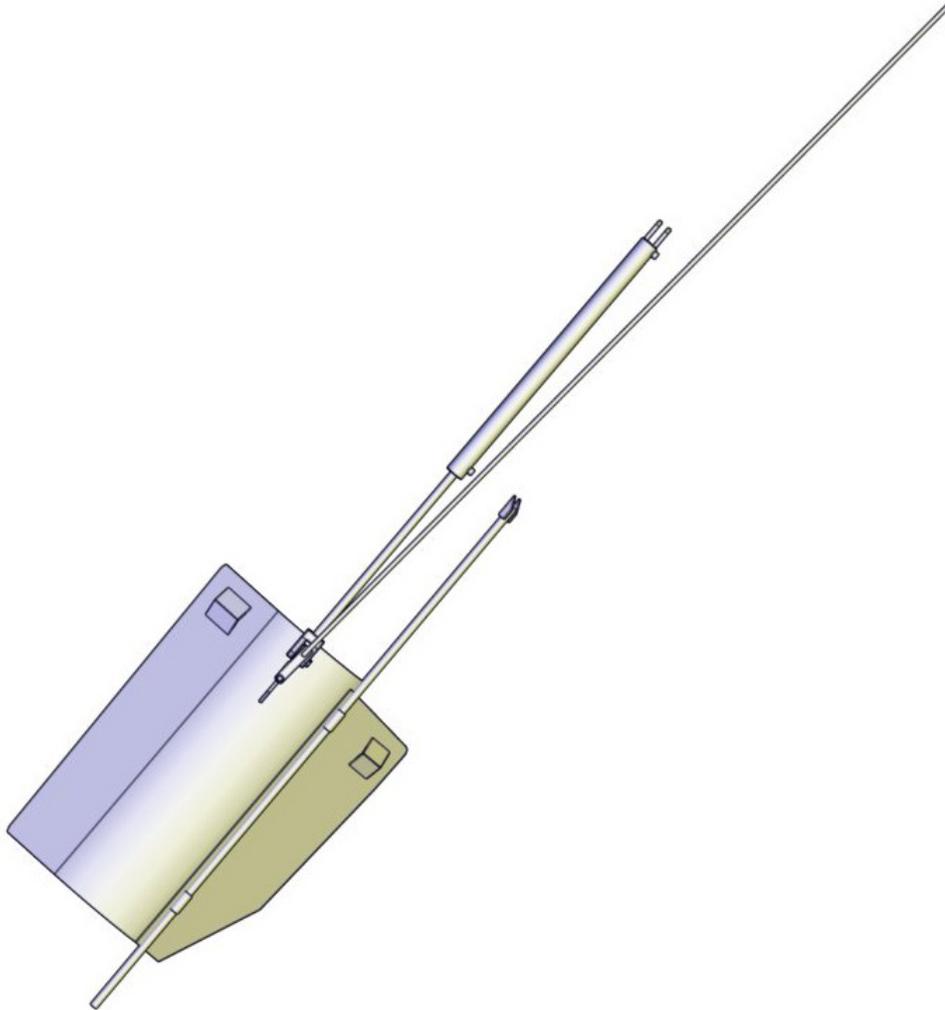


# SERVICE MANUAL

## Replacing the Lower Gate



**J. & M. MFG. Co., Inc.**

P.O. Box 547 Ft. Recovery, OH 45846

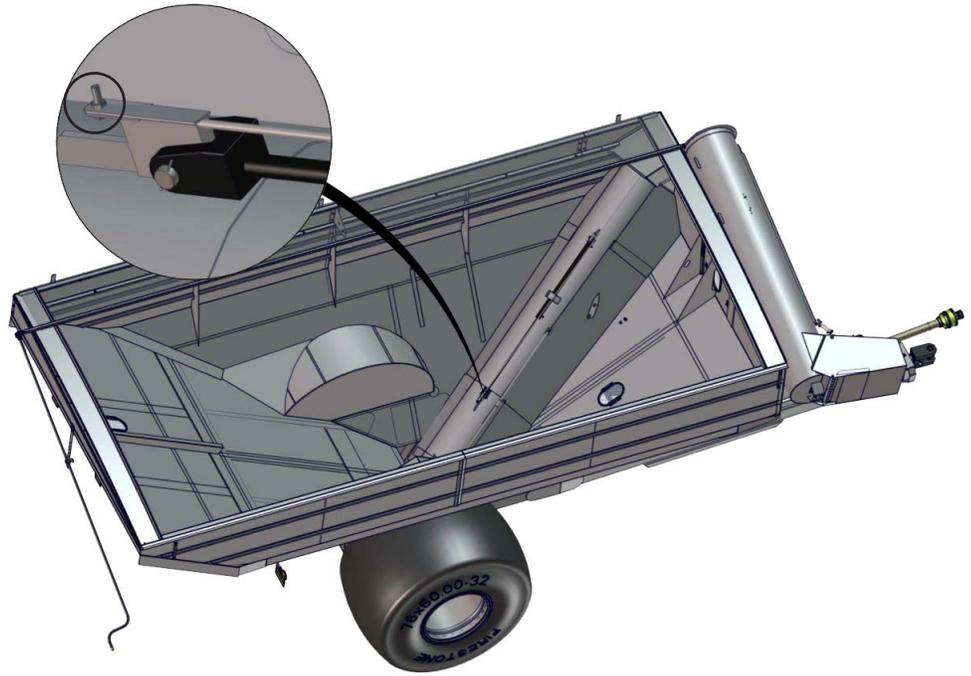
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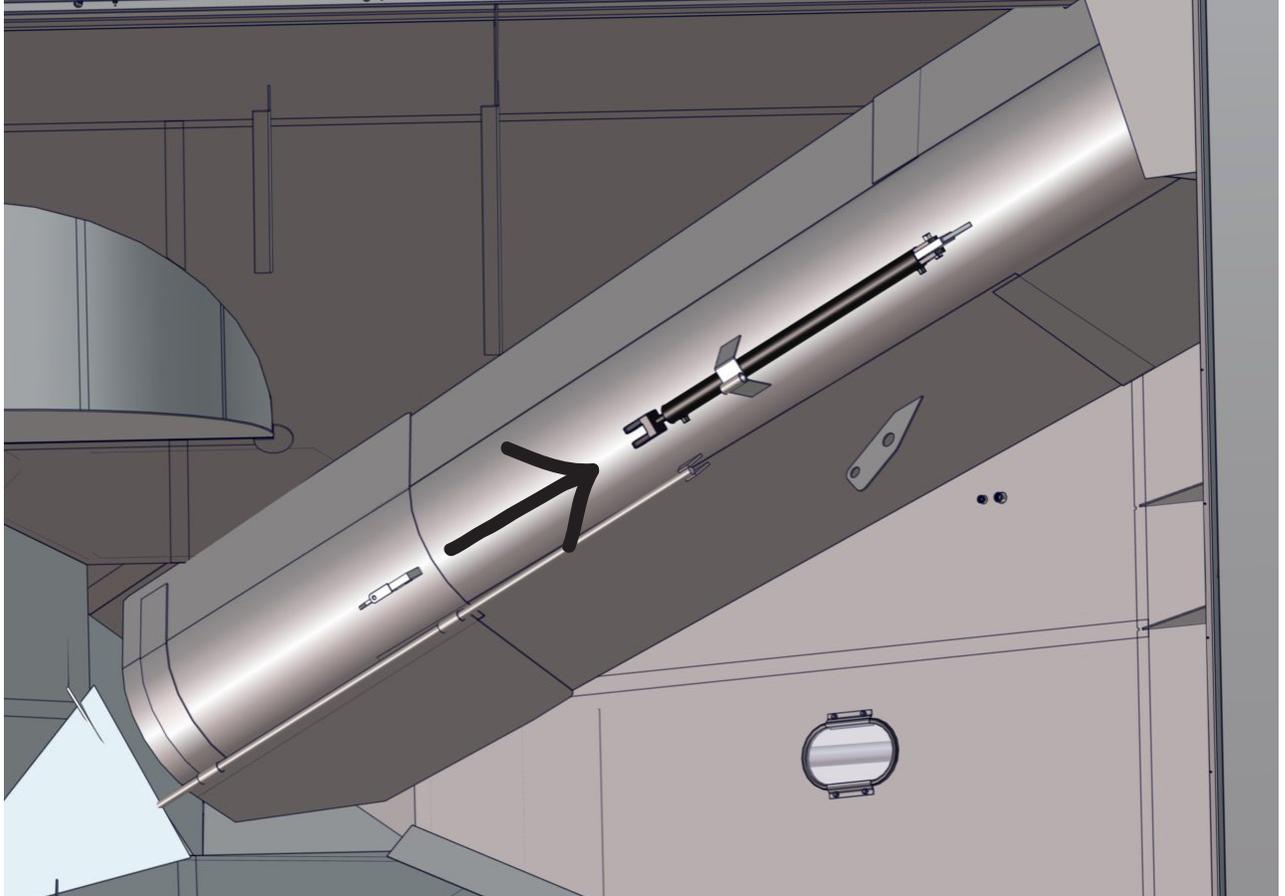
## Step 1

Unbolt the indicator rod and slide it up. Use a vise grip pliers to clamp the indicator rod to the cylinder holder bracket.



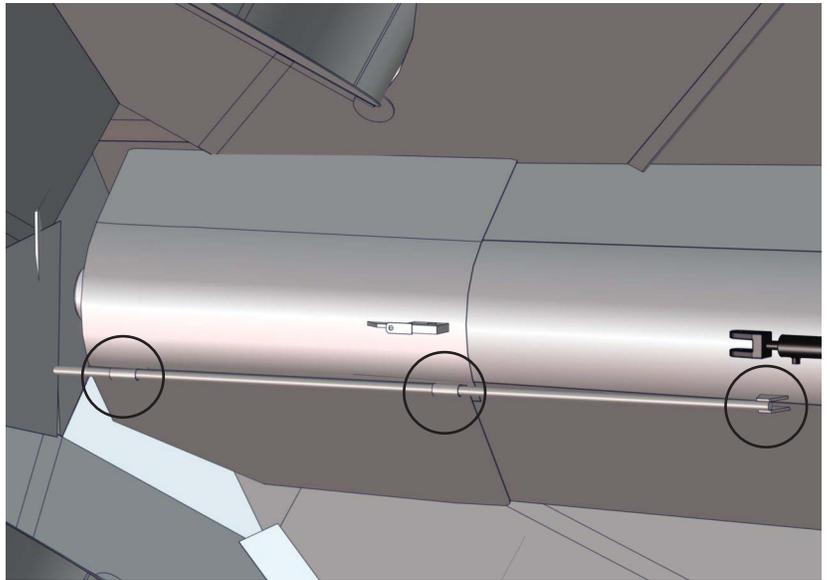
## Step 2

Remove the clevis pin that is holding the cylinder and the door together. Then move the cylinder to the open position.



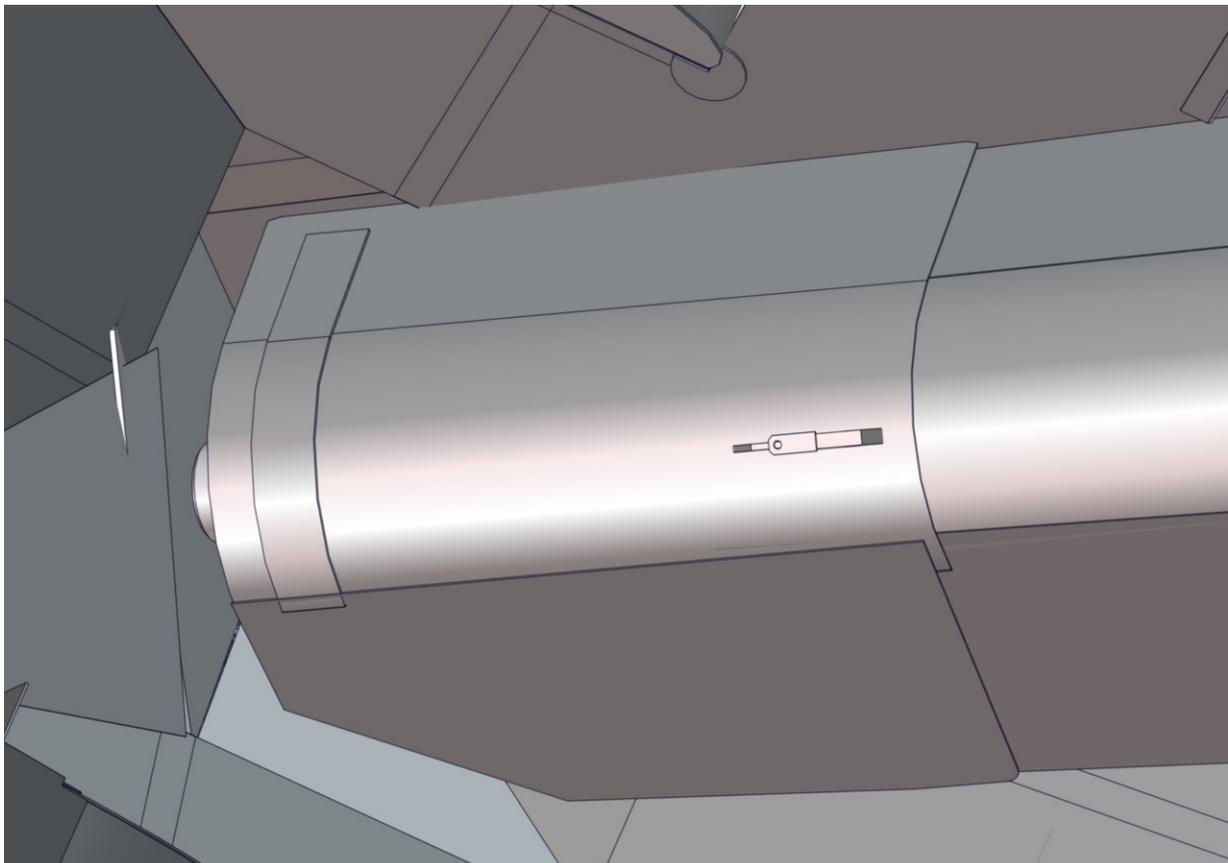
### Step 3

Remove the guide rod, both spools, and the gussets for the guide rod. Use a torch to finish this job.



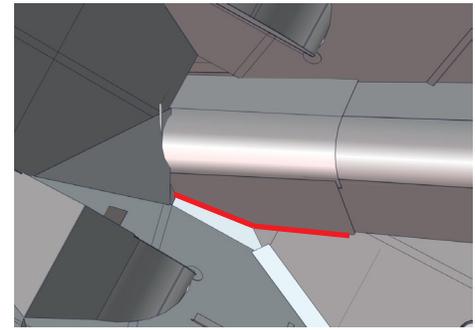
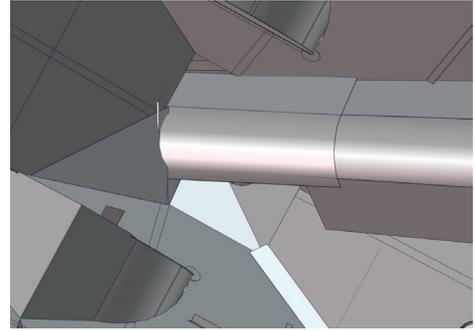
### Step 4

Use a torch to remove the gate assembly. Be sure not to cut into the auger or grain cart sidewalls.



## Step 5

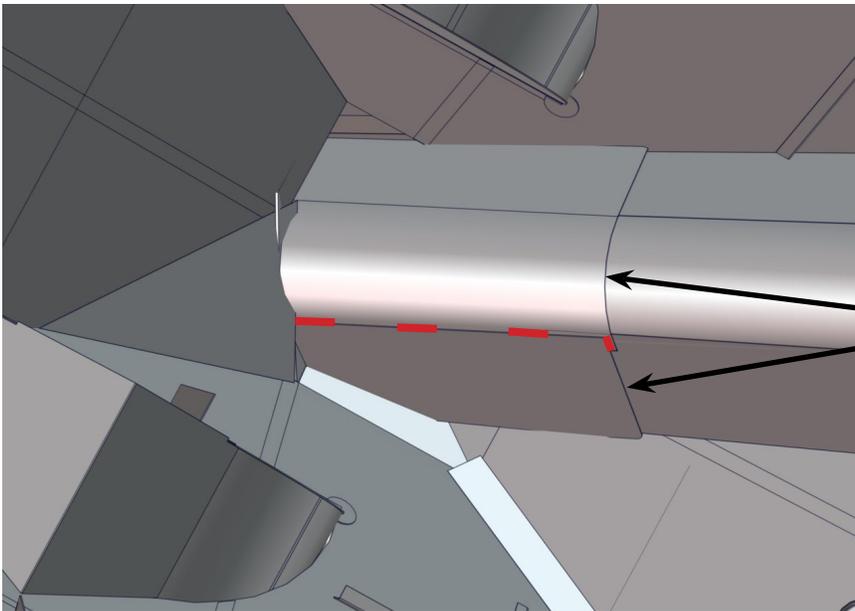
Install the large portion of the new gate. This portion must line up with the side wall of the grain cart. Be sure that it is not rubbing the bottom auger. To ensure this tack a 1/4" to 5/16" washer or piece of steel to the flighting. Next, lay the other portion of the gate on top. This portion must line up with the bottom of the grain cart. Both portions must follow the contour of the cart. A torch will be needed to cut each piece to its exact dimensions.



**Note: Be sure the edges line up with the side walls of the grain cart to completely seal off grain.**

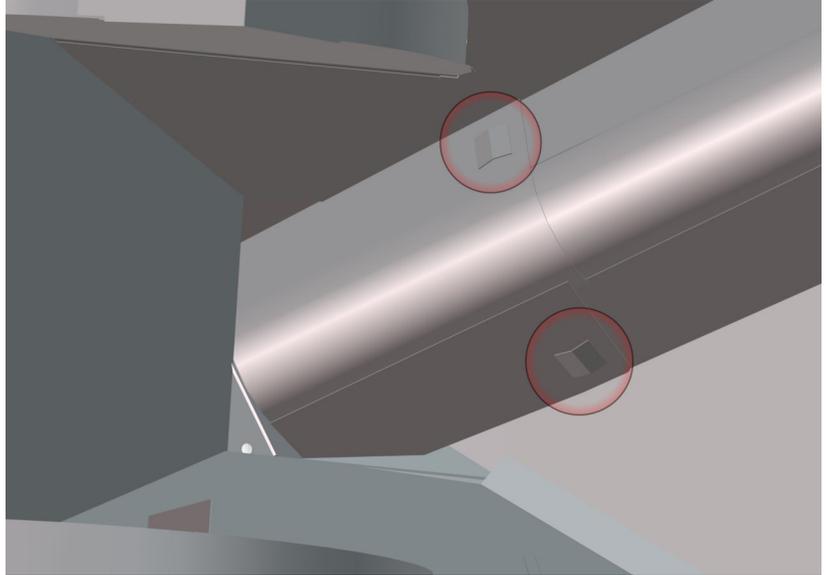
## Step 6

Tack the two pieces together. Tack them together along the red lines in the illustration below.

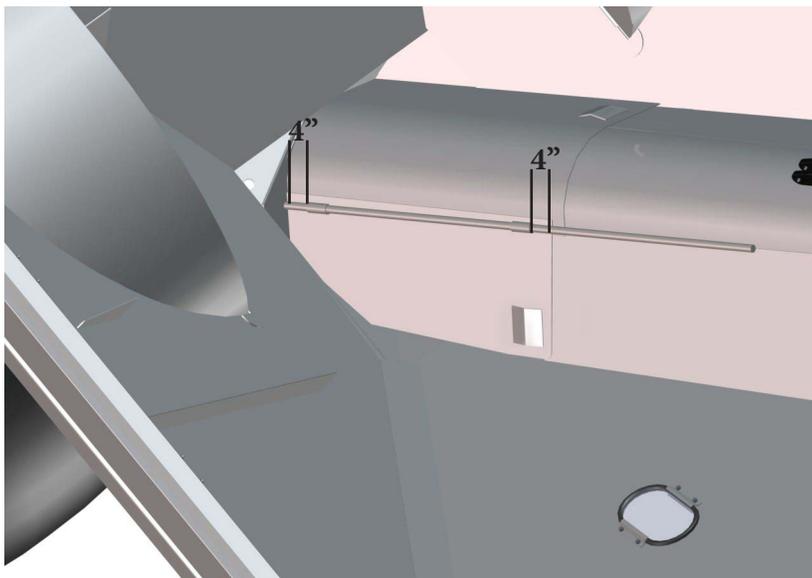


**NOTE: Before tacking make sure there are no gaps at the top of the door.**

Next, tack both speed bumps in place. The speed bumps should be placed 2 inches from the top and side of the gate. Make sure the fit flat against the gate assembly.

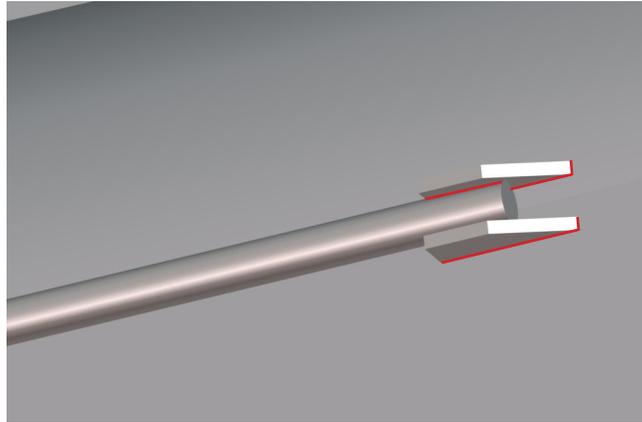


Now line your transfer rod with the bottom auger seam. Tack both of the spools 4 inches from the top and bottom of the gate. Once the spools are tacked, tack the rod to the bottom of the cart. Make a couple tack welds around the rod.

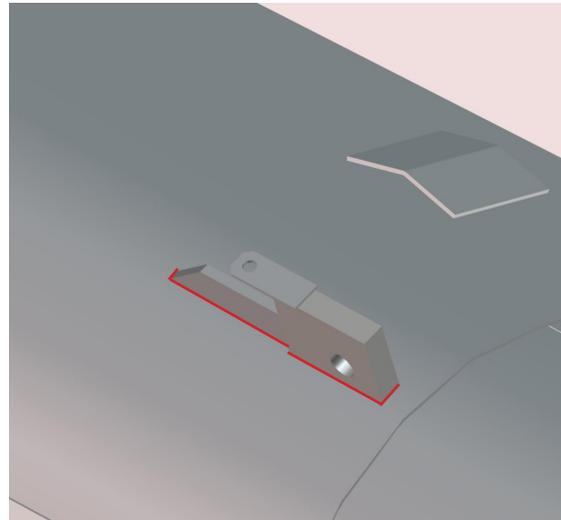
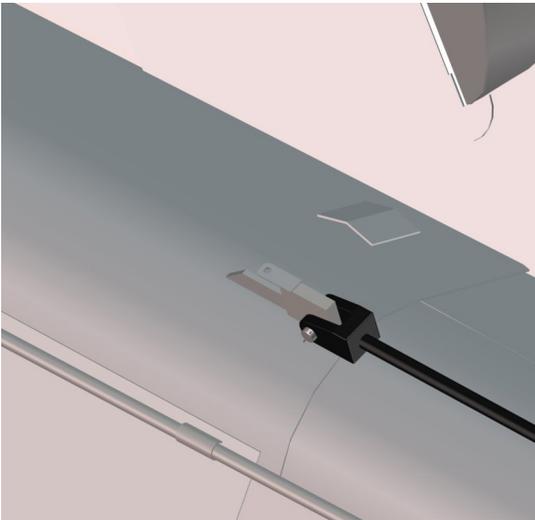


Line up rod with bottom auger seam.

Tack weld the two gussets onto the end of the transfer rod to the lower auger assembly. Place a tack weld on **all** sides of each gusset.

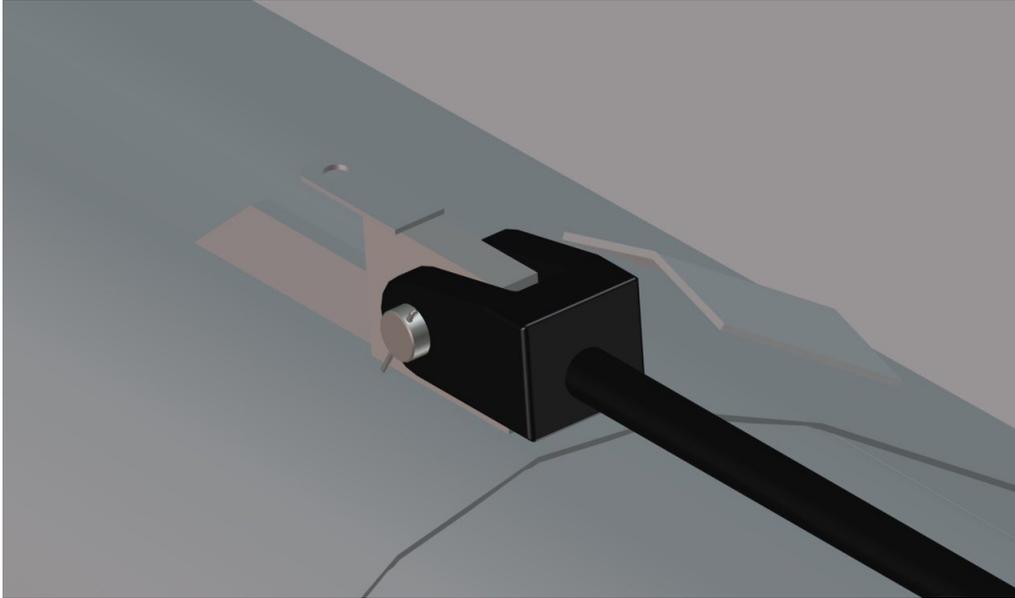


Now move the gate cylinder to the closed position. Line up your cylinder block and gusset. Tack weld both items to the lower gate. After they are tack welded move the gate cylinder to the open position.



## Step 11

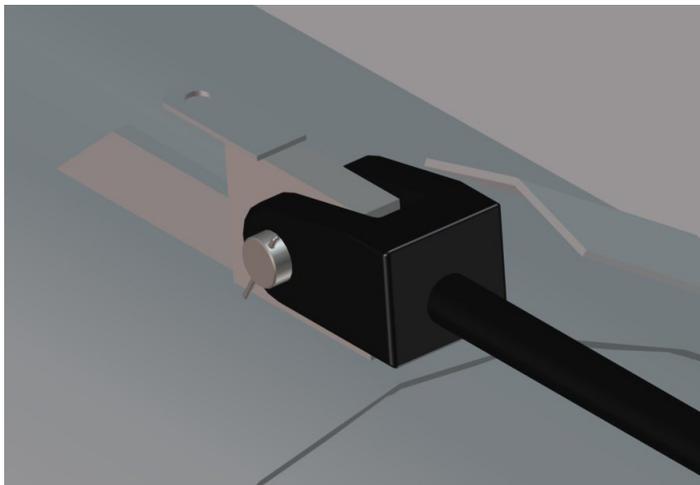
Attach the gate cylinder to the lower gate. Attach using a 1" x 3" Clevis Pin and (2) 1" cotter pins. **Do not bend the cotter pins, they will need to be removed and installed again in a later step.**



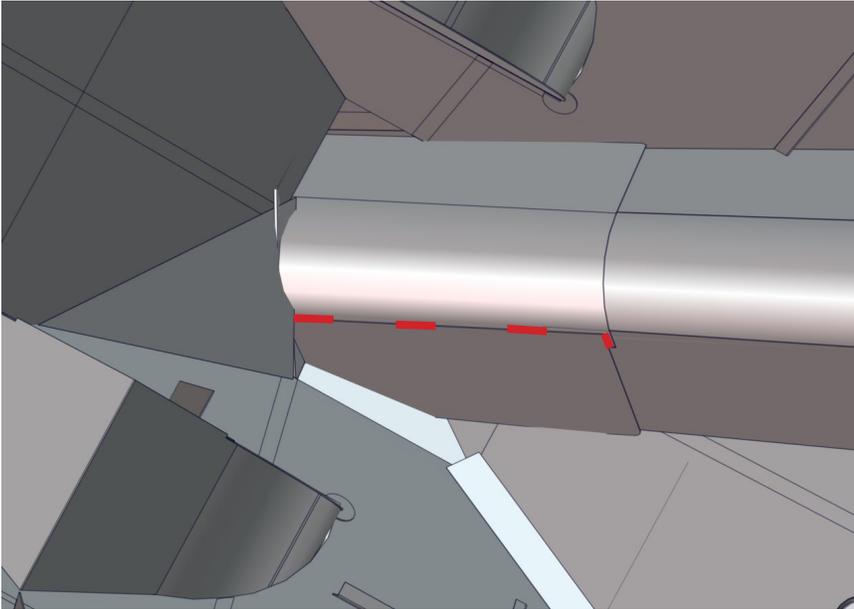
## Step 12

Run the door open and shut. When the door is shut there should be no gaps at the bottom of the door. To adjust the length of the cylinder untighten the 3/8" hex bolt on the clevis end of the cylinder and turn the head out to the desired amount. Do this in the closed position. Make sure to relieve pressure while the door is in the down position to allow room for adjustment. Tighten the hex bolt. Then test the cylinder again. Adjust until there are no gaps when the door is shut.

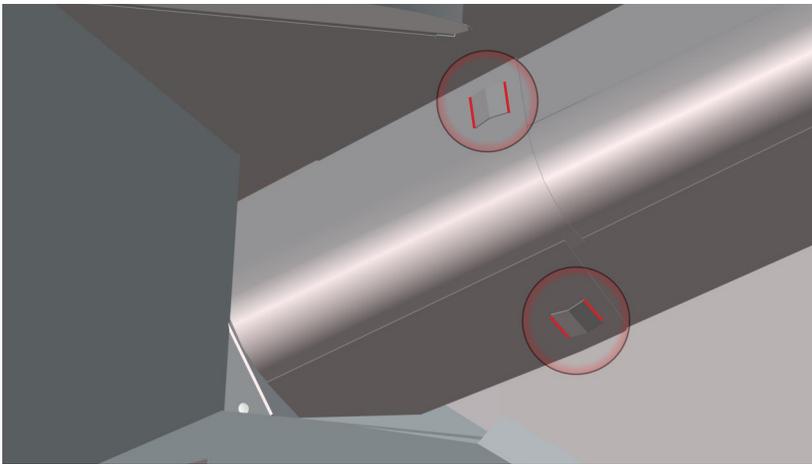
**Loosen Set Screw then turn head to get the desired length.**



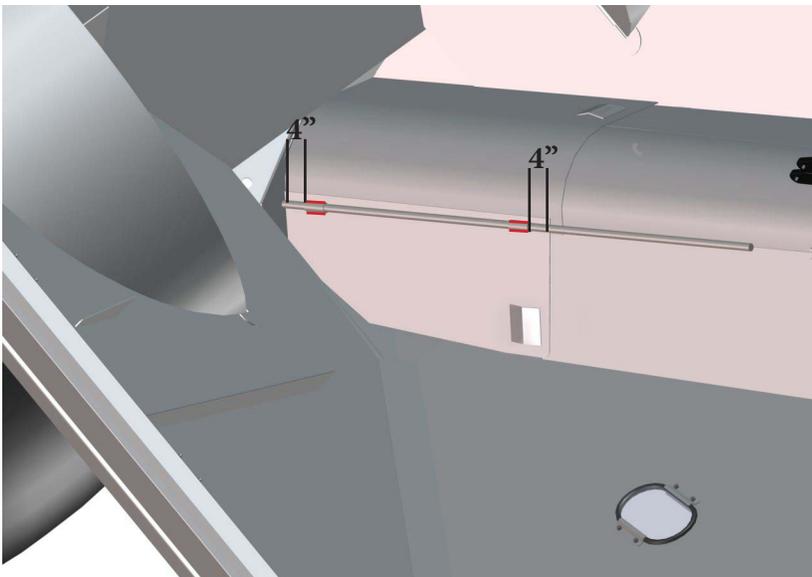
Once the door is operating correctly, everything needs to be welded as indicated below.



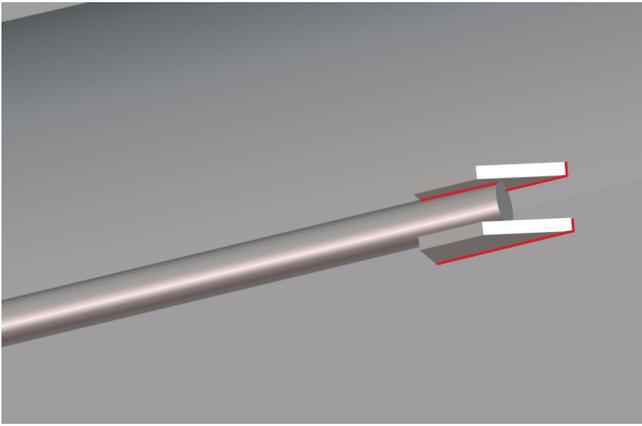
**Place (3) 2" welds along the gate, followed by a 1" weld at the top.**



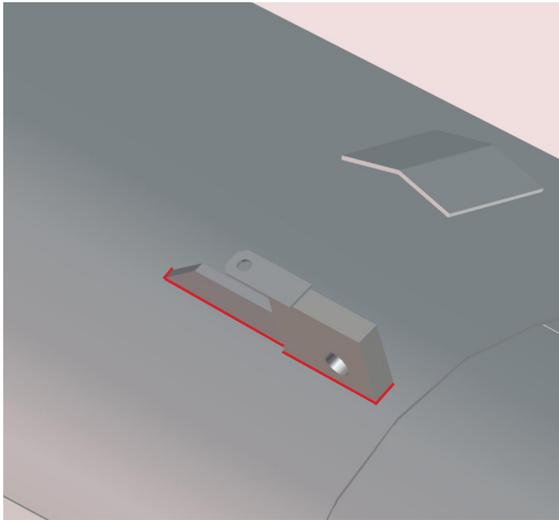
**Weld along both sides.**



**Weld along both sides of the spools.**



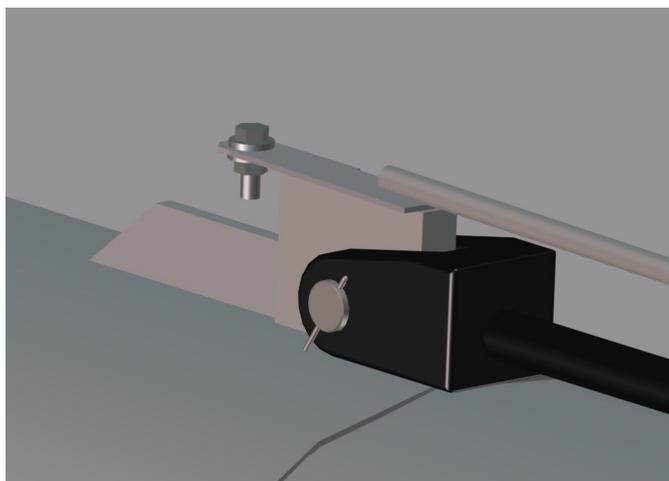
Place a weld on each side of both gussets.



Remove the clevis pin from the block. Retract the cylinder, then weld completely around the cylinder block. Once finished attach the cylinder to the cylinder block and install the clevis pins.

## Step 14

Remove the vise grip pliers from the indicator rod and attach it to the cylinder block. Use a 1/2"-16 X 1-1/4" Gr5 Z Serrated Flange Hex Bolt and Nut to attach both items together. Tighten the hardware once finished.



Remove the washer or piece of steel that was tacked to the lighting.

**For more information please  
contact us at 419-375-2376 or  
visit [www.jm-inc.com](http://www.jm-inc.com)**

