



Technical Bulletin

Repairing the Axle Seats on Meritor RideStar™ RHP and RideSentry™ MPA Series Single-Axle and Sliding Tandem Trailer Air Suspension Systems Using Kit 11347 and Kit 11348

Hazard Alert Messages

Read and observe all Warning and Caution hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

How to Obtain Additional Maintenance, Service and Product Information

Visit Literature on Demand at meritor.com to access the following publications.

- Maintenance Manual 14S, RideStar™ RHP Series Sliding Tandem Trailer Air Suspension System
- Technical Bulletin TP-0482, Upper Control Arm Bushing Removal and Installation Procedure
- Technical Bulletin TP-0527, Upper Control Arm Bushing Periodic Inspection Guidelines
- Technical Bulletin TP-0615, Replacing the Axle Seats on Meritor RHP Series Single-Axle and Sliding Tandem Trailer Air Suspensions
- Technical Bulletin TP-06111, Labor Time Standards for the Meritor Sliding Tandem Trailer Air Suspension System
- Technical Bulletin TP-06112, Installing Two-Piece Replacement Thrust Washers onto the Upper Control Arms
- Technical Bulletin TP-0777, Installing RideSentry™ Suspension Axle Seats onto RHP Series Single-Axle and Sliding Tandem Trailer Air Suspension Systems
- Technical Bulletin TP-0885, Inspect and Repair the Two-Piece Urethane or One-Piece Bonded Rubber Bushings on Meritor's RHP Series Sliding Tandem Trailer Air Suspension System

Introduction

This technical bulletin provides procedures for repairing the axle seats on Meritor RideStar RHP series and RideSentry MPA series single-axle and sliding tandem trailer air suspensions. Perform the repair in conjunction with the bushing inspection and replacement procedure in Technical Bulletin TP-0885. This axle seat repair procedure adds an additional 1.5 hours per axle seat to the standard disassembly and bushing replacement procedure. Refer to Technical Bulletin TP-06111 for additional labor time guides.

How to Obtain Kit 11347 and Kit 11348

Call Meritor's Commercial Vehicle Aftermarket at 888-725-9355.

Kit 11347

Repair slug kit (includes two repair slugs)

Part Number	Description	Quantity
1229-F-5102	Repair Boss	2
TP-0897	Repair Procedure	1

Kit 11348

Axle seat repair tool kit (includes grind template and repair slug locator tool)

Part Number	Description	Quantity
3256-C-1199	RHP Template Gauge	1
3256-D-1200	Gauge Block	1
3256-E-1201	Gauge Block Cap	1
3256-F-1202	RideSentry Template Gauge	1
TP-0897	Repair Procedure	1

Tools Required

- Oxygen acetylene torch set with #2 tip and gauges set, or a plasma torch of at least 40 amps capable of cutting 1/2-inch metal
- 4- or 5-inch grinder
- Die grinder
- White marker
- Bright aerosol paint
- Air chisel
- Mig welder with 0.035 wire and 75/25 gas
- Porta Power tool

Axle Seat Identification

1. Inspect the worn axle seats to determine the axle seat type. Figure 1 and Figure 2.

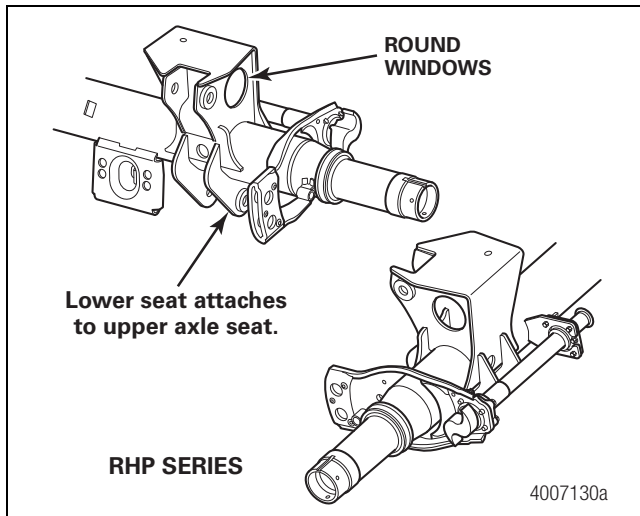


Figure 1

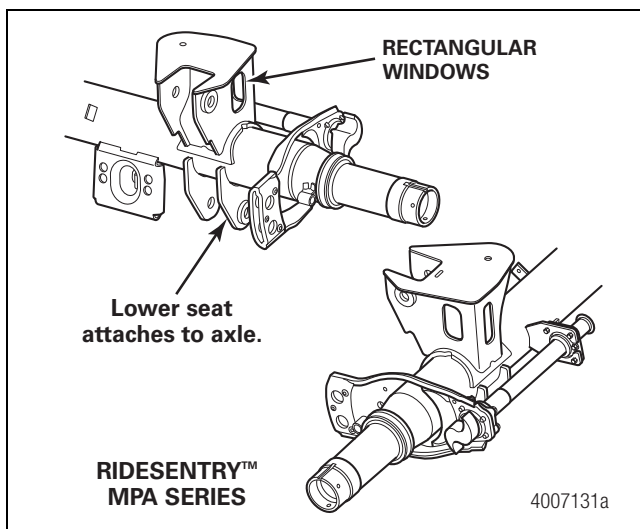


Figure 2

2. Once you've determined the axle seat type, use the appropriate template gauge from Kit 11348 for the repair procedures. For RideStar RHP series axle seats, use template 3256-C-1199. For RideSentry MPA series axle seats, use template 3256-F-1202. Figure 3.

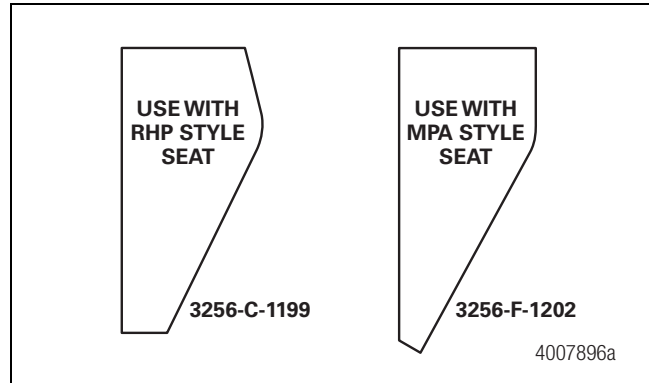


Figure 3

Axle Seat Inspection

⚠ WARNING

To prevent serious eye injury, always wear safe eye protection when you perform vehicle service or maintenance.

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. Do not work under a vehicle supported only by jacks. Jacks can slip or fall over. Serious personal injury and damage to components can result.

1. After you have performed the procedures in Technical Bulletin TP-0482 to disassemble the suspension, position the axle as shown in Figure 4. If necessary, position the Porta Power tool on the opposite side to protect the ram from debris when cutting. Cover the air spring with a weld blanket to protect it during the cutting process.

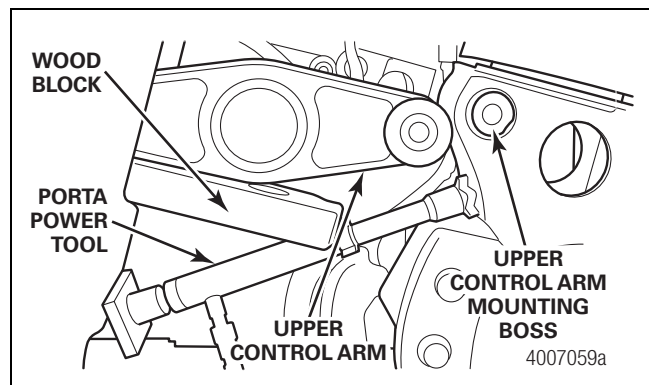


Figure 4

2. Inspect the axle seats as follows.
 - A. Check the axle seat with the arm removed for evidence of contact with the upper control arm. Figure 5.
 - **If evidence of contact is found:** Measure the thickness of the material at the worn area on the axle seat.
 - **If the thickness of the material is 0.1875-inch or more:** Continue to use the axle seat.
 - **If the thickness of the material is less than 0.1875-inch:** Replace the axle seat. Refer to Technical Bulletin TP-0615 for axles with 17.5-inch and 18.5-inch ride heights. For axles with 16.5-inch ride height, refer to Technical Bulletin TP-0777. Do not perform the procedures in this bulletin if this condition is present.

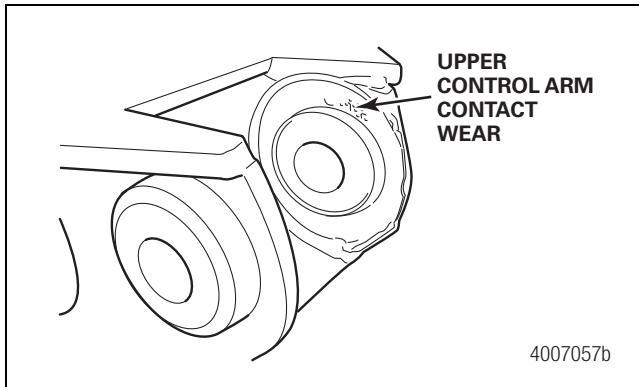


Figure 5

- B. Check the axle seat for wear at the bushing inner metal contact area. Figure 6.
 - **If you can feel wear:** Proceed to the repair procedure in this bulletin.
 - **If no wear is found:** Continue to use the axle seat. No repairs are required.

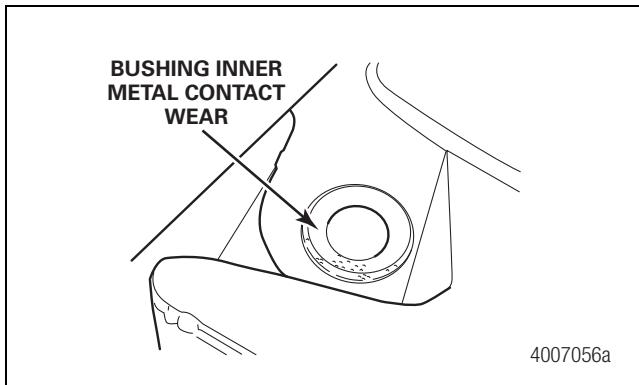


Figure 6

Axle Seat Repair Procedure

1. Mark the upper control arm bosses with a white marker at the outside diameter to make it easier to see during the cutting process. Figure 7.

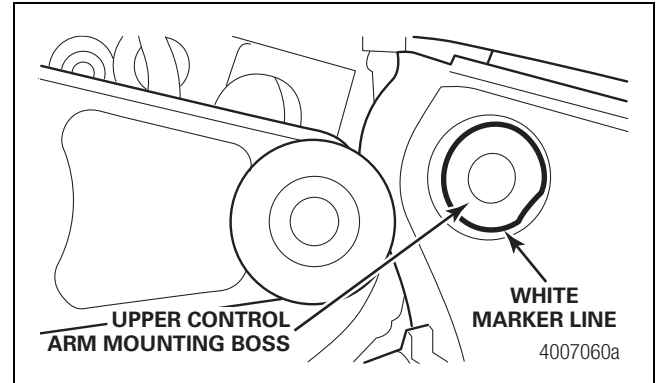


Figure 7

2. Use a torch to cut out the damaged upper control arm bosses from both the outboard and inboard of the axle seat. Use care not to cut beyond the white line. Figure 8 and Figure 9.

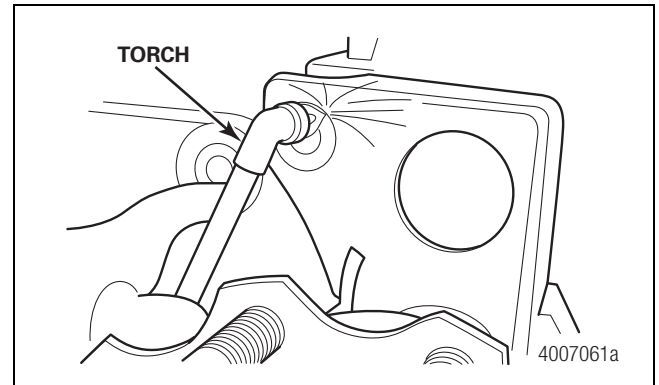


Figure 8

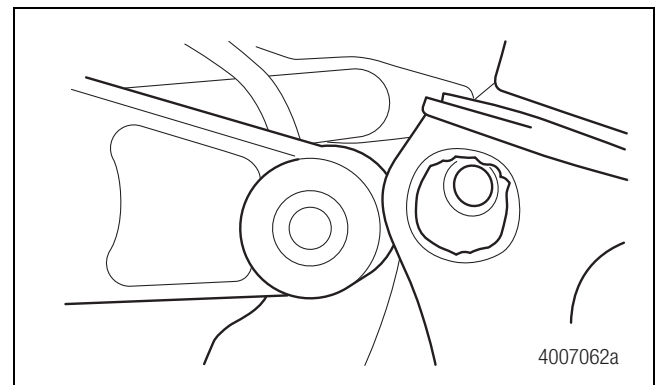


Figure 9

- Use an air chisel to remove all of the slag from inside the axle seat where the bushing would be located. Figure 10.

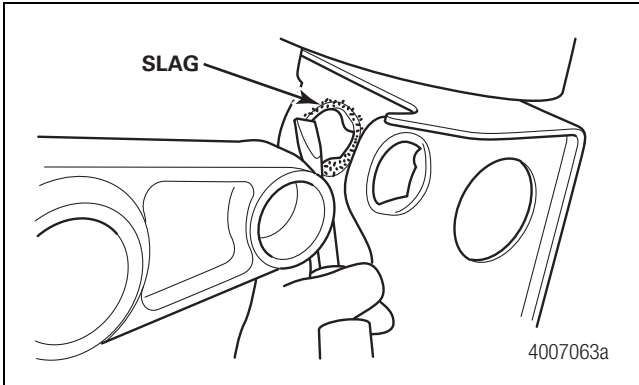


Figure 10

- Use a 4- or 5-inch grinder to remove the old weld from the outside and inside of the axle seat where the bushing would be located. Figure 11 and Figure 12.

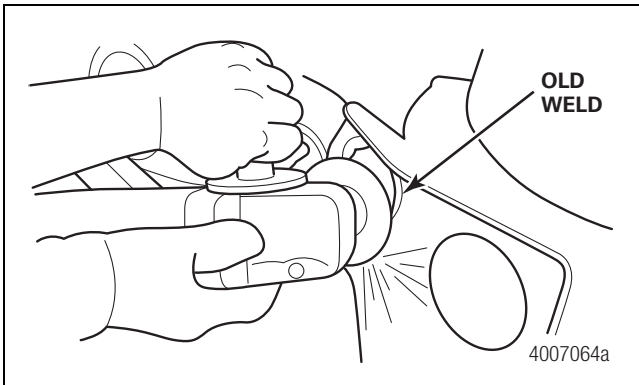


Figure 11

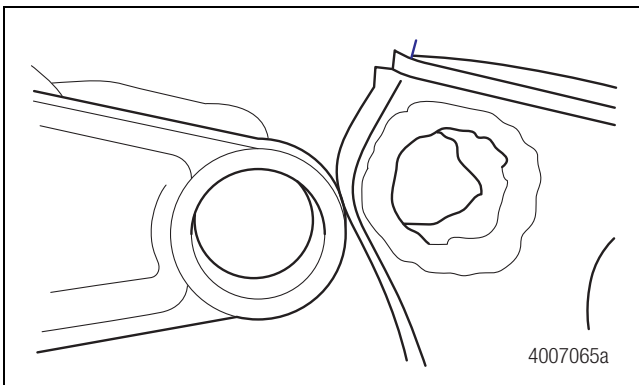


Figure 12

- Select the correct template identified in the axle seat identification procedure. Place the grind template into position on the axle seat. Verify the template is not against the weld. Ensure the template is flush against the axle seat top plate and against the axle connection plate. Spray a small amount of paint over the template. The line from the paint will help ensure that you grind within the template area. Figure 13 and Figure 14.

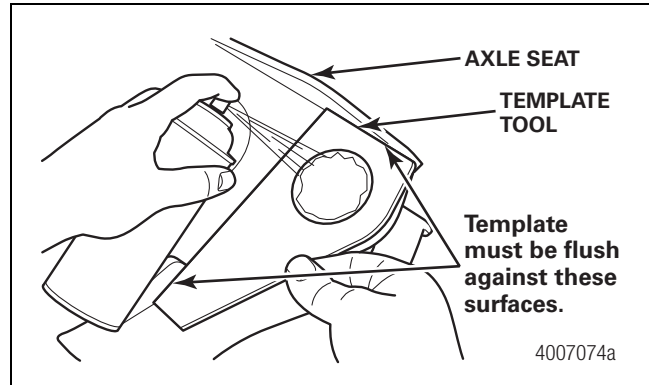


Figure 13

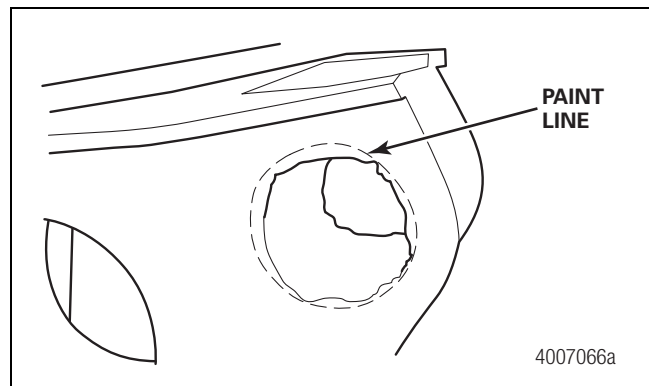


Figure 14

- Use a die grinder to improve the hole size and shape on the axle seat up to the paint line. Do not exceed the paint line. This will ensure the position and fit of the repair slug is correct. Periodically check the repair slug fit to verify the fit is tight with minimal gaps.
- Follow the steps below to install the repair slugs onto the axle seat using the repair slug locator tool. Figure 15 and Figure 16.
 - Place the repair slugs into position on the axle seat.
 - Install the repair tool gauge block inside the axle seat. The larger end of the gauge block must face toward the INSIDE flange.
 - While holding the gauge block in position, place the tool cap over the repair slug located on the inside flange of the axle seat.

- D. Install the bolt through the repair slug locator tool. Use either the bolt and nut removed from the old bushing or the bolt and nut from the new bushing kit, FRK0510030.
- E. Install the nut on the other end of the bolt. Use hand tools to tighten the bolt. You must install the nut on the OUTSIDE flange of the axle seat.

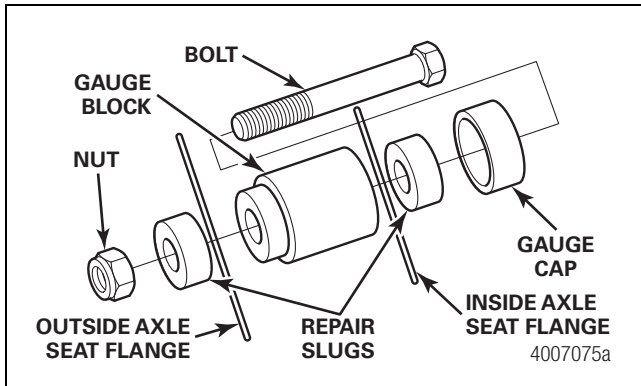


Figure 15

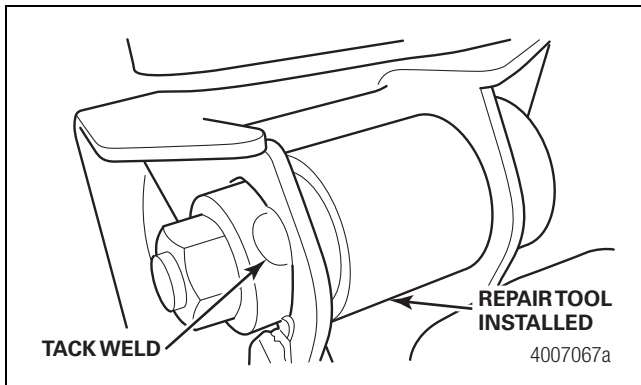


Figure 16

⚠ WARNING

You must follow correct welding procedures and weld at locations authorized by Meritor when you weld to suspension components. Welding at locations other than those authorized by Meritor will void the warranty and can reduce trailer axle fatigue life. Serious personal injury and damage to components can result.

Do not weld onto the upper control arm as this can reduce the fatigue life of the control arm. Serious personal injury and damage to components can result.

Wear safe clothing and eye protection when you use welding equipment. Follow instructions provided by the welding equipment manufacturers to prevent serious personal injury and damage to components.

8. Set the mig welder to approximately 24 volts. Use 0.035 wire and 75/25 gas to tack weld the outside repair slug at the 10, 2, 4 and 8 o'clock positions. Figure 16.
9. Remove the nut, bolt and cap. Reinstall and hand-tighten the nut and bolt.
10. Tack weld the inside repair slug. Immediately weld it completely. Then weld the outside repair slug completely. Figure 17.

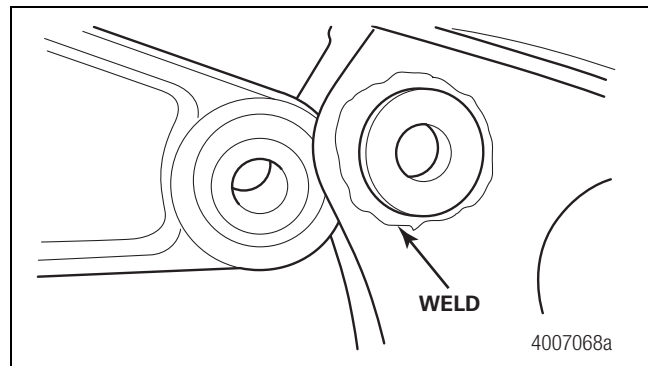


Figure 17

11. Allow the joint to cool, then remove the bolt. Use a pry bar to remove the repair tool gauge block. Use care to pry only on the large diameter of the repair tool gauge block.
12. After the axle seat repair is complete and the metal has cooled, continue with the bushing replacement procedure in Technical Bulletin TP-0482. Figure 18.

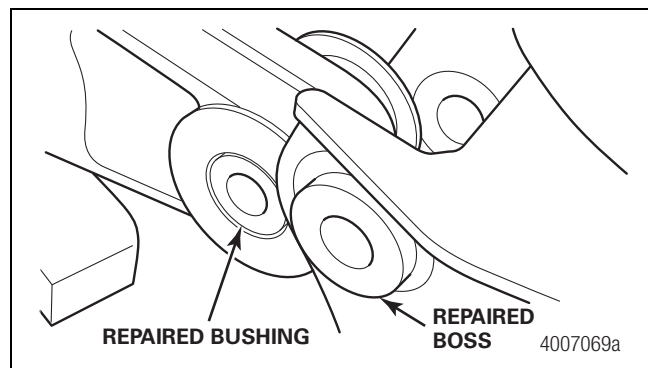


Figure 18



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