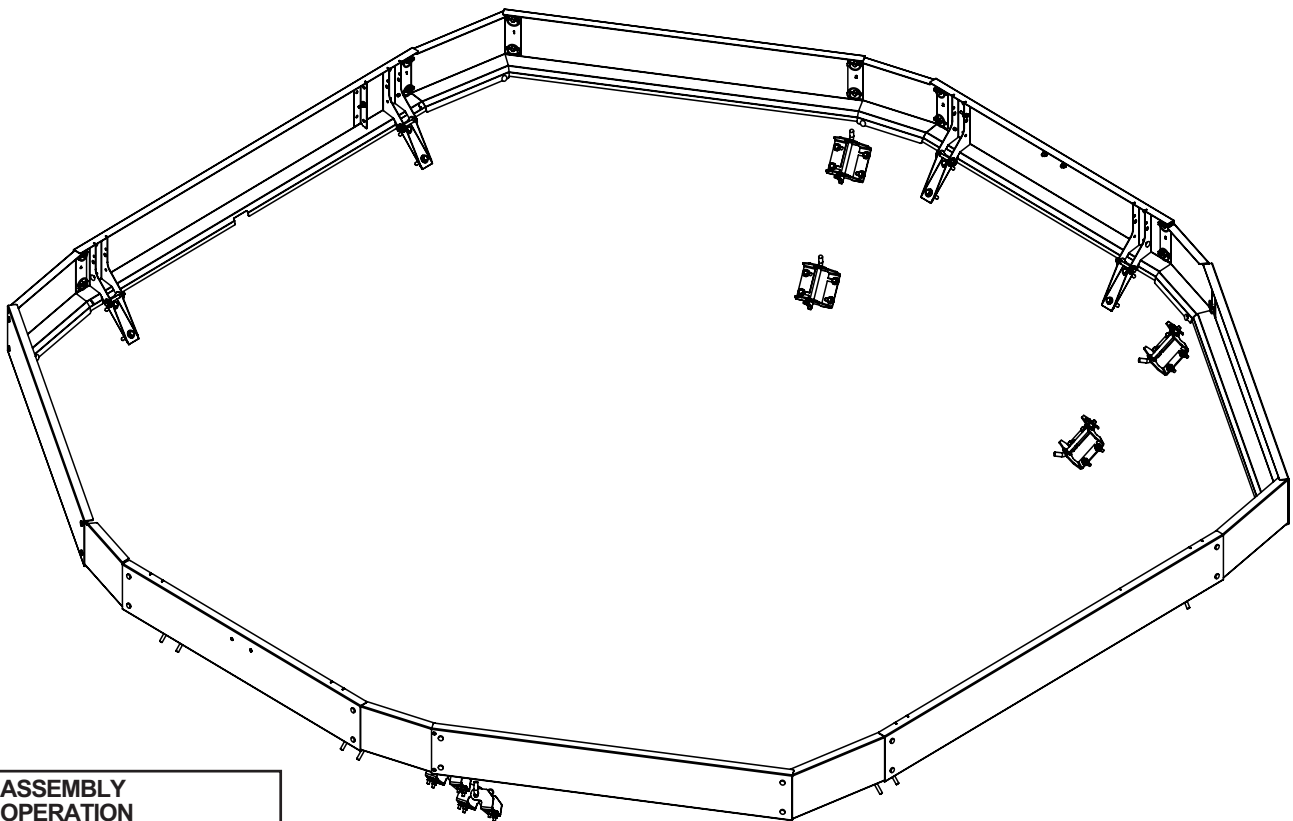




Combine Grain Tank Extension Tip-Up Kit MS-60

**FITS JOHN DEERE S680 & S690 COMBINES WITH FACTORY
MANUAL FOLD EXTENSION
OPERATORS / ASSEMBLY MANUAL**

**PLACE IN COMBINE CAB AFTER ASSEMBLY
FOR FUTURE REFERENCE.**



**ASSEMBLY
OPERATION
REPLACEMENT PARTS**

INTRODUCTION

Thank you for purchasing a Maurer grain tank extension Tip-Up kit. Proper care and use will result in many years of service.



WARNING: TO AVOID PERSONAL INJURY OR DEATH, OBSERVE THE FOLLOWING INSTRUCTIONS:

Ensure that anyone present is clear before applying power to any machinery used in conjunction with a Maurer grain tank extension.

Never allow anyone in or near the grain tank of a combine during loading or unloading of grain. The accumulation of grain is dangerous and can cause entrapment, resulting in serious injury or death by suffocation.

Adding a Maurer Bin Extension or Tip-Up increases the overall height of your combine. Use caution when operating around trees, buildings, power lines, and when approaching bridges and over passes. Pay attention to height restrictions.

Do not exceed advertised maximum capacity of a Maurer grain tank extension.

GENERAL INFORMATION

1. Read assembly instructions carefully. Study assembly procedures and all illustrations before you begin assembly. Note which parts are used in each step. This unit must be assembled in proper sequence or complications will result.
2. When placing a parts order, refer to this manual for proper part numbers and place order by **PART NO. and DESCRIPTION.**
3. Whenever terms "**LEFT**" and "**RIGHT**" are used in this manual it means from a position behind combine and facing forward.

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SAFETY

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH!



**THIS SYMBOL MEANS
ATTENTION
BECOME ALERT
YOUR SAFETY IS INVOLVED!**

SIGNAL WORDS

Note use of following signal words **DANGER**, **WARNING**, and **CAUTION** with safety messages. The appropriate signal word for each has been selected using the following guidelines:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have questions not answered in this manual, require additional copies, or if your manual is damaged, please contact your dealer or Maurer Manufacturing, P.O. Box 160, 1300 38th Ave. West, Spencer, Iowa 51301, Ph: (712) 262-2992 Fax: (712) 262-1022 www.maurermfg.com



PRODUCT SAFETY GUIDELINES

Every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or you yourself, follow them.

Replace any caution, warning, danger or instruction safety decal that is not readable or is missing. Location of such decals is indicated in this booklet.

Review safety instructions with all users annually.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

Do not paint over, remove, or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice instructions on them.

Never exceed limits of a piece of machinery. If it's ability to do a job, or to do so safely is in question **DON'T TRY IT.**

Adding a Maurer Bin Extension or Tip-Up increases the overall height of your combine. Use caution when operating around trees, buildings, power lines, and when approaching bridges and over passes. Pay attention to height restrictions.

Fold and secure (if needed) the grain tank extension panels when transporting or hauling the combine to avoid contact with low power lines and other obstructions.

Use the panel safety step to safely enter and exit the grain tank.

Ensure that any additional bracing and safety equipment have been installed according to this manual. (Some models do not require additional bracing or safety equipment)

Never exceed the maximum advertised capacity of the grain tank extension. By doing so you risk damage to the grain tank extension.

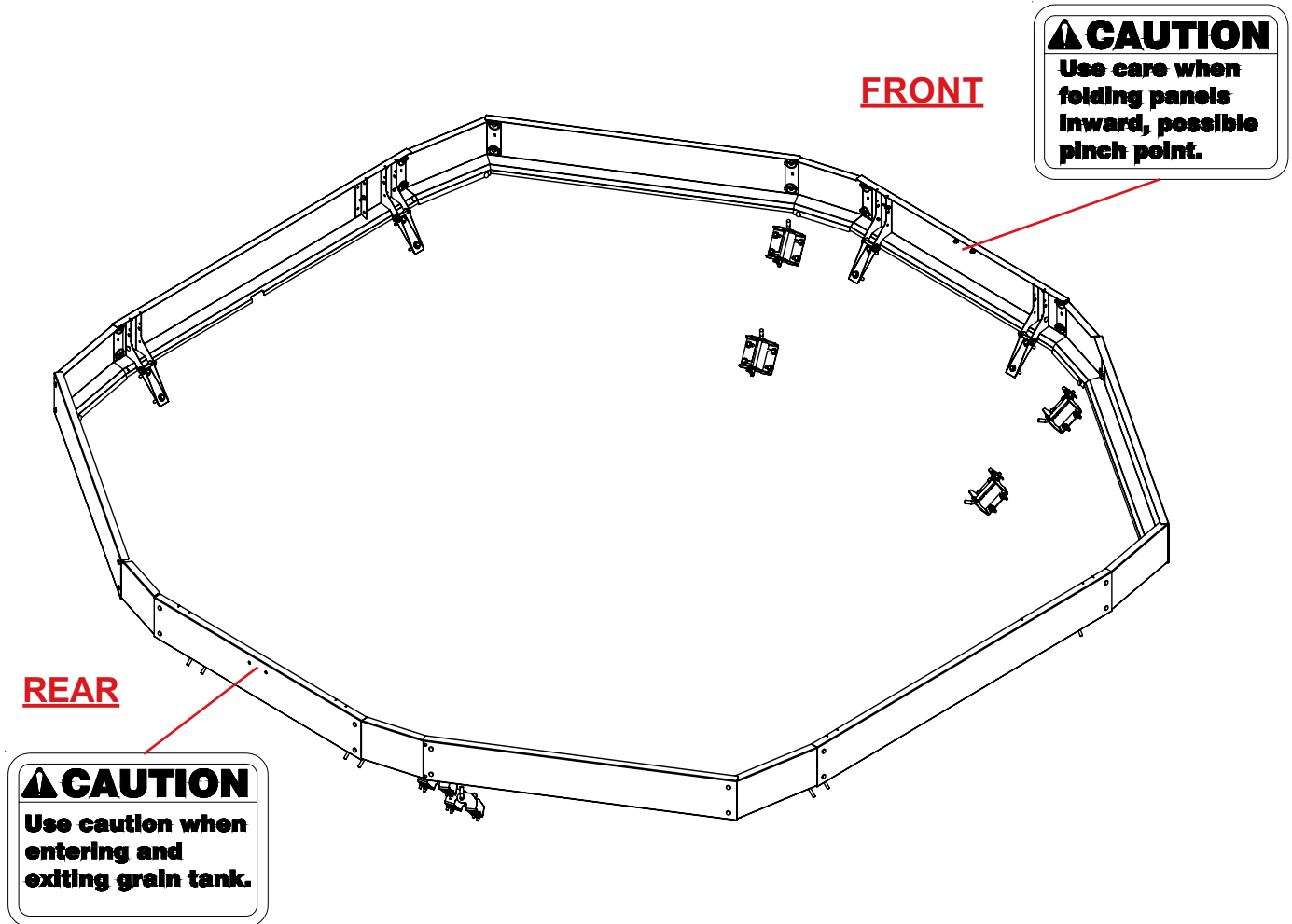
PRODUCT DISCLAIMER

Increasing the grain tank capacity of any combine by use of this product is at the discretion of the owner. Increasing the grain holding capacity of any combine may affect the structural aspects of the combine as well as drive line components and tires. Although Maurer Mfg. has included additional support bracing on selected models, it does not assume liabilities, or make any warranties pertaining to the structural stability or performance of any combine. See the combine owners/operators manual for additional combine specifications and safety information not listed in this manual.



SAFETY SIGN LOCATIONS

Types of safety sign and locations on equipment are shown in illustration below. Good safety requires that you familiarize yourself with various safety signs, type of warning, and area or particular function related to that area, that requires your SAFETY AWARENESS.



SAFETY SIGN CARE

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replacement parts that displayed a safety sign should also display current sign.
- Safety signs are available from the Spencer plant.

Tip-Up Kit Parts Breakdown

MS60 Tip-Up Kit for John Deere S680 & S690 Combines

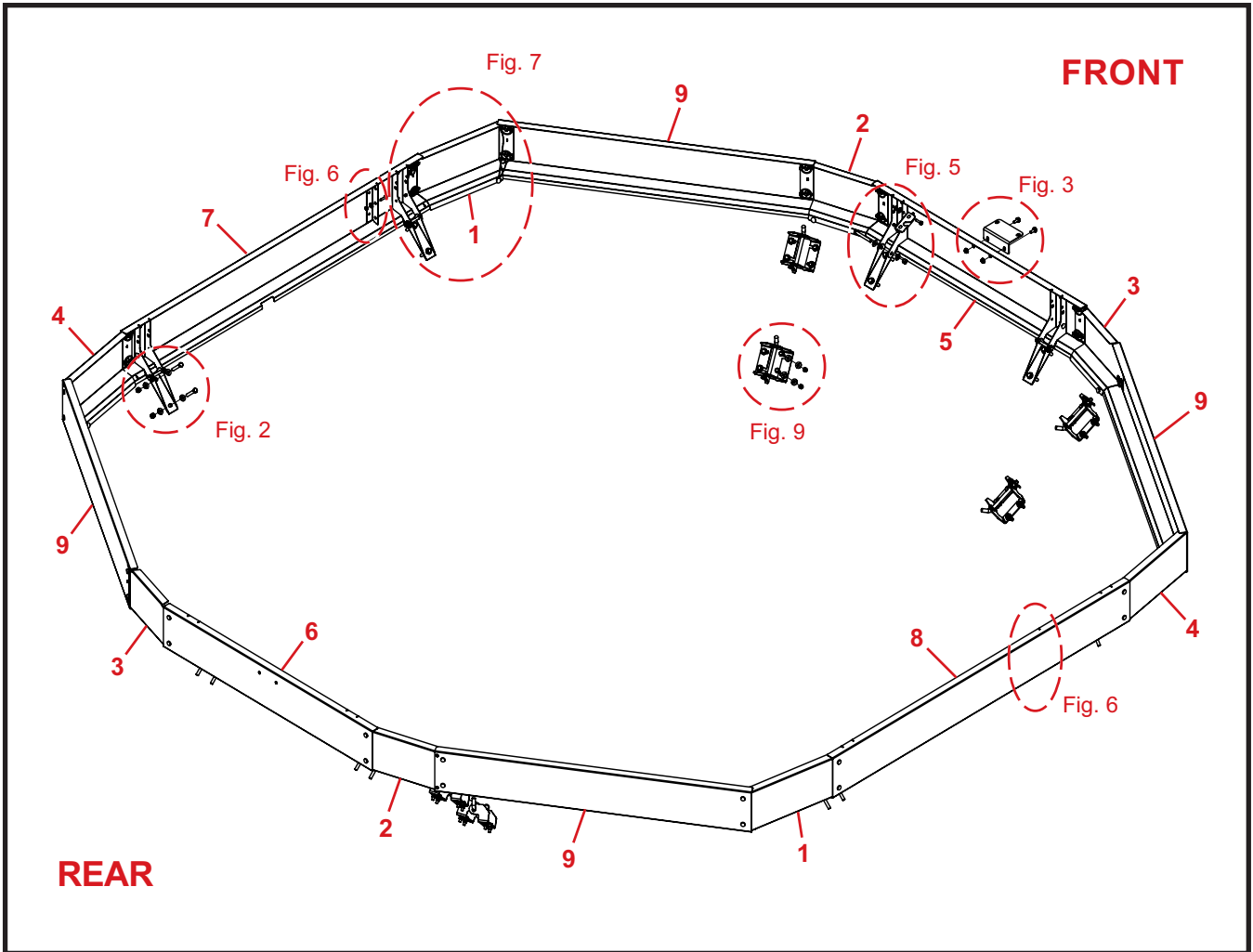


Figure 1

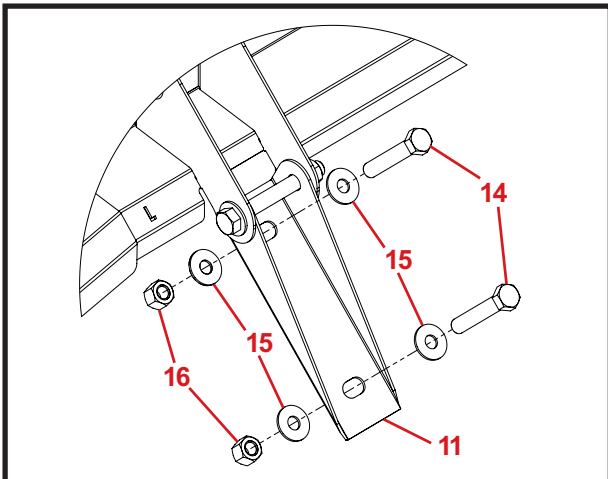


Figure 2

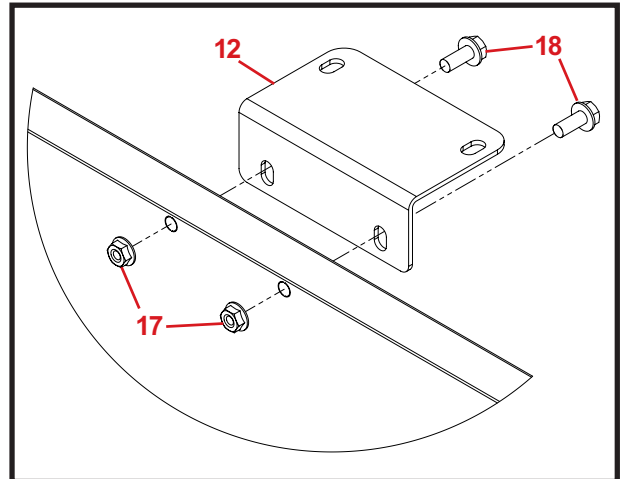


Figure 3

PARTS LIST

Please order replacement parts by **PART NO.** and **DESCRIPTION.**

REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	R3E000206PO	2	MS60 Corner Fill Panel 1
2.	R3E000207PO	2	MS60 Corner Fill Panel 2
3.	R3E000208PO	2	MS60 Corner Fill Panel 3
4.	R3E000209PO	2	MS60 Corner Fill Panel 4
5.	R5E000122PO	1	MS60 Front Tip-up Panel Assembly
6.	R5E000123PO	1	MS60 Back Tip-up Panel Assembly
7.	R5E000124PO	1	MS60 Left Tip-up Panel Assembly
8.	R5E000125PO	1	MS60 Right Tip-up Panel Assembly
9.	R5E000126PO	4	MS60 Corner Tip-up Panel Assembly
10.	R5E000127PO	8	MS60 Safety Lock
11.	R3E000211PO	8	MS60 Bottom Hinge
12.	R3E000023P0	1	GPS Bracket - JD Large
13.	R3E000003PO	1	Base Light Bracket
14.	1AFC12FBAD0	16	3/8" x 2-1/4" Hex Bolt
15.	1AF009F0000	48	3/8" Flat Washer
16.	1AFC18F0000	24	3/8" Nylon Lock Nut
17.	1AFC08E0000	2	5/16" Flange Nut
18.	1AFC37E00L0	2	5/16" x 3/4" Flange Bolt
19.	1AFC05D0000	2	1/4" Center Lock Nut
20.	1AF009D0000	2	1/4" Flat Washer
21.	1AFC12DAA05	2	1/4" x 1" Hex Bolt
22.	1AFC12FCA05	8	3/8" x 3" Hex Bolt
23.	1AF034CAA10	32	3/16" x 1-9/16" Lynch Pin
24.	1AF032D0000	16	Plastic Press Rivet for Lanyards
25.	1AF031DKA00	32	Nylon Lanyard
*26.	1AEX0015240	2	M60 & M120 Sensor Wire Harness

* Indicates items not shown in illustrations

ASSEMBLY INSTRUCTIONS

STEP 1:

The full bin sensors and bin light will need to be removed from the factory extension before any Tip-Up panels can be assembled to the factory extension.

STEP 2:

Fasten the bottom hinges to the steel Tip-Up panels using the 3/8" x 3" hex bolts, 3/8" flat washers, and 3/8" nylon lock nuts. See figure 5 on next page.

STEP 3:

Center Tip-Up panels on top of factory extension panels. Use slots in the bottom hinge to reference where holes will need to be drilled into ribs of extension panels. Use a 7/16" dia bit and electric drill, to drill holes completely through the panels as shown in figure 4.

NOTE: Some of the Factory JD Extension panels have a third rib located in the center of the panels. **DO NOT DRILL OUT EXISTING HOLES ON CENTER RIBS FOR HINGES!!**

NOTE: Front, Back, Left, and Right Tip-Up panels must be installed first to ensure proper fit.

Note: Do not over tighten nuts and distort hinge component, but ensure nylon lock nut fully engages bolt threads.

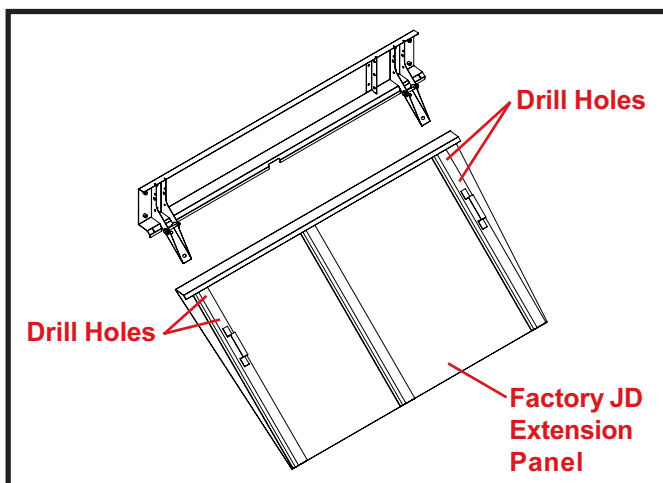


Figure 4



ATTENTION: During assembly ensure the following safety decals are located correctly. See illustration on page 5.



Located on outside of rear panel.



Located on inside of front panel.

STEP 4:

Fasten the bottom Tip-Up hinges to the Factory JD Extension panels using the 3/8" x 2-1/4" hex bolts, 3/8" flat washers, and 3/8" nylon lock nuts as shown in figure 2 on previous page.

STEP 5:

Once the front, rear, and side panels have been secured to the extension, insert the corner fill panels to mate with the inside of the corner panels. See figure 1 for corner fill panel locations. Fasten the joints with one 3/16" lynch pin per clevis pin. See figure 7.

STEP 6:

After the corner fill panels are fastened, insert the corner panels to mate with the front, rear, and side panels. Fasten the joints with one 3/16" lynch pin per clevis pin. See figure 7.

STEP 7:

Align lanyards and press rivets as show in figure 7. Loop and lock the end of the lanyard around the ring of the lynch pin and proceed to pin the panel joints together.

LIGHT BRACKET & LIGHT

Mount the light bracket on the left hinge of the front Tip-Up panel. Use one 1/4" x 1" hex bolt, one 1/4" flat washer, and one 1/4" center lock nut. See figure 5. Mount OEM light on bracket using original hardware.

GPS BRACKET

Remove the partial cut slugs from the front panel and fasten the provided GPS bracket to the outside of the panel using two 5/16" x 3/4" serrated flange bolts and two serrated flange nuts. See figures 1 & 3 on page 6.

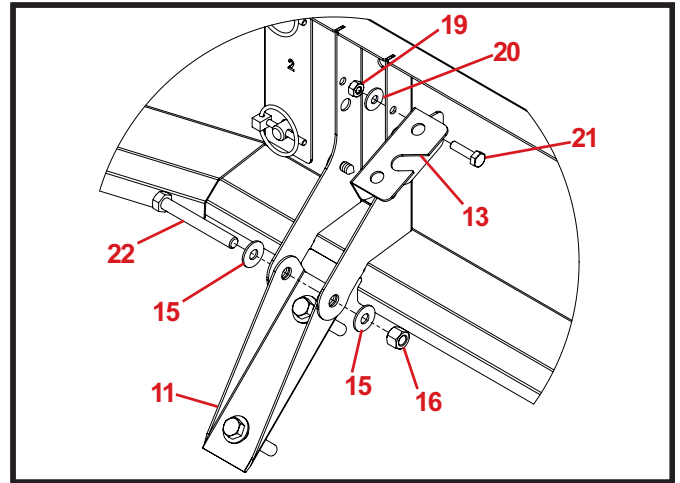


Figure 5

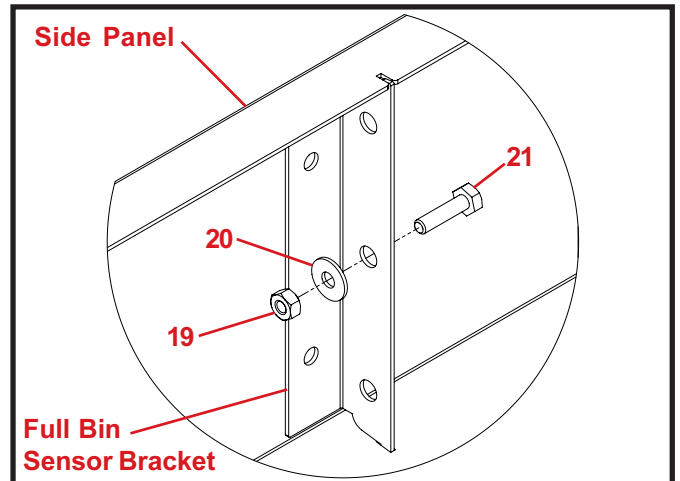


Figure 6

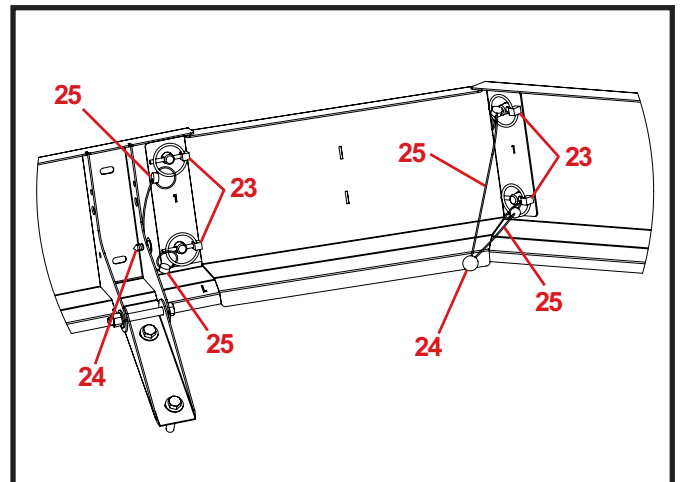


Figure 7

TANK FULL BIN SENSOR

Mount the tank full bin sensors to the desired height on the left & right Tip-Up panels. Use one 1/4" x 1" hex bolt, one 1/4" flat washer, and one 1/4" center lock nut. See figure 6.

MS60 Safety Lock Installation

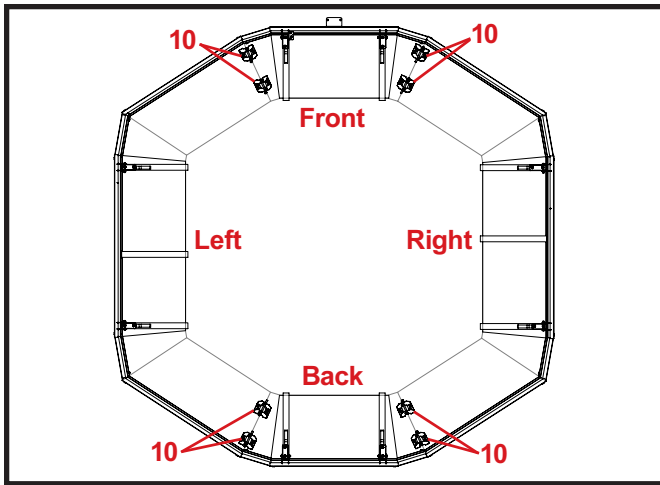


Figure 8

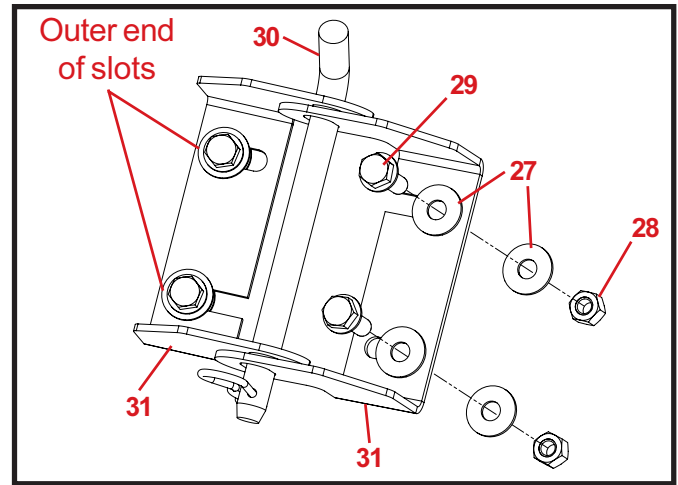


Figure 9

PARTS LIST

Please order replacement parts by PART NO. and DESCRIPTION.

REF. NO.	PART NO.	QTY.	DESCRIPTION
27.	1AF009E0000	64	5/16" Flat Washer
28.	1AFC18E0000	32	5/16" Nylock Nut
29.	1AFC37EAA05	32	5/16" x 1" Flange Bolt
30.	1AFZ51HEA00	8	1/2 x 5 Bent Pin w/ Clip
31.	R3E000212PO	16	MS60 Safety Lock Bracket

STEP 1:

Using Figure 8 as a reference, start in the front left corner between the second and third ribs down from the top of factory extension panel.

STEP 2:

With the pin inserted into both brackets, align the pin directly above the interlocking corner of the factory extension panels. Use slots in the brackets to reference where holes will need to be drilled. Use an 3/8" diameter drill bit and electric drill to drill (4) holes through the extension panels. See figure 9.

NOTE: When referencing drill holes use the outer end of the slots so you will be able to slide brackets when removing or inserting factory corner panels.

STEP 3:

Fasten the safety lock brackets to the extension panels using the (4) 5/16" x 1" flange bolts, (8) 5/16" flat washers, and (4) 5/16" nylon lock nuts. Make sure to leave enough slack in the bolts to allow the brackets to slide. See figure 9.

STEP 4:

After fastening the safety lock in place repeat steps 2 & 3 between the fourth and fifth ribs down from the top of panel.

STEP 5:

Repeat steps 1-4 on the front right, back right, and back left corners.

