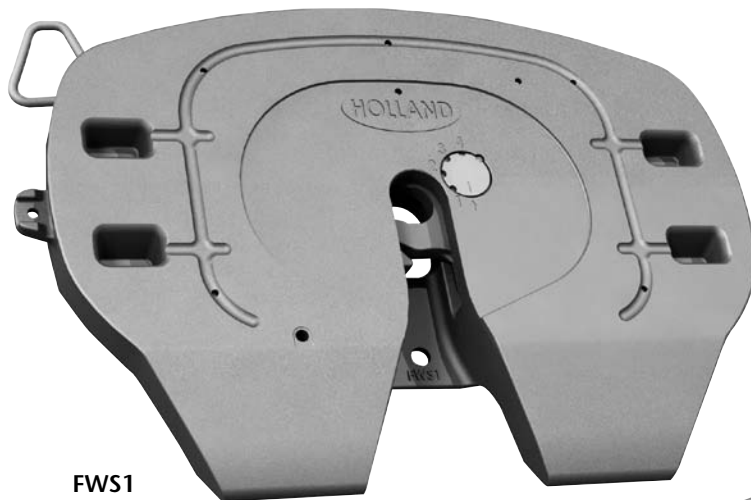




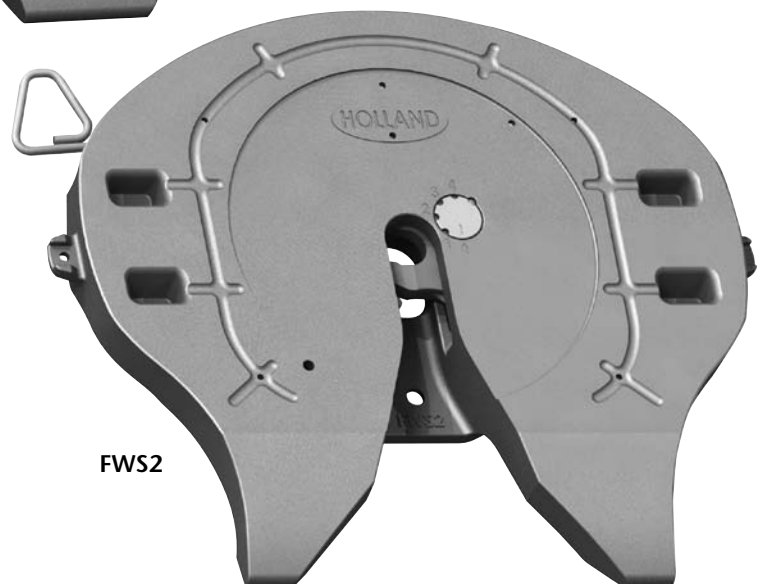
FIFTH WHEELS

FWS1/FWS2 REBUILDING PROCEDURES

RK-FWS-A-L Rebuild Kit Rebuild Procedures for Holland FWS1/FWS2 Fifth Wheels (XA-S1-A-L, XA-S2-A-L Top Plates)



FWS1



FWS2

REBUILDING PROCEDURES

IMPORTANT: All of the required parts in this kit **MUST** be used. **DO NOT** substitute other or used parts.

⚠WARNING Improper part combinations can cause the product to couple improperly which, if not avoided, could result in death or serious injury.

IMPORTANT SAFETY INFORMATION

1. All fifth wheel maintenance must be performed by a qualified service technician using proper tools and safe procedures.
2. Use only SAF-HOLLAND Original Parts.
3. Wear safety goggles during disassembly and assembly of the fifth wheel.
4. Keep fingers away from all potential pinch points in the fifth wheel.
5. Do not weld on this product. Do not deviate from the instructions contained in this manual. Any changes or deviations from these procedures will void all warranties, express or implied, unless prior written consent is obtained from SAF-HOLLAND.
6. Always verify proper operation and adjust the fifth wheel following the procedures contained in this manual before placing back in use.

Disassembly and Inspection:

DISCARD ALL REMOVED COMPONENTS! DO NOT RE-USE ANY PARTS!

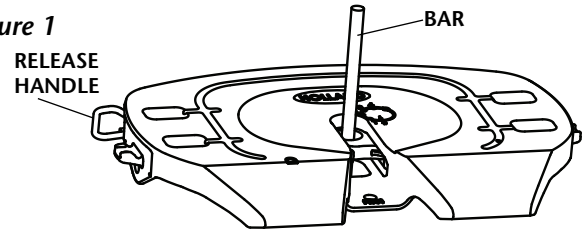
1. Thoroughly steam clean the top plate.
2. Inspect the top plate for cracks and flatness. If the top plate is cracked it must be discarded. The lock adjustment pin on the SAF-HOLLAND FWS1/FWS2 Series is a slip fit. It is not designed to be press fit like other SAF-HOLLAND fifth wheels. However, if the hole is elongated, the top plate must be replaced.

IMPORTANT: DO NOT attempt to repair or service a distorted or cracked top plate. The top plate must be replaced.

⚠WARNING Failure to replace the top plate when required may cause tractor and trailer separation which, if not avoided, could result in death or serious injury.

1. Lock the fifth wheel jaw using a bar or block (Figure 1).

Figure 1

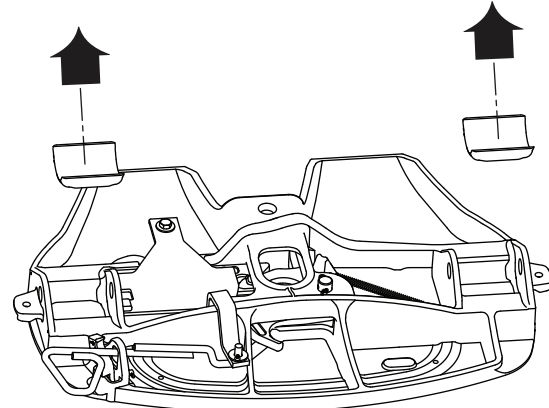


IMPORTANT: Use a bar or block to rotate jaw when opening or closing the locking mechanism. When locking the jaw, stand clear of the release handle as it retracts rapidly during lockup.

⚠CAUTION Lock is spring-loaded. Prevent injury by keeping hands away from lock and jaw which, if not avoided, could result in serious injury to hands or fingers.

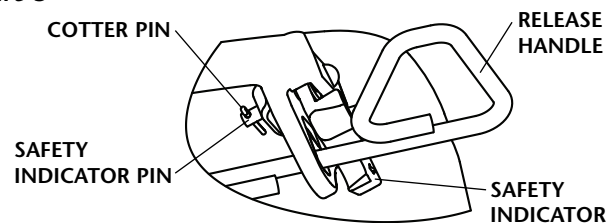
2. Remove the fifth wheel from the tractor.
3. Place the fifth wheel upside down on a well-supported surface.
4. Pry out pocket inserts and discard (Figure 2).

Figure 2



5. Remove the cotter pin from the safety indicator pin, pull the safety indicator pin out of the fifth wheel and discard the cotter pin, safety indicator pin and safety indicator (Figure 3).

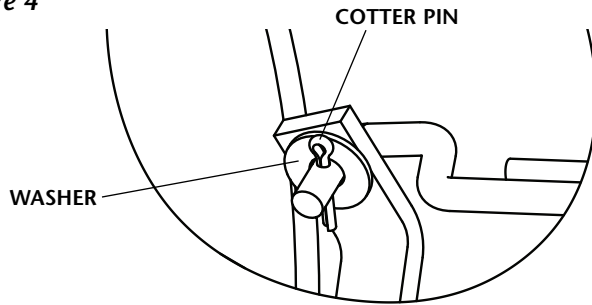
Figure 3



REBUILDING PROCEDURES *continued*

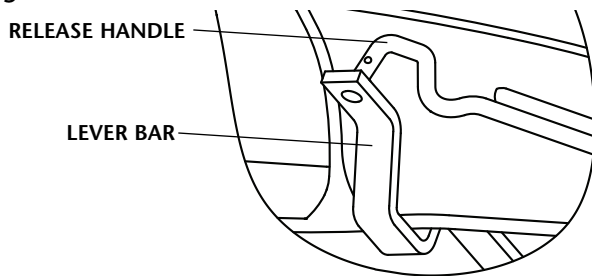
6. Remove the release handle's cotter pin and washer under the top plate (*Figure 4*).

Figure 4



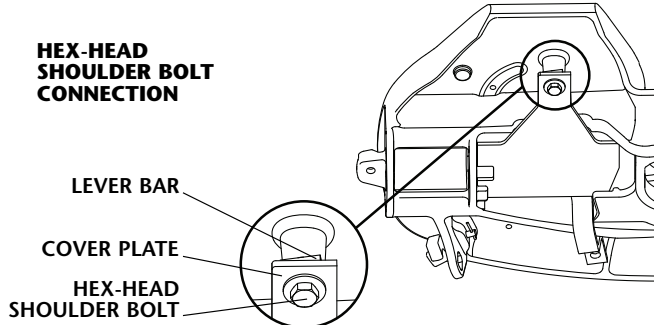
7. Separate the release handle from the lever bar (*Figure 5*).

Figure 5



8. Remove shoulder bolt and washer (*Figure 6*).

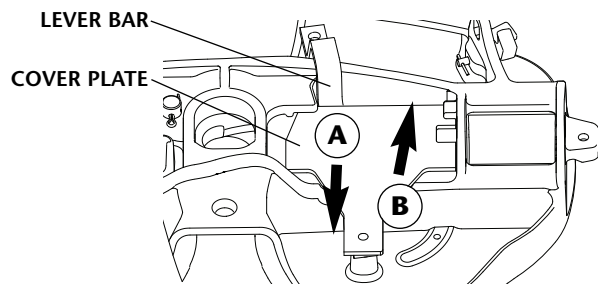
Figure 6



9. Slide the cover plate back until it clears both tabs (Arrow **A**), lift and remove (Arrow **B**) (*Figure 7*).

CAUTION Remove the cover plate slowly. Lock is spring-loaded. Prevent injury by keeping hands away from lock and jaw which, if not avoided, could result in serious injury to hands or fingers.

Figure 7



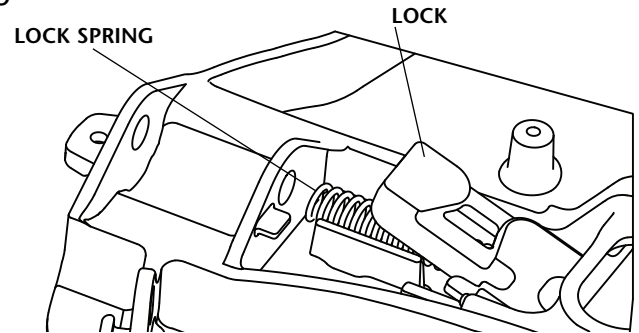
10. Remove the lever bar (*Figure 7*).

IMPORTANT: For reassembly, note how lever bar is inset into surface of lock.

11. Carefully lift up on the lock and lock spring—and remove (*Figure 8*).

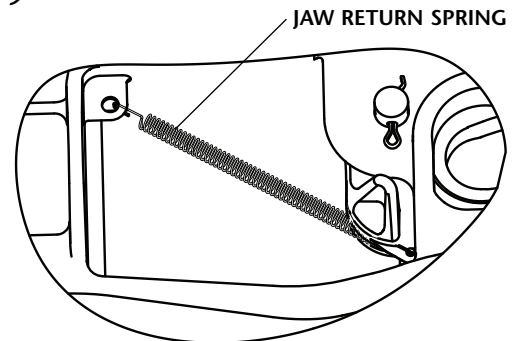
CAUTION Failure to control spring expansion during removal may result in minor or moderate injury.

Figure 8



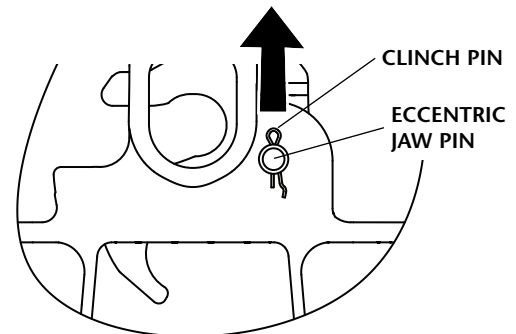
12. Remove the jaw return spring from jaw and fifth wheel (*Figure 9*).

Figure 9



13. Remove the clinch pin from the eccentric jaw pin (*Figure 10*).

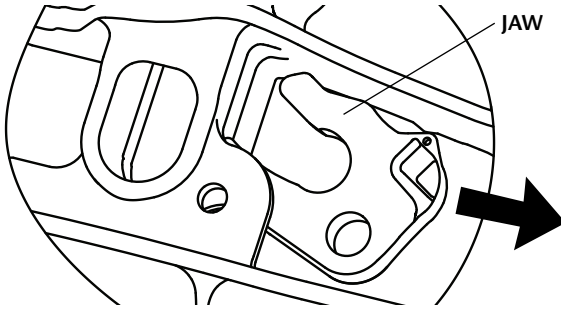
Figure 10



14. Securely lift fifth wheel up on edge, allowing for removal of eccentric pin. Reach under the fifth wheel plate to catch the eccentric jaw pin while tapping the base of the jaw pin.

15. Remove the jaw by sliding it towards the jaw pin side of the fifth wheel and lifting it out (Figure 11).

Figure 11



The fifth wheel is now completely disassembled.

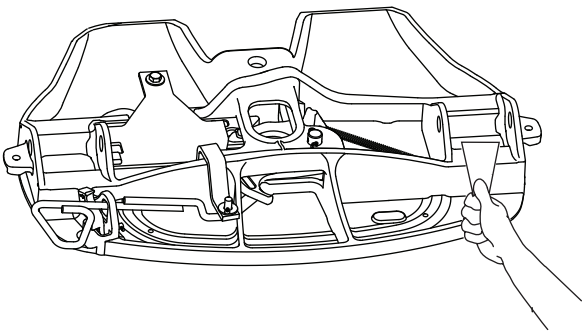
Reassembly

Lubricate the fifth wheel plate lock area and the new locking mechanism parts. With the exception of the specific steps below, reassemble parts in the reverse order.

IMPORTANT: Before reassembling the top plate, follow the two steps below to clean the top plate and reinsert pocket inserts.

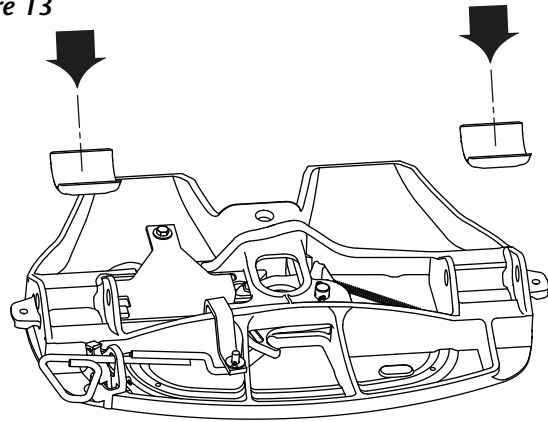
1. Using a putty knife, remove dirt and debris from pockets (Figure 12). Use suitable grease-free cleaner to clean pockets as needed.

Figure 12



2. Attach strip of double-sided tape in bottom of pockets. Install pocket inserts by pressing down into pockets (Figure 13).

Figure 13



IMPORTANT: Do not ship fifth wheel top plate with taped in pocket inserts.

WARNING Pocket inserts could become loose, fall out, and become projectiles which, if not avoided, could result in death or serious injury during open trailer or truck transport.

Fifth Wheel Adjustments

To ensure that the fifth wheel locks properly, perform the Coupling Procedures in the “FWS1/FWS2 Series Owner’s Manual” (XL-FW525).

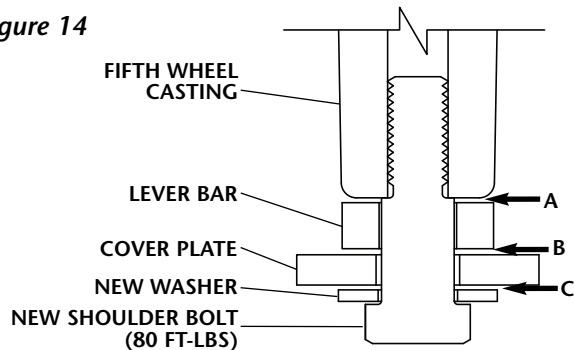
If adjustments are necessary, perform the Required Inspections and Adjustments in the “FWS1/FWS2 Series Owner’s Manual” (XL-FW525).

WARNING Failure to properly operate this fifth wheel may cause tractor and trailer separation which, if not avoided, could result in death or serious injury.

If the fifth wheel does not operate properly, **DO NOT** use it! Contact SAF-HOLLAND Technical Customer Service for assistance.

When installing the new hex-head, shoulder bolt (reverse the order of Step 8 in disassembly), refer to Figure 14.

Figure 14



**NORMAL SPACING (A, B & C) AFTER BOLT INSTALLATION.
FREE PLAY IS THE ALLOWED VERTICAL MOVEMENT (3/16" TOTAL) IN WASHER/COVER PLATE/LEVER BAR STACK.**

TROUBLESHOOTING GUIDE

FIFTH WHEEL FEELS LOOSE IN FIFTH WHEEL LOCK

POSSIBLE CAUSE

1. Fifth wheel lock requires adjustment.
2. Kingpin is loose.

CORRECTIVE ACTION

Follow “*Adjustement - Locking Mechanism*” found in XL-FW525, page 20. Readjust if necessary.

Fix trailer.

FIFTH WHEEL IS DIFFICULT TO COUPLE TO TRAILER

POSSIBLE CAUSE

1. Eccentric jaw pin is overadjusted for kingpin slack.
2. Jaw opening is spread due to a prior high couple attempt.
3. Bent lever bar.
4. Bent release handle.
5. Jammed safety indicator
6. Bent cover plate is interfering with lock movement.
7. Accumulated grime restricts lock operation.
8. Attempting to couple too fast.

CORRECTIVE ACTION

Check the adjustment using a trailer with a new SAE Kingpin, or using a lock tester (HOLLAND # 4000171). Readjust if necessary.

Measure the width of the opening in the jaw. If greater than 2.38”, replace the jaw.

Inspect. If bent, replace.

Inspect. If bent, replace.

Inspect the release handle. If bent, replace it.

Inspect the cover plate for flatness. If bent, replace.

Clean. Add grease to the moving parts and check its operation.

Pick up the trailer with the fifth wheel. Stop. Then continue backing until the fifth wheel locks firmly to the kingpin. Stopping helps prevent hitting the kingpin too hard.

Lower the trailer. (Use low gear on the landing gear).

Manually pull the release handle out as far as possible and swing the hinged lock open.

Replace the top plate casting and the entire fifth wheel assembly.

9. The trailer may be too high. The kingpin is not entering the locks properly.

10. Locks are closed.

11. Top plate is damaged just below the eccentric jaw pin.

* The Simplex lock tester (HOLLAND # 4000171) is used to test proper fifth wheel coupling. It is **NOT** used to test uncoupling.

FIFTH WHEEL IS DIFFICULT TO UNCOUPLE TO TRAILER

POSSIBLE CAUSE

1. Kingpin is applying HORIZONTAL pressure to the jaw.
2. Jaw is adjusted too tightly.
3. Bent lever bar and/or release handle.
4. Bent cover plate is interfering with lock movement.
5. Jaw is tight against the lock because the jaw opening was spread on a high couple, then forced to lock.

CORRECTIVE ACTION

Back the tractor toward the trailer to relieve pressure.

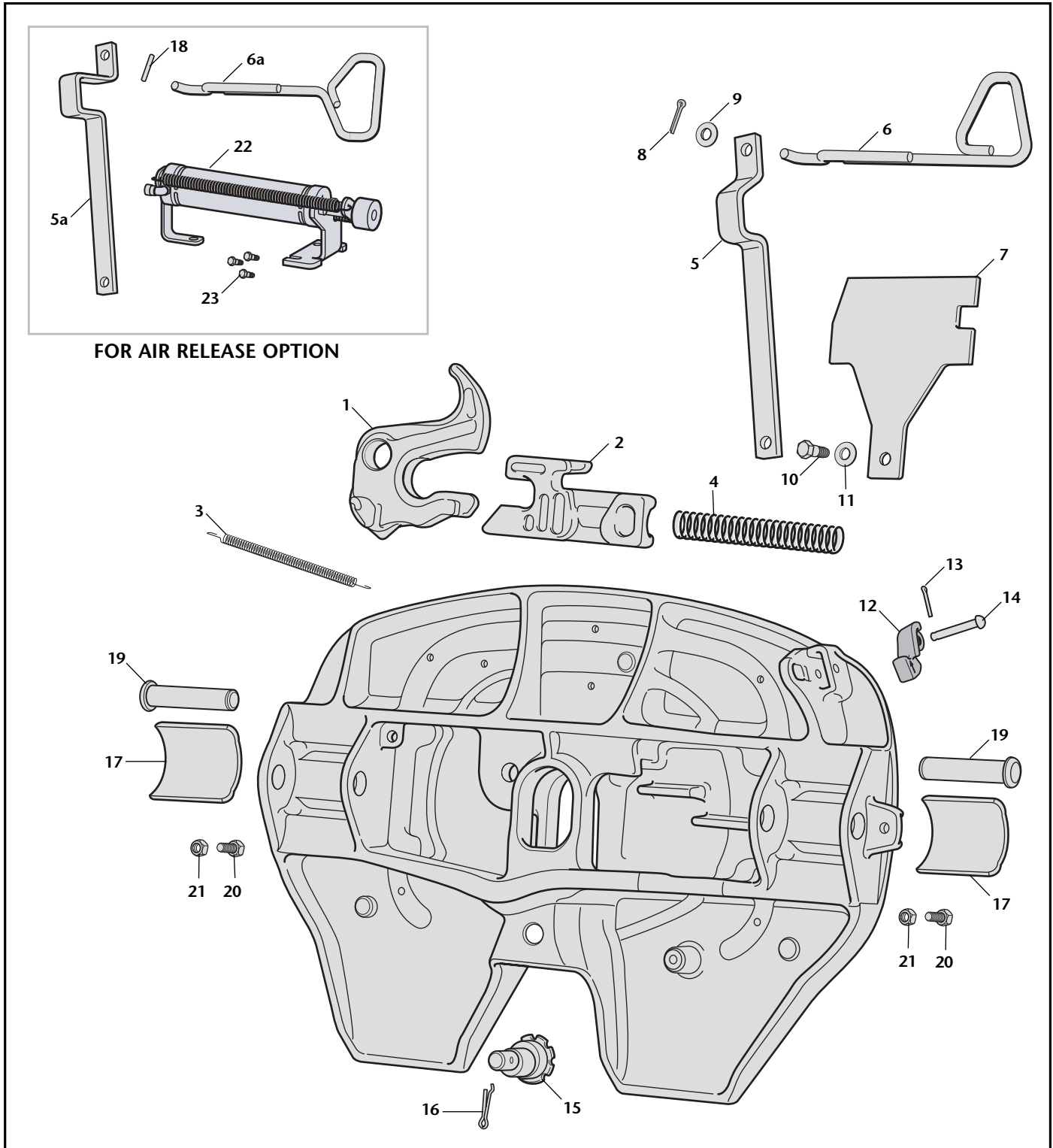
Back the tractor toward the trailer to relieve pressure on the jaw. Then, unlock the wheel. Readjust, if necessary.

Inspect and replace, if required.

Inspect the cover plate for flatness. Replace if necessary.

Back the tractor into the trailer to relieve pressure on the jaw. Fully extend the release handle. Use a pry bar to disengage the lock from the jaw.

XA-S1-A-L SERIES EXPLODED VIEW



XA-S1-A-L SERIES PARTS LIST

ITEM	PART NAME	SAF-HOLLAND PART NO.	QTY.
1	Jaw	XA-4109939	1
2	Lock	4109931	1
3	Jaw Return Spring	1200101	1
4	Lock Spring	1200706	1
5	Lever Bar (Manual Pull)	4100373	1
5a	Lever Bar (Air Release)	XA-11113	1
6	Handle (Manual Pull)	XA-10990	1
6a	Handle (Air Release)	XA-11112	1
7	Cover Plate	XA-10969	1
8	Cotter Pin 3/16" x 1-1/4"	XB-11091	1
9	Washer 1/2"	XB-T-49	1
10	Hex Head Shoulder Bolt	XB-11127	1
11	Washer 5/8"	XB-T-199	1
12	Lock Indicator	XD-11121	1
13	Cotter Pin 1/8" x 1-1/4"	84261	1
14	Indicator Pin	XB-10996	1
15	Eccentric Jaw Pin	XA-10971	1
16	Clinch Pin 3/16" x 1-1/4"	9900170	1
17	Pocket Insert (Qty 2)	RK-PKT-2	2
18	Roll Pin 3/16" x 1.15"	9900181	1
19	Bracket Pin	XE-06356	2
20	HHCS 1/2" – 20 x 1-1/4"	XB-C-95	2
21	Locknut 1/2" – 20	XB-T-69-A	2
22	Air Cylinder	XA-10999	1
23	HHCS 3/8" – 16 x 1/2"	XB-11027	3



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