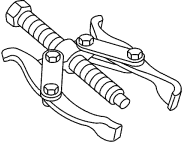
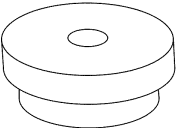
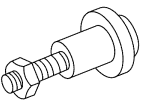
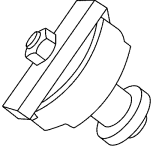
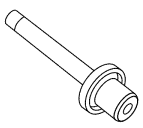
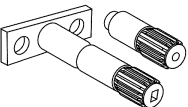


## DISASSEMBLY AND ASSEMBLY

### Differential Case and Ring Gear

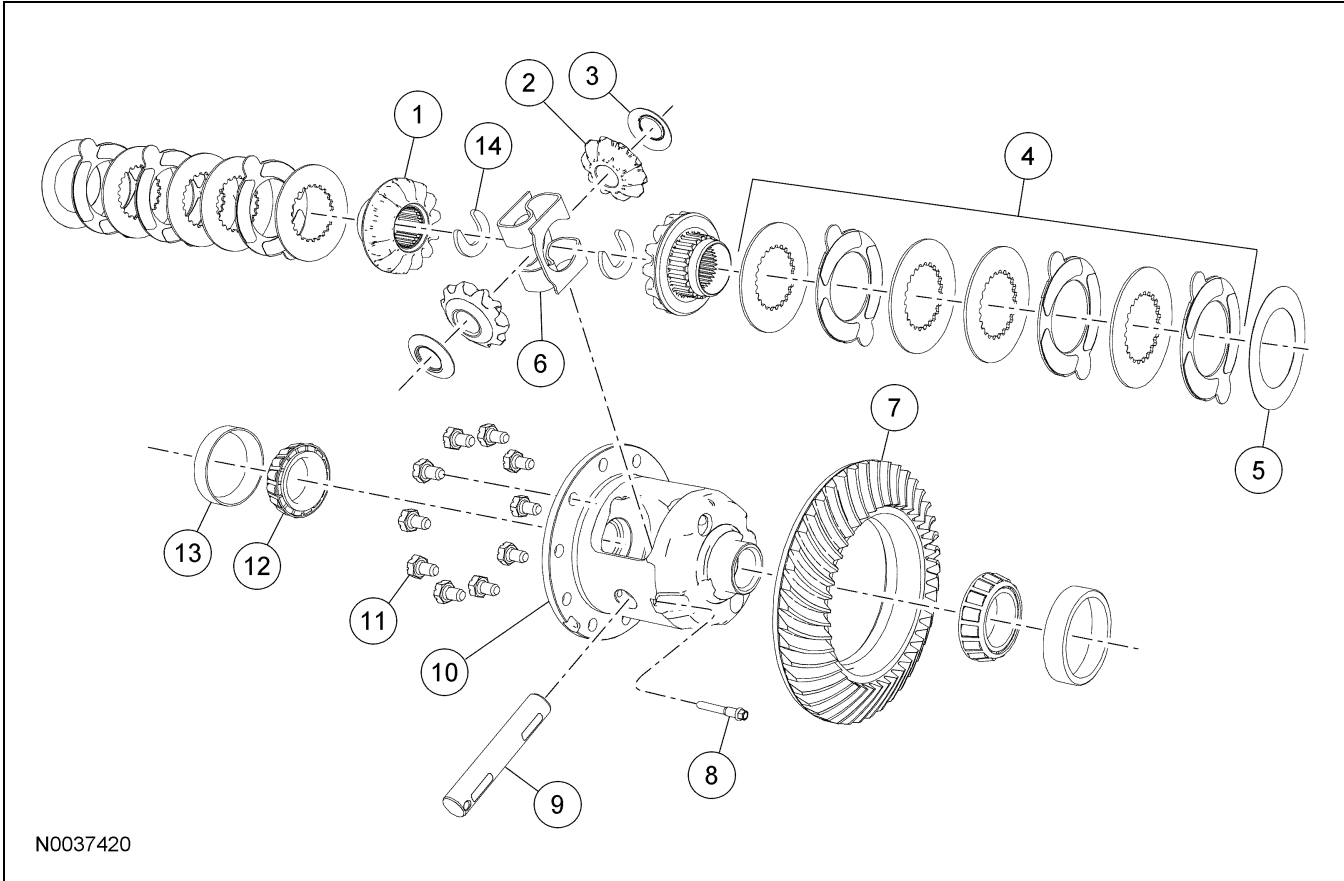
#### Special Tool(s)

 ST2026-A	2-Jaw Puller 205-D072 (D97L-4221-A) or equivalent
 ST1543-A	Step Plate 205-D016 (D80L-630-5) or equivalent
 ST1372-A	Gauge, Differential Clutch (Mandrel for 205-135 [T80P-4946-A]) 205-270 (T87T-4946A)
 ST1374-A	15-101 Gauge, Differential Clutch 205-135 (T80P-4946-A)
 ST1375-A	Installer, Differential Side Bearing 205-010 (T57L-4221-A2)
 ST1265-A	Gauge, Differential Clutch 205-022 (T66L-4204-A)

#### Material

Item	Specification
Additive Friction Modifier XL-3	EST-M2C118-A
Threadlock and Sealer TA-25	WSK-M2G351-A5
Stud and Bearing Mount TA-27	WSK-M2G349-A1

**DISASSEMBLY AND ASSEMBLY (Continued)**

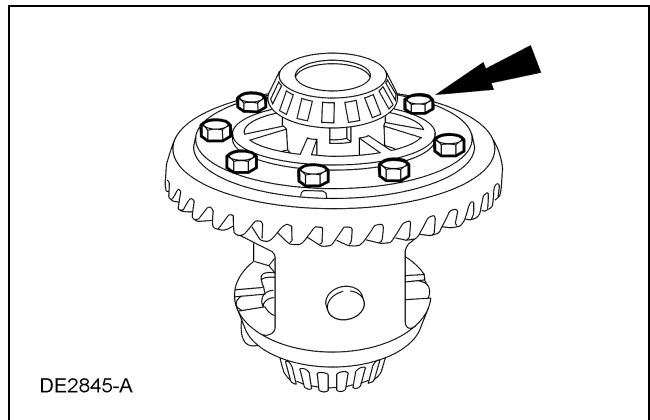


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Item	Part Number	Description
1	4236	Differential side gear
2	4215	Differential pinion gear
3	4230	Differential pinion gear thrust washer
4	4947	Differential clutch pack
5	4A324	Rear axle differential clutch shim
6	4214	Differential clutch spring
7	4209	Differential ring gear
8	4241	Differential pinion shaft lock bolt
9	4211	Differential pinion shaft
10	4204	Differential case
11	4216	Differential ring gear bolts
12	4221	Differential bearing
13	4222	Differential bearing cup
14	4N237	Axle shaft U-washer

**Disassembly**

1. Remove the differential carrier. For additional information, refer to Differential Carrier in this section.
2. Remove the 10 differential ring gear bolts.

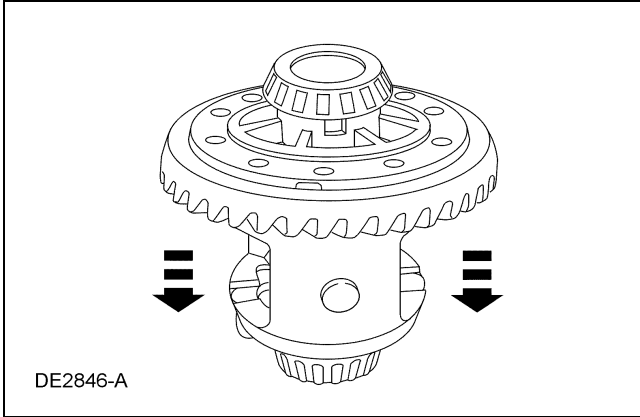


DE2845-A

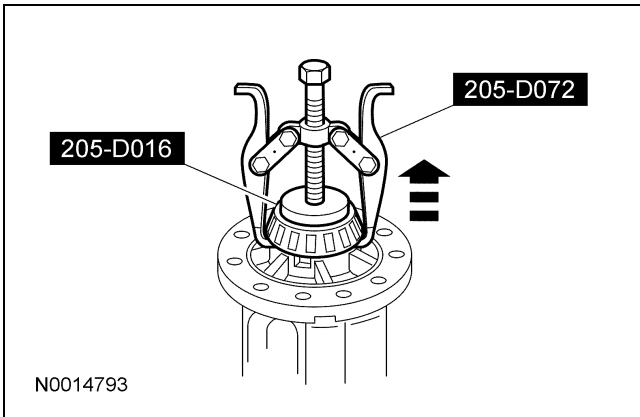
**DISASSEMBLY AND ASSEMBLY (Continued)**

3. **⚠ CAUTION:** Care should be taken not to damage the differential ring gear bolt hole threads.

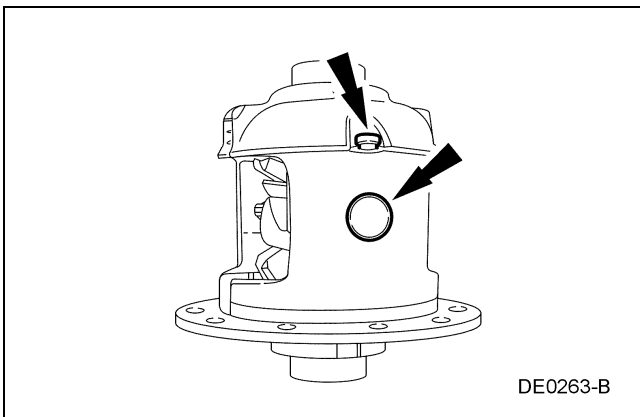
Insert a punch in the differential ring gear bolt holes and drive the differential ring gear off.



4. Using the special tools, remove the differential bearings.

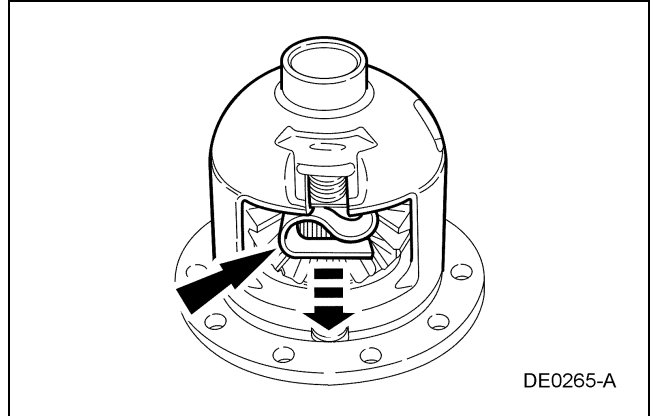


5. Remove the differential pinion shaft lock bolt and remove the differential pinion shaft.
- Discard the differential pinion shaft lock bolt.



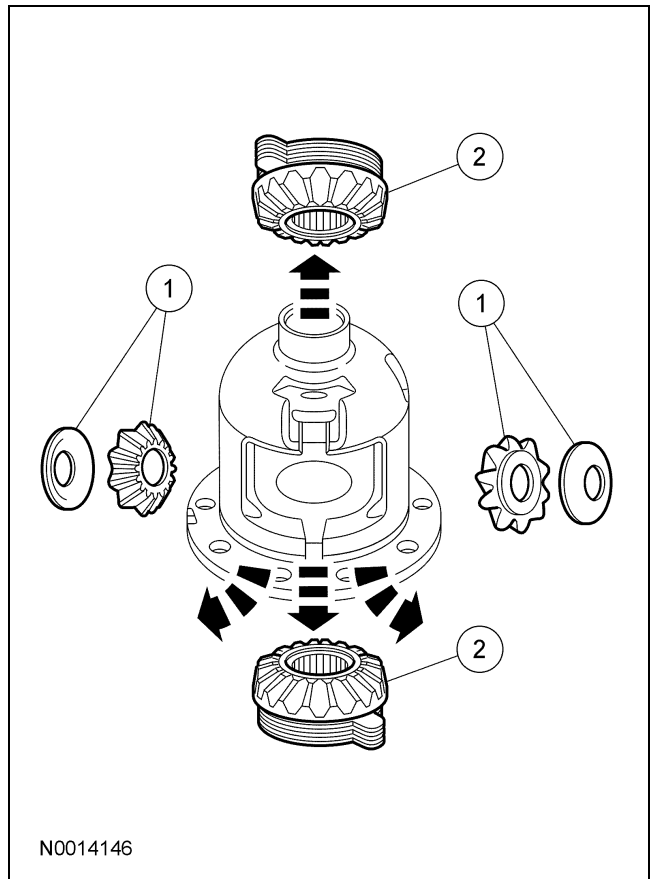
6. **⚠ WARNING:** Due to the spring tension, care must be used when removing the differential clutch spring.

Remove the differential clutch spring.




7. Remove the differential gears.

- 1 Remove the differential pinion gear and thrust washers.
- 2 Remove the 2 differential side gears.

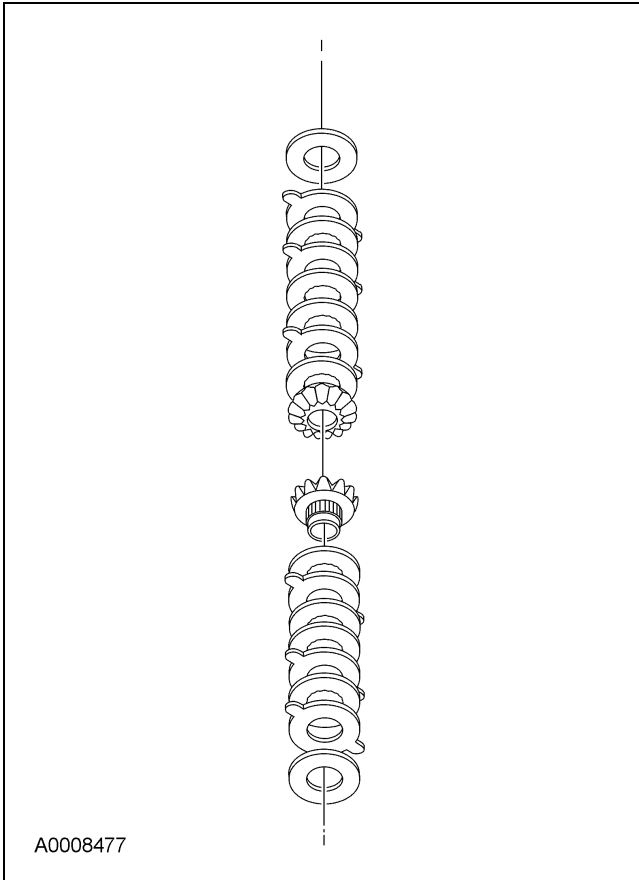
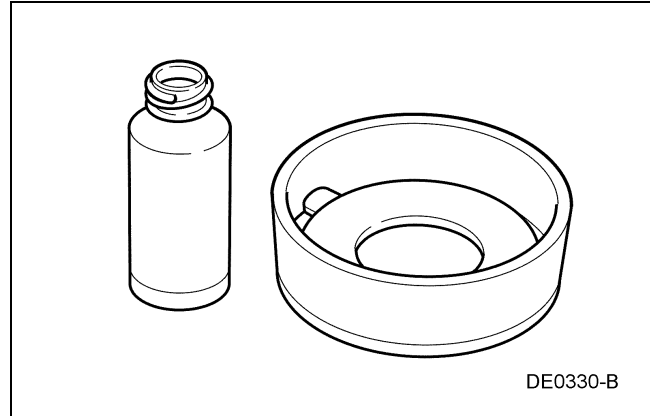



**DISASSEMBLY AND ASSEMBLY (Continued)**

8.  **CAUTION: Keep the differential clutch packs in order. Do not mix the differential clutch packs. The differential clutch packs must be reassembled in the same sequence.**

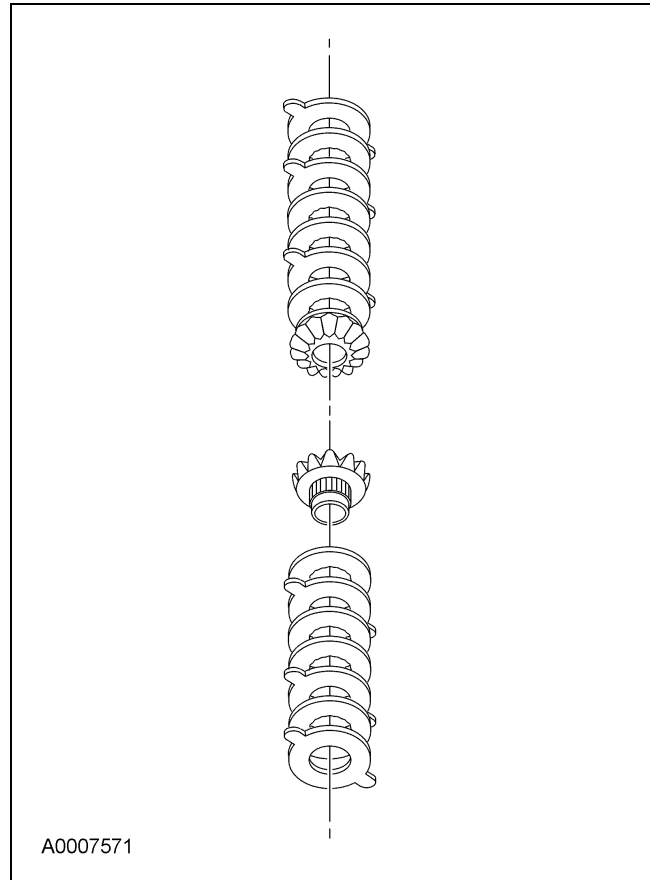
Remove the differential clutch packs and differential side gears and tag them “RH” and “LH” with the selective shim.


- Clean and inspect the remaining components of the differential case for wear or damage and install new components as necessary.



2.  **CAUTION: Do not mix the differential clutch packs or selective shims from one side with the other.**

Assemble the differential clutch packs (without the selective shims) on the respective differential side gears.



9.  **CAUTION: Do not use acids or solvents when cleaning the differential clutch pack. Wipe components with a clean, lint-free cloth only.**

Clean and inspect the differential clutch packs for wear or damage and install new components as necessary.

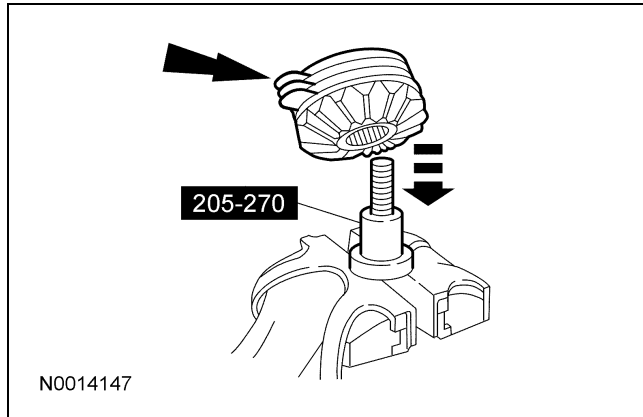
**Assembly**

1. Prelubricate each steel clutch plate and soak all friction plates with friction modifier for at least 15 minutes.

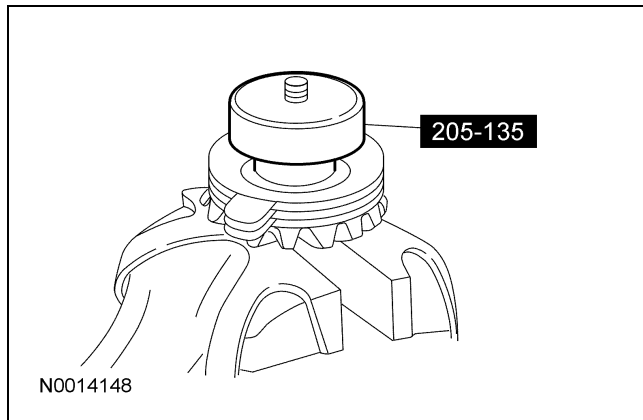
**DISASSEMBLY AND ASSEMBLY (Continued)**

3. **⚠ CAUTION:** Make sure the correct mandrel is used with the special tool.

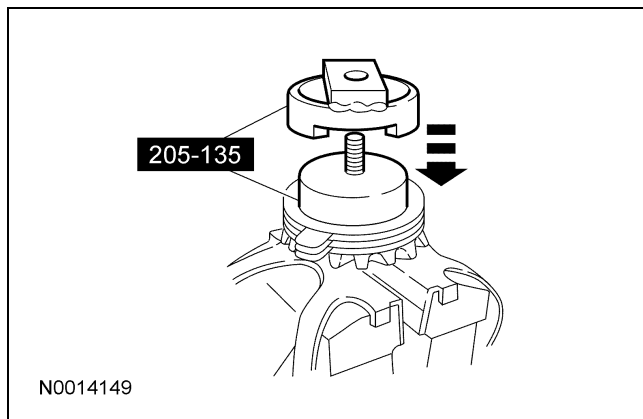
Place the base portion of the special tool in a vise. Install the differential clutch pack and differential side gear (without the selective shim) on the gauge.



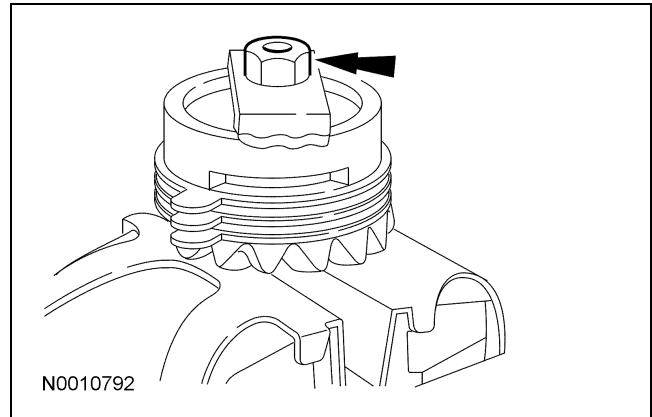
4. Position the special tool hand-tight on top of the differential clutch pack.



5. Install the special tool over the disc and differential clutch pack.



6. Install the nut of the gauge over the top and base stud.  
 • Tighten to 6.7 Nm (60 lb-in).

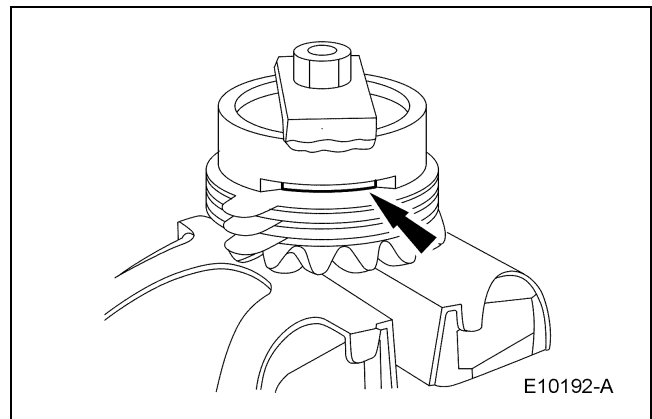


7. **NOTE:** Selective shims shown are available as part of the Clutch Pack Replacement Kit 3L1Z-4947-BD.

Use the feeler gauge and select the thickest blade that will enter between the tool and the differential clutch pack. The reading will be the thickness of the new selective shim.

**Selective Shims**

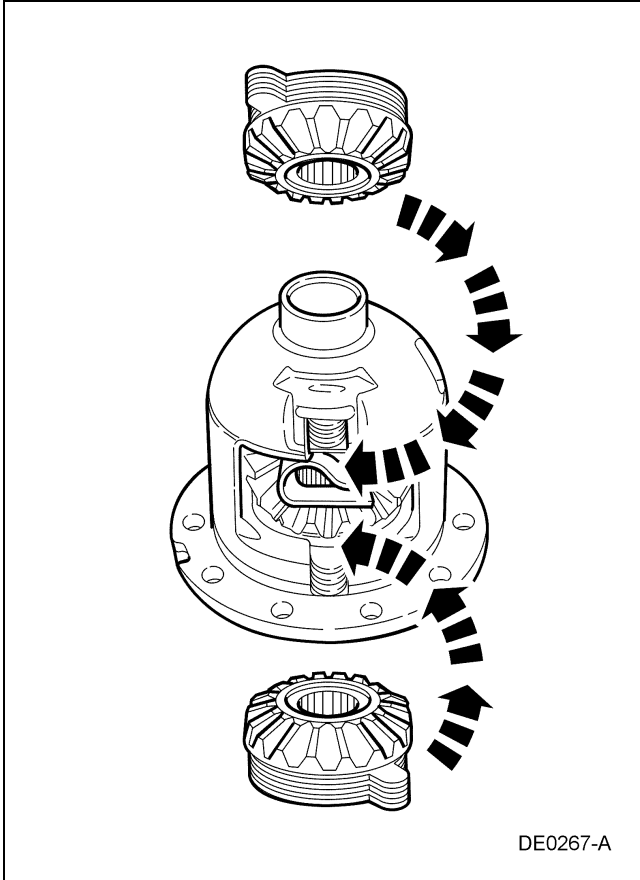
Part Number	Description
E0AZ-4A324-G	0.025 inch
E0AZ-4A324-H	0.030 inch
E0AZ-4A324-C	0.035 inch
E0AZ-4A324-D	0.040 inch
E0AZ-4A324-F	0.045 inch



8. Remove the special tool from the clutch pack and differential side gear assembly.

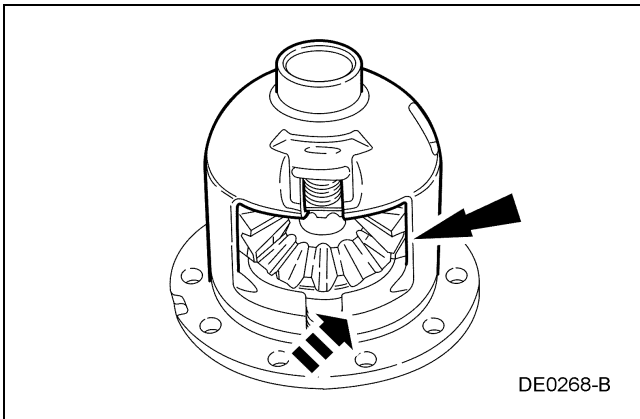
**DISASSEMBLY AND ASSEMBLY (Continued)**

- 9. Install selective shims on the clutch pack and differential side gear assembly.
- 10. Install the differential side gear in the differential case.



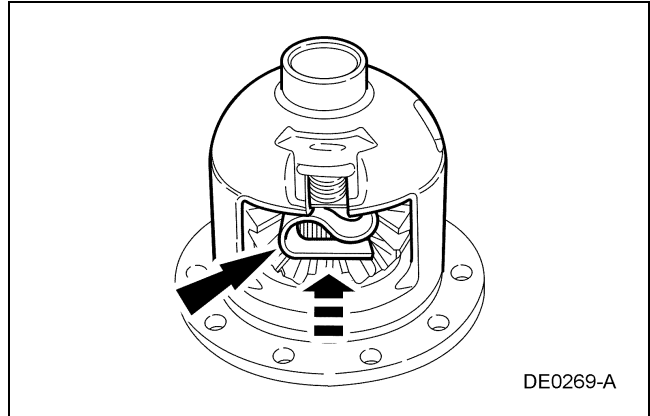
DE0267-A

- 11. Install the differential pinion gears with differential pinion gear thrust washers in the differential case.



DE0268-B

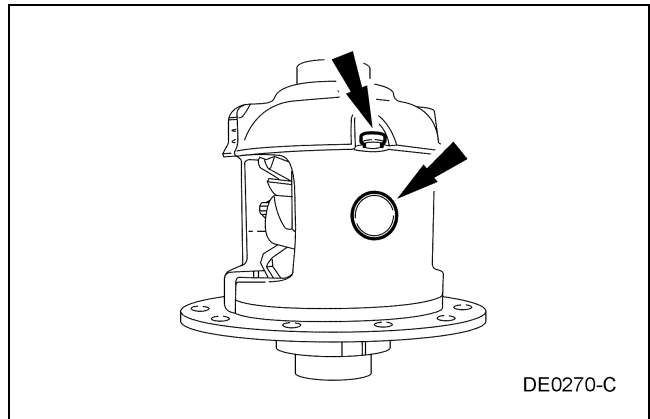
- 12. Using a soft-faced hammer, install the differential clutch spring.



DE0269-A

- 13. **NOTE:** If a new differential pinion shaft lock bolt is unavailable, coat the threads of the old differential pinion shaft lock bolt with Threadlock and Sealer.

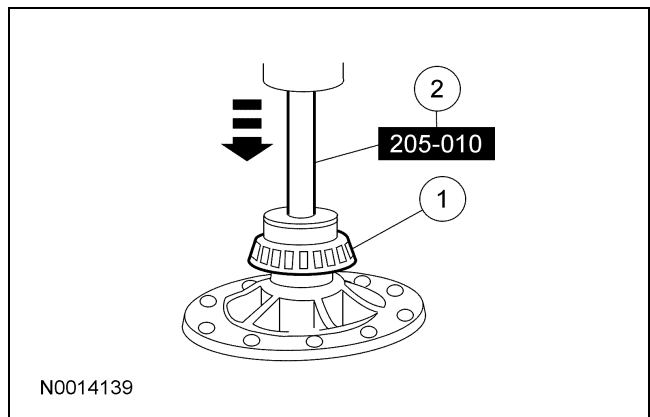
Install the differential pinion shaft and install a new differential pinion shaft lock bolt finger-tight.



DE0270-C

- 14. Using the special tool, install the differential bearings on the differential case.

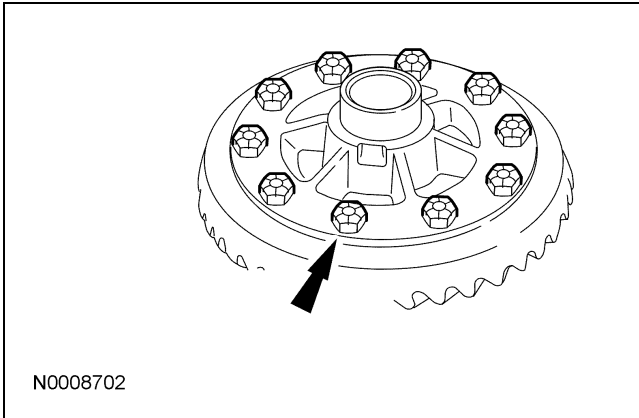
- 1 Position the differential bearing.
- 2 Using the special tool, press on the differential bearing.



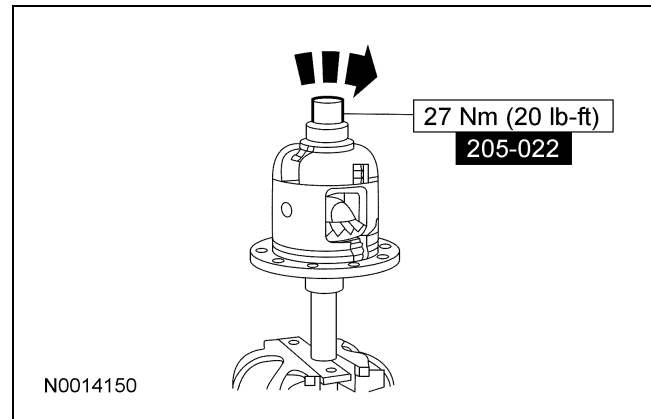
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**DISASSEMBLY AND ASSEMBLY (Continued)**

15. Press the differential ring gear on the differential assembly.
16. Apply Stud and Bearing Mount to the differential ring gear bolts and install the differential ring gear bolts.
  - Tighten to 105 Nm (77 lb-ft).



17. Check the torque required to rotate one differential side gear.
  - Mount the differential assembly and special tool in a vise.
  - The initial minimum break-away torque, if original clutch plates are used, must be within specification. The minimum rotating torque required to keep the differential side gear turning with new clutch plates may vary.



18. Install the differential carrier. For additional information, refer to Differential Carrier in this section.