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AE20068, Rev 0
01/24

COMBINE GRAIN TANK EXTENSION TIP-UP KIT

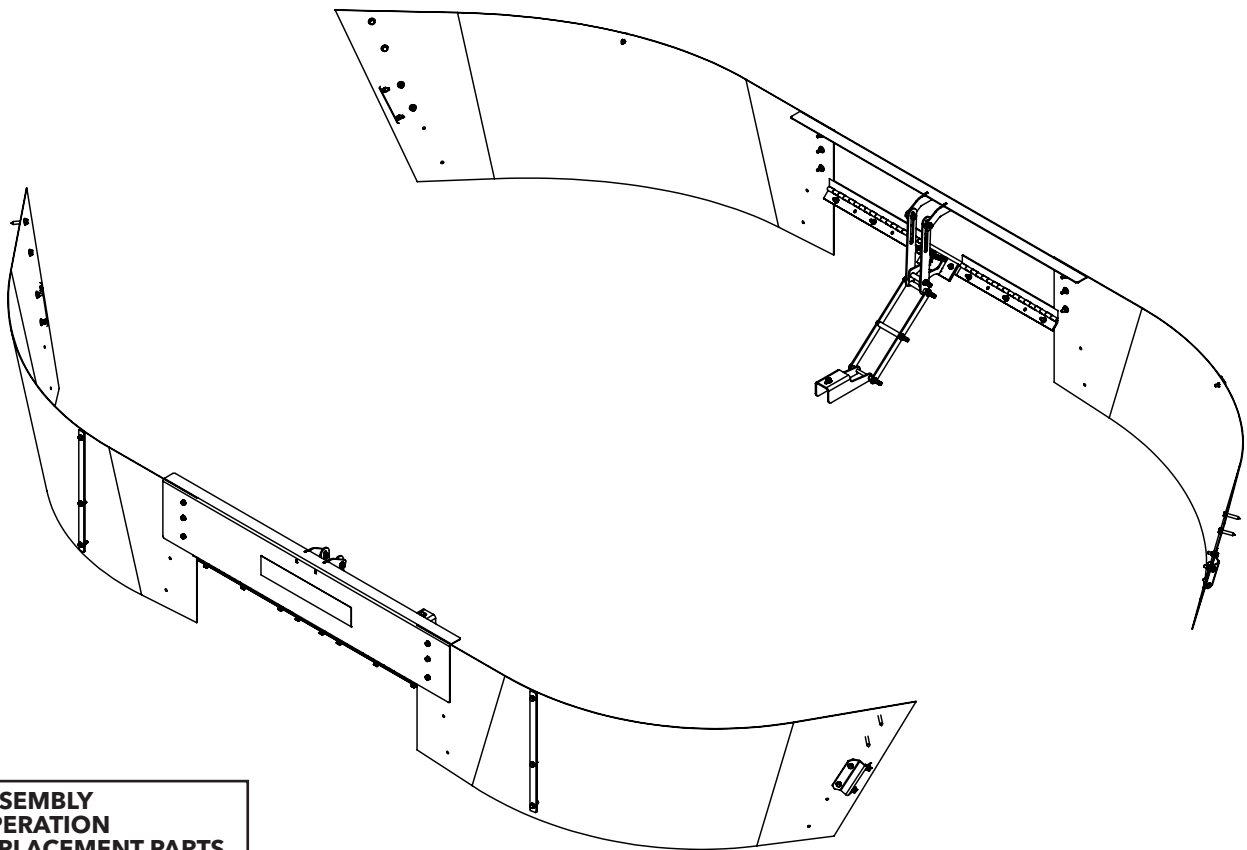
9421068 - Tip-Up Kit 100 Bushels

**FITS: JOHN DEERE S780 - S790 COMBINES
2023 SERIAL NUMBER 825730 & ABOVE**

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



**FOR USE ON COMBINES WITH
POWER FOLD COVER ONLY**



**ASSEMBLY
OPERATION
REPLACEMENT PARTS**

OPERATOR MANUAL

Introduction

Thank you for purchasing a Demco Tip-Up Kit. Proper care and use will result in many years of service.

WARRANTY POLICY, OPERATOR MANUALS, PARTS MANUALS & REGISTRATION

Go online to www.demco-products.com to review Demco warranty policies, operator manuals and register your Demco product.



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

- Ensure that anybody present is clear before applying power to any machinery used in conjunction with a Demco 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 Demco 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 Demco 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.

Replacement Parts

When ordering replacement parts provide the Unit Color and Item Number.

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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:

This manual uses the following signal words--**DANGER**, **WARNING**, and **CAUTION**-- with safety messages. The appropriate signal word has been selected using the following guidelines.

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.

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.

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 DEMCO, 4010 320th Street, Boyden, IA 51234
ph: (712) 725-2311 or Toll Free: 1-800-543-3626 Fax: (712) 725-2380 or 1-800-845-6420
<http://www.demco-products.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 Demco 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.

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 and combine.

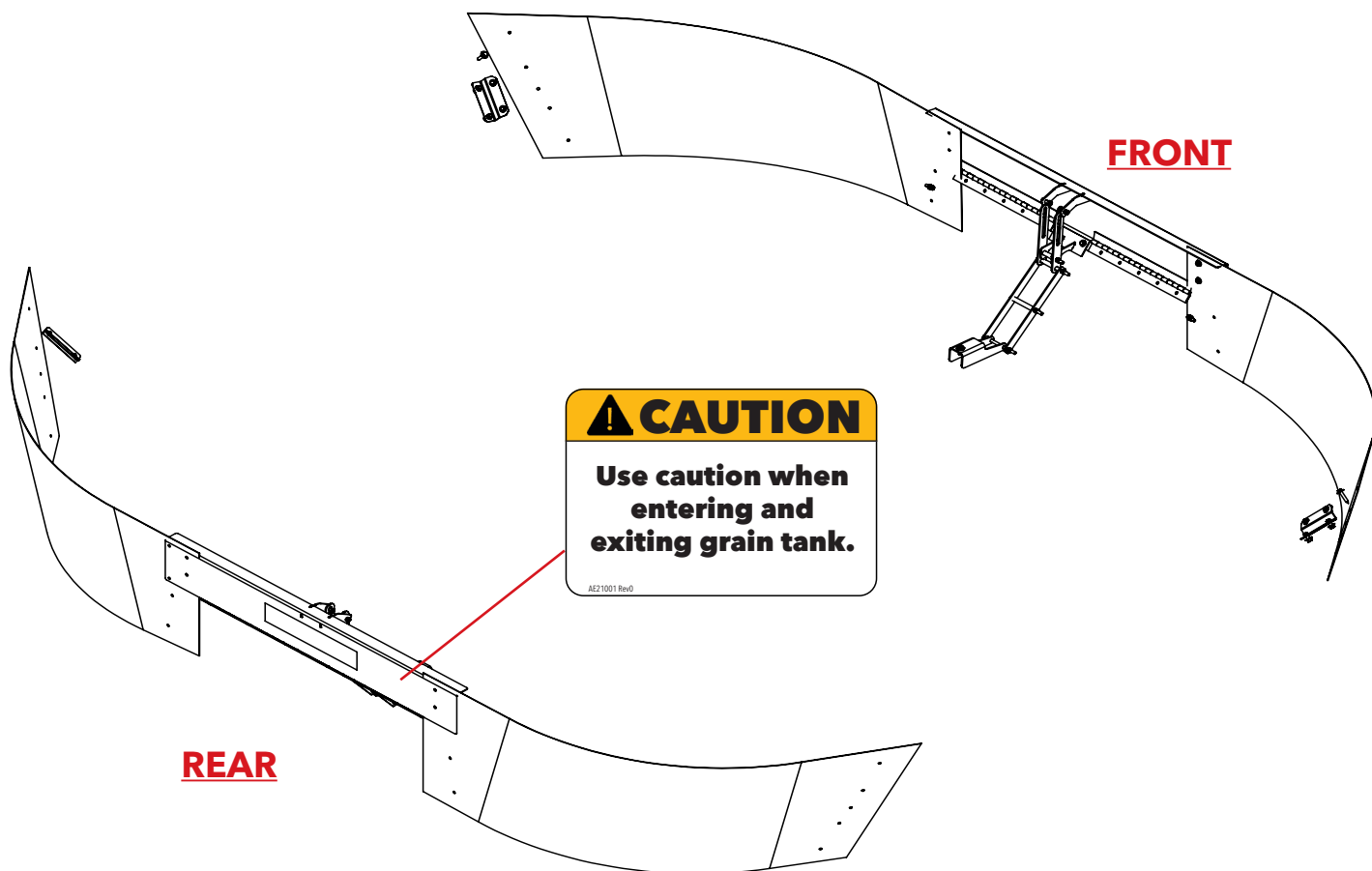
PRODUCT DISCLAIMER

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 Demco 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 Demco.

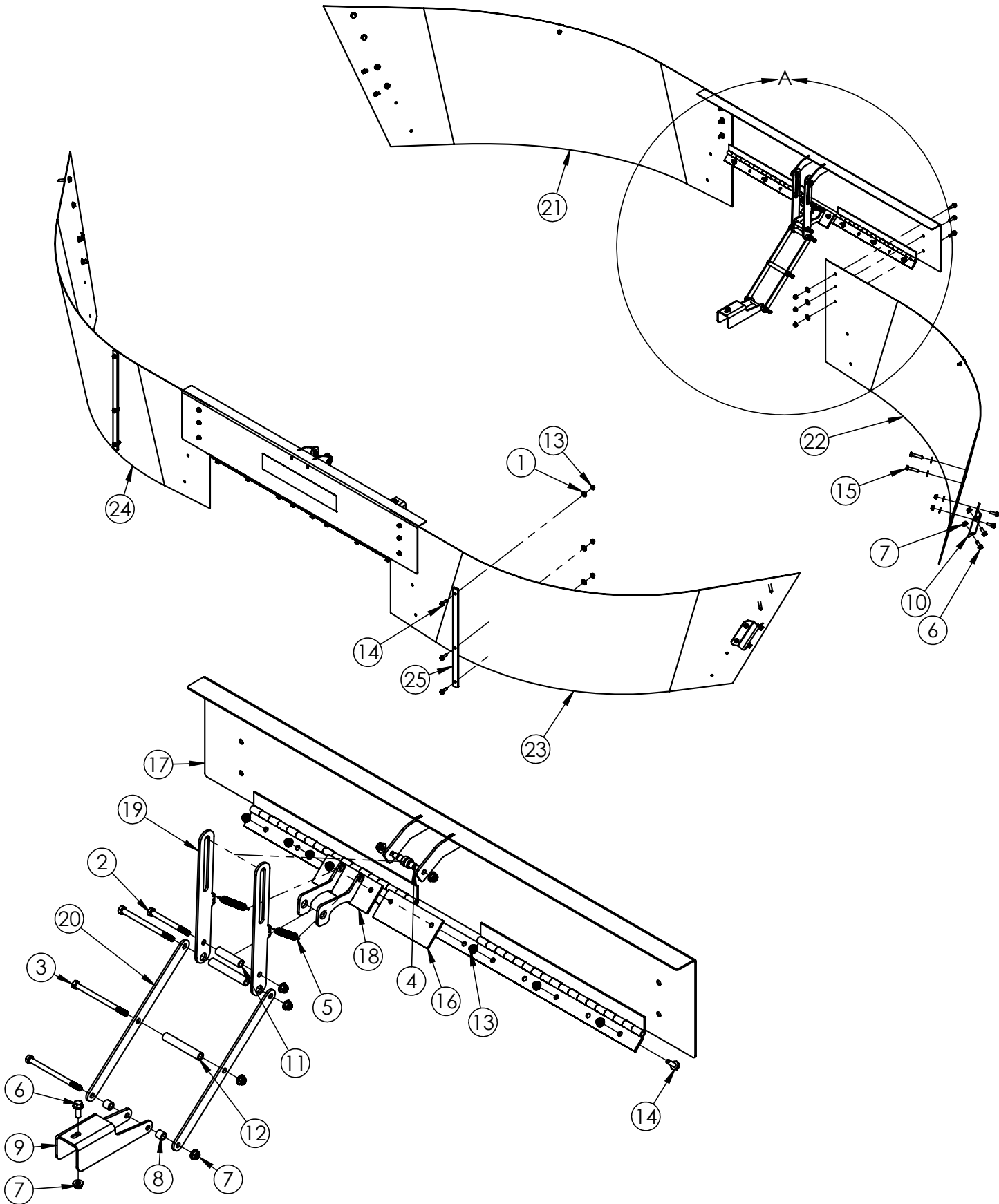


Figure 1

ITEM	PART #	QTY	DESCRIPTION
1	00004	40	5/16" FLATWASHER
2	02769	2	BOLT .375NC X 4.00" GR5 HEX
3	05032	6	BOLT .375NC X 5.50" GR5 HEX
4	08075	4	BOLT .50 X .50 SOCKET HD SHOULDER
5	14315	4	SPRING TENSION
6	16259	10	BOLT .375NC X 1.00" GR5 HEX FLG
7	16260	22	NUT .375NC NYLON LOCK
8	17846-95	4	DRIVE RING RETAINER BUSHING
9	17847	2	PUSH BAR MOUNT
10	17849	4	LEFT & RIGHT CORNER MOUNT
11	17851-95	2	LINKAGE BUSHING SHORT
12	17852-95	4	LINKAGE BUSHING LONG
13	17855	48	NUT .313NC NYLON LOCK FLG
14	17856	48	BOLT .313NC X 1.00" GR5 HEX FLG

Please order replacement parts by PART NO. and DESCRIPTION

ITEM	PART #	QTY	DESCRIPTION
15	17858	8	LAG SCREW 2" X 3/8"
16	18174	2	SPACER PLATE
17	18201	2	FRONT & BACK PANEL ASSY
18	18202	2	SLIDE BAR MOUNT ASSY
19	18203	4	SLIDE BAR
20	18204	4	PUSH BAR
21	18205	1	RIGHT REAR CORNER TARP
22	18206	1	LEFT REAR CORNER TARP
23	18207	1	LEFT FRONT CORNER TARP
24	18208	1	RIGHT FRONT CORNER TARP
25	18211	4	CORNER BRACE
-	6469	-	KIT CYLINDER & FITTING
-	5972	-	SEAL KIT

Please order replacement parts by PART NO. and DESCRIPTION

ASSEMBLY INSTRUCTIONS

NOTE: Keep all fasteners that are removed.

STEP 1:

To install the Demco Front Panel to the JD factory front panel you will need to remove all nuts and washers fastened to the corners from the corner channels using a 13mm wrench. You will also need to remove a nut & bolt from the top of each corner channel. **See Figure 2.**

STEP 2:

To install the Demco Front/Rear Panel to the JD factory Front/Rear panel you will need to center Demco's Front/Rear panel and keep it flush to the steel JD factory Front/Rear panel as shown in figure 1. Then using Demco's panel drill 8 holes and install with 5/16" X 1 flange bolts in locations shown above.

Location of the JD stiffener and mounting location for Demco Front/Rear panel is depicted in **Figure 4** below.



Figure 4 Flush with JD steel stiffener

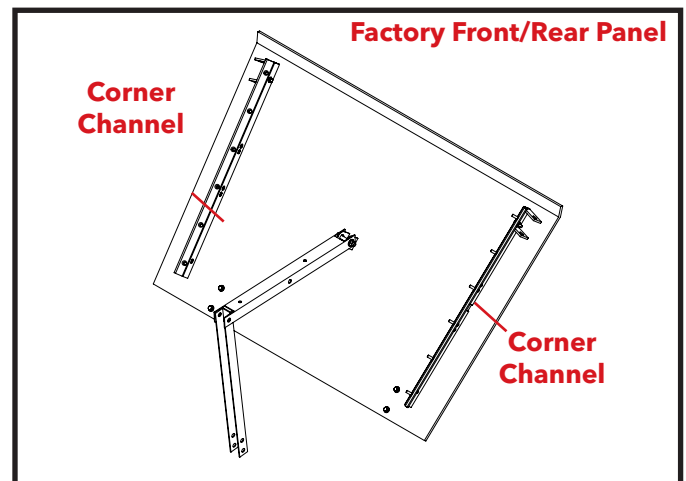


Figure 2

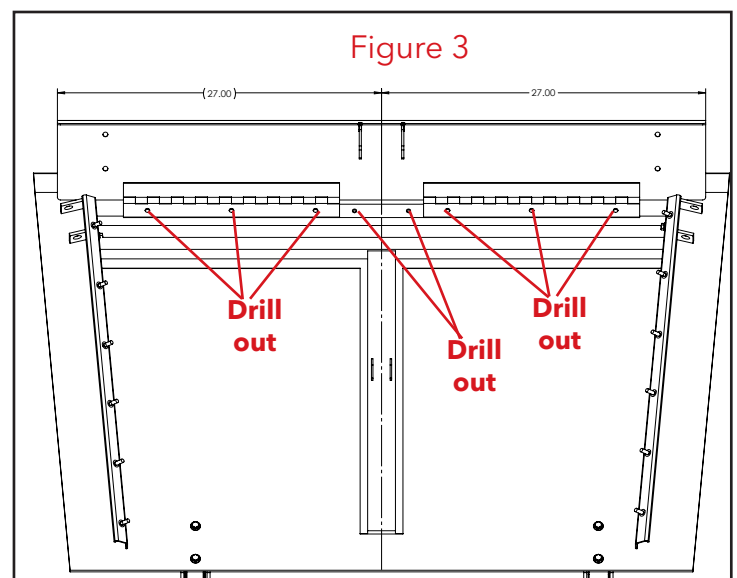


Figure 3

Assembly Instructions



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



Located on outside of front & rear panel.

STEP 3:

Install #16 and #18 in middle 2 holes with 5/16" x 1" flange bolts.

STEP 4:

Insert the short linkage bushing (#11) into the slide bar mount (#18). Use a 3/8" x 4" hex bolt (#2) and nylock nut (#7) to fasten the slide bars to the slide bar mount. Get the nut snug and then back it off 1/4 turn. Next, on each of the slide bars (#19), insert a shoulder bolt (#4) through the slot and mount it to the dog leg on the front panel (#17) using a nylock nut to secure it. **See Figure 5.**

STEP 5:

Insert a long linkage bushing (#12) through the slide bars (#19). Fasten the push bars (#20) to the slide bars using a 3/8" x 5.5" hex bolt (#3) and nylock nut (#7) provided. Next, fasten another long linkage bushing to the center of the push bars using the same size nut and bolt mentioned earlier. Get the nylock nuts snug and then back them off 1/4 turn. **See Figure 5.**

STEP 6:

NOTE: See page 12 if the combine is not equipped with a hole on the folding arm.

Place the push bar mount (#9) on the horizontal folding arm of the factory panel. Fasten the push bars (#20) to the push bar mount using a 3/8" x 5.5" hex bolt (#3) and nylock nut (#7) provided. The bolt should go under the folding arm and have a retainer bushing (#8) on the inside of each push bar. The slot on the push bar mount will line up with a hole on the folding arm. Secure the push bar mount in place using a 3/8" x 1" flange bolt (#8) and flange nut (#7) provided. Install 2 springs (#5) into middle hole of slide bar (#19) and hole in slide bar mount assembly (#18). **See Figure 5 and 6.**

STEP 7:

Place the corner mounts (#10) parallel, in line with, and 3/4" above the factory corner channel. Mark the slots on the corner mount and drill two 7/16" holes thru the cover. Fasten the corner mounts with the 3/8" x 1" flange bolts (#6) and flange nuts (#7) provided. Repeat step at rear of cover. **See Figure 1 and 7.**

NOTE: For the following steps, make sure that each corner is in it's proper location:

18205 - Right Rear

18206 - Left Rear

18207 - Left Front

18208 - Right Front

STEP 8:

Starting with the front left corner, remove the top two flange nuts and washers from each of the factory corner channels. Attach the Demco corner to the corner mount and cover using the lag bolt (#15), 5/16" x 1" flange bolts (#14), washers (#1), and flange nuts (#13) provided to attach the Demo corner to the front panel. Fit corner over factory bolts and replace the flange nuts and washers. Repeat step with the rear left corner. **See Figure 1 and 8.**

STEP 9:

Repeat steps 1-8 for the rear panel and right cover.

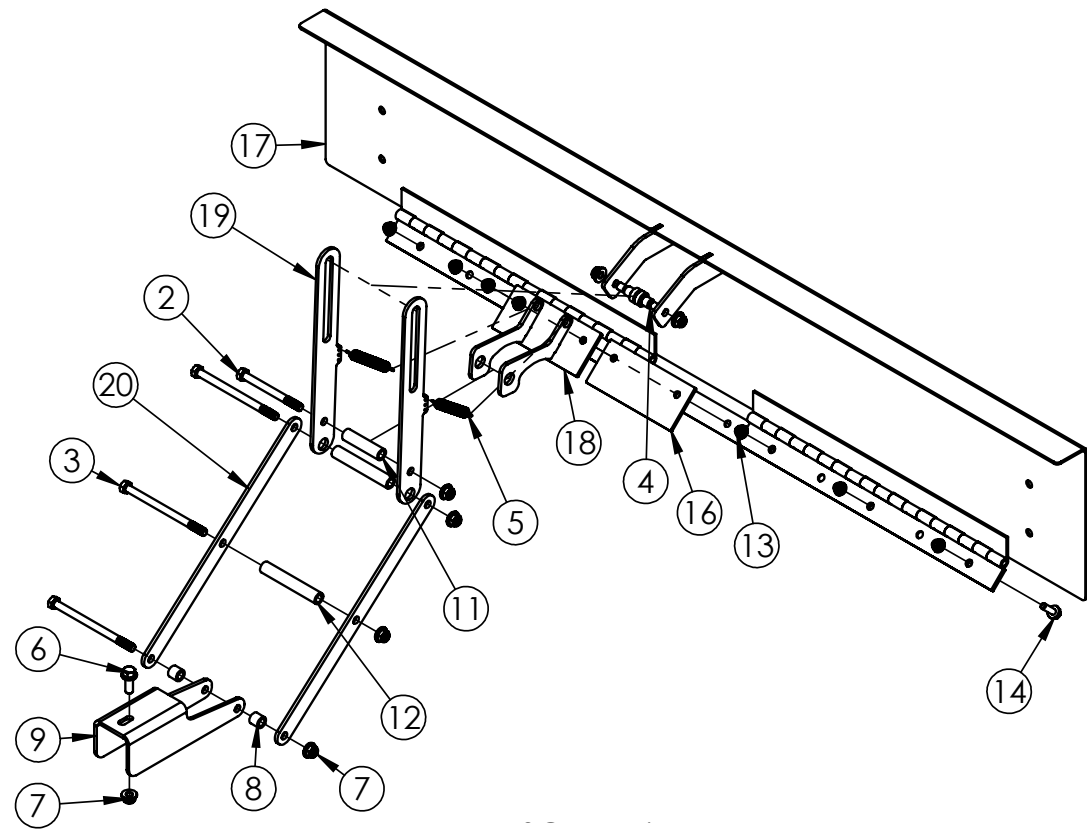


Figure 5

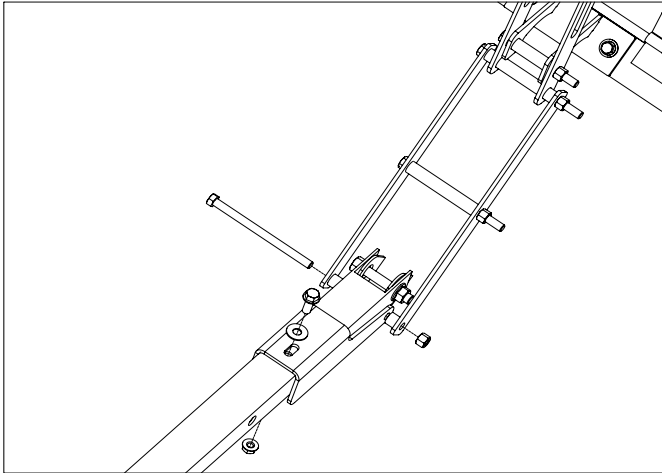


Figure 6

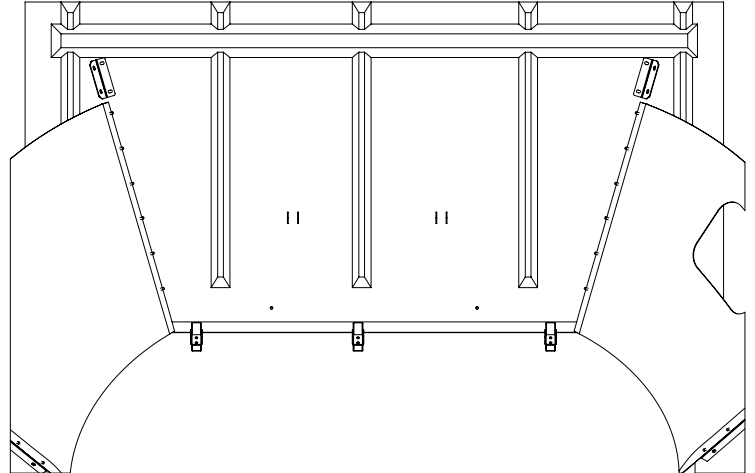


Figure 7



Figure 8

Corner Plastic Installation Instructions



The following steps will require drilling through the Demco corners if they do not have grommets to mount the plastic stiffeners. If the corners contain grommets to mount the corner plastics use these steps and the pictures on Page 11 as a reference.

STEP 1:

Loosely bolt the plastic (#25) to the tarp with the nuts (#13), bolts, (#14) and washers (#1) provided. **See Figure 1.**

STEP 2:

Drill holes for the center and bottom bolts. These holes should go through the OEM corner.

STEP 3:

Add nuts, bolts, and washers to the center and bottom holes of the plastic stiffener and tighten all three bolts.

STEP 4:

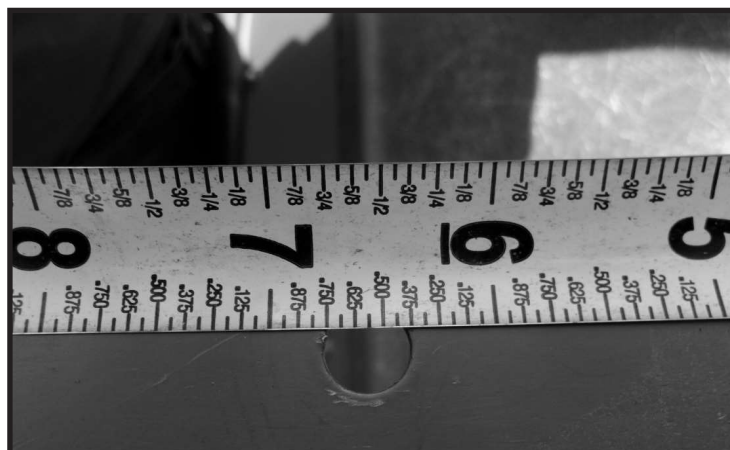
Repeat steps 1-5 on the remaining corners.

NOTE: The front corners will require a different mounting location than the rears to avoid damaging the windows. See pictures on page 11 for reference.



DO NOT drill through the strap in the John Deere corner.

***Use the following pictures to locate and drill a hole on the folding arm to fit a 3/8" bolt.**



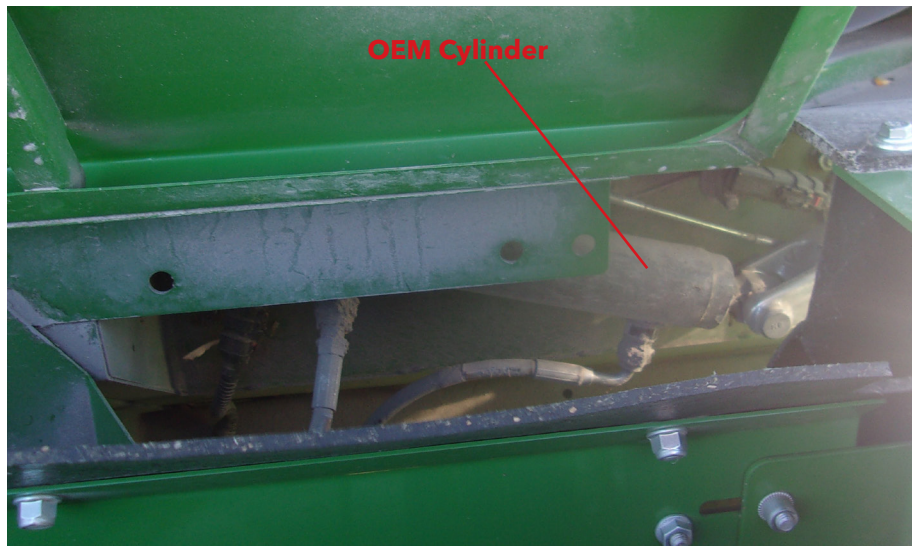
****AFTER INSTALLING YOUR NEW DEMCO TIP-UP KIT, TEST THE MACHINE TO MAKE SURE IT FOLDS DOWN AND UP FREELY WITHOUT ANY ISSUES AND THAT PARTS DO NOT INTERFERE WITH ONE ANOTHER.**



WARNING!

- Testing the folding function of the grain bin extension should be performed outdoors in a clear setting away from power lines and other obstructions.
- Beware of bystanders, particularly children and keep them away from the machine while it is running.
- Operator should remain in the driver seat while performing this test.
- If the grain bin extension struggles to open, abort the test and refer to Page 11.

Demco has included a new hydraulic cylinder with this kit to lift the additional weight of the grain tank. This cylinder will replace the OEM cylinder located under the right rear corner of the grain tank.



STEP 1:

Fold factory extension out to the harvesting position so the OEM cylinder is fully contracted.

STEP 2:

Loosen hydraulic lines on OEM cylinder to relieve pressure and disconnect both lines.

STEP 3:

Remove OEM cylinder from the combine.

STEP 4:

Install provided fittings on the Demco cylinder. Install the Demco cylinder on the combine and connect hydraulic lines.

STEP 5:

Test the bin extension by folding it open & close 3-4 times to work any air out of the hydraulic system.



TROUBLESHOOTING

Before operating the power fold grain tank covers, adjustments to grain tank components may need to be made. Refer to John Deere DTAC Solution Number: 92336

Summary:

- Setting the eye bolt on the loading auger
- Adjusting the loading auger linkage
- Relieving clamp load on pillow blocks for the grain tank cover rockshafts
- Verify and adjust as required after 5-hour break-in period
- Additional information
 - Verify front and rear doors hinges are not clamped
 - Loading auger strut is not hooked to the wrong side
 - Check for interference between doors and folding arms
 - Verify self-tapper hardware is fully seated on rockshaft support brackets attached to the grain tank
 - Inspect for rubbing between stop on the rockshaft and weld studs on the doors
 - Verify rockshaft ball-joint turnbuckles are set to factory specs (2.5" on left side, ¾" on right)
 - Front and rear rockshafts should be set all the way to the right hand side
 - Verify correct number of spacers (HXE11083) used on hinges

After completing the DTAC adjustments, the following steps can be used to ensure that the Demco tip-up functions correctly:

- Test if panels are functioning properly by removing the rear tip-up panel to test the front & vice versa. (There should be enough power to lift one tip-up panel at a time before increasing hydraulic pressure)
- Check push bar mount hole locations on factory folding arms are around 6.5"
- Operate covers with machine at high throttle



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**Demco warranty policies, operator manuals, and product registration
can be found online:**

www.demco-products.com