

Replacement Procedure







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Introduction

This manual provides the information necessary for the replacement of the tailpiece on a CBX40 suspension.

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.

NOTE: A list of SAF-HOLLAND® technical support locations that supply SAF-HOLLAND® Original parts can be found at www.safholland.us or contact our customer service group at 888-396-6501.

Warranty

Refer to the complete warranty for the country in which the product will be used. A copy of the written warranty is included with the product or available on the internet at www.safholland.com.

TAIL PIECE		PART NUMBER	
STANDARD	LH	90549725	
		90549726	
AUTO POSILIFT™ * *	LH	90549802	
	RH	90549803	

^{*90549801} rear axle only

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.

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

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

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



1. General Safety Instructions

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

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

Please observe the following safety instructions in order to maintain the operational and road safety of the suspension system.

Proper tools MUST be used to perform the maintenance and repair procedures described in this manual.

- 1. Only the wheel and tire sizes approved by the trailer builder may be used.
- Before operating vehicle, ensure that the maximum permissible axle load is not exceeded and that the load is distributed equally and uniformly.
- Observe the operating recommendation of the trailer manufacturer for off-road operation of the installed suspension.

IMPORTANT: The definition of OFF-ROAD means driving

on non-asphalted/non-concreted routes, e.g. gravel roads, agricultural and forestry tracks, on construction sites and in gravel pits.

IMPORTANT: Off-road operation of suspensions beyond

the approved application design could result in damage and impair suspension system performance.

- All suspension systems require routine service, inspection and maintenance in order to maintain optimum performance and operational safety as well as an opportunity to recognize wear.
- In the event of suspension component failure, quickly reduce speed as safely as possible and remove the vehicle from traffic. If unable to remove vehicle from traffic, follow DOT safety requirements regarding emergency situations.
- Contact a qualified towing and/or service company to assist in repairing vehicle or to move it to a qualified repair facility.

We highly recommend the use of only SAF-HOLLAND® Original Parts.

A list of SAF-HOLLAND® technical support locations to supply SAF-HOLLAND® Original Parts can be found at www.safholland.us or contact SAF-HOLLAND® Customer Service at 888-396-6501.

Updates to this manual will be published as necessary online at www.safholland.us.



2. Welding Standards

2.1 Scope

When welding is required for suspension repairs, observe the requirements below. Customers may not weld on an SAF® suspension without our prior approval, including the application of the American Welding Society standards by SAF-HOLLAND® engineering. This specification applies to all components supplied by SAF-HOLLAND®, and its products. The customer assumes all responsibility for weld integrity if weld material and procedure differ from those listed below.

2.2 Workmanship

All welding on SAF-HOLLAND® products MUST be performed by a welder qualified according to the appropriate AWS standard for the weld being made or an equivalent standard. It is the responsibility of the customer to provide good workmanship when welding on SAF-HOLLAND® products.

2.3 Material

Items to be welded that are made from low carbon or high-strength alloy steel are to be welded with AWS filler metal specification AWS A5.18, filler metal classification ER-70S-3, ER-70S-6 or equivalent unless specified on the installation drawing.

NOTE: Any substitution for filler material from the above standard must comply, as a minimum, with the following mechanical properties:

Tensile Strength - 72k psi (496 MPa) Yield Strength - 60k psi (414 MPa) Charpy V Notch - 20 ft.-lbs. (27 N•m) at 0°F (-17.7°C) % Elongation - 22% The recommended welding gas for gas metal arc welding (GMAW) is 90% Argon / 10% CO2. If a different gas is used, welds MUST comply with penetration requirements illustrated (*Figure 1*). Where the installation drawing specifies different than above, the drawing shall prevail.

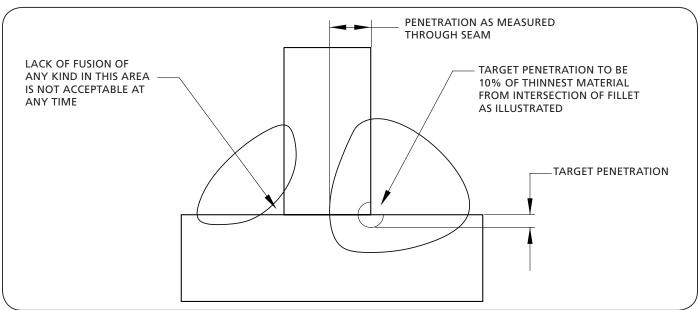
2.4 Procedures

Tack welds used for positioning components are to be located in the center of the final weld, where practical. Tack weld should be completely fused to the finish weld. DO NOT break arc at the end of the weld. Back up all finish welds at least 1/2" (12.7 mm) or a sufficient amount to prevent craters at the end of the weld. Where weld is illustrated to go around corners, it is assumed the corner represents a stress concentration area. DO NOT start or stop weld within 1" (25.4 mm) of the corner. Particular care should be taken to prevent undercutting in this area.

2.5 Weld Size

If weld size is NOT specified, the effective throat of the weld must be no smaller than the thinnest material being welded *(Figure 1)*.







3. Mounting Plate Removal Preparation

IMPORTANT: The trailer MUST be unloaded and on a level surface before beginning replacement procedures.

- 1. Support the front of the trailer with either a kingpin stand, landing gear, or while coupled to a tractor.
- Raise trailer frame approximately 2" (51 mm) above the suspension's specified ride height and support it with jack stands at OEM specified locations.

▲WARNING

Failure to properly support the suspension during maintenance could create a crush hazard which, if not avoided, could result in death or serious injury.

Exhaust all air from the suspension allowing the trailer to sit on jack stands. set the parking brakes and chock the wheels.

▲WARNING

Failure to exhaust the suspension air and chock the tires prior to beginning maintenance could result in death or serious injury.

Raise the axle and beam assembly approximately 2"
 (51 mm) and support it with the jack stands. Remove the
 wheel chocks.

▲WARNING

Failure to properly support the axle during maintenance could create a crush hazard, which if not avoided, could result in death or serious injury.

- 5. Remove the wheels.
- 6. Disconnect and remove the air spring assembly.
- Inspect equalizing beams for wear, cracks and inspect welds at axle. If cracks are detected anywhere on an equalizing beam, replace the beam and axle assembly immediately.

IMPORTANT: NEVER repair a cracked equalizing beam. DO NOT weld cracks.

▲WARNING

Failure to replace a cracked equalizing beam or axle could cause loss of vehicle control which, if not avoided, could result in death or serious injury.



4. Mounting Plate Removal (same for both sides)

- 1. Remove the old mounting plate. (Removal and replacement of right hand tail piece shown in all images).
- 2. Cut tail piece gussets and top plate within 1/4" to 1/2" of beam face (*Figure 2*).
- 3. Without damaging equalizing beam face, use a grinding wheel to remove the remaining portion of the tail piece top plate and gussets (*Figure 3 and 4*).

IMPORTANT: DO NOT use beam if beam face/material is damaged. Replace beam or beam and axle assembly.

4. Ensure that the surface is clean for attachment of the new tail piece (*Figure 5*).

Figure 2



Figure 3



Figure 4



Figure 5





5. 90549725 and 90549726 Installation

- Measure and mark the center of the equalizing beam (Figure 6).
- 2. Using a square, mark the center of the air spring mounting hole of the front edge of the replacement mounting plate *(Figure 7)*.
- 3. Measure and mark 1.5" (38.1 mm) from center mark towards the inside of the beam on the top face *(Figure 8)*.

Figure 6

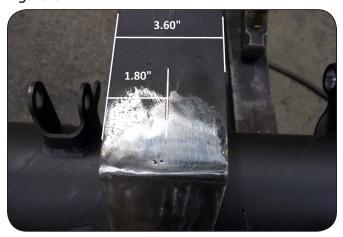
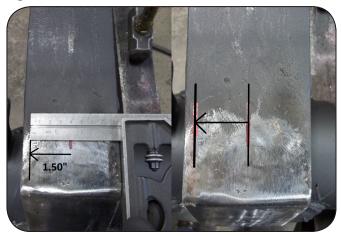


Figure 7



Figure 8





4. Align the center mark of the air spring mounting hole of the mounting plate with the 1.5" (38.1 mm) offset mark on the beam and clamp in place (*Figure 9 and 10*).

NOTE: The front edge of the mounting plate should be $\pm 3^{\circ}$ of perpendicular to beam centerline (*Figure 9*).

5. The mounting plate should be seated as illustrated in *Figure 11*.

NOTE: The bottom face of the top plate should be flush to the outboard side draft of the beam, NOT the inboard side before welding.

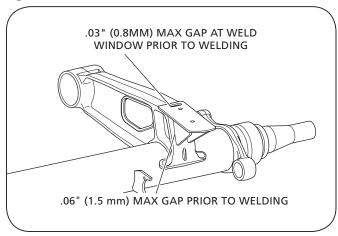
Figure 9



Figure 10



Figure 11





- 6. Tack weld the mounting plate and gusset in place (*Figure 12 and 13*).
- 7. Verify all measurements as specified, ensuring the mounting plate DOES NOT move.
- 8. To verify alignment with mounting plate on opposite side, lay a long straight edge or level across. The mounting plates should have minor to no deviation from one another.
- 9. Weld mounting plate and gusset in place *(Figure 14 and 15)*.
- 10. Clean weld with a grinding wheel
- 11. Paint and/or undercoat the welded area and any adjacent area where paint was removed to facilitate bracket replacement.

Figure 12



Figure 13



Figure 14

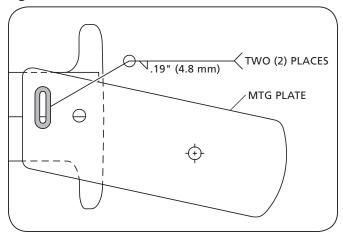
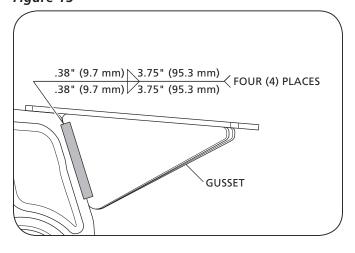


Figure 15





6. 90549802 and 90549803 Installation

- Measure and mark the center of the equalizing beam (Figure 16).
- 2. On the replacement tailpiece, measure and mark 1 1/2" from the center of the air spring mounting hole and align with the centerline mark on the beam *(Figure 17 and 18)*.
- 3. The mounting plate should be seated as illustrated in Section 5, Step 5.
- 4. Tack weld the mounting plate and gusset in place (refer to Section 5, Step 6).

If installing on the rear axle, continue to Step 5. Proceed to Step 6 on all other axles.

- If installing on the rear axle, locate and tack weld the PosiLok™ pad assembly in place (Figure 19 and 20).
- Verify all measurements as specified, ensuring the mounting plate DOES NOT move.

IMPORTANT: Ensure alignment is correct before finish welding. Alignment should be centered on the pad. If applicable, weld PosiLok™ pad assembly in place (*Figure 21*).

7. To verify alignment with mounting plate on opposite side, lay a long a edge or level across. The mounting plates should have minor to no deviation from one another.

NOTE: The mounting plate and gusset weld are the same as Section 5, Step 9.

- 8. Clean weld with a grinding wheel
- 9. Paint and/or undercoat the welded area and any adjacent area where paint was removed to facilitate bracket replacement.
- 10. Re-connect and install air spring assembly. Torque air spring to 30-40 ft-lbs. (41-54 N⋅m).

NOTE: To obtain a copy of your specific suspension's installation drawing, contact the SAF-HOLLAND® Customer Service at 888-396-6501.

- 11. Re-install the wheels, remove the jack stands supporting the axle and beam assembly, and lower the axle.
- 12. Chock the wheels.
- 13. Raise the trailer approximately 2" (51 mm) above ride height and remove jack stands.
- 14. Slowly lower the trailer so the suspension is fully collapsed.
- 15. Apply air to the trailer and allow the suspension to return to ride height.

Figure 16

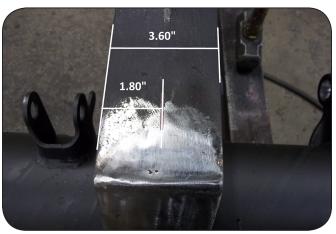


Figure 17

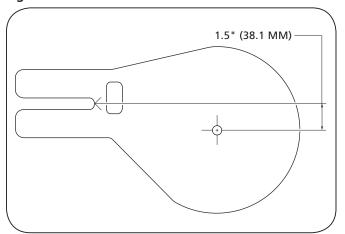
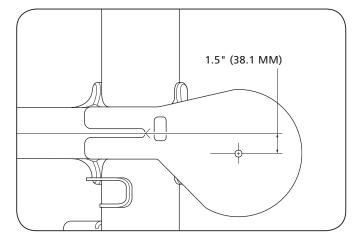


Figure 18





16. With the suspension at rest, measure the ride height. Ride height MUST be within 1/4" (6 mm) of the suspension's specified ride height. refer to your suspension model's specific maintenance manual if ride height needs to be adjusted.

NOTE: A copy of your suspension model's maintenance manual can be found at www.safholland.us or contact our customer service group at 888-396-6501.

NOTE: Verify that all air connection fittings are tight. check all fittings for air leaks by applying a soapy water solution and looking for bubbles.

IMPORTANT: It is the responsibility of the air system installer to secure all air lines and check for any air leaks. If air leaks are detected, repair as required.

CAUTION

Failure to eliminate air leaks could compromise the suspension's performance which, if not avoided, could result in component or property damage.

17. Remove the wheel chocks and return unit to service.

Figure 19

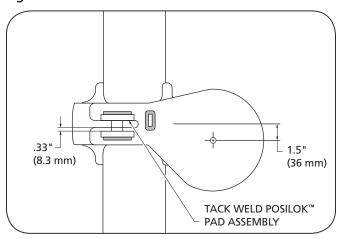


Figure 20

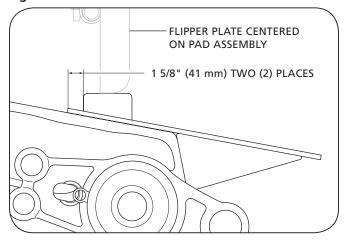
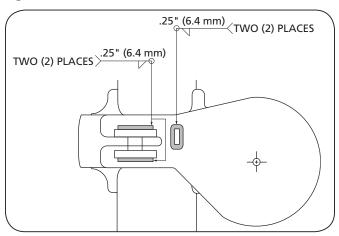


Figure 21





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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