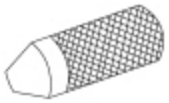
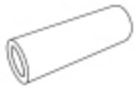
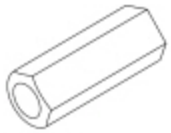
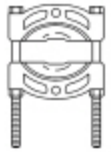
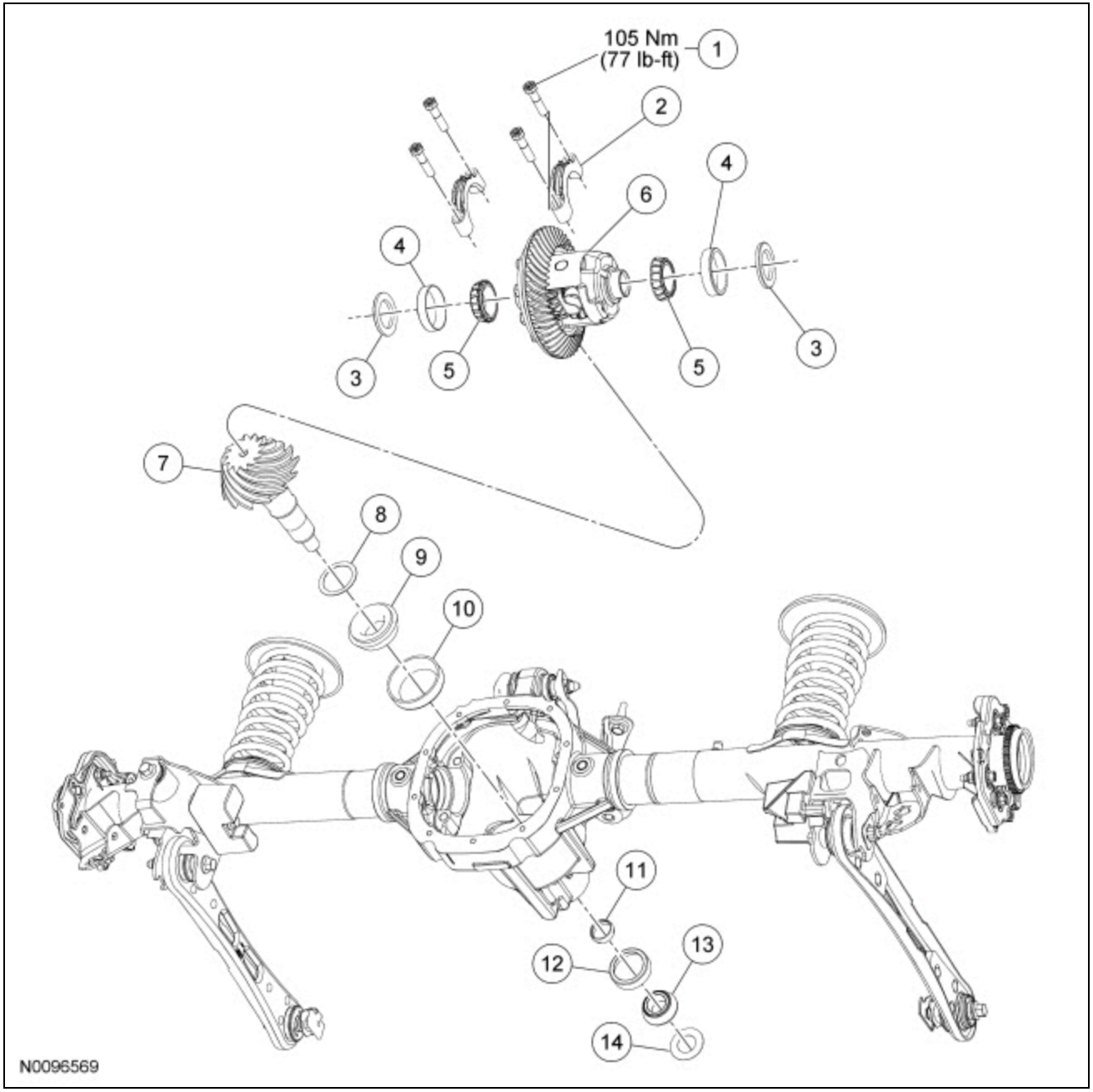
Differential Bearings

Special Tool(s)

 ST2026-A	2 Jaw Puller 205-D072 (D79L-4221-A1) or equivalent
 ST1743-A	Adapter for 205-S127 205-105 (T76P-4020-A3)
 ST1429-A	Adapter for 205-S127 205-109 (T76P-4020-A9)
 ST1431-A	Adapter for 205-S127 205-110 (T76P-4020-A10)
 ST1432-A	Adapter for 205-S127 205-111 (T76P-4020-A11)

 ST1743-A	Adapter for 205-S127 205-125 (T78P-4020-A15)
 ST1434-A	Gauge Tube 205-D034 (D80T-4020-F49) or equivalent
 ST1375-A	Installer, Differential Side Bearing 205-009 (T57L-4221-A1)
 ST1367-A	Installer, Drive Pinion Bearing Cone 205-005 (T53T-4621-C)
 ST1678-A	Installer, Drive Pinion Bearing Cup 205-054 (T71P-4616-A)
 ST1254-A	Plate, Bearing/Oil Seal 205-090 (T75L-1165-B)
 ST1744-A	Protector, Drive Pinion Thread 205-460

 ST1368-A	Puller, Bearing 205-D064 (D84L-1123-A) or equivalent
 ST1543-A	Step Plate 205-D016 (D80L-630-5) or equivalent

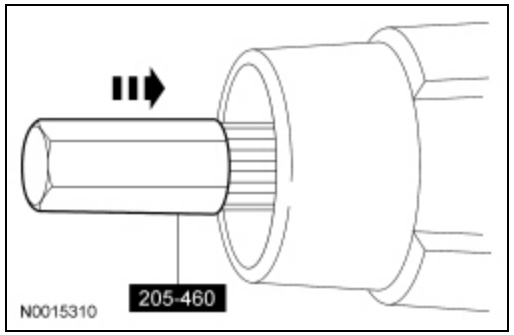


Item	Part Number	Description
1	—	Differential bearing cap bolt (part of 4010)
2	—	Differential bearing cap (part of 4010)
3	4067	Differential bearing shims (2 required)

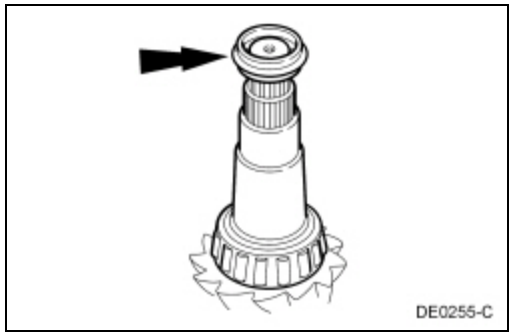
4	4222	Differential bearing cups (2 required)
5	4221	Differential bearings (2 required)
6	4204	Differential assembly
7	4209	Drive pinion
8	4663	Pinion bearing adjustment shim
9	4630	Inner pinion bearing
10	4628	Inner pinion bearing cup
11	4662	Collapsible spacer
12	4616	Outer pinion bearing cup
13	4621	Outer pinion bearing
14	4670	Pinion oil slinger

Removal

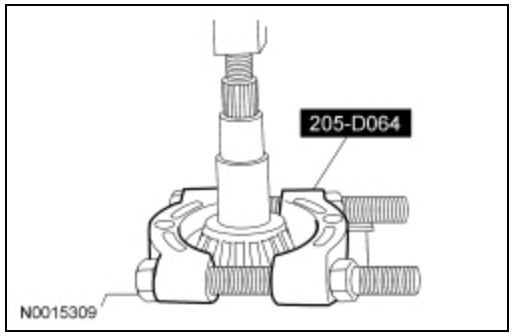
1. Remove the drive pinion seal. For additional information, refer to Drive Pinion Flange and Drive Pinion Seal in this section.
2. Remove the differential carrier. For additional information, refer to Differential Carrier in this section.
3. Remove the axle drive pinion shaft oil slinger.
4. Using the Drive Pinion Thread Protector and a soft-faced hammer, drive the pinion assembly out of the outer pinion bearing and remove it through the rear of the differential housing.



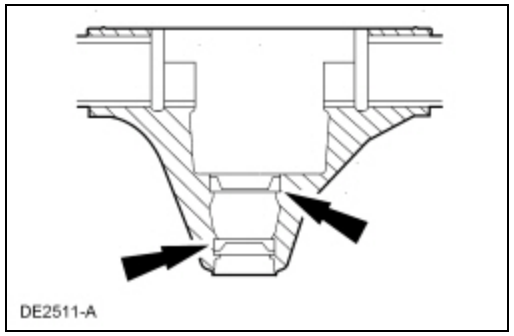
5. Remove the outer pinion bearing.
6. Remove the drive pinion collapsible spacer and discard it.



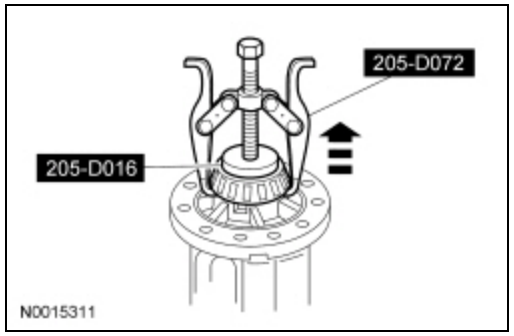
7. Using the Bearing Puller and a suitable press, remove the inner pinion bearing.



8. Using a brass drift, remove the pinion bearing cups by tapping alternately on opposite sides of the bearing cups.

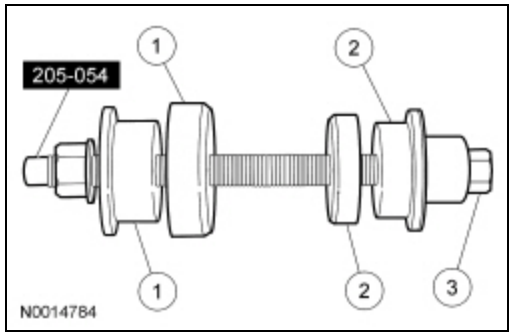


9. Using the 2 Jaw Puller and Step Plate, remove the 2 differential bearings.

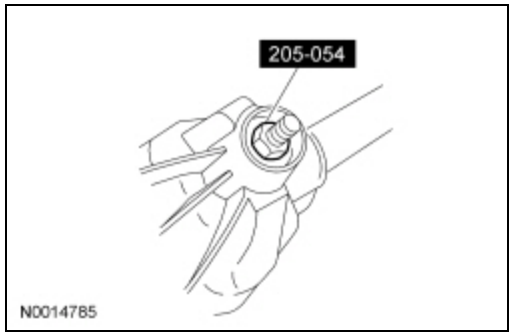


Installation

1. Position the Drive Pinion Bearing Cup Installer and the new inner and outer drive pinion bearing cups in their respective bores.
    1. After placing the inner and outer drive pinion bearing cups in their bores, place the Drive Pinion Bearing Cup Installer (inner) on the inner drive pinion bearing cup.
    2. Place the Drive Pinion Bearing Cup Installer (outer) on the outer drive pinion bearing cup.
    3. Install the Drive Pinion Bearing Cup Installer.

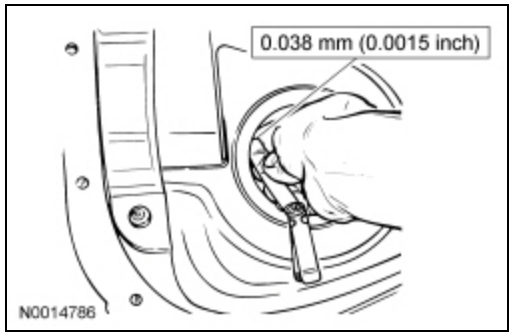


2. Tighten the Drive Pinion Bearing Cup Installer to seat the drive pinion bearing cups into their bores.



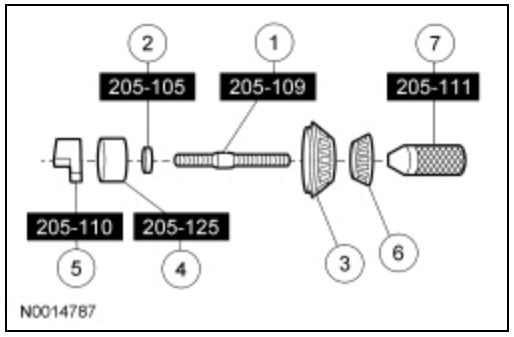
3. **NOTE:** *If a feeler gauge can be inserted between a drive pinion bearing cup and the bottom of its bore at any point around the drive pinion bearing cup, the drive pinion bearing cup is not correctly seated.*

   Make sure the drive pinion bearing cups are correctly seated in their bores.



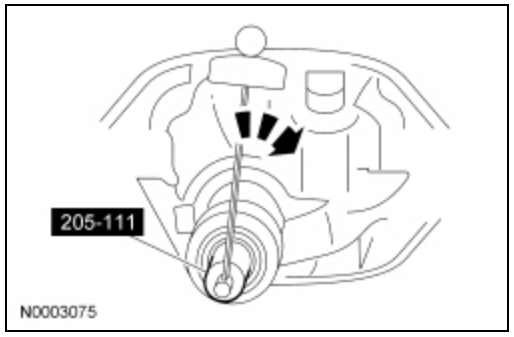
4. **NOTE:** *Install new drive pinion bearings without any additional lubricant since the anti-rust oil provides adequate lubricant without upsetting the drive pinion bearing preload settings.*

   Assemble and position the Adapters in the sequence shown.



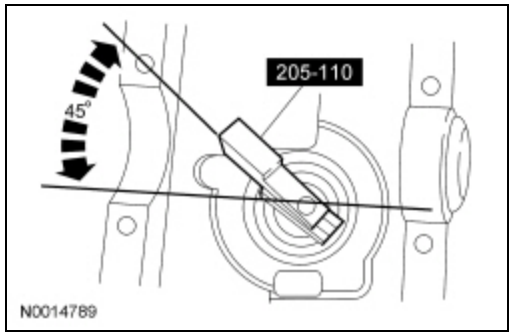
5. **NOTE:** *This step duplicates final drive pinion bearing preload.*

   Tighten the Adapter.
   - Tighten to 2.2 Nm (20 lb-in).

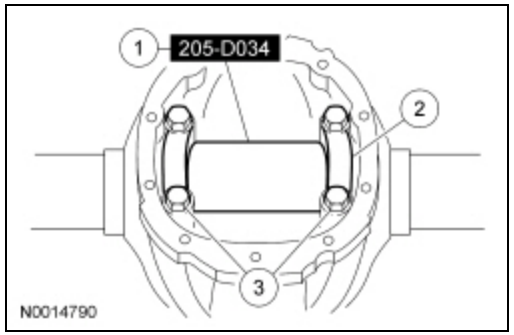


6. **NOTE:** *The Adapter must be offset to obtain an accurate reading.*

   Rotate the Adapter several half-turns to make sure of correct seating of the drive pinion bearings.



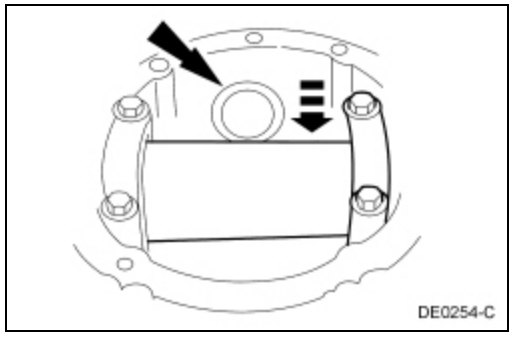
7. Install the Gauge Tube.
    1. Position the Gauge Tube.
    2. Install the 2 differential bearing caps.
    3. Install the 4 differential bearing cap bolts.
        - Tighten to 105 Nm (77 lb-ft).



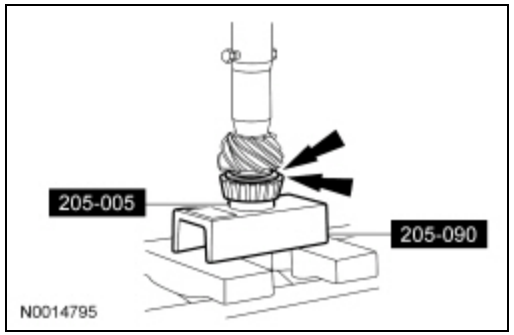
8. **NOTE:** *Drive pinion bearing adjustment shims must be flat and clean.*

   NOTE: *A slight drag should be felt for correct drive pinion bearing adjustment shim selection. Do not attempt to force the drive pinion bearing adjustment shim between the gauge block and the Gauge Tube. This will minimize selection of a drive pinion bearing adjustment shim thicker than required, which results in a deep tooth contact in final assembly of integral axle assemblies.*

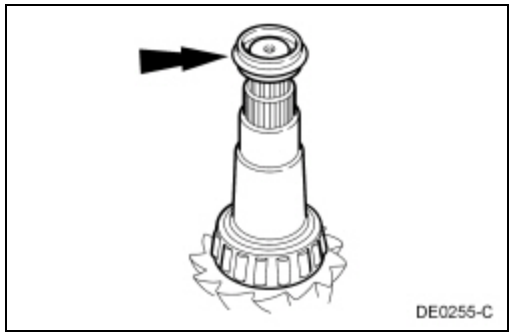
   Use a drive pinion bearing adjustment shim as a gauge for drive pinion bearing adjustment shim selection.
   - After the correct drive pinion bearing adjustment shim thickness has been determined, remove all of the Adapters.



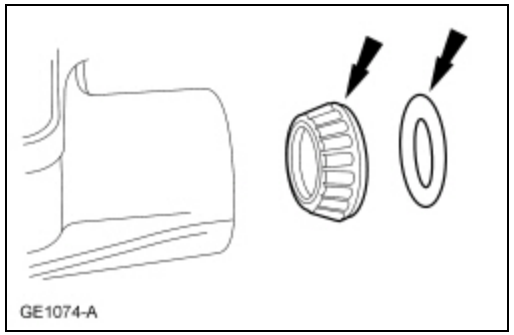
9. Using the Drive Pinion Bearing Cone Installer and Bearing/Oil Seal Plate, press the inner drive pinion bearing and drive pinion bearing adjustment shim until it is firmly seated on the pinion shaft.



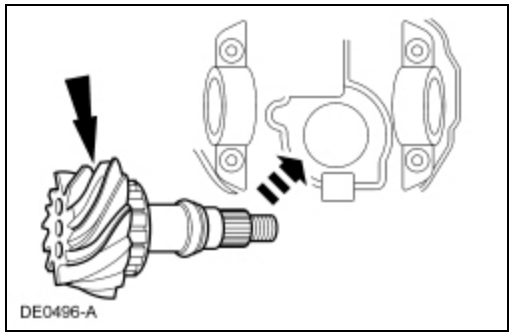
10. Install a new drive pinion collapsible spacer on the pinion shaft against the pinion shaft shoulder.



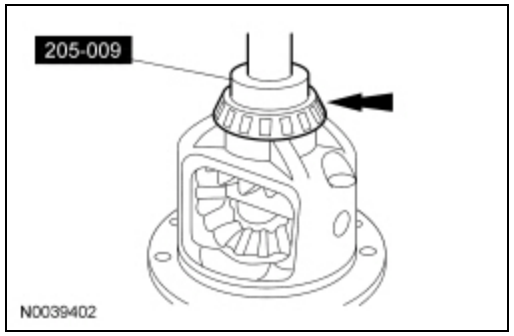
11. Install the outer drive pinion bearing and the drive pinion shaft oil slinger.



12. Position the drive pinion assembly into the axle housing.



13. Using the Differential Side Bearing Installer, install the new differential bearings.



14. Install the drive pinion seal and flange. For additional information, refer to Drive Pinion Flange and Drive Pinion Seal in this section.
15. Install the differential carrier. For additional information, refer to Differential Carrier in this section.