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MERITOR DRIVE AXLE – DRIVE PINION AND RING GEAR INSPECTION, LOCKING
OF THE ADJUSTER RING
Prevost vehicles

DESCRIPTION

On the vehicles affected by this bulletin, perform the repair procedure included in this document.

MODEL YEAR(S) AND VEHICLES INVOLVED

<i>NOTICE TO SERVICE CENTERS</i>	
<i>Verify vehicle eligibility by checking warranty bulletin status with SAP or via ONLINE WARRANTY SYSTEM available on Service / Warranty tab of Prevost website.</i>	
Model	VIN
X3-45 Commuter Model Year : 2012	From 2PCG33495CC73 <u>5053</u> up to 2PCG33495CC73 <u>5232</u> incl.
<p>This bulletin does not necessarily apply to all the above-mentioned vehicles, some vehicles may have been modified before delivery. The owners of the vehicles affected by this bulletin will be advised by a letter indicating the Vehicle Identification Number (VIN) of each vehicle concerned.</p>	

MATERIAL NEEDED

Order the following parts:

Part No.	Description	Qty
620351	GASKET, AXLE SHAFT	2
580088 or 3947800	STRAP & BOLT KIT, DRIVELINE	2

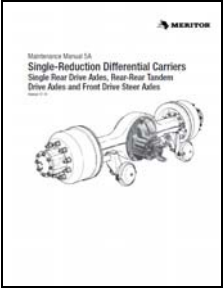









Other parts that may be required:

Part No.	Description	Qty
621866	CARRIER ASSEMBLY	1

NOTE

Material can be obtained through regular channels.

REQUIRED TOOLS

<p>MERITOR MAINTENANCE MANUAL 5A</p> 	<p>TORQUE WRENCH AND METRIC SOCKET SET</p> 
<p>DANA SPICER LIFE SERIES DRIVESHAFTS 3264-SPL MANUAL</p> 	<p>RATCHET AND SOCKET SET – METRIC</p> 
<p>CENTER PUNCH</p> 	<p>METRIC OPEN END WRENCH SET</p> 
<p>HAMMER</p> 	<p>SOFT FACE HAMMER</p> 
<p>LOCTITE 680</p> 	<p>LOCTITE 5699 SILICONE GASKET MATERIAL OR SIMILAR RTV SILICONE GASKET MAKET</p> 

PROCEDURE

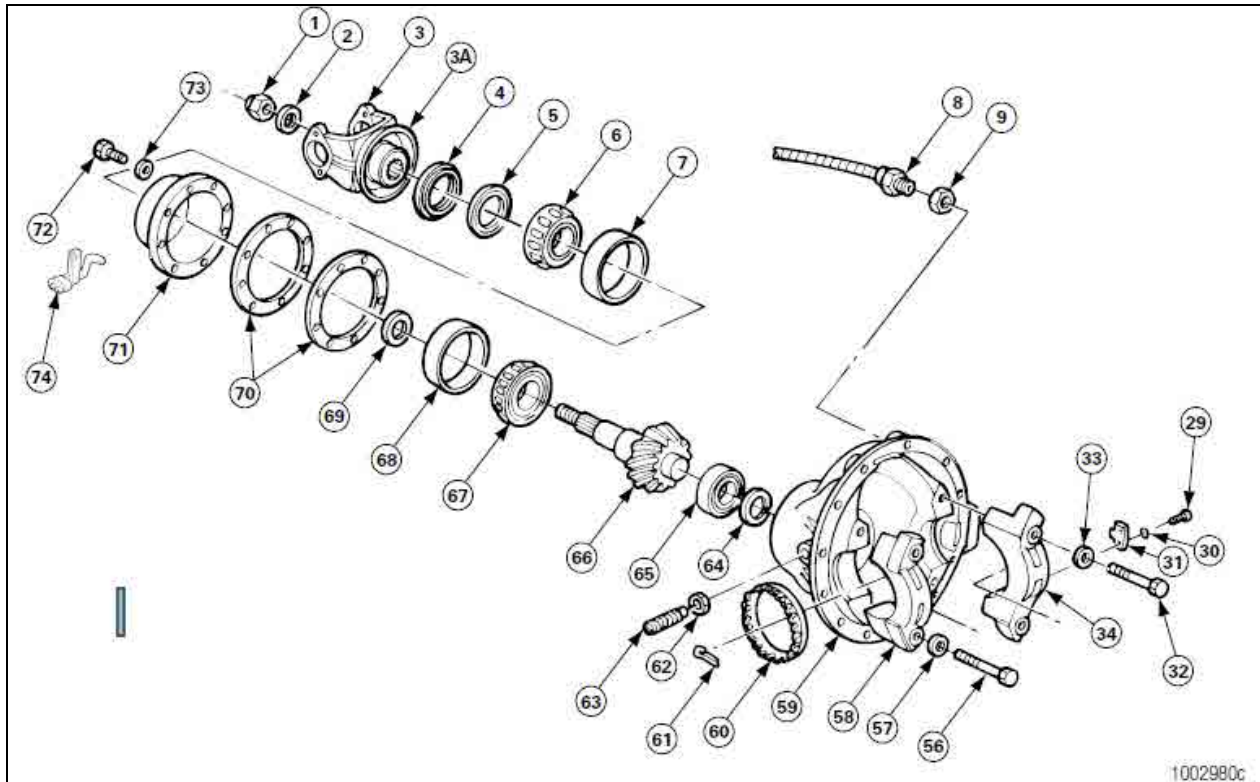


DANGER

Park vehicle safely, apply parking brake, stop engine. In the battery box, set the battery cut-off switch to the OFF position prior to working on the vehicle.

NOTE

For torque specifications and other specifications, refer to Meritor Maintenance Manual 5A **Section 8 Specifications** and **Section 9 Adjustment**.



Item	Description	Item	Description	Item	Description
1	Drive Pinion Nut*	33	Washers	66	Drive Pinion
2	Drive Pinion Washer*	34	Differential Bearing Caps	67	Pinion Inner Bearing Cone
3	Input Yoke or Flange*	56	Differential Bearing Cap	68	Pinion Inner Bearing Cup
3A	Deflector		Cap screws	69	Pinion Bearing Spacer
4	POSE™ Seal	57	Washers	70	Shims
5	Triple-Lip or Main Seal	58	Differential Bearing Cap	71	Drive Pinion Bearing Cage
6	Outer Bearing Cone	59	Carrier	72	Bearing Cage Capscrew
7	Inner Bearing Cup	60	Adjusting Ring	73	Washer
8	Sensor Switch	61	Adjusting Ring Cotter Pin, Spring Pin (Spirol™) or Cap screws	74	Clip and Cable Holder
9	Sensor Switch Locknut	62	Thrust Screw Jam Nut*		
29	Lock Plate Capscrews*	63	Thrust Screw*		
30	Lock Plate Washers*	64	Snap Ring		
31	Adjusting Ring Lock Plate	65	Spigot Bearing		
32	Differential Bearing Cap Cap screws				

* Some Meritor carriers do not have these parts.

FIGURE 1

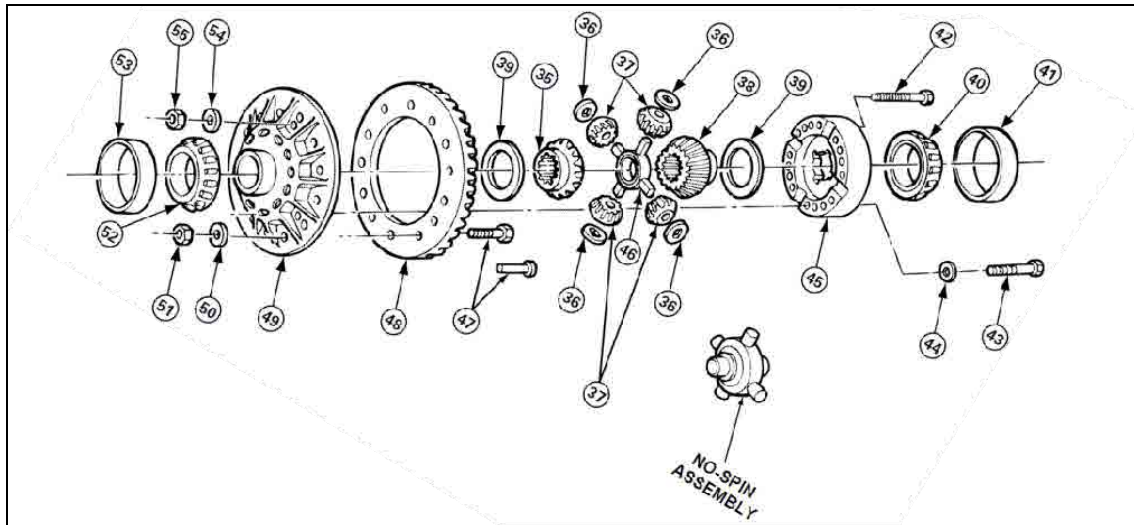


FIGURE 2

Item	Description	Item	Description
10	Plug*	48	Ring Gear
11	Right-Hand Adjusting Ring	49	Flange Case Half
12	Shift Fork	50	Case Half Washers
13	Shift Shaft Spring	51	Case Half Nuts*
14	Shift Shaft	52	Left-Hand Differential Bearing Cone
15	Spring Retaining Pin	53	Left-Hand Differential Bearing Cup
16	Air Cylinder Washer or Silastic*	54	Thru Bolt Washer
17	Air Cylinder Tube	55	Thru Bolt Nut
18A	Screw-In Differential Lock Cylinder	64	Snap Ring
18B	Cylinder Cover	75	Bolt-On Cover
19	Manual Actuation Capscrew	76	Washer
20	Cylinder Cover Plug	77	Bolt
20A	Cover Plug Gasket	78	Screw-In Cover
21	Cylinder Cover Capscrews		
22	Cylinder Cover Washers		
23	Cylinder Cover Plug		
23A	Cover Plug Gasket		
24	Cylinder Cover Copper Gasket		
25	Piston O-Ring		
26	Piston		
27	Shift Collar		
28	Shift Fork Pins		
35	Differential Side Gears		
36	Differential Pinion Thrust Washers		
37	Differential Pinions		
38	Differential Side Gears		
39	Differential Side Gear Thrust Washers		
40	Differential Bearing Cone		
41	Differential Bearing Cup		
42	Thru Bolt		
43	Differential Case Bolts*		
44	Differential Case Washers		
45	Main Differential Case Assembly		
46	Differential Spider		
47	Ring Gear and Case Half Bolts or Rivets*		

* Some Meritor carriers do not have these parts.

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Preparation

1. Using six mobile column lifts, lift the vehicle from under the front wheels, the drive axle wheels and the tag axle wheels. Make sure the vehicle is level.
2. Place jack stands under the center of the drive axle support beams and then remove the mobile column lifts supporting the drive axle wheels.
3. Disconnect the driveline universal joints and remove the complete driveline. To facilitate the removal of the driveline, remove the protection hoop and the cross member first. Discard bolts and straps (Refer to Dana Spicer Life Series Driveshafts 3264-SPL).
4. Drain oil from the axle housing (refer to Meritor Maintenance Manual 5A, page 7).
5. Remove the axle flange shafts (refer to Meritor Maintenance Manual 5A, pages 6 & 7).
6. Use a differential carrier stand to support the carrier assembly.
7. Separate the differential carrier from the axle housing and carefully pull away. Refer to Meritor Maintenance Manual 5A, *Differential Carrier from the Axle Housing (Removal and Disassembly)* page 8.

Inspection and Corrective Measures

8. Inspect the hypoid gear set (ring gear and drive pinion) for damage. If inspection shows no damage, the same gear set can be used again, if not, replace the assembly. If the hypoid gear set is in good condition, carry on with the next steps.
9. Remove the street side carrier bearing retaining nut (adjusting ring). Clean the oil and dirt from the outer diameters of the bearing cups and bearing bores in the carrier and bearing caps.
10. Apply a single continuous bead of the Loctite 680 adhesive to the bearing bores in the carrier and on the bearing cups. Apply the adhesive around the circumference of the smooth, ground surfaces only; be sure that the Loctite adhesive is spread out 360 degrees. Adhesive must not contact the adjusting ring threads.

Do not apply adhesive on the threaded areas

Reinstallation of the adjusting ring

11. Tighten the bearing adjusting ring until you reach **zero** end play. Once done, tighten the bearing adjusting ring further one notch from **zero**.
12. Verify that the backlash is between 0.008" and 0.018". Install adjuster ring lock bolts and then back off adjusting rings until adjusting rings make contact with the lock bolts.

Reassembly

13. Clean the parts and apply new silicone gasket material in a continuous 0.25" (6mm) bead on the axle housing when the carrier is assembled to the axle housing (see Meritor Maintenance Manual 5A, page 52 & 24).
14. Reinstall the carrier assembly and torque the carrier-to-housing cap screws to 225 lbf-ft.
15. Reinstall the axle shafts and torque to 150-230 lbf-ft (see Meritor Maintenance Manual 5A, page 53).
16. **IMPORTANT NOTE: Wait at least two hours (2 hrs.) from application of Loctite 680 before filling the drive axle with appropriate gear oil.**

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17. Reinstall the driveline (propeller shaft). Use new straps and bolts included in kit 3947800.
18. Lower the vehicle

PARTS / WASTE DISPOSAL

Discard waste according to applicable environmental regulations (Municipal/State[Prov.]/ Federal)

ESTIMATED TIME

The time required to perform this special bulletin is approximately 8 hours.

OTHER

VBC Bulletin	n/a
Fail Code	11.01
Defect Code	09
System Condition	B
Causal Part	621479

Prevost engages in a continuous program of testing and evaluating to provide the best possible product. Prevost, however, is not committed to, or liable for updating existing products.