SAF-HOLLAND Group

Owner's Manual

AL Aluminum Low Lube Series Fifth Wheels

- Operation, Maintenance and Troubleshooting Procedures
- FWAL Assembly Series
- XA-AL Top Plate Series

XL-FW10049UM-en-US Rev C

SAF-HOLLAND Group

Contents Page

Contents Page

Introduction

This manual provides the information necessary for the proper operation and maintenance of the HOLLAND® FWAL/XA-AL Series Fifth Wheels.

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.

1. General Safety Instructions

- 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 fifth wheel installation and maintenance MUST be performed by a properly trained technician using proper/special tools, and safety procedures.

NOTE: In the United States, workshop safety requirements are defined by federal and/or state Occupational Safety and Health Act (OSHA). Equivalent laws could 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.

IMPORTANT: Prior to operation of the fifth wheel, verify that the fifth wheel has been properly installed on the vehicle.

⚠WARNING Failure to properly install the fifth wheel could result in tractor-trailer separation which, if not avoided, could result in death or serious injury.

IMPORTANT: These instructions apply to the proper operation of FWAL/XA-AL Series Fifth Wheel top plates ONLY. There are other important checks, inspections, and procedures not listed here that are necessary, prudent, and/or required by law.

- For proper installation procedures, refer to Installation Manual XL-FW10008BM-en-US available on the internet at www.safholland.us.

⚠WARNING Failure to follow all the operating procedures contained in these instructions could result in a hazardous condition or cause a hazardous condition to develop which, if not avoided, could result in death or serious injury.

2. Model Identification

Fifth wheel serial tags are located on the handle side of the fifth wheel top plate above the fifth wheel bracket pin, or on the pickup ramps ***(Figure 1)***.

The part number and serial number are listed on the tag ***(Figure 2)***.

3. Generation Identification

Determining the generation model of the fifth wheel is necessary for certain maintenance procedures and selecting the appropriate rebuild and replacement kits.

Use the criteria below to identify the generation of your fifth wheel:

1. Generation 3 fifth wheels are equipped with a grease port on the left ramp ***(Figure 3)***.
   - These fifth wheels were produced after May 2018.
2. Generation 2 fifth wheels are not equipped with a lubrication port and have two (2) front lock insert retention blocks ***(Figure 4)***.
   - These fifth wheels were produced between May 2013 and April 2018.
3. Generation 1 fifth wheels have one (1) front lock insert retention block ***(Figure 5)***.
   - These fifth wheels were produced before May 2013.

Figure 1

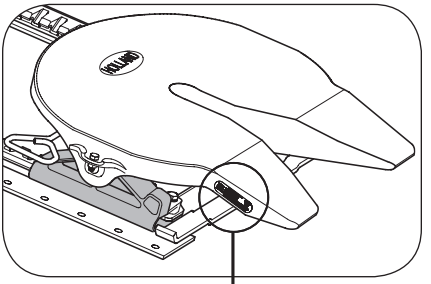


Figure 2

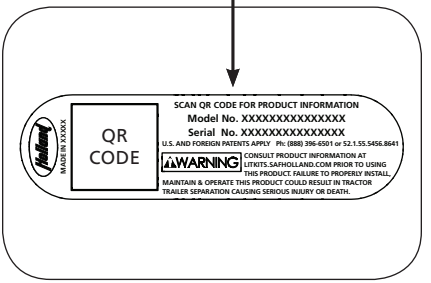


Figure 3

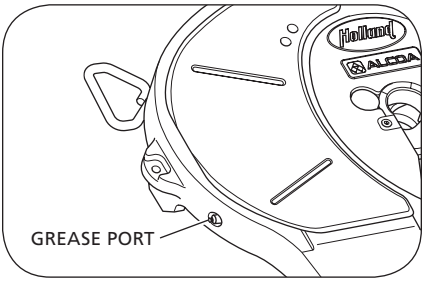
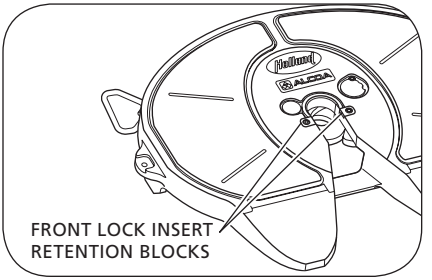


Figure 4



4. Decal Requirements

Decal XL-FW352 ***(Figure 6)*** enclosed in the plastic bag with the Owner's Manual MUST be installed near the fifth wheel and easily viewed by the operator. Place the decal on a flat surface such as the frame rail or on the back of the cab ***(Figure 7)***.

NOTE: Ensure that the surface is free of oil and grease before applying the decal.

It is the responsibility of the end user to periodically inspect the decal and ensure that it is clean and completely legible. If the label is missing, loose, damaged or difficult to read, contact SAF-HOLLAND Customer Service at 888-396-6501 to order replacements immediately.

Figure 5

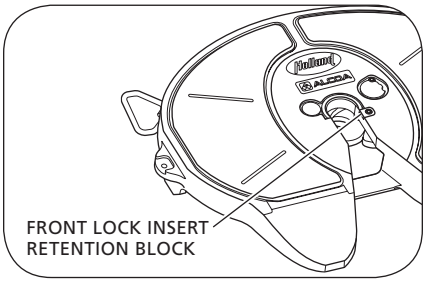


Figure 6

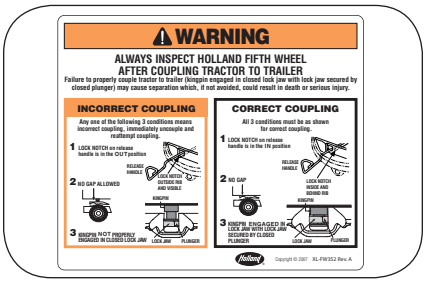
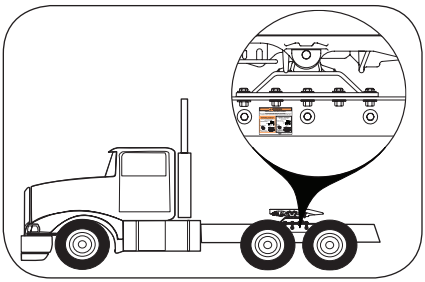


Figure 7



5. Fifth Wheel Intended Use

1. Pulling trailers with standard SAE kingpins which are in good condition and securely mounted or locked in position on the trailer.
2. Transporting loads that are within the maximum fifth wheel rated capacities: 55,000 lbs. Maximum Vertical Load 150,000 lbs. Maximum Drawbar Pull.
3. In on-road applications.

IMPORTANT: SAF-HOLLAND definition of off-road refers to terrain on which a tractor-trailer operates which is unpaved and rough, or ungraded. Any terrain NOT considered part of the public highway system falls under this heading.

4. As recommended in SAF-HOLLAND literature available on the internet at www.safholland.us.

6. Fifth Wheel Non-Intended Use

1. Operating with a non-SAE compliant kingpin, such as kingpins which are bent, have improper size or dimensions, NOT secured to maintain SAE configuration, or are installed in warped trailer bolster plates or upper coupler and fifth wheel lube plates that DO NOT maintain the SAE kingpin dimensions. Refer to the SAF-HOLLAND Service Bulletin XL-SB004-01 (available on the internet at www.safholland.us) for more information on fifth wheel lube plates.

⚠WARNING Failure to couple with a SAE compliant kingpin could result in improper coupling, allowing tractor-trailer separation, which, if not avoided, could result in death or serious injury.

2. Tow-away operations which damage or interfere with the proper operation of the fifth wheel.
3. The attachment of lifting devices.
4. The transport of loads in excess of rated capacity.
5. In off-road applications.
6. Applications other than those recommended in SAF-HOLLAND literature available on the internet at www.safholland.us.

7. Coupling Preparation

1. Prior to coupling, an inspection MUST be performed on the fifth wheel and mounting to verify the following:
   - Confirm that the lube plates are in place and firmly fastened.
   - Tighten loose fasteners.
   - Replace missing fasteners.
   - Repair/replace missing, cracked or otherwise damaged components.
   - For a sliding fifth wheel, ensure that both plungers are fully engaged.
   - Inspect air line connections.
   - Ensure that the fifth wheel is in the appropriate position for weight distribution on the tractor. For proper positioning of the fifth wheel, refer to SAF-HOLLAND publication XL-FW10008BM-en-US available on the internet at www.safholland.us.
2. Ensure that the coupling area is flat, level, and clear of persons and obstacles.

3. Tilt the ramps of the fifth wheel downward ***(Figure 8)***.
4. Ensure that the lock is open ***(Figure 9)***. If the lock is closed, slide the release handle forward and pull completely out ***(Figure 10)***. If equipped with air release, set the tractor brakes and actuate the fifth wheel control valve to open the lock.
5. Inspect the leading edge of the trailer bolster/skid plate. It MUST be free of any square or sharp edges ***(Figure 11)***.
6. Ensure that there are no bolts or nuts extending below the bolster/skid plate within 152 mm (6.0") of the fifth wheel travel path while coupling.

Figure 8

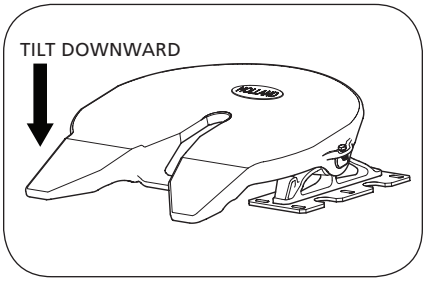


Figure 9

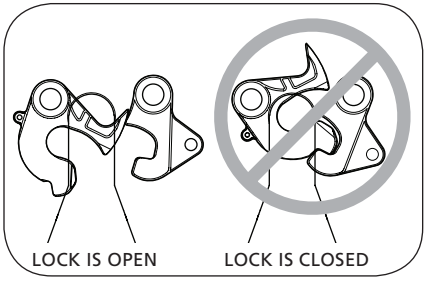


Figure 10

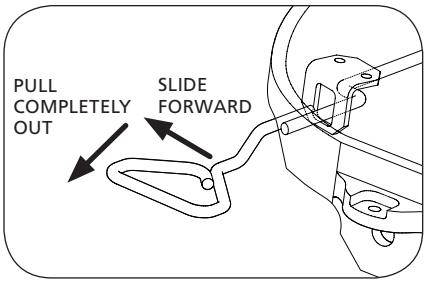
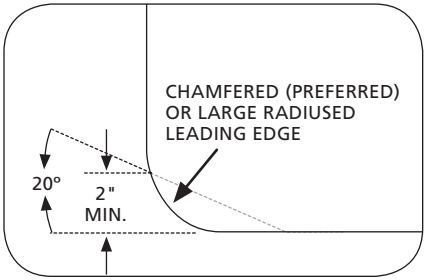


Figure 11



7. The area supported by the fifth wheel should be free of any large holes or gouges ***(Figure 12)***.
8. Any access holes that the fifth wheel passes beneath should have chamfered or radiused edges.
9. Check that any splits from the skid plate to the bolster plate are welded adequately, and that there are no sharp edges or abrupt changes in elevation ***(Figure 13)***.
10. The upper coupler should extend adequately rearward to maintain full contact with the fifth wheel during tight turning. If it DOES NOT, at a minimum, the rear edges should be chamfered or radiused edges.
11. Ensure that any upper coupler residual grease is free of heavy course grit.
12. Ensure the upper coupler fifth wheel contact surface is free of rust and is NOT painted. The area should be conditioned with a rust inhibitor such as a light oil.
13. Verify that the kingpin is NOT obstructed by a kingpin lock or other security device.

⚠WARNING Failure to remove the kingpin lock prior to coupling may result in improper coupling which, if not avoided, could result in death or serious injury.

14. Inspect the kingpin for excessive wear and damage (using HOLLAND Kingpin Gage tool TF-0110) and inspect for any bowing of the bolster plate. (Refer to SAE 1700.)

Figure 12

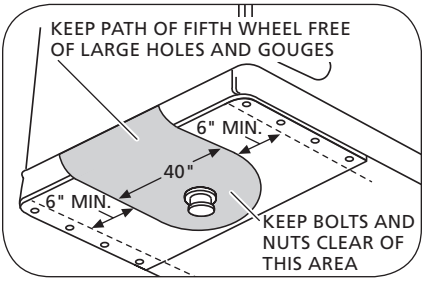
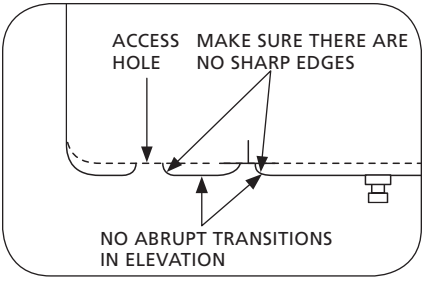


Figure 13



8. Coupling Procedures

IMPORTANT: Following the proper coupling procedures for FWAL Low Lube fifth wheels is extremely important.

CAUTION Failure to follow all of the procedures contained in these coupling instructions may result in damage to the lube plates.

1. Chock the trailer wheels.
2. Position the tractor so the center of the fifth wheel is aligned with the kingpin.
3. Traveling in a straight line, slowly back the tractor to the trailer. STOP the tractor before making contact with the trailer ***(Figure 14)***.

IMPORTANT: DO NOT make contact between the fifth wheel and trailer or damage to the lube plates could occur.

4. Place the tractor into neutral and set the parking brake.
5. Completely exhaust the air from the tractor suspension, ensuring that the fifth wheel is below the contact surface of the trailer ***(Figure 15)***.
6. Exit the cab and ensure that the fifth wheel is below the upper coupler plate. Verify proper fifth wheel height. If the trailer is too low, use landing gear to raise the trailer height.

NOTE: For proper operation of the landing gear, follow the instructions published by the landing gear manufacturer.

7. Slowly back up, using the lowest gear possible. Stop when the fifth wheel is under the leading edge of the trailer ***(Figure 16)***.

Figure 14

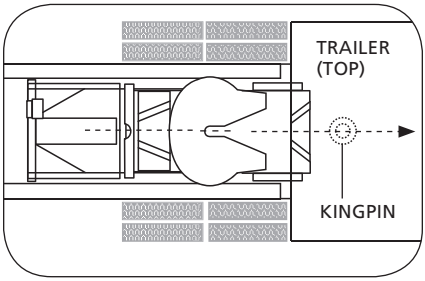


Figure 15

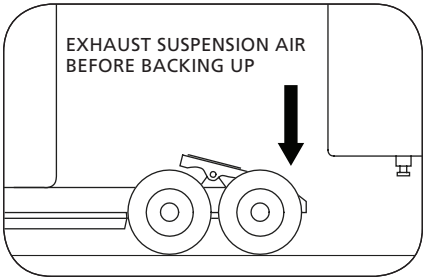
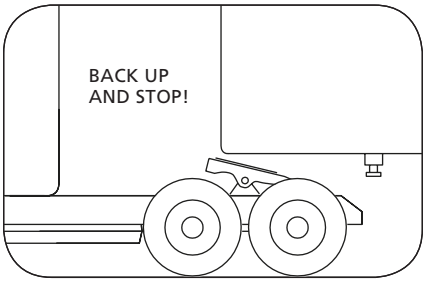


Figure 16



8. Place the tractor into neutral and set the parking brake. Exit the cab and verify proper fifth wheel-to-kingpin alignment.
9. Adjust the tractor suspension to the ride height. The fifth wheel plate face MUST make contact with the upper coupler plate ***(Figure 17)***. If the fifth wheel DOES NOT make contact with the upper coupler plate, use the landing gear to lower the trailer until the fifth wheel makes contact.

IMPORTANT: If the trailer is too high, the kingpin will NOT properly connect with the lock jaw.

⚠WARNING Failure to couple with the trailer at the proper height could result in improper coupling, allowing tractor-trailer separation, which if not avoided, could result in death or serious injury.

IMPORTANT: NEVER inflate the tractor suspension when the kingpin is above the throat of the fifth wheel.

CAUTION Failure to avoid inflating the tractor suspension when the fifth wheel is not forward of the kingpin, could result in damage to the kingpin and fifth wheel.

10. Slowly back into the trailer, engaging the kingpin into the fifth wheel.
11. Connect the air and electrical lines.
12. Raise the landing gear legs until the pads are just above the ground.
13. Perform a pull test as an INITIAL CHECK by locking the trailer brakes and pulling forward with the tractor to ensure that tractor-trailer separation DOES NOT occur ***(Figure 18)***.

Figure 17

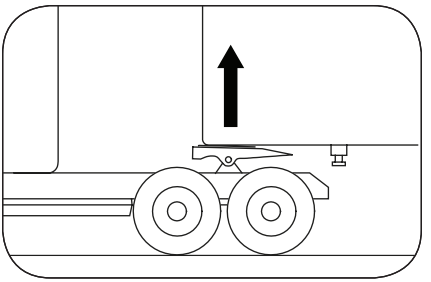
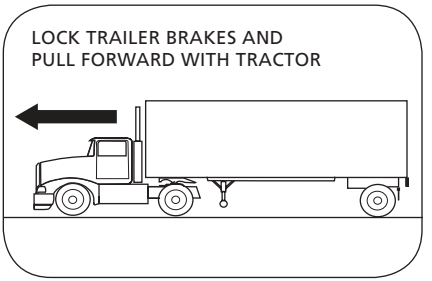


Figure 18



14. Place the tractor into neutral and set the parking brake.
15. Exit the cab and visually inspect for the following to ensure that the lock is closed ***(Figure 19)***.
    a. Release handle fully retracted with the lock notch behind the rib.
    b. No gap is permissible between the trailer upper coupler plate and the fifth wheel.
    c. Lock securely closed around the kingpin.
16. If proper coupling has NOT been achieved, repeat the coupling procedure.

⚠WARNING Failure to properly couple the tractor and trailer could result in tractor-trailer separation while in use which, if not avoided, could result in death or serious injury.

IMPORTANT: DO NOT use any fifth wheel that fails to operate properly.

⚠WARNING Failure to repair a malfunctioning fifth wheel before use could result in tractor-trailer separation which, if not avoided, could result in death or serious injury.

17. Fully retract the landing gear legs off the ground and secure the crank handle ***(Figure 20)***.

NOTE: For proper operation of the landing gear, follow the instructions published by the landing gear manufacturer.

18. Remove the wheel chocks and continue with the pre-trip inspection.

Figure 19

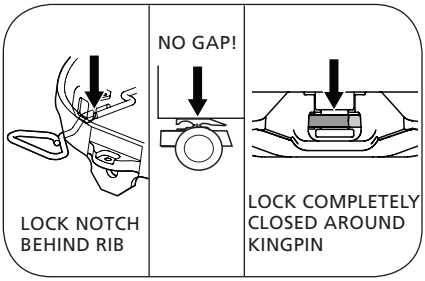
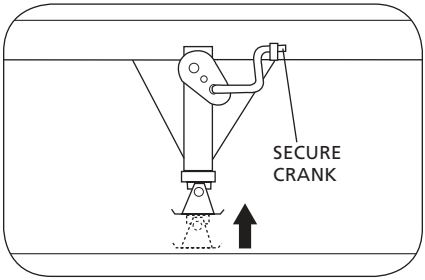


Figure 20



9. Uncoupling Procedures

IMPORTANT: Following the proper uncoupling procedures for FWAL Low Lube fifth wheels is extremely important.

CAUTION Failure to follow all of the procedures contained in these uncoupling instructions may result in damage to the lube plates.

1. Position the tractor and trailer, in straight alignment, on firm, level ground clear of obstacles and persons.
2. Set the trailer brakes.
3. Slowly back the tractor tightly against the trailer to relieve pressure on the fifth wheel lock.
4. Place the tractor into neutral and set the parking brake.

IMPORTANT: DO NOT exhaust air from the tractor suspension before uncoupling.

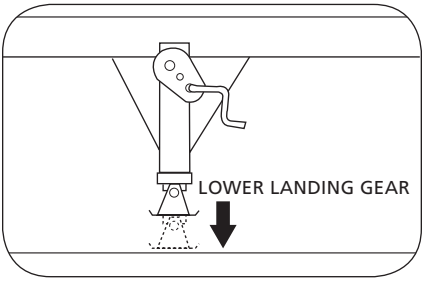
CAUTION Failure to avoid exhausting air from the tractor suspension before uncoupling could result in difficulty uncoupling the tractor from the trailer which, if not avoided, could result in damage to the fifth wheel and kingpin.

5. Chock the trailer wheels.
6. Lower the landing gear until the pads just touch the ground ***(Figure 21)***.

NOTE: For proper operation and ability to transfer the trailer weight from the fifth wheel, follow the instructions published by the landing gear manufacturer. DO NOT raise the trailer off of the fifth wheel.

7. Disconnect the air and electrical lines from the trailer and secure to the tractor.

Figure 21



8. Slide the release handle forward, pull completely out, slide the handle forward and hook on the handle bracket underneath the top plate ***(Figure 22)***. If equipped with air release, pull and hold the fifth wheel release valve until the locking mechanism opens and locks in place.
9. Release the tractor parking brake and slowly pull forward 12"-18" (306-457 mm) to disengage the kingpin from the fifth wheel. The fifth wheel should be between the front edge of the trailer and the kingpin ***(Figure 23)***.

IMPORTANT: DO NOT drive the tractor free of the trailer.

10. Place the tractor into neutral and set the parking brake. Completely exhaust air from the tractor suspension, ensuring that the fifth wheel is below the contact surface of the trailer ***(Figure 24)***.
11. Visually inspect uncoupling. Ensure that the trailer is completely supported by the landing gear.
12. Release the tractor parking brake and slowly pull away from the trailer.
13. Apply air to the tractor air suspension and allow the suspension to return to ride height ***(Figure 25)***.

10. Positioning Sliding Fifth Wheels

⚠WARNING NEVER reposition a sliding fifth wheel while the tractor-trailer is in motion or on public roads. Failure to avoid could cause loss of vehicle control or tractor-trailer separation which, if not avoided, could result in death or serious injury.

1. Position the tractor and trailer, in straight alignment, on firm, level ground clear of obstacles and persons.

Figure 22

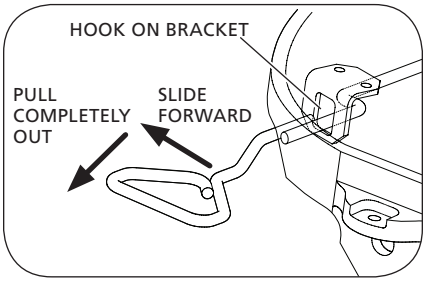


Figure 23

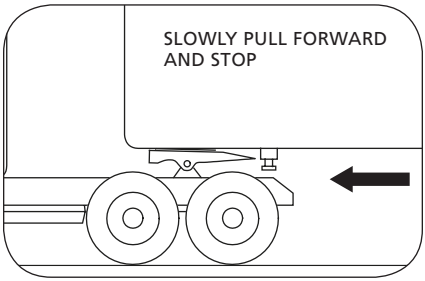


Figure 24

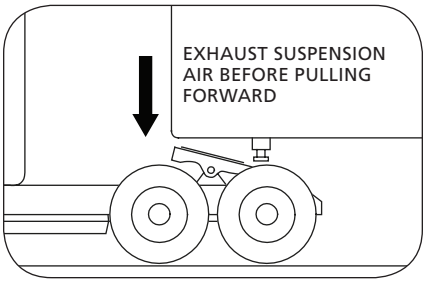
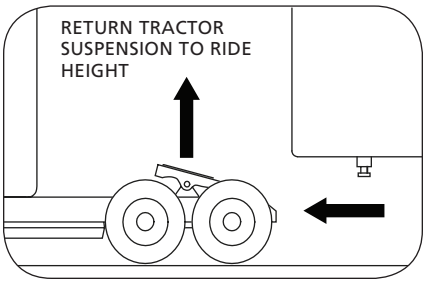


Figure 25



2. Place the tractor into neutral and set the tractor and trailer parking brakes.

CAUTION Failure to stop and properly lock the tractor and trailer brakes could cause uncontrolled sliding of the fifth wheel which, if not avoided, could result in component damage to the tractor or trailer.

3. Release the slide locking plungers by moving the cab switch to the unlock position ***(Figure 26)***. If equipped with manual slide release, pull the release lever. If the plungers DO NOT come out, lower the landing gear to relieve pressure on the fifth wheel. This will allow the fifth wheel to slide easier.

NOTE: Cab switch style may differ by OEM.

4. Visually inspect and verify that the plungers are disengaged.
   - ***Figure 27 - ILS Sliders***
   - ***Figure 28 - Traditional Sliders***
5. Release the tractor parking brake while keeping the trailer brakes engaged.
6. Slowly drive the tractor forward or backward to position the fifth wheel. Stop the tractor at the desired position.
7. Re-engage the slide locking plungers by moving the cab switch to the lock position ***(Figure 29)***. If equipped with manual slide release, pull the release arm to allow the plungers to retract.
8. Place the tractor into neutral and set the parking brake.

Figure 26

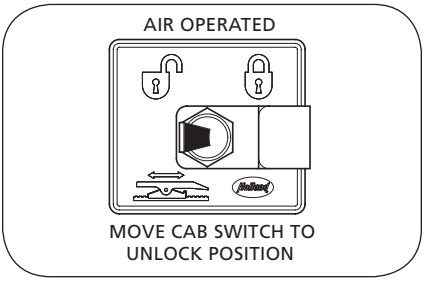


Figure 27

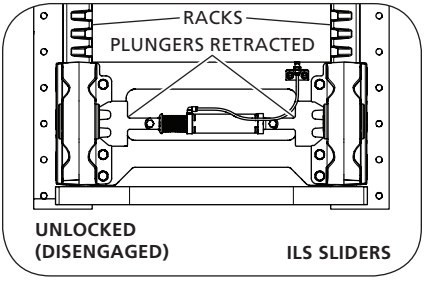


Figure 28

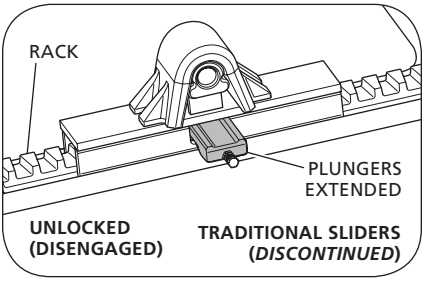
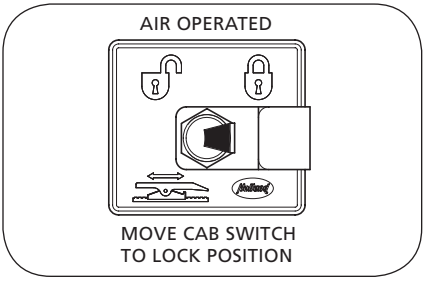


Figure 29



9. Visually inspect the plungers to ensure proper engagement.
   - ***Figure 30 - ILS Sliders***
   - ***Figure 31 - Traditional Sliders***
10. Retract the landing gear legs, if lowered.
11. Verify that the slide locking plungers have been re-engaged by performing a pull test ***(Figure 32)***.

IMPORTANT: DO NOT operate the vehicle if the plungers are NOT fully engaged (locked).

⚠WARNING Failure to properly engage the plungers and slide base could cause loss of vehicle control which, if not avoided, could result in death or serious injury.

11. Fifth Wheel Maintenance

IMPORTANT: All maintenance MUST be performed by a properly trained technician using proper tools and safe procedures.

IMPORTANT: All maintenance MUST be performed while the tractor is uncoupled from the trailer.

⚠WARNING Failure to properly maintain the fifth wheel could result in tractor-trailer separation which, if not avoided, could result in death or serious injury.

1. For steps required for fifth wheel maintenance, refer to Step 1 of Section 7 and all steps in Sections 12 through 20.

NOTE: Removal of the fifth wheel top plate is NOT required for maintenance but may be required when performing repairs.

Figure 30

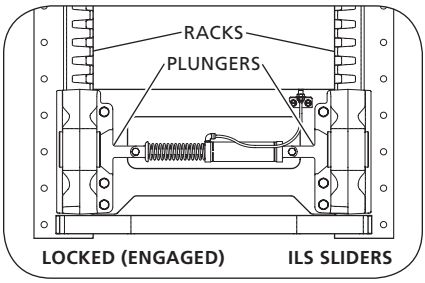


Figure 31

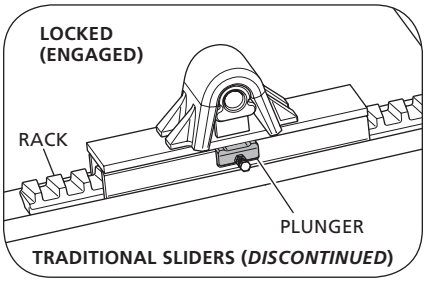
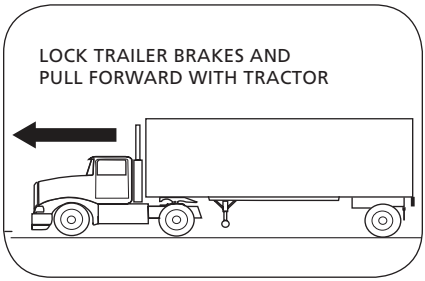


Figure 32



12. Top Plate Removal

IMPORTANT: The FWAL series fifth wheel assembly has replaceable pocket inserts installed between the fifth wheel top plate and mounting base. When removing the top plate, take care NOT to lose the pocket inserts.

⚠CAUTION Failure to prevent pocket inserts from falling out of the top plate could cause a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

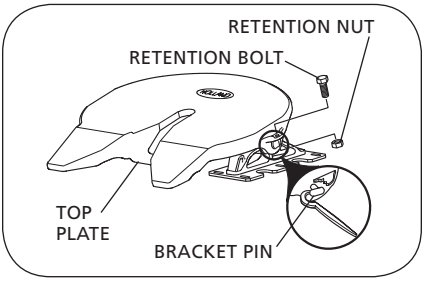
1. Remove the bracket pin retention nuts and bolts from both sides of the fifth wheel top plate ***(Figure 33)***.
2. Using a pry bar, pull the bracket pins out of the fifth wheel top plate ***(Figure 33)***.

IMPORTANT: Some fifth wheel assemblies contain bracket shims between the top plate and the mounting base. Take care when removing the bracket pins as they may fall out when removed.

3. Using a lifting device capable of lifting 500 lbs. (227 kg), remove the top plate from the mounting base. Place the fifth wheel on a flat, clean working area.

NOTE: Follow instructions published by the lifting device manufacturer for the proper operation of the lifting device.

Figure 33

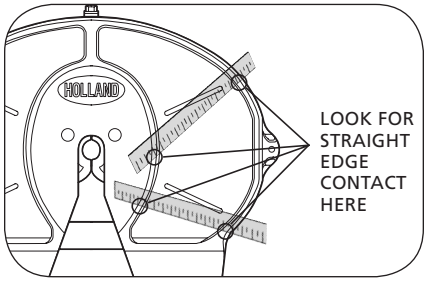


13. Lube Plate Inspection

Thoroughly steam clean the top surface of the fifth wheel for visual inspection. Replace the lube plates if:

- One or both lube plates is missing.
- A straight edge laid across the lube plate contacts any metal portion of the fifth wheel surrounding the lube plates ***(Figure 34)***.
- Lube plates are severely chipped, worn, cracked, gouged or bent.
- 20% (40 sq. in.) or more of lube plate coating is missing from one or both plates due to normal wear or damage.

Figure 34



14. Fifth Wheel Lubrication

IMPORTANT: Fifth wheel lubrication is necessary to get the maximum service life from the FWAL series fifth wheel. Perform the following procedures at the intervals listed.

- FWAL fifth wheels are equipped with NoLube™ lube plates that eliminate the need to lubricate the fifth wheel-to-trailer contact surfaces.
- Lubricate the locking mechanism every three (3) months or 30,000 miles.
- Thoroughly clean the locking mechanism every six (6) months or 60,000 miles.

IMPORTANT: For fifth wheels that operate in snowy or icy winter conditions, lubrication should be performed every spring in addition to routine lubrication to ensure optimum operation.

14.A Proper Lubrication Method

1. Using a water-resistant lithium-based grease, lubricate the swing lock-to-hook contact areas and cam track ***(Figure 35)***. For Generation 3 fifth wheels, apply lubrication to the swing lock using the grease zerk located on the fifth wheel ramp.
2. Using a light oil, lubricate the hook pin and release handle pivot ***(Figure 35)***.

14.B As-Needed Lubrication

Clean and lubricate the locking mechanism if operational difficulties (i.e., problems with coupling, uncoupling, or pulling the release handle) arise during the service life of the fifth wheel ***(Figure 35)***.

15. Slide Base Lubrication

NOTE: Slide base should be moved fore and aft at least once a year to maintain optimum performance.

IMPORTANT: If equipped with air release, lubricate the air cylinder every three (3) months or 30,000 miles whichever comes first.

ILS (Integrated Low-Weight) Sliders:

1. Spray the spring-covered piston shaft thoroughly with penetrating oil ***(Figure 36)***.

IMPORTANT: DO NOT use any abrasives on the exposed shaft as they could damage the piston shaft.

2. Remove the supply air line and add two to four (2-4) drops of air tool oil to the cylinder through the supply fitting. Re-install the supply air line ***(Figure 37).***
3. Activate and de-activate the air cylinder two to three (2-3) times to work the air tool oil into the cylinder and onto the piston and verify proper operation.

Figure 35

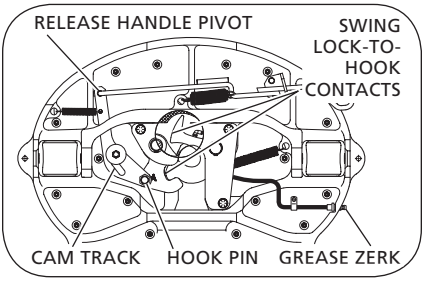


Figure 36

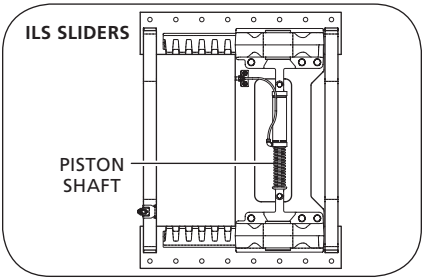
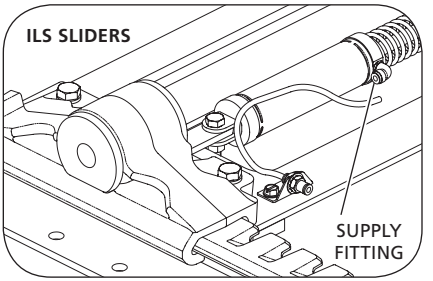


Figure 37



Traditional Sliders (*discontinued*):

1. With the piston shaft in the exposed position, clean with penetrating oil and a clean shop towel ***(Figure 38)***.

IMPORTANT: DO NOT use any abrasives on the exposed shaft as they could damage the piston shaft.

2. Remove the supply air line and add two to four (2-4) drops of air tool oil to the cylinder through the supply fitting. Re-install the supply air line ***(Figure 39).***
3. Activate and de-activate the air cylinder two to three (2-3) times to work the air tool oil into the cylinder and onto the piston and verify proper operation.

16. Fifth Wheel Adjustment

Fifth wheel adjustments should be performed at a minimum of every 60,000 miles or if excessive movement between the kingpin and the fifth wheel is noticed when driving the vehicle.

IMPORTANT: Excessive movement between the tractor and trailer can affect vehicle handling.

⚠WARNING Failure to maintain proper fifth wheel adjustment could result in loss of vehicle control which, if not avoided, could result in death or serious injury.

NOTE: To obtain proper fifth wheel adjustment, SAF-HOLLAND recommends the use of HOLLAND lock tester Part No. TF-TLN-5001, available from a local HOLLAND distributor.

Figure 38

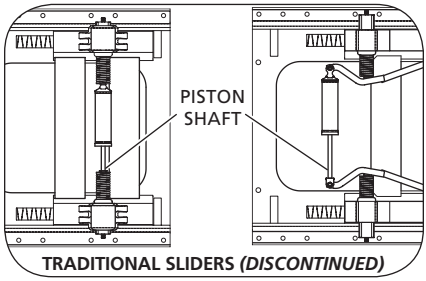
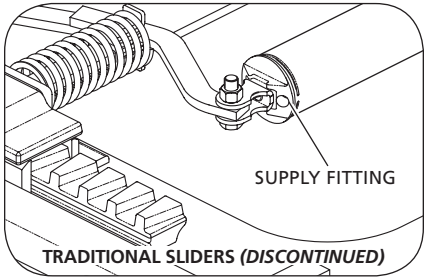


Figure 39



1. If the fifth wheel is locked, slide the release handle forward and pull completely out ***(Figure 40)***. Pry the lock open with a lever bar. If equipped with air release, actuate the fifth wheel control valve to open the lock.
2. Set the lock tester on the fifth wheel top plate.
3. To lock the fifth wheel, rotate the handle on the lock tester clockwise until the lock closes around the kingpin ***(Figure 41)***.
4. Slide the lock tester forward and backward in the closed lock to check for play between the lock and kingpin. Ensure that the tool remains flat with full contact on the fifth wheel top plate. Use a pin gage to measure free play. If free play exceeds 0.080" (2.03 mm), adjust the lock mechanism ***(Figure 41)***.
5. To adjust the lock, remove the low head socket cap screw and rotate the adjusting pin counter-clockwise until the next notch lines up with the cap screw tapped hole. Replace the cap screw. Adjust only one (1) notch at a time ***(Figure 42)***.

NOTE: If the screw cannot be removed, remove the retaining ring from the bottom of the adjusting pin, then lift and rotate the pin to the next notch. Re-Install the retaining ring.

6. Verify the proper adjustment by locking and unlocking the fifth wheel several times with the lock tester. Check that the fifth wheel is properly locked ***(Figure 43)***.

NOTE: To unlock the fifth wheel, push down on the lock tester and rotate the "J" hook under the front skirt of the top plate. Then pull the lock tester handle back.

Figure 40

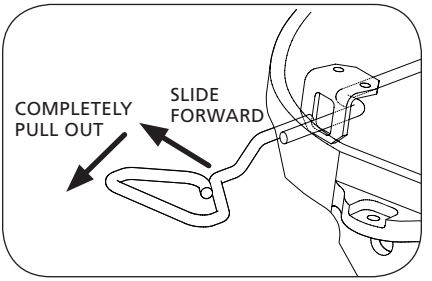


Figure 41

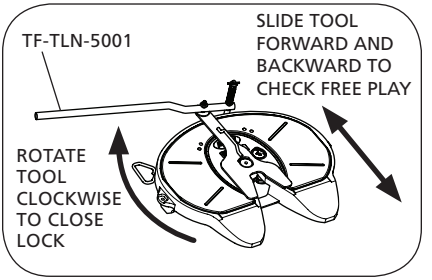


Figure 42

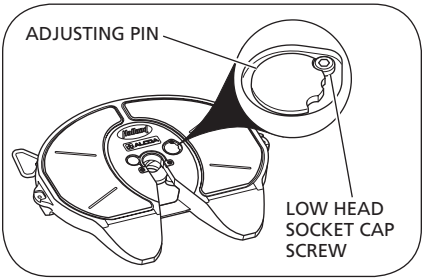
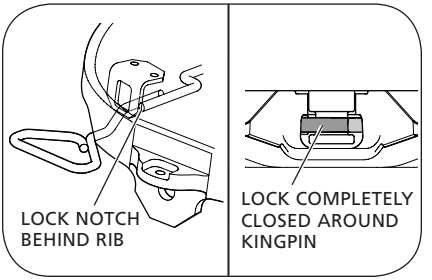


Figure 43



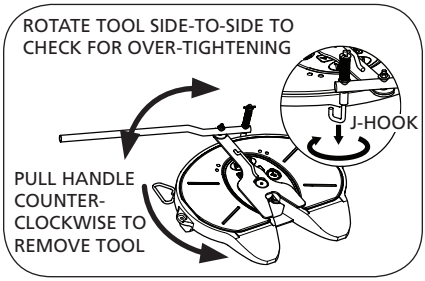
7. Rotate the lock tester from side-to-side to ensure that the lock is NOT over-tightened. The lock should NOT grip the kingpin and the tool should rotate freely ***(Figure 44)***.
8. Disengage the lock tester "J" hook from the front skirt of the casting and re-check for free play in the lock by sliding the lock tester forward and backward, using a pin gage to measure free play ***(Figure 44)***. Free play should be 0.040" (1.02 mm) minimum. If free play still exceeds 0.080" (2.03 mm), repeat the procedure and adjust one more notch.

NOTE: If there is still excessive free play in the lock with the adjusting pin on the last (third) notch, the fifth wheel should be rebuilt using the appropriate SAF-HOLLAND service kit. (Contact SAF-HOLLAND Customer Service at 888-396-6501 for assistance in ordering the appropriate Rebuild Kit.)

IMPORTANT: Before using the fifth wheel, proper operation MUST be verified.

⚠WARNING Failure to verify that the fifth wheel is operating properly could result in tractor-trailer separation which, if not avoided, could result in death or serious injury.

Figure 44



17. Slide Base Adjustment (Traditional Sliders Only - *discontinued*)

NOTE: ILS slider locking plungers DO NOT require adjustment.

Some HOLLAND slide bases are equipped with adjustable locking plungers. Adjustment should be performed at a minimum of every 60,000 miles or if excessive movement is noticed when driving the vehicle. To obtain proper adjustment, follow these procedures:

1. Loosen the lock nut and turn the adjustment bolt counterclockwise ***(Figure 45)***.
2. Disengage and engage the locking plungers. Verify that the locking plungers have engaged properly ***(Figures 46 and 47)***.
3. Tighten the adjustment bolt until it contacts the rack.
4. Turn the adjustment bolt clockwise an additional 1/2 turn, then tighten the lock nut securely.

If the locking plungers DO NOT release fully to allow the fifth wheel to slide:

- Check the air cylinder for proper operation. Replace if necessary.
- Check the locking plunger adjustment as explained above.
- If a locking plunger is binding in the plunger pocket, remove the locking plunger using a HOLLAND TF-TLN-2500 spring compressor. Grind the top edges of the locking plunger 1/16" (1.5 mm) ***(Figure 48)***. Re-install and adjust the locking plungers as explained above.

NOTE: If problems persists, contact SAF-HOLLAND Customer Service: 888-396-6501.

Figure 45

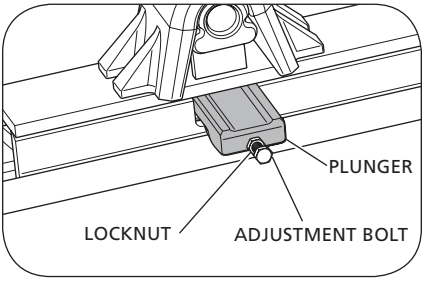


Figure 46

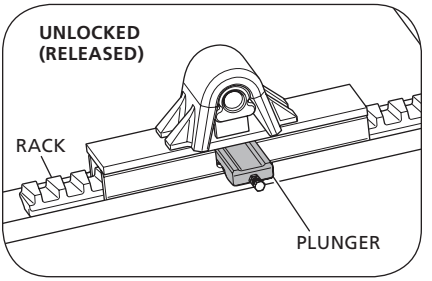


Figure 47

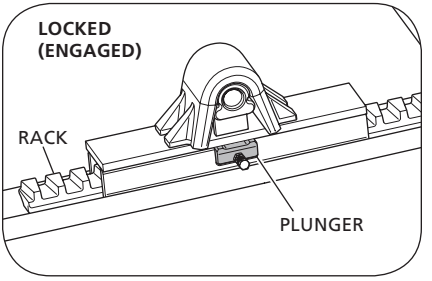
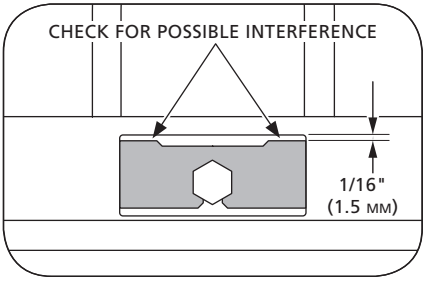


Figure 48



18. Pocket Insert Inspection

Replace pocket inserts if:

- The pocket insert thickness is 1/16" (1.5 mm) or less.
- The free vertical movement of the top plate on the bracket is 1/2" (12.7 mm) or greater, without compressing the rubber bushings ***(Figure 49)***.
- The pocket inserts are severely chipped, cracked or gouged.

19. Bracket Shim Inspection

1. For mounting brackets with a one-piece rubber bushing, a bracket shim is required on each side of the bushing ***(Figure 50)***. Replace bracket shims if:
   - Any of the bracket shims are missing.
   - Bracket shims are cracked, severely bent or worn.
2. If bracket shims need replacing, a rubber washer is also required. The rubber washer MUST be placed between the outside ear of the top plate and the metal bracket shim ***(Figure 50).***
3. If the side-to-side movement of the top plate on the brackets is greater than 3/16" (4.8 mm) with all of the rubber washers and shims from the shim kit installed, the fifth wheel top plate must be replaced.

⚠CAUTION Failure to replace a fifth wheel with side-to-side movement greater than 3/16" (4.8 mm) after installation of the shim kit could result in driver discomfort and difficulty steering which, if not avoided, could cause component damage or moderate injury.

Figure 49

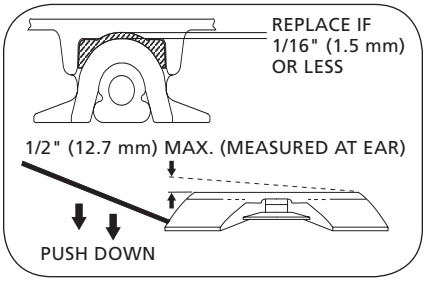
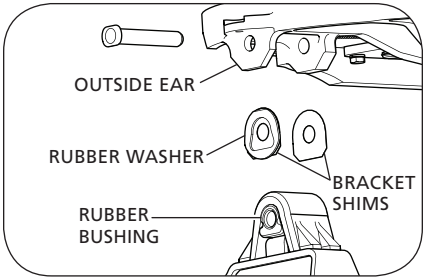


Figure 50



20. Top Plate Installation

1. If the pocket inserts are dislodged from the fifth wheel top plate, clean the pocket areas of the top plate and apply a strip of double-face tape in the bottom of the pockets. Install the pocket inserts by pressing them down into the pockets ***(Figure 51)***.
2. Using a lifting device capable of lifting 500 lbs. (227 kg), install the fifth wheel top plate onto its mounting base.

NOTE: For mounting brackets with a one-piece rubber bushing, a bracket shim is required on each side of the bushing, between the top plate and mounting brackets.

3. Install the bracket pins through the fifth wheel top plate mounting base and bracket shims (if required) and secure by installing the bracket pin retention bolts and nuts ***(Figure 52)***. Torque retention fasteners to 50-60 ft.-lbs. (68-81 N•m).

Figure 51

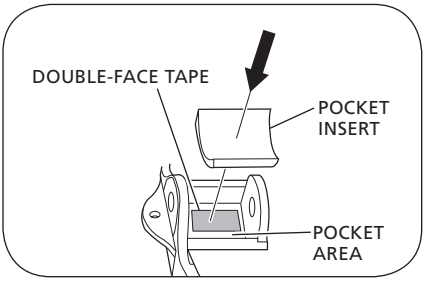
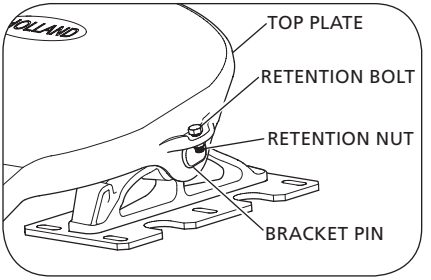


Figure 52



21. Troubleshooting

Difficult to Couple to Trailer:

✓	POSSIBLE CAUSE	REMEDY
	Attempting to couple too fast.	Couple in accordance with the procedures in Section 8.
	The trailer may be too high; the kingpin is not entering the lock properly.	Lower the trailer in accordance with the manufacturer's instructions.
	The lock is closed.	Manually pull the release handle out as far as possible. The lock will swing open. If equipped with air release, set the tractor brakes and actuate the fifth wheel control valve to open the lock.
	Accumulated rust or grime interfering with the lock operation.	Thoroughly clean the fifth wheel and re-lubricate in accordance with the procedures in Section 14.
	The lock is adjusted too tightly.	Check lock adjustments in accordance with the procedures in Section 16.
	The lock may be damaged.	The fifth wheel MUST be rebuilt using the appropriate SAF-HOLLAND service kit.
	Damaged, bent release handle.	Replace the release handle using the appropriate SAF-HOLLAND service kit.
	Bent kingpin, damaged upper coupler, or improper use of lube plates may be interfering with lock movement.	Check the kingpin and upper coupler plate as detailed in HOLLAND Service Bulletin XL-SB020. Repair/replace as required. Remove any improperly installed or improperly specified lube plates. Refer to HOLLAND Service Bulletin XL-SB004-01 for lube plate warnings.

Difficult to Uncouple from Trailer:

✓	POSSIBLE CAUSE	REMEDY
	The tractor may be putting pressure against the lock.	Lock the trailer brakes and back the tractor tightly against the kingpin to relieve the pressure on the fifth wheel lock, set the brakes, then pull the release handle.
	The tractor is too low.	Raise the tractor suspension to the proper ride height.
	The release handle is not pulled out completely and is hooked on the forging.	Slide the release handle forward, pull out the handle, slide it forward, and hook.
	Accumulated rust or grime are interfering with the lock operation.	Thoroughly clean the fifth wheel and re-lubricate in accordance with the procedures in Section 14.
	The lock is adjusted too tightly.	Check lock adjustments in accordance with the procedures in Section 16.
	The release handle will not stay out or must be held out when unlocking.	The fifth wheel MUST be rebuilt using the appropriate SAF-HOLLAND service kit.
	Missing or damaged release system parts.	The fifth wheel MUST be rebuilt using the appropriate SAF-HOLLAND service kit.
	Casting bent/damaged at throat area, restricting movement.	The entire fifth wheel top plate MUST be replaced.
	Bent kingpin, damaged upper coupler, or improper use of lube plates may be interfering with lock movement.	Check the kingpin and upper coupler plate as detailed in HOLLAND Service Bulletin XL-SB020. Repair/replace as required. Remove any improperly installed or improperly specified lube plates. Refer to HOLLAND Service Bulletin XL-SB004-01 for lube plate warnings.

Excessive Movement between the Fifth Wheel and Kingpin:

✓	POSSIBLE CAUSE	REMEDY
	The fifth wheel lock requires adjustment.	Follow the procedures in Section 16.
	The fifth wheel cannot be adjusted further.	The fifth wheel MUST be rebuilt using the appropriate SAF-HOLLAND service kit.
	The kingpin is loose.	Repair the trailer.
	The kingpin is worn.	Check the kingpin for acceptable wear with HOLLAND Kingpin Gauge, TF-0110. Replace kingpin, if necessary.

Hard Steering or Binding:

✓	POSSIBLE CAUSE	REMEDY
	Warped trailer upper coupler plate.	Check the upper coupler plate for flatness and replace, if necessary. Refer to HOLLAND Service Bulletin XL-SB020.

22. Rebuild and Replacement Kits

REBUILD AND REPLACEMENT KITS	PART NUMBER		
	GEN I	GEN II	GEN III
Rebuild Kit - Manual Release	RK-AL-A-L	RK-AL-A-L-MET	RK-AL-A-L-LL
Rebuild Kit - Air Release	N/A	RK-AL-A-80-L	RK-AL-A-80-L-LL
Lock and Hook Replacement Kit - Manual Release	RK-AL-11078		RK-AL-11078-LL
Lock and Hook Replacement Kit - Air Release	N/A	RK-AL-11925	RK-AL-11925-LL
Release Handle Replacement Kit - Manual Release	RK-10495-AL-P		
Release Handle Replacement Kit - Air Release	N/A	RK-AL-11384	
Air Cylinder Replacement Kit	N/A	RK-AL-10999	
Lube Plate Inserts	RK-331-1		
Lube Plate and Pocket Insert Replacement Kit	RK-AL-1		RK-AL-1-LL
Pocket Inserts - Pair	RK-PKT-3		RK-PKT-2
Bracket Shim Replacement Kit	RK-AL-11798		

NOTE: Refer to Page 3, Section 3 for Generation Identification.

SAF-HOLLAND ORIGINAL PARTS™

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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