



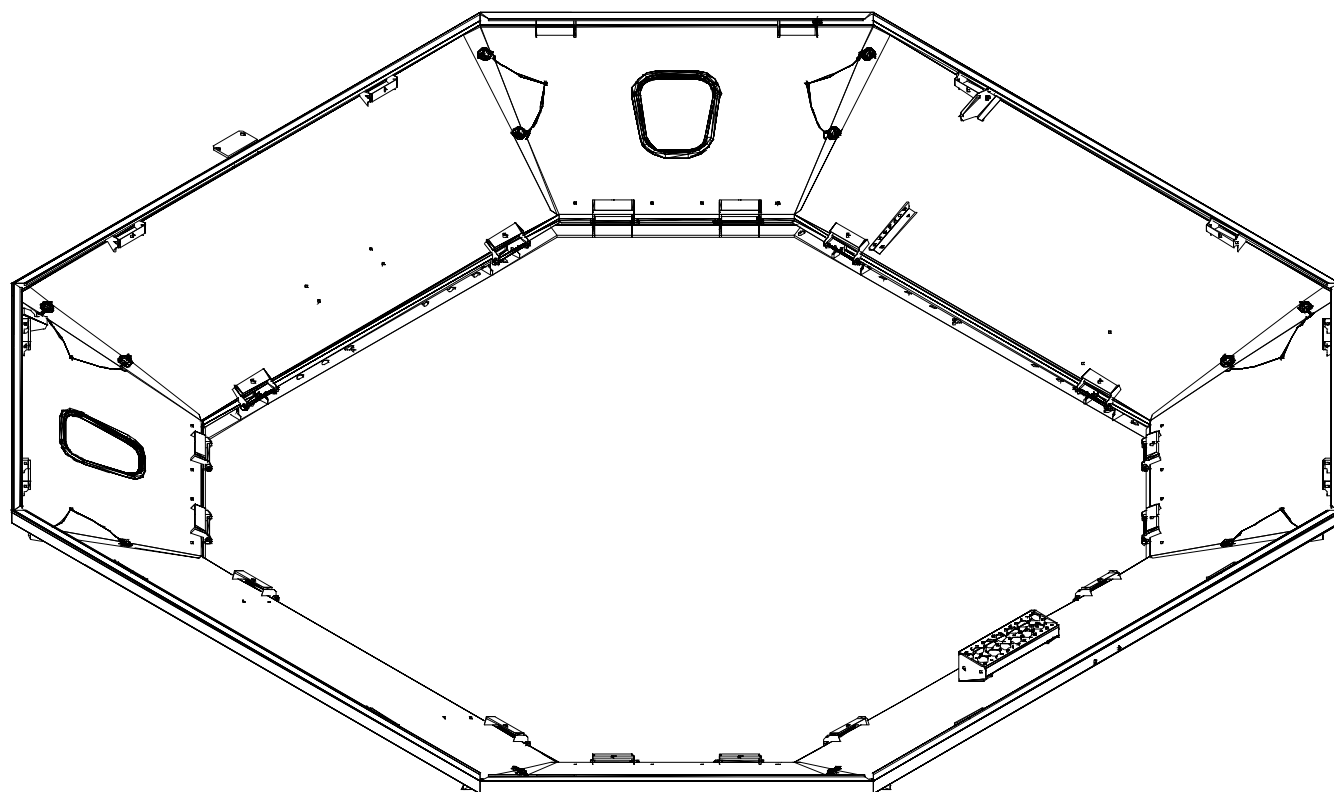
Combine Grain Tank Extension

JOHN DEERE STS SERIES

OPERATORS / ASSEMBLY MANUAL

FITS: ALL 50, 60, & 70 SERIES STS COMBINES

PLACE IN COMBINE CAB AFTER ASSEMBLY
FOR FUTURE REFERENCE.



ASSEMBLY
OPERATION
REPLACEMENT PARTS

INTRODUCTION

Thank you for purchasing a Maurer grain tank extension. 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



EQUIPMENT 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 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)

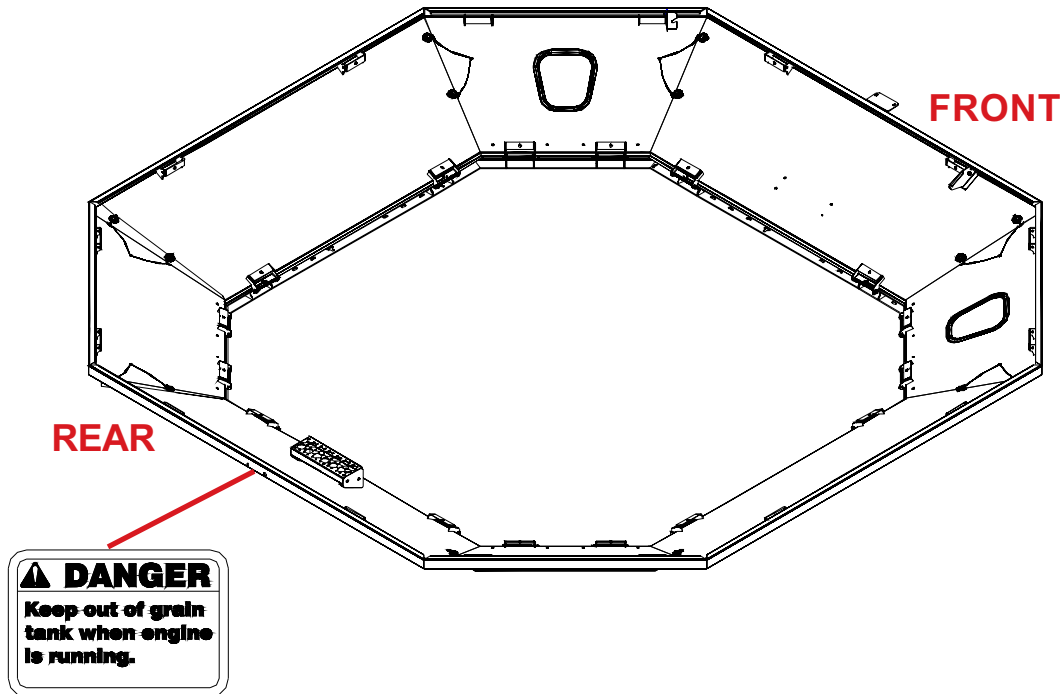
Ensure that the grain tank extension frame has been properly mounted to the combine according to this manual.

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



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.

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.

Grain Tank Extension Breakdown

John Deere STS Series Grain Tank Extension

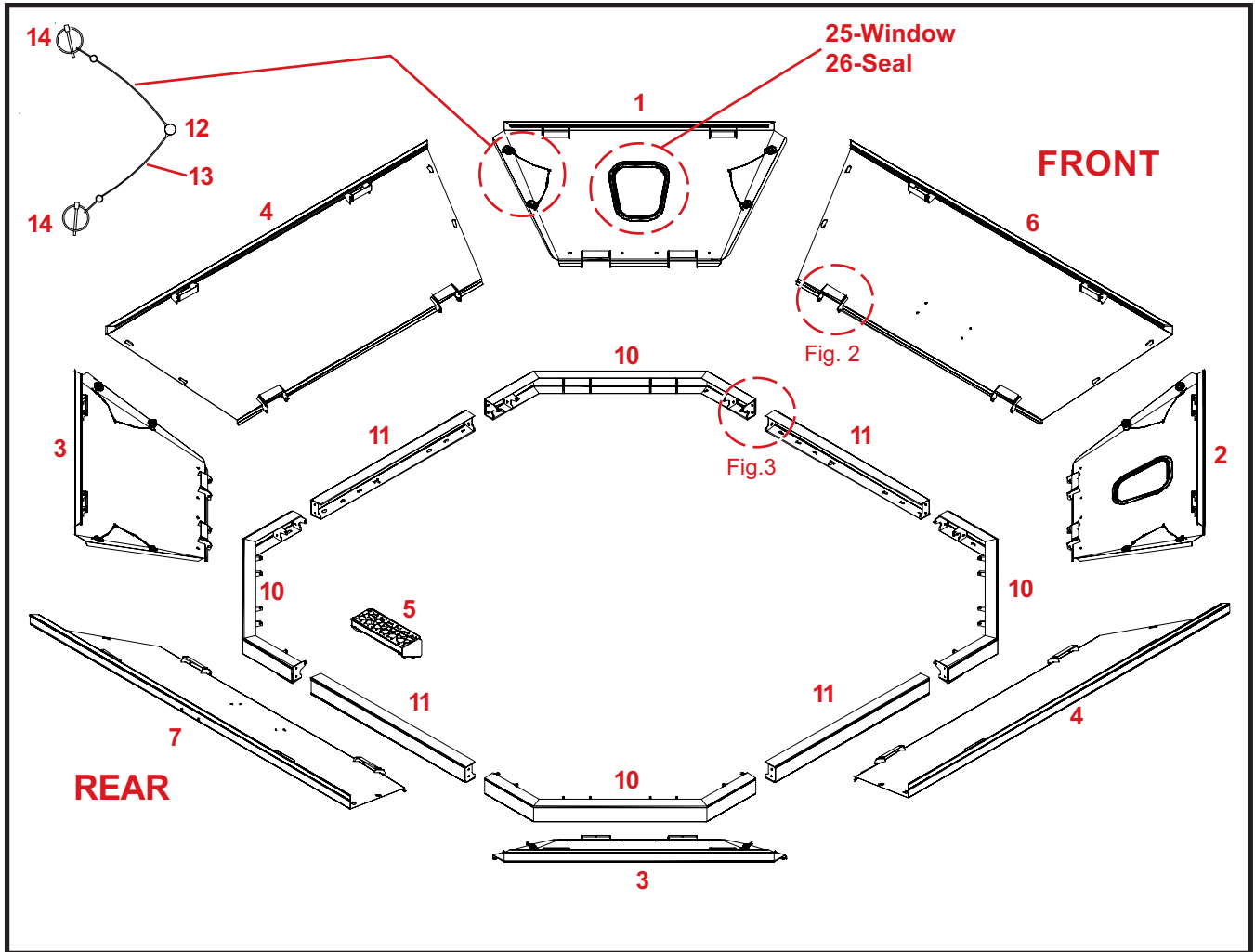


Figure 1

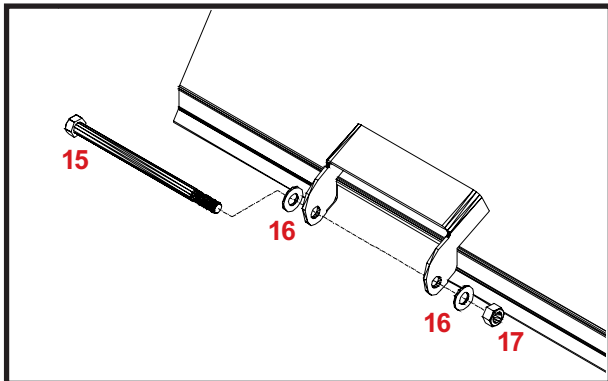


Figure 2

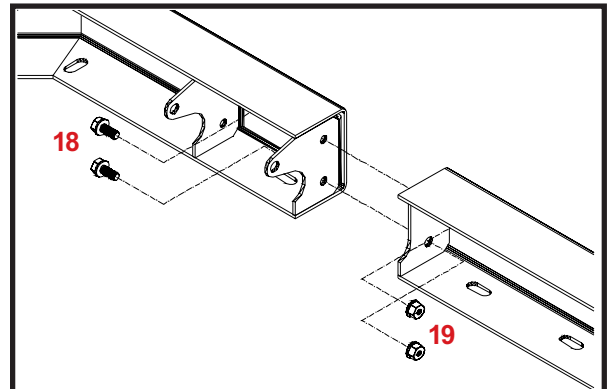


Figure 3

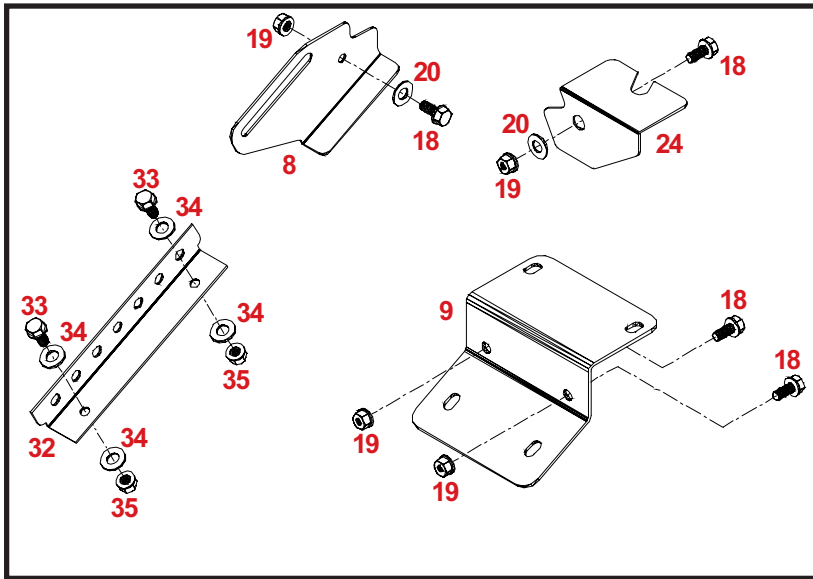


Figure 4

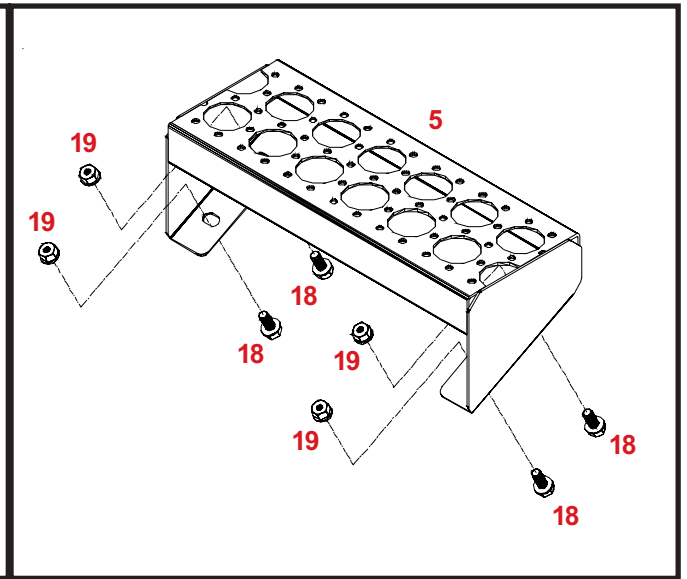


Figure 5

PARTS LIST

Please order replacement parts by PART NO. and DESCRIPTION.

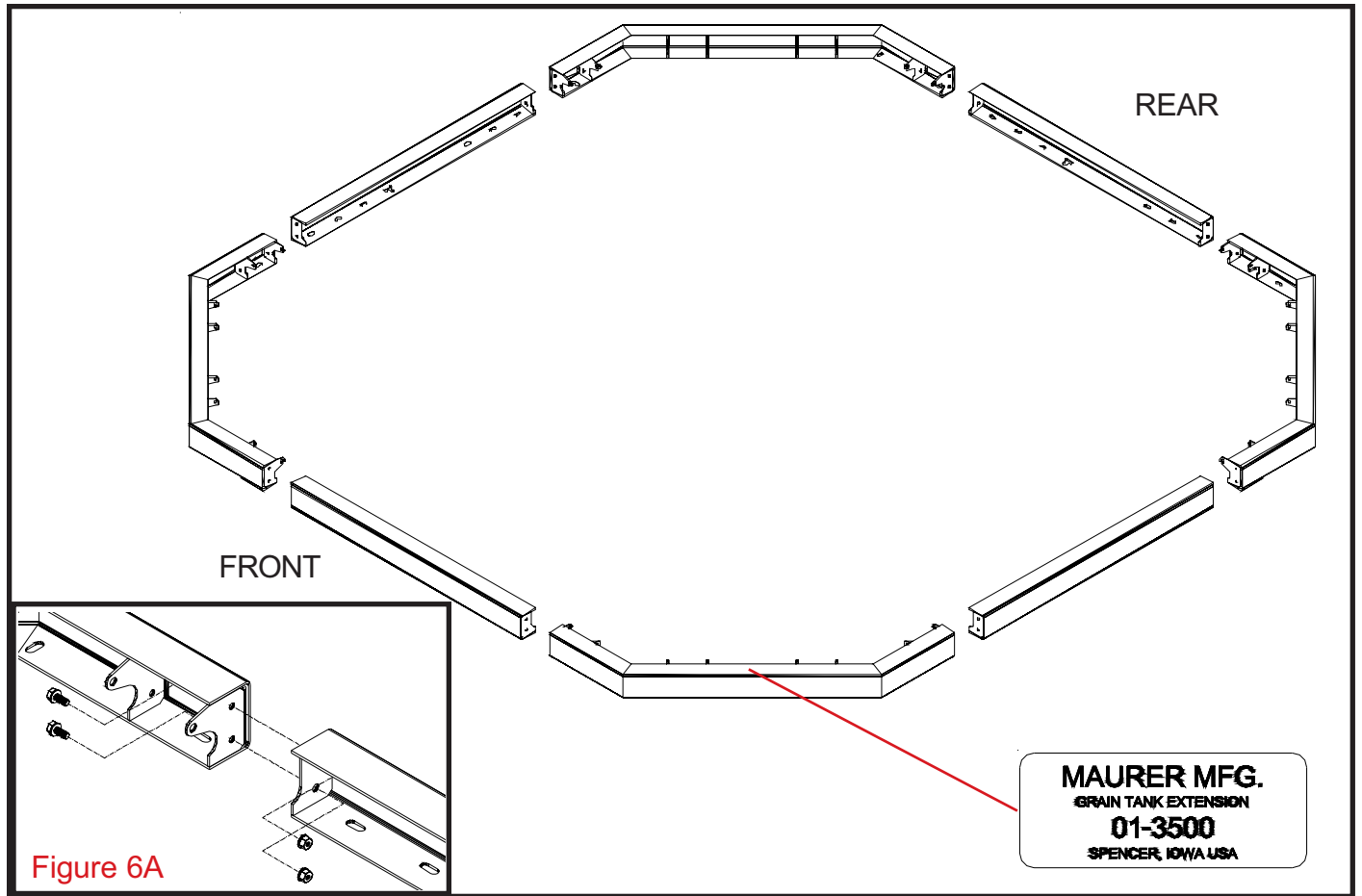
REF. NO.	PART NO.	QTY.	DESCRIPTION
1.	R5E000011P0	1	Front Left Corner Panel
2.	R5E000003P0	1	Front Right Corner Panel
3.	R5E000005P0	2	Rear Corner Panel
4.	R5E000009P0	2	Side Panel (STS Series)
5.	R5E000006P0	1	Extension Safety Step
6.	R5E000004P0	1	Front Panel (STS Series)
7.	R5E000010P0	1	Rear Panel (STS Series)
8.	R3E000019P0	1	Base Sensor Bracket
9.	R3E000022P0	1	Base GPS Bracket
10.	R5E000007P0	4	Frame Corner Assembly
11.	R5E000008P0	4	Frame Splice Assembly (STS Series)
12.	1AF032D0000	8	Press Rivet
13.	1AF031DKA00	16	Nylon Lanyard
14.	1AF034CAA10	16	3/16" x 1-9/16" Lynch Pin
15.	1AFC12FFA05	16	3/8" x 6.00 Hex Bolt
16.	1AF009E000C	32	3/8" SAE Flat Washer
17.	1AFC18F0000	16	3/8" Nylon Lock Nut
18.	1AFC37E00L0	32	5/16" x 3/4" Serrated Flange Bolt
19.	1AFC08E0000	45	5/16" Serrated Flange Nut
20.	1AF046EAAD0	2	5/16" x 1-1/4" x .120 Washer
*21.	R3E000021P0	3	Frame Spacer
*22.	R5E000055P0	1	Complete Handrail Assembly
*23.	1AFC37EAA05	13	5/16" x 1" Serrated Flange Bolt
24.	R3E000003P0	1	Base Light Bracket
25.	1AWALACKAMC	2	Window
26.	R3E000026P0	2	Window Seal
27.	R3E000044P0	2	Deere Front Tank Cap
28.	R3E000048P0	1	Deere Right Rear Tank Cap
29.	R3E000043P0	1	Deere Rear Tank Cap
*30.	1AEX0015241	1	Deere Wire Harness
*31.	1AFC35CAA00	11	#12 X 1" Self Tapping Screw
32.	R3E000143P0	1	M60 Additional Sensor Bracket
33.	1AFC12DAA05	2	1/4" x 1" Hex Bolt
34.	1AF009D0000	4	1/4" Flat Washer
35.	1AFC05D0000	2	1/4" Center Lock Nut

* Indicates items not shown in illustrations

NOTE: In order to simplify the assembly process, we recommend that the grain tank extension be assembled on the ground and hoisted to the top of the combine.

FRAME ASSEMBLY

Arrange the frame components as shown in figure 6. The frame corner with the serial number decal is the left front frame corner. Fasten the frame joints together with two 5/16" x 3/4" serrated flange bolts and two 5/16" serrated flange nuts per joint. See figure 6A.



PANEL ASSEMBLY

STEP 1:

Using one 3/8" x 6" hex bolt, two 5/16" washers and one 3/8" nylon lock nut per hinge point, attach the extension corner panels to the frame of the grain tank extension. See figure 7A.

NOTE: DO NOT over tighten nuts and distort hinge component, but ensure nylon lock nut fully engages bolt threads.

STEP 2:

Assemble all four corner panels to the frame (panels with windows are to be fastened to the front) and slowly fold the panels outward to accept the front, rear, and side panels. The corner panel with the Maurer logo on the back side is the left front corner. See figure 7.



ATTENTION: DAMAGE TO CORNER PANEL CAN OCCUR IF NOT FOLDED OUTWARD SLOWLY!

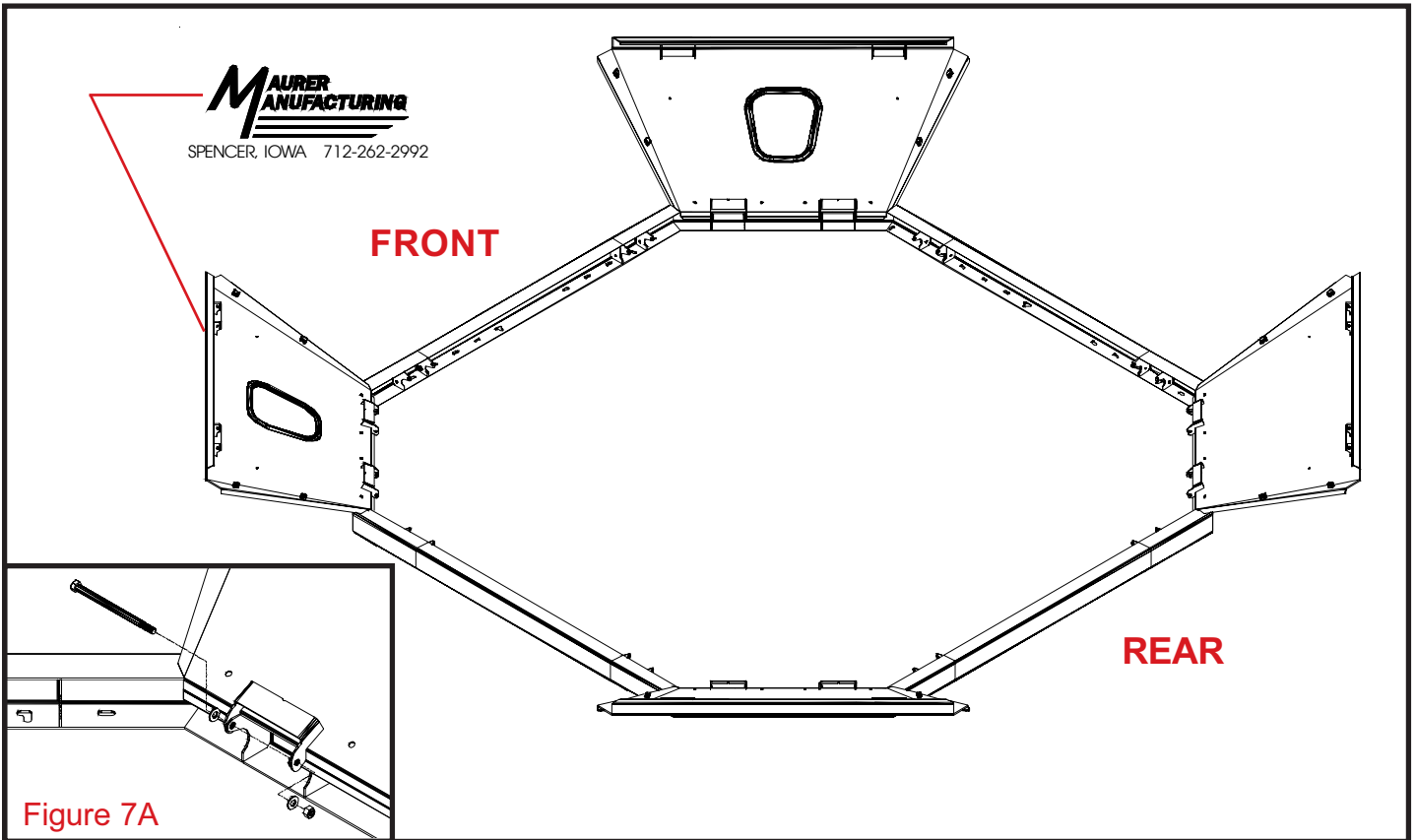


Figure 7

STEP 3:

Assemble the front, rear, and side panels the same as the corner panels. Please ensure that the panel with DANGER decal is the rear panel. This panel will also receive the safety step.

STEP 4:

Remove the partial cut slugs near the bottom of the rear panel, and fasten the safety step to the rear panel using 5/16" x 3/4" serrated flange bolts and 5/16" serrated flange nuts. When mounting, place the nuts to the inside. See figure 8.

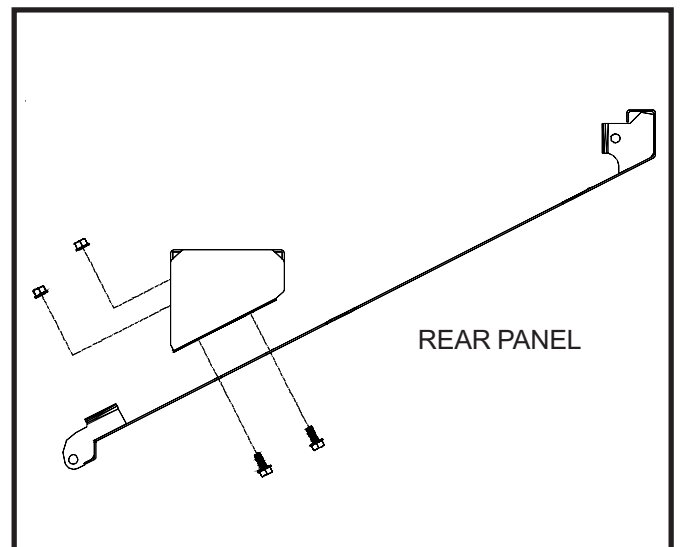


Figure 8



ATTENTION: DANGER decal must be facing the rear of the combine!

STEP 5:

Fasten the M60 additional sensor bracket to the bottom of right side panel using two 1/4" x 1" hex bolt, two 1/4"-20 center lock nuts, and four 1/4" flat washers. Factory sensor will attach to this bracket with original sensor bracket and hardware. See figure 9 and 9a.

STEP 6:

Fasten the tank full sensor bracket to the top of the right side panel using one 5/16" x 3/4" serrated flange bolt, one 5/16" serrated flange nut, and one 5/16" x 1-1/4" x .120 washer. See figure 9.

STEP 7:

Fasten the provided light bracket to the left front corner using one 5/16" x 3/4" serrated flange bolt, one 5/16" serrated flange nut, and one 5/16" x 1-1/4" x .120 washer. See figure 10.

STEP 8:

Remove the partial cut slugs from the vertical leg of the front panel, and mount the base GPS bracket using 5/16" x 3/4" serrated flange bolts and 5/16" serrated flange nuts. See figure 11.

STEP 9:

Align two nylon lanyards with one press rivet and fasten together. Loop and lock the ends of the lanyards around one lynch pin each. Fasten the complete assembly to the two small holes located on the corner panels. See figure 12.

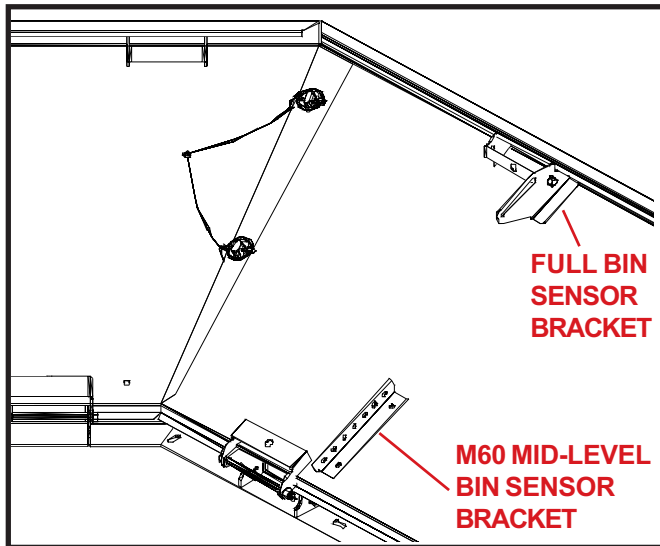


Figure 9

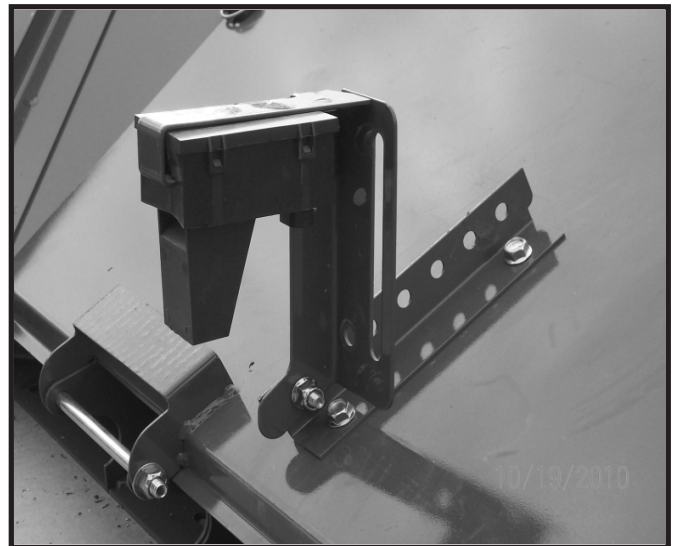


Figure 9a

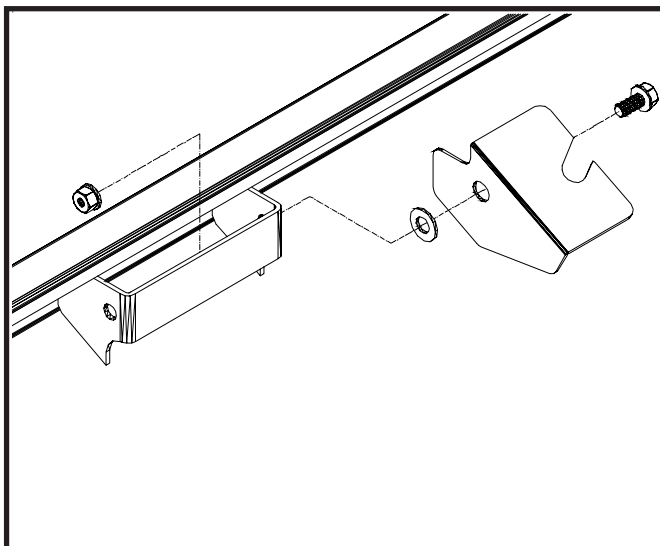


Figure 10

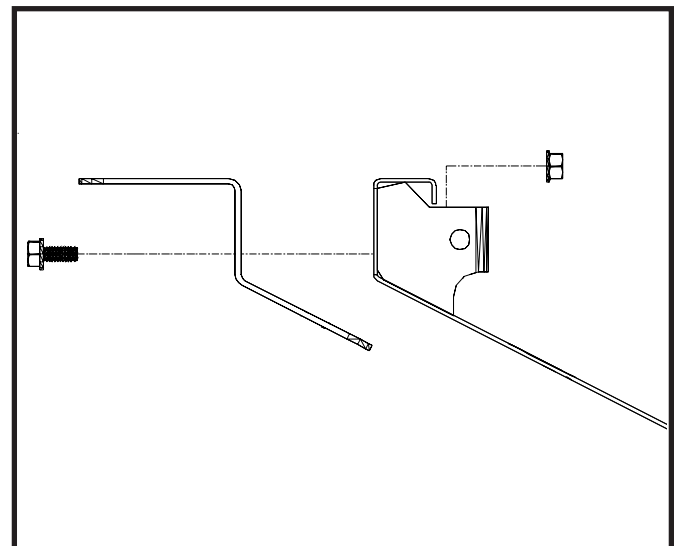


Figure 11

Completed Grain Tank Extension Assembly

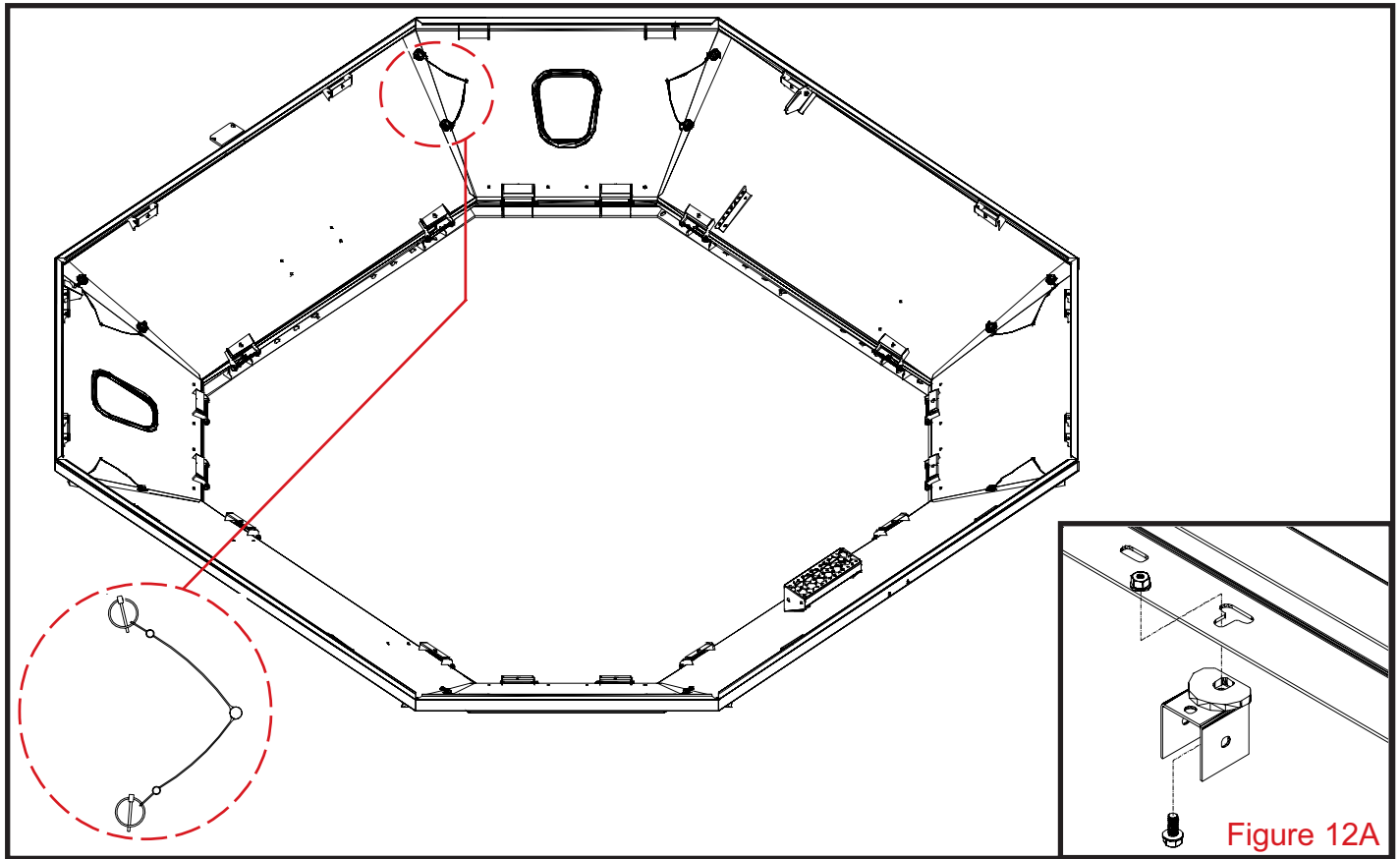


Figure 12

9650 & 9750 STS MOUNTING INSTRUCTIONS

STEP 1:

Remove the two splice straps bolted to the top of the combine tank along the left side. These straps are approximately one inch wide by twenty inches long and have (5) bolts in each strap.

STEP 2:

Hoist the assembled grain tank extension to the top of the combine. Position over the grain tank and lower into place with the window panels facing the front of the combine.

STEP 3:

Align the slots on the bottom left side of the extension frame with the (10) holes along the left side of the tank. See Figure 13 on next page. Using 5/16" x 1" serrated flange bolts and 5/16" serrated flange nuts, fasten the frame to the tank.

STEP 4:

Slide the provided frame spacers between the frame and the three existing tank brackets along the right side of the tank. Bolt through the frame, spacer, and tank bracket with 5/16" x 1" serrated flange bolts and 5/16" serrated flange nuts. See figure 12A.

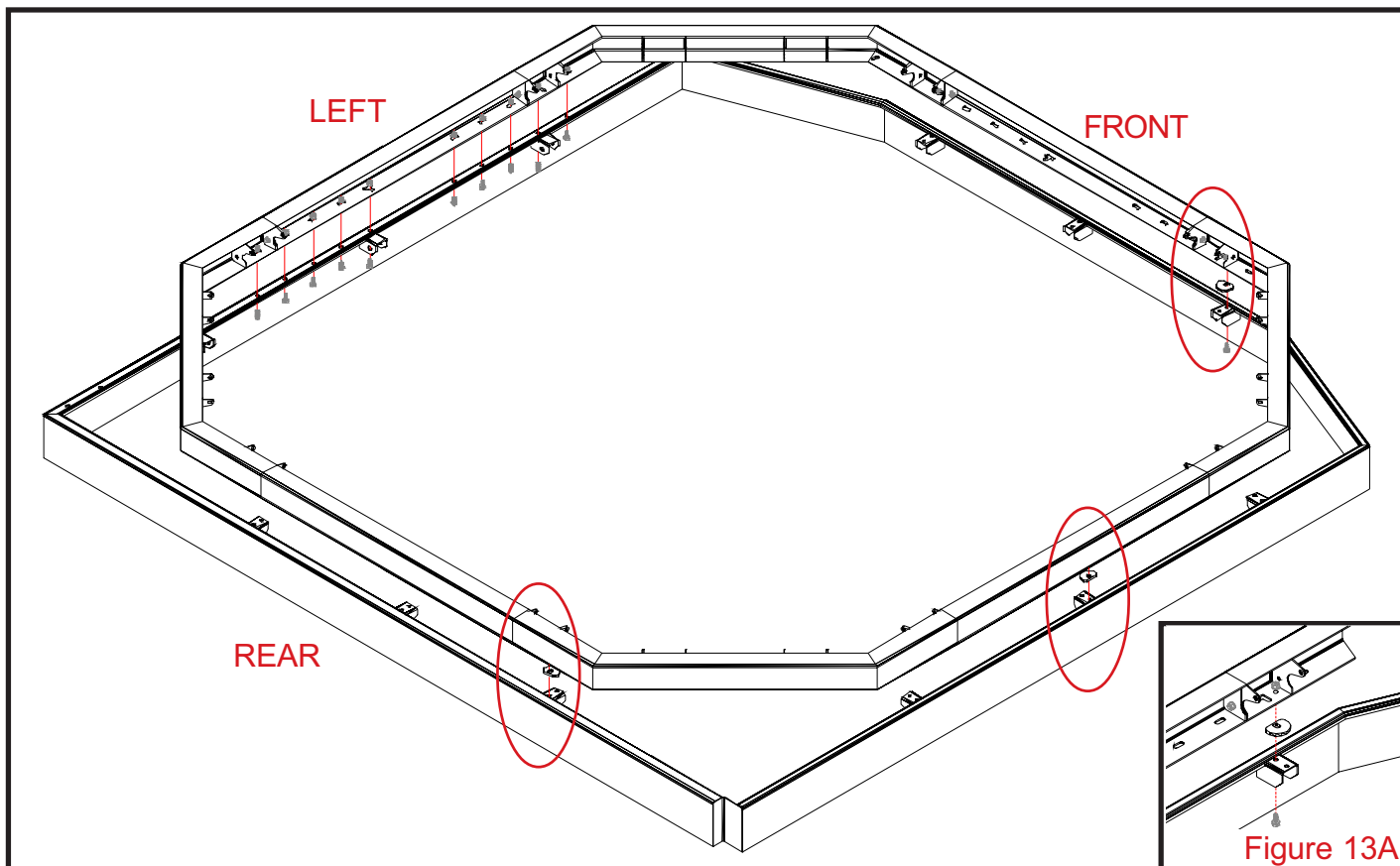


Figure 13

MOUNTING INSTRUCTIONS FOR 60 & 70 SERIES STS COMBINES WITH STANDARD UNLOADING AUGER

Note: If your combine is equipped with a High Rate Unloading Auger, mounting kit #9E000017 is required and those instructions need to be followed for mounting the Maurer grain tank extension to the combine.

STEP 1:

Remove the two splice straps bolted to the top of the combine tank along the left side. These straps are approximately one inch wide by twenty inches long and have (5) bolts in each strap.

STEP 2:

Hoist the assembled grain tank extension to the top of the combine. Position over the grain tank and lower into place with the window panels facing the front of the combine.

STEP 3:

Align the slots on the bottom left side of the extension frame with the (10) holes along the left side of the combine tank. See figure 13. Using 5/16" x 1" serrated flange bolts and 5/16" serrated flange nuts, fasten the frame to the tank.

STEP 4:

Use the top holes of the existing front tank bracket as a guide and drill a 3/8" hole up through the bottom of the extension frame. Slide the provided frame spacers between the frame and the existing tank bracket. Bolt through the frame, spacer, and tank bracket with 5/16" x 1" serrated flange bolt and 5/16" serrated flange nut. See figure 13a. We recommend that the tasks explained in this step be preformed where areas are circled in Figure 13.

SENSOR AND LIGHT WIRING

STEP 1:

Mount the OEM light to the previously mounted light bracket on the left front corner. Fasten with the original hardware.

STEP 2:

Mount the tank full sensor to the slot in the sensor bracket located on the right front corner using the original hardware. Use the provided wire harness to connect the sensor to the OEM wiring. Clip and extend the wiring for the tank light including ground wire.

TANK CAP INSTALLATION

Layout the Tank Caps according to figure 14. Fasten Tank Caps to the extension frame corners using 5/16" serrated bolts and nuts. (Tabs will be on the underside of the frame) Complete by screwing the Tank Caps to the outer rim of the tank with #12 x 1" self tapping screws.

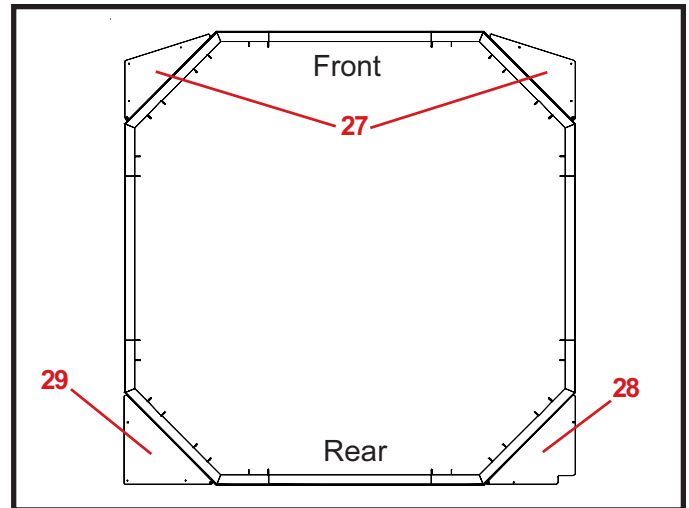


Figure 14

HANDRAIL INSTALLATION

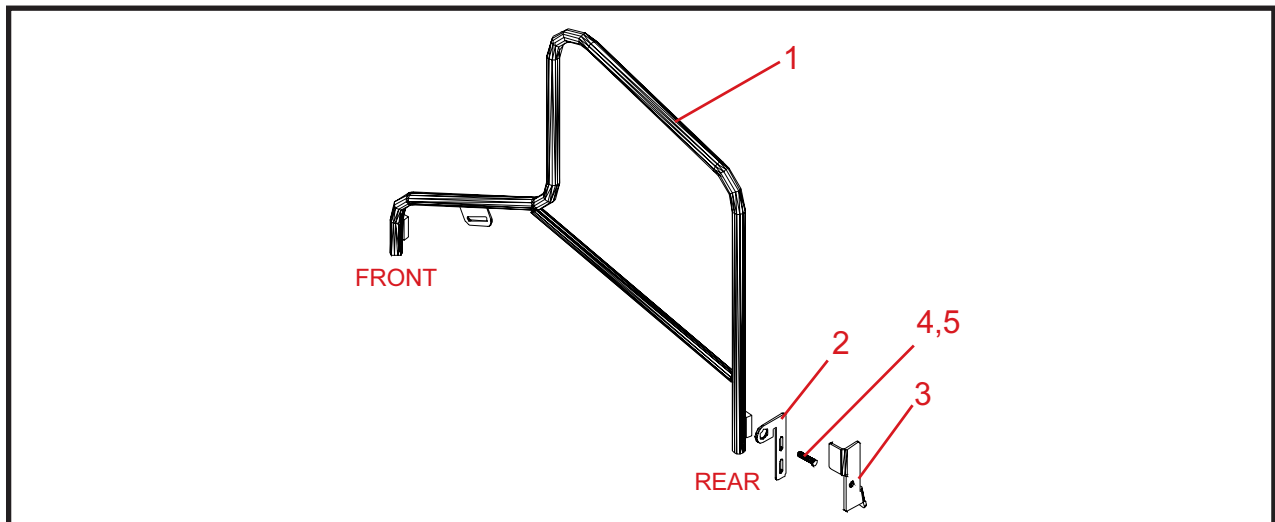


Figure 15

WARNING



**FAILURE TO REPLACE
HANDRAIL COULD RESULT
IN SERIOUS INJURY OR**

PARTS LIST

REF.#	PART #	QTY.	DESCRIPTION
1.	R5E000053P0	1	JD STS Handrail Assy - 2006
2.	R3E000109P0	1	JD STS Handrail Slide Latch
3.	R3E000110P0	1	JD STS Handrail Latch Bracket
4.	1AF006HAAL0	1	1/2" x 1-3/4" Clevis Pin
5.	1AF013A2170	1	.080 Hair Pin Cotter #217
6.	1AFC37E00L0	1	5/16" x 3/4" Flange Bolt
7.	1AFC08E0000	1	5/16" Serrated Flange Nut

Please order replacement parts by PART NO. and DESCRIPTION.

Installation of Handrail on 50 & 60 Series STS Combines built prior to 2006.

STEP 1:

Remove the two cotter pins and 1/2" pins that fasten the factory handrail to the combine. The factory handrail will no longer be utilized.

STEP 2:

Fasten the slide latch to the rear side of the Maurer handrail with the 1/2" x 1-3/4" clevis pin and .080 hair pin. Use the second hole from the bottom of the handrail, as shown in Figure 16.

STEP 3:

Slide the Maurer handrail and slide latch inside the factory Deere mounting brackets. Using the bottom hole at the front and rear, attach the handrail to the factory mounting brackets with the 1/2" pins you removed in STEP 1. The rear pin must go thru the lower slot of the slide latch.

Figure 16

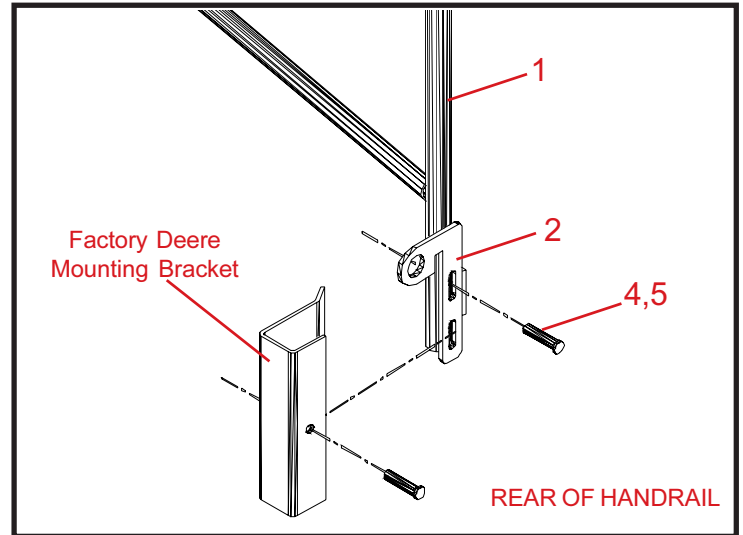


Figure 17

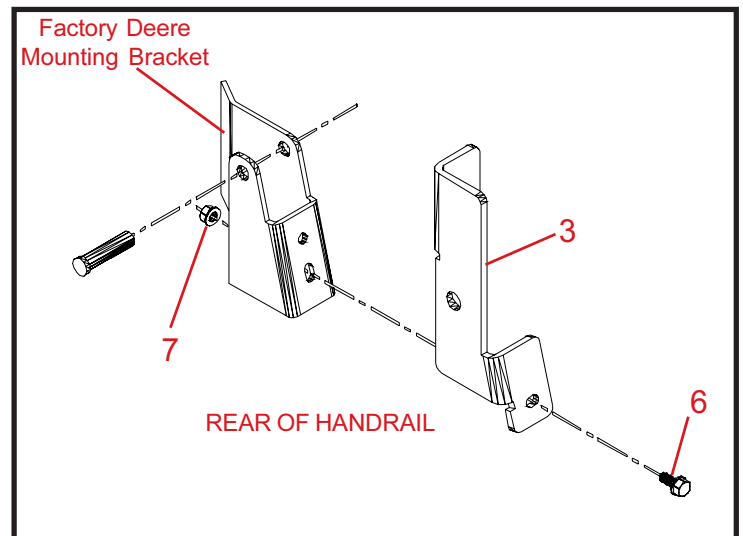
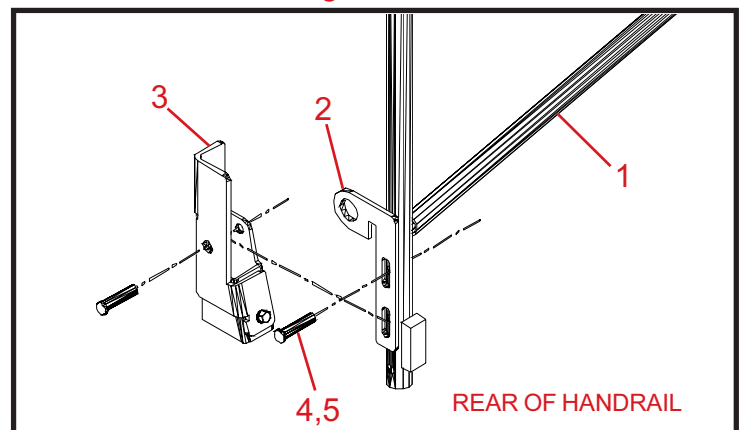


Figure 18



Installation of Handrail on 60 & 70 Series STS Combines built in 2006 and after.

STEP 1:

Remove the two cotter pins and 1/2" pins that fasten the factory handrail to the combine. The factory handrail will no longer be utilized.

STEP 2:

Fasten the handrail latch bracket to the rear factory mounting bracket with the 5/16" x 3/4" flange bolt and nut. As shown in Figure 17.

STEP 3:

Fasten the slide latch to the rear side of the Maurer handrail with the 1/2" x 1-3/4" clevis pin and .080 hair pin. Use the third hole from the bottom of the handrail, as shown in Figure 18.

STEP 4:

Slide the Maurer handrail and slide latch inside the factory Deere mounting brackets. Line the second hole from the bottom of the handrail up with the holes in the front and rear mounting bracket. Attach the handrail to the factory mounting brackets with the 1/2" pins you removed in STEP 1. The rear pin must go thru the lower slot of the slide latch.

If you have questions not answered in this instruction sheet, require additional copies, or if your instruction sheet 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

