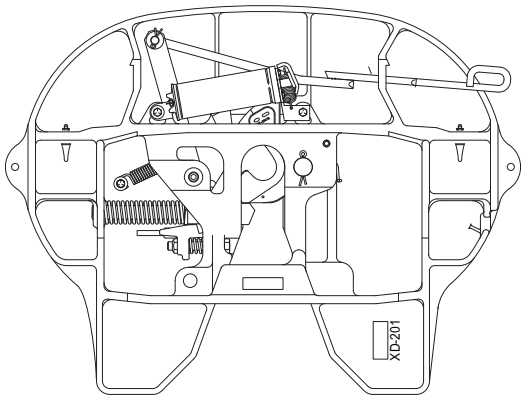
FLEETMASTER

XA-201-A-80-L AIR RELEASE FIFTH WHEEL TOP PLATE REBUILDING PROCEDURES



XA-201-A-80-L TOP PLATE

RK-201-A3-80-L Service Kit

Left-Hand (Road Side) Release

Before rebuilding, review the trouble-shooting hints below. You may find that rebuilding is unnecessary. If rebuilding is required, refer to the figure above to be sure you have the correct kit for your fifth wheel.

TROUBLE SHOOTING HINTS

Kingpin is Loose in Fifth Wheel Lock:

✔	POSSIBLE CAUSE	REMEDY
☐	Lock is on first step.	Check to see if the lock and plunger match ***Figure 30C*** on Page 8. If they do, back the adjustment bolt out until the bolt is flush with the end of the nut. Then, follow adjustment procedure on Page 8.
☐	Fifth wheel lock requires adjustment.	Follow "*Lock Adjustment Procedure*" found on Page 8 in this manual.

Fifth Wheel is Hard to Hook Up to Trailer:

✔	POSSIBLE CAUSE	REMEDY
☐	Attempting to couple too fast.	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.
☐	The trailer may be too high. The kingpin is not entering the locks properly.	Lower the trailer. (Use low gear on the landing gear.)
☐	Locks are closed.	Manually pull the release handle out as far as possible and swing the hinged lock open.
☐	Accumulated rust or grime interfering with the lock operation.	Spray a durable light lubricant — such as Lubriplate™ Chain and Gear Oil — on all moving parts, including the release handle and operate several times.
☐	The locks are adjusted too tightly.	Check lock adjustments in accordance with the procedure in this manual.
☐	Bent release handle or kingpin or damaged bolster plate may be interfering with lock movement.	Check release handle for damage. Check the kingpin with a SAF-HOLLAND TF-0110 Kingpin Gage and bolster plate with a 48˝ straightedge. Repair or replace as required. (Reference XL-SB20.)
☐	The locks may be damaged.	The fifth wheel ***MUST*** be rebuilt using the appropriate service kit. Follow the procedures in this manual.
☐	The fifth wheel may need rebuilding.	The fifth wheel ***MUST*** be rebuilt using the appropriate service kit. Follow the procedures in this manual.
☐	Using lube plate with wrong kingpin length.	See SAF-HOLLAND Service Bulletin XL-SB004-01.

Fifth Wheel is Hard to Unhook from Trailer:

✔	POSSIBLE CAUSE	REMEDY
☐	The tractor may be putting pressure against locks.	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 and hook it on the notch in the casting.
☐	The optional manual secondary lock, if so equipped, is not released.	Pull out the manual secondary lock release handle. Move it forward and secure it on the top plate casting.
☐	The primary release handle is not pulled out completely and hooked on the notch in casting.	Slide the primary release handle forward, then pull out the handle, slide it forward, and hook it on the notch of the top plate casting (see ***FIGURE 28***).
☐	Rust or grime on the locking mechanism.	Spray a durable lubricant — such as Lubriplate™ Chain and Gear Oil — on all moving parts, including the release handle, and operate several times.
☐	Bent kingpin or damaged bolster plate.	Check the kingpin with a SAF-HOLLAND TF-0110 Kingpin Gage and bolster plate with a 48˝ straightedge. Repair or replace as required.
☐	Using lube plate with wrong kingpin length.	See SAF-HOLLAND Service Bulletin XL-SB004-01.
☐	The release handle will not stay out or must be held out when unlocking.	The fifth wheel ***MUST*** be rebuilt using the appropriate service kit. Follow the procedures in this manual.

NOTE: After the fifth wheel is unlocked and disengages from the kingpin, it is normal for the release handle to come off the unlock notch of the casting and move into a "ready to couple" position.

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:

1. Remove the fifth wheel from the tractor.
2. Place fifth wheel upside down on a flat working surface.
3. Completely disassemble the fifth wheel.

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

4. Thoroughly steam clean the top plate.
5. Inspect the top plate for cracks. If the top plate is cracked it must be discarded. The lock pin on the SAF-HOLLAND FleetMaster is a slip fit. It is not designed to be press fit like other SAF-HOLLAND fifth wheels. However, if the lock pin hole is elongated, the top plate must be replaced.

   NOTE: The maximum allowable lock pin hole diameter is 1.429˝.

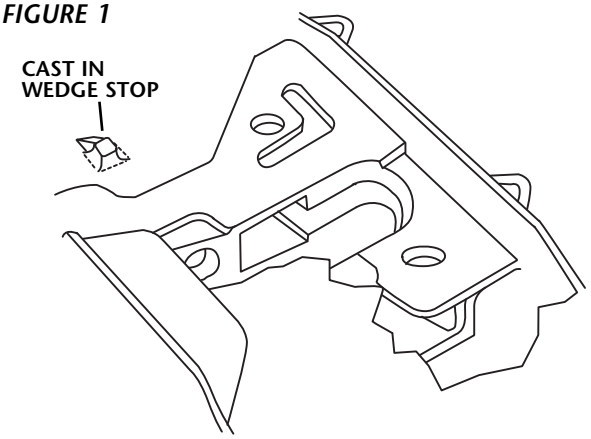
IMPORTANT: DO NOT attempt repair or service if the top plate is cracked or distorted. The top plate must be replaced.

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

Wedge Stop Block:

Check your top plate. If it is **not** equipped with a cast in wedge stop, as shown in ***FIGURE 1***, the wedge stop block (***Item 27***) must be used (available in RK-09590-W or else included in all kits ending in "-W").

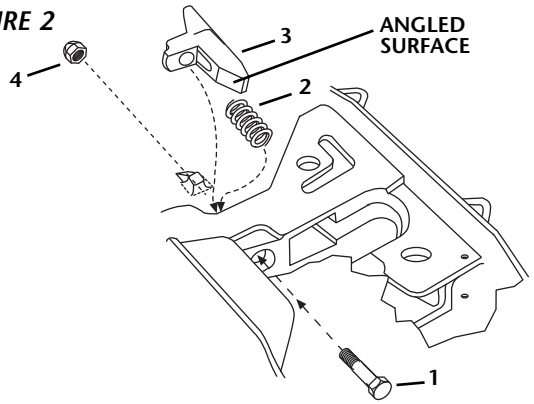
FIGURE 1



Adjusting Wedge Installation:

1. Lubricate the adjustment wedge (***Item 3***) with a light grease on all surfaces. Then, set it in front of the wedge stop, as shown in ***FIGURE 2***, with the angled surface of the wedge resting on the angled surface of the casting.
2. Place the wedge spring (***Item 2***) between the wedge and the casting as shown in ***FIGURE 2***.
3. Slide the adjustment bolt through the hole in the throat of the casting, through the wedge spring (***Item 2***), and through the wedge (***Item 3***) as shown in ***FIGURE 2***.
4. Secure the assembly using the 5/8˝-11 locknut (***Item 4***). Tighten finger tight only.

FIGURE 2



Lock Return Spring Installation:

1. If your fifth wheel was equipped with a lock return spring (***Item 18***), position it in the casting as shown in ***FIGURE 3***.
2. Now drive the roll pin (***Item 19***) into Hole A, through the lock return spring, and into the lower hole in the casting.

FIGURE 3

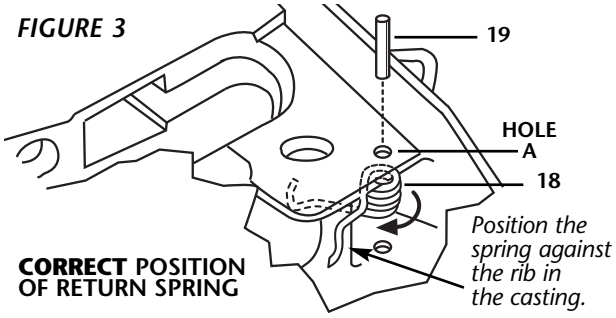
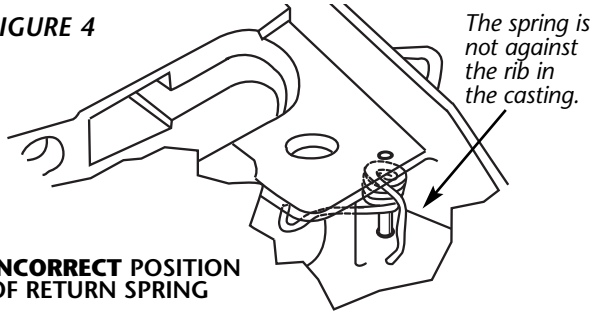


FIGURE 4

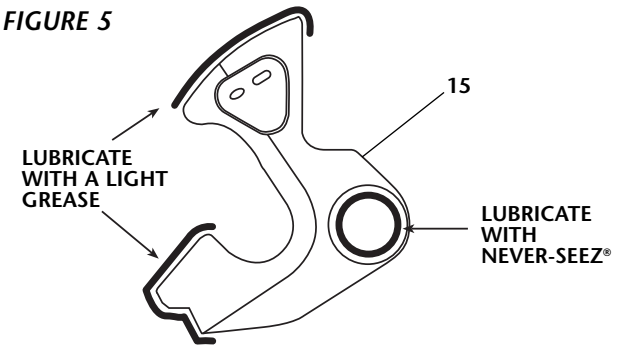


Lock Installation:

1. Lubricate the contact surfaces of the lock (***Item 15***) with a light grease (see ***FIGURE 5***).

   Lubricate the lock pin hole of the lock, and both lock pin holes of the casting with Never-Seez® (provided in kit). **DO NOT SUBSTITUTE.**

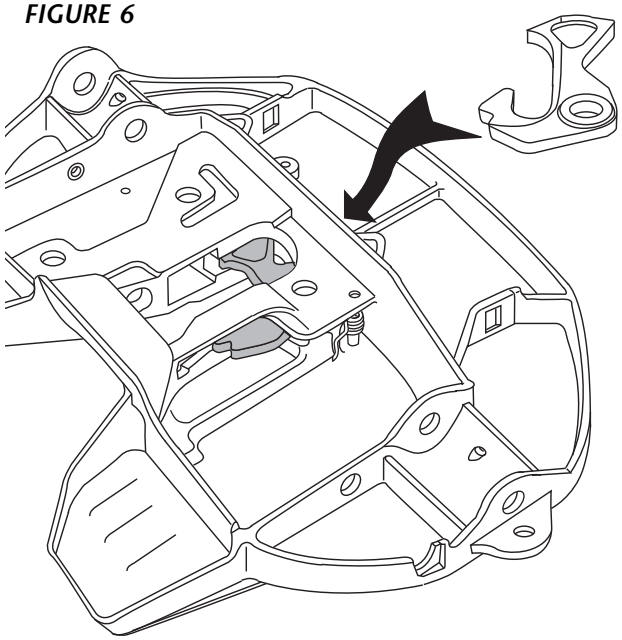
FIGURE 5



2. Slide the lock (***Item 15***) into the front and through the opening in the main rib (***FIGURE 6***).

   Orient the lock in the open position as shown in ***FIGURE 6***.

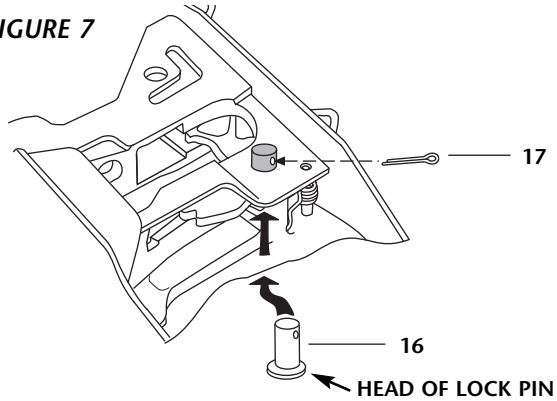
FIGURE 6



Lock Pin Installation:

1. Push the lock up against the lock return spring to compress the spring. Align the lock pin hole in the lock with the hole in the casting.
2. Insert the lock pin as shown below in ***FIGURE 7***.

FIGURE 7



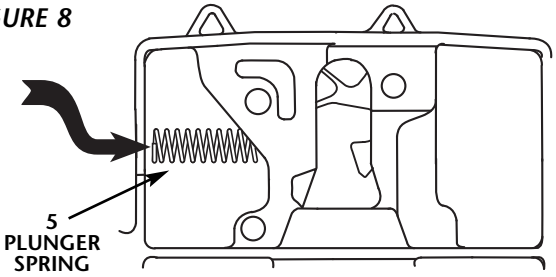
3. Align the hole in the lock pin (***Item 16***) so that the cotter pin (***Item 17***) can be inserted.
4. Slide the lock pin into the casting and through the lock until the head of the lock pin is flush with the casting. Then insert and spread the cotter pin (***Item 17***).

Plunger Installation:

NOTE: The plunger in this kit may look different than the original plunger.

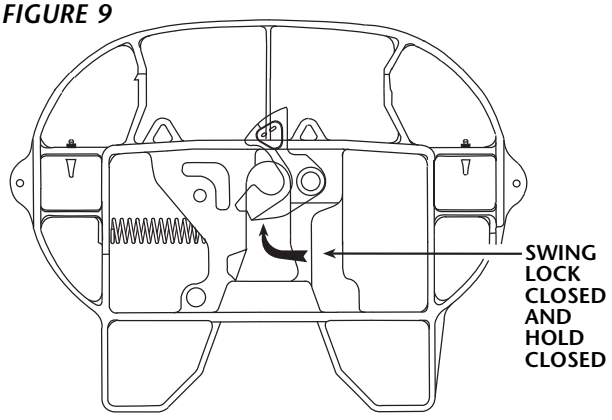
1. Install the plunger spring (***Item 5***) into the casting as shown in ***FIGURE 8***.

FIGURE 8



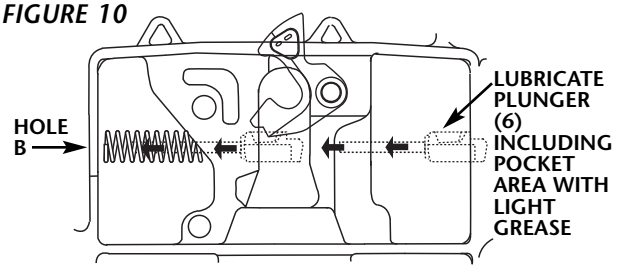
2. Thoroughly lubricate the plunger (***Item 6***), including the "pocket" area with a light grease. Rotate and hold the lock in the closed position as shown in ***FIGURE 9***.

FIGURE 9



3. Next, slide the plunger through the opening on the right side of the throat of the casting, through the plunger spring and through Hole B in the rib of the casting as shown in ***FIGURE 10***. (Refer to ***FIGURE 35*** on page 11 for another view of Hole B.)

FIGURE 10



NOTE: When using a wedge stop block, the wedge spring and plunger are positioned in the "C" channel position, as shown in ***FIGURE 12***.

4. Using a helper block (***Item 36 or 37***) (***not*** provided in the kit*), compress the plunger until it is flush with the throat of the casting as shown in ***FIGURES 11*** and ***12***.

   As you compress the spring, make sure that the tail of the plunger remains in line with Hole B in the casting.

   NOTE:** Helper block (Item 36***) dimensions can be found on Page 12 (see ***FIGURE 36***).

FIGURE 11

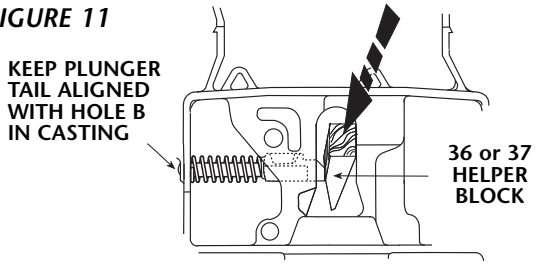
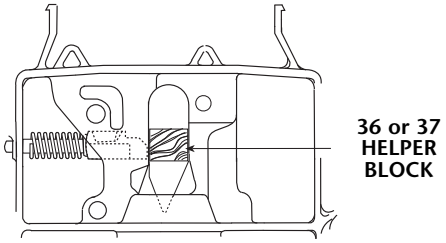


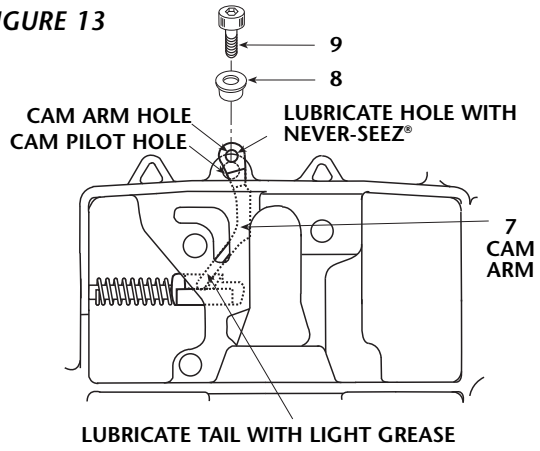
FIGURE 12



Cam Arm Installation:

1. Lubricate the tail of the cam arm (***Item 7***) with a light grease. (***See FIGURE 13.***)
2. Lubricate the hole in the cam arm (***Item 7***) with Never-Seez®.
3. Install the cam arm so that the tail fits into the "pocket" of the plunger. Check that the hole in the cam arm is centered over cam pilot hole in the casting as shown in ***FIGURE 35***.

FIGURE 13

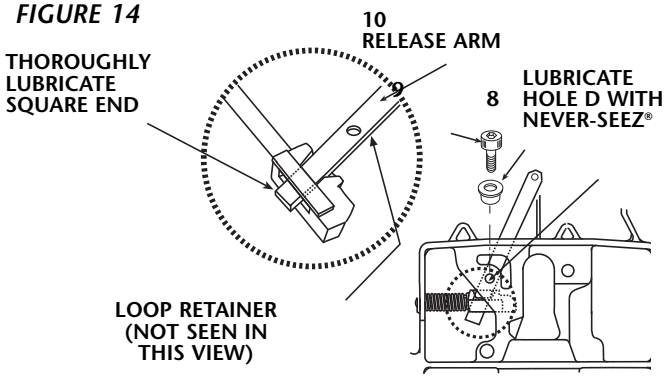


4. Now, insert the roller (***Item 8***) into the hole in the cam arm and secure the cam arm using the 1/2″-13 socket head cap screw (***Item 9***). Tighten the screw, using a torque wrench, to between 85 and 100 ft. lbs. maximum.

Left-Hand Release Arm Installation:

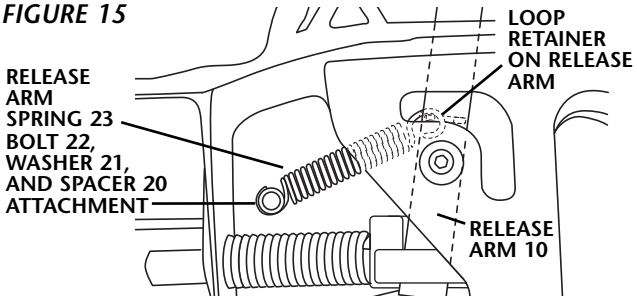
1. Lubricate casting Hole D for the release arm with Never-Seez®. Lubricate the square end of the release arm (***Item10***) with a light grease and install it with ***loop retainer down***, as shown in ***FIGURE 14***.

FIGURE 14



2. Insert the roller (***Item 8***) into the hole in the casting and align the roller with the threaded hole in the release arm (***Item 10***).
3. Secure the release arm using a 1/2″-13 socket head cap screw (***Item 9***). Tighten the screw, using a torque wrench, to between 85 and 100 ft. lbs. maximum.
4. ***Slowly*** remove the helper block (***Items 36*** or ***37***) from the throat, allowing the release arm and cam arm to retain the plunger.
5. Attach the 4.5″ long release arm spring (***Item 23***) to the loop retainer on the underside of the release arm as shown in ***FIGURE 15***.

FIGURE 15

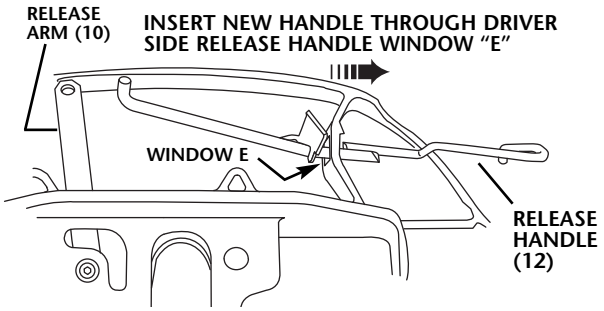


6. If your unit is equipped with a bolt (***Item 22***), washer (***Item 21***), and spacer (***Item 20***) — shown above in ***FIGURE 15*** — hook the other end of the release arm spring around the bolt (***Item 22***) as shown in ***FIGURE 15***. You may use the spring attachment tool found in ***FIGURE 37*** on page 12.

Left-Hand Release Handle Installation:

1. Slide the handle through the driver side release handle Window E.

FIGURE 16
(as seen from the underside of the fifth wheel.)

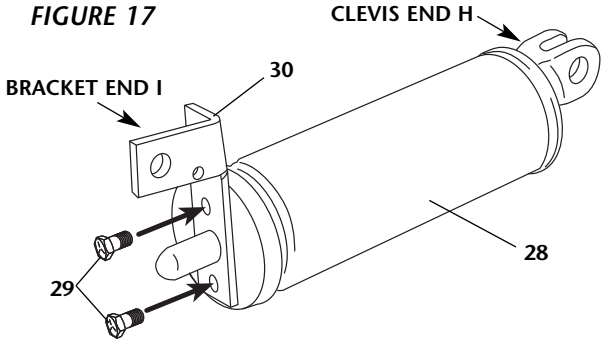


2. After the handle is inserted through handle Window E in the casting, lay it on the casting. You will complete the handle installation after installing the air cylinder.

Air Cylinder and Bracket Plate Installation

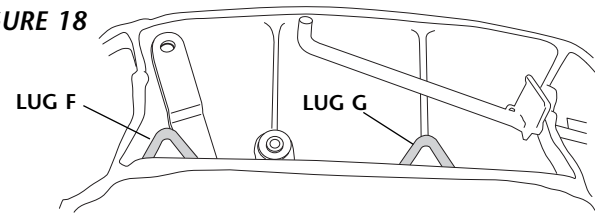
1. Install the mounting plate (***Item 30***) to the air cylinder (***Item 28***) using two 1/4˝-28 bolts (***Item 29***). Tighten the bolts to secure the bracket to the cylinder.

FIGURE 17



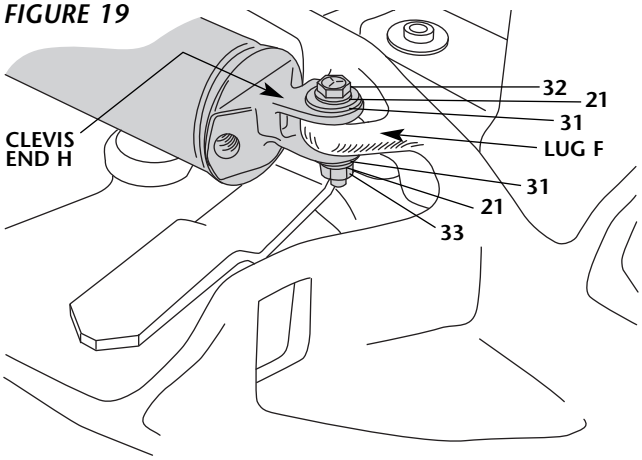
2. **Install the air cylinder assembly onto the casting.** (*Refer to FIGURES 18, 19, and 20.)* Removal of burrs and flashing from lugs (**F** and **G**) may be required.

FIGURE 18



a. First, install the clevis end (**H**) of the cylinder to the casting lug (**F**), as shown in ***FIGURE 19***.

FIGURE 19

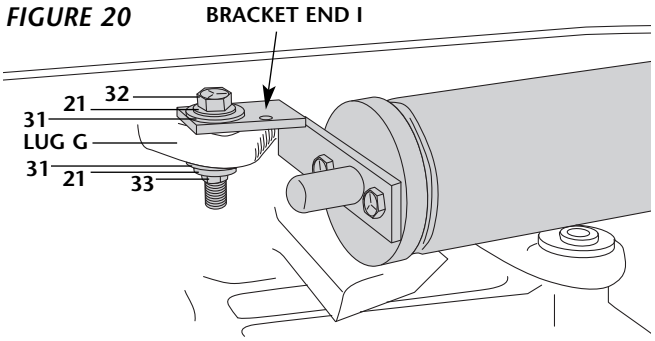


IMPORTANT: Make sure lug (**F**) inserts into the clevis.

b. Attach end (**H**) of the cylinder to casting lug (**F**) using a 3/8˝-16 bolt (***Item 32***), two 1/2˝ washers (***Item 31***), two 3/8˝ washers (***Item 21***) and a 3/8˝ locknut (***Item 33***).

c. Next, rotate the cylinder to allow the bracket end (**I**) to align with casting lug (**G**) as shown in ***FIGURE 20***.

FIGURE 20



d. Attach bracket end (**I**) of the cylinder to casting lug (**G**) using a 3/8˝-16 bolt (***Item 32***), two 1/2˝ washers (***Item 31***), two 3/8˝ washers (***Item 21***) and a 3/8˝ locknut (***Item 33***).

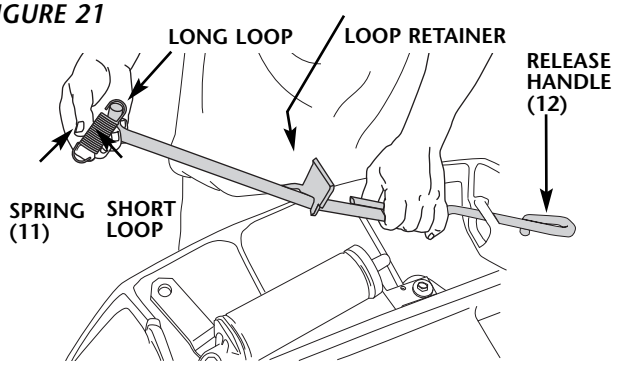
NOTE: Before installing the ***FULLY*** assembled fifth wheel onto the brackets, check the operation of the air cylinder. Stand clear of the release handle! The handle will move out while performing the test.

Left-Hand Release Handle and Spring Installation

1. Install the 3.5˝ long spring ***(Item 11)*** onto the handle ***(Item 12)***. Start by turning the handle so that the bent end is pointed upward. Insert the long loop of the spring onto the bent end of the handle with the opening of the loop facing out (***FIGURE 21***).

ALL FIGURES ARE VIEWED AS SEEN FROM THE UNDERSIDE OF THE FIFTH WHEEL

FIGURE 21

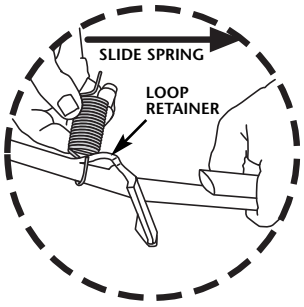


continued on Page 7

Left-Hand Release Handle and Spring Installation *continued*

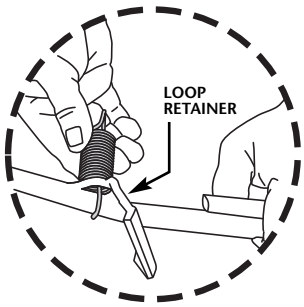
2. a. Slide the spring along the handle toward the loop retainer. (***FIGURE 22***)

FIGURE 22



b. Rotate the spring on the handle so that the loop opening is aligned with the loop retainer. (***FIGURE 23***)

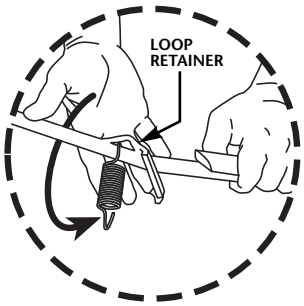
FIGURE 23



c. Rotate the spring to engage the long-loop spring end in the loop retainer. (***FIGURE 24***)

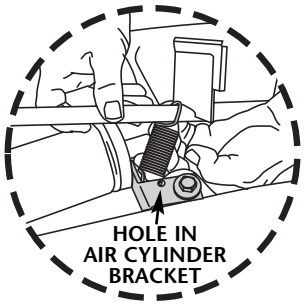
NOTE:
Steps a through c also place the other end of the spring in the desired position for attachment onto the air cylinder bracket.

FIGURE 24



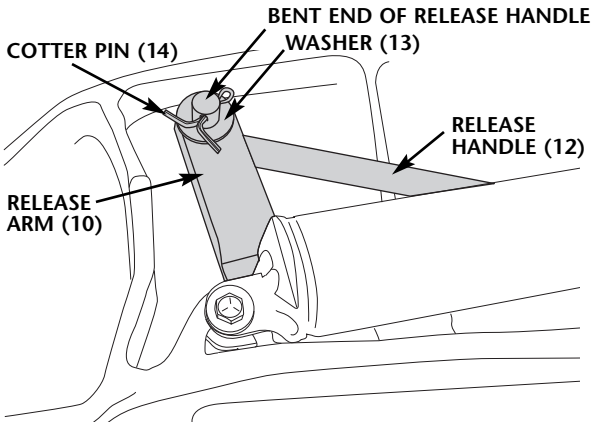
3. Hook the short loop of the spring under the air cylinder mounting bracket and up through the 3/8˝ diameter hole. (***FIGURE 25***)

FIGURE 25



4. Place the bent end of the release handle up through the hole in the end of the release arm (***Item 10***). (***FIGURE 26***)

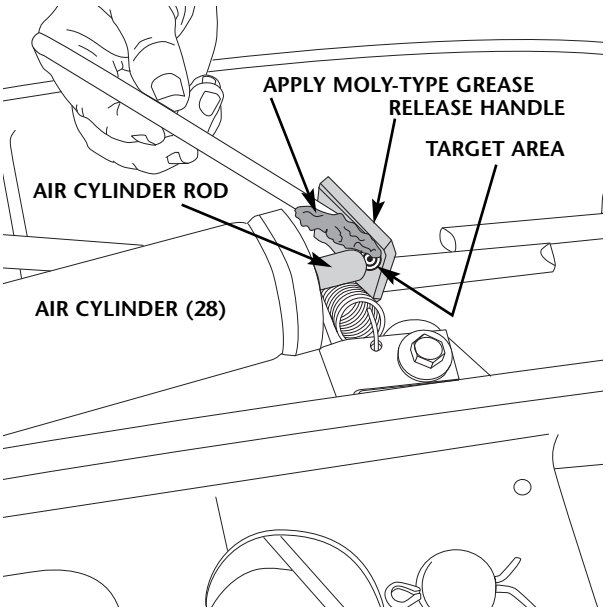
FIGURE 26



5. Place a washer (***Item 13***) over the end of the release handle and secure it with a cotter pin (***Item 14***). Spread the cotter pin.

6. Apply a moly-type grease to the target area where the cylinder rod contacts the release handle. (***FIGURE 27***)

FIGURE 27



IMPORTANT: The fifth wheel lock must be adjusted before placing in service.

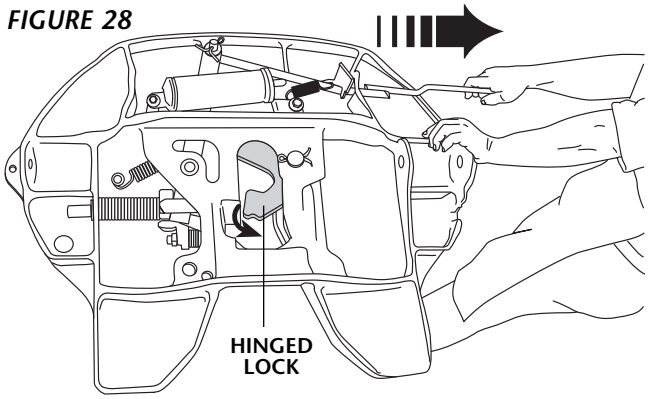
⚠WARNING Using an improperly adjusted fifth wheel may cause tractor and trailer separation which, if not avoided, could result in death or serious injury.

IMPORTANT: Complete the *"Lock Adjustment Procedures"* found on page 8 before using the fifth wheel.

Lock Adjustment Procedure:

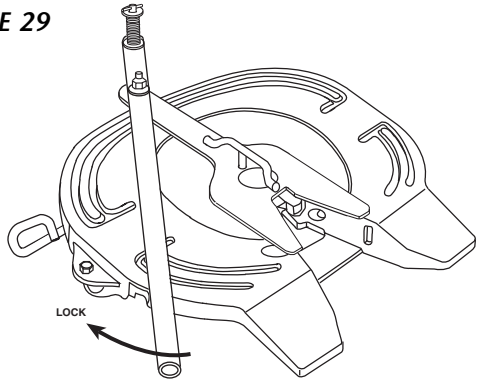
1. Pull the release handle all the way out to allow the hinged lock to swing open as shown in ***FIGURE 28.***

FIGURE 28



2. Use ***ONLY*** a SAF-HOLLAND TF-TLN-5001 Lock Adjustment Tool. Set the tool on the fifth wheel and rotate handle to lock the fifth wheel as shown in ***FIGURE 29***.

FIGURE 29



3. **IMPORTANT!** The lock must be properly closed before the following steps can occur (***see FIGURES 30A through 30D***):

FIGURE 30A

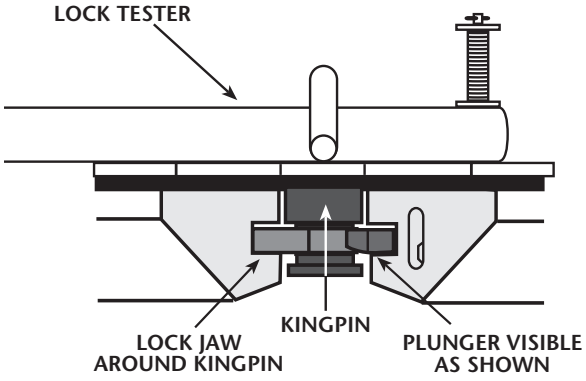


FIGURE 30B

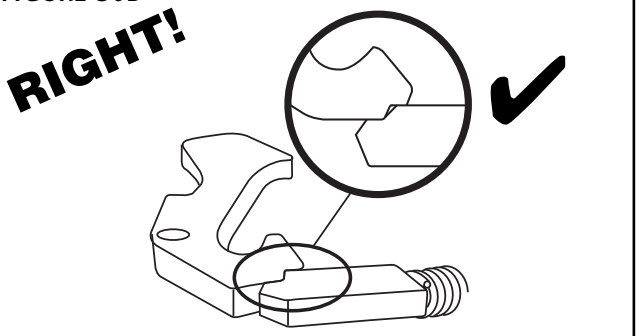


FIGURE 30C

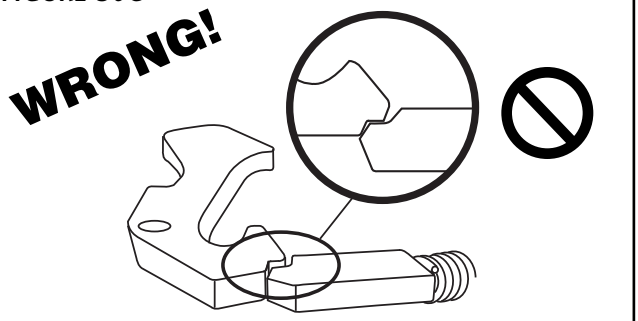
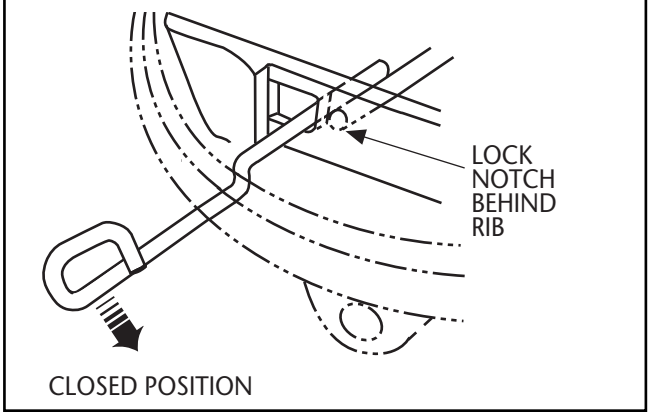


FIGURE 30D



Locking Mechanism Adjustment

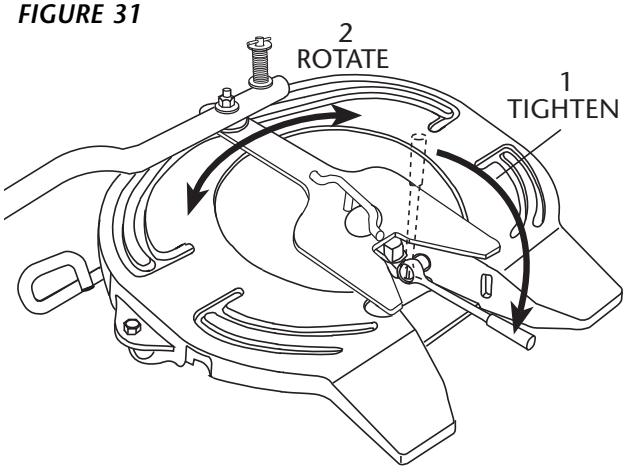
1. **Check the plunger – it must be visible behind the lock (*FIGURE 30A*) and engaged on <u>both</u> steps (*FIGURE 30B*).** If the plunger is not visible or not engaged on both steps (see ***FIGURE 30C***), turn the adjustment bolt counterclockwise 1/2 turn, then try to lock the locks again.

2. **Check the release handle** – it must be fully retracted and the handle lock notch must be behind the rib as shown in ***FIGURE 30D***.

3. Using a 15/16˝ socket, (1) tighten the locks by turning the lock adjustment bolt clockwise 1/4 turn at a time. Remove the socket wrench from the bolt and (2) rotate the lock adjustment tool, as shown in ***FIGURE 31,*** to check for resistance between the lock and lock adjustment tool.

4. Continue to alternate (1) tightening (clockwise) the adjustment bolt 1/4 turn at a time, removing the socket wrench, and (2) rotating the lock adjustment tool until you feel resistance against the lock adjustment tool. Once you begin to feel resistance, **STOP!**

FIGURE 31



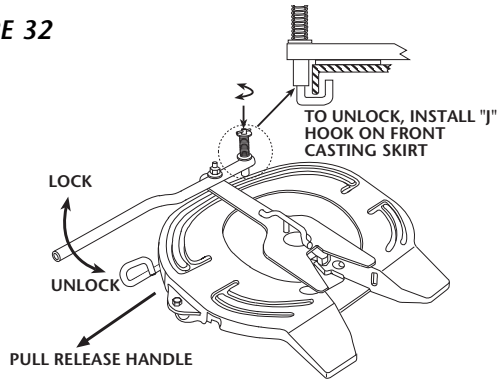
IMPORTANT: At this point, the fifth wheel is **overadjusted** and **NOT** useable.

⚠WARNING **Using an improperly adjusted fifth wheel could result in an improper couple that may cause tractor and trailer separation which, if not avoided, could result in death or serious injury.**

5. Loosen the adjustment bolt counter-clockwise **TWO FULL TURNS**. (For reference, one full turn is a 360° rotation of the socket.) The lock is now properly adjusted.

6. Verify this adjustment by locking and unlocking several times using the Lock Adjustment Tool (see ***FIGURE 32***); check for proper locking (***FIGURES 30A*** through ***30D***).

FIGURE 32



7. **Verify that the lock completely closes each time by checking the plunger as shown in *FIGURE 30B*** (on Page 8)**.** It must be visible behind the lock when properly adjusted (see ***FIGURE 30A***.)

IMPORTANT: If the fifth wheel locking mechanism does not operate properly, DO NOT USE IT! Repeat the above adjustment procedures or contact your local SAF-HOLLAND Representative for assistance.

⚠WARNING **Using an improperly adjusted fifth wheel could result in an improper couple that may cause tractor and trailer separation which, if not avoided, could result in death or serious injury.**

8. If there is a large amount of fore and aft movement with the adjustment tool when verifying the adjustment, check to make sure the lock is engaged on both steps as shown in ***FIGURE 30B***.

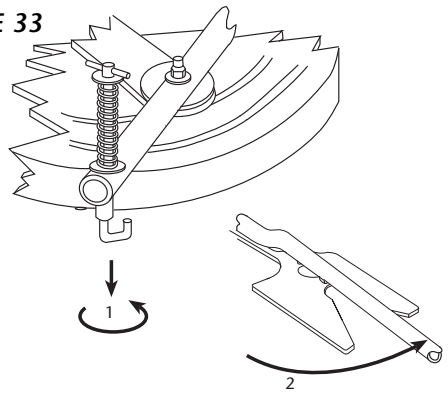
   If the locks engage only on step one as shown in ***FIGURE 30C*** on page 8, loosen the adjustment bolt until it is flush with the end of the nut. Then repeat Steps 1 through 3 in the *Lock Adjustment Procedure* found on Page 8 and Steps 1 through 7 in the ***Locking Mechanism Adjustment*** section, starting on this page.

continued

Locking Mechanism Adjustment *continued*

9. Remove the tool by unhooking the "J" hook from the front skirt and rotating the handle to the center of the tool as shown in ***FIGURE 33***.

FIGURE 33



10. Firmly grasp the tool with both hands, slide back and carefully lift it off the fifth wheel. Do not drop or throw the tool from the tractor.

IMPORTANT: Do not use any fifth wheel which does not operate properly. If your fifth wheel does not operate properly, contact your nearest SAF-HOLLAND Representative for assistance.

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

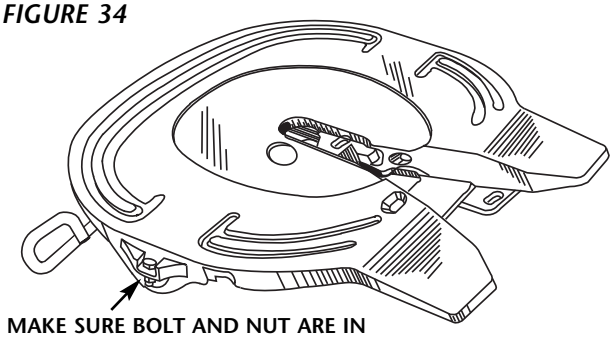
REQUIRED INSPECTIONS AND ADJUSTMENTS

Perform the following every six months or 60,000 miles, whichever comes first. Thoroughly steam clean all components before inspecting or adjusting.

General Fifth Wheel Inspection:

1. Inspect the fifth wheel mounting. Check torque and replace any missing or damaged bolts. Check for broken, worn or damaged parts. Replace as needed.
2. Thoroughly clean the fifth wheel locking mechanism every 6 months or 60,000 miles and relubricate (see ***FIGURE 1*** in the SAF-HOLLAND *FleetMaster Fifth Wheel Maintenance Procedure* publication XL-FW354). Re-check operation with TF-TLN-5001 Lock Adjustment Tool (***Item 39***).
3. Inspect the fifth wheel for bent, worn or broken parts. Replace with only SAF-HOLLAND original parts.
4. Make sure the bracket pin retention bolts and locknuts are in place and ***tight***, as shown in ***FIGURE 34***.

FIGURE 34



Check the Mounting Brackets Before Remounting the Top Plate:

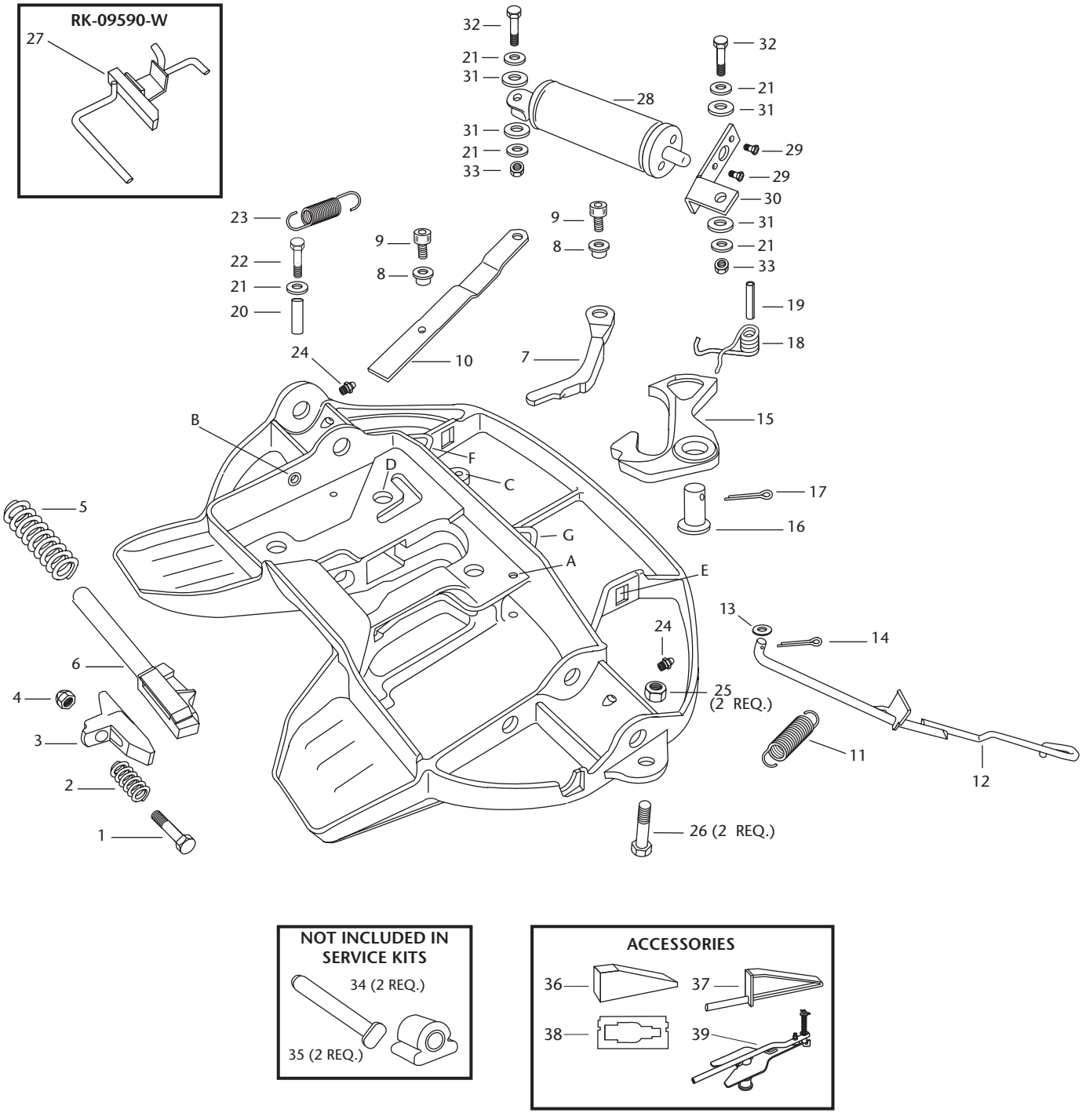
1. Check the rubber cushions (***Item 35***) to make sure that they are secure in the bracket housing and that the nylon inserts are intact; if not, replace.
2. Apply grease to the top bearing surface of the mounting brackets before mounting the top plate.
3. Inspect the bracket pins (***Item 34***) for corrosion and wear. Replace as required when remounting.

Periodic Maintenance and Adjustment:

For maximum service life, the fifth wheel should be steam cleaned, inspected and adjusted as necessary every 60,000 miles (100,000 km) or 6 months, whichever occurs first. For additional specific instructions, refer to SAF-HOLLAND publication XL-FW354 or XL-SB41.

XA-201-A-80-L PARTS BREAKDOWN

FIGURE 35



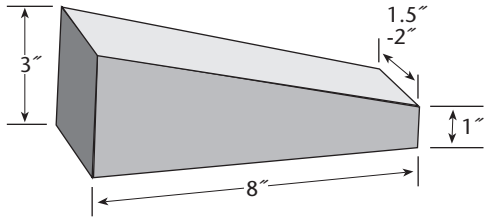
A LOCK RETURN SPRING HOLE
B PLUNGER TAIL HOLE
C CAM PILOT HOLE
D LEFT-HAND RELEASE ARM HOLE
E LEFT-HAND HANDLE WINDOW
F AIR CYLINDER – CLEVIS-END MOUNTING LUG
G AIR CYLINDER – MOUNTING PLATE LUG

ITEM	PART NO.	QTY	PART NAME	ITEM	PART NO.	QTY	PART NAME
1	XB-06329-1	1	Hex hd. cap screw, 5/8″ -11 x 4.25″	21	XB-1108	5	Washer - 3/8″
2	XB-09495	1	Spring	22	XB-C-38-C-214	1	HHCS, 3/8″ x 2.25″
3	XD-06328	1	Adjusting wedge	23	XB-09517-1	1	Extension spring, 4.5″
4	XB-06179-2	1	Locknut, 5/8″ -11	24	XB-H-38	2	Grease fitting
5	XB-06330	1	Plunger spring	25	XB-T-69-A	2	Locknut, 1/2″ -20
6	XA-10474	1	Locking plunger	26	XB-C-95	2	Hex head cap screw, 1/2″ -20 x 1.25″
7	XE-09415	1	Cam arm	27*	XA-09590	1	Wedge stop block
8	XA-08162	2	Roller	28	XA-2524-17	1	Air cylinder
9	XB-08558	2	SHCS, 1/2″ -13 x .75”	29	XB-01611	2	Hex head cap screw, 1/4″-28 x 1/2″
†10	XA-10149	1	Left hand release arm	30	XA-10164	1	Cylinder mounting plate
11	XB-09408	1	Spring, 3.5″	31	XB-T-49	4	Washer, 1/2″
†12	XA-10161	1	Left hand release handle	32	XB-V-444-3	2	Hex head cap screw, 3/8″-16 x 1.75″
13	XB-T-199	1	5/8″ washer	33	XB-338	2	3/8″ Locknut
14	XB-06336	1	Cotter pin, .19″ x 1.25″	34	XB-06356	2	Bracket pin
†15	XA-09416	1	Hinged lock	35	XB-0011-2	2	Rubber bushing
16	XA-06344	1	Lock pin	36*	TF-TLN-08284	1	Helper block (wood)
17	XB-5	1	Cotter pin, .25″ x 2″	37*	TF-TLN-4000	1	Helper block (steel)
18	XB-08764	1	Lock return spring	38*	TF-0110	1	Kingpin gage
19	XB-21-S-500-2750	1	Roll pin	39*	TF-TLN-5001	1	2” lock adjustment tool
20	XA-09558	1	Spacer				

* Not included in this rebuild kit.

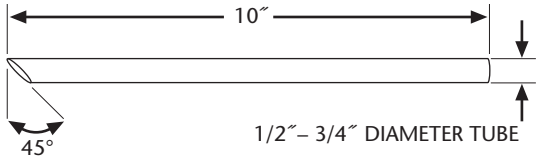
† These parts must be installed as a complete set and cannot be ordered individually.

FIGURE 36



HELPER BLOCK (36) DIMENSIONS

FIGURE 37



RELEASE ARM SPRING ATTACHMENT TOOL

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