(Supersedes TP-0753)

Meritor 145, 14X and 160 Series Axles

CARRIER-TO-HOUSING JOINT TAPERED DOWEL RETROFIT PROCEDURE FOR MERITOR 145, 14X AND 160 SERIES AXLES

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 Maintenance Manual 5A, Single-Reduction Differential Carriers; Maintenance Manual 5L, Single-Reduction Forward and Rear Differential Carriers on Tandem and Tridem Axles; Maintenance Manual 8, Drive Axle Housing Repair; and Maintenance Manual MM-0970, MT-14X Series Single-Reduction Forward Differential Carriers on Tandem Axles. To obtain these publications, visit Literature on Demand at meritor.com.

How to Obtain Kits

The tapered dowel retrofit procedure requires the use of the reamer tools in KIT 164 Reamer Tool. Make sure all of the tools are on hand before starting the procedure. To obtain the kit, call Meritor's Commercial Vehicle Aftermarket at Florence, Kentucky (888-725-9355); or Brampton, Ontario, Canada (905-454-7070).

Required Tools: KIT 164 Reamer Tool

Contents	Description	Quantity
Bit 164 Reamer	To replace the reamer only	1
Jig 164 Bit Tool	To replace the jig only	1

Retrofitting Carriers for Tapered Dowels

Many current Meritor axle models are designed with tapered dowels at the carrier-to-housing joint location. This design enhancement provides structural strength and added durability required by newer vehicles. Older vintage pre-tapered dowel carriers may be retrofitted to accomodate tapered dowels. Meritor recommends performing this upgrade whenever possible to maximize the life of the carrier. Figure 1.

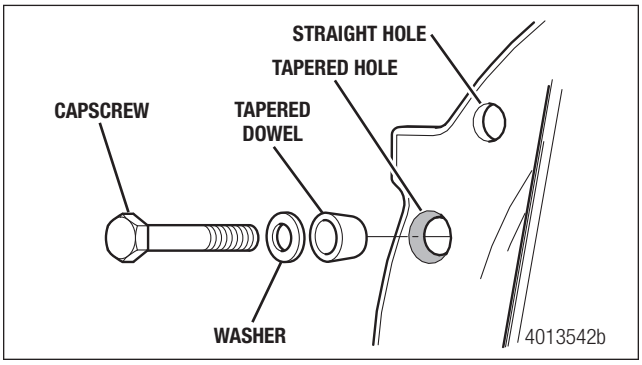

Figure 1

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 safety stands can result in death or serious personal injury.

⚠ WARNING

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

Tapered Dowel Retrofit Procedure

Use the following procedure to modify the carrier bolt holes for tapered dowels.

1. Remove the carrier from the housing. Refer to the appropriate Meritor maintenance manual for complete instructions.
2. Verify that the tapered reamer bit pilot fits in the carrier flange holes. Figure 2, Figure 3, Figure 4 and Figure 5.

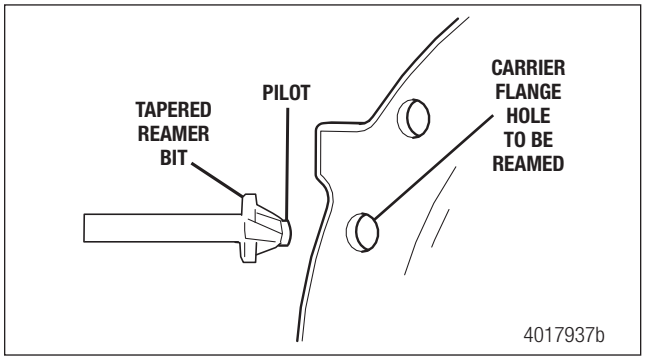

Figure 2

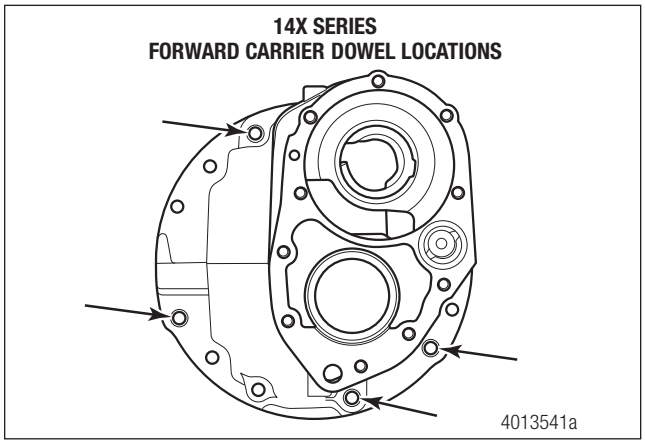

Figure 3

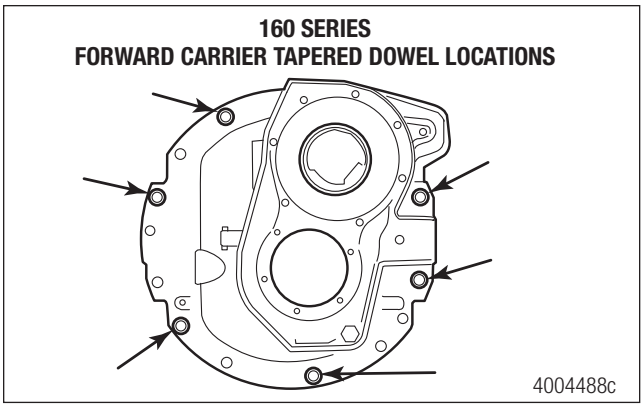

Figure 4

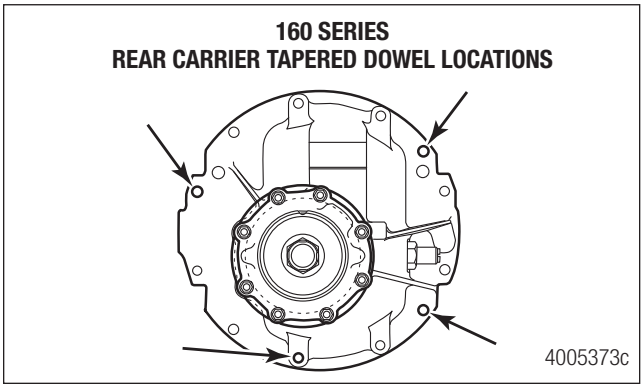

Figure 5

3. Slide the tapered reamer bit into the jig hole. Attach the jig to the adjacent bolt hole. Figure 6 and Figure 7.

   If the carrier is equipped with a driver-controlled differential lock (DCDL): Use a 5/8-inch nut to secure the jig to the carrier housing. Figure 8.

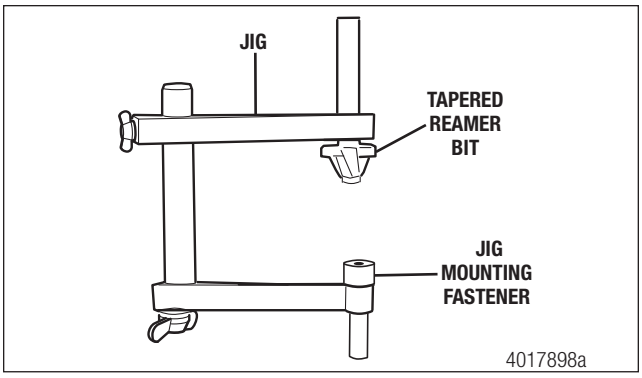

Figure 6

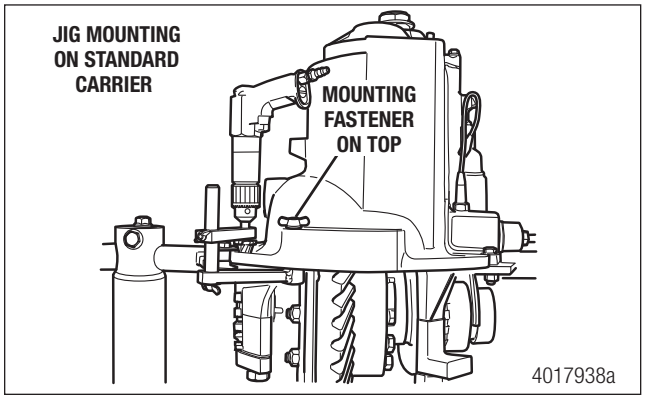

Figure 7

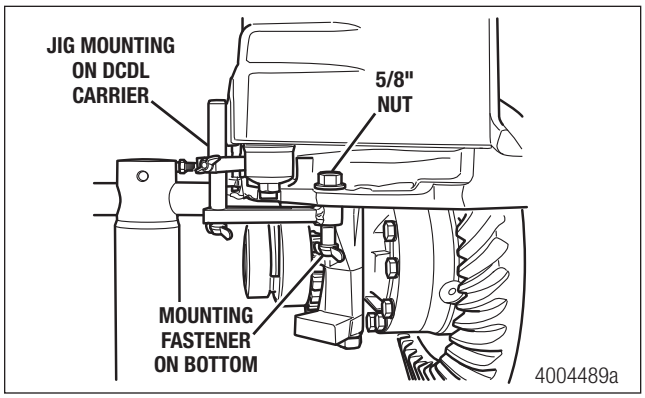

Figure 8

4. Align the tapered reamer bit pilot in the carrier hole. The bit must fit at a 90-degree angle to the carrier flange surface. Figure 9 and Figure 10.

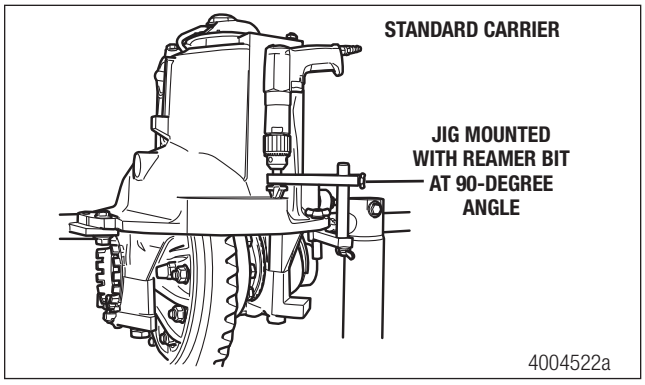

Figure 9

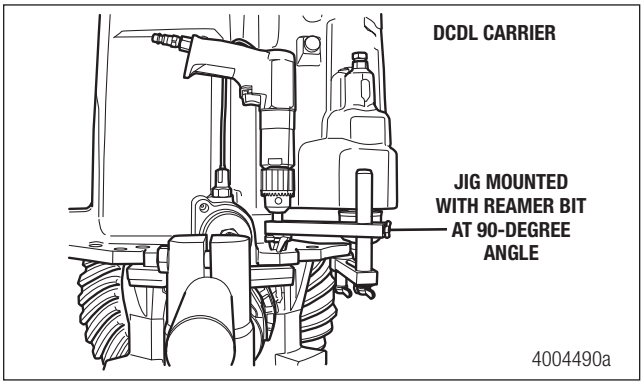

Figure 10

5. Tighten the jig bolts in the order shown. Figure 11. The tapered reamer bit pilot must be all the way in the carrier hole and positioned 90 degrees to the carrier flange.

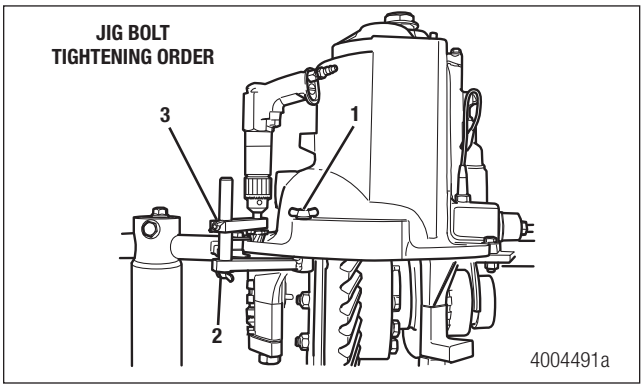

Figure 11

6. Use cutting oil to lubricate the carrier hole and the reamer bit shaft that contacts the jig.

7. Drill slowly until the reamer bit stop reaches the carrier flange surface. The slower the drill bit turns, the better. Keep the drill on center to ensure the hole being drilled is round. An irregular-shaped hole will not allow the dowel to seat correctly.

8. Clean any debris from the drilled hole. Insert the tapered dowel and check that it fits snug in the hole. The dowel should not move back and forth or side to side in the hole.

   If the tapered dowel is not snug/moves back and forth or side to side in the hole: The hole is not round as required to seat the dowel correctly. Remove the dowel. Use the drill bit and jig to drill the hole slightly deeper, making sure to keep the drill on center. Clean any debris from the hole. Insert the tapered dowel again and check that it fits snug in the hole.

9. Repeat Steps 3-8 for the remaining holes.

10. Refer to the appropriate Meritor maintenance manual for complete carrier installation instructions.

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