



FIFTH WHEELS

REBUILD PROCEDURES



XA-2801-AX-1

Elevating Fifth Wheel Top Plates

RK-65021-2

This manual contains the installation procedures for Holland rebuild kit RK-65021-2. 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 front of the fifth wheel (see FIGURE 1).

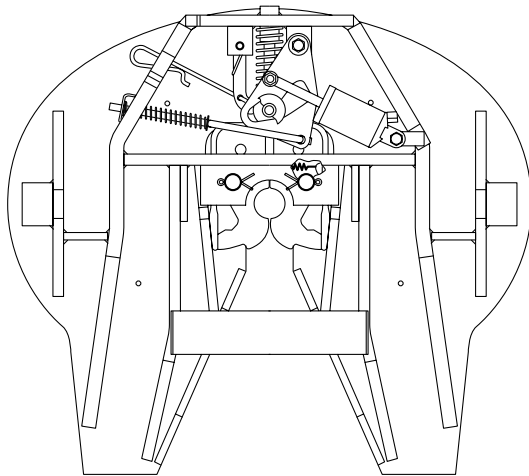
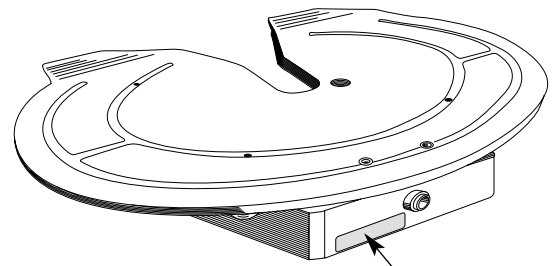


FIGURE 1



Part and Serial No. Tag

Use RK-65021-2 to Rebuild the Following Fifth Wheel Part Numbers

| ASSEMBLY | TOP PLATE |
|---------------|--------------|
| FW2800 | XA-2801-AX-1 |
| FW2900 Series | XA-2801-AX-1 |

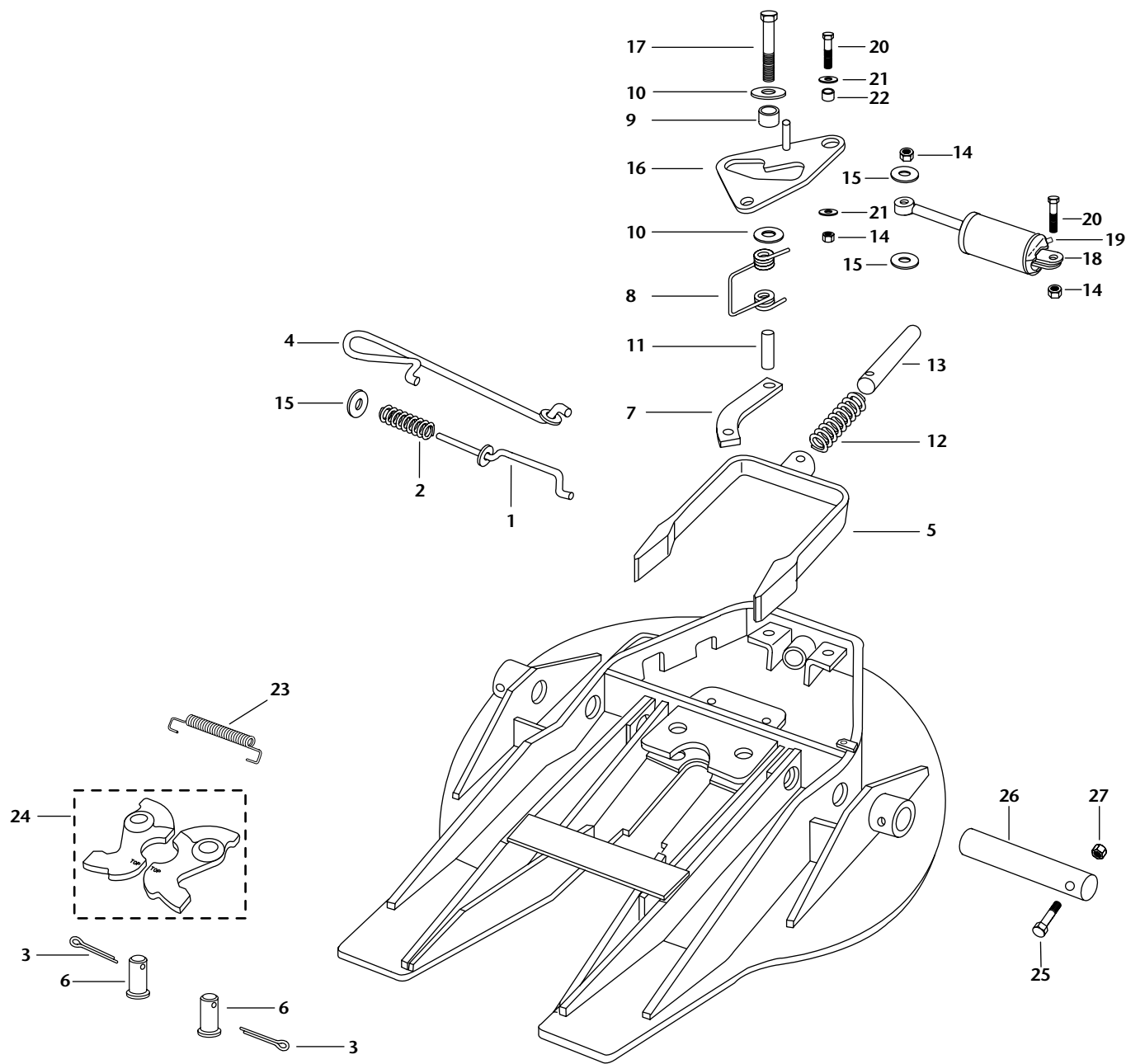


WARNING

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.

XA-2801-AX-1 PARTS BREAKDOWN



| ITEM NO. | PART NO. | NO. REQ'D. | PART NAME | ITEM NO. | PART NO. | NO. REQ'D. | PART NAME |
|----------|------------------|------------|-----------------------|----------|------------------|------------|-------------------------------|
| 1 | XA-1707-16 | 1 | Handle S/A Release | 15 | XB-PW-1732-1-116 | 3 | Washer, 1/2" |
| 2 | XB-1028-1 | 1 | Spring | 16 | XA-1705-11 | 1 | Cam Plate S/A |
| 3 | XB-5 | 2 | Cotter Pin, 1/4" x 2" | 17 | XB-CX-58-F-134 | 1 | HHCS, 5/8"-18 x 1-3/4" |
| 4 | XA-3544-1-A | 1 | Handle S/A | 18 | XA-2524-R-13-X | 1 | Air Cyl. S/A for XA-2801-AX-1 |
| 5 | XA-1703-F | 1 | Yoke | 19 | XB-01996 | 2 | 90° Street Elbow |
| 6 | XA-1313 | 2 | Lock Pin | 20 | XB-2083 | 2 | HHCS, 1/2"-20 x 1-3/4" |
| 7 | XA-3528 | 1 | Lock Bar | 21 | XB-T-49 | 2 | Washer, 1/2" |
| 8 | XB-2149 | 1 | Torsion Spring | 22 | XA-1029 | 1 | Roller |
| 9 | XA-1507-1 | 1 | Cam Roller | 23 | XB-GT-13-1 | 1 | Extension Spring |
| 10 | XB-1030-1 | 2 | Washer | 24 | XA-1704-X | 1 | Lock Set |
| 11 | XB-21-S-500-2750 | 1 | Roll Pin | *25 | XB-BR-12-C-4 | 2 | HHCS, 1/2"-13 x 4" |
| 12 | XB-1505 | 1 | Spring | *26 | XA-2809 | 2 | Pivot Shaft |
| 13 | XA-1706-1 | 1 | Yoke Shaft | *27 | XB-0103 | 2 | Lock Nut, 1/2"-13 |
| 14 | XB-T-69-A | 3 | Lock Nut, 1/2"-20 | | | | |

* Not included in RK-65021-2

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.

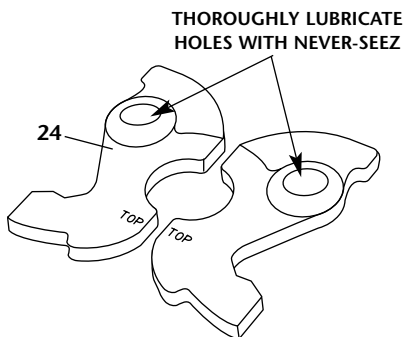


WARNING

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.

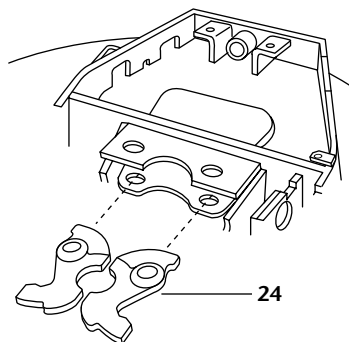
B. LOCK INSTALLATION

1. Lubricate the lock pin holes of the lock jaws (*ITEM 24*) with Never-Seez (provided in kit). **DO NOT SUBSTITUTE.**

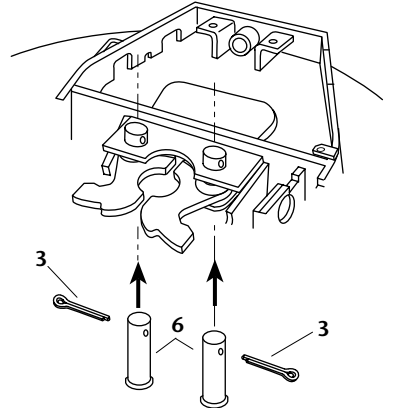


2. Align the lock jaws (*ITEM 24*) in the top plate, as shown.

With fifth wheel upside down, flip the lock jaws over so that the words 'TOP' are facing the underside of the top plate and are not visible on the locks.

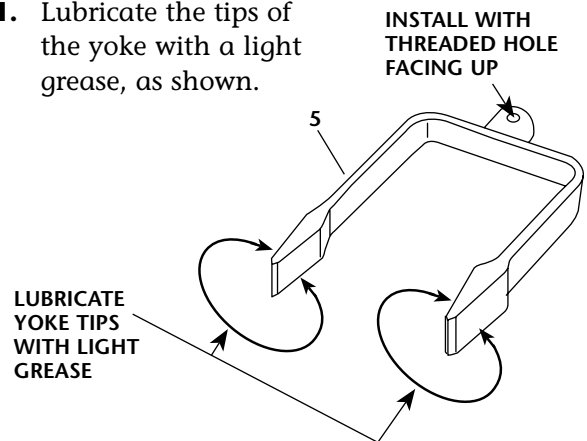


3. Align the holes in the lock pins (*ITEM 6*) so that cotter pins can be inserted, as shown.
4. Drive pins into the fifth wheel until heads are flush with the top plate.
5. Insert cotter pins (*ITEM 3*) and spread.

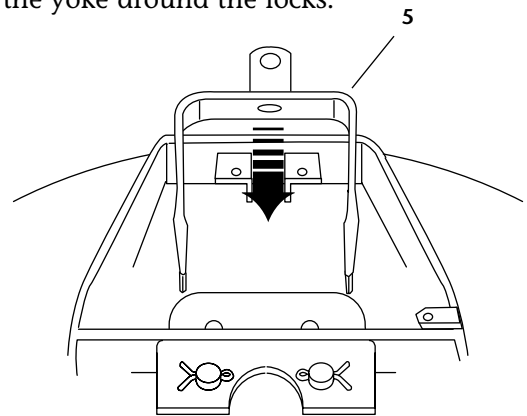


C. YOKE INSTALLATION

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

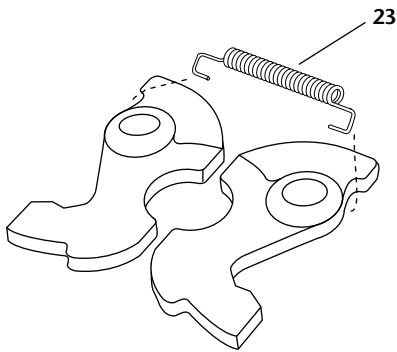


2. With the threaded hole facing up, slide yoke (*ITEM 5*) into the top plate. Tap lightly to seat the yoke around the locks.

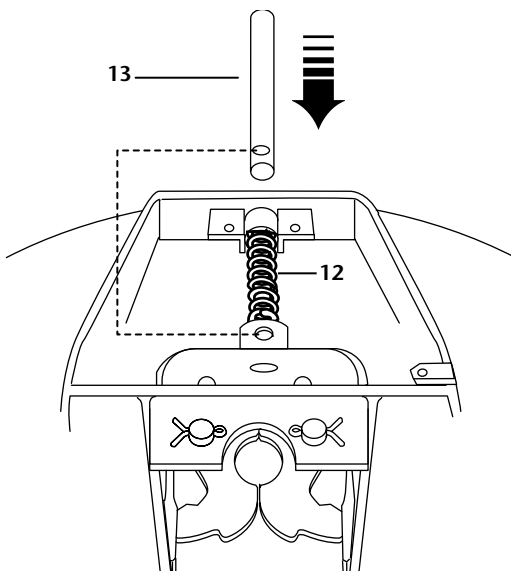


C. YOKE INSTALLATION *(continued)*

3. Install lock spring (*ITEM 23*), as shown.

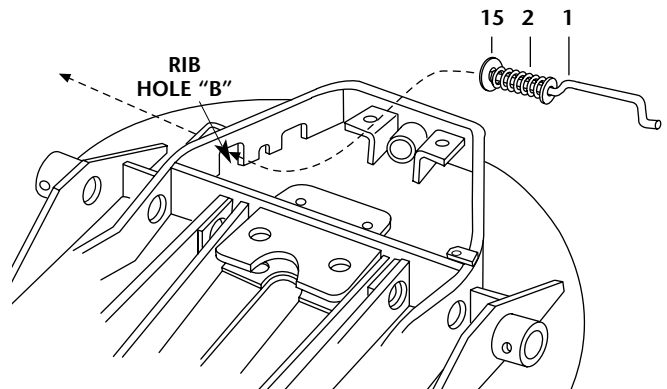


4. Install yoke spring (*ITEM 12*), as shown below.
5. Next, slide the yoke shaft (*ITEM 13*) into the top plate, through the spring and into the yoke. Align the recessed hole in the shaft with the threaded hole in the yoke.

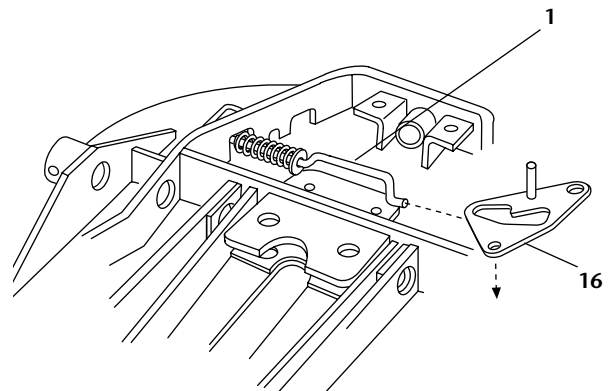


D. CAM PLATE INSTALLATION

1. In this order, slide the handle spring (*ITEM 2*) and a 1-1/16" O.D. washer (*ITEM 15*) onto the release handle (*ITEM 1*), as shown below.
2. Next, slide the straight end of the release handle rod (*ITEM 1*) through the inside rib of the top plate into hole "B", as shown below.

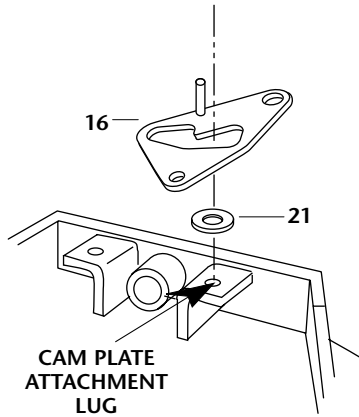


3. Insert the "S" bend of the release handle (*ITEM 1*) rod into the hole in the cam plate (*ITEM 16*), as shown below.

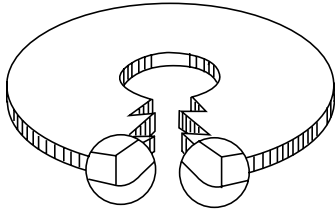


D. CAM PLATE INSTALLATION *(continued)*

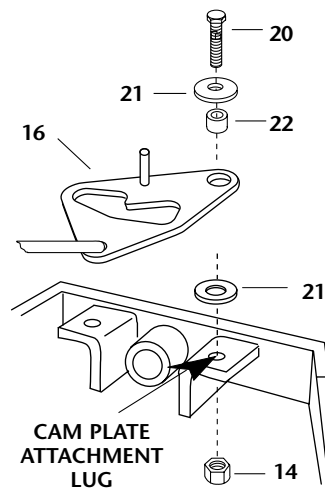
4. Position the cam plate pivot hole over the top plate lug as shown. Slide a 1-3/8" O.D. washer (ITEM 21) between the cam plate (ITEM 16) and the top plate lug with the rounded side of the washer facing the cam plate.



5. **NOTE:** When installing washers (ITEMS 10 and 21), the rounded edge of the washers **must** always face the cam plate.



6. Install the 1/2" I.D. roller (ITEM 22) into the cam plate and place a second 1-3/8" washer (ITEM 21) on top of the roller with the rounded side facing the cam plate.

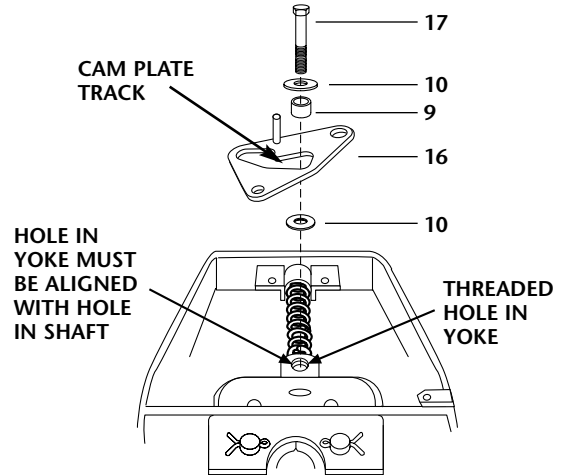


7. Install the 1/2" bolt (ITEM 20) through the washers, roller and top plate lug.

8. Secure the bolt with a 1/2" lock nut (ITEM 14). 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 the 2-1/4" O.D. washer (ITEM 10) between the yoke and the cam plate.

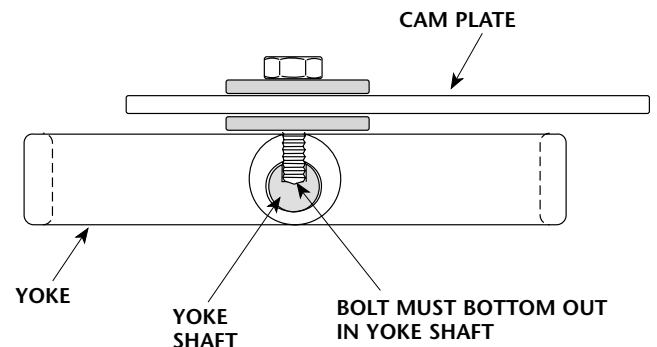


11. Place a 5/8" I.D. roller (ITEM 9) into the cam plate track, then place a 2-1/4" O.D. washer (ITEM 10) over the roller with the rounded side of the washer facing the cam plate.

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

13. Install the 5/8" bolt (ITEM 17) through the washers, roller and cam plate and into the threaded hole in the yoke.

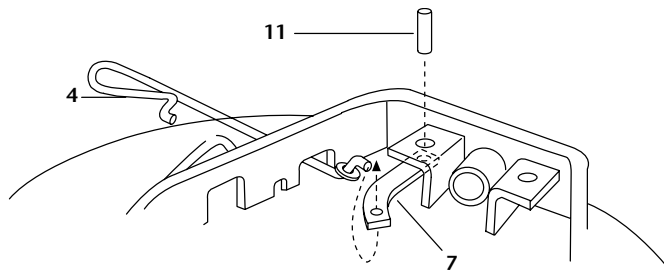
Make sure that the bolt enters the recessed hole in the yoke shaft, as shown below.



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

E. SECONDARY LOCK INSTALLATION

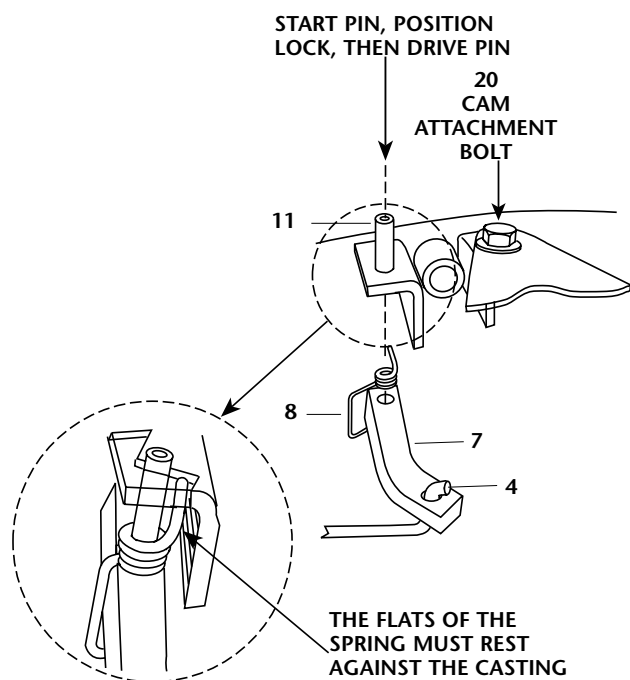
1. Pass the "S" bend of the manual secondary release handle (*ITEM 4*) through the rib guide hole, as shown below.



2. Pass the "S" bend of the release handle through the large hole in the secondary lock (*ITEM 7*), as shown.

Start the roll pin (*ITEM 11*) into the hole in the top plate opposite the cam attachment bolt.

Assemble the secondary lock (*ITEM 7*) to the torsion spring (*ITEM 8*), as shown.



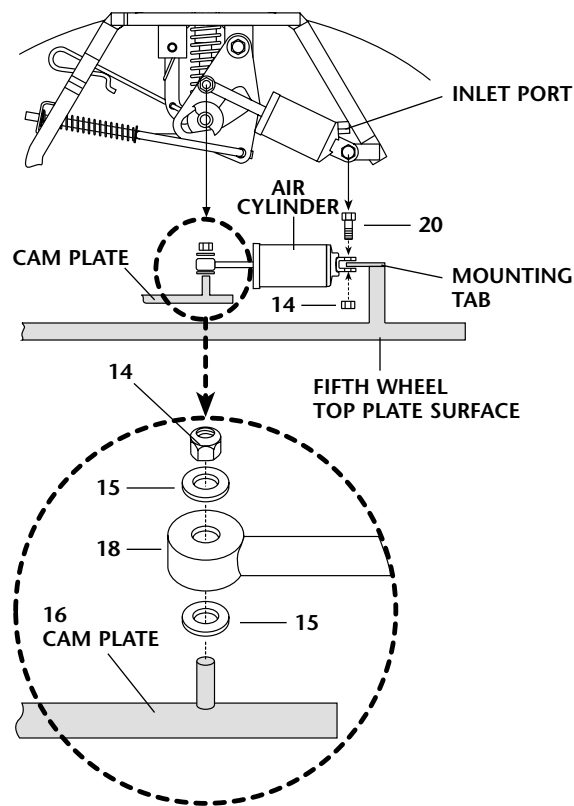
Drive the roll pin (*ITEM 11*) through the spring and lock until it is flush with the tab surface.

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

F. AIR CYLINDER INSTALLATION

1. Position the air cylinder (*ITEM 18*) so that the open end of the inlet port faces the tractor cab.
2. Position the round tab on the rod end of the air cylinder over the stud on the cam plate (see figure below).
3. Position the clevis on the fixed end of the air cylinder over the mounting tab on the fifth wheel rib (see figure below).
4. Secure the air cylinder using the hex head cap screw (*ITEM 20*) and lock nut (*ITEM 14*), as shown below.

NOTE: The hex head cap screw (*ITEM 20*) is inserted so that the head is accessible from the underside of the top plate.

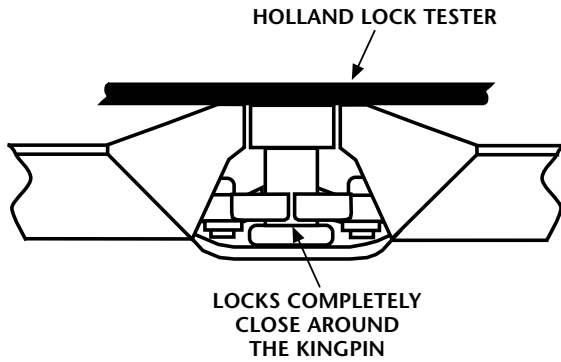


G. OPERATION CHECK

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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