



FIFTH WHEELS

REBUILD PROCEDURES



XA-3501-UB Elevating Fifth Wheel Top Plates

This manual contains the installation procedures for Holland rebuild kits RK-63502 and RK-63504. Before rebuilding, verify that you have the correct rebuild kit for the fifth wheel top plate you are

attempting to rebuild. The fifth wheel part number tag is located on the side of the fifth wheel “pick-up” ramp (see **Figure 1**).

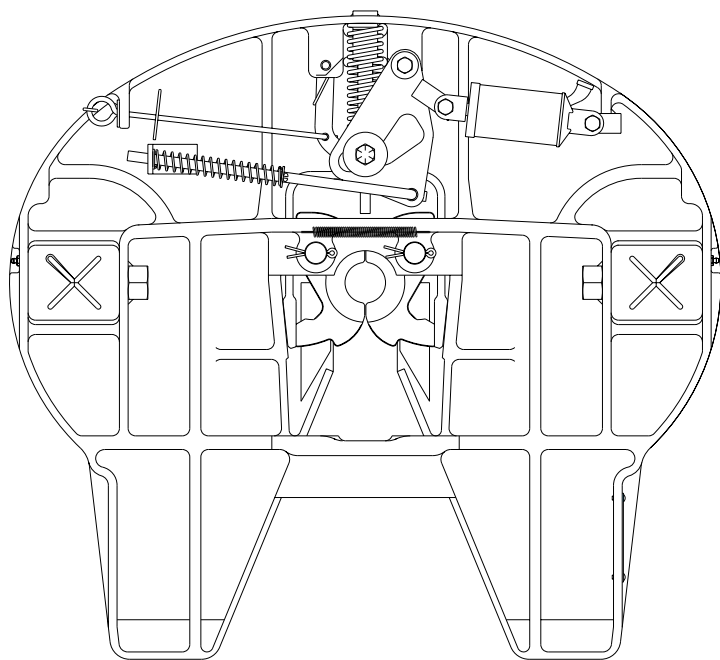
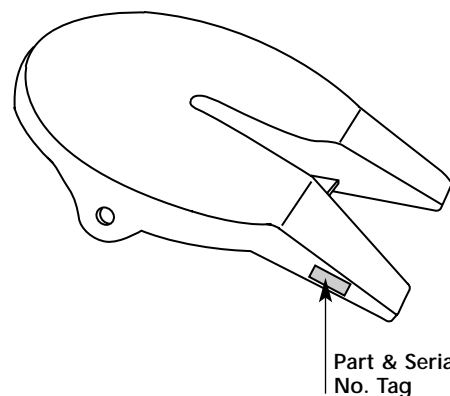


Figure 1



Use RK-63502 to Rebuild the Following Fifth Wheel Part Numbers

- XA-3501-UB, FW4500-B & FW6700-16B
- Use RK-63504 to replace locks only on XA-3501-UB top plates

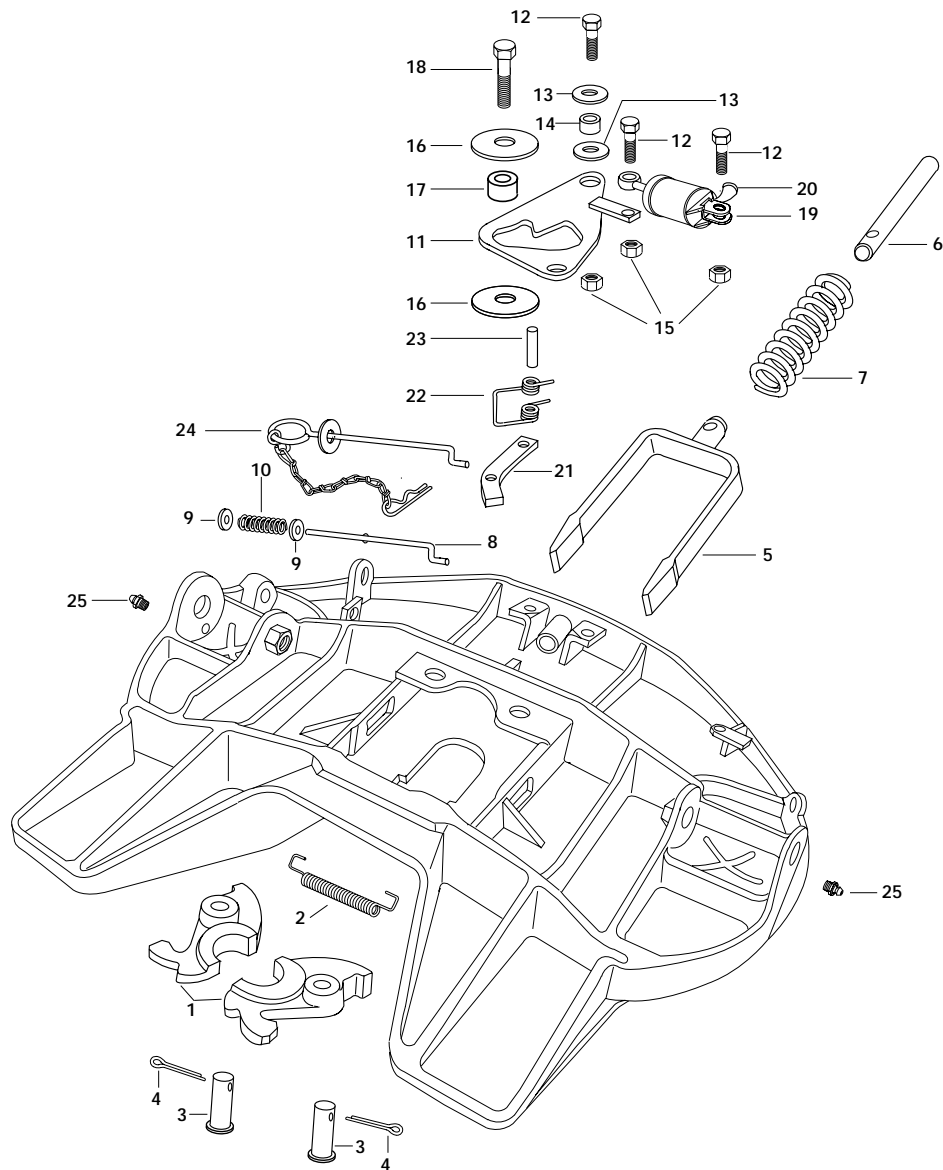


WARNING

Before attempting any repair procedures you must read and understand the following:

- All fifth wheel maintenance must be performed by a qualified service technician using proper tools and safe procedures. Follow the instructions contained in this manual.
- DO NOT modify, change, or add to the product. Use only genuine Holland parts.
- Perform all procedures in a lighted area clear of obstacles and other personnel.
- Always wear safety goggles during service procedures. DO NOT strike any part of the product with a steel hammer.
- Observe standard precautions when lifting.

RK-3501-UB PARTS BREAKDOWN



ITEM NO.	PART NO.	NO. REQ'D	PART NAME	ITEM NO.	PART NO.	NO. REQ'D	PART NAME
1	XA-1704-X	1	Lock jaw set	16	XB-1030-1	2	Washer
2	XB-GT-13-1	1	Extension spring	17	XA-1507-1	1	Roller 5/8" ID
3	XA-1311	1	Lock pin	18	XB-CX-58-F-134	1	Hex hd. cap screw 5/8"-18 x 1 3/4"
4	XB-5	1	Cotter pin (1/4" x 2")	19	XA-2524-R-13	1	Air cylinder
5	XA-1703-F	1	Yoke	20	XB-698	1	45° street elbow
6	XA-1706-1	1	Yoke shaft	21	XA-3528	1	Secondary lock
7	XB-1505	1	Spring	22	XB-2149	1	Torsion spring
8	XA-1707-5	1	Release handle	23	XB-21-S-500-2750	1	Roll pin 1/2" x 2 3/4"
9	XB-PW-1732-1-116	2	Washer 1" x 1/2"	24	XA-3546	1	Secondary lock handle
10	XB-1028-1	1	Spring	*25	XB-H-38	2	Grease fitting
11	XA-1705-7	1	Cam plate	*26	XB-BR-118-C-7	2	HHCS 1 1/8"-7 x 7"
12	XB-2083	3	HHCS 1/2"-20 x 1 3/4"	*27	XB-1604-5	2	Rubber bushing
13	XB-T-49	1	Washer	*28	XB-E-536	2	Washer, lock 1 1/8"
14	XA-1029	1	Roller 1/2" ID	*29	TF-0110	1	Kinpin gage
15	XB-T-69-A	3	Locknut 1/2"-20 (2 add'l. req. for brackets)*	*30	TF-TLN-5001	1	Kingpin lock tester

* Not included in rebuild kit

REBUILD PROCEDURES

A. 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, damage, distortion and loose lock pin holes.

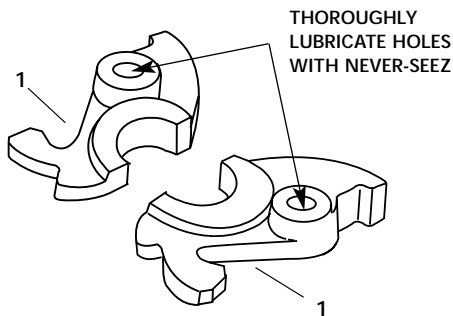
Fifth wheels with cracks or loose lock pin holes must be replaced.



Do not attempt repair or rebuilding if the top plate is cracked, damaged or distorted, or if the lock pins do not fit tightly in the top plate as the top plate may fail or the locks may malfunction.

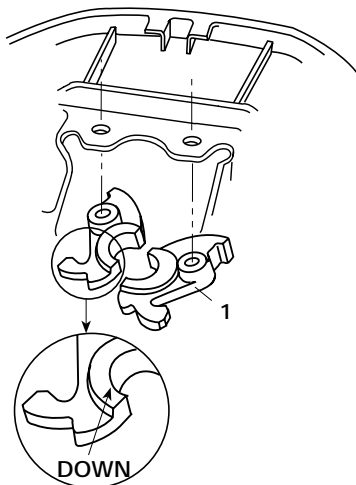
B. LOCK INSTALLATION

1. Lubricate the lock pin holes of the lock jaws (*ITEM 1*) with Never-Seez (provided in kit). DO NOT SUBSTITUTE.



2. Align the lock jaws (*ITEM 1*) in the casting, as shown.

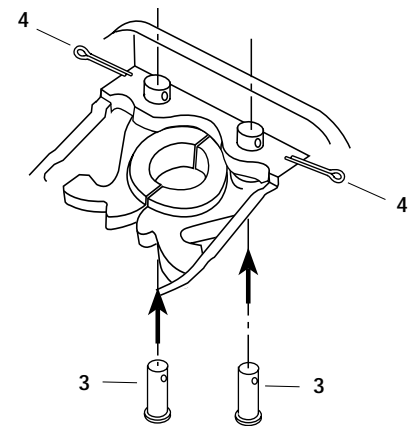
With fifth wheel upside down, position lock jaws so that the word "top", is facing down.



3. Align the holes in the lock pins (*ITEM 3*) so that cotter pins can be inserted, as shown.

4. Drive pins into casting until heads are flush with casting.

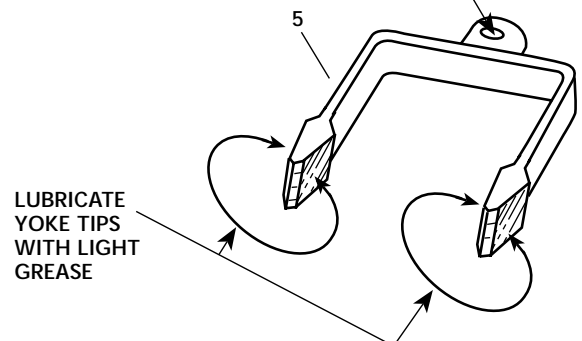
5. Insert cotter pins (*ITEM 4*) and spread.



C. YOKE INSTALLATION

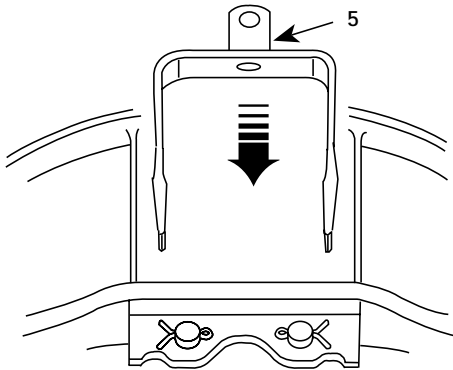
1. Lubricate the tips of the yoke with a light grease, as shown.

INSTALL WITH
THREADED HOLE
FACING UP

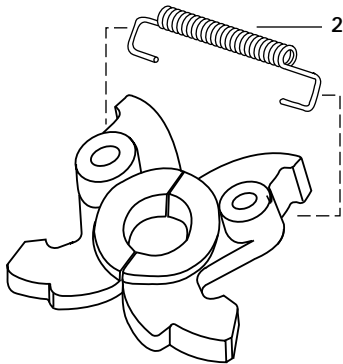


C. YOKE INSTALLATION (continued)

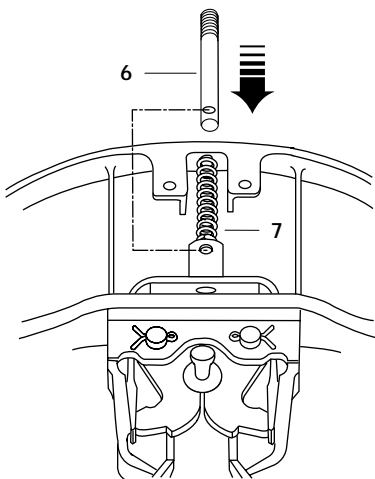
2. With the threaded hole facing up, slide yoke (ITEM 5) into casting. Tap lightly to seat yoke around locks.



3. Install lock spring (ITEM 2), as shown.

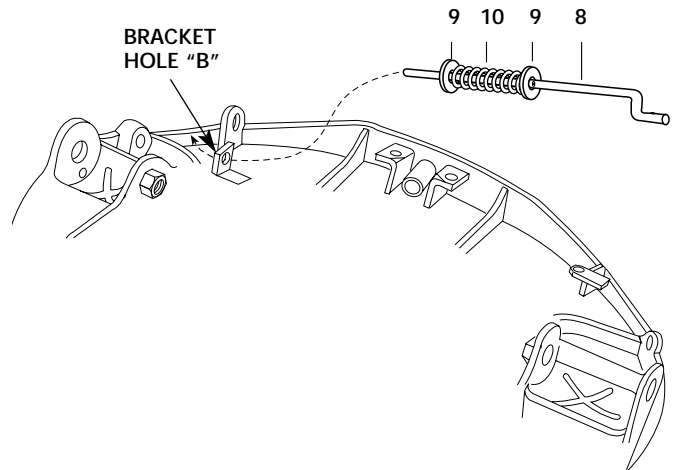


4. Install yoke spring (ITEM 7), as shown below.
5. Next, slide the yoke shaft (ITEM 6) into the casting, through the spring and into the yoke. Align the recessed hole in the shaft with the threaded hole in the yoke.

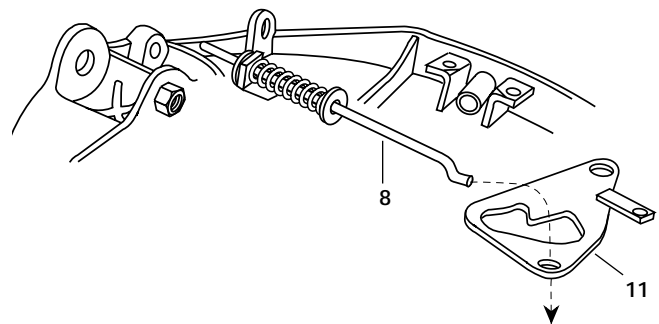


D. CAM PLATE INSTALLATION

1. In this order, slide the 1" washer (ITEM 9), handle spring (ITEM 10) and second 1" washer (ITEM 9) onto the release handle rod (ITEM 8), as shown below.
2. Next, slide the straight end of the release handle rod (ITEM 8) through the inside of bracket hole "B", as shown below.

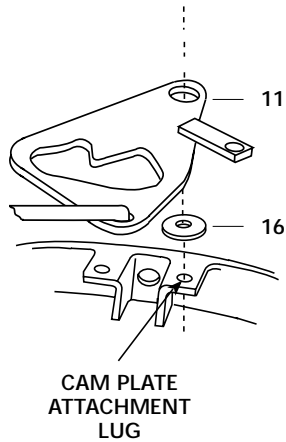


3. Insert the "S" bend of the release handle (ITEM 8) rod into the hole in the cam plate (ITEM 11), as shown below.

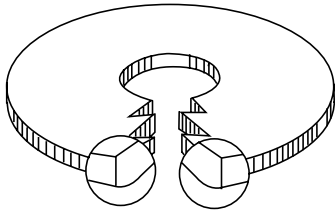


D. CAM PLATE INSTALLATION (continued)

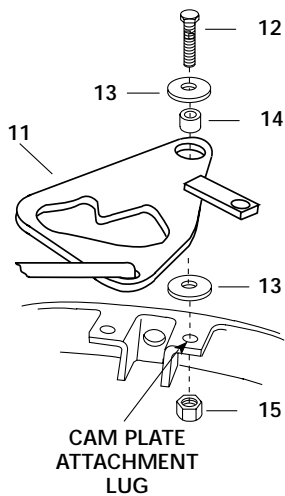
4. Position the cam plate pivot hole over the casting lug as shown. Slide a 1-3/4" washer (ITEM 16) between the cam plate (ITEM 11) and the casting lug with the rounded side of the washer facing the cam plate.



5. NOTE: When installing washers (ITEMS 16 and 13), the rounded edge of the washers must always face the cam plate.



6. Install the 1/2" roller (ITEM 14) into the cam plate and place a second 1-3/4" washer (ITEM 13) on top of the roller with the rounded side facing the cam plate.

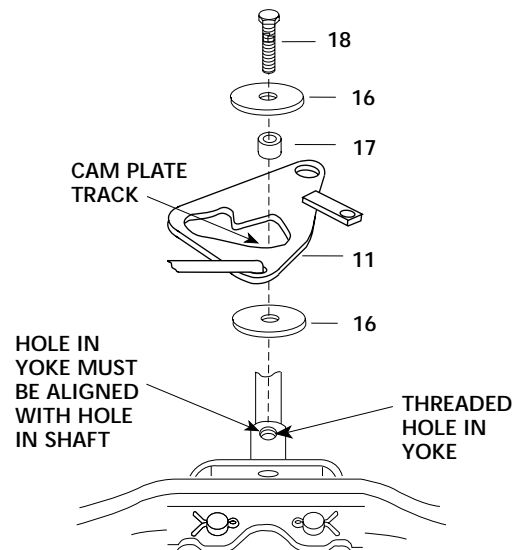


7. Install the 1/2" bolt (ITEM 12) through the washers, roller and top plate lug.

8. Secure the bolt with a 1/2" nut (ITEM 15). Tighten securely. Then check for free movement of the cam plate.

9. Next, align the cam plate track over the threaded hole in the yoke.

10. Slide a 2-5/8" O.D. washer (ITEM 16) between the yoke and the cam plate.

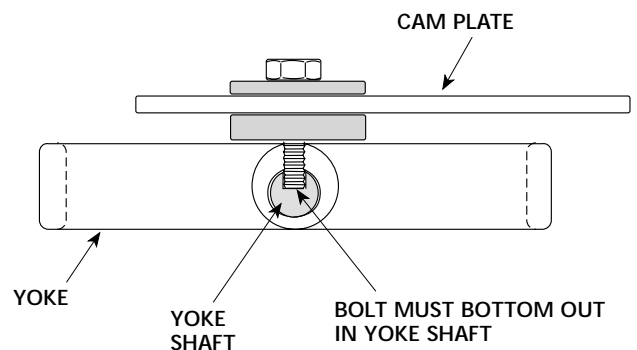


11. Place a 5/8" roller (ITEM 17) into the cam plate track, then place a 2-5/8" O.D. washer (ITEM 16) over the roller with the rounded side of the washer facing the cam plate.

12. Check the alignment of the recessed hole in the yoke shaft.

13. Install the 5/8" bolt (ITEM 18) through the washers, roller and cam plate and into the threaded hole in the yoke.

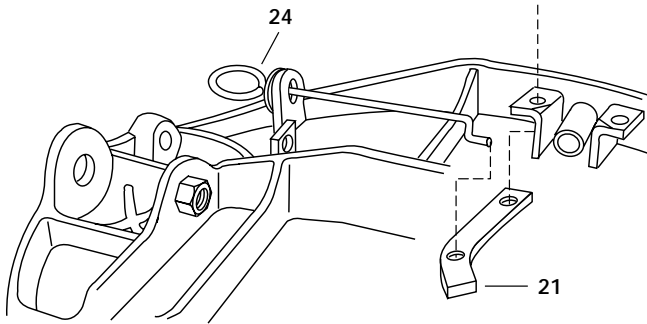
Make sure that the bolt enters the recessed hole in the yoke shaft, as shown below.



14. Tighten the bolt securely, then check for free movement of the cam plate.

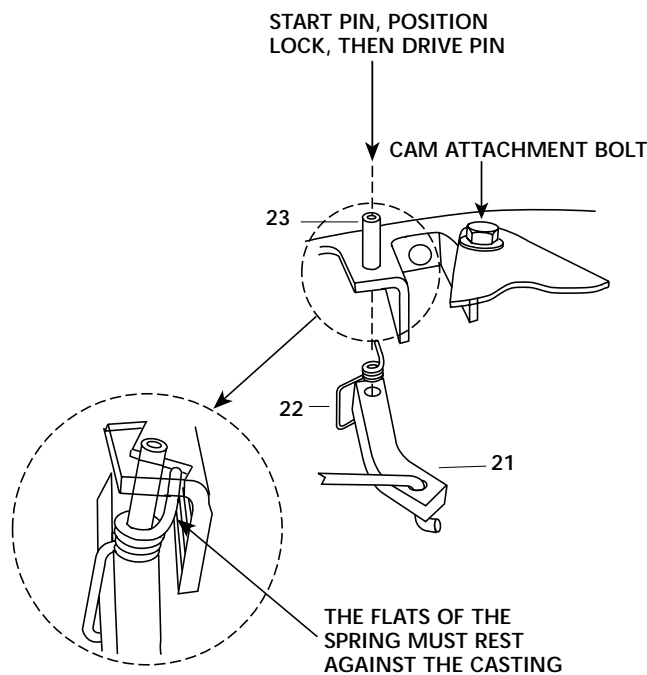
E. SECONDARY LOCK INSTALLATION

1. Pass the "S" bend of the manual secondary release handle (ITEM 24) through the casting guide hole, as shown below.



2. Pass the "S" bend of the release handle through the large hole in the secondary lock (ITEM 21), as shown.

Start the roll pin (ITEM 23) into the hole in the top plate opposite the cam attachment bolt.



Assemble the secondary lock (ITEM 21) to the torsion spring (ITEM 22), as shown.

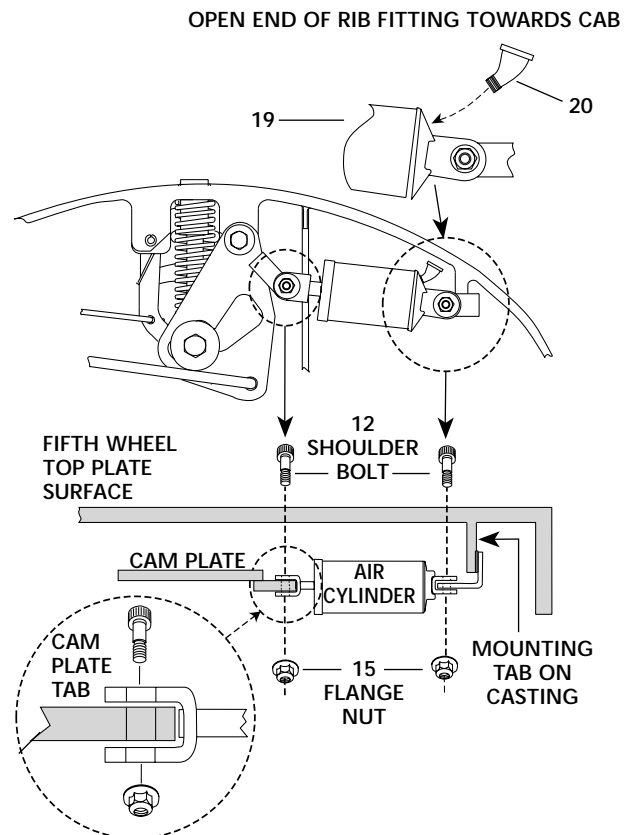
Drive the roll pin (ITEM 23) through the spring and lock until flush with the casting.

Check the lock spring for tension and lock for free movement.

F. AIR CYLINDER INSTALLATION

1. Insert the 45° fitting (ITEM 20) into the hole in the end of the air cylinder (ITEM 19) and position so that the open end of the fitting faces the tractor cab.
2. Position the clevis on the rod end of the air cylinder over the hole in the cam plate tab (see figure below).
3. Position the clevis on the fixed end of the air cylinder over the mounting tab on the fifth wheel casting rib (see figure below).
4. Secure the air cylinder using the socket head shoulder bolts (ITEM 12) and flange nuts (ITEM 15), as shown.

NOTE: The bolts should be inserted so that the bolt heads face the fifth wheel casting and the flange nuts face outward.

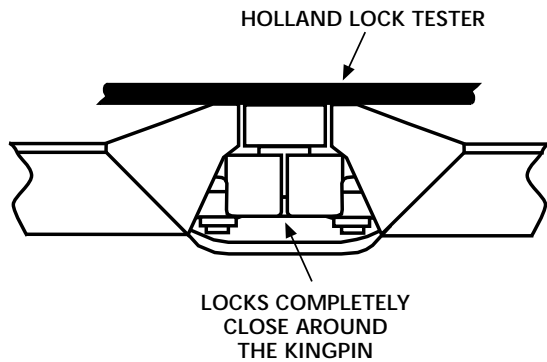


H. OPERATION CHECK

Before you use your fifth wheel, you must verify that it is operating properly.

1. Open and close the fifth wheel at least three (3) times using a Holland Lock Tester.

Each time you close the locks, verify that the locks have closed completely around the kingpin.



The fifth wheel is now ready for operation.



WARNING

If the fifth wheel does not operate properly, DO NOT USE IT! Either disassemble and repeat rebuilding procedures or contact your nearest Holland representative for assistance. Never use a fifth wheel that does not operate properly.



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