

Service Bulletin

LSZ13 Suspension

LSZ13 Ride Height Conversion Procedure

Introduction

This manual provides the necessary information for the safe removal, adjustment and installation of the Neway[®] LSZ13 Auxiliary Air Suspension.

NOTE: To assist with installation, customer inspection drawing LSZ13_TAB_CI is required and is included in the literature kit.

Read this manual before using or servicing this product and keep it in a safe location for future reference. Updates to this manual, which are published as necessary, are available on the internet at www.safholland.us.

When replacement parts are required, SAF-HOLLAND[®] highly recommends the use of only SAF-HOLLAND[®] Original Parts. A list of technical support locations that supply SAF-HOLLAND[®] Original Parts and an Aftermarket Parts Catalog are available on the internet at www.safholland.us or contact Customer Service at 888-396-6501.

Notes, Cautions, and Warnings

Before starting any work on the unit, read and understand all the safety procedures presented in this manual. This manual contains the terms "NOTE", "IMPORTANT", "CAUTION", and "WARNING" followed by important product information. These terms are defined as follows:

NOTE: Includes additional information to enable accurate and easy performance of procedures.

IMPORTANT: Includes additional information that if not followed could lead to hindered product performance.

CAUTION

Used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, could result in property damage.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

General Safety

- Read and observe all Warning and Caution hazard alert messages. The alerts provide information that can help prevent serious personal injury, damage to components, or both.

WARNING

Failure to follow the instructions and safety precautions in this manual could result in improper servicing or operation leading to component failure which, if not avoided, could result in death or serious injury.

- All installations should be performed by a properly trained technician using proper/special tools, and safe procedures.

NOTE: In the United States, workshop safety requirements are defined by federal and/or state Occupational Safety and Health Act (OSHA). Equivalent laws may exist in other countries. This manual is written based on the assumption that OSHA or other applicable employee safety regulations are followed by the location where work is performed.

- Properly support and secure the vehicle from unexpected movement when servicing the unit.

WARNING

Failure to properly support and secure the vehicle and axles prior to commencing work could create a crush hazard which, if not avoided, could result in death or serious injury.

- Service both roadside and curbside of an axle. Worn parts should be replaced in sets. Key components on each axle's braking system, such as friction material, rotors and drums will normally wear over time.
- Follow all manufacturer's instructions on spring pressure and air pressure controls.

WARNING

Failure to follow manufacturer's instructions regarding spring pressure or air pressure control could allow unexpected release of energy which, if not avoided, could result in death or serious injury.

- Only the wheel and tire sizes approved by SAF-HOLLAND[®] can be used.
- Tire clearance between tires and the suspension MUST be regularly monitored and maintained.

WARNING

Failure to maintain tire clearance between tires and the nearest point of contact on the suspension or vehicle could cause fire or loss of vehicle control which, if not avoided, could result in death or serious injury.

1. Pre-Removal

1. Lower the axle to the in-service position and completely discharge all of the air from the air springs.
2. Disconnect the air supply tubing from both of the air springs.
3. Remove the fittings from the inlet port of the air springs.
4. Remove the 3/8"-16 bolts from the top and the 1/2"-13 bolts from the bottom of both air springs.

NOTE: Retain all of the hardware and air spring support plates for future use.

5. Set aside the air springs and disconnect the air supply tubing to the SuperChambers™.
6. Disconnect the drop hoses to both brake chambers.

2. Suspension Removal

1. Mark on the frame rails the frame bracket's current position relative to the front face of the frame bracket.
2. Support the frame brackets using floor jacks.

⚠ WARNING Failure to properly support the frame brackets could cause a crush hazard, which if not avoided, can result in death or serious injury.

3. Remove the fasteners that attach both frame brackets and air spring mount brackets.
4. Lower the frame brackets from the frame rails.
5. Support the front of the suspension with jack stands under the LSZ Crossmember.

⚠ WARNING Failure to properly support the suspension could cause a crush hazard, which if not avoided, can result in death or serious injury.

6. Remove the lower and upper pivot bolts along with the lower lift bracket bolt.

NOTE: Retain all of the hardware for future use.

7. Remove the frame bracket.
8. Repeat Steps 6 and 7 on the opposite side.

3. Pre-Installation

1. Attach the new shelf bracket to the new frame bracket using 3/4" fasteners.
2. Clamp the frame bracket to the truck frame rail at the same position fore/aft as the original frame bracket.
3. Use a transfer punch to transfer the original mount pattern to the frame bracket.
4. Repeat steps 1 through 3 on the opposite side.

5. Drill frame bracket mounting holes with a 25/32" drill bit.
6. Clamp the upper air spring mount brackets to the frame on both sides of the truck. Make sure to have the horizontal surface up against the lower flange of the frame rail.

NOTE: Ensure the slot in the mounting plate is towards the front of the truck.

7. Check the distance from the mark on the frame rail of the front face of the frame bracket to the front face of the upper air spring mount. Adjust position as needed to reach a 17-3/16 ± 1/16 distance (**Figure 1**).
8. Use a transfer punch to transfer the hole pattern from the frame rails to the airspring mount.
9. Drill the upper air spring mount brackets with a 25/32" drill bit.

4. Suspension Installation

1. Using the hardware from Section 2 Step 6, install the frame and shelf brackets into the suspension. Install the lower lift bracket bolt on both sides (**Figure 2**).
2. When tightening the upper pivot and lower lift bracket bolt use the provided adjustment wedge (PN 90034968) to set the proper lower lift bracket angle. Torque the six (6) 3/4" fasteners to 250 ft-lbs (339 N•m) (**Figure 3**).
3. Raise the frame brackets using the floor jack.
4. Attach the frame brackets to the truck frame using 3/4" fasteners.
5. Using hardware from Section 1 Step 4, attach both air springs to the axle using the lower support plate with 1/2" fasteners and lock washers.
6. Using hardware from Section 1 Step 4, attach both upper air spring mount brackets onto the top of the air springs using 3/8" fasteners and lock washers.

NOTE: Ensure the slot in the mounting plate is towards the front of the truck.

7. Use a floor jack to raise the axle to allow the mounting of the upper air spring mount brackets to the frame rails.

NOTE: Make sure the horizontal mounting surface is up against the face of the bottom flange of the frame rail.

8. Use 3/4" fasteners to attach the upper air spring brackets to the frame rails.
9. Re-install the fittings into both air springs along with the supply tubing.
10. Re-install the supply tubing into both SuperChambers™.
11. Re-attach both drop hoses to the brake chambers.

Figure 1

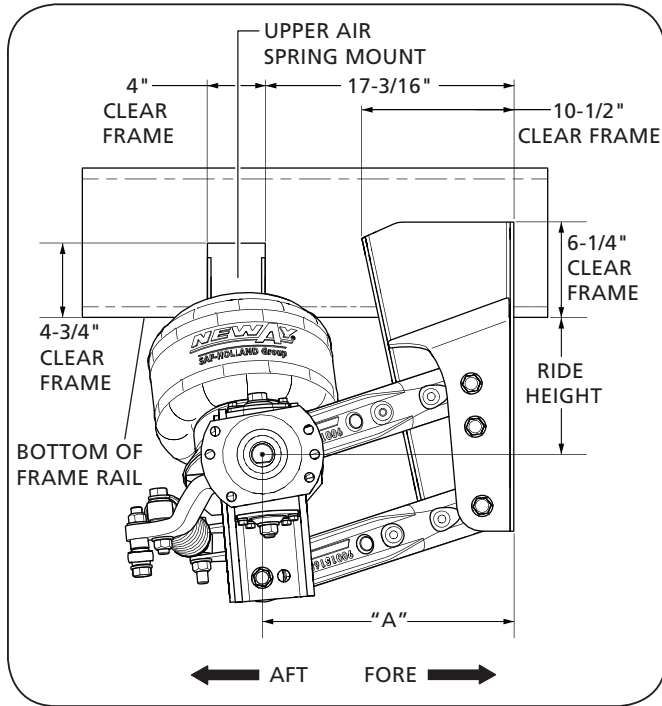


Figure 3

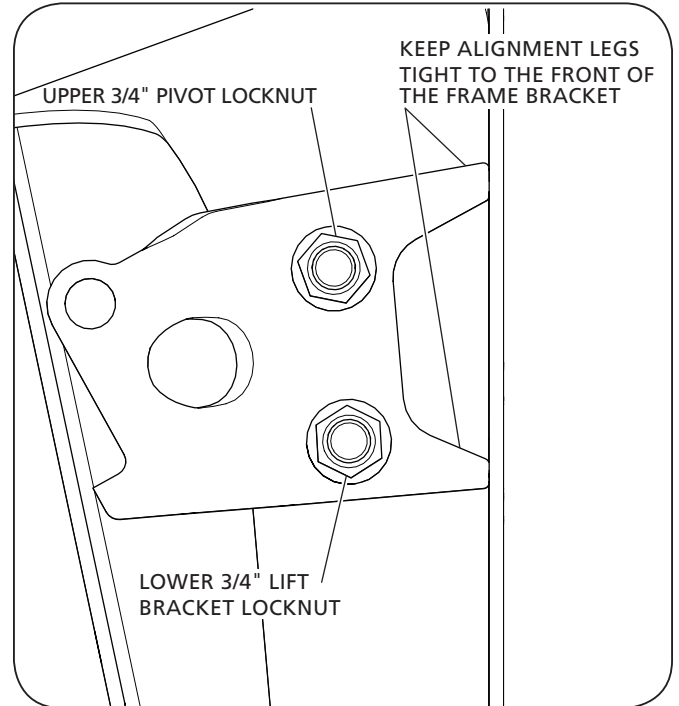
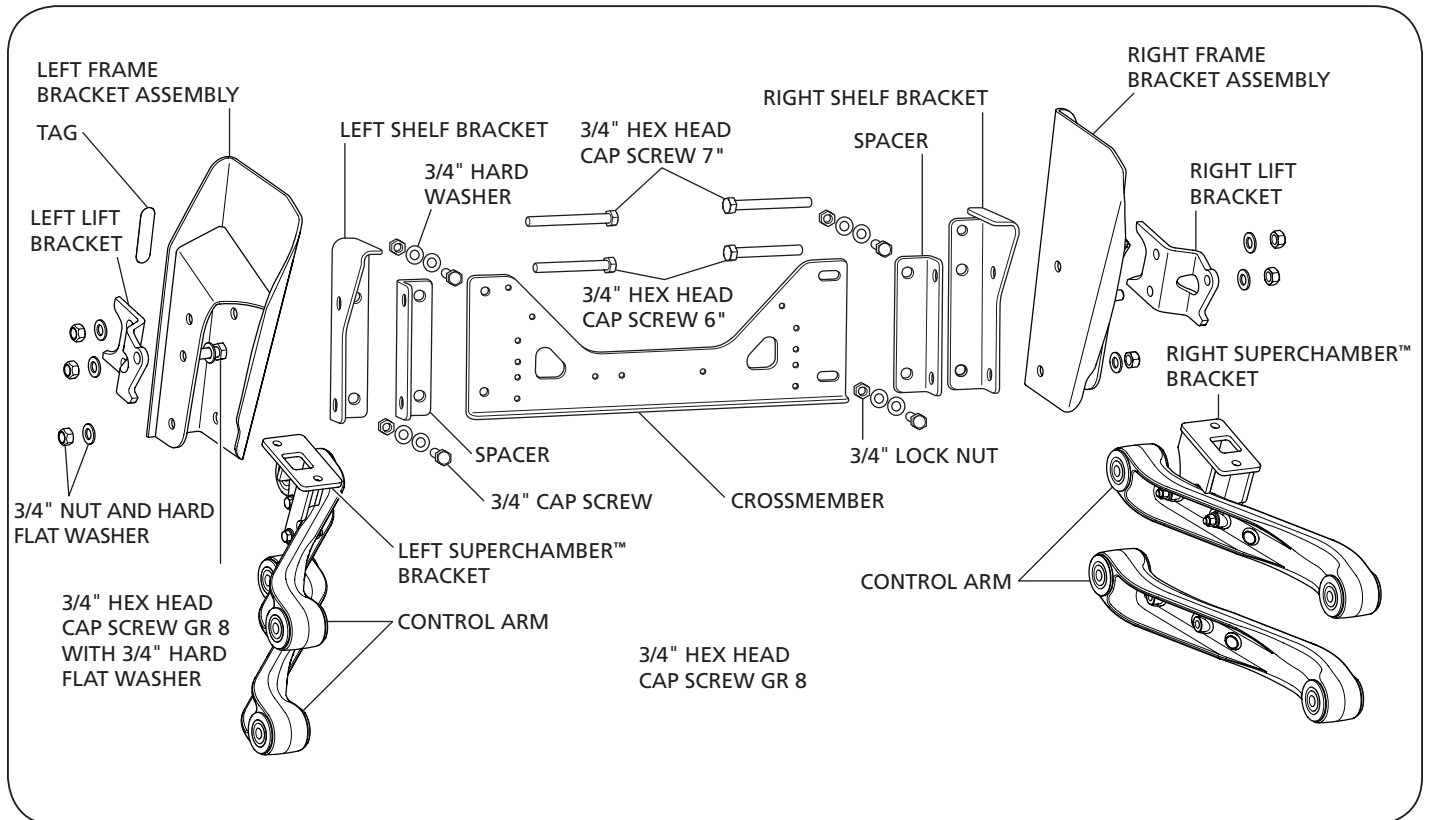


Figure 2





From fifth wheel rebuild kits to suspension bushing repair kits, SAF-HOLLAND Original Parts are the same quality components used in the original component assembly.

SAF-HOLLAND Original Parts are tested and designed to provide maximum performance and durability. Will-fits, look-alikes or, worse yet, counterfeit parts will only limit the performance potential and could possibly void SAF-HOLLAND's warranty. Always be sure to spec

SAF-HOLLAND Original Parts when servicing your SAF-HOLLAND product.

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