

## AxleTech RS-145 Carriers

# MERITOR PRODUCTION CONSOLIDATION

### Hazard Alert Messages

Read and observe all hazard alert messages in this publication.

#### **DANGER**

Indicates imminent danger. Failure to follow this instruction will result in death or serious injury.

#### **WARNING**

Indicates a possibly impending danger. Failure to follow this instruction can result in death or serious injury.

#### **CAUTION**

Indicates a hazardous situation or unsafe practice which, if not avoided, could result in injury or damage to components.

### How to Obtain Additional Maintenance, Service and Product Information

Refer to Meritor Maintenance Manual MM-5A - Single-Reduction Differential Carriers. To obtain this publication, visit Literature on Demand at [meritor.com](http://meritor.com).

### Contact the Meritor OnTrac™ Customer Service Center

If you have questions about the procedures in this bulletin, contact the Meritor OnTrac™ Customer Service Center at 866-668-7221 (US and Canada) between 7:30 AM and 10:00 PM ET Monday through Friday, and between 9:00 AM and 6:00 PM ET on Saturday; 001-800-889-1834 (Mexico); or visit our website: <https://www.meritor.com/warranty#OnTracSC>.

### Purpose

The following outlines how to install a Meritor 145 in an AxleTech housing for the following models:

PRC1015 / 1753 / 1756 / 485 / 495 / 673 / 775 / 785  
 PRLC1015 / 1735 / 1756 / 1794 / 616  
 PSC1764 / 1794 / 826  
 PSV1125  
 PSW1764  
 PXRC1756

The carrier models listed in the table below will be replaced with Meritor RS-145 carriers and will no longer be available for purchase as of October 30, 2020.

AxleTech RS145	Meritor RS145	Ratio
320001021A59XXX 320001021A61XXX 320001021A60XXX 320001021A19XXX	B36-3200F1904-XXX  Aftermarket: B36-3200F1904S-XXX	3.42 - 7.17
320001023A04XXX 320001023A30XXX 320001023A56XXX 320001023A64XXX 320001023A72XXX 320001023A80XXX	B90-3200U1919-XXX  Aftermarket: B90-3200U1919S-XXX	2.93 - 7.17
320001028A08XXX	Contact machine OEM for replacement info.	2.93 - 4.11

## Safety Precautions

Before performing the procedures in this publication, read and understand the following safety precautions.

### DANGER

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. NEVER work under a vehicle supported only by jacks. Jacks can slip and fall over. Failure to use a jack stand can result in serious personal injury and damage to components.

### WARNING

To prevent eye injury, always wear eye protection when performing vehicle maintenance or service.

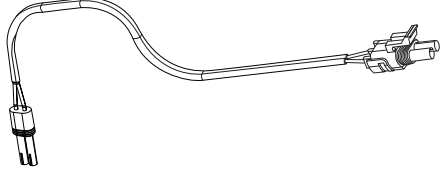
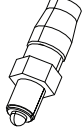
### WARNING

Take care when using Loctite® adhesive to avoid serious personal injury. Read the manufacturer's instructions before using this product. Follow the instructions carefully to prevent irritation to the eyes and skin. If Loctite adhesive material gets into the eyes, follow the manufacturer's emergency procedures and get checked by a physician as soon as possible.

### WARNING

When applying some silicone gasket materials, a small amount of acid vapor is present. To prevent serious personal injury, ensure the work area is well-ventilated. Read the manufacturer's instructions before using a silicone gasket material, then carefully follow the instructions. If a silicone gasket material gets into the eyes, follow the manufacturer's emergency procedures and get checked by a physician as soon as possible.

## Parts

Description	Part Number
Carrier Mounting Plugs (Includes Qty: 4) Meritor Carrier - 12 holes AxleTech Carrier - 16 holes	S-8105
DCDL "Pig Tail" Kit includes: DCDL Lock Switch - 3237R1292 - Qty: 1 DCDL Harness - 3237X1298 - Qty: 1 	KIT 4429
Optional: Female to Male Connector 	3237R1292

## Prepare the Vehicle for Service

Before beginning, perform these steps to prepare the vehicle for service:

1. Wear eye protection.
2. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving.
3. Use a jack to raise the vehicle so the wheels are off the ground. Support the vehicle with safety stands.
4. Remove the tire and wheel assembly. Refer to the OEM service information for the correct procedures.

## Removal Procedure

1. Remove the oil drain plug and drain the carrier lubricant.
2. Disconnect the driveline from the pinion input yoke.

### **⚠ DANGER**

During DCDL disassembly, when the DCDL is in the locked (engaged) position and any of the vehicle's drive tires are in contact with the floor, NEVER start the engine and engage the transmission. The vehicle can move and cause serious personal injury.

3. If equipped with driver-controlled differential lock (DCDL), it must be caged. Refer to Meritor Maintenance Manual MM-5A - Single-Reduction Differential Carriers to lock out the DCDL assembly.

## Installation Procedure

### **⚠ CAUTION**

If required, use a sharp knife to remove gasket material from parts. Be careful not to damage the ground or polished surfaces.

1. Remove all old gasket material from both surfaces. Figure 1.

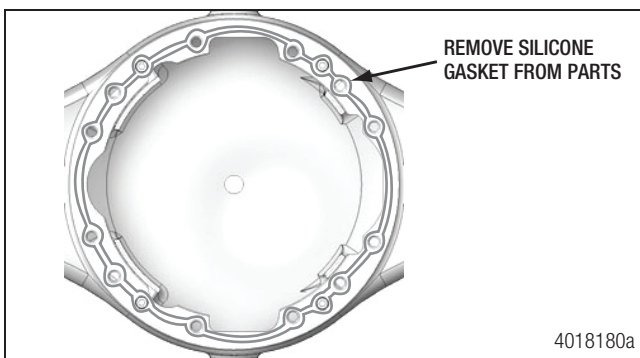


Figure 1

2. Clean the surfaces where the silicone gasket will be applied. Remove all oil, grease, dirt, and moisture. Dry both surfaces.

3. Inspect the axle housing for damage. Repair or replace the axle housing, if necessary.
4. Apply Loctite 243 to the 4 carrier mounting plugs (S-8105) and install into the housing surface to reduce the number of mounting holes. Figure 2.

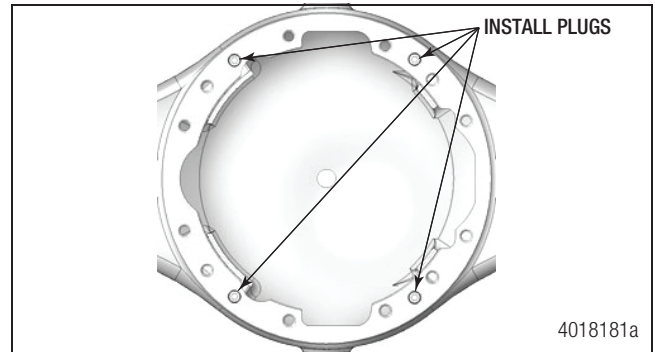


Figure 2

5. Apply liquid adhesive to the threaded holes. Install the studs into the axle housing. Tighten the studs until there are no threads exposed.

### **⚠ CAUTION**

Apply silicone gasket material in a continuous 0.25" (6 mm) bead. If more than this amount is used, the gasket material can break off and plug lubrication passages. Damage to components can result.

6. Apply a 0.25" (6 mm) continuous bead of silicone gasket material to the mounting surface of the housing where the carrier fastens. Figure 3.

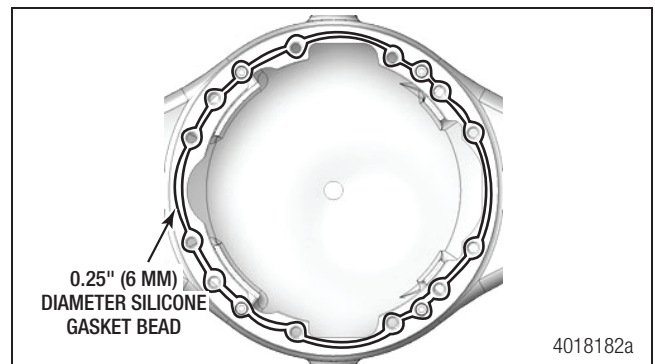


Figure 3

## ⚠ CAUTION

NEVER use a hammer or mallet to install the carrier. A hammer or mallet will damage the mounting flange of the carrier and cause oil leaks.

7. Use a hydraulic roller jack or a lifting tool to install the carrier into the axle housing. Refer to Meritor Maintenance Manual MM-5A - Single-Reduction Differential Carriers.
8. Connect the driveline universal joint to the pinion input yoke or flange on the carrier.
9. Install the gaskets and axle shafts into the axle housing and carrier. The gasket and flange of the axle shafts must fit flat against the wheel hub.
10. Clean the mating surfaces of the axle shaft and the wheel hub.
11. If silicone gasket material is used, apply a 0.125" (3 mm) diameter bead of the gasket material around the mating surface of the hub and around the edge of each fastener hole.
12. Install the gasket and the axle shaft into the housing. The gasket and the flange of the axle shaft must fit flat against the wheel hub.
13. If tapered dowels are used, install the solid tapered dowels over each stud and into the flange of the axle shaft. Use a punch or a drift and hammer, if necessary.
14. Install the Grade 8 nuts and hardened washers onto the stud. Lock washers are an acceptable alternative. Tighten the stud nuts to the torque specified in Table A.
15. Remove the female DCDL connector and install the male connector with pig tail (KIT 4429). Figure 4.

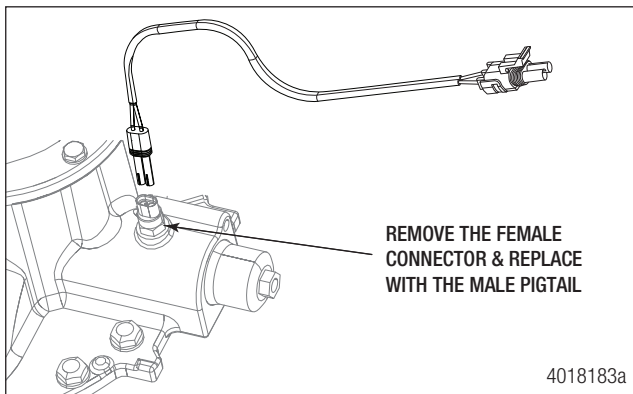


Figure 4



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16. Reinstall the oil drain plug.
17. Remove the oil fill plug and add lubricant to the carrier to the bottom of the opening.
18. Install the oil fill plug and tighten to 35 lb-ft (47 Nm).

**Table A: Shaft-to-Hub Torque Fastener Chart**

Fastener	Thread Size	Torque Value lb-ft (Nm)	
		Plain Nut	Lock Nut
Stud Nut, Axle Shaft	0.44-20	50-75 (68-102)	40-65 (54-88)
	0.50-20	75-115 (102-156)	65-100 (88-136)
	0.56-18	110-165 (149-224)	100-145 (136-197)
	0.62-18	150-230 (203-312)	130-190 (176-258)
	0.75-16	310-400 (420-542)	270-350 (366-475)
Studs	All	Install the coarse thread end of the stud into the hub and tighten to the last thread.	

## Return the Vehicle to Service

Before returning the vehicle to service, perform these steps:

1. Install the tire and wheel assembly. Refer to the OEM service information for the correct procedures.
2. Ensure the work area is clear of personnel and remove the vehicle safety stands.
3. Lower the vehicle carefully to the ground.
4. Remove the wheel blocks.
5. Test drive the vehicle at low speed in an area with no personnel and ensure the brakes are functioning properly.