

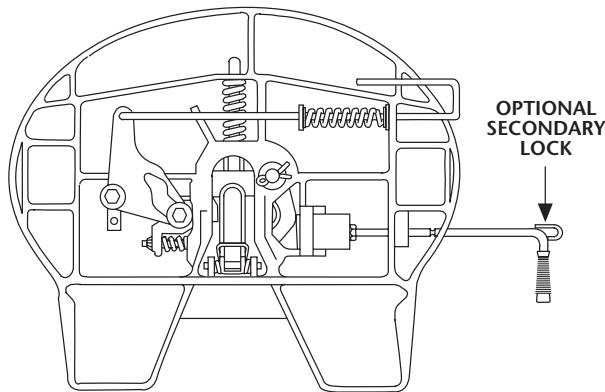


FIFTH WHEELS

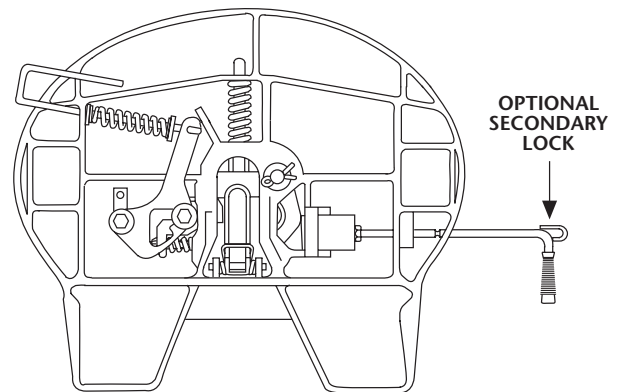
REBUILDING PROCEDURES



XA-2009 Series Fifth Wheel Top Plates



LEFT HAND (ROAD SIDE) RELEASE
RK-62001 (Standard)
RK-62011 (Lock Pin Bushings)



RIGHT HAND (CURB SIDE) RELEASE
RK-62000 (Standard)
RK-62012 (Lock Pin Bushings)

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 until bolster plate contacts fifth wheel.
<input type="checkbox"/> Locks are closed.	Pull release handle and pry open locks.
<input type="checkbox"/> Accumulated rust or grime 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 tight.	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 rebuilding.	Follow the procedures contained in this manual using the appropriate rebuilding kit.

FIFTH WHEEL IS HARD TO UNHOOK FROM TRAILER

✓ POSSIBLE CAUSE	REMEDY
<input type="checkbox"/> The secondary lock is not released.	Pull the secondary lock release handle until it rests in the unlocked detent.
<input type="checkbox"/> The tractor may be putting pressure against locks.	Back the tractor into the trailer to relieve pressure. Lock the tractor brakes. Pull release handle.
<input type="checkbox"/> Rust or grime on locking mechanism.	Spray a light lubricant or diesel fuel on all moving parts including 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.
<input type="checkbox"/> Fifth wheel locks may be adjusted to tight.	Check lock adjustment in accordance with the procedures in this manual.
<input type="checkbox"/> Release handle will not stay out.	Replace the cam plate (Item 6L or 6R) and release handle assembly (Item 5L or 5R).
<input type="checkbox"/> Release handle must be held out to uncouple.	Grind swinging lock as outlines on Page 7, (Item 6) of Holland Publication XL-FW225, "How To Get The Most From Your Holland FW2000 Series Fifth Wheel."

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

REBUILDING PROCEDURES

1. Before attempting to rebuild, review each trouble shooting hint (front page 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, the top plate can be returned for a factory rebuild.



WARNING

Do not attempt repair or rebuilding if the top plate is cracked or distorted or the lock pin (*ITEM 17*) does not fit tightly, as the top plate may fail or the locks may malfunction.

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

PLUNGER AND RELEASE ARM ASSEMBLY

1. 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.

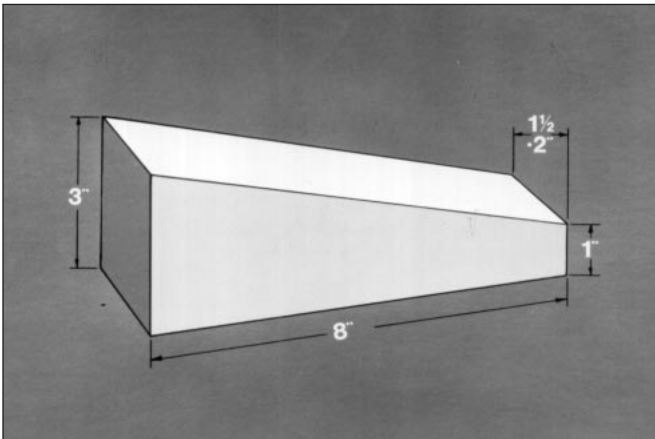


Figure 1

2. To begin, install the (red) spring (*ITEM 1*) in the casting.
3. Start the 3/8" square head set screw into the plunger (*Item 2*) six full turns and lubricate with a light grease.
4. Install the plunger into the casting with the set screw 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

RIGHT HAND (CURB SIDE) RELEASE:

NOTE: On top plates manufactured before May 1, 1979, torch off casting lip approximately 1 inch from the casting rib (*see Figure 3*).

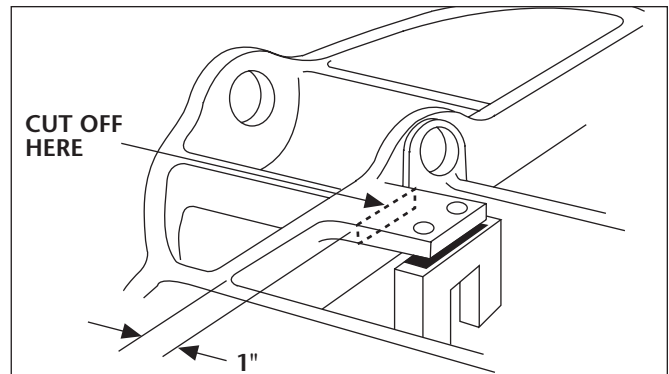


Figure 3

1. Install a 9/16" I.D. washer over the open end of the handle then pass the open end of the release handle through guide hole (A) toward the outside of the top plate.
2. Inspect the cam (*ITEM 6R*) for burrs or rough edges in the cam profile. Remove as required.
3. 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.
4. Position cam plate on the casting with the large hole in cam plate in line with the lower cam anchor hole (B) (*see Figure 4*).

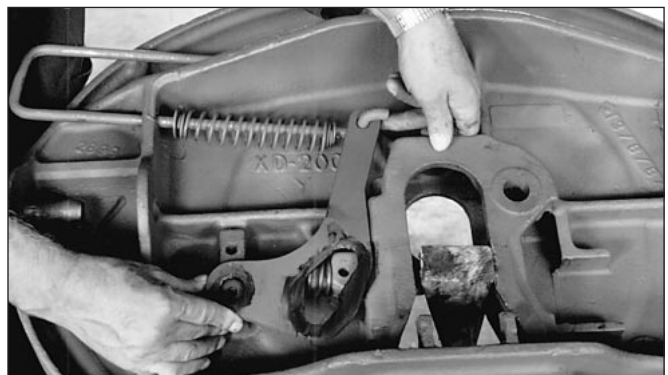


Figure 4

5. Install a 1/2" I.D. roller (*ITEM 7*) in cam anchor hole (see *Figure 5*).

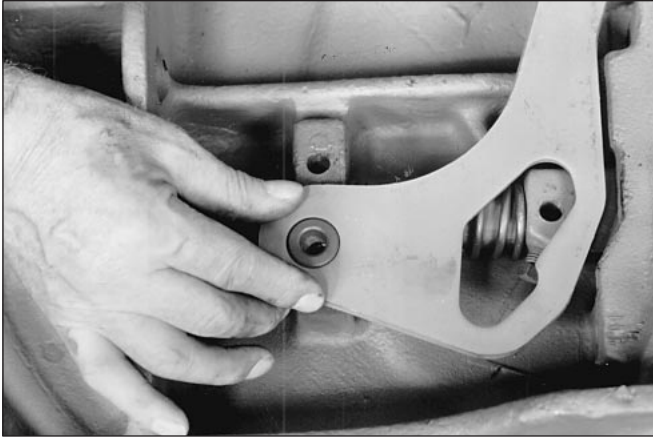


Figure 5

6. Assemble a 1/2" I.D., 2 1/4" O.D. washer (*ITEM 8*) over the roller, then pass the 1/2" bolt (with the red thread sealant) through the washer, roller and into the casting. Tighten securely.

NOTE: When installing washers (*ITEM 8*), the rounded edge of the washer must always face the cam plate (see *Figure 6*).

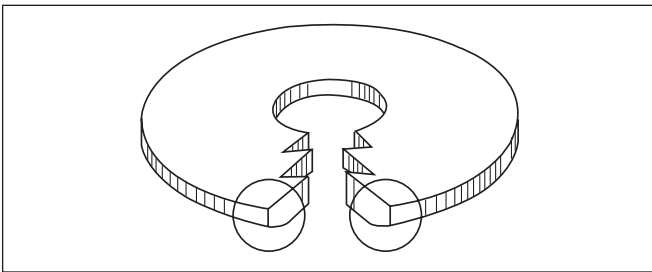


Figure 6

7. Pull the release handle and check for free movement.
8. Place a 1/2" I.D., 2 1/4" O.D. washer (*ITEM 8*) between the cam and plunger.
9. Insert a 1/2" I.D. roller over the washer (in the cam profile).
10. Install another 1/2" I.D., 2 1/4" O.D. washer (*ITEM 8*) over the roller, then pass a 2" long, 1/2" diameter bolt through the assembly into the threaded hole of the plunger. Tighten securely, then loosen until the top washer spins freely.
11. Pull the release handle, remove the helper block and check for ease of operation.
12. Using a 3/8" square deep well socket, securely tighten the set screw (*ITEM 3*) in the plunger (see *Figure 7 above*).

LEFT HAND (ROAD SIDE) RELEASE:

NOTE: On top plates manufactured before May 1, 1979, torch off casting lip approximately 1 inch from casting rib (see *Figure 3, on Page 2*).

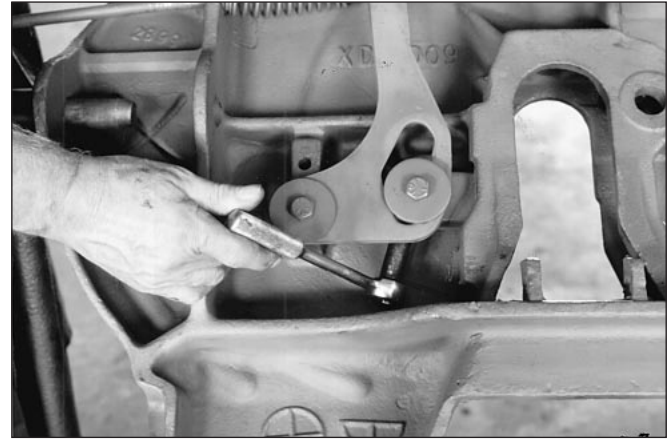


Figure 7

1. Install a 9/16" I.D. washer over the open end of the handle, then pass the open end of the release handle through guide hole (C) toward the outside of the top plate.
2. Inspect the cam (*ITEM 6L*) for burrs or rough edges in the cam profile. Remove as required.
3. 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.
4. Position cam plate on the casting with the large hole in cam plate in line with the top cam anchor hole (D).
5. Install a 1/2" I.D. roller (*ITEM 7*) in cam anchor hole.
6. Assemble a 1/2" I.D., 2 1/4" O.D. washer (*ITEM 8*) over the roller, then pass the 1/2" bolt (with the red thread sealant) through the washer, roller, and into the casting. Tighten securely.

NOTE: When installing washers (*ITEM 8 AND ITEM 41*), the rounded edge of the washer must always face the cam plate (see *Figure 6 at left*).

7. Pull the release handle and check for free movement.
8. Place a 1/2" I.D., 2 1/4" O.D. washer (*ITEM 41*) between the cam and plunger.
9. Insert a 1/2" roller over the washer (in the cam profile).
10. Install another 1/2" I.D., 2 1/4" O.D. washer (*ITEM 41*) over the roller, then pass a 2" long, 1/2" diameter bolt through the assembly into the threaded hole of the plunger. Tighten securely, then loosen until the top washer spins freely.
11. Pull release handle, remove helper block and check for ease of operation.
12. Using a 3/8" square deep well socket, securely tighten the set screw (*ITEM 3*) in plunger (see *Figure 7*).
13. On some models, there could be interference between the washers (*ITEM 41*) and the fifth wheel casting when the cam is in the locked position. When the fifth wheel is locked, the washers must be free to spin. If the washers contact the casting, grind the casting at the point of interference shown by the arrow in *Figure 8*, until the washers are free to spin.

ADJUSTING WEDGE INSTALLATION

1. Put release handle in the closed position.
2. Coat the threads of the Allen head cap screw (*ITEM 13*) with Never-Seez and install through the hole located in the throat of the casting.
3. Install compression spring (*ITEM 11*) over cap screw.
4. Next, slide wedge (*ITEM 12*) along plunger, compress spring and install the 5/8" locknut (*ITEM 14*), tighten the cap screw with a 1/2" Allen wrench until nut is flush with end of bolt (*see Figure 8*).

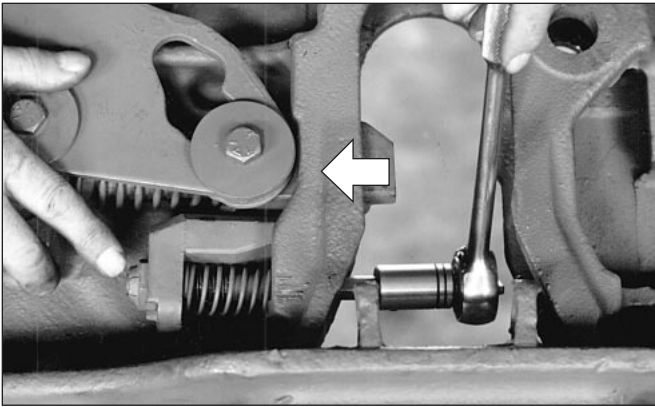


Figure 8

LOCK INSTALLATION

1. Pull release handle into the unlocked position.
2. Install green spring through large hole in the throat of the casting.
3. Lubricate all contact surfaces of sliding lock (*ITEM 16A*). With large counterbore down, slide tail of lock through spring and compress spring until lock is beyond the plunger.
4. Keeping hands away from moving parts, move release handle to the closed position.
5. Now, push the sliding lock forward and insert a 1" spacer between the lock and plunger (*see Figure 9*).
6. Coat the lock pin hole in hinged lock (*ITEM 16B*) with Never-Seez. (This is vital. **DO NOT** use any



Figure 9

substitute lubricant.) Lubricate gear teeth with a light grease.

7. Place the hinged lock into position (*see Figure 10*). Drive the lock pin (*ITEM 17*) through the top plate and pin hole of the hinged lock. Secure with cotter pin (*ITEM 18*).

NOTE: If casting is equipped with lock pin bushings, lock pin (*ITEM 32*) and roll pin (*ITEM 30*) must be used.

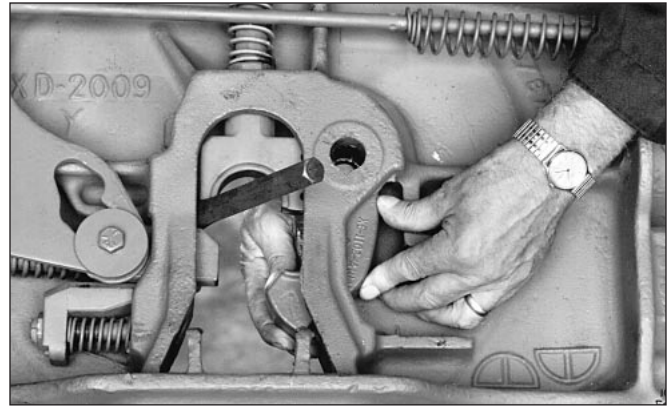


Figure 10

LOCK ADJUSTMENT

1. Close the locks, using a Holland TF-TLN-1000 Lock Tester. Operation of tester is described in Holland publication XL-FW130. When operating properly, the plunger (*ITEM 2*) will slide freely behind the hinged lock (*ITEM 16B*) (*see Figure 11*).



Figure 11

2. Close the locks (using the lock tester), then, using a ratchet with a 1/2" Allen wrench, tighten the adjustment screw (*ITEM 13*) in the throat of the top plate by turning clockwise until tight.
3. Now loosen (turning counterclockwise) 1/2 turns. The locking mechanism is now properly adjusted.
4. Check operation by locking and unlocking several times.

NOTE: If top plate does not operate properly, **DO NOT USE IT**. Repeat the above procedures or contact your local Holland Representative for assistance.

LOCK GUARD INSTALLATION

1. Pull the release handle and remove the lock tester.
2. Assemble the lock guard (*ITEM 19*) and torsion spring (*ITEM 20*) (see *Figure 12*).

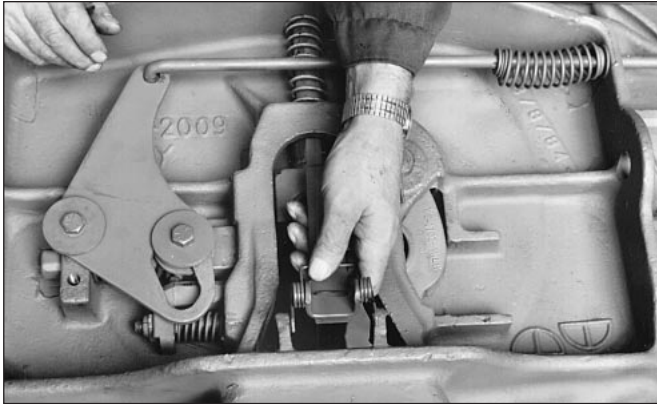


Figure 12

3. Mount the lock guard into place, using the pivot shaft (*ITEM 21*) and cotter pins (*ITEM 22*).
4. Check adjustment. When properly adjusted, the center of the hinged lock (*ITEM 16B*) must contact the lock guard when attempting to swing it closed (see *Figure 13*). Adjust accordingly.



Figure 13

Lubricate all moving parts with a light grease.

INSTALLING MANUAL SECONDARY LOCK

(If casting is so equipped):

1. Close locks, using the Holland Lock Tester.
2. Insert block (*ITEM 23*) in casting with chamfered edges facing top plate.
3. Install handle (*ITEM 25*) through guide holes in casting (see *Figure 14*) and attach jam nut (*ITEM 24*). Then start the handle into the threaded hole of the lock block.
4. Insert ball (*ITEM 26*), spring (*ITEM 27*) and set screw (*ITEM 28*). Tighten securely.

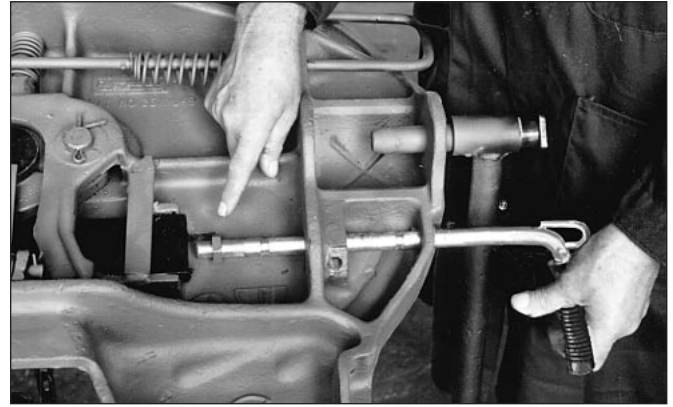


Figure 14

5. To adjust, move handle until it rests in the closed detent.
6. The end of the secondary lock bar must be flush with the far edge of the lock guard. Adjust accordingly.
7. Secure the adjustment by aligning the handle with the casting and then tighten the jam nut against the lock block.

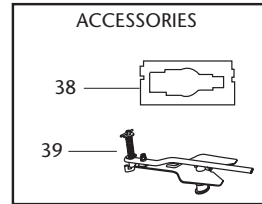
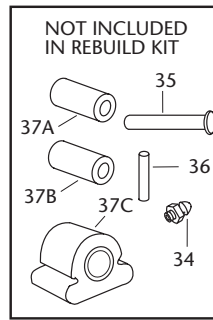
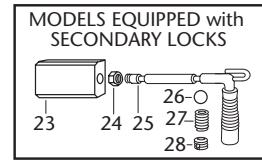
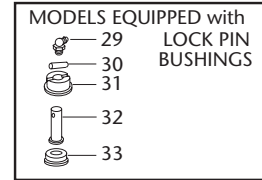
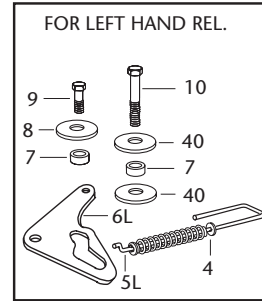
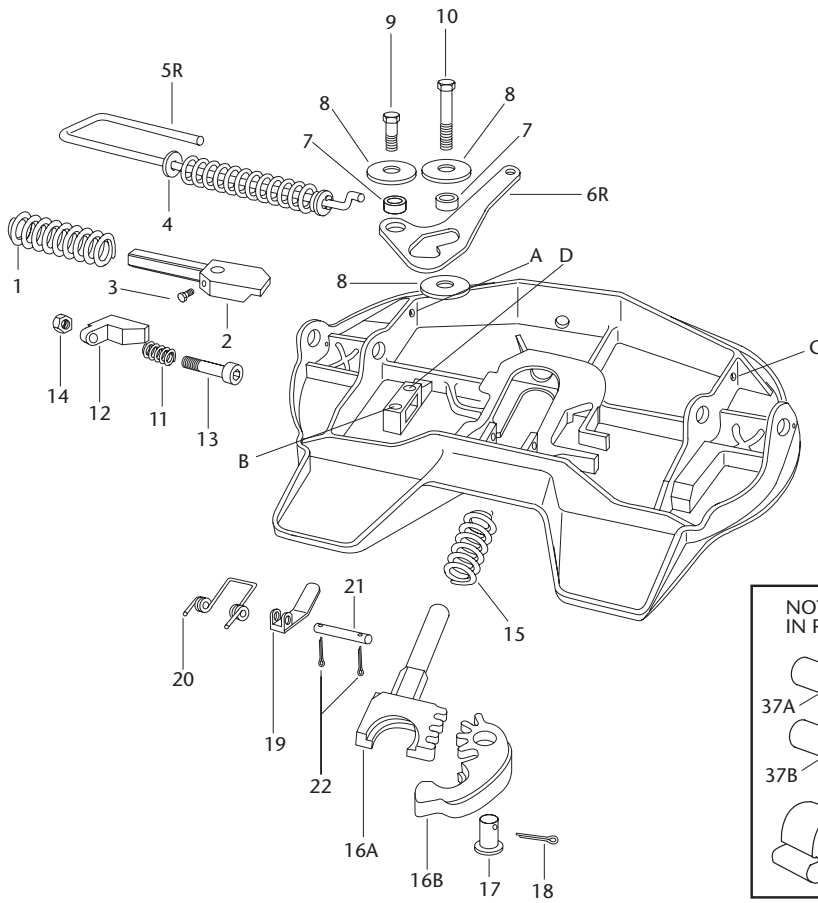
CHECK MOUNTING BRACKETS BEFORE REMOUNTING THE TOP PLATE

1. Check rubber bushings for wear. Replace if necessary. If bushings are replaced, make sure the correct diameter bushing is used.
2. Apply grease to the top bearing surface of the mounting bracket before remounting the top plate.
3. Inspect the bracket pins for wear. Replace as necessary, when remounting.

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 instruction, 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.
3. Loosen the adjustment screw by turning counterclockwise 1½ turns.
4. Verify this adjustment by locking and unlocking several times.



ITEM	PART NO.	NO. REQ'D.	PART NAME	ITEM	PART NO.	NO. REQ'D.	PART NAME
1	XB-1007 (Red)	1	Comp. Spring 1 ³ / ₈ " O.D. x 5"	20	XB-1044	1	Torsion spring
2	XA-1119	1	Plunger	21	XA-1055	1	Pin
3	XB-15	1	Set Screw	22	XB-16	2	Cotter pin 1/8" x 1"
4	XB-T-49	1	Plain washer 1/2"	*23	XA-1668	1	Safety lock block
5L	RK-1117-1L	1	Left hand release handle (Item No. (4) must be installed on handle for complete assy.)	*24	XB-NRJ-34-F	1	Jam nut
5R	RK-1117-1	1	Right hand release handle (Item No. (4) must be installed on handle for complete assy.)	*25	XA-1674	1	Safety release arm
6L	XA-1118-2-L	1	Left hand cam plate	*26	XB-V-919	1	1/2" diameter steel ball
6R	XA-1118-1	1	Right hand cam plate	*27	XB-V-932	1	Compression spring
7	XA-1029	2	Roller	*28	XB-V-1025	1	Set screw 5/8" - 18
8	XB-1030	3	(For right hand) washer - 1/2" I.D. x 2 ¹ / ₄ " O.D.	**29	XB-767-C	1	Grease fitting
		1	(For left hand) washer	**30	XB-21-S-250-1875	1	Roll pin
9	XB-2083	1	Hex hd. screw 1/2"-20 x 1 ³ / ₄ " with locking patch	**31	XA-279	1	Lock pin bushing
10	XB-1031	1	1/2"-20 x 2" Hex hd. cap screw	**32	XA-1016-C	1	Hinged lock pin
11	XB-403	1	Spring	**33	XA-278	1	Lock pin bushing
12	XD-3123-1	1	Lock adjusting wedge	*34	XB-H-38	2	Grease fitting
13	XB-09407	1	5/8"-11 x 3 ³ / ₄ " Soc. hd. screw	*35	XA-2016	2	Bracket pin
14	XB-09174	1	5/8"-11 Locknut	*36	XB-21-S-375-1750	2	Roll pin
15	XB-1006 (Green)	1	Comp. spring 1 ¹ / ₄ " O.D. x 5"	*37A	XB-1604-5	2	Rubber bushing (for fifth wheels manufactured prior to 5/82)
16A	XA-1102	1	Lock set	*37B	XB-0011-1	2	Rubber bushing (no longer available - order RK-03809 bushing & riser kit or refer to Service Bulletin No. 16 for instructions)
16B				*37C	XB-0011-2	2	Rubber bushing (for fifth wheels manufactured after 6/87)
17	XA-1016	1	Hinged lock pin	38	TF-0110	1	Kingpin gage
18	XB-5	1	Cotter pin 1/4" x 2"	39	TF-TLN-5001	1	Kingpin lock tester
19	XA-1621	1	Lock guard	40	XB-02846	2	Washer (left hand only) 1/2" I.D. x 2 ⁵ / ₈ " O.D.

* Not included in Rebuild Kit

** Additional parts included in RK-62011 & RK 62012 Rebuild Kits (Kits contain Item No. 32 in place of Item No. 17)

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 item with a steel hammer.
6. Do not weld on this product without written permission from the factory.
7. Observe standard precautions when lifting.
8. Refer to Holland Publication XL-FW340 for description and instructions for Holland TF-TLN-5001 Kingpin Lock Tester.

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.



This equipment must not be used or maintained in a careless manner.

These products are covered by Holland's Commercial Products Warranty. Holland reserves the right, without giving prior notice, to change specifications and dimensions as designs are altered or improved.



GO THE DISTANCE.

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