

# No-Tilt Retro-fit Instructions

## ILS Style Fifth Wheel Slider

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Articulation Lock-out for Standard Holland ILS Style Fifth Wheel Slider

#### Introduction

These instructions provide the information necessary to properly retro-fit a standard HOLLAND® ILS style fifth wheel slider to add the ability to lock-out fifth wheel articulation (or pivoting) at the fifth wheel bracket pins. After the ILS No-Tilt retro-fit is complete it will be usable with both the FW35 and FW33 No-Tilt top plates.

Read these instructions before using or servicing this product and keep it in a safe location for future reference. Updates to these instructions, which are published as necessary, are available on the internet at [www.safholland.us](http://www.safholland.us).

When replacement parts are required, SAF-HOLLAND® highly recommends the use of only SAF-HOLLAND® Original Parts. A list of technical support locations that supply SAF-HOLLAND® Original Parts and an Aftermarket Parts Catalog are available on the internet at [www.safholland.us](http://www.safholland.us) or contact Customer Service at 888-396-6501.

#### Notes, Cautions, and Warnings

Before starting any work on the unit, read and understand all the safety procedures presented in this manual. This manual contains the terms "NOTE", "IMPORTANT", "CAUTION", and "WARNING" followed by important product information. These terms are defined as follows:

**NOTE:** Includes additional information to enable accurate and easy performance of procedures.

**IMPORTANT:** Includes additional information that if not followed could lead to hindered product performance.

**CAUTION** Used without the safety alert symbol, indicates a potentially hazardous situation which, if not avoided, could result in property damage.

**CAUTION** Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

**WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

#### 1. General Safety Instructions

- Read and observe all Warning and Caution hazard alert messages. The alerts provide information that can help prevent serious personal injury, damage to components, or both.

**WARNING** Failure to follow the instructions and safety precautions in this manual could result in improper servicing or operation leading to component failure which, if not avoided, could result in death or serious injury.

- All repair and maintenance should be performed by a properly trained technician using proper/special tools, and safe procedures.

**NOTE:** In the United States, workshop safety requirements are defined by federal and/or state Occupational Safety and Health Act (OSHA). Equivalent laws may exist in other countries. This manual is written based on the assumption that OSHA or other applicable employee safety regulations are followed by the location where work is performed.

**NOTE:** Before servicing the HOLLAND® fifth wheel ILS slide bracket review the model number on the identification tag. These procedures apply only to slide brackets.

**IMPORTANT:** All maintenance must be performed while the tractor is uncoupled from the trailer.

**IMPORTANT:** These instructions apply to the proper retro-fit of ILS slide brackets only. There are other important checks, inspections, and procedures not listed here that are necessary, prudent, and/or required by law.

- For proper installation procedures, refer to Installation Manual XL-FW10008BM-en-US available on the internet at [www.safholland.us](http://www.safholland.us).

**IMPORTANT:** Prior to operation of the fifth wheel, verify that the fifth wheel has been properly installed on the vehicle.

**WARNING** Failure to properly repair and install the fifth wheel could adversely affect performance resulting in tractor trailer separation which, if not avoided, could result in death or serious injury.

## 4. Kit Contents

**IMPORTANT:** ONLY an ILS with an overall fifth wheel height of 9" (229 mm) from base to top of fifth wheel plate can be converted to a No-Tilt (**Figure 4**). If the fifth wheel height is different than 9" (229 mm), the No-Tilt conversion CANNOT be performed.

**IMPORTANT:** An ILS that does not have an overall fifth wheel height of 9" (229 mm) can be converted to 9" (229 mm) by purchasing RK-10689-3. When installing RK-10689-3, the stop block, XA-10711-1, in the kit will be replaced with the stop block, XA-11479, from RK-NT-ILS-S.

**NOTE:** Installation of kit RK-NT-ILS-S will limit the overall slide travel of the existing slider by 6" (152 mm). It will also change the position of the most rearward slider engagement position by 6" (152 mm) forward.

Figure 4

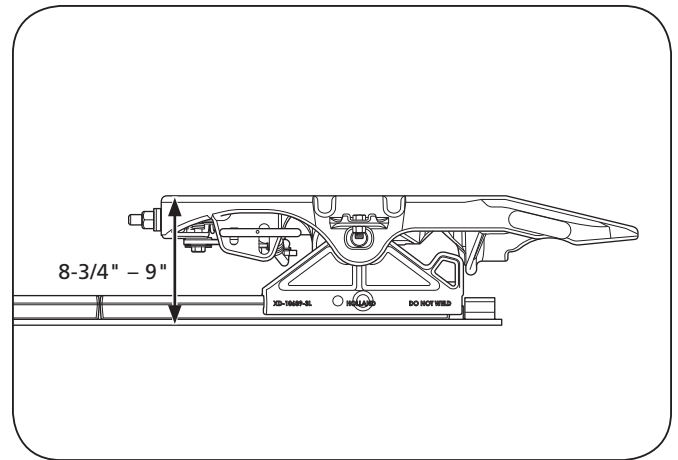
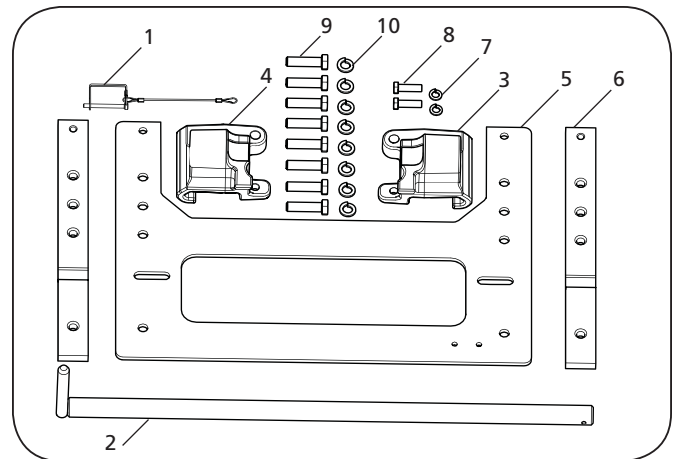


Figure 5



### RK-NT-ILS-S (Figure 5)

ITEM	DESCRIPTION	PART NO.	QTY.
1	Wire Lock Pin 1/4" and Lanyard	XB-11157-1	1
2	Shaft S/A, Handle	XA-1934-1	1
3	No-Tilt Bracket, Right Hand, 9"	XD-11627-1-R	1
4	No-Tilt Bracket, Left Hand, 9"	XD-11627-1-L	1
5	Plate, No-Tilt Sliding, Painted	XA-11628-P	1
6	Block, Stop	XA-11479	2
7	Washer, Spring Lock M12	XB-LW-M12-Z	2
8	HHCS, M12 x 1.75" x 40 mm 10.9, zinc plate	XB-HCS-M12-40-Z	2
9	HHCS, M16 x 2.0" x 60 mm CLS 10.9, zinc plated	XB-HCS-M16-60-Z	8
10	Washer, Lock M16	XB-LW-M16-Z	8

## 5. Top Plate Removal

**NOTE:** Some fifth wheel assemblies have replaceable pocket inserts installed between fifth wheel top plate and mounting base. Take care when removing the fifth wheel top plate not to lose pocket inserts.

### CAUTION

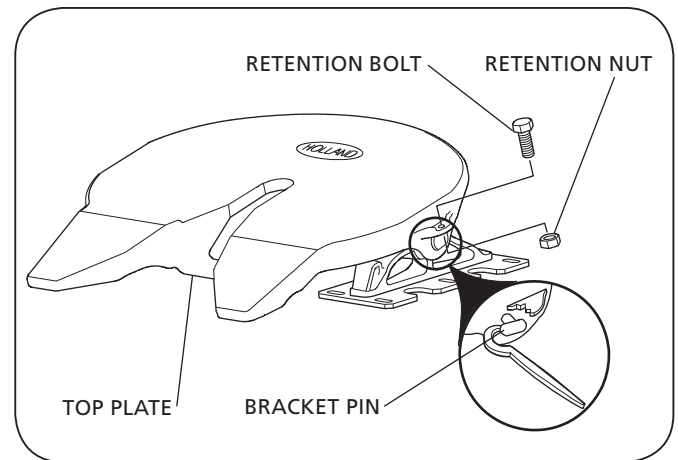
Failure to prevent pocket inserts from falling out of the top plate could cause a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

1. Remove bracket pin retention bolts and nuts from both sides of fifth wheel top plate and set aside, **(Figure 6)**.
2. Using a pry bar, pull bracket pins out of fifth wheel top plate and set aside, **(Figure 6)**.
3. Using a lifting device capable of lifting 500 lbs. (227 kg), remove top plate from mounting base. Place fifth wheel upside down on a flat, clean working area.

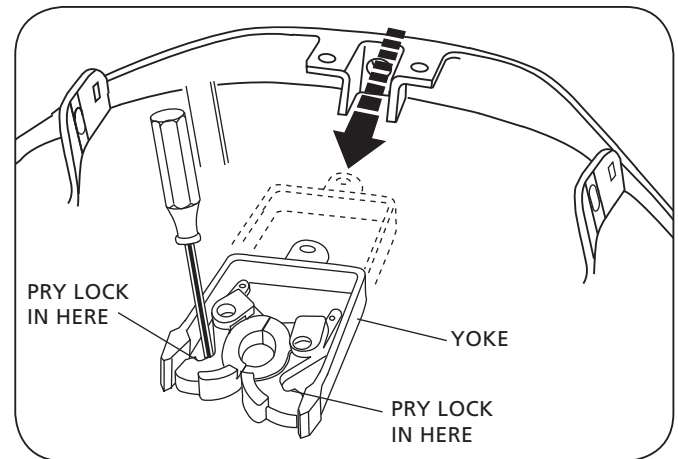
**NOTE:** Follow instructions published by lifting device manufacturer for proper operation of lifting device.

4. Close the locks by prying each of the locks in until the yoke snaps closed, **(Figure 7)**.

**Figure 6**



**Figure 7**



## 7. ILS Bracket Conversion

Remove the existing ILS components (**Figure 8**):

1. Reposition the slider brackets so that at least three teeth on the ILS rack are visible behind the slide brackets.
2. Once repositioned, ensure that the slider plungers are properly seated/engaged in the ILS rack.
3. Remove the six (6) M16 bolts from the brackets. Discard the bolts and washers.
4. Detach both air lines from the air fitting attached to the tie plate. The air lines are push-to-connect/disconnect fittings.
5. Remove the two (2) 3/8" self-tapping screws which hold the air fitting bracket onto the tie plate. Retain the 3/8" screws and air fitting bracket.
6. Dislodge the stop bars from the assembly and discard.
7. With the bolts removed, the tie plate can be slid to the rear of the slide plate where it will make contact with the rear tie bar. Lifting the rear (interfering) edge of the tie plate where it hits the tie bar will allow the tie plate to be slid over the top of the tie bar and removed from the assembly. Discard the tie plate (**Figure 9**).

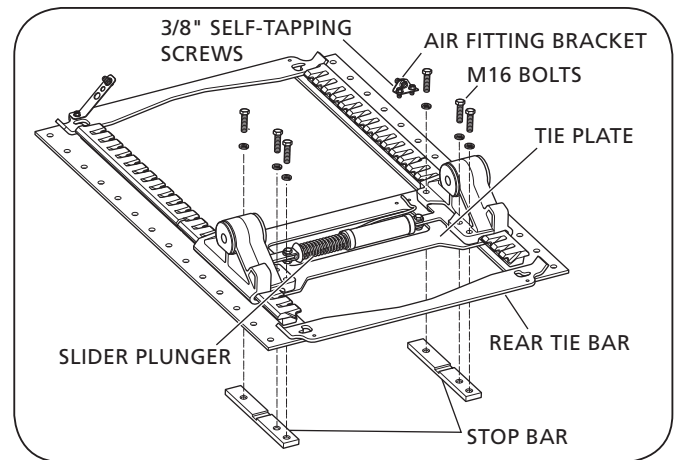
## 8. Installation Procedure

1. Install the No-Tilt tie plate (XA-11628-P) from RK-NT-ILS-S by angling the leading edge of the tie plate underneath the rear edge of the ILS rack (**Figure 10**).

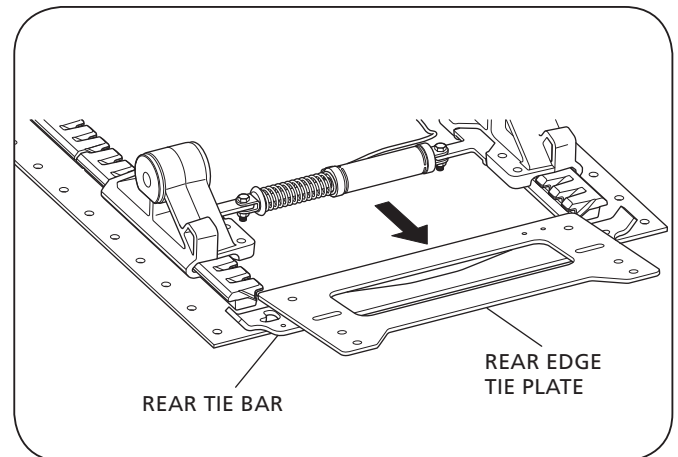
**NOTE:** Orientation of the installed tie plate is critical. The tie plate **MUST** be position so that the air fitting bracket holes are on both the leading (forward) edge and on the curbside of the slider base.

2. Slide the tie plate forward and beneath the fifth wheel sliding brackets. Line up the holes between the sliding brackets and the forward three holes on the tie plate (**Figure 10**).

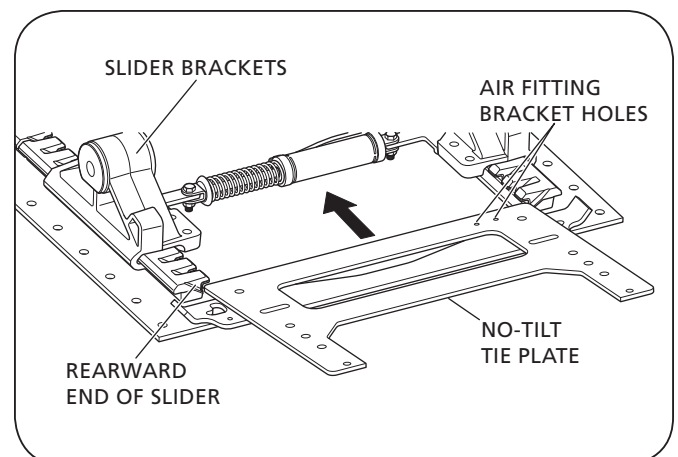
**Figure 8**



**Figure 9**

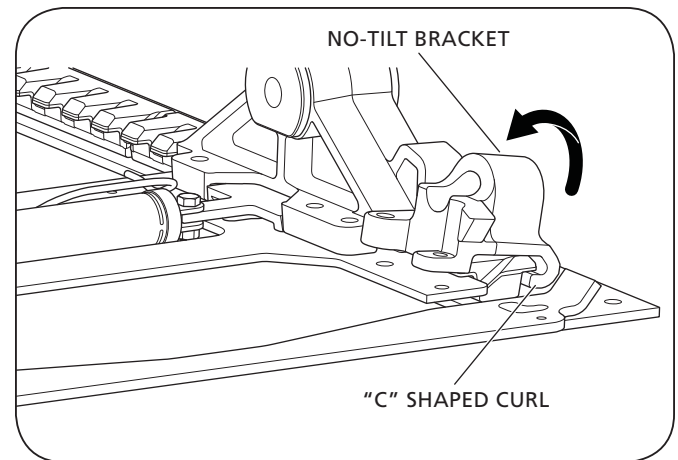


**Figure 10**

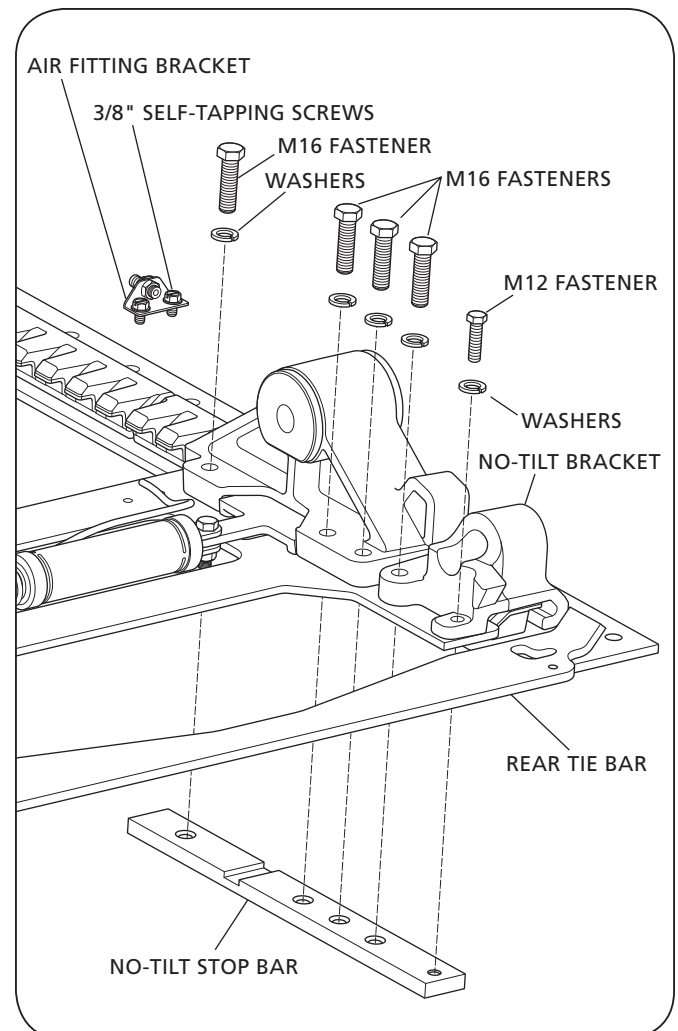


3. Immediately rearward of the curbside fifth wheel bracket, install the new No-Tilt bracket (part no. XD-11627-1-R, cast onto the underside of the component) onto the ILS by positioning the "C" shaped curl over the outside edge of the ILS rack and rotating down (**Figure 11**).
4. For the curbside of the slider assembly, position the ILS No-Tilt stop bar with the crossing groove side of the stop bar facing upward toward the underside of the slider brackets (**Figure 12**). The stop bar includes five (5) tapped holes which line up with the holes in the slider bracket and No-Tilt bracket.
5. Install four (4) new M16 fasteners and four (4) new lock washers in the three (3) slide bracket fastener positions and the forward bolt fastener position in the No-Tilt bracket. Tighten the four (4) M16 bolts with a torque wrench to 180-210 ft.-lbs. (244-285 N•m) (**Figure 12**).
6. Install one (1) new M12 fastener and new lock washer in the rear most fastener position in the No-Tilt bracket. Tighten the M12 bolt with a torque wrench to 45-55 ft.-lbs. (61-75 N•m).
7. Repeat Steps 3 through 6 for the roadside fifth wheel No-Tilt bracket installation.
8. Re-install the air fitting bracket into the new tie plate with the two (2) 3/8" self-tapping screws retained from Step 4 of the removal procedures.
9. Re-install air lines to both sides of the air fitting.

**Figure 11**



**Figure 12**



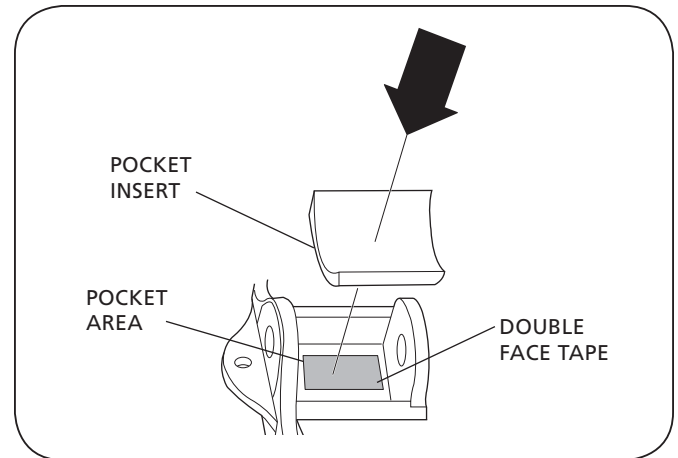
## 9. Top Plate Installation

1. If the pocket inserts are dislodged from fifth wheel casting, clean the pocket area of casting and apply a strip of double face tape in the bottom of pockets. Install pocket inserts by pressing them down into the pocket areas (**Figure 13**).
2. Using a lifting device capable of lifting 500 lbs. (227 kg), install the fifth wheel top plate onto its mounting base.

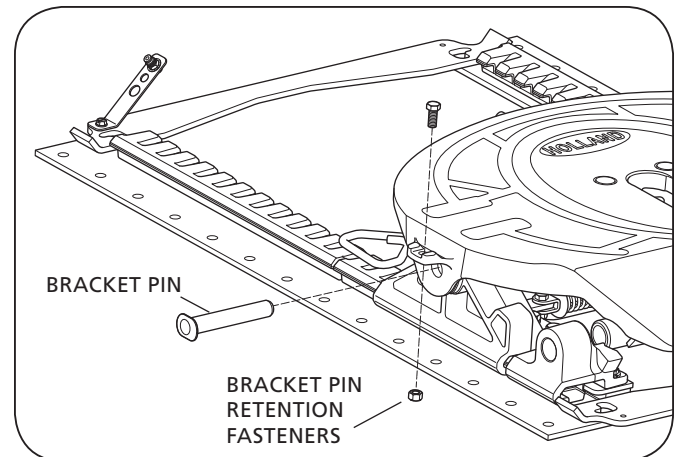
**NOTE:** Follow instructions published by lifting device manufacturer for proper operation of lifting device.

3. Install the bracket pins through the fifth wheel casting and mounting base and secure by installing the bracket pin retention bolts and nuts, (**Figure 14**). Torque retention bolts to 50-60 ft.-lbs. (68-81 N•m).
4. If fifth wheel top plate is configured with an air cylinder, reconnect tractor air supply to the fifth wheel air cylinder.

**Figure 13**



**Figure 14**



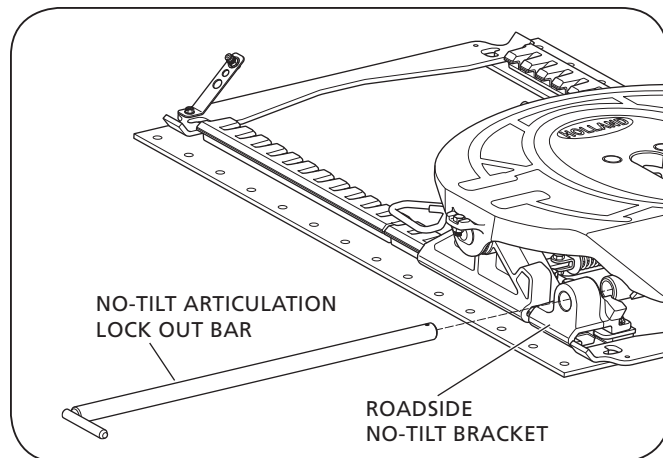
# Top Plate Installation



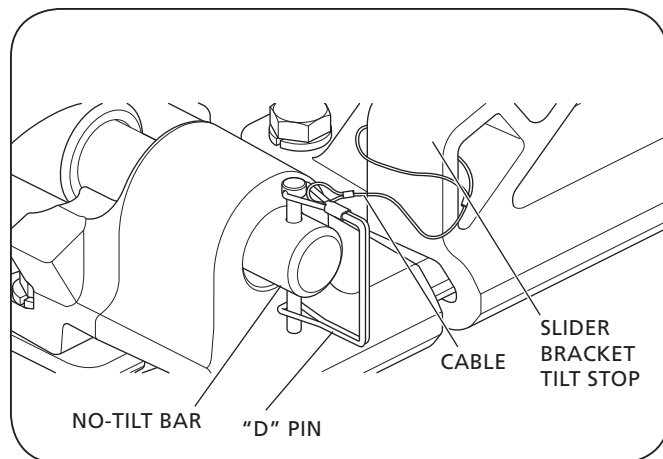
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5. Insert the No-Tilt articulation lock out bar through the roadside No-Tilt bracket, the FW35 no-tilt top plate and finally through the curbside No-Tilt bracket (**Figure 15**).
6. With the No-Tilt articulation lock out bar properly engaged in the slider, install the "D" shaped pin through the hole in the end of the No-Tilt bar and secure within the wire lock pin (**Figure 16**).
7. Wrap the loose end of the wire lock pin lanyard around the tilt stop on the slider bracket. Use pliers or a crimping tool to secure loose end of the cable inside the cable collar.

**Figure 15**



**Figure 16**



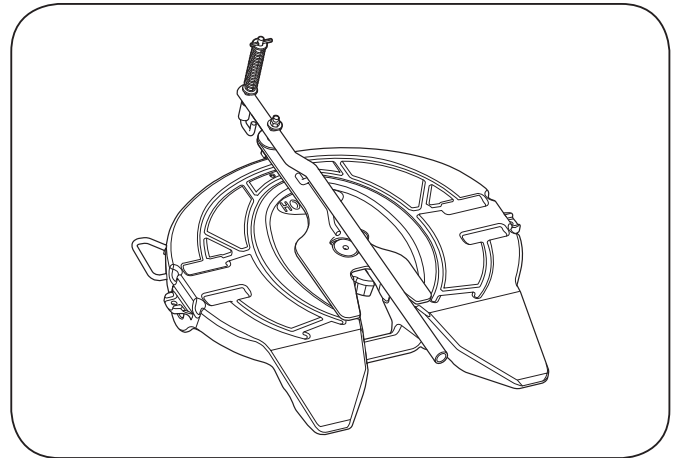
## 10. Fifth Wheel Adjustment

Fifth wheel adjustment should be performed after converting the fifth wheel to an air actuated release. To obtain proper adjustment SAF-HOLLAND® recommends the use of the HOLLAND® Lock Tester (Part No. TF-TLN-5001).

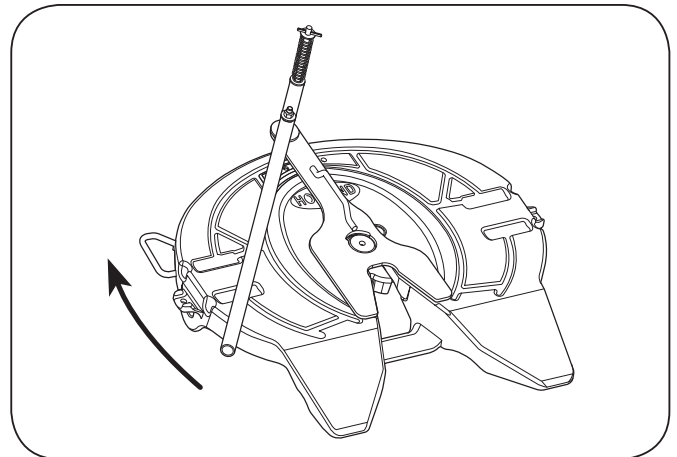
1. If fifth wheel is locked, pull release handle to unlock fifth wheel.
2. Set lock tester on fifth wheel top plate (**Figure 17**).
3. To lock fifth wheel, rotate handle on lock tester clockwise, (**Figure 18**).
4. With locks closed around lock tester, position adjustment nut on yoke shaft so that it is slightly compressing rubber washer, making it difficult to turn by hand, (**Figure 19**).
5. Turn adjustment nut one (1) additional full turn clockwise to further compress rubber bushing, (**Figure 19**).

**IMPORTANT:** Over compressing the bushing with additional turns will take the fifth wheel out of proper adjustment and degrade the performance of the fifth wheel.

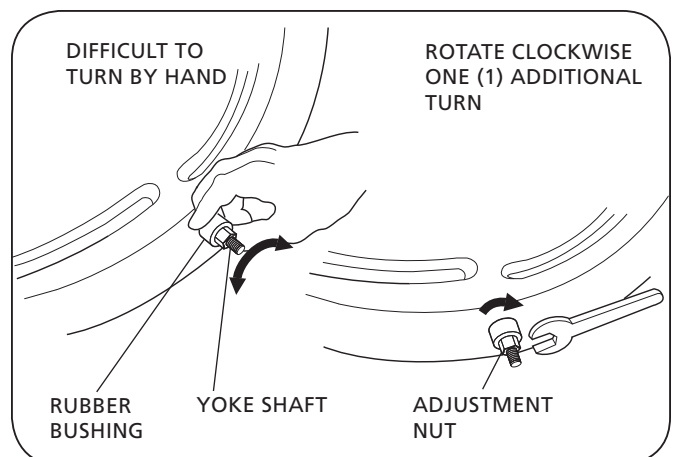
**Figure 17**



**Figure 18**



**Figure 19**





# Fifth Wheel Adjustment



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- To unlock fifth wheel, push down and rotate "J" hook so that it locks under front skirt of fifth wheel top plate, (**Figure 20**).
- Pull release handle.
- Rotate handle on lock tester counter clockwise, (**Figure 21**).
- Repeat coupling and uncoupling process with lock tester a minimum of two (2) times to help "seat" yoke. Then recheck adjustment of fifth wheel.
- With the fifth wheel unlocked, unhook "J" hook from under front skirt of fifth wheel top plate, (**Figure 22**) and remove lock tester from fifth wheel.

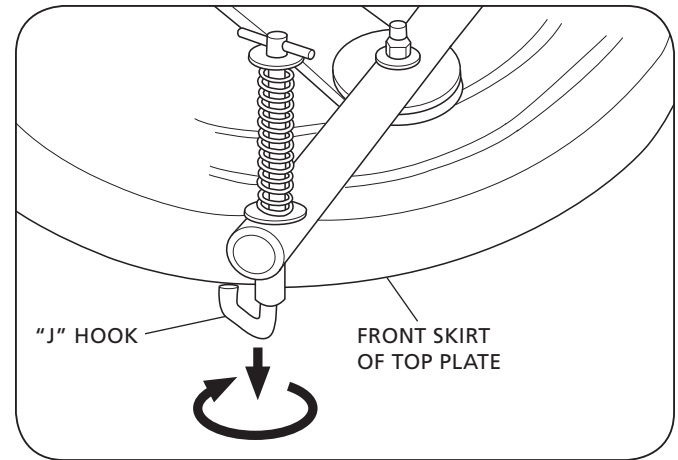
**IMPORTANT:** Before using the fifth wheel, visually inspect all components of fifth wheel for proper operation while coupling and uncoupling fifth wheel with lock tester.

**WARNING** Failure to repair an improperly operating fifth wheel may result in tractor-trailer separation which, if not avoided, could result in death or serious injury.

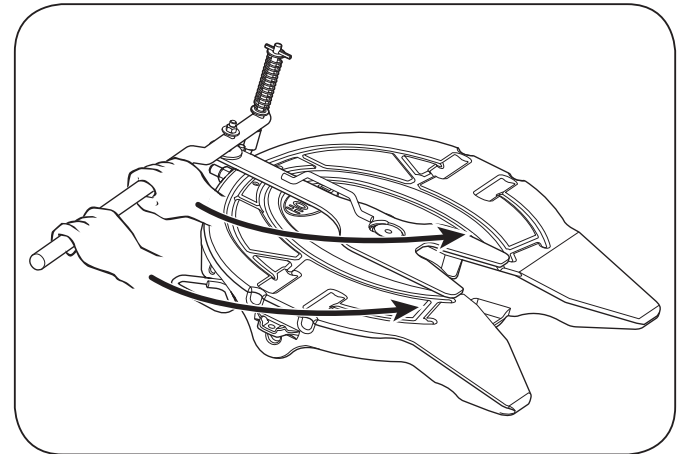
**IMPORTANT:** Be sure to read and understand Fifth Wheel Operation Instructions published in the Fifth Wheel Owner's Manual (available on the internet at [www.safholland.us](http://www.safholland.us)) prior to use.

**WARNING** Failure to read and understand Fifth Wheel Operation Instructions prior to use can result in improper operation of fifth wheel which, if not avoided, could result in death or serious injury.

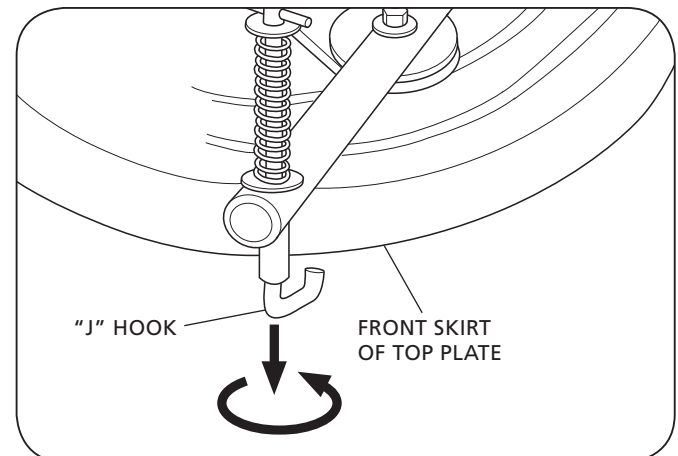
**Figure 20**



**Figure 21**



**Figure 22**









From fifth wheel rebuild kits to suspension bushing repair kits, SAF-HOLLAND Original Parts are the same quality components used in the original component assembly.

SAF-HOLLAND Original Parts are tested and designed to provide maximum performance and durability. Will-fits, look-alikes or, worse yet, counterfeit parts will only limit the performance potential and could possibly void SAF-HOLLAND's warranty. Always be sure to spec SAF-HOLLAND Original Parts when servicing your SAF-HOLLAND product.

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