
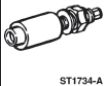





Drive Pinion Flange and Drive Pinion Seal  [Printable View \(224 KB\)](#)

Special Tool(s)

 ST2458-A	Holding Tool, Drive Pinion Flange 205-478
 ST1734-A	Installer, Drive Pinion Flange 205-479
 ST2452-A	Remover, Output Flange 307-408
 ST1325-A	Installer, Drive Pinion Oil Seal 205-208 (T83T-4676-A)

Material

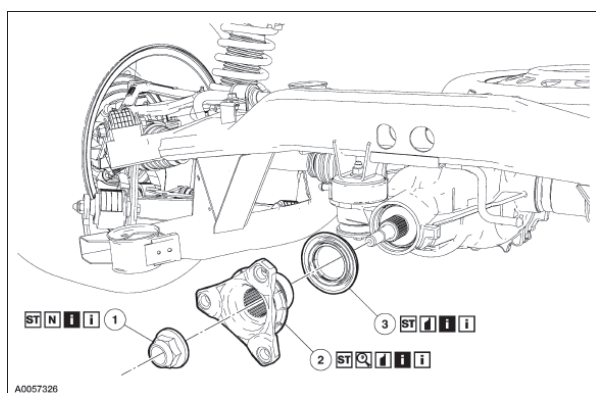
Item	Specification
Premium Long Life Grease XG-1-C	ESA-M1C75-B

1. With the vehicle in NEUTRAL, position on a hoist. For additional information, refer to [Section 100-00](#).
2. Remove the rear wheel and tire assemblies. For additional information, refer to [Section 204-00](#).
3.  **CAUTION: Remove the rear brake calipers to prevent drag during the drive pinion bearing preload adjustment.**

 **CAUTION: Do not allow the calipers to hang from the brake hoses.**

Remove the rear brake caliper and support bracket from the knuckle as an assembly. Wire the caliper and support bracket out of the way. For additional information, refer to [Section 206-00](#).

4. Remove the driveshaft assembly. For additional information, refer to Driveshaft Removal and Installation in this section.
5. Remove the components in the order indicated in the following illustration and table.
6. To install, reverse the removal procedure.

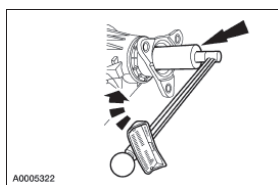


Item	Part Number	Description
1	391915-S	Pinion nut Removal Note
1	391915-S	Pinion nut Installation Note
2	4858	Rear axle pinion flange Removal Note
2	4858	Rear axle pinion flange Installation Note
3	4676	Rear pinion oil seal Removal Note
3	4676	Rear pinion oil seal Installation Note

7. Fill the axle with the specified quantity of the specified lubricant.

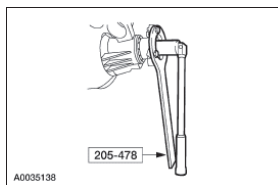
Item 1: Pinion Nut Removal Note

1. Install a Nm (inch-pound) torque wrench on the pinion nut and record the torque necessary to maintain rotation of the drive pinion gear through several revolutions.



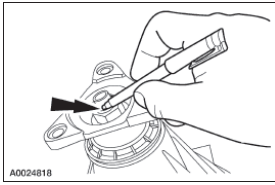
2. **⚠ CAUTION:** After removing the nut, discard it. Always use a new nut for installation.

Use the special tool to hold the rear axle pinion flange while removing the nut.

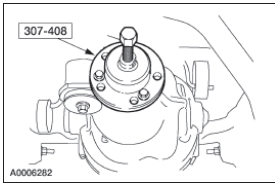


Item 2: Rear Axle Pinion Flange Removal Note

1. Index-mark the rear axle pinion flange and drive pinion gear to maintain initial balance during installation.

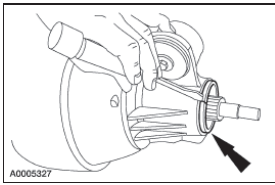


2. Using the special tool, remove the rear axle pinion flange.



Item 3: Rear Pinion Oil Seal Removal Note

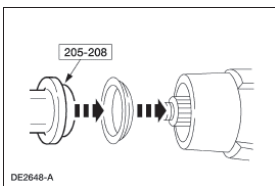
1. Use a screwdriver to force up the metal flange of the rear axle drive pinion seal. Install gripping pliers and strike with a hammer to remove the rear axle drive pinion seal.



Item 3: Rear Pinion Oil Seal Installation Note

1. Lubricate the lips of the new seal with grease.
2. **⚠ CAUTION: If the rear axle drive pinion seal becomes misaligned during installation, remove the seal and install a new one.**

Using the special tool, install the rear axle drive pinion seal.

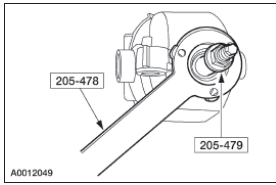


Item 2: Rear Axle Pinion Flange Installation Note

1. Inspect the rear axle pinion flange seal journal for rust, nicks and scratches prior to installing the flange. Polish the seal journal with fine crocus cloth, if necessary.
2. Lubricate the rear axle pinion flange splines.
3. **NOTE:** Disregard the index marks if installing a new rear axle pinion flange.

Position the index marks on the rear axle pinion flange.

4. Using the special tools, install the rear axle pinion flange.

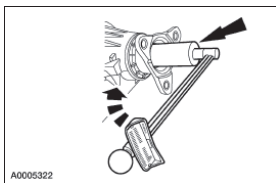


Item 1: Pinion Nut Installation Note

1. **⚠ CAUTION: Do not under any circumstance loosen the nut to reduce preload. If it is necessary to reduce preload, install a new differential drive pinion collapsible spacer and nut.**

Tighten the nut to set the preload.

- Rotate the pinion occasionally to make sure the pinion bearings seat correctly. Take frequent pinion bearing torque preload readings by rotating the drive pinion gear with a Nm (inch-pound) torque wrench.
- If the preload recorded prior to disassembly is lower than the specification for used bearings, tighten the nut to specification. If the preload recorded prior to disassembly is higher than the specification for used bearings, tighten the nut to the original reading as recorded.
- Refer to the torque specification for used pinion bearings in the Specifications portion of this section.



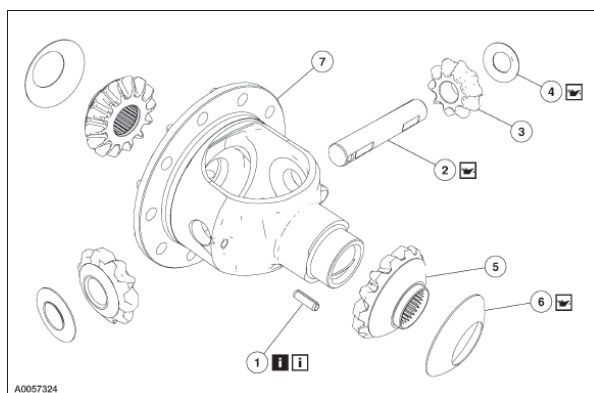
Rear Axle Differential Case  [Printable View \(80 KB\)](#)

Material

Item	Specification
Motorcraft FEHP 75W-90 Rear Axle Lubricant XY-75W90-Q FEHP	ES-3W4W-19A508-AA

Disassembly and Assembly

1. Remove the differential case from the differential housing.
2. Remove the components in the order indicated in the following illustration and table.
3. To assemble, reverse the disassembly procedure.



A0057324

Item	Part Number	Description
1	4241	Differential pinion shaft roll pin Disassembly Note
1	4241	Differential pinion shaft roll pin Assembly Note
2	4211	Differential pinion shaft
3	4215	Differential pinion gear
4	4230	Differential pinion gear thrust washer
5	4236	Differential side gear
6	4228	Differential side gear thrust washer
7	4205	Differential case


Item 1: Differential Pinion Shaft Roll Pin Disassembly Note

1. Use a drift punch to drive the roll pin into the differential pinion shaft until the roll pin bottoms against the differential case. When the differential pinion shaft is removed from the differential case, drive the roll pin from the shaft.














Item 1: Differential Pinion Shaft Roll Pin Assembly Note

















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1. Align the differential pinion shaft hole with the hole in the differential case. Using a hammer, install the differential shaft roll pin in the differential case until the pin is flush with the case.
-

Rear Axle Assembly  [Printable View \(1001 KB\)](#)

Special Tool(s)

 <p>ST12026-A</p>	<p>2-Jaw Puller 205-D072 (D97L-4221-A) or equivalent</p>
 <p>ST1743-A</p>	<p>Adapter for 205-S127 205-105 (T76P-4020-A3)</p>
 <p>ST1254-A</p>	<p>Plate, Bearing/Oil Seal 205-090 (T75L-1165-B)</p>
 <p>ST1214-A</p>	<p>Dial Indicator Gauge with Holding Fixture 100-002 (TOOL-4201-C) or equivalent</p>
 <p>ST1431-A</p>	<p>Adapter for 205-S127 205-110 (T76P-4020-A10)</p>
 <p>ST1743-A</p>	<p>Depth Gauge/Aligner, Depth Pinion 205-477</p>
 <p>ST1424-A</p>	<p>Gauge Tube, Drive Pinion 205-336 (T93P-4020-A)</p>
 <p>ST1743-A</p>	<p>Adapter for 205-S127 205-129 (T79P-4020-A18)</p>
 <p>ST1432-A</p>	<p>Adapter for 205-S127 205-111 (T76P-4020-A11)</p>
 <p>ST1367-A</p>	<p>Installer, Drive Pinion Bearing Cone 205-005 (T53T-4621-C)</p>
 <p>ST1678-A</p>	<p>Installer, Drive Pinion Bearing Cup 205-054 (T71P-4616-A)</p>
 <p>ST1428-A</p>	<p>Adapter for 205-S127 205-109 (T76P-4020-A9)</p>
 <p>ST1725-A</p>	<p>Step Plate 205-D061 (D83T-4205-C2) or equivalent</p>

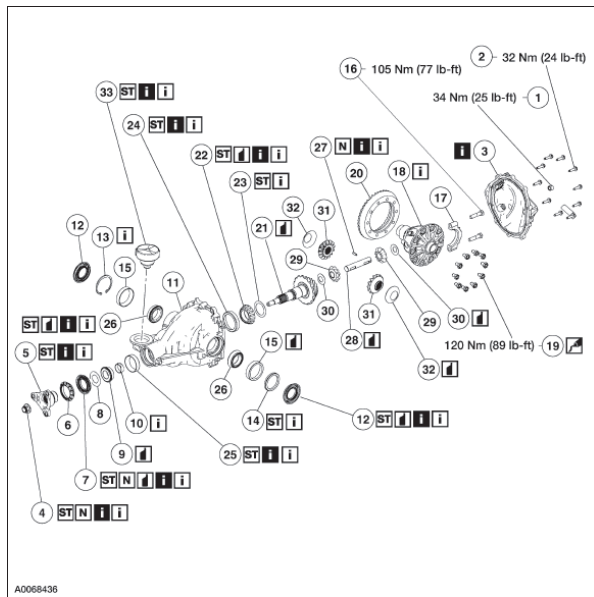
 <small>ST1310-A</small>	Remover, Bearing 205-055 (T71P-4621-B)
 <small>ST1186-A</small>	Holding Fixture, Transmission 307-003 (T57L-500-B)
 <small>ST1375-A</small>	Installer, Differential Side Bearing 205-010 (T57L-4221-A2)
 <small>ST2458-B</small>	Holding Fixture, Drive Pinion Flange 205-478
 <small>ST1862-A</small>	Installer, Drive Pinion Flange 205-479
 <small>ST2452-A</small>	Remover, Output Flange 307-408
 <small>ST1325-A</small>	Installer, Drive Pinion Oil Seal 205-208 (T83T-4676-A)
 <small>ST1485-A</small>	Installer, Differential Shim 205-220 (T85L-4067-AH)
 <small>ST1348-A</small>	Gauge, Clutch Housing 308-021 (T75L-4201-A)
 <small>ST2543-A</small>	Remover/Installer, Differential Bushings 205-485
 <small>ST1328-A</small>	Adapter for 303-224 (Handle) 205-153 (T80T-4000-W)
 <small>ST1676-A</small>	Installer, Drive Pinion Inner Bearing Cup 205-480
 <small>ST1485-A</small>	Installer, Differential Shim 205-220 (T85L-4067-AH)
 <small>ST1183-A</small>	Dial Indicator Gauge 100-D005 (D78P-4201-G)
 <small>ST1743-A</small>	Depth Gauge, Drive Pinion 205-476
 <small>ST2027-A</small>	Halfshaft Seal Installer 205-539

	Gauge, Differential Bearing 205-540
	Gauge, Differential Bearing 205-541

Material

Item	Specification
Premium Long Life Grease XG-1-C	ESA-M1C75-B
Motorcraft FEHP 75W-90 Rear Axle Lubricant XY-75W90-Q FEHP	ES-3W4W-19A508-AA
Stud and Bearing Mount E0AZ-19554-BA	WSK-M2G349-A1

1. With the vehicle in NEUTRAL, position on a hoist. For additional information, refer to [Section 100-00](#).
2. Remove the rear axle assembly. For additional information, refer to [Rear Axle Assembly](#) in this section.
3. Remove the components in the order indicated in the following illustration and table.
4. To assemble, reverse the disassembly procedure.



Item	Part Number	Description
1	390943-S	Lubricant fill plug
2	390919-S	Differential housing cover bolts
3	4033	Differential housing cover Disassembly Note
4	389546-S	

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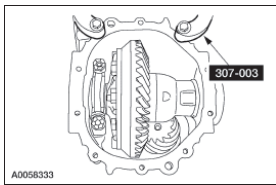
		Pinion nut Disassembly Note
4	389546-S	Pinion nut Assembly Note
5	4851	Rear axle pinion flange Disassembly Note
5	4851	Rear axle pinion flange Assembly Note
6	4859	Rear pinion oil seal deflector
7	4676	Rear pinion oil seal Disassembly Note
7	4676	Rear pinion oil seal Assembly Note
8	4670	Rear pinion oil seal slinger
9	4621	Outer pinion bearing
10	4662	Drive pinion collapsible spacer Assembly Note
11	4010	Differential housing
12	4B416	Halfshaft housing seal Disassembly Note
12	4B416	Halfshaft housing seal Assembly Note
13	13277	Selective snap ring Assembly Note
14	4067	Differential bearing shim Assembly Note
15	4222	Differential bearing cup
16	46108-S	Bearing cap bolt
17		Bearing cap (part of 4010)
18	4204	Differential case Assembly Note
19	4982	Ring gear bolts
20	4209	Differential ring gear
21	4209	Differential pinion gear
22	4630	Inner pinion bearing Disassembly Note
22	4630	Inner pinion bearing Assembly Note
23	4663	Differential pinion bearing adjustment shim Assembly Note
24	4628	Inner pinion bearing cup Disassembly Note
24	4628	Inner pinion bearing cup Assembly Note
25	4616	Outer pinion bearing cup Disassembly Note
25	4616	Outer pinion bearing cup

		Assembly Note
26	4221	Differential bearing Disassembly Note
26	4221	Differential bearing Assembly Note
27	4241	Differential pinion shaft roll pin Disassembly Note
27	4241	Differential pinion shaft roll pin Assembly Note
28	4211	Differential pinion shaft
29	4215	Differential pinion gear
30	4230	Differential pinion thrust washer
31	4236	Differential side gear
32	4228	Differential side gear thrust washer
33	4B431	Axle isolator bushing Disassembly Note
33	4B431	Axle isolator bushing Assembly Note

5. Fill the axle with the specified quantity of the specified lubricant.

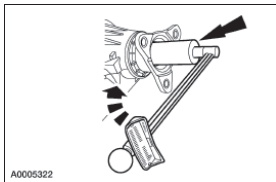
Item 3: Differential Housing Cover Disassembly Note

1. After removal of the rear housing cover, mount the differential assembly in the special tool.

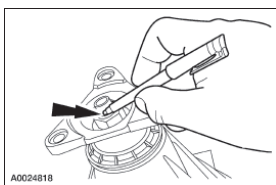


Item 4: Pinion Nut Disassembly Note

1. Install a Nm (inch-pound) torque wrench on the nut and record the torque necessary to maintain rotation of the drive pinion gear through several revolutions

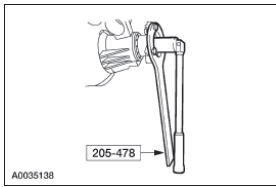


2. Index-mark the rear axle pinion flange to the drive pinion stem.



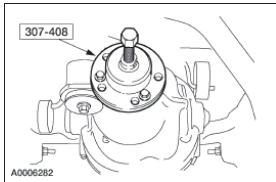
3. **⚠ CAUTION:** After removing the nut, discard it. Use a new nut for installation.

Use the special tool to hold the rear axle pinion flange while removing the nut.



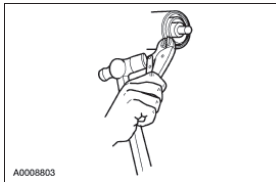
Item 5: Rear Axle Pinion Flange Disassembly Note

1. Using the special tool, remove the rear axle pinion flange.



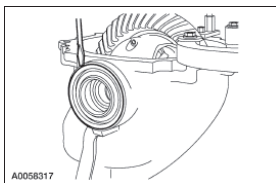
Item 7: Rear Pinion Oil Seal Disassembly Note

1. Use a screwdriver to force up the metal flange of the rear pinion oil seal. Install gripping pliers and strike with a hammer to remove the rear pinion oil seal.

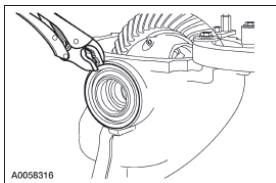


Item 12: Halfshaft Housing Seal Disassembly Note

1. Force up the metal flange on the halfshaft seal.



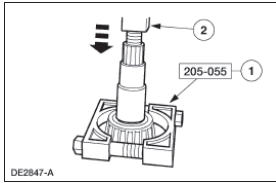
2. Install gripping pliers and strike with a hammer to remove the seal from the housing.



Item 22: Inner Pinion Bearing Disassembly Note

1. Using the special tool and a press, remove the pinion bearing.

1. Position the special tool under the pinion bearing.
2. Using a press, remove the pinion bearing.

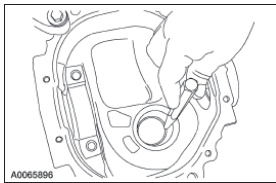


Item 24: Inner Pinion Bearing Cup Disassembly Note

1. Using the drift punch and a hammer, remove the inner pinion bearing cup.

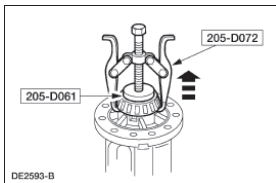
Item 25: Outer Pinion Bearing Cup Disassembly Note

1. Using the commercially available drift punch and a hammer, remove the outer pinion bearing cup.



Item 26: Differential Bearing Disassembly Note

1. Using the special tools, remove the differential bearing.
 - Repeat for the other side.

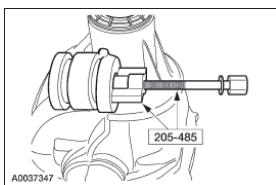


Item 27: Differential Pinion Shaft Roll Pin Disassembly Note

1. Using a drift punch and a hammer, drive the roll pin into the pinion shaft until bottomed. The pinion shaft roll pin will remain in the shaft when the pinion shaft is removed from the case. Drive the roll pin from the pinion shaft after the shaft is removed from the case. Discard the roll pin.

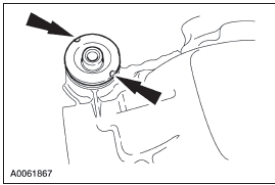
Item 33: Axle Isolator Bushing Disassembly Note

1. Using a hammer and the special tools, remove the rear axle isolator bushing.

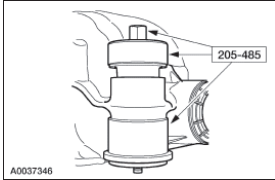


Item 33: Axle Isolator Bushing Assembly Note

1. Align the notches in the bushing at 45° from the fore and aft position.



- Using the special tools, install the rear axle isolator bushing.



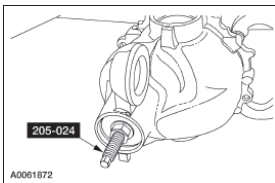
Item 27: Differential Pinion Shaft Roll Pin Assembly Note

- ⚠ CAUTION:** Always use a new roll pin.

Install the differential shaft roll pin so the top of the roll pin is flush with the differential case.

Item 24 and 25: Outer and Inner Pinion Bearing Cup Assembly Note

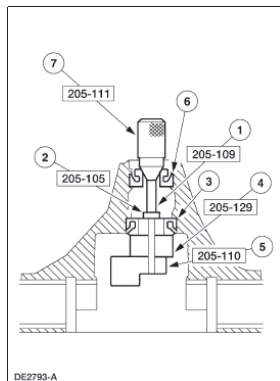
- Coat the new differential drive pinion bearing cup(s) with lubricant.
- Using the special tool, install the differential drive pinion bearing cup(s).
 - Position the bearing cup(s) on the special tool.
 - Position the special tool and the bearing cup(s) in the differential housing.
 - Tighten the special tool to fully seat the bearing cup(s) in the bore(s).



Item 23: Differential Pinion Bearing Adjustment Shim Assembly Note

- NOTE:** Apply a light film of lubricant on the front and rear pinion bearings.

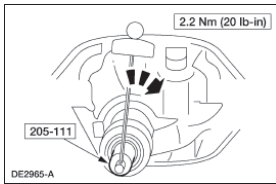
Install the pinion bearings and special tools as shown.



Item	Part Number	Description
1	205-109	Adapter for 205-S127
2	205-105	Adapter for 205-S127
3	4630	Rear (inner) pinion bearing
4	205-129	Adapter for 205-S127
5	205-110	Adapter for 205-S127
6	4621	Front (outer) pinion bearing
7	205-111	Adapter for 205-S127

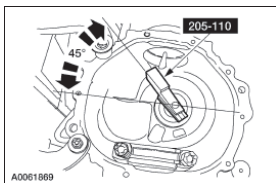
2. **NOTE:** This step duplicates pinion bearing preload.

Thread the special tool onto the screw and tighten to the specification shown.



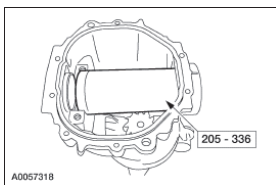
3. **⚠ CAUTION:** Offset the special tool to obtain an accurate reading.

Rotate the special tool several half turns to seat the pinion bearings. Position the special tool as shown.



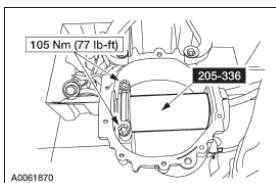
4. Install the special tool.

- Position the special tool in the differential housing differential bearing seat.

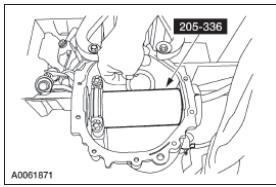


5. Install the differential bearing cap.

- Seat the special tool in the housing.
- Position the bearing cap.
- Torque the cap to specification.



- Use a drive pinion bearing adjustment shim as a gauge for shim selection. Check the drive pinion bearing adjustment shim thickness between the Gauge Block and the Gauge Tube. A slight drag indicates correct shim selection.



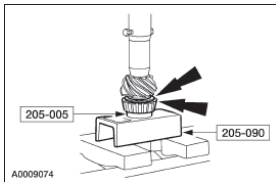
- Remove all of the special tools.

- ⚠ CAUTION:** Use the same pinion bearings and drive pinion bearing adjustment shim from the drive pinion bearing adjustment shim selection procedure for final assembly.

Position the drive pinion bearing adjustment shim and the pinion bearing on the drive pinion gear stem.

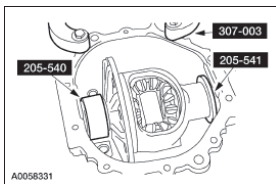
Item 22: Inner Pinion Bearing Assembly Note

- Using the special tools and a suitable press, firmly seat the drive pinion bearing adjustment shim and pinion bearing on the drive pinion gear stem.

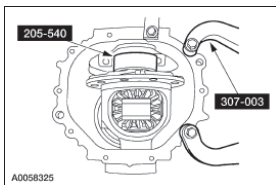


Item 13, Item 14, Item 18 and Item 26: Selective Snap Ring, Differential Bearing Shim, Differential Case and Differential Bearing Assembly Note

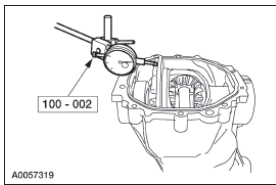
- Install the special tools on the differential case.



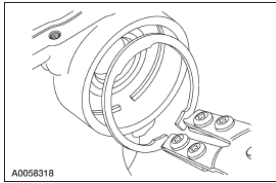
- Place the differential case with the special tool in the differential housing.



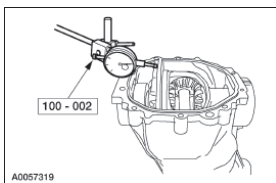
- Position the special tool on the differential case in the differential housing.



4. Install a unique set-up selective snap ring with a thickness of 0.100 inches.



5. Position the special tool.



6. **NOTE:** Repeat this step until obtaining a consistent reading.

Measure the total end play.

- Attach the special tools and position the indicator tip on the machined surface of the differential case flange.
- Move the differential case to the left and the right (as far as possible).
- Record the reading in Line A.

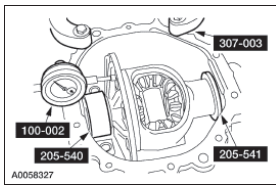
Differential Bearing Shim Selection Chart

8.0 Inch Lightweight Axle	Example	Actual
Line A Total end play without ring gear	0.230	
Line B Total end play with ring gear	0.193	
Line C Subtract Line B from Line A	0.037	
Line D Initial backlash clearance	0.016	0.016
Line E Set-up snap ring thickness	0.100	0.100
Line F Left Master Bearing compensation	0.100	0.100
Line G Carrier bearing preload	0.012	0.012

To determine the snap ring thickness, add lines C, D and E (Example: $0.037 + 0.016 + 0.100 = 0.153$ snap ring thickness).

To determine the bearing shim thickness, add lines A, F and G. Subtract line C and D from the sum. Example:

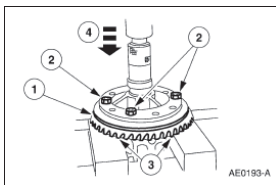
- $0.230 + 0.100 + 0.012 = 0.342$
- $0.342 - 0.037 - 0.016 = 0.289$ bearing shim thickness



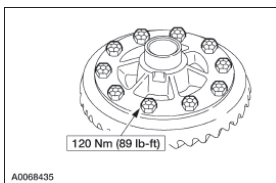
7. Remove the Dial Indicator and the differential case from the differential housing.

8. Install the differential ring gear.

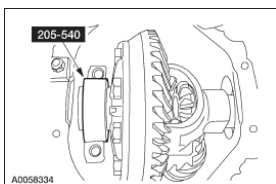
1. Place the differential ring gear on the differential case.
2. Hand start three bolts to align the holes in the differential ring gear and the differential case.
3. Place the differential case and differential ring gear onto the press bed blocks with the differential ring gear teeth facing downward.
4. Press the differential ring gear into place.



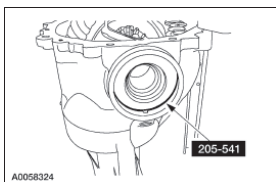
9. Install the remaining bolts.



10. Place the differential case with the special tool into the differential housing.



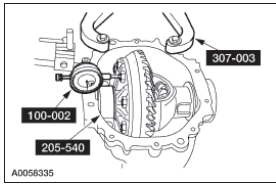
11. Install the special tool.



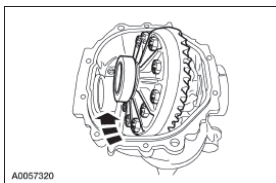
12. Measure the end play.

- Attach the special tool and position the indicator tip on the machined surface of the differential case flange.
- Rock the differential ring gear to allow full mesh with the drive pinion gear.
- With the gears in full mesh, set the special tool to zero.
- Move the differential case as far as possible to the left and note the reading.
- Record the reading on the differential bearing shim selection procedure Line B.

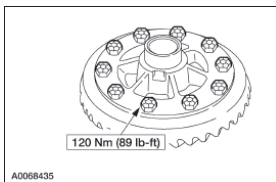
- ◆ Remove the special tool.



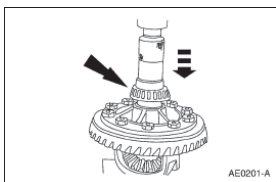
13. Remove the differential case from the differential housing.



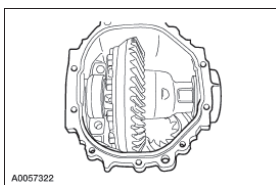
14. Remove the bolts. Apply stud and bearing mount to the bolt threads, and reinstall the bolts.



15. Press the left and right differential bearing on the differential case.



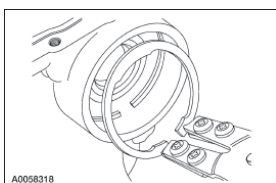
16. Place the differential case and bearing cups in the differential case.



17. **NOTE:** Select the correct size selective snap ring using the differential bearing shim selection chart.

NOTE: To determine the thickness of the snap ring to be used, subtract Line B from Line A. Add Lines D and E to the difference. This is the thickness of the snap ring required.

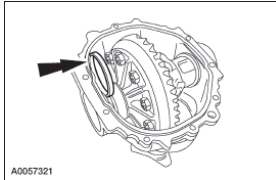
Place the selective snap ring in the differential housing.



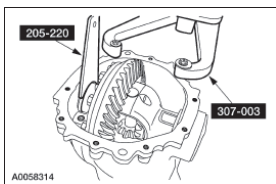
18. **NOTE:** Select the correct size selective bearing shim using the differential bearing shim selection chart.

NOTE: To determine the thickness of the bearing shim to be used, add Lines A, F and G. Subtract Lines C and D from the sum. This is the thickness of the bearing shim required.

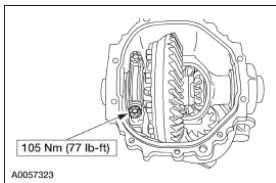
Position the differential bearing shim indicated by the bearing shim selection chart.



19. Using the special tools, seat the differential bearing shim in the differential housing.

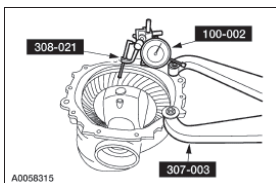


20. Install the differential bearing cap in the original location and tighten the bolts.



21. Using the special tools, measure the differential ring gear backlash at four equally spaced points.

- Attach the special tool.
- Position the special tool tip centrally on a drive tooth.
- Zero the indicator.
- Turn the differential ring gear without turning the drive pinion gear. Record the indicator reading. The allowable backlash is 0.127 mm (0.005 in) to 0.228 mm (0.009 in) and must not vary more than 0.076 mm (0.003 in) between points measured. A backlash variation of more than 0.076 mm (0.003 in) between points checked indicates gear/case runout.
 - ♦ If backlash is within specifications, install the differential assembly.
 - ♦ To correct for a high or low backlash, proceed as follows.



22. To correct for high or low backlash, increase or decrease the thickness of the differential bearing shim and decrease or increase the thickness of the selective snap ring by the same amount. Refer to the following tables when adjusting the backlash. When the backlash is within specifications, install the differential assembly.

--	--

Backlash Change Required		Thickness Change Required	
mm	in	mm	in
0.025	0.001	0.050	0.002
0.050	0.002	0.050	0.002
0.076	0.003	0.101	0.004
0.101	0.004	0.152	0.006
0.127	0.005	0.152	0.006
0.152	0.006	0.203	0.008
0.177	0.007	0.254	0.010
0.203	0.008	0.254	0.010
0.228	0.009	0.304	0.012
0.254	0.010	0.355	0.014
0.279	0.011	0.355	0.014
0.304	0.012	0.406	0.016
0.330	0.013	0.457	0.018
0.335	0.014	0.457	0.018
0.381	0.015	0.508	0.020

Differential Snap Ring Size Chart 13277

Numbers of Stripes and Color Code	Dimension A	
	mm	in
1 YEL	3.15	0.1240
2 YEL	3.17	0.1248
3 YEL	3.19	0.1256
4 YEL	3.21	0.1264
5 YEL	3.23	0.1272
1 WH	3.25	0.1280
2 WH	3.27	0.1287
3 WH	3.29	0.1295
4 WH	3.31	0.1303
5 WH	3.33	0.1311
1 GRN	3.35	0.1319
2 GRN	3.37	0.1327
3 GRN	3.39	0.1335
4 GRN	3.41	0.1343
5 GRN	3.43	0.1350
1 PINK	3.45	0.1358
2 PINK	3.47	0.1366
3 PINK	3.49	0.1374

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4 PINK	3.51	0.1382
5 PINK	3.53	0.1390
1 BLU	3.55	0.1398
2 BLU	3.57	0.1406
3 BLU	3.59	0.1413
4 BLU	3.61	0.1421
5 BLU	3.63	0.1429
1 BLK	3.65	0.1437
2 BLK	3.67	0.1445
3 BLK	3.69	0.1453
4 BLK	3.71	0.1461
5 BLK	3.73	0.1469
1 BROWN	3.75	0.1476
2 BROWN	3.77	0.1484
3 BROWN	3.79	0.1492
4 BROWN	3.81	0.1500
5 BROWN	3.83	0.1508
1 YEL/1 BLK	3.85	0.1516
2 YEL/1 BLK	3.87	0.1524
3 YEL/1 BLK	3.89	0.1531
4 YEL/1 BLK	3.91	0.1539
5 YEL/1 BLK	3.93	0.1547
1 WH/1 BLK	3.95	0.1555
2 WH/1 BLK	3.97	0.1563
3 WH/1 BLK	3.99	0.1571
4 WH/1 BLK	4.01	0.1579
5 WH/1 BLK	4.03	0.1587
1 GRN/1 BLK	4.05	0.1594
2 GRN/1 BLK	4.07	0.1602
3 GRN/1 BLK	4.09	0.1610
4 GRN/1 BLK	4.11	0.1618
5 GRN/1 BLK	4.13	0.1626
1 PINK/1 BLK	4.15	0.1634
2 PINK/1 BLK	4.17	0.1642
3 PINK/1 BLK	4.19	0.1650
4 PINK/1 BLK	4.21	0.1657
5 PINK/1 BLK	4.23	0.1665

Differential Shim Size Chart 4067

Numbers of Stripes and Color Code	Dimension A	
	mm	in
2 C-COAL	7.7978-7.8105	0.3070-0.3075

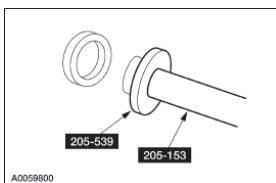
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1 C-COAL	7.7470-7.7597	0.3050-0.3055
5 BLU	7.6962-7.7089	0.3030-0.3035
4 BLU	7.6454-7.6581	0.3010-0.3015
3 BLU	7.5946-7.6073	0.2990-0.2995
2 BLU	7.5458-7.5565	0.2970-0.2975
5 PINK	7.4422-7.4549	0.2930-0.2935
4 PINK	7.3914-7.4041	0.2910-0.2915
3 PINK	7.3406-7.3533	0.2890-0.2895
2 PINK	7.2898-7.3025	0.2870-0.2875
1 PINK	7.2390-7.2517	0.2850-0.2855
5 GRN	7.1882-7.2009	0.2830-0.2835
4 GRN	7.1374-7.1501	0.2810-0.2815
3 GRN	7.0866-7.0993	0.2790-0.2795
2 GRN	7.0358-7.0485	0.2770-0.2775
1 GRN	6.9850-7.0485	0.2750-0.2755
5 WH	6.9342-6.9469	0.2730-0.2735
4 WH	6.8834-6.8961	0.2710-0.2715
3 WH	6.8326-6.8453	0.2690-0.2695
2 WH	6.7818-6.7945	0.2670-0.2675
1 WH	6.7310-6.7437	0.2650-0.2655
5 YEL	6.6802-6.6929	0.2630-0.2635
4 YEL	6.6294-6.6421	0.2610-0.2615
3 YEL	6.5786-6.5913	0.2590-0.2595
2 YEL	6.5278-6.5405	0.2570-0.2575
1 YEL	6.4770-6.4897	0.2550-0.2555
5 ORNG	6.4262-6.4389	0.2530-0.2535
4 ORNG	6.3754-6.3881	0.2510-0.2515
3 ORNG	6.3246-6.3373	0.2490-0.2495
2 ORNG	6.2738-6.2865	0.2470-0.2475
1 ORNG	6.2223-6.2357	0.2450-0.2455
2 RED	6.1722-6.1849	0.2430-0.2435
1 RED	6.1214-6.1341	0.2410-0.2415

Item 12: Halfshaft Housing Seal Assembly Note

1. **NOTE:** Lubricate the lips of the seal with axle lubricant.

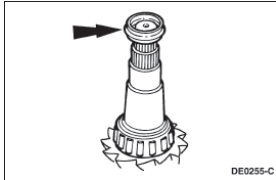
Using the special tools, install the halfshaft housing seal.



Item 10: Drive Pinion Collapsible Spacer Assembly Note

1. **⚠ CAUTION:** Make sure the splines on the drive pinion gear stem are free of burrs. If burrs are evident, remove them using a fine crocus cloth.

Place a new differential drive pinion collapsible spacer on the drive pinion gear stem against the pinion stem shoulder.



2. Install the drive pinion gear with the differential drive pinion collapsible spacer in the differential housing.

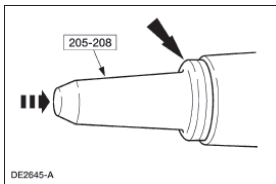
Item 7: Rear Pinion Oil Seal Assembly Note

1. **⚠ CAUTION:** Installation without the correct tool can result in early seal failure.

⚠ CAUTION: If the seal becomes misaligned during installation, remove it and install a new one.

NOTE: Coat the rear axle drive pinion seal lips with grease.

Using the special tool, install the new rear axle drive pinion seal.

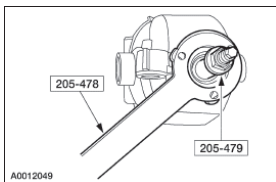


Item 5: Rear Axle Pinion Flange Assembly Note

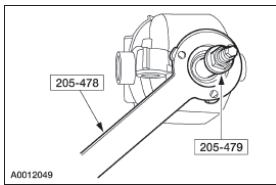
1. **NOTE:** Disregard the index marks if installing a new rear axle pinion flange.

Position the rear axle pinion flange.

- Lubricate the rear axle pinion flange splines.
- Position the rear axle pinion flange.



2. Using the special tools, install the rear axle pinion flange.



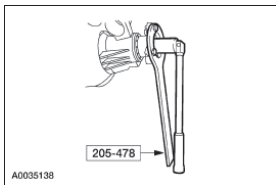
Item 4: Pinion Nut Assembly Note

1. **⚠ CAUTION: Do not, under any circumstance, loosen the nut to reduce preload. If it is necessary to reduce preload, install a new collapsible spacer and nut.**

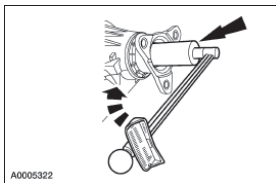
⚠ CAUTION: Remove the special tool while taking preload readings with the Nm (inch-pound) torque wrench.

Use the special tool to hold the pinion flange while tightening the nut.

- Rotate the pinion occasionally to make sure the differential pinion bearings seat correctly. Take frequent differential pinion bearing preload readings by rotating the pinion with a Nm (inch-pound) torque wrench.



2. Tighten the nut to set the preload.



Brake System Component Location Index  [Printable View \(114 KB\)](#)
