



Technical Bulletin

Frame Bracket Side Plate Repair Procedures

Meritor RideSentry™ MPA Series Sliding Tandem Trailer Air Suspension Systems

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.

WARNING

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

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 only supported by jacks. Jacks can slip or fall over. Serious personal injury and damage to components can result.

How to Obtain Additional Maintenance, Service and Parts Information

To obtain the following publications, visit Literature on Demand at meritor.com.

- Maintenance Manual 14R, RideSentry™ MPA Series Sliding Tandem Trailer Air Suspension System
- Maintenance Manual 1, Preventive Maintenance and Lubrication
- Maintenance Manual MM-99100, Wheel Equipment Disc Wheel Hubs Brake Drum Failure Analysis
- Technical Bulletin TP-0482: Upper Control Arm Bushing Removal and Installation Procedure/All RideStar™ RHP Series Sliding Tandem Trailer Air Suspension Systems
- Technical Bulletin TP-0931: Front and Rear Axle Alignment Procedures/Meritor RHP Series and RideSentry™ Series Sliding Tandem Trailer Air Suspension Systems
- Parts Book PB-9826: RideStar™ RHP11/RHP55 Series and RideSentry™ MPA38/MPA40/MPA20 Series Trailer Air Suspension Systems

How to Obtain Repair Kits

Call Meritor's Commercial Vehicle Aftermarket at 888-725-9355 to obtain the following kits for the MPA sliding tandem trailer air suspension.

All of these kits include parts for repairs needed for this one bolt position and supplies all new bushings and bolts for the opposite side. Refer to Parts Book PB-9826 for specific parts included in each kit.

- KIT 11359 (Roadside Front)
- KIT 11358 (Roadside Rear)
- KIT 11361 (Curbside Front)
- KIT 11360 (Curbside Rear)

Side Plate Repair Procedure for the MPA38 and MPA40 Series Sliding Tandem Trailer Air Suspension System

NOTE: The side plate kits are position specific due to the angle and profile of the frame brackets. Verify the correct kits are used in the correct positions.

1. Wear safe eye protection. Park the trailer on a level surface.
2. Use a jack or other suitable device to raise the trailer just high enough to remove the wheel and tire assemblies from the axle being repaired. Remove the tire and wheel assemblies.
3. Place safety stands under the axle and lower the trailer so the axle is sitting at ride height.
4. Remove both upper control arm bolts in the frame brackets. It is not necessary to remove the upper control arm bolts from the axle seats. Use a porta-power to push the axle so it rotates on the safety stands and allows the upper control arm to come out of the frame brackets.

- At the position that needs the repair, place one of the alignment washers centered on the original hole. Mark the inside and outside of the frame with the circle size you will cut out.

⚠ WARNING

Only use a plasma cutter to cut out the hole on both the inside and outside of the frame bracket. Do not use a torch. Heat from a torch can adversely affect high tensile steel and weaken the frame bracket. Do not use any other tool, which also can weaken the frame bracket. Serious personal injury and damage to components can result.

- Use a plasma cutter to cut out the marked hole on both the inside and outside of the frame bracket. Do not use a torch or any other tool to cut the hole.
- Remove any slag and sharp edges on the inside of the frame bracket.
- Verify the outer repair plate for that position fits correctly, but do not install at this time.
- Install new bushings in the two positions of the upper control arm.
- Install the wear washers on the new bushings.
- Remove the porta-power and install the upper control arm back into the frame bracket.
- Install the hardware in the side that was not repaired, but do not tighten the bolt at this time.
- If the repaired position is the roadside, use a seven-inch (178 mm) bolt at this position only and install two hardened washers against the head of the supplied bolt. Use one hardened washer under the six-inch (152 mm) bolt for the opposite side. If the repair position is at the curbside, use only the six-inch (152 mm) supplied bolt and install only one hardened washer under the head of the bolt on each side. Figure 1.

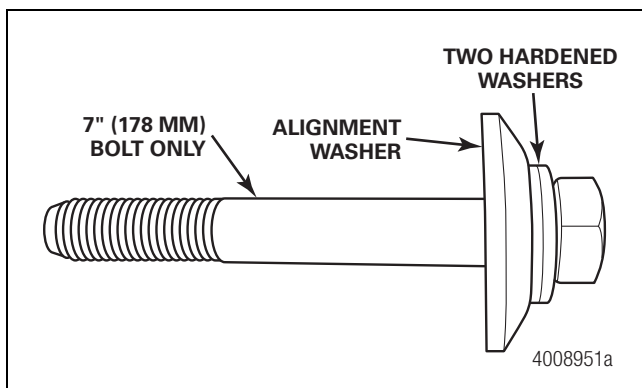


Figure 1

- Install the large alignment washer on the bolt. Slide the inside repair plate over the bolt.
- From the inside, push the bolt through the bushing and ensure the repair plate seats correctly into the hole.
- Place the outer repair plate in position over the bolt. Place an alignment washer, a hardened washer and the nut onto the bolt. Ensure the plate seats correctly into the hole and also against the flange of the belly pan. Tighten the nut again, ensuring the assembled parts move into correct position without binding. Figure 2.

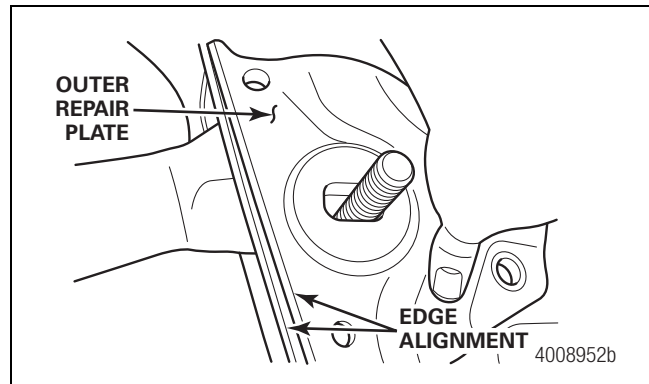


Figure 2

- Once the assembled parts are seated correctly, finish tightening both of the bolts to the specified torque.
 - Tighten the bolts on the roadside to 590-610 lb-ft (800-827 N•m). **ⓘ**
 - Tighten the bolts on the curbside to 540-560 lb-ft (732-759 N•m). **ⓘ**
- Use a drill with a 1/2" drill bit to drill through the suspension side plate, using the outer repair plate as a template. Figure 3.

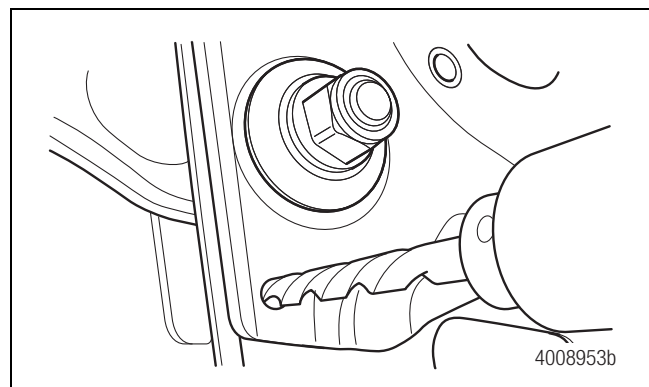


Figure 3

- Place the inside doubler plate inside the frame bracket. Figure 4.

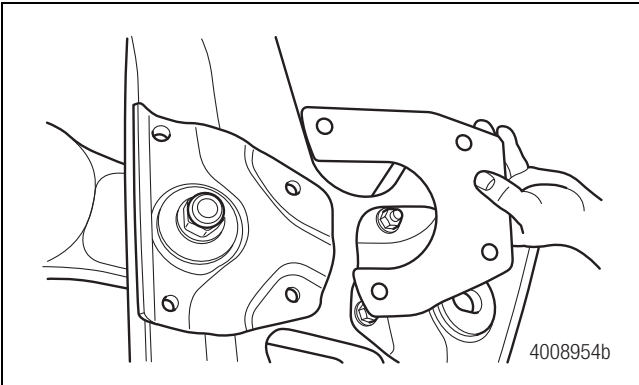



Figure 4

20. Install the four button-head bolts with the button head on the INSIDE through the holes.
21. Install the supplied locking flange nuts and tighten to 150 lb-ft (203 N•m). Figure 5 and Figure 6. 

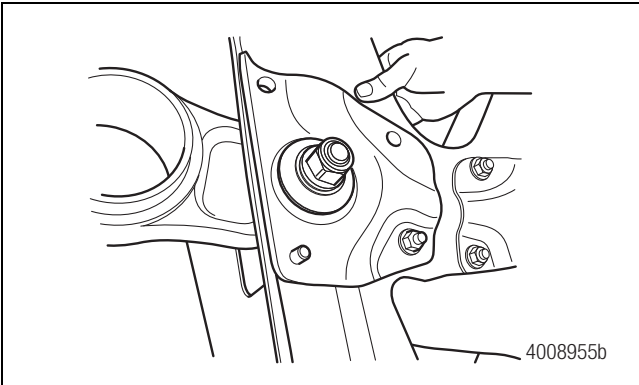


Figure 5

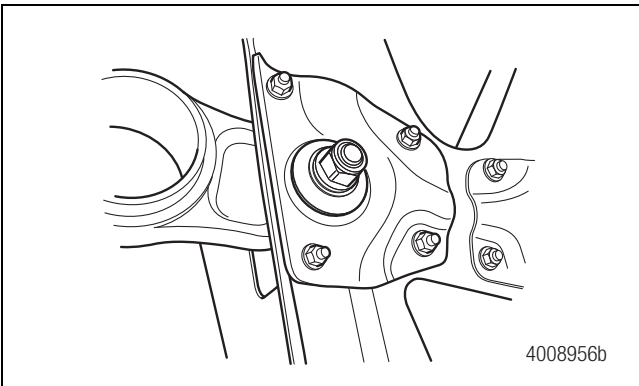


Figure 6

⚠ WARNING

Wear safe clothing and eye protection when you use welding equipment. Welding equipment can burn you and cause serious personal injury. Follow the operating instructions and safety procedures recommended by the welding equipment manufacturer.

22. Weld the inside repair plate as shown. Make sure the welder ground is placed close to the area to be welded. Figure 7.

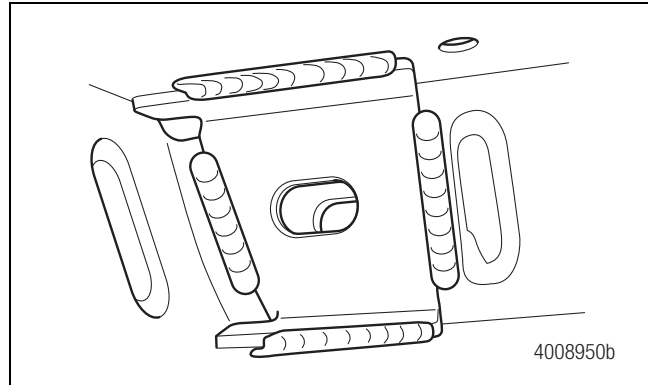


Figure 7

23. Install the wheel and tire assemblies. Install and tighten the nuts. Refer to Maintenance Manual MM-99100 for torque specifications. Remove the safety stands and lower the trailer to the ground.
24. Ensure the suspension is at ride height and has been neutralized. Check the alignment and adjust if necessary. Refer to Technical Bulletin TP-0931 for complete procedures.
25. Paint and undercoat the repaired areas.



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