axle/Differential - Vehicles With: Dana M220
Removal and Installation

2019 Ranger
Procedure revision date: 11/27/2018

Differential Carrier

Special Tool(s) / General Equipment

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

Materials

Name	Specification
Motorcraft® Threadlock and Sealer TA-25-B	-

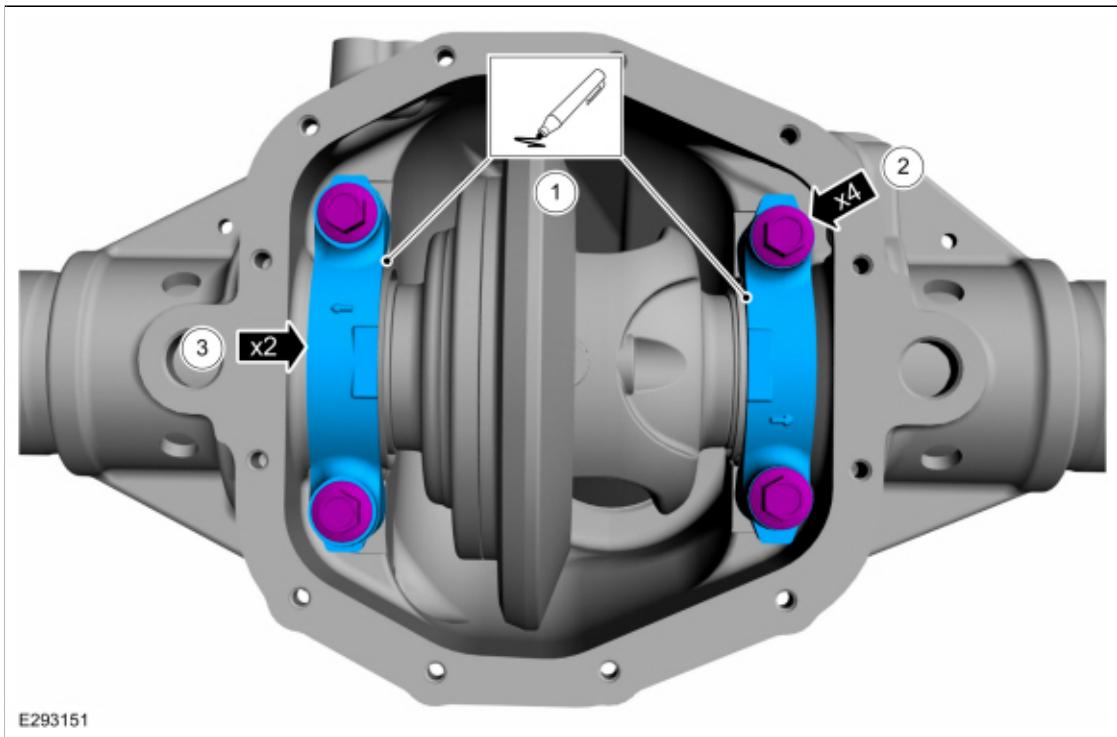
Removal

All vehicles

1. Remove the differential housing cover.
Refer to: [Differential Housing Cover](#) (205-02 Rear Drive Axle/Differential - Vehicles With: Dana M220, Removal and Installation).
2. Remove the axle shafts.
Refer to: [Axle Shaft](#) (205-02 Rear Drive Axle/Differential - Vehicles With: Dana M220, Removal and Installation).

Vehicles without

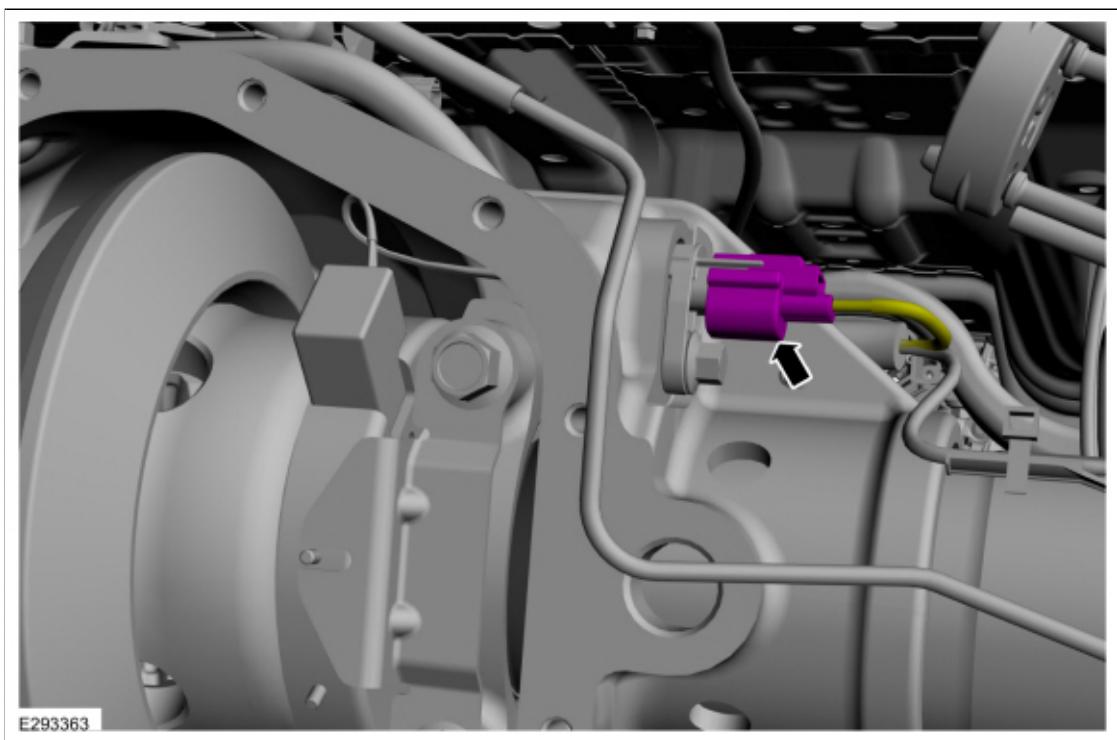
3. **NOTE:** *The differential bearing caps and differential bearing cap bolts need to be installed in the same location as removed.*
 1. Index-mark the differential bearing caps.
 2. Remove the differential bearing cap bolts.
 3. Remove the differential bearing caps.



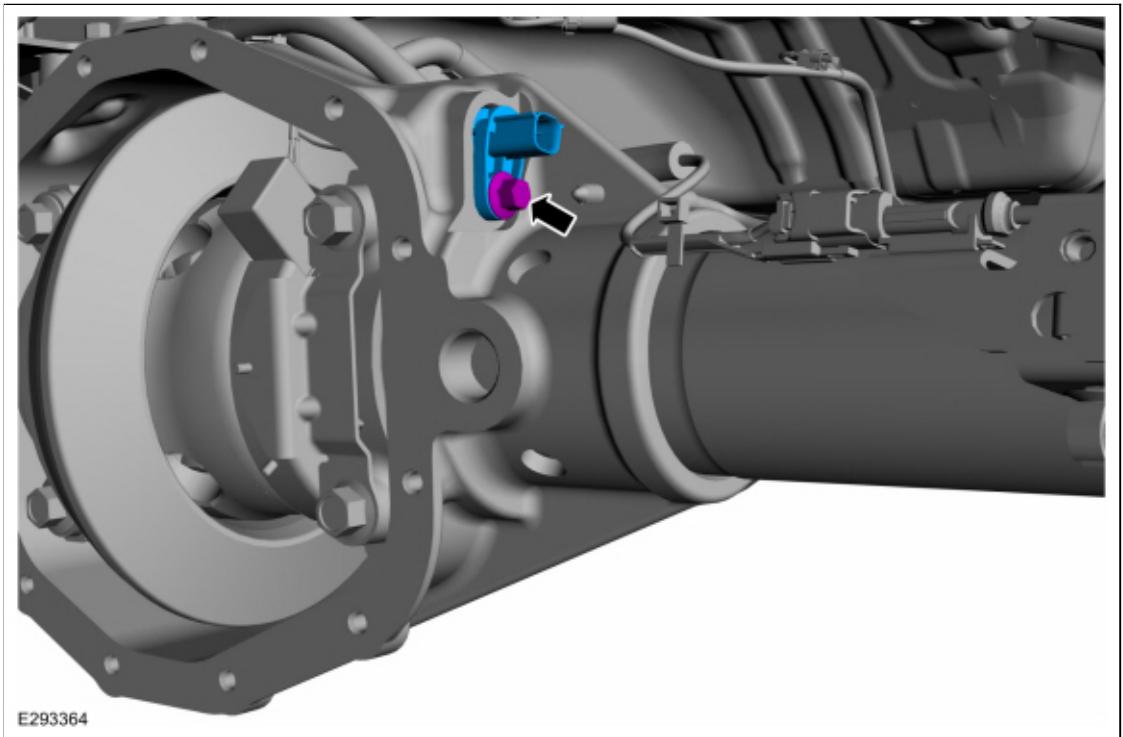
Vehicle equipped with

4. **⚠️ WARNING: Do not pull on the wire harness to disconnect the connector or damage to the connector will occur.**

Disconnect the ELD solenoid switch electrical connector.

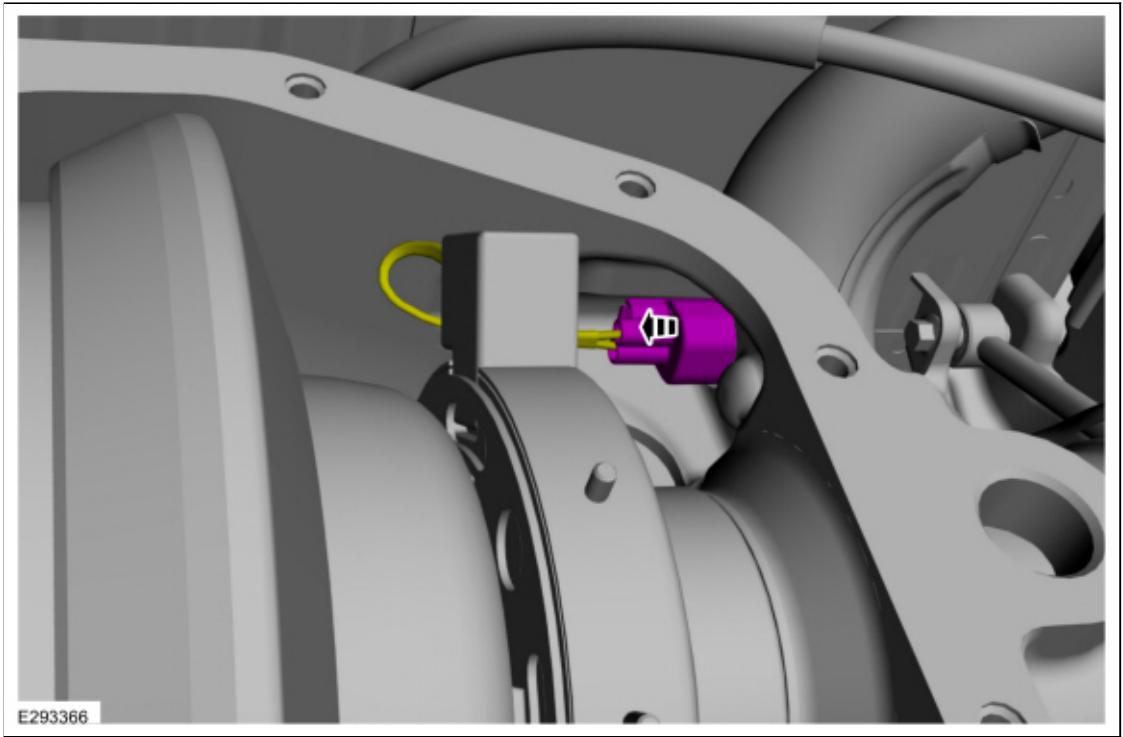


5. Remove the bolt and the ELD solenoid switch.



6. **NOTICE: Take extra care not to damage the wiring harnesses.**

Pull the solenoid switch inside the housing.



7.

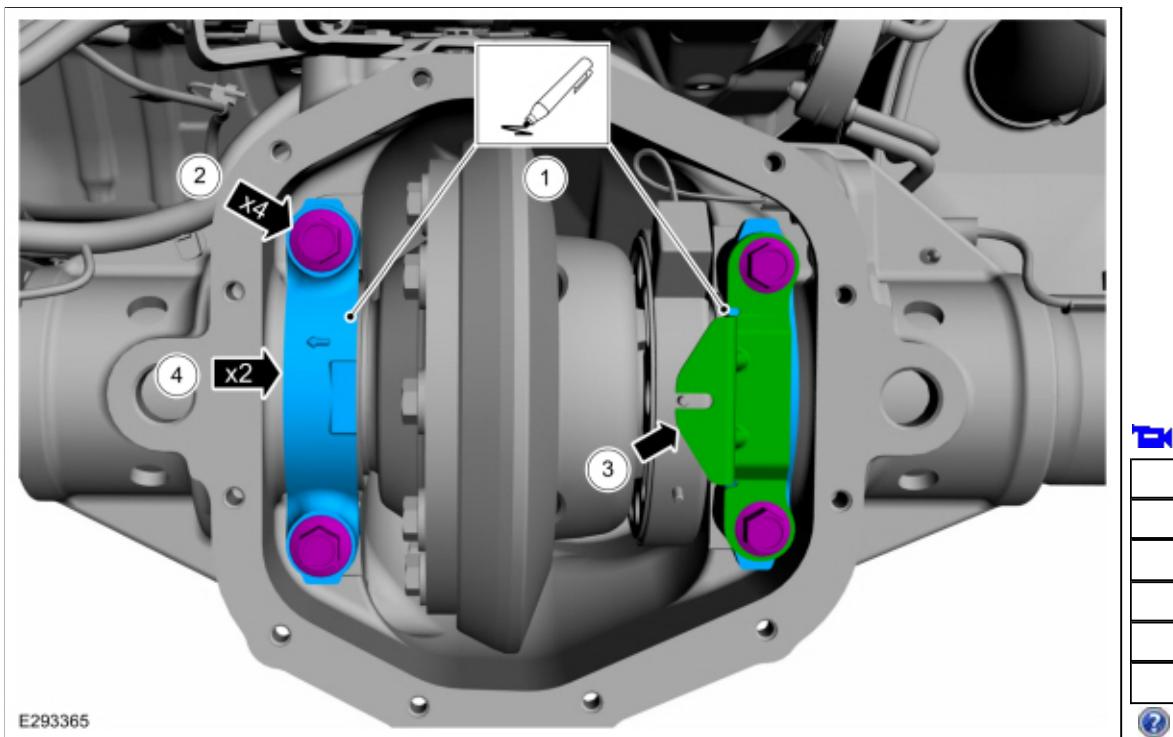
1. **NOTE:** The differential bearing caps and differential bearing cap bolts need to be installed in the same location as removed.

Index-mark the differential bearing caps.

2. Remove the differential bearing cap bolts.
3. **NOTE:** Make sure to note the orientation of the ELD clutch pack locking plate prior to removal.

Remove the ELD clutch pack locking plate.

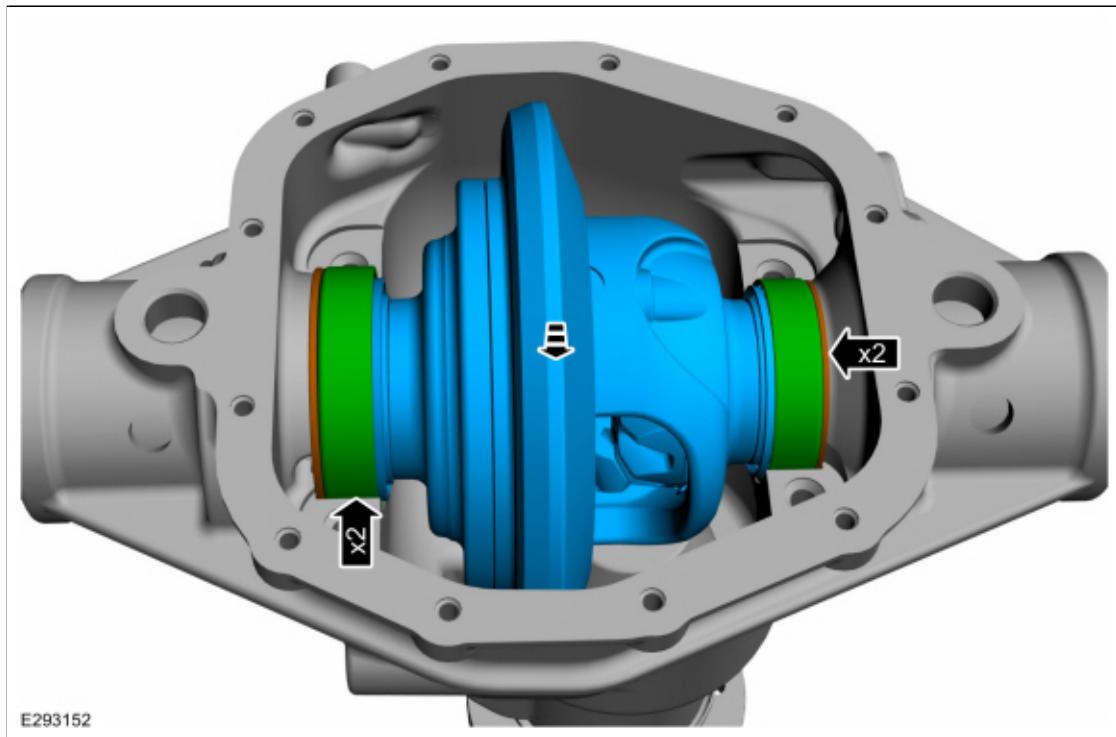
4. Remove the differential bearing caps.



All vehicles

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

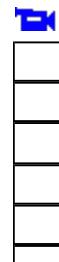


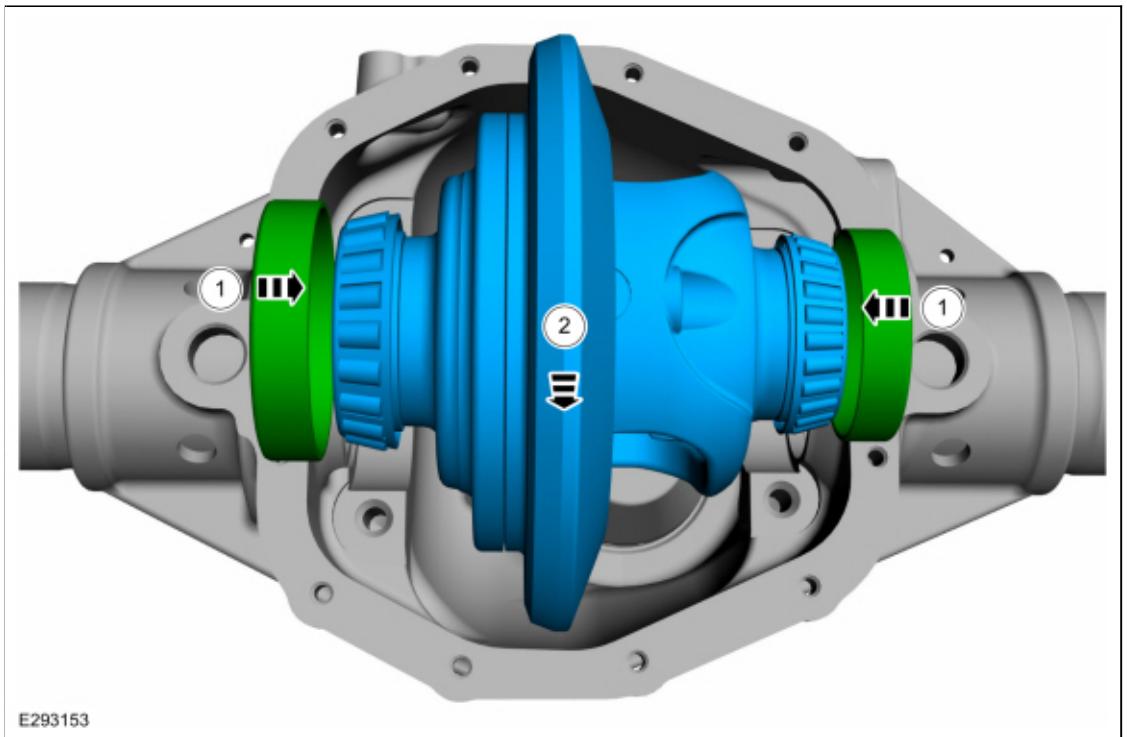


Installation

All vehicles

1. **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.**
 1. Install the differential carrier bearing cups.
 2. Install the differential carrier assembly into housing.



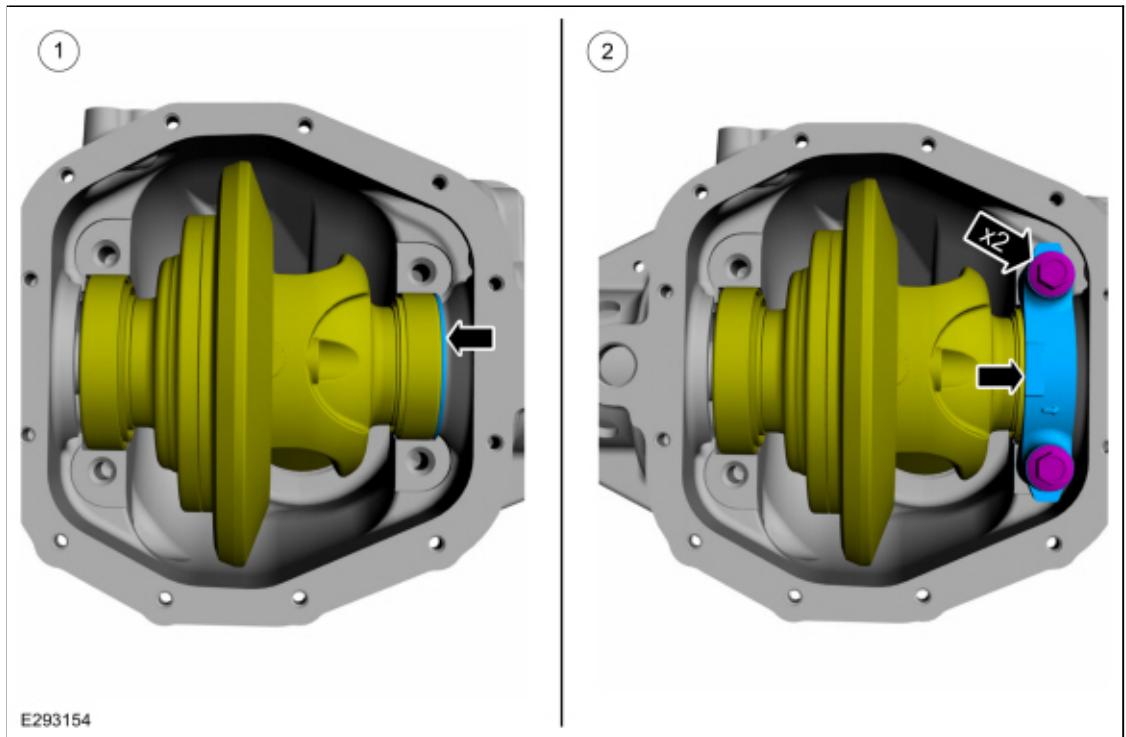


2. **NOTE:** Differential bearing shims are to be installed with the chamfer facing outboard.

- Install the RH selected ring gear back lash shim.
- Position the differential to the RH side of the differential housing.
- **NOTE:** The differential bearing cap bolts should only be finger tight at this time.

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

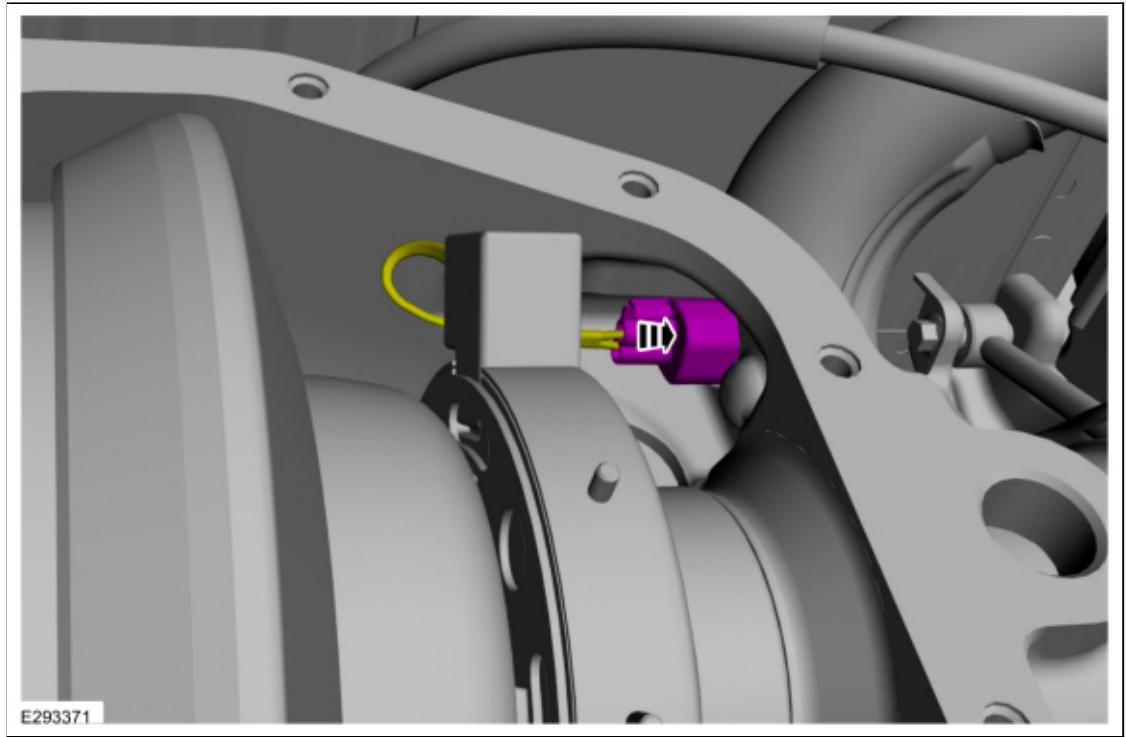




Vehicle equipped with

3. NOTICE: Take extra care not to damage the wiring harnesses.

Gently fit the ELD solenoid through the differential carrier assembly.



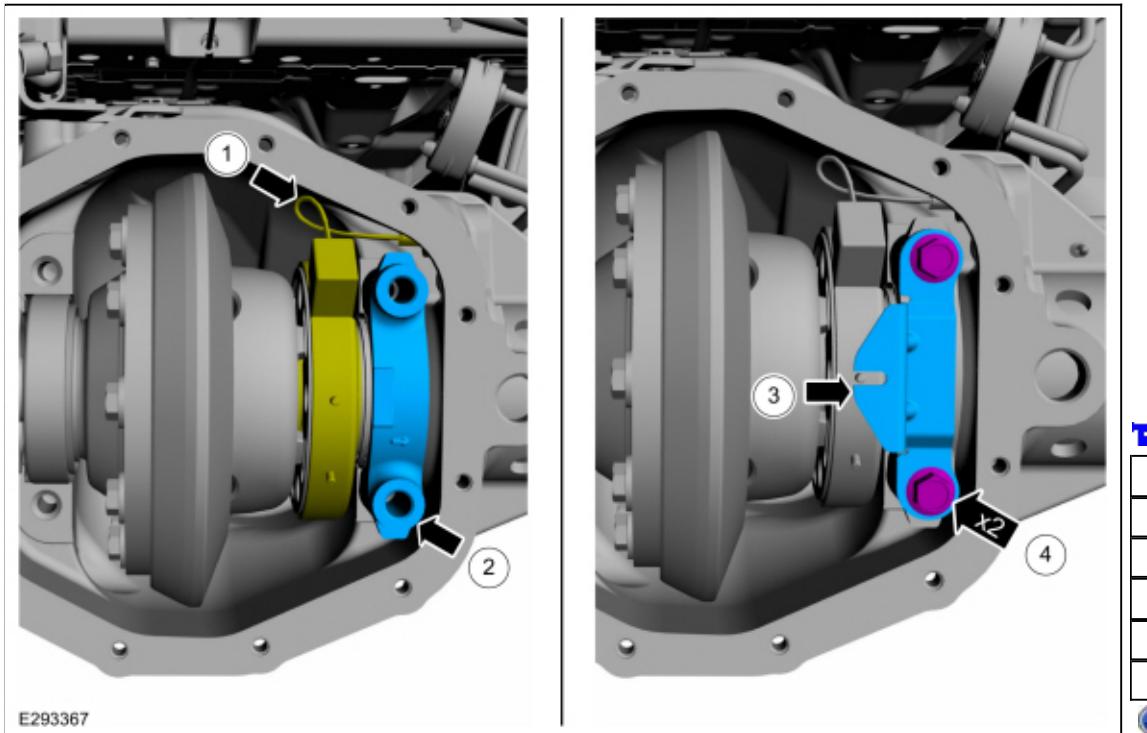
4. **NOTE:** The differential bearing caps and differential bearing cap bolts need to be installed in the same location as removed.

1. **NOTE:** Make sure that no part of the wiring harness is trapped.

- Position the ELD actuator wiring harness correctly.
2. Position the RH differential bearing cap.
3. **NOTE:** The ELD clutch pack locking plate need to be installed in the same orientation as removed.

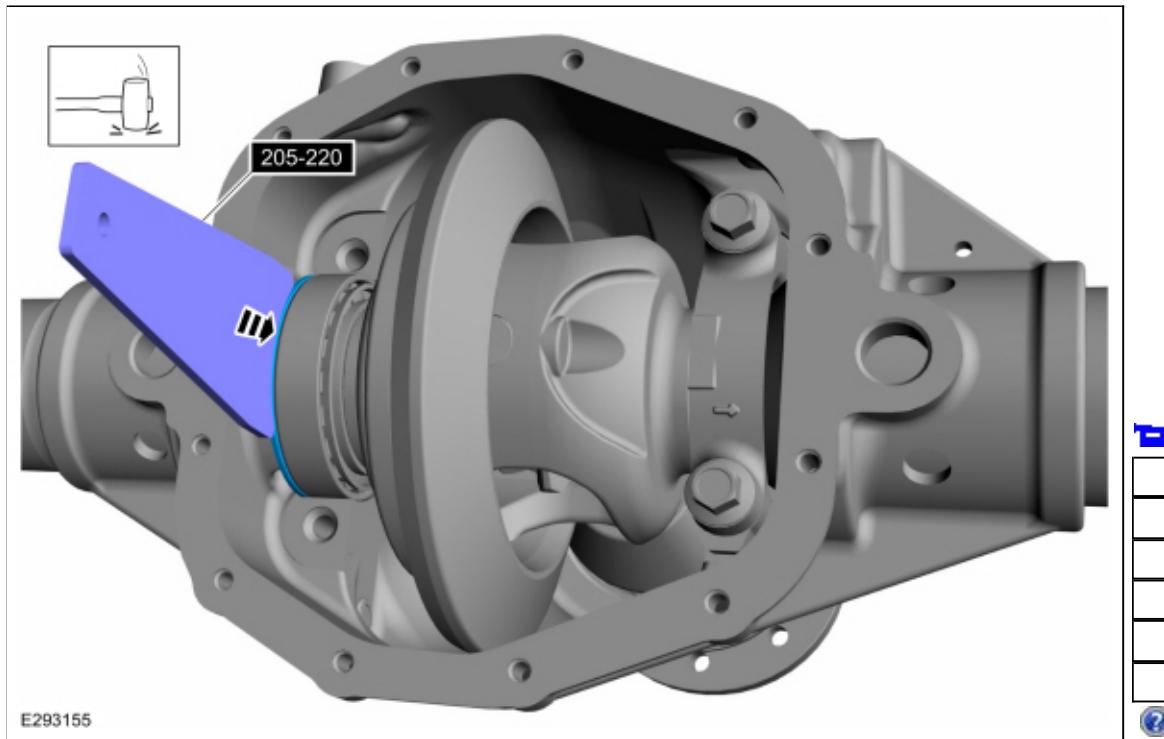
Position the ELD clutch pack locking plate.

4. Install the RH differential bearing cap bolts.



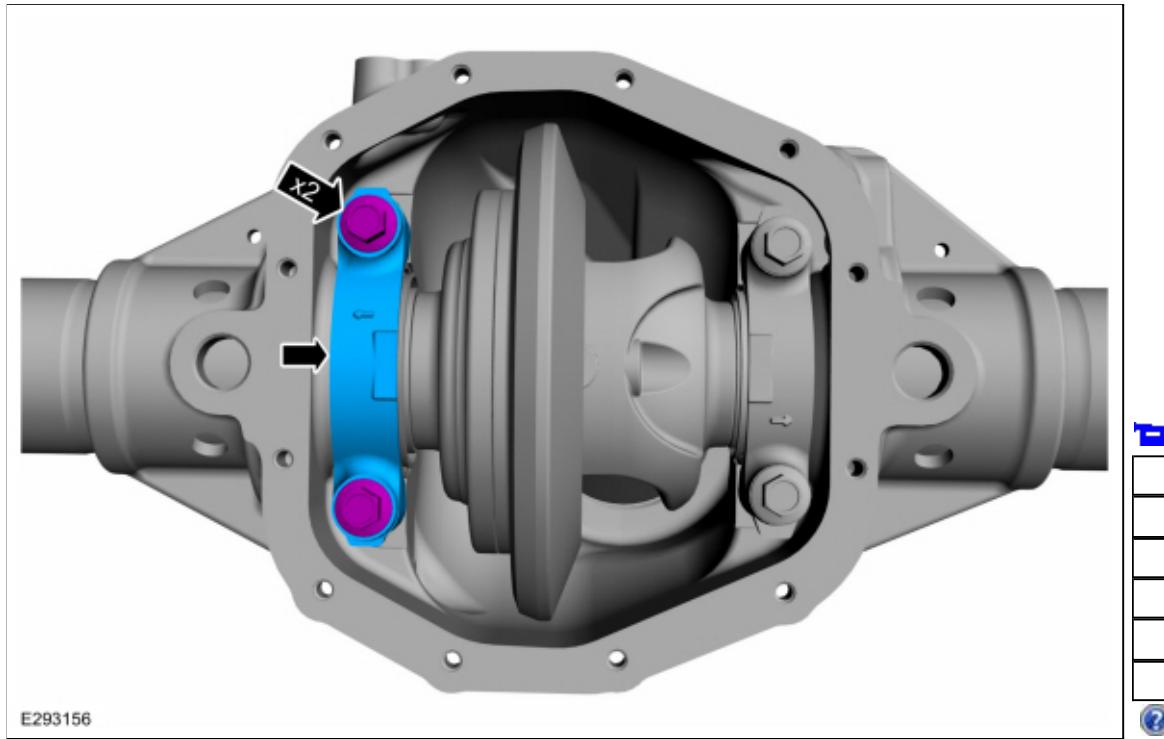
All vehicles

5. 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

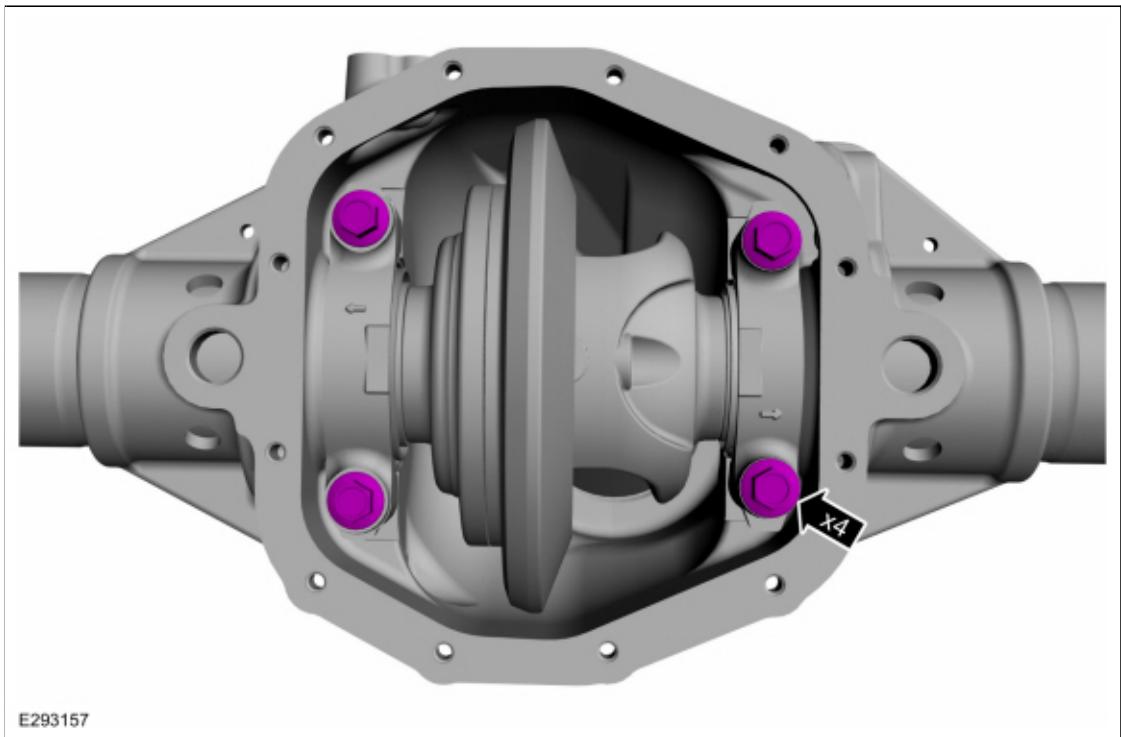


6. **NOTE:** The differential bearing cap bolts should only be finger tight at this time.

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



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



Vehicle equipped with

8. **NOTE:** Lubricate the ELD solenoid switch O-ring with rear axle oil.

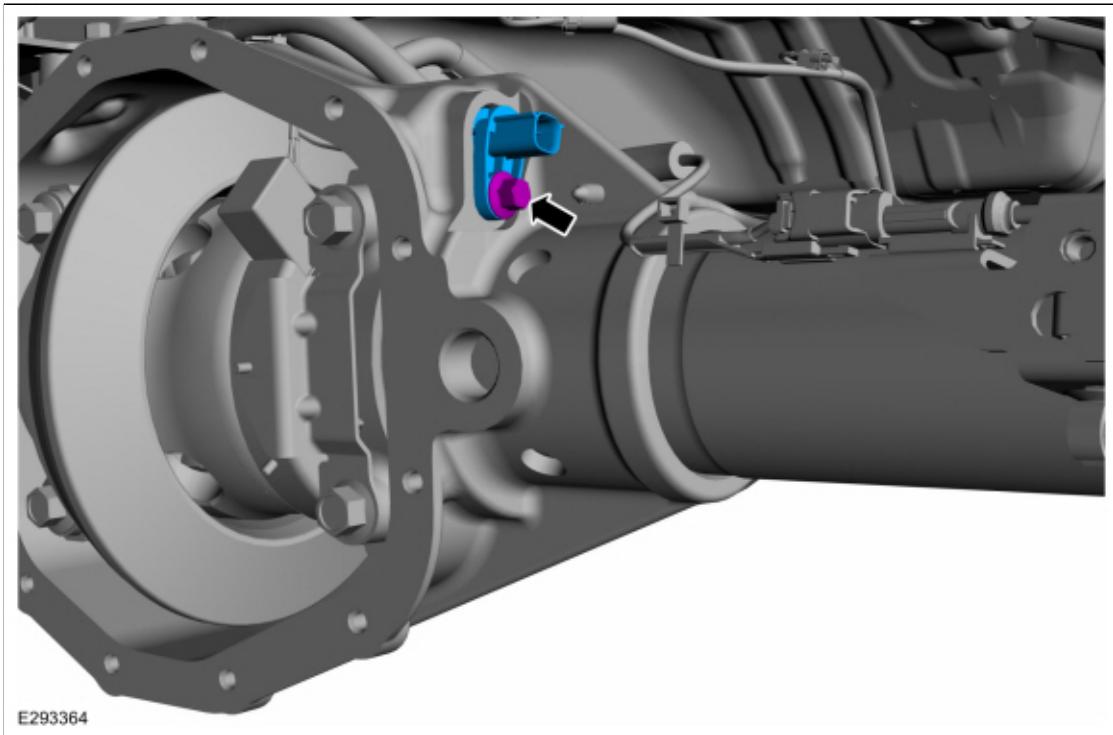
NOTE: Apply loctite to the bolt threads while installing bolt into the axle assembly.

Position the ELD solenoid switch and install the bolt.

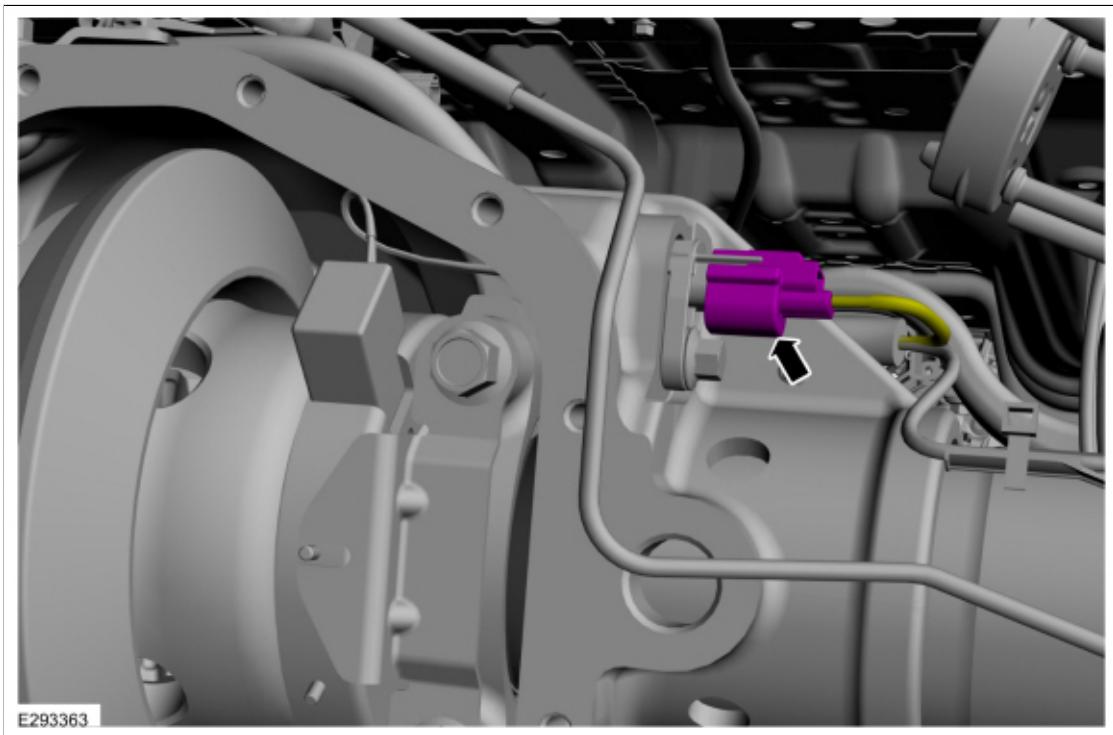
Material: Motorcraft® Threadlock and Sealer / TA-25-B

Torque: 97 lb.in (11 Nm)





9. Connect the ELD solenoid electrical connector.



All vehicles

10. Check the ring gear backlash.

Refer to: [Ring Gear Backlash Adjustment](#) (205-02 Rear Drive Axle/Differential - Vehicles With: Dana

M220, General Procedures).

11. Install the axle shafts.

Refer to: [Axle Shaft](#) (205-02 Rear Drive Axle/Differential - Vehicles With: Dana M220, Removal and Installation).

12. Install the differential housing cover.

Refer to: [Differential Housing Cover](#) (205-02 Rear Drive Axle/Differential - Vehicles With: Dana M220, Removal and Installation).

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