

FIFTH WHEELS

REBUILD PROCEDURES



FW1226 Series Fifth Wheel Top Plates

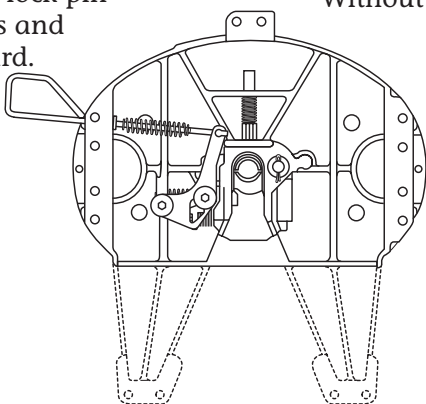
RIGHT HAND RELEASE

FW1226-0087
FW1226-0088

FW1226 (Current Models)

KIT NO. RK-62005-1
Includes lock pin bushings and lock guard.

KIT NO. RK-62008
Without lock guard.

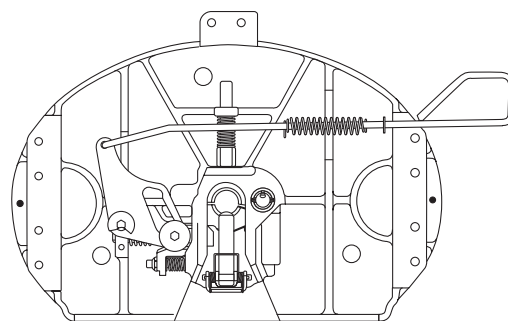


LEFT HAND RELEASE

FW1226-0087-LH

KIT NO. RK-1226-0087-LH

Includes lock pin bushings and lock guard.

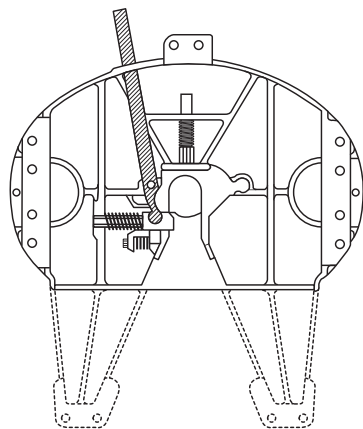


FRONT RELEASE ARM

FW1226 (Early Models)

KIT NO. RK-62005

Converts to left hand release.
Includes lock pin bushings and lock guard.

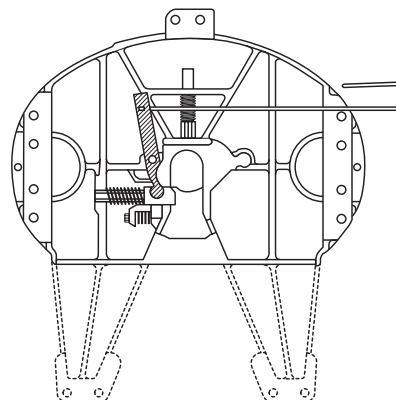


LEFT HAND RELEASE ARM

FW1226-UP and FW1226-0086

KIT NO. RK-62005

Includes lock pin bushings and lock guard.



TROUBLE SHOOTING HINTS

Fifth Wheel is Hard to Hook Up to Trailer

✓	POSSIBLE CAUSE	REMEDY
<input type="checkbox"/>	The trailer may be too high; the kingpin is not entering the locks properly.	Lower the trailer landing gear.
<input type="checkbox"/>	Locks are closed.	Pull release handle and force the hinged lock open.
<input type="checkbox"/>	Accumulated rust or grime is interfering with lock operation.	Spray a light lubricant or diesel fuel on all moving parts including the release handle and operate several times.
<input type="checkbox"/>	Locks are adjusted too tightly.	Check lock adjustment in accordance with the procedure in this manual.
<input type="checkbox"/>	Bent release handle or kingpin or damaged bolster plate may be interfering with lock movement.	Check and replace as required.
<input type="checkbox"/>	The locks may be damaged.	Inspect and replace, if required, following the procedures in this manual.
<input type="checkbox"/>	The fifth wheel may need to be rebuilt.	Follow the procedures contained in this manual using the appropriate kit.

Fifth Wheel is Hard to Unhook from Trailer

✓	POSSIBLE CAUSE	REMEDY
<input type="checkbox"/>	The tractor may be putting pressure against the locks.	Back the tractor into the trailer to relieve pressure. Lock the tractor brakes before pulling the release handle.
<input type="checkbox"/>	Rust or grime on locking mechanism.	Spray a light lubricant or diesel fuel on all moving parts, including the release handle, and operate several times.
<input type="checkbox"/>	Bent kingpin or damaged bolster plate.	Check the kingpin with a Holland TF-0110 Kingpin Gage and bolster plate with a 48" straight edge. Repair or replace as required. Inspect kingpin to SAE J2228.
<input type="checkbox"/>	Fifth wheel locks may be adjusted too tightly.	Check the lock adjustment in accordance with the procedures in this manual.
<input type="checkbox"/>	Release handle will not stay out or must be held out when unlocking.	The fifth wheel needs to be rebuilt. Follow the procedures contained in this manual.

NOTE: After the fifth wheel is unlocked and moves freely from the kingpin, it is normal for the release handle to return to the "in" position.

GENERAL INFORMATION

1. All fifth wheel maintenance, adjustment, and rebuilding must be performed by a qualified person using proper tools and safe procedures. For more information, refer to Holland publication XL-FW303, *Fifth Wheel Maintenance Procedures*.
2. Do not modify or add to the product.
3. Use only genuine Holland parts.
4. Wear safety goggles during installation, removal, and rebuilding.
5. Never strike any part of the product with a steel hammer.
6. Do not weld on this product without written permission from the factory.
7. Observe standard procedures when lifting.
8. Refer to Holland publication XL-FW340 for description and instructions for the Holland TF-TLN-5001 lock adjustment tool.
9. Do not deviate from these instructions. Any changes or deviations will void all warranties, expressed or implied, unless written consent is first obtained from the factory.
10. Check to see that all parts included in the kit are enclosed in the box.

NOTE: These products are covered by Holland's 5-year fifth wheel warranty. Holland reserves the right, without giving prior notice, to change specifications and dimensions as designs are altered or improved.

REBUILDING PROCEDURES

1. Before attempting to rebuild, review each trouble-shooting hint on page 2 of this manual. You may find that rebuilding is not necessary.
2. If rebuilding is required, check the front page of this manual to be sure you have the correct kit for the fifth wheel you are about to rebuild.
3. Totally disassemble and clean the top plate.
4. Inspect the top plate for cracks and a loose lock pin hole. If the plate is cracked, it must be discarded. If the lock pin hole is elongated, replace the top plate.

⚠ WARNING Do not attempt repair or rebuilding if the top plate is cracked or distorted as the top plate or locks may malfunction causing death or injury.

NOTE: When rebuilding, use only Holland rebuilding kits and replace all rollpins, cotter pins, springs, bolts, nuts, and washers. Also, check the rebuild kit and verify that all parts are present.

NOTE: All item numbers refer to the parts explosion on page 7.

Plunger and Release Arm Assembly:

Before starting, it may be necessary to fabricate a helper block. It can be made from hardwood or steel. Refer to *Figure 1* for proper dimensions.

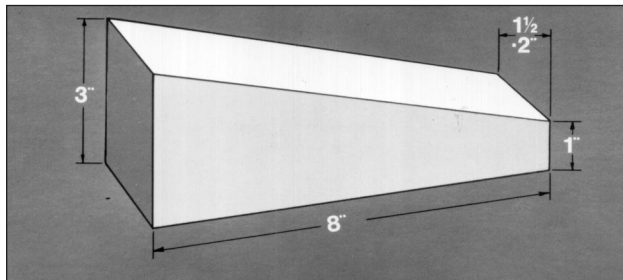


FIGURE 1

Lock pin bushing replacement (see the Parts Diagram on page 7):

1. Remove the old bushings from the lock pin holes.
2. Install a lock pin bushing (26) into the face of the wheel.
3. Install a lockpin bushing (24) into the underside of the fifth wheel.

For Models Equipped with **Right Hand** Release with Release Cam (see page 4 for Left Hand Release):

1. To begin, install the (red) spring (1) in the casting.
2. Start the $\frac{3}{8}$ " square head set screw (13) into the plunger (2) six full turns and lubricate plunger with a light grease.
3. Install the plunger (2) into the casting with the set screw (13) facing the open end of the top plate. Secure the plunger by compressing the spring with the helper block until the plunger is flush with the throat of the casting (see *Figure 2*).

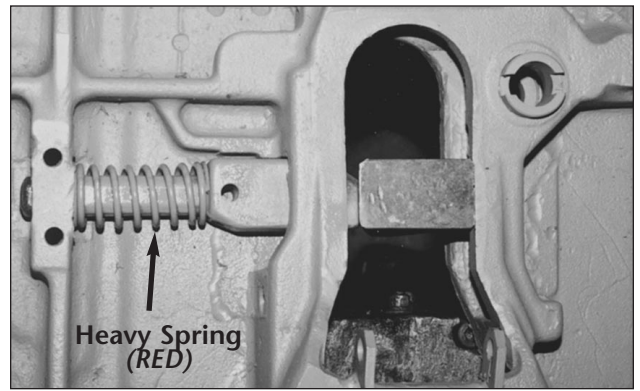


FIGURE 2

4. Insert the righthand handle (15R) into the hole in the casting and slide on the washer (14), spring (16R), washer (14), and cotter pin (12).
5. Inspect the cam (17R) for burrs or rough edges in the cam profile. Remove as required.
6. Lube the cam profile and pivot holes with a light grease, then insert the "S" bend of the handle into the small hole in the cam plate.
7. Position the cam plate on the casting with the large hole in the cam plate in line with the rearward cam anchor hole (see *Figure 3*).

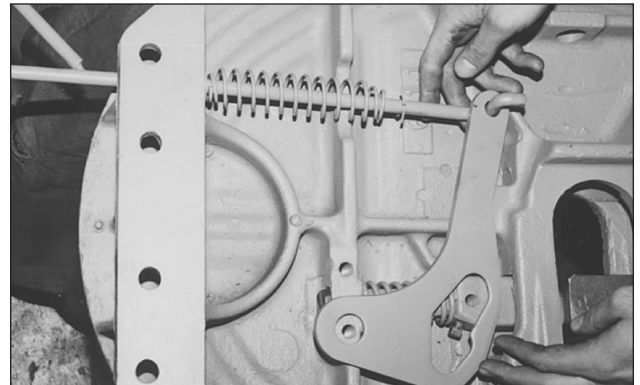


FIGURE 3

8. Install a $\frac{1}{2}$ " I.D. roller (18) in the cam anchor hole (see *Figure 4*).

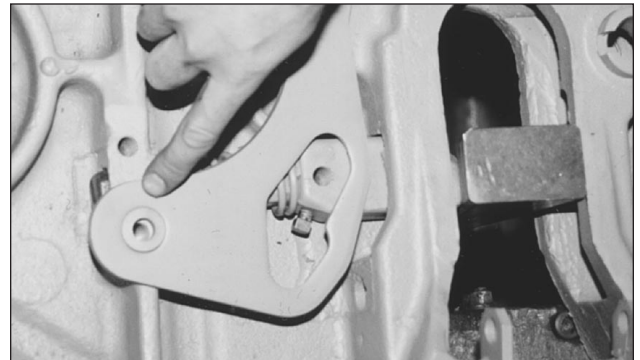


FIGURE 4

9. Assemble a $\frac{1}{2}$ " I.D., and a $2\frac{1}{4}$ " O.D. washer (19) over the roller. Then pass the $\frac{1}{2}$ " bolt (with red thread sealant) through the washer, roller, and into the casting. Tighten securely.

continued

REBUILDING PROCEDURES *continued*

Plunger and Release Arm Assembly *continued*

For Models Equipped with **Left Hand Release with release cam**:

1. To begin, install the (**red**) spring (1) in the casting.
2. Start the $\frac{3}{8}$ " square head set screw (13) into the plunger (2) six full turns and lubricate the plunger with a light grease.
3. Install the plunger (2) into the casting with the set screw (13) facing the open end of the top plate. Secure the plunger by compressing the spring with the helper block until the plunger is flush with the throat of the casting (*see Figure 5*).

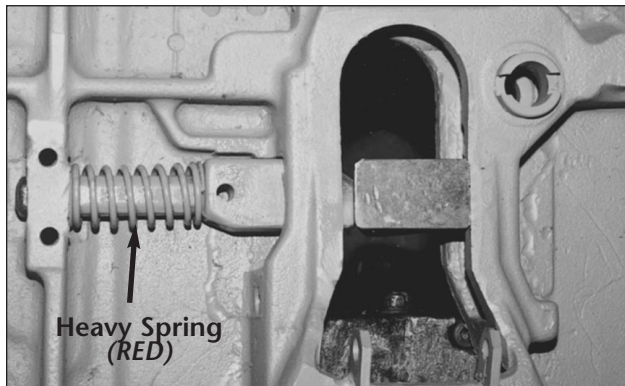


FIGURE 5

4. Insert left hand handle (15L) into the hole in the casting and slide on washer (14), spring (16L), washer (14), and cotter pin (12).
5. Inspect the cam (17L) for burrs or rough edges in the cam profile. Remove as required.
6. Lube the cam profile and pivot holes with a light grease, then insert the "S" bend of the handle into the small hole in the cam plate.
7. Position the cam plate on the casting with the large hole in the cam plate in line with the forward cam anchor hole (*see Figure 6*).

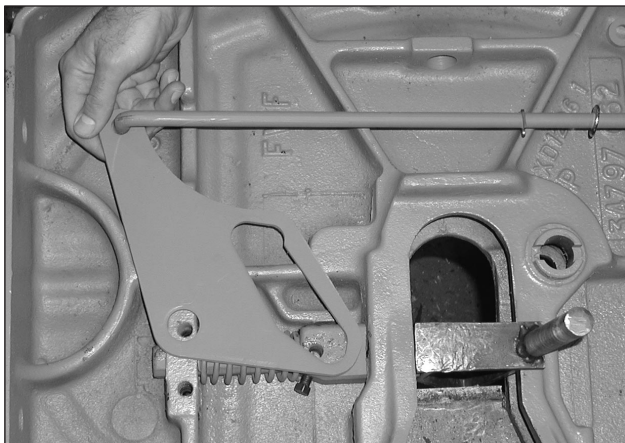


FIGURE 6

8. Install a $\frac{1}{2}$ " I.D. roller (18) in the cam anchor hole (*see Figure 7*).

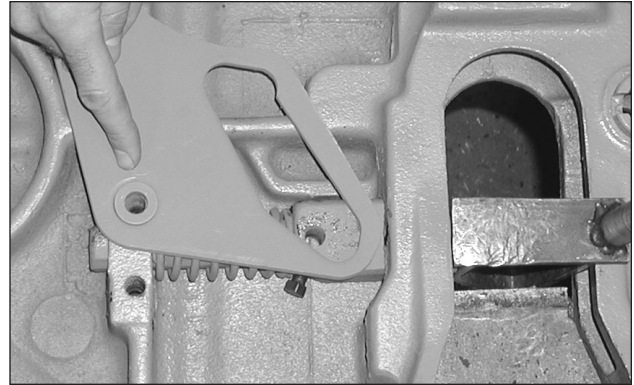


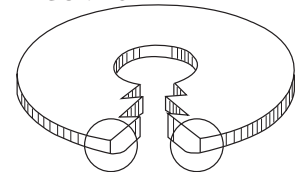
FIGURE 7

9. Assemble a $\frac{1}{2}$ " I.D., and a $2\frac{1}{4}$ " O.D. washer (19) over the roller. Then pass the $\frac{1}{2}$ " bolt (with red thread sealant) through the washer, roller, and into the casting. Tighten securely.

Plunger Attachment:

NOTE: When installing washers (19), the rounded edge of the washer must always face the cam plate (*see Figure 8*).

FIGURE 8



1. Pull the release handle and check for free movement.
2. Place a $\frac{1}{2}$ " I.D., $2\frac{1}{4}$ " O.D. washer (19 or 19L) between the cam and the plunger.
3. Place a $\frac{1}{2}$ " I.D. roller (18) over the washer (in the cam profile).
4. Install another $\frac{1}{2}$ " I.D., $2\frac{1}{4}$ " O.D. washer (19 or 19L) over the roller, then pass a 2" long, $\frac{1}{2}$ " diameter bolt (21) through the assembly, into the hole of the plunger. Tighten securely, then loosen until the top washer spins freely.
5. Pull the release handle, remove the helper block, and check for ease of operation.
6. Using a $\frac{3}{8}$ " square deep well socket, securely tighten the set screw (13) in the plunger (*see Figure 9*).



FIGURE 9

REBUILDING PROCEDURES *continued*

Adjusting Wedge Installation:

1. Put the release handle in the closed position.
2. Coat the threads of the Allen head cap screw (3) with Never-Seez and install through the hole located in the throat of the casting.
3. Install the compression spring (4) over the cap screw.
4. Next, slide wedge (5) along plunger, compress spring and install the $\frac{5}{8}$ " locknut (6). Tighten the cap screw with a $\frac{1}{2}$ " Allen wrench until the nut is flush with the end of the bolt (see Figure 10).

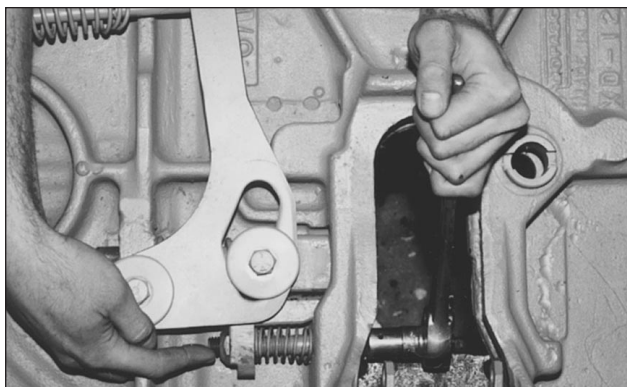


FIGURE 10

Lock Installation:

1. Pull the release handle into the unlocked position.
2. Install green spring (7) through the large hole in the throat of the casting.
3. Lubricate all contact surfaces of sliding lock (8A). With the large counterbore down, slide the tail of the lock through the spring and compress the spring until the lock is beyond the plunger.
4. Keeping hands away from moving parts, move the release handle to the closed position.
5. Push the sliding lock forward and insert a 1" spacer between the lock and the plunger (see Figure 11).

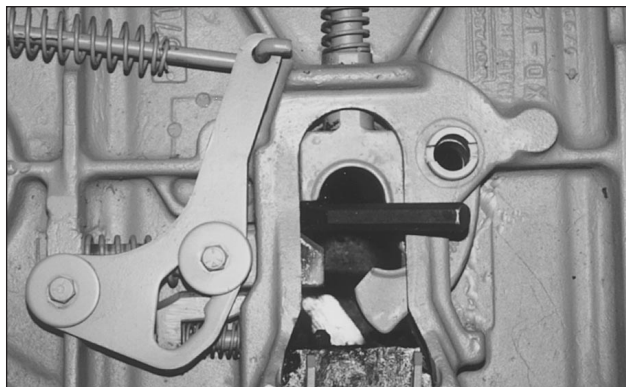


FIGURE 11

6. Coat the lock pin hole in hinged lock (8B) with Never-Seez. (This is **VITAL. DO NOT** use a substitute lubricant). Lubricate the gear teeth with a light grease.
7. Place the hinged lock into position (see Figure 11). Drive the lock pin (25) through the top plate and pin hole of the hinged lock. Secure with roll pin (23).

Lock Adjustment:

IMPORTANT: The fifth wheel lock must be adjusted before placing the fifth wheel into service. Complete the following procedures before using the fifth wheel.

1. Close the locks, using a Holland TF-TLN-5001 Lock Tester. Operation of the tester is described in Holland publication XL-FW340. When operating properly, the plunger (2) will slide freely behind the hinged lock (8B) (see Figure 12).

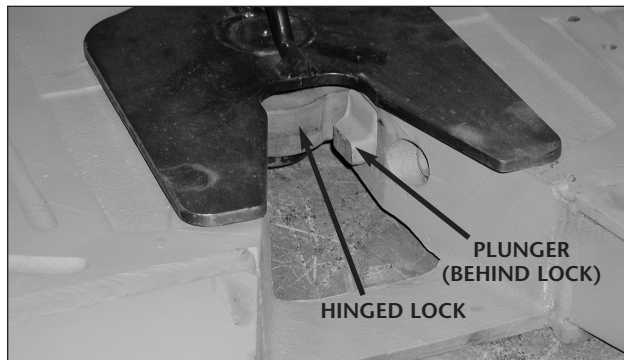


FIGURE 12

2. Close the locks (using the lock tester), then, using a ratchet with a $\frac{1}{2}$ " Allen wrench, tighten the adjustment screw (3) in the throat of the top plate by turning clockwise until tight.
3. Now loosen (turning counterclockwise) $1\frac{1}{2}$ turns. The locking mechanism is now properly adjusted.
4. Check operation by locking and unlocking several times.

If top plate does not operate properly. **DO NOT USE IT!**

WARNING Failure to properly install and operate this fifth wheel could result in tractor and trailer separation causing death or serious injury to others. Repeat the above procedures or contact your local Holland representative for assistance.

Lock Guard Installation (For Models Equipped)

1. Pull the release handle and remove the lock tester.
2. Assemble the lock guard (9) and torsion spring (10) (see Figure 13).

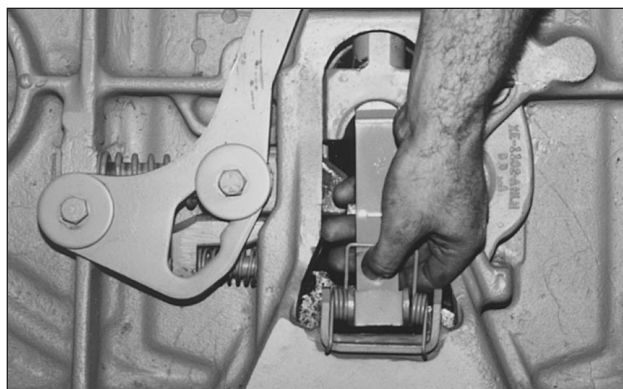


FIGURE 13

3. Mount the lock guard into place, using the pivot shaft (11) and cotter pins (12).

continued

REBUILDING PROCEDURES *continued*

4. Check adjustment. When properly adjusted, the center of the hinged lock (8B) must contact the lock guard when attempting to swing it closed (*see Figure 14*). Adjust accordingly.

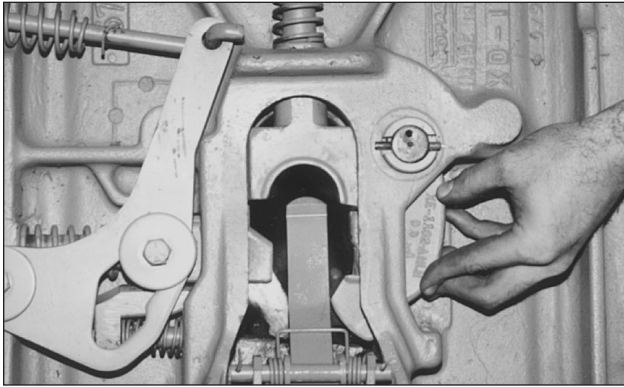


FIGURE 14

Lubricate All Moving Parts with a Light Grease:

Periodic Maintenance Adjustment:

For maximum service life, the fifth wheel should be steam cleaned, inspected, and adjusted as necessary every 30,000 miles (50,000 kilometers). For additional specific instructions, refer to Holland publication XL-FW303. The adjustment procedure is as follows:

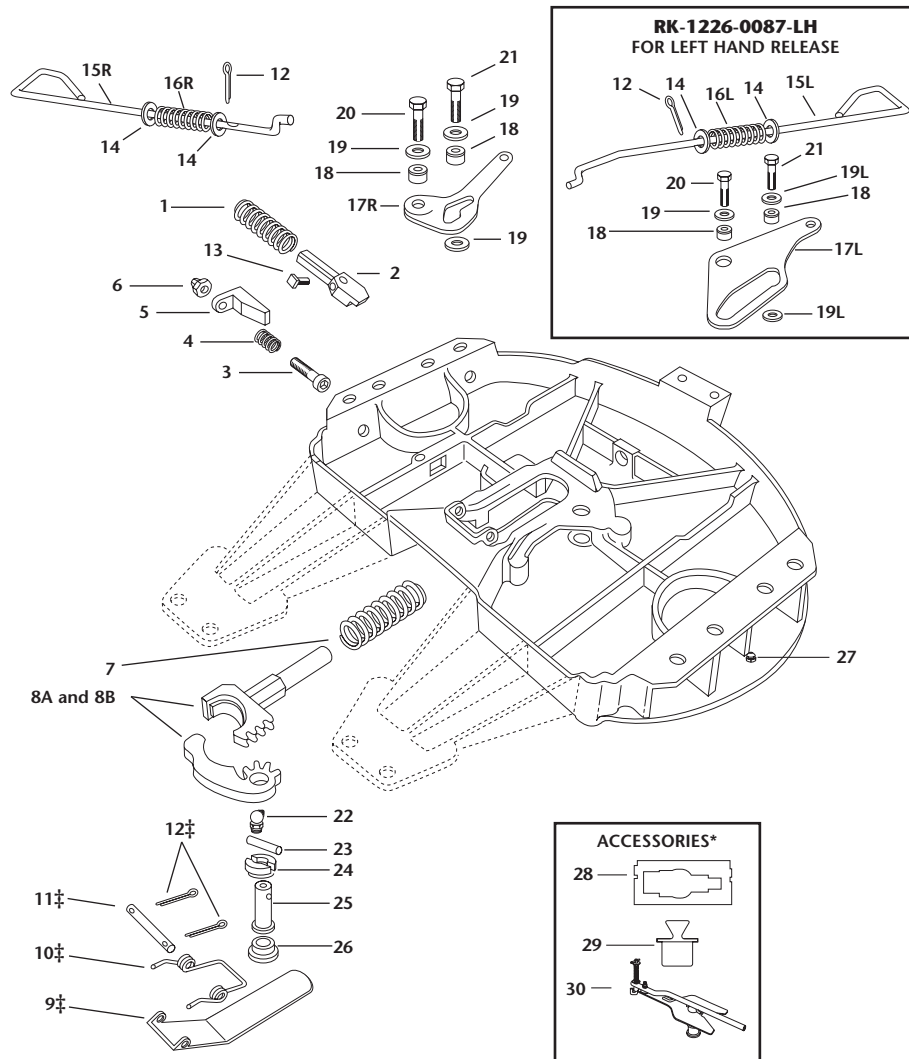
1. Close the locks using the lock tester.
2. Tighten the Allen head adjustment screw in the throat of the top plate by turning clockwise until tight.

⚠ WARNING At this point the fifth wheel is over adjusted and will not lock properly.

To prevent tractor separation, and before putting the fifth wheel into use, you must complete Steps 3 and 4.

3. Loosen the adjustment screw by turning counterclockwise $1\frac{1}{2}$ turns.
4. Verify this adjustment by locking and unlocking several times.

PARTS BREAKDOWN FOR FW1226 SERIES WITH RIGHT OR LEFT HAND RELEASE



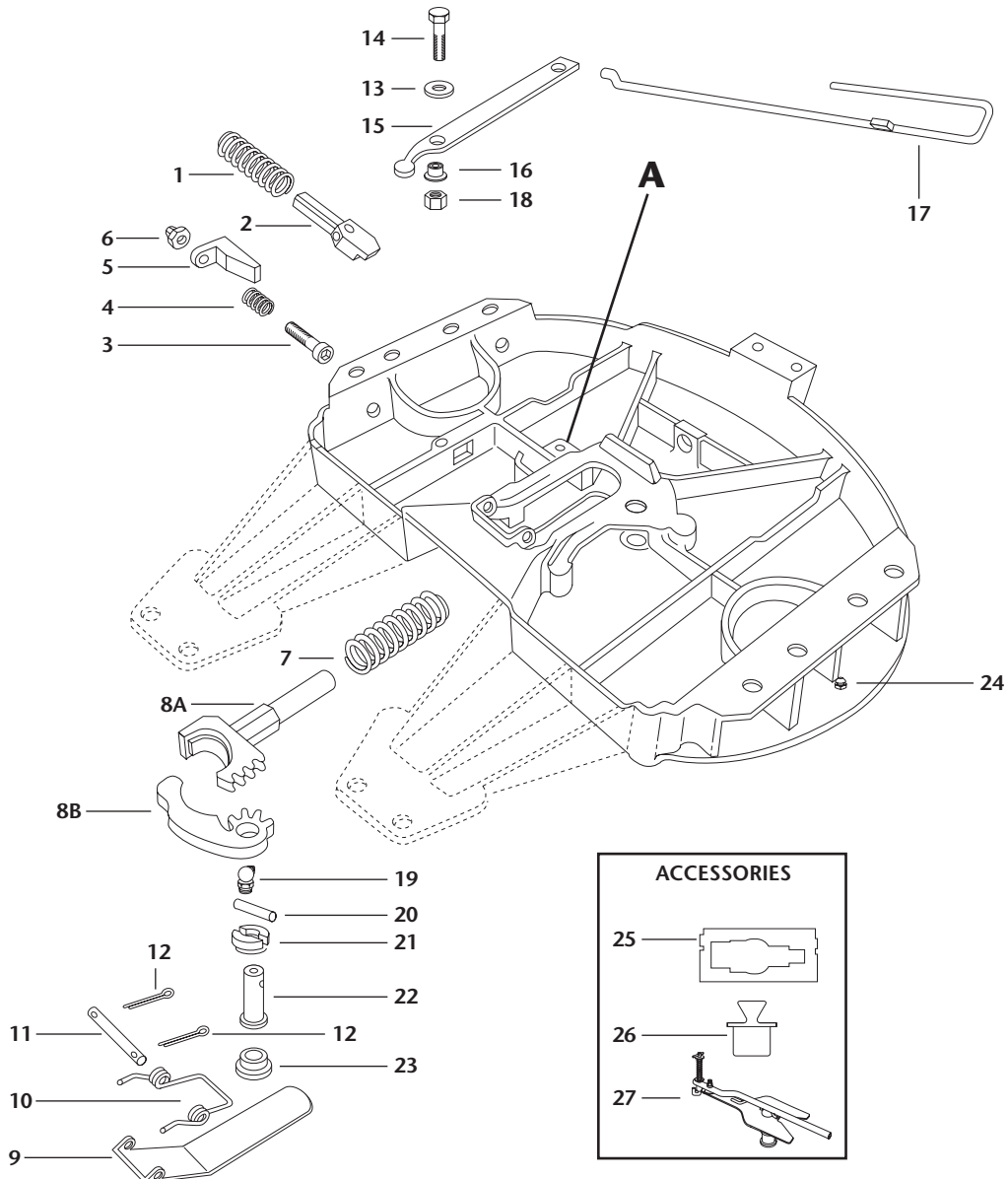
ITEM	PART NO.	NO.	PART NAME
1	XB-1007 (red)	1	Comp spring 1.62" O.D. x 5"
2	XA-1119	1	Plunger
3	XB-09407	1	5/8"-11 x 4" Socket head screw
4	XB-403	1	Spring
5	XD-3123-1	1	Lock adjusting wedge
6	XB-09174	1	5/8"-11 Lock nut
7	XB-1006 (green)	1	Comp. spring 1 1/4" O.D. x 5"
8A&B	XA-1102	1	Lock set
9‡	XA-02039	1	Lock guard
10‡	XB-1044	1	Torsion spring
11‡	XA-06379	1	Pin
12‡	XB-06377	3	Cotter pin, 1/8" x 1"
13	XB-15	1	Set screw
14	XB-06378	2	1/2" plain washer
15L	XA-07732	1	Release handle
15R	XA-0093	1	Release handle
16L	XB-03531	1	Release handle spring

ITEM	PART NO.	NO.	PART NAME
16R	XB-1028	1	Release handle spring
17L	XA-1118-2-L	1	Cam plate
17R	XA-1118-1	1	Cam plate
18	XA-1029	2	Roller
19	XB-1030	3	1/2" I.D. x 2 1/4" O.D. washer
19L	XB-02846	2	1/2" I.D. x 2 5/8" O.D. washer
20	XB-2083	1	1/2"-20 x 1 3/4" hex bolt
21	XB-1031	1	1/2"-20 x 2" hex bolt
22	XB-0769	1	90° grease fitting
23	XB-21-S-250-1875	1	Rollpin
24	XA-279	1	Lock pin bushing
25	XA-1016-C	1	Lock pin
26	XA-278	1	Lock pin bushing
27	XB-03684	2	Grease fitting
28*	TF-0110	1	Kingpin gage
29*	TF-0237	1	2" plug
30*	TF-TLN-5001	1	Lock adjusting tool

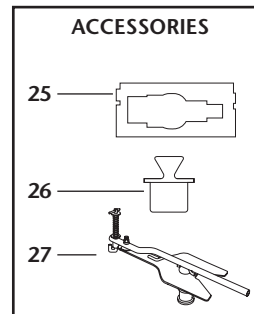
* Not included in Rebuild Kits.

‡ Parts not included RK-62008 Rebuild Kit.

PARTS BREAKDOWN FOR FW1226 SERIES WITH FRONT RELEASE OR LEFT HAND RELEASE ARM



ITEM	PART NO.	NO.	PART NAME
1	XB-1007 (red)	1	Comp spring 1.62" O.D. x 5"
2	XA-1104	1	Plunger
3	XB-09407	1	5/8"-11 x 4" socket head screw
4	XB-403	1	Spring
5	XD-3123-1	1	Lock adjusting wedge
6	XB-09174	1	5/8"-11 Lock nut
7	XB-1006 (green)	1	Comp. spring 1 1/4" O.D. x 5"
8A&B	XA-1102	1	Lock set
9	XA-1621	1	Lock guard
10	XB-1044	1	Torsion spring
11	XA-1055	1	Pin
12	XB-16	1	Cotter pin 1/8" x 1"
13	XB-T-49	1	1/2" plain washer
14	XB-2083	1	1/2"-20 x 1 3/4" hex bolt



ITEM	PART NO.	NO.	PART NAME
15	XA-1005-FH	1	Release lever
16	XB-02949	1	Bushing
17	XA-1117-UP	1	Release handle
18	XB-T-69-A	1	Hex lock nut
19	XB-0769	1	90° grease fitting
20	XB-21-S-250-1875	1	Rollpin
21	XA-279	1	Lock pin bushing
22	XA-1016-C	1	Lock pin
23	XA-278	1	Lock pin bushing
24	XB-03684	2	Grease fitting
25*	TF-0110	1	Kingpin gage
26*	TF-0237	1	2" plug
27*	TF-TLN-5001	1	Lock adjusting tool

* Not included in Rebuild Kit.

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