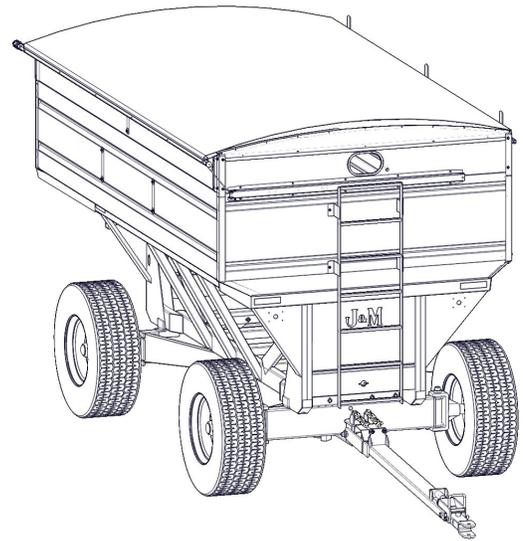


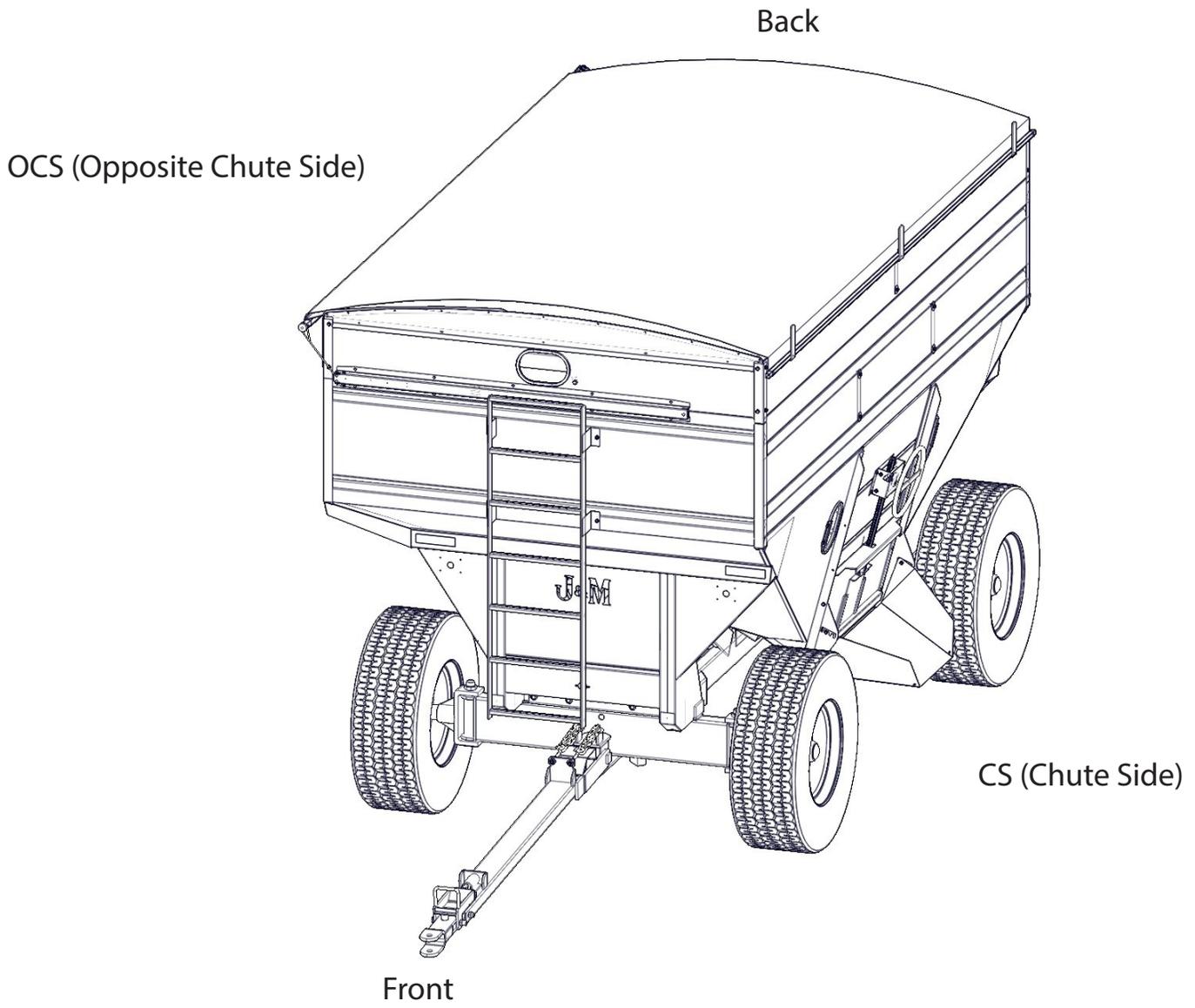


455, 555, 655, 755 GRAVITY
BOX TARP INSTALLATION



Rev. 9.9.2016

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Step 1 - Hanger

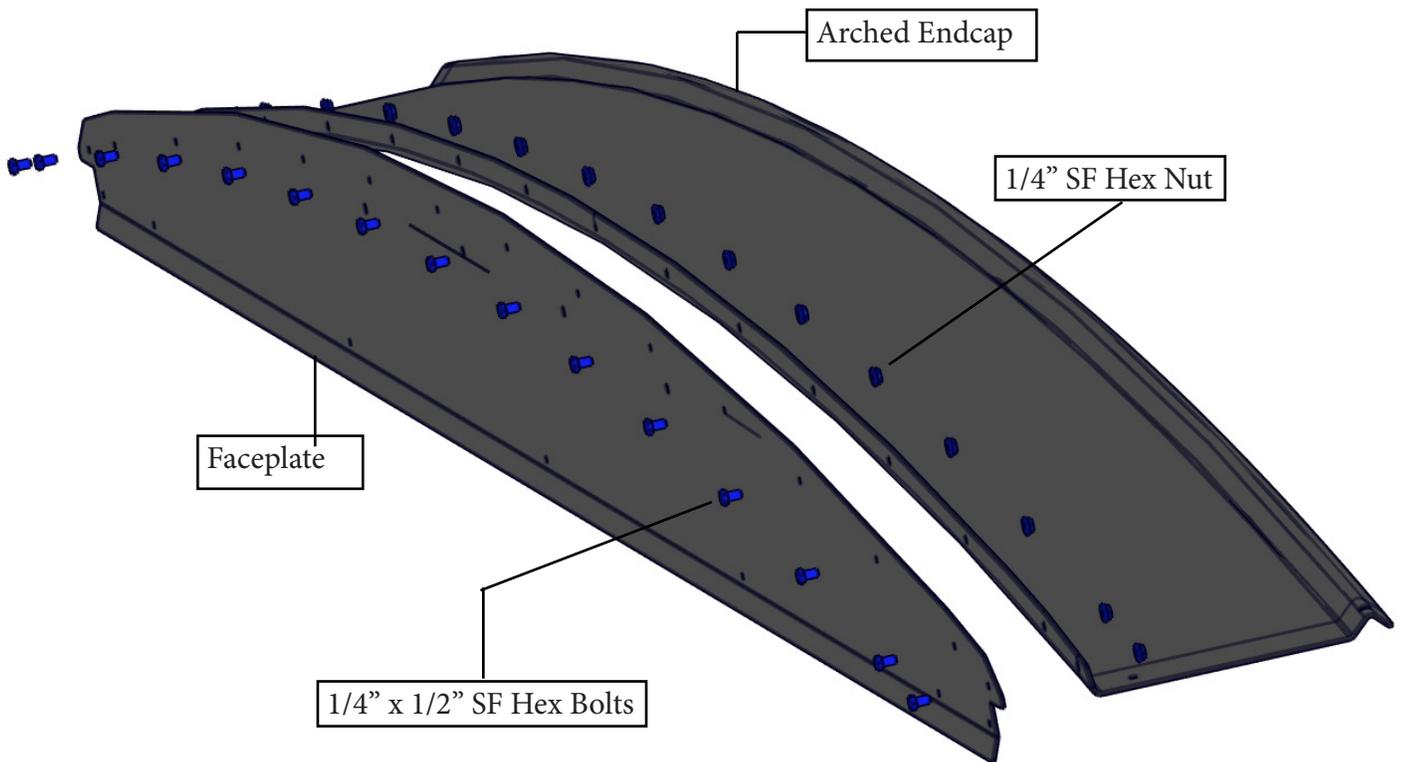


1.1 Mark four holes for each hanger bracket using the hanger bracket as a template and drill with a 7/16" drill bit. These holes should be on the back gravity box as low as possible and as shown in the image.

1.2 Fasten the hanger bracket to the gravity box using two 3/8" x 1" serrated flange bolts and two 3/8" serrated flange nuts.

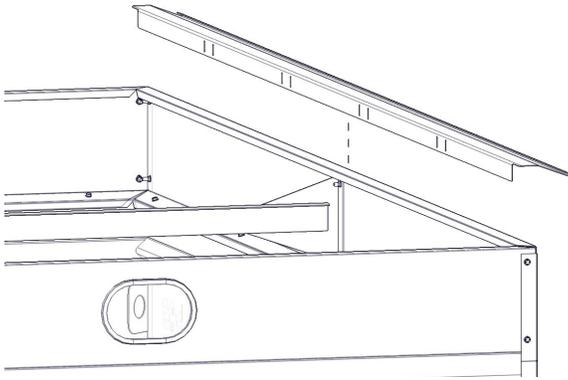
1.3 Fasten the hanger hook to the hanger bracket as shown above with a 1/2" x 1 1/4" bolt and a 1/2" locknut. This should not be tightened all the way. The hanger hook needs to be able to swivel on the hanger bracket.

Step 2 - Endcaps Assembly



- 2.1** Aside from the gravity box, match up the holes on the Front Endcap Arch with the top Front Endcap Plate holes.
- 2.2** Insert 1/4" x 1/2" bolts in the remaining holes. Fasten with 1/4" serrated flange nuts.
- 2.3** Repeat Steps 2.1 - 2.2 for the back endcap arch and plate.

Step 3 - Place Lip Lock & Endcaps



3.1 Center the lip lock on top of the OCS.

3.2 Use a C-clamp to hold lip lock in place.

3.3 Rest the assembled front and back Endcaps in place.

* For the 655 & 755 there will be a front and back lip lock.

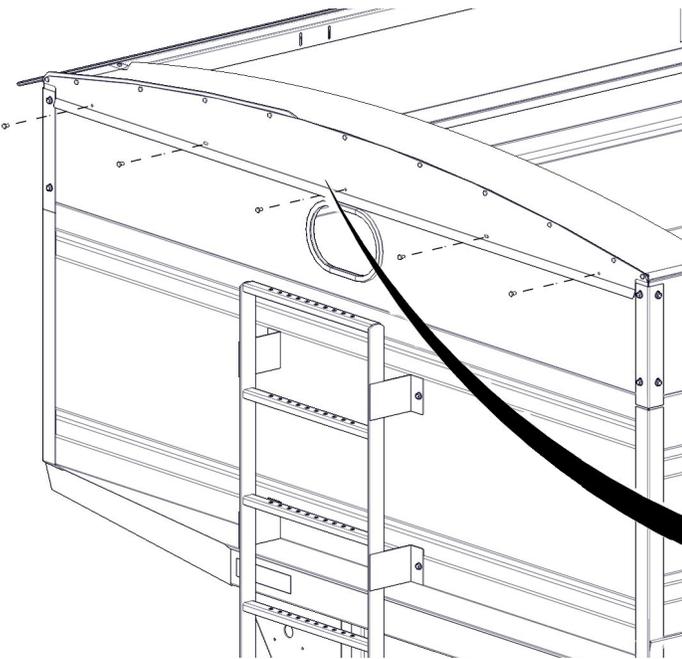
Step 4 - Endcaps

455/555 & 655/755 Models

4.1 Using the lower holes on the front Endcap Plate as a guide, drill holes through the front using a 5/16" drill bit.

4.2 Insert 1/4" x 1/2" bolts and fasten using 1/4" serrated flange nuts.

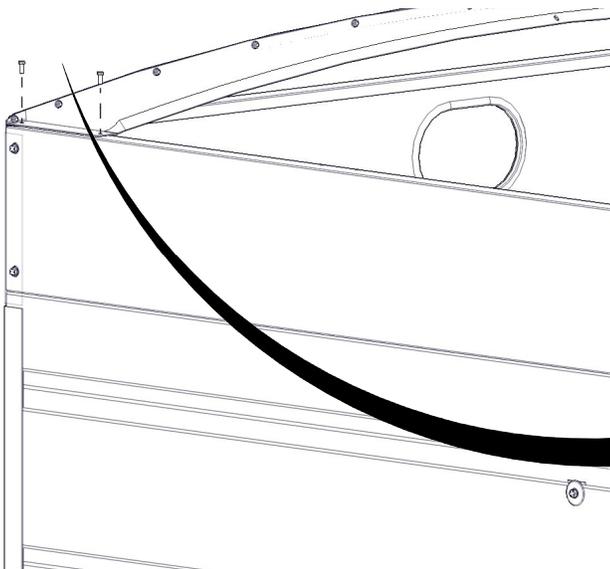
4.3 Repeat steps 4.1 & 4.2 for the back Endcap.



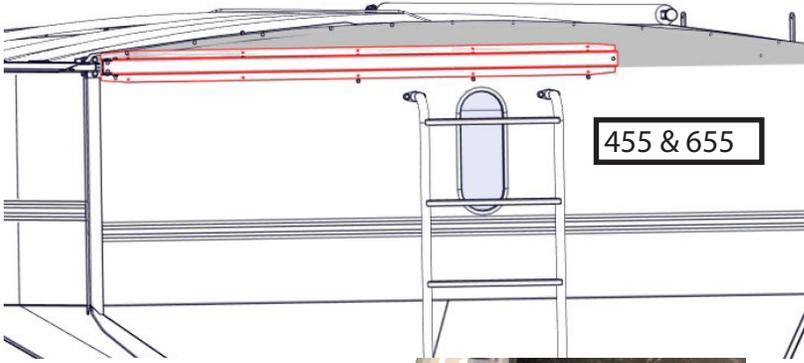
5.1 Use the four holes on the top of the front Endcap as a guide to drill four holes from the top using a 5/16" drill bit.

5.2 Insert 1/4" x 3/4" bolts and fasten with 1/4" serrated flange nuts.

5.3 Repeat Steps 5.1 & 5.2 for the back Endcap.

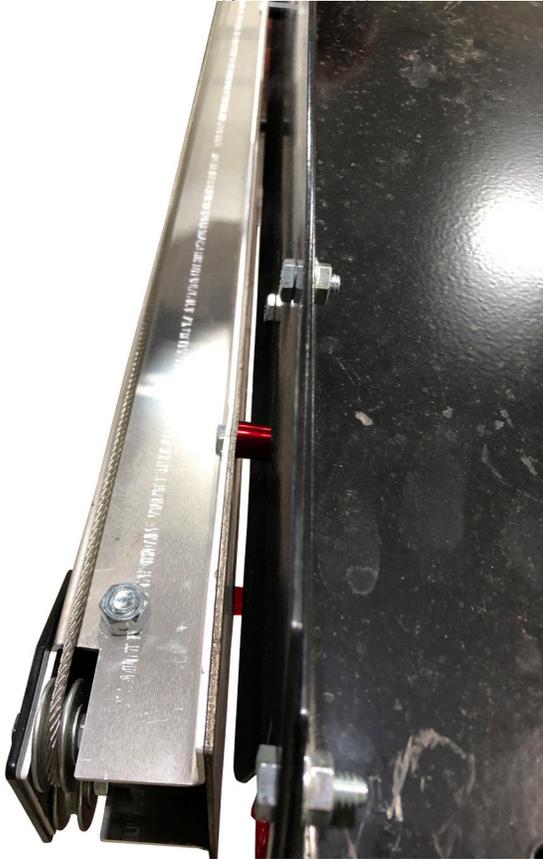


Step 6 - Spring Return

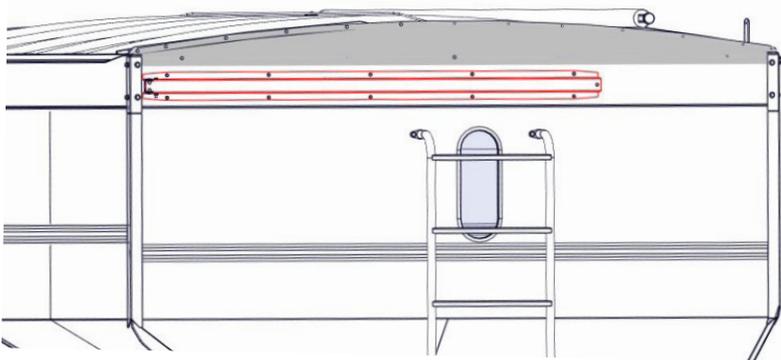


455 and 655 models will need spacers used (shown in red below) since it will be straddling the endcap. They will use 1/4" x 1-1/2" bolts to attach these spring returns.

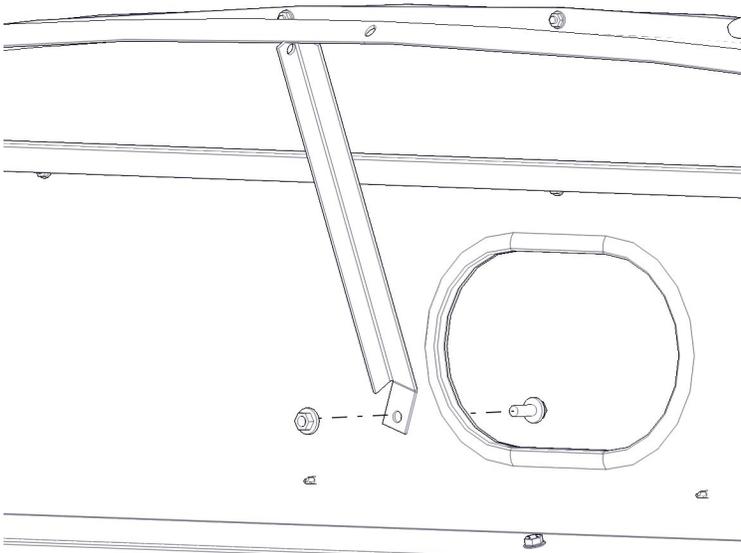
The spring return on 555 & 755 use ten 1/4" x 3/4" self tapping bolts. Be sure the end with the cable loop is located on the OCS. It should be positioned up against the OCS corner brace. See the chart below for model specific Spring Return locations.



Model	Spring Return Location
455 & 655	Straddling the End Cap and pushed up all the way possible
555 & 755	Right below the End Cap



Step 7 - Knee Braces



7.1 Mark the hole for the Knee Brace as centered as possible using the Knee Brace as a guide. When marking the hole push up on the Endcap to keep it from sagging.

7.2 Drill the hole using a 7/16" bit.

7.3 Use a 3/8" x 1" serrated flange bolt and a 3/8" serrated flange nut to fasten the knee brace. Be sure that the knee brace applies upward pressure to the Endcap. Making the the top endcap parrallel with the ground

7.4 Repeat Steps 7.1-7.3 for the remaining knee brace under the opposite Endcap.

Step 8 - Tarp Bows



8.1 Position the Tarp Bows on top of the Gravity Box. Be sure to spread the Bows out evenly from front to back.

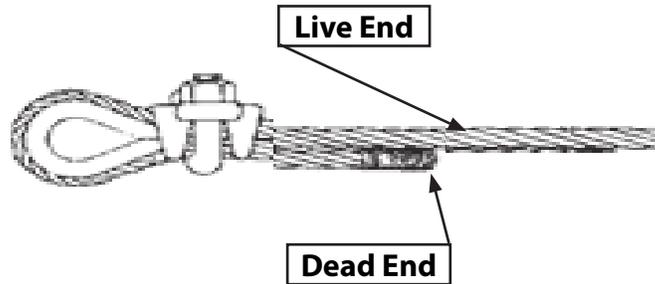
8.2 There should be existing holes in the Lip Lock and sideboards for the bows. If they happen to not line up, use the Tarp Bows as a guide, and drill holes with a 5/16" drill bit.

8.3 Insert 1/4" x 3/4" bolts and fasten with 1/4" serrated flange nuts.

Step 9 - Cable

Using a cable clamp, feed one end of the cable through the cable clamp, make a small loop, then tighten the cable.

NOTE: Make sure that the base of the clip bears on the live end of the rope and the "U" of the bolt bears on the dead end.



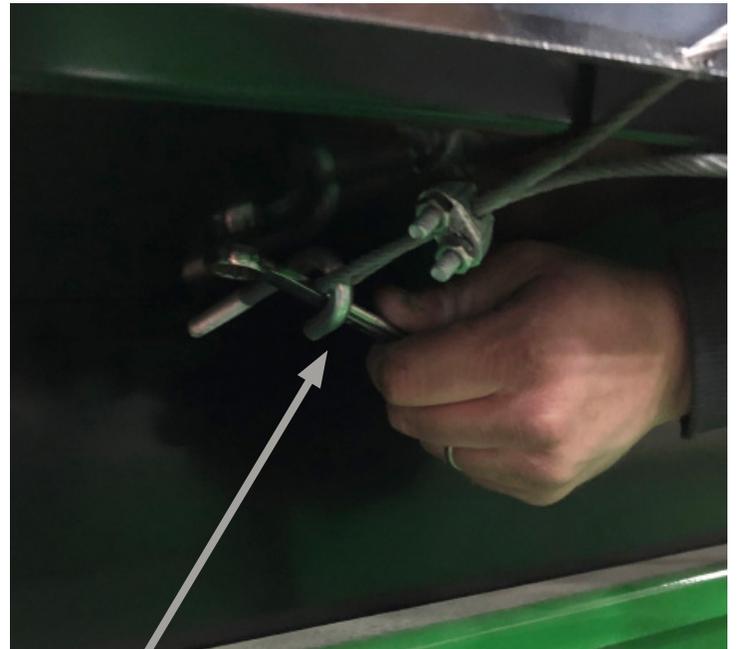
Now thread the cable through the front endcap pulling the end without the cable clamps through first.

NOTE: Make sure to pull from front to back.

Next guide the cable over the arched bows and thread them through the existing hole on the rear endcap. Now feed the cables through the cable clamps.

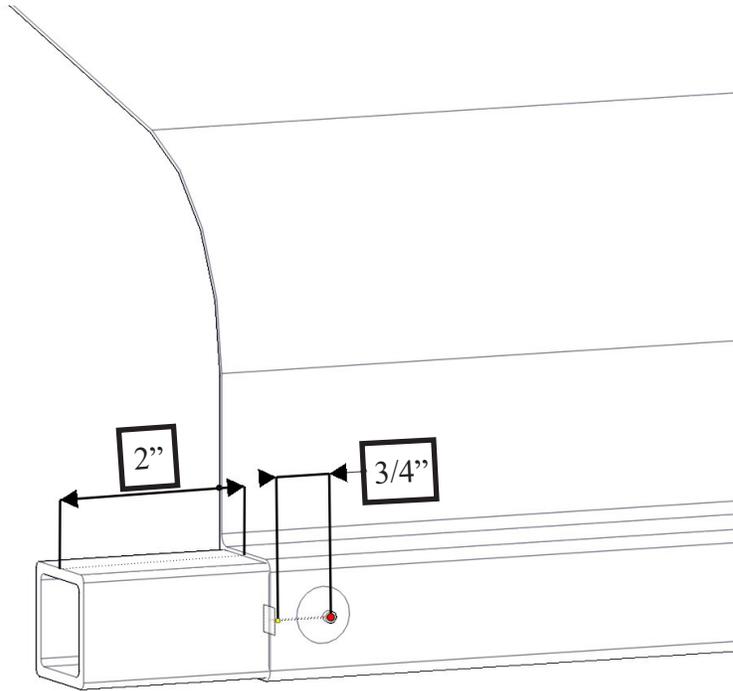
NOTE: Make sure that the base of the clip bears on the live end of the rope and the "U" of the bolt bears on the dead end.

Place the loop into the J-bolt. Use a vise grip to pull on the cable. Pull the cable tight. To remove all slack from the cable, aggressively tap the cable while applying tension with the vise grips. Then tighten the cable clamp. Once the clamps are tightened, tighten the J-bolts. Insert a wrench into the hook of the J-bolt and tighten the nut.



Use wrench or bolt to hold the J-bolt while tightening.

Step 11 - 1" Square Tube



11.1 Insert the 1" 14 ga Square Tube into the tarp sleeve on the opposite side of the stiffening patch (see pg. 11, Step 13 for a picture of the stiffening patch).

11.2 Center the 1" Square Tube inside the sleeve. This should leave around 2" of the tube sticking out of the sleeve on each side as shown above.

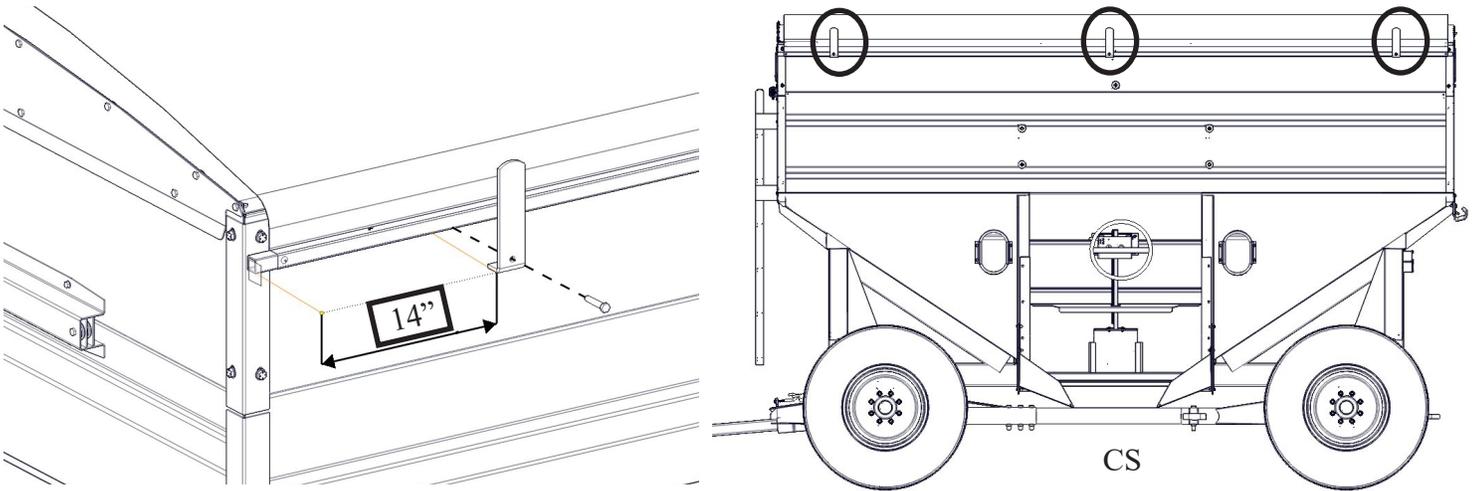
11.3 Use a 1/4" drill bit to drill a hole through the Canvas Tarp and one wall of the 1" Square Tube. The hole should be around 3/4" from the edge of the tarp.

11.4 Use a hammer to install a 1/4" Drive Rivet.

11.5 Repeat Steps 11.3 & 11.4 at the same location on the other end of the Square Tube.

-NOTE: Be sure the Tarp is pulled tight over the Square Tube between the Rivets.

Step 12 - Stop Brackets

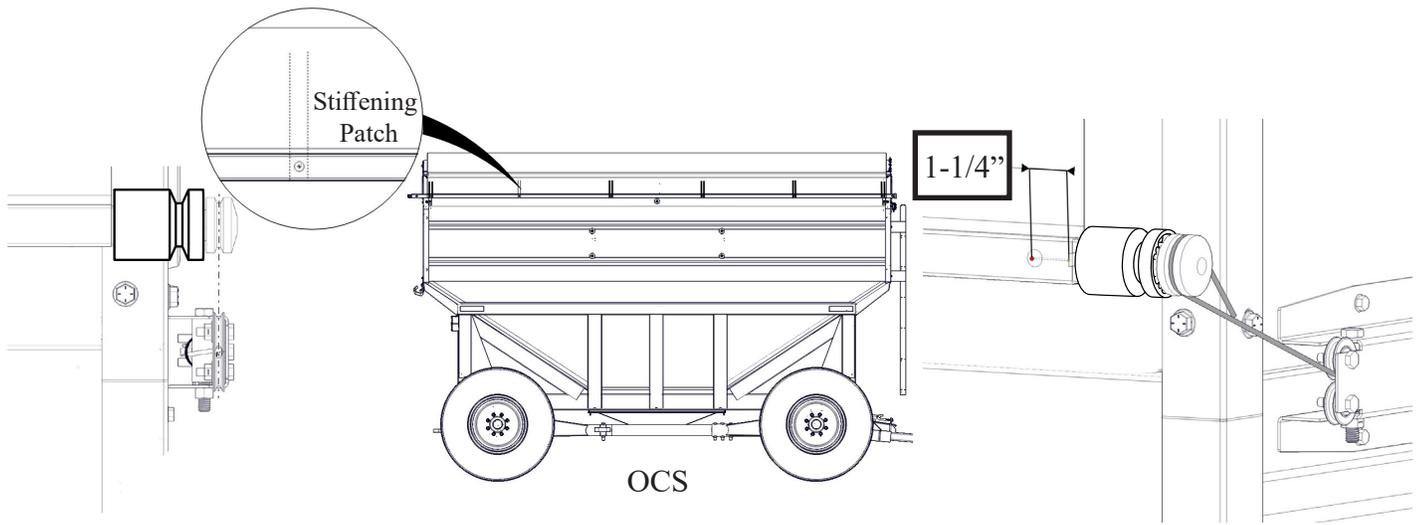


12.1 Center the 1" Square Tube that is riveted to the Canvas Tarp on the CS of the gravity box. Allow the Square Tube to hang below the top bolts on the corner brackets (around 2 1/2" below top of the Gravity Box).

12.2 Drill two 7/16" holes around 14" from the end of the Tube through the Tubing and sideboard wall. A third hole should be drilled as centered on the tube as possible. Avoid drilling through the center brace inside the gravity box.

12.3 Install each stop bracket with a 3/8" x 2" bolt and a 3/8" locknut. Tighten hardware.

Step 13 - 1 1/4" Square Tube



13.1 On the opposite side of the Canvas Tarp, slide roller guide onto the 1-1/4" Square Tube then slide the 1-1/4" square tube into the remaining sleeve until the spool lines up with the pulleys on the spring return, pictured above. The splined end of the 1-1/4" Square Tube should be towards the back of the Gravity Box.

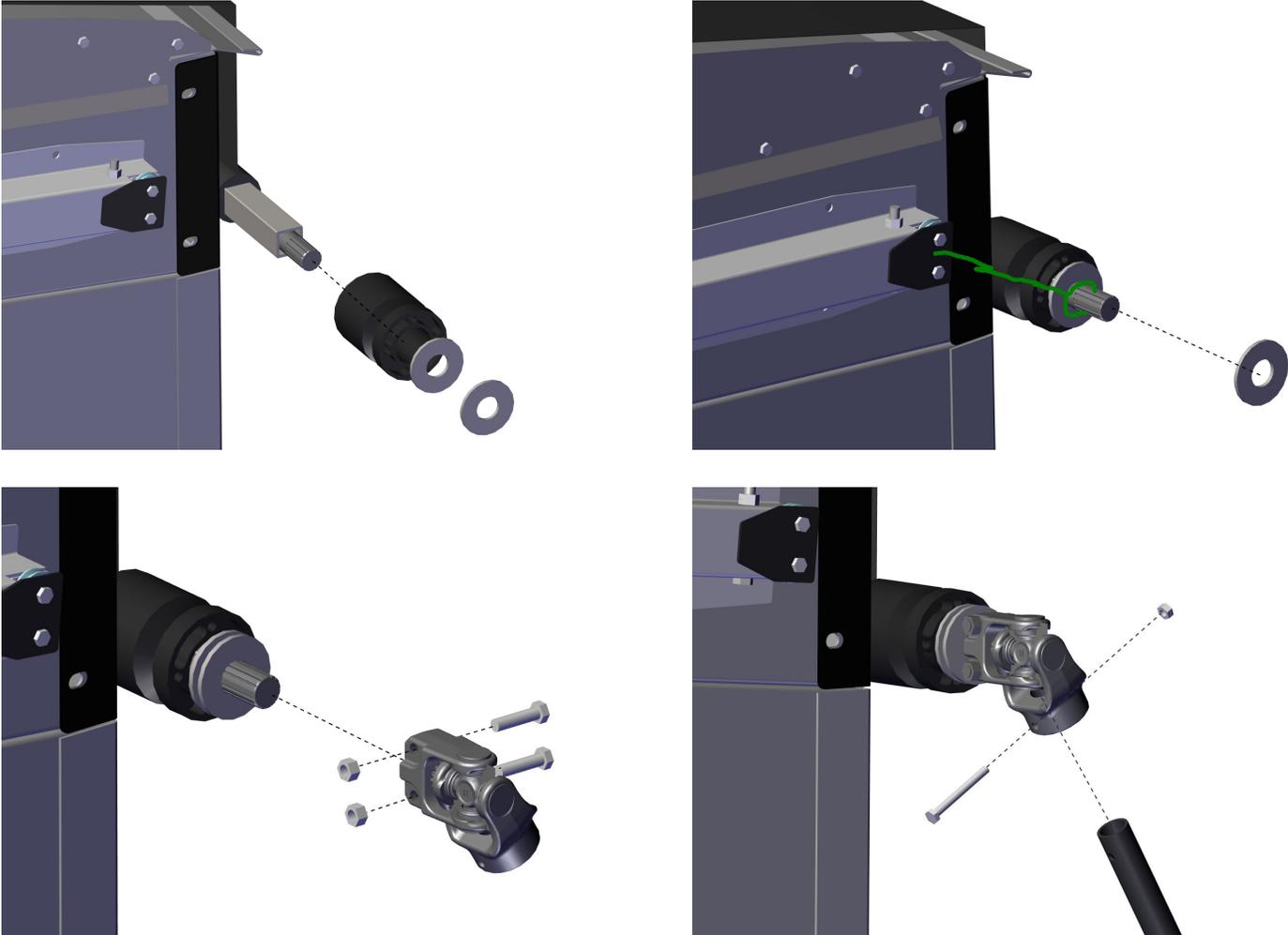
13.2 Push down on the 1-1/4" square roll tube on both ends and in the center to fully extend the canvas. Line the roll tube cable spool up with the spring return cable. Drill a 1/4" hole through the first stiffening patch. Fasten the canvas tarp using a pop rivet. Go to the rear of the cart, pull the canvas tarp tight, and repeat the process. Then install pop rivets at the remaining stiffening patches. Once finished slip the spring return cable loop over the cable spool.

13.3 Use a hammer to install 1/4" drive rivets into each of the drilled holes.

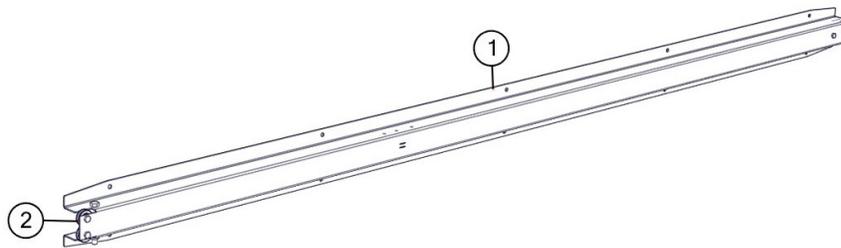
13.4 Slip the Spring Return cable loop over the spool.

Step 14 - U-Joint & Crank Handle

Slide tarp guide roller over rear end of 1-1/4" square roll tube. Then slide one washer over, then the spring return cable, then the next washer. Now attach the knuckle to the roll pipe. Use (2) 3/8" x 2" hex bolts along with (2) 3/8" lock nuts. Attach the crank handle to the universal joint. Install the crank handle using (1) 1/4" x 2-1/2" bolt and (1) 1/4" locknut. The universal joint may be pre-assembled to the crank handle.



Spring Return



#	Description	Part. No.
1	Spring Return Assembly	JM0002437
2	Spring Return Cable	JM0010307

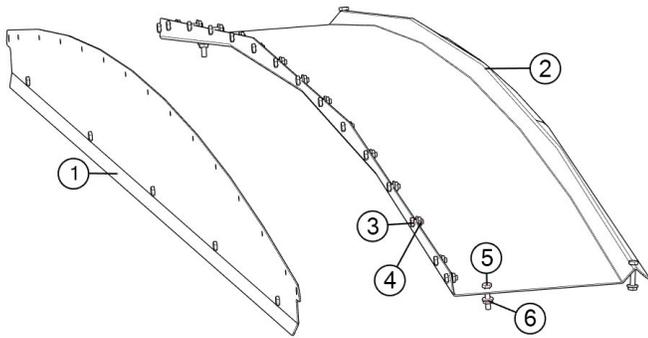
Roll Tarp Assembly

#	Description: 455/555	Part. No.
1	455/555 Front Face Plate	JM0033224
2	455/555 Endcap Front (Top)	JM0033227
3	1/4"-20 x 1/2" Gr5 Z Hex Bolt	JM0001481
4	1/4"-20 Gr5 Z Serrated Flange Hex Nut	JM0001630
5	1/4"-20 x 5/8" Gr5 Z Hex Bolt	JM0001479
6	455/555 Endcap Rear (Top)	JM0033233
7	3/8"-16 Gr5 Z J-Bolt	JM0001519
8	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
9	455/555 Rear Faceplate	JM0033231
10	Knee Brace	JM0000917
11	3/8"-16 Gr5 Z Serrated Flange Nut	JM0002152
12	3/8"-16 x 1" Gr5 Z Serrated Flange Hex Bolt	JM0002092
13	Roll Tarp Guide Roller	JM0038446
14	1" USS Flat Washer	JM0003063
15	Universal Joint	JM0001517
16	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
17	Spring Return Cable	JM0010307
18	3/8"-16 x 1-1/2" Gr5 Z Hex Bolt	JM0001659
19	1/4"-20 x 2-1/2" Gr5 Z Hex Bolt	JM0001506
20	Roll Tarp Hanger Bracket	JM0000815
21	Handle Hanger Rubber Flap	JM0002551
22	Pinless Crank Holder	JM0002967
23	1/2" Z Flat Washer	JM0003082
24	1/2"-13 x 1 1/4" Gr5 Z Hex Bolt	JM0001513
25	Square Tie-Down Tube for 455/555 Roll Tarp	JM0033480
26	455/555 Canvas Tarp	JM0033471
27	Square Roll Tube Weldment for 455/555 Roll Tarp	JM0033478
28	192" Cable	JM0022194
29	455/555 Roll Tarp Lip Lock	JM0033253
30	455/555 Tarp Bow Weldment	JM0033272
31	Crank handle	JM0002907
32	Yellow Cap	JM0018963
33	Spring Return Assembly	JM0002437
34	Spring Return Cable	JM0010307
35	3/8"-16 x 2" Gr5 Z Hex Bolt	JM0001510
36	Tarp Stop	JM0000187
37	1/8" Cable Clamp	JM0001514

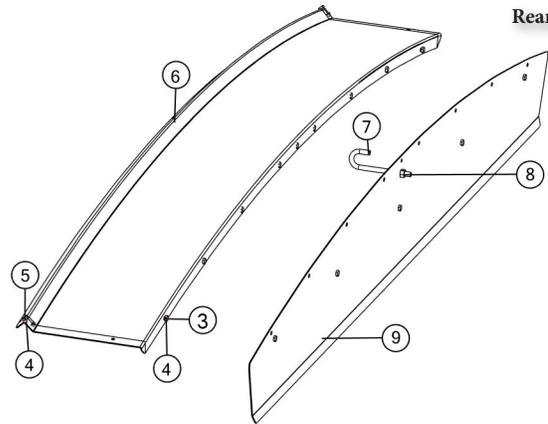
#	Description: 655/755	Part. No.
1	655/755 Front Face Plate	JM0034329
2	655/755 Endcap Front (Top)	JM0034331
3	1/4"-20 x 1/2" Gr5 Z Hex Bolt	JM0001481
4	1/4"-20 Gr5 Z Serrated Flange Hex Nut	JM0001630
5	1/4"-20 x 5/8" Gr5 Z Hex Bolt	JM0001479
6	655/755 Endcap Rear (Top)	JM0034334
7	3/8"-16 Gr5 Z J-Bolt	JM0001519
8	3/8"-16 Gr5 Z Centerlock Hex Nut	JM0001512
9	655/755 Rear Faceplate	JM0034327
10	Knee Brace	JM0000917
11	3/8"-16 Gr5 Z Serrated Flange Nut	JM0002152
12	3/8"-16 x 1" Gr5 Z Serrated Flange Hex Bolt	JM0002092
13	Roll Tarp Guide Roller	JM0038446
14	1" USS Flat Washer	JM0003063
15	Universal Joint	JM0001517
16	1/4"-20 Gr5 Z Centerlock Hex Nut	JM0001505
17	Spring Return Cable	JM0010307
18	3/8"-16 x 1-1/2" Gr5 Z Hex Bolt	JM0001659
19	1/4"-20 x 2-1/2" Gr5 Z Hex Bolt	JM0001506
20	Roll Tarp Hanger Bracket	JM0000815
21	Handle Hanger Rubber Flap	JM0002551
22	Pinless Crank Holder	JM0002967
23	1/2" Z Flat Washer	JM0003082
24	1/2"-13 x 1 1/4" Gr5 Z Hex Bolt	JM0001513
25	Square Tie-Down Tube for 655/755 Roll Tarp	JM0034383
26	655/755 Canvas Tarp	JM0034386
27	Square Roll Tube Weldment for 655/755 Roll Tarp	JM0034394
28	210" Cable	JM0036045
29	655/755 Roll Tarp Lip Lock (Front)	JM0034342
29	655/755 Roll Tarp Lip Lock (Rear)	JM0034542
30	655/755 Tarp Bow Weldment	JM0034349
31	Crank handle	JM0002907
32	Yellow Cap	JM0018963
33	Spring Return Assembly	JM0002437
34	Spring Return Cable	JM0010307
35	3/8"-16 x 2" Gr5 Z Hex Bolt	JM0001510
36	Tarp Stop	JM0000187
37	1/8" Cable Clamp	JM0001514

Roll Tarp Assembly

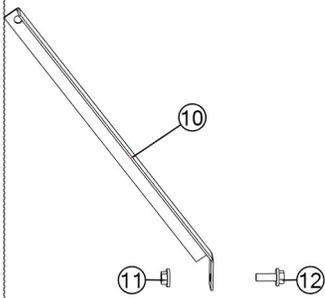
Front Endcap



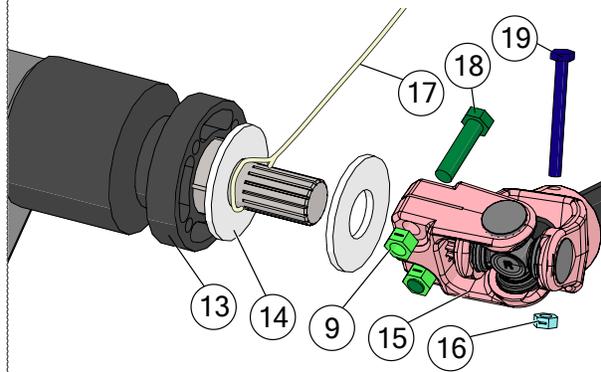
Rear Endcap



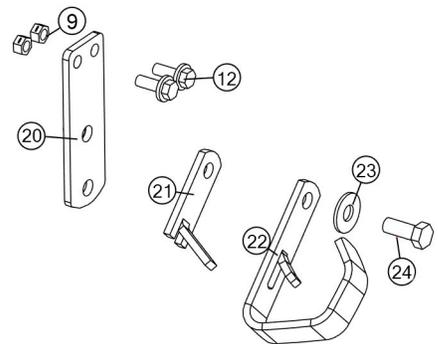
Endcap Support



Crank Handle U-Joint



Crank Handle Holder



Tarp Assembly

