



DS1000 Hinge Mount Installation Instructions

If you are reading this you are about to not only transform your truck but your entire business!!!

NOW LET'S GET STARTED!!!

(2 people required)

Safety First - Always be sure to wear your personal protection gear at all times

- Safety Glasses
- Ear Protection
- Protective gear (pants, shoes, Etc.)
- Respirator gear

Tools Needed

- 2x Claw Hammers (16oz)
- 1x Rubber Mallet / dead blow hammer (64oz+)
- Electric drill (cordless or corded) (1/2" or bigger chuck)
- 1/2" Torque Wrench
- 1/2" Drive Electric Impact Gun – High Torque (cordless or corded)
- T25 1/4" Hex Drive – T45 3/8" Drive Torx Bits
- 1/2", 3/4", 11/16" Wrenches
- 3/8" & 1/2" deep socket with 3/8" drive, 11/16" short socket with 3/8" drive, 3/4" deep socket with 1/2" drive, 6" (3/8" drive) socket extension, 3/8" drive ratchet.
- 1/8", 5/32", & 1/4" Allen Head Hex Key
- 4.5" Electric Angle Grinder with Metal Cutting Blade
- Box cutter and/or scissors
- Crowbar
- Wire cutters
- Needle-Nose Pliers

It is **highly** recommended for anyone operating the machine to watch the online training video **and** take the certification exam

<https://mulchmateusa.com/video-training>

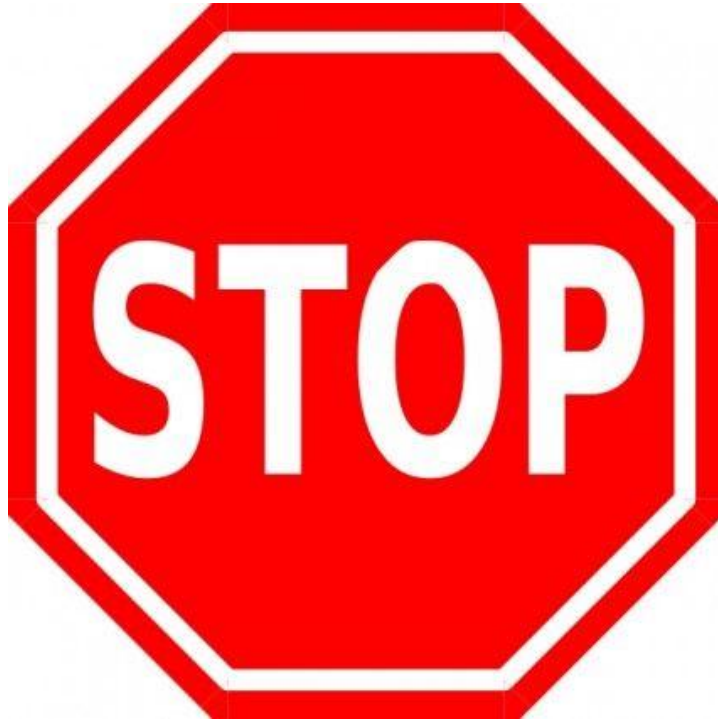
- Sharpie and or paint pen (No Black Ink)
- 1/2", 5/16", 3/16" & 1/8" drill bit
- Center Punch
- Standard Paint Stirring Sticks (these are used to check gaps)
- Touch up paint (matching truck bed)

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IMPORTANT!!!

Warranty may be void if **ALL** steps in these instructions are not completed



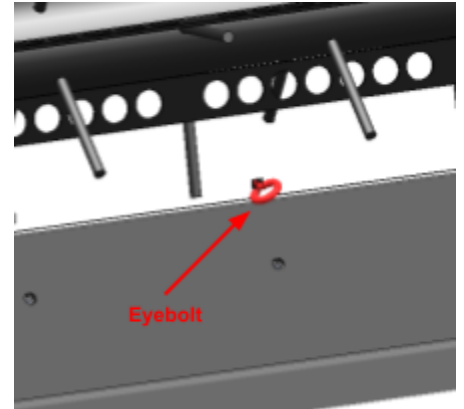
Steps 8-13 must be completed. Installing safety chain, hinge stop bolts, centering bolts, ladder, etc

Step 1 (unboxing)

Uncrate your Mulch Mate on a flat, safe, level surface (concrete or asphalt surface is preferred). Now it's time to remove the crating from the main pallet. You will need to keep this pallet for later use so **DO NOT** damage it. As you remove the side panels and 2"x4" structure, be sure to remove all sharp objects like nails, wood splinters, etc and discard them.

Step 2 (unboxing cont.)

Once the Mulch Mate is uncrated, it is time to remove the install package/box inside the Mulch Mate along with the dual pivot hinge that is located inside the cabinet of the Mulch Mate. Once these items are removed, open the long cardboard box. It will have the serial number on the outside of the box along with the transponder number to your wireless remote that is in a sealed bag inside the box. Remove the eyebolt(s) that the boxes were strapped to and replace it with a 5/16-18 x 5/8" long carriage bolt and flange nut just like the bolts to the left and right of it.



Step 3 (installing the dual pivot hinge)

At this point, it is time to install all the hardware needed to install the dual pivot hinge onto your Mulch Mate. Start by installing the four sleeve bushings using a soft rubber mallet (fig 1).

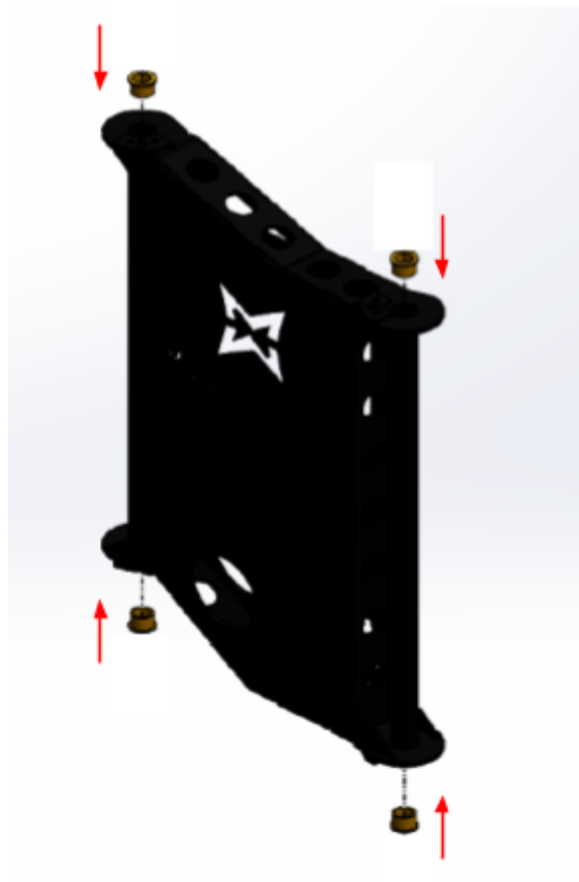


FIG 1. (Hinge Bushing Installation)

These are intended to be tight, so be careful and install them straight and flush. Now your hinge is ready to be installed. Grab the longer of the two shafts in the install kit and one of the safety pins from the hardware bag. This pin is what holds the shaft in place once it is installed. With two people, lift the hinge into place with the large logo facing away from the Mulch Mate (fig 2).

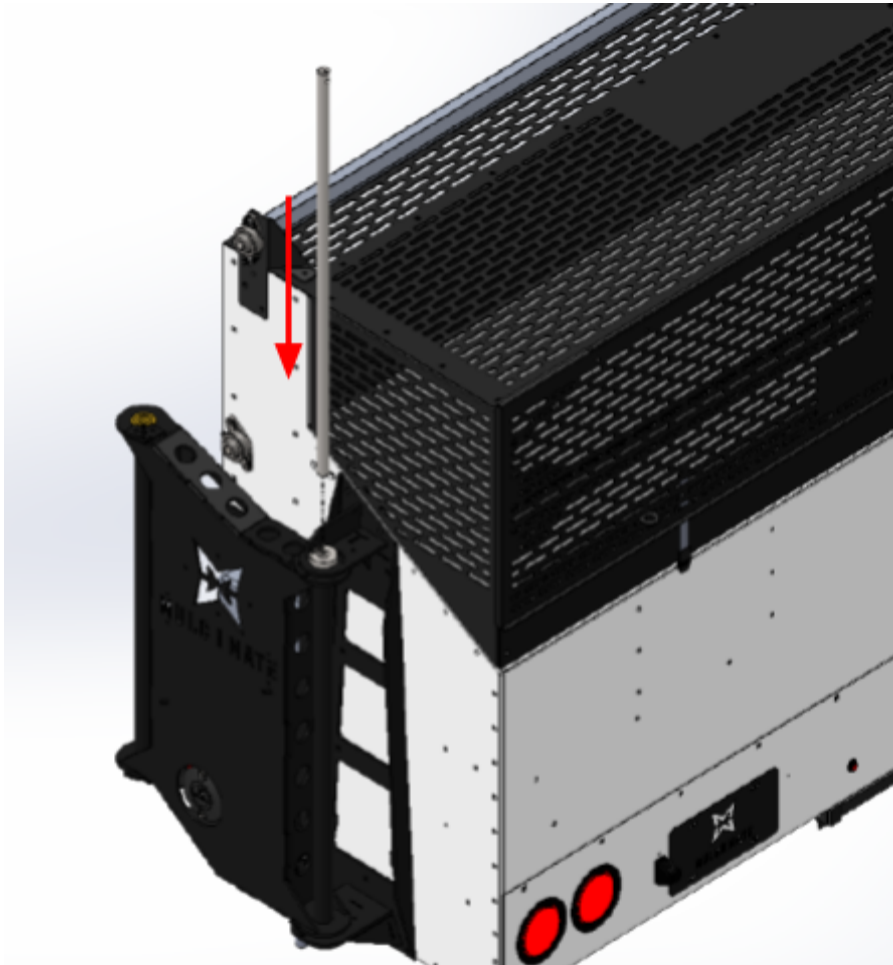


Fig 2. (Hinge Installation)

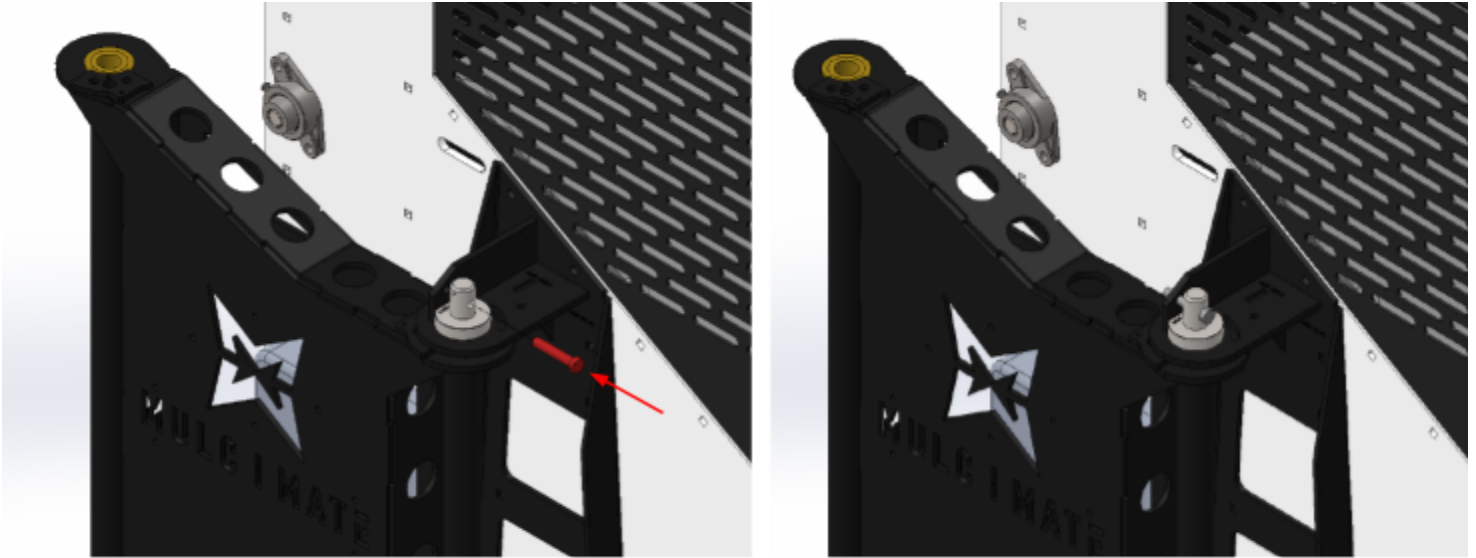
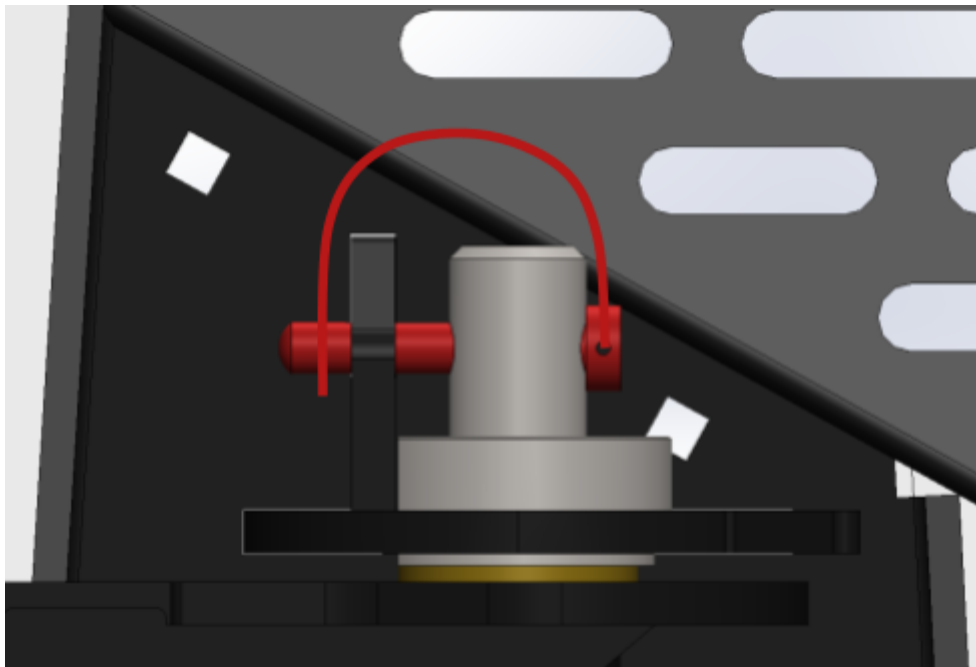


Fig 3. (Safety Pin)

The hinge should line up vertically in between the two horizontal mounting plates on the Mulch Mate, once you have the holes lined up you will slide the shaft from the top down into the hinge, making sure the hole in the shaft is at the top. Now install the safety pin in the hole at the top of the shaft. The pin should go through the hole in the shaft AND the hole in the plate next to the shaft (fig 3).

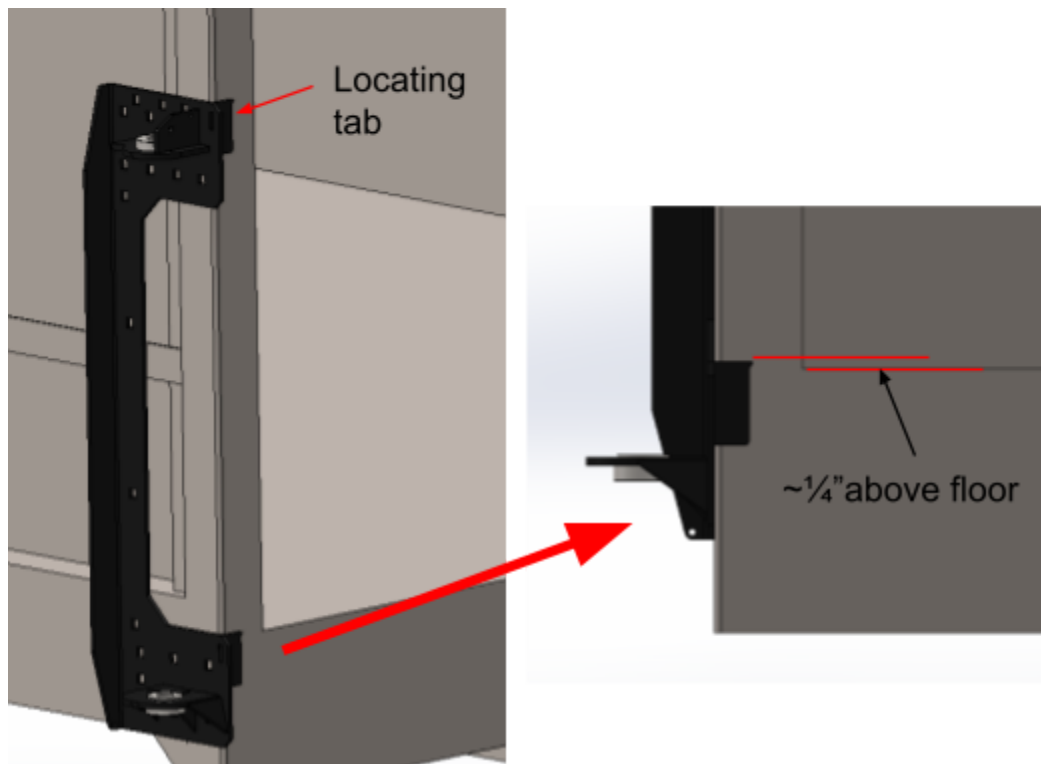
NOTE never hit the shafts with a metal hammer or object. If you need to force the shafts into place **ONLY** use a rubber mallet or dead blow hammer.



Next mount the *Truck Side Hinge Mount Bracket* to the drivers side rear post of your truck bed. If the back of your truck is flat then mount the bracket so the locating tab sits against the back post of the truck. If something sticks out off the back of the truck that will interfere with the Mulch Mate, then mount the bracket so that the locating tab is spaced off the rear post the same amount as that furthest point. The top of the lower locating tab should also sit flush to $\frac{1}{4}$ " above the floor of the bed.

****to know what will interfere with the mulch mate, lift the mulch mate up to the back of the truck to check****

It is also recommended to space the top of the *Truck Side Hinge Mount Bracket* $\frac{1}{4}$ " or more off of the side of the truck using $\frac{1}{2}$ " washers. This will lift the Mulch Mate up to counteract the drop of the Mulch Mate due to being mounted all on one side of the truck. The Mulch Mate will drop more or less depending on the rigidity of the mounting post of your truck (ie. steel vs aluminum, size of post, reinforcement added, cross bar support added). Modifications can and are sometimes required to be added before mounting. Please contact us for help if needed.



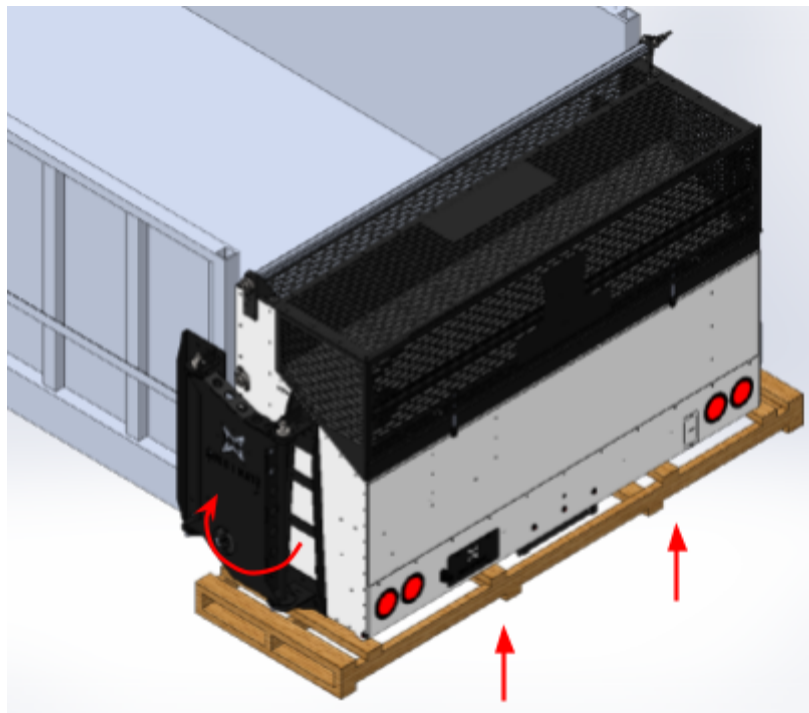
To start drilling the holes to mount the Mulch Mate, we recommend using a center punch to mark each hole that you are about to drill. This will align the drill bit when you start to drill. Start with a $\frac{1}{8}$ " or $\frac{3}{16}$ " drill bit and drill pilot holes, then step up your bit sizes until you reach a $\frac{1}{2}$ " hole diameter. Once you have all holes drilled out, touch up any bare metal areas with paint to keep them from rusting (steel truck bodies only). Secure in place using the provided $\frac{1}{2}$ " x 4.5" carriage bolts. These bolts need to

be inserted so that the nut is installed on the inside of the truck bed. Install as many bolts as possible.

Tighten the nuts to a torque reading of **60 ft. Lbs**. Be sure not to over tighten these bolts and damage your bed or the threads on these bolts.

Step 4

With the Mulch Mate still on the pallet it was shipped on, lift the Mulch Mate with a skid loader or forklift (lift capacity of 4000 lbs and operating capacity of over 1750 lbs). Make sure your forks are latched properly and they are as far apart as possible to spread the load out. Lift the Mulch Mate up with the hinge installed and mount it to the truck. It is easier to have the hinge slightly open when bringing the Mulch Mate to the truck, then closing it into place to install the hinge pin through the truck side hinge mount bracket and hinge.



With the Mulch Mate mounted to the drivers side rear post of the truck, slowly lower the Mulch Mate down off the forklift just enough to put the weight of the machine onto the truck (make sure the machine doesn't swing open on its own). Check to see how much the machine has dropped on the passenger side of the truck. You want the Mulch Mate to be as level as possible to the floor of the truck. Add or remove

washers/spacers at the top of the *Truck Side Hinge Mount Bracket* added earlier to level the machine to the floor of the truck. OR add reinforcements or a support bar to the rear post that the Mulch Mate is mounted to.

If the wall needs to be reinforced, The easiest way is to add a metal bar connecting the drivers side and passenger side walls across the top (Fig 13.). Make sure the dimension between the two walls is the same at the top and the bottom (Fig 13.). When installing the bar you will need to prop up the Mulch Mate to take weight off the truck wall to allow it to flex back. This is not always enough and more reinforcement may be necessary.

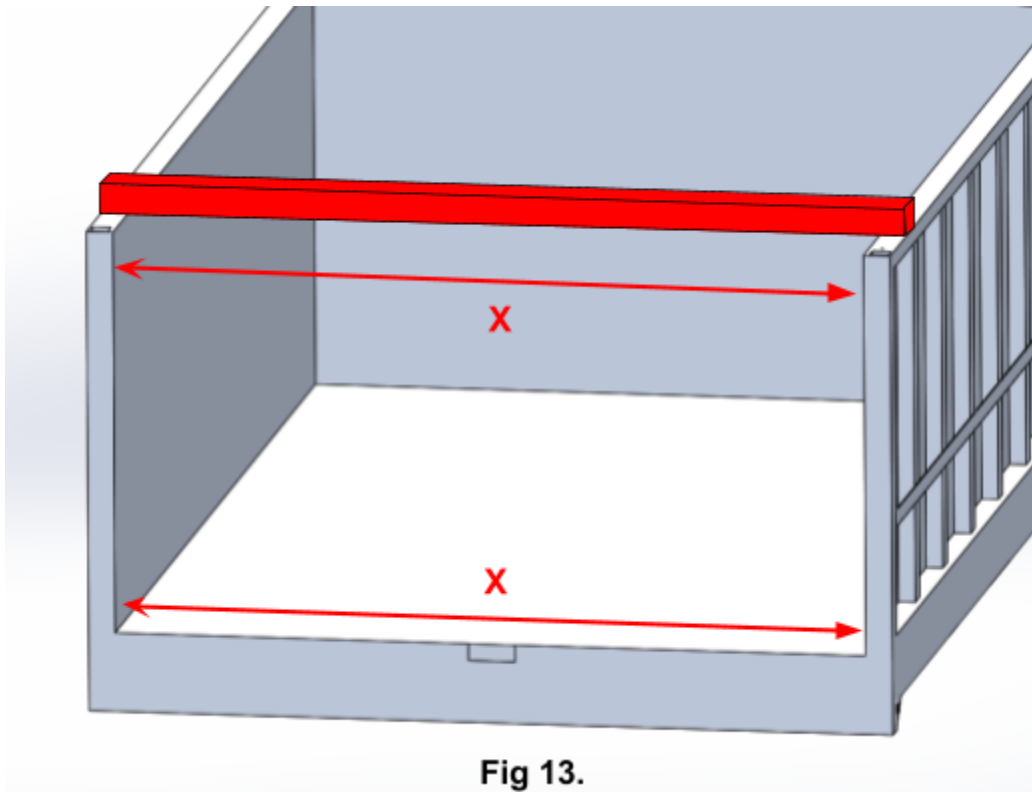


Fig 13.

Once the Mulch Mate is level to the truck, mount the passenger side latch plates to the truck. (The Mulch Mate is currently hung on the truck and no longer held by the forklift).

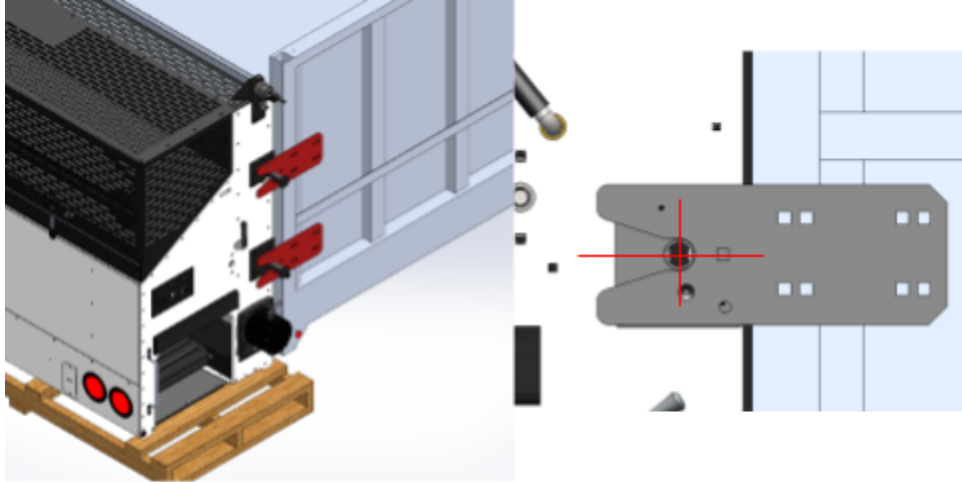


Fig 6. (Passenger Mount Plates)

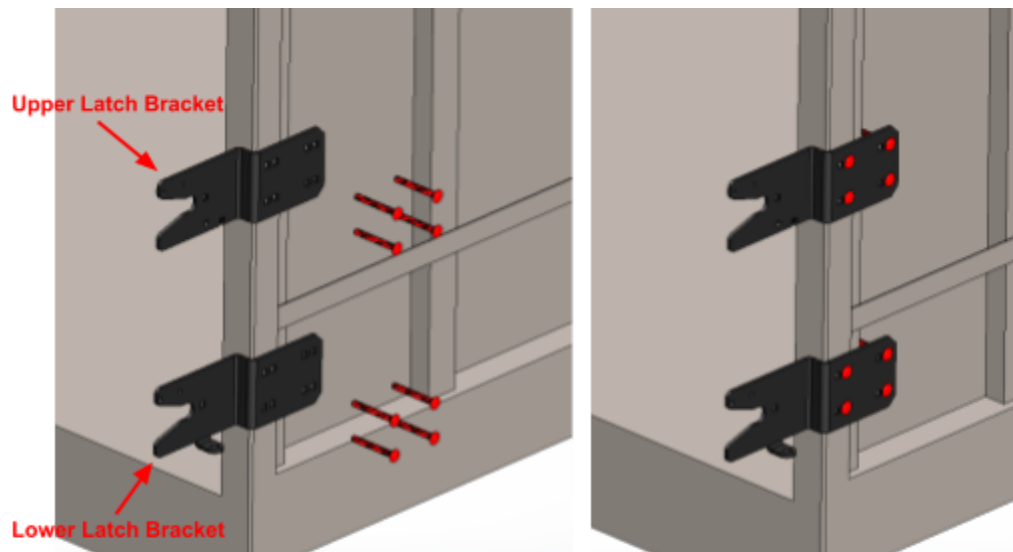


Fig 8. (Latch Plate Hardware Installation)

At least four bolts per latch plate are recommended. Mark the holes (8 total). These plates **MUST** be square and level to the body of the truck, parallel to each other, and they must be pressed upwards against the latch tubes on the Mulch Mate. With the hole locations marked, remove the plates and drill the holes up to ½” into the truck. Bolt the plates to the truck so that the head of the bolts are on the outside of the truck bed. These latch plates use the same ½" x 4.5" carriage bolts and flange locking nuts. Tighten to the same 60 ft lbs torque spec as before. Once these plates are on the truck you can start assembling the pivoting latches (fig 9).

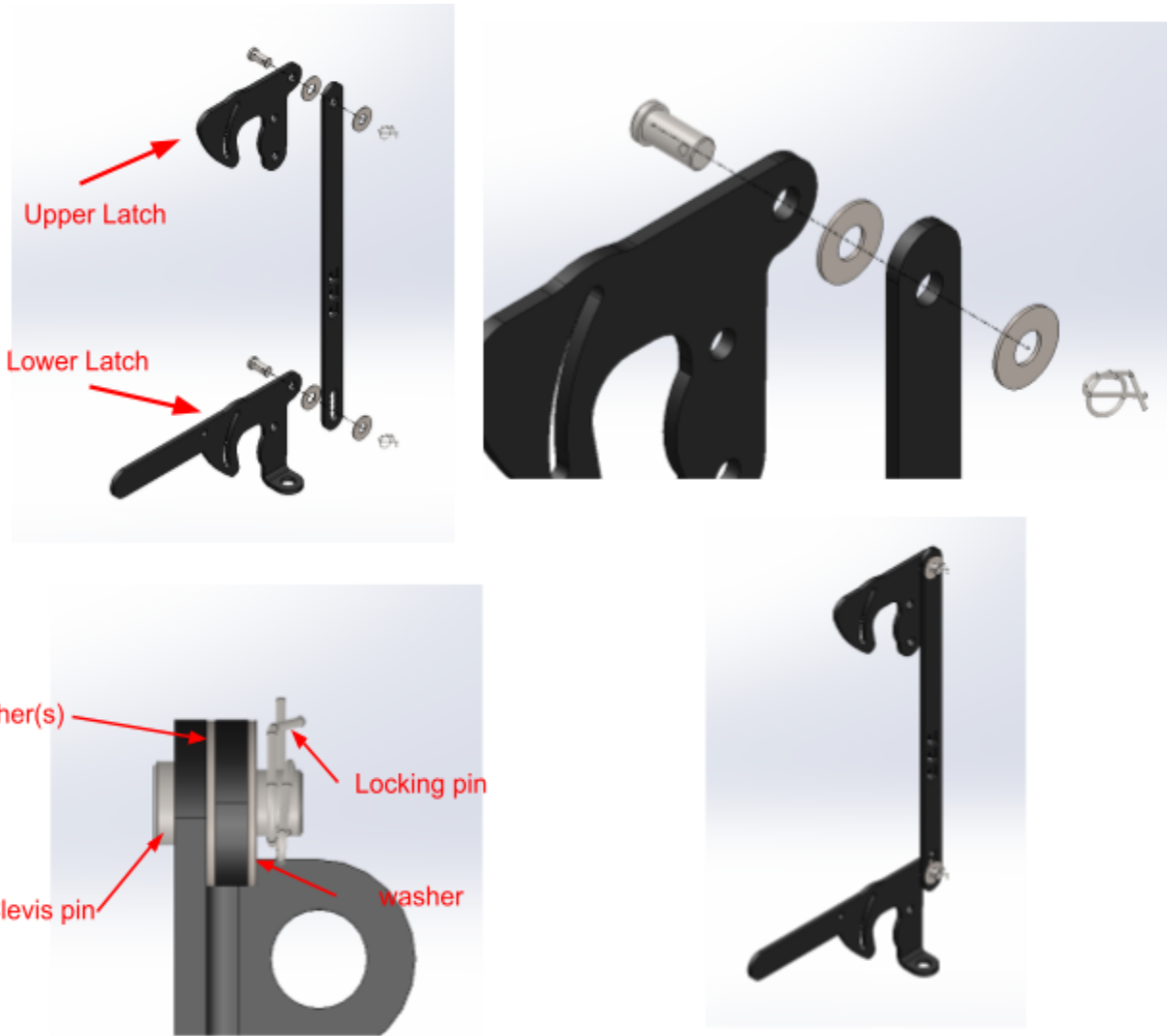


Fig 9. (Latch Assembly)

Start at the top connection/latch, installing the clevis pin and washers in the proper order and orientation as seen in fig 9 (top right). Complete the same process on the lower latch. There are adjustment holes built into the latch connector that will allow you to make some minor adjustments. Make sure this assembly is as tight as possible. Add as many washers as you can while still being able to insert the locking pin into the clevis pin.

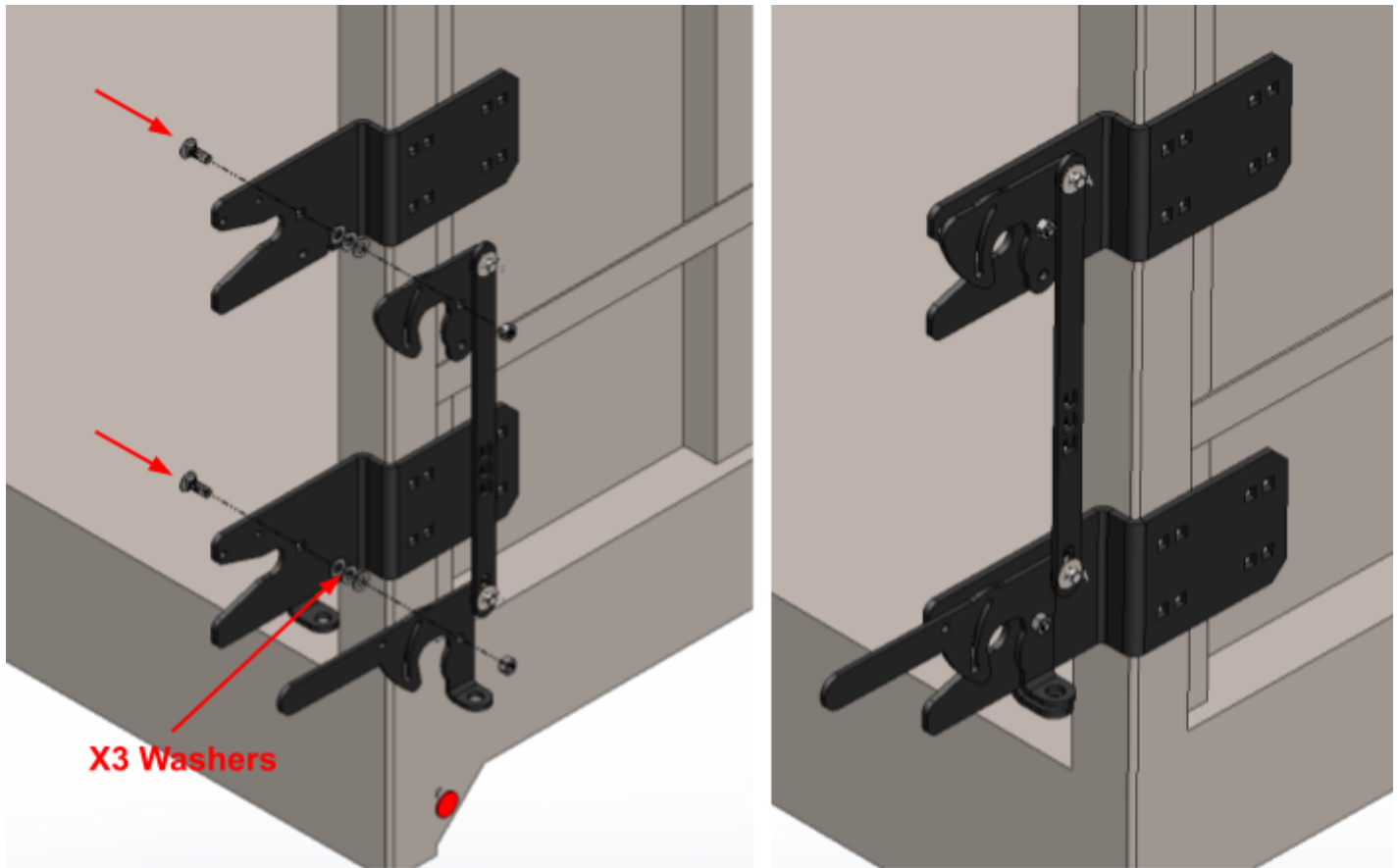


Fig 10. (Latches Assembly Installation)

For this step you will need the Mulch Mate to be out of the way, so swing it open slightly and secure it in place. Start with installing the 7/16" x 1.25" carriage bolt, (x3)7/16" washer, and latch assembly. Making sure to check the correct orientation and order of each part when installing (fig 10). Make sure the upper and lower latches are parallel to each other. If there are not, then adjust the lower latch pin to a different hole in the latch connector. Now install the 7/16" lock nut, this lock nut torque is more of what feels right, you will need to tighten it up enough for it to be tight but not so much that the latch binds up. Typically we would tighten it all the way up and then loosen the nut up a quarter turn on average. Now you can install the 5" spring to assist the latch to allow it auto close (fig 11). This also has an adjustable feature. Hook the spring to the lower hooks on the latch connector for more spring assist.

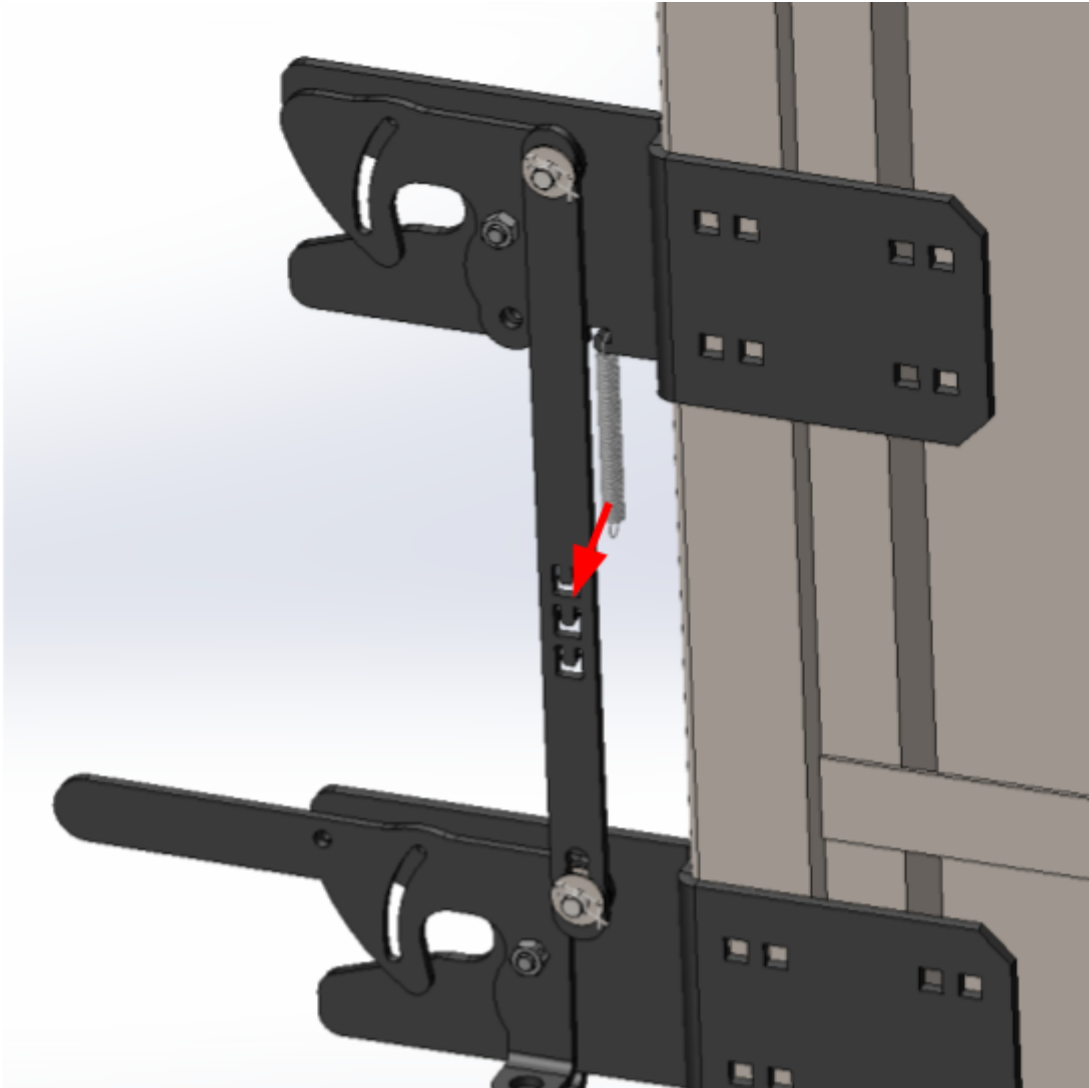


Fig 11. (Latch Spring Installation)

You can now swing the machine closed and latch it.

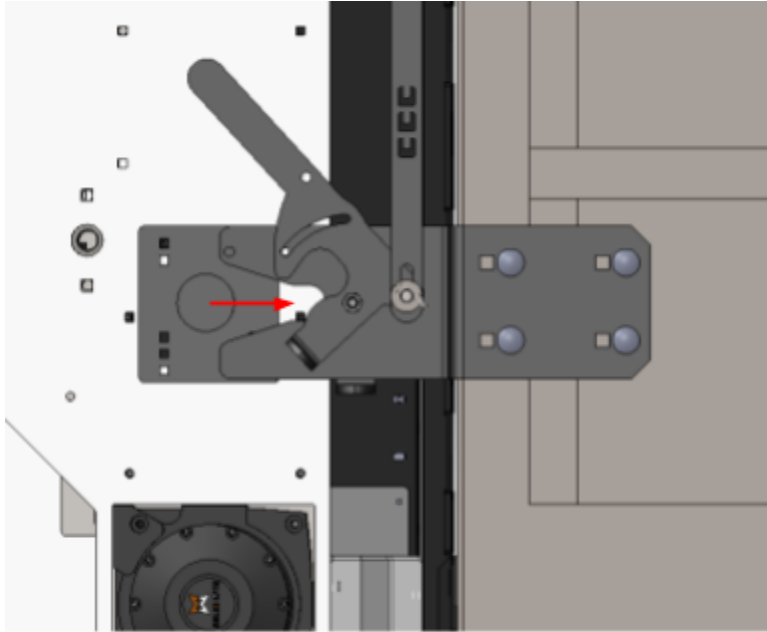


Fig 12.

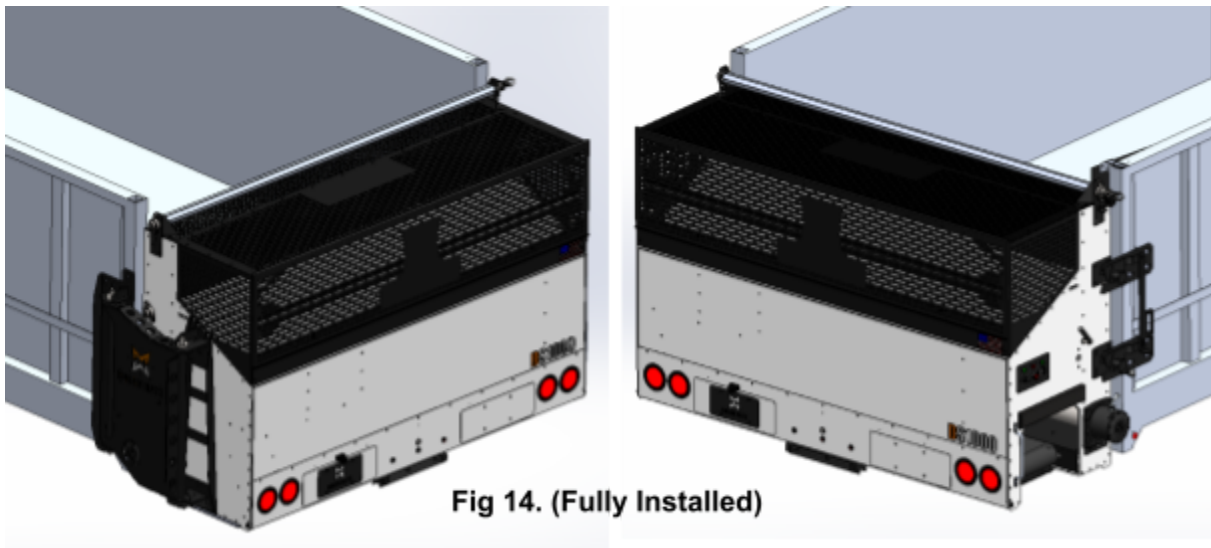


Fig 14. (Fully Installed)

DO NOT STOP HERE
STEPS 8-13 MUST BE DONE OR WARRANTY MAY BE VOID

Step 8 (installing safety chain)

Swing the Mulch Mate fully around so that it parallel to the side of the truck (fig 15). Hook carabiner with chain to triangle cutout at the top left of the chute opening (fig 16). Locate a spot on the truck bed where the chain can be bolted. Make sure to leave some slack in the chain so that the carabiner can be disconnected. Mark bolt location and drill a 1/2" hole. Insert 1/2-13x4.5" bolt through one chain link and into the newly drilled hole. Secure with a nut.

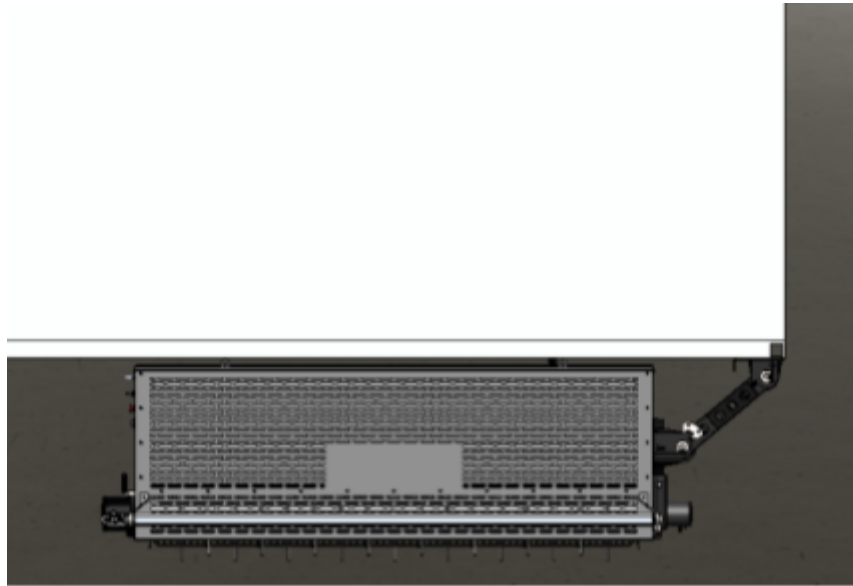


Fig 15.

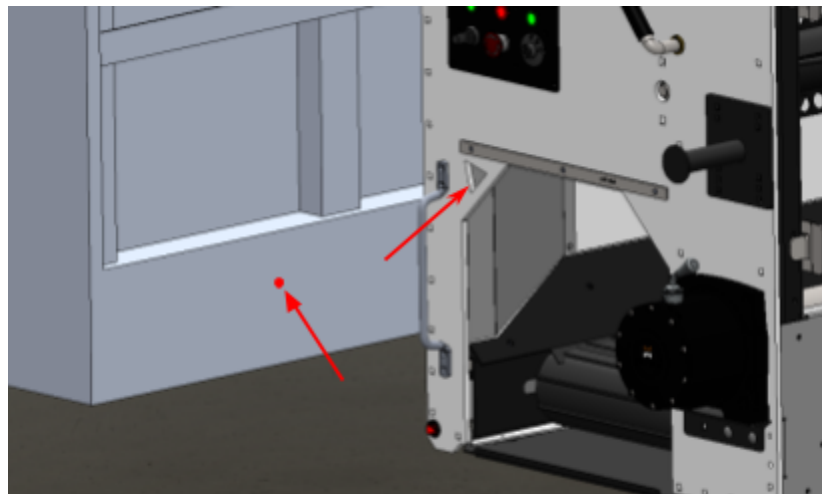


Fig 16.



Step 9 (installing hinge stop bolts)

Swing the Mulch Mate fully around so that it parallel to the side of the truck (fig 15) and attach the safety chain to the Mulch Mate. While installing the stop bolts ****make sure the Mulch Mate stays fully swung around and that the safety chain is NOT under tension****. A second person would be helpful to keep the Mulch Mate from moving. Using the provided wood template marked "1".



Insert template 1 in the top left location on the hinge as shown in fig 17.

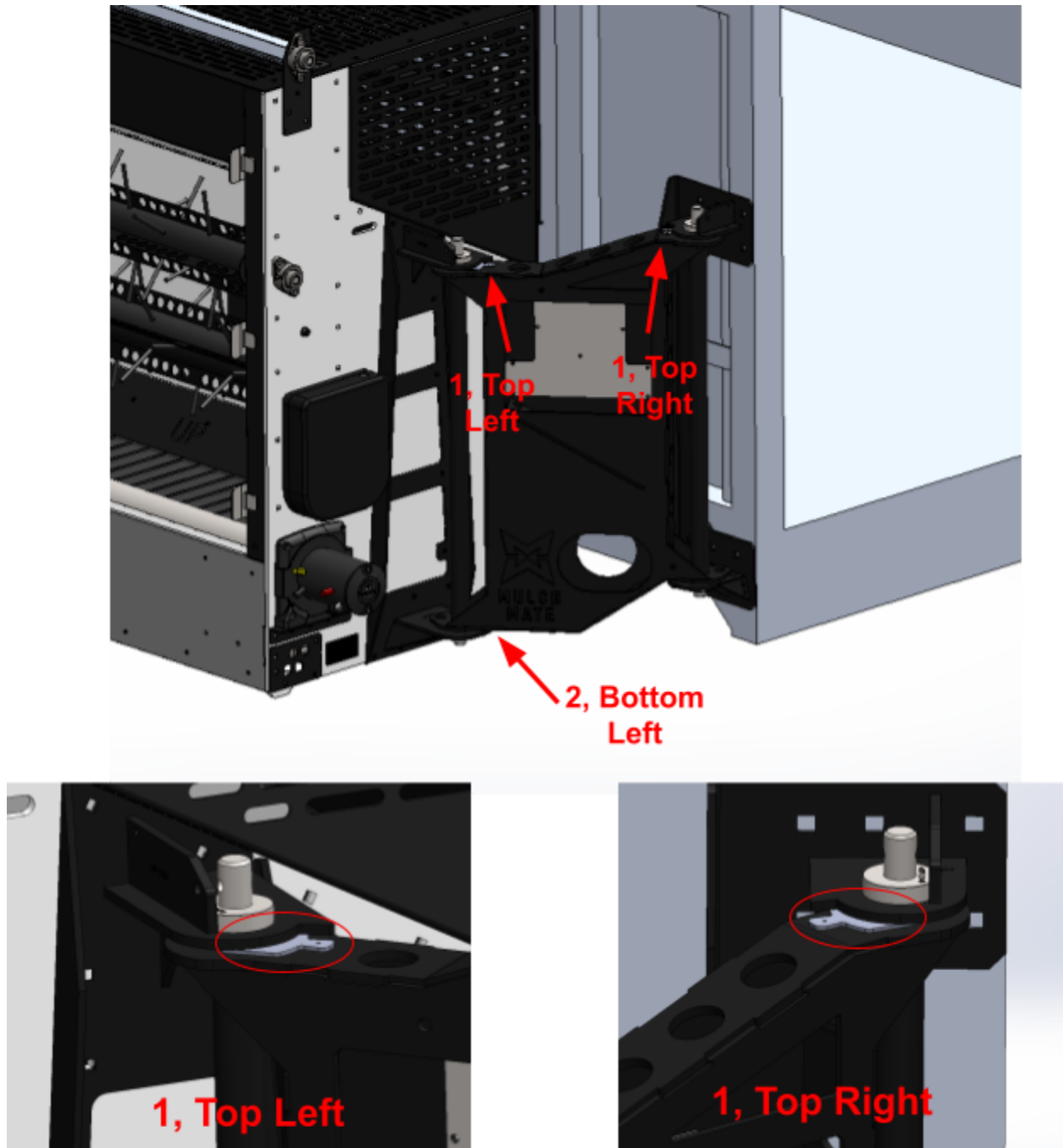
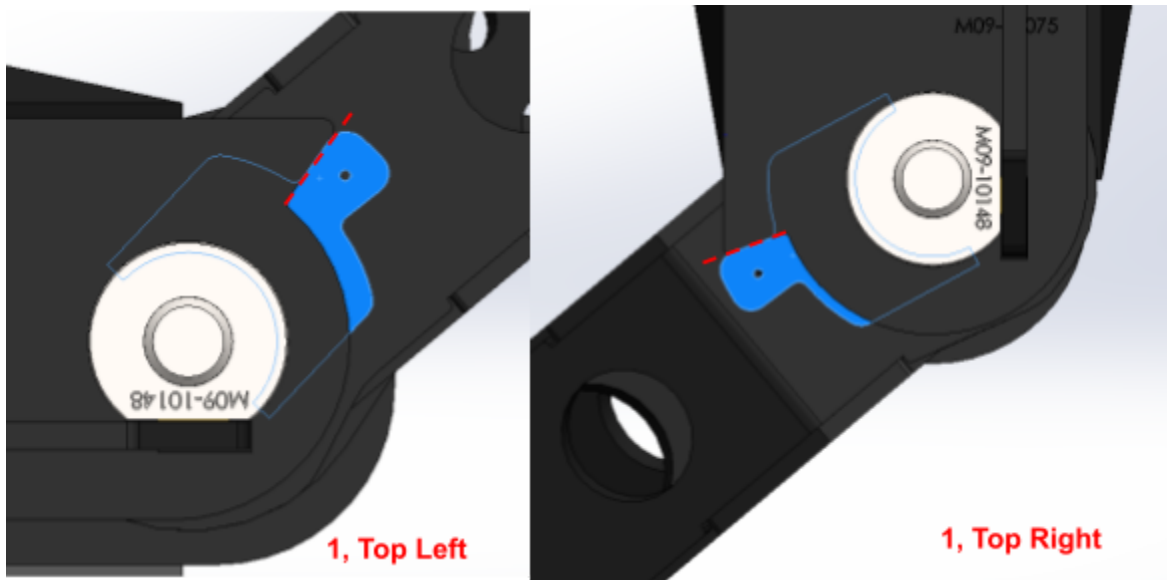


Fig 17.

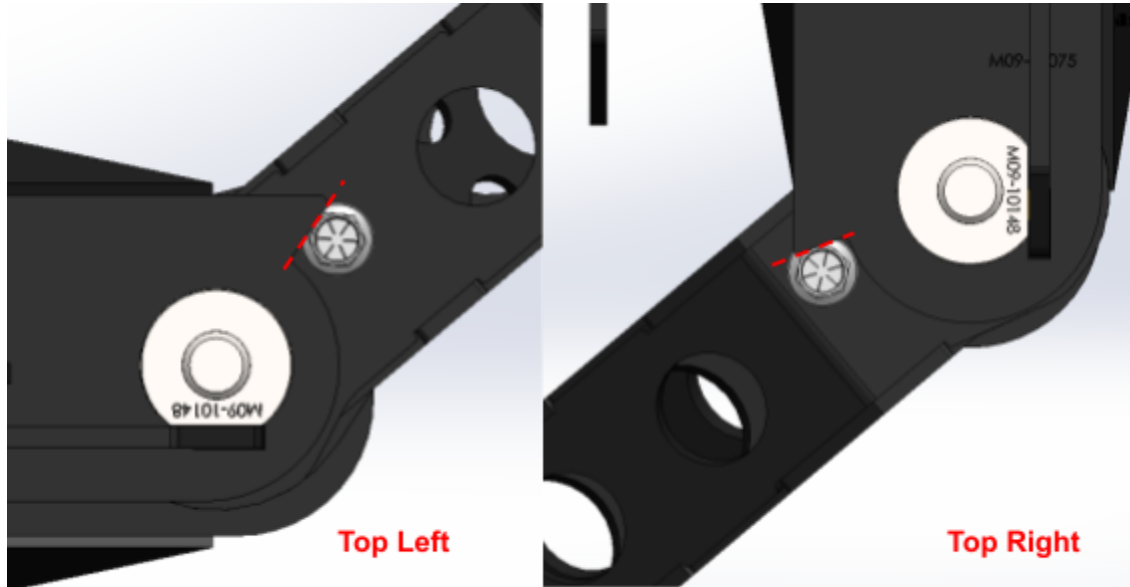
Align the edge of the template with the metal plate as shown with the dotted line in fig #. Drill a pilot hole through the small hole in the template. This will accurately locate where the hinge stop bolts need to go. Remove template. Drill increasingly larger holes until the hole is 1/2".

Repeat steps for Top Right location using same template marked "1"

For the bottom left location, same steps are followed while using template marked "2"

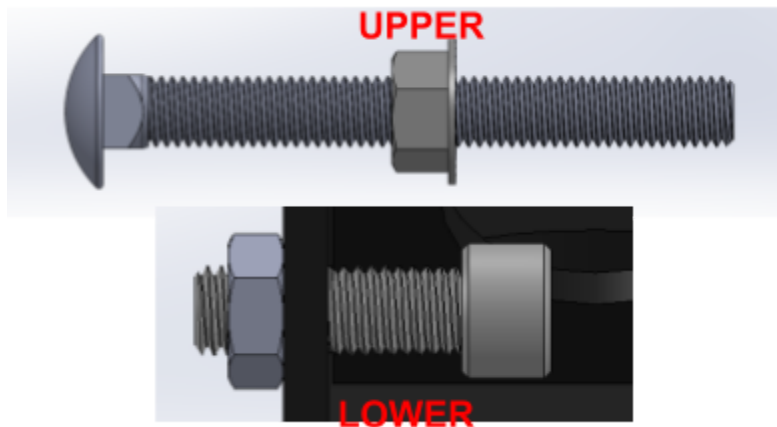


Insert the flanged bolts, making sure one of the flat sides on the head of the hex bolt is parallel to the metal plate as shown with the dotted line. Secure with the provided hex nuts. Make sure they are tight.

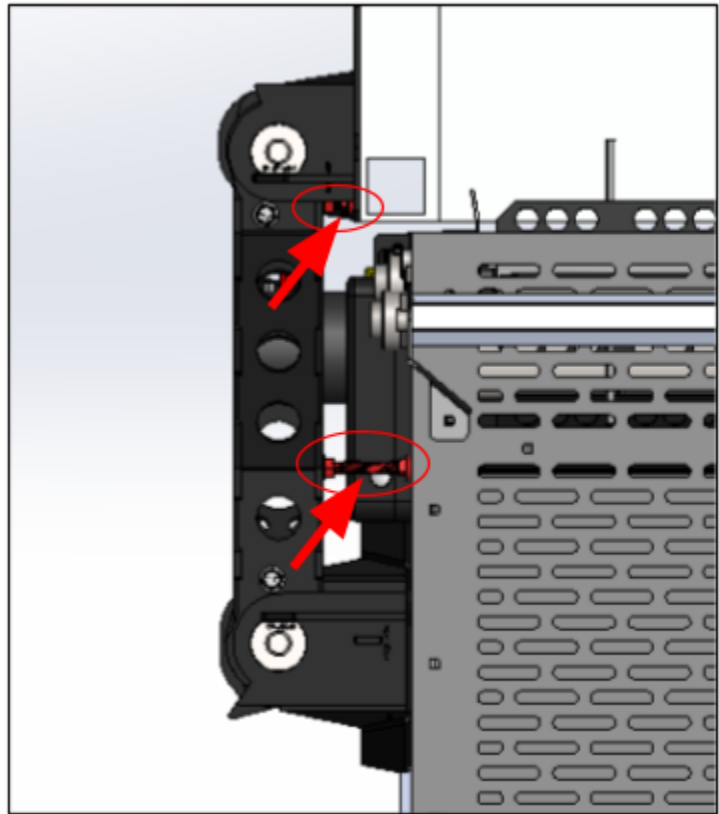
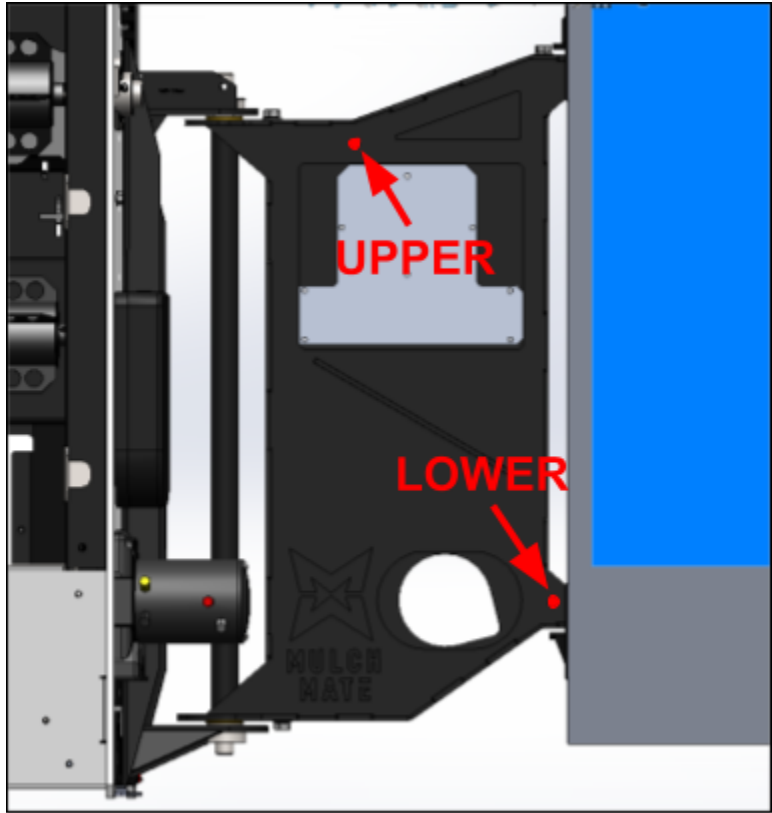


Installing Mulch Mate Centering Bolts

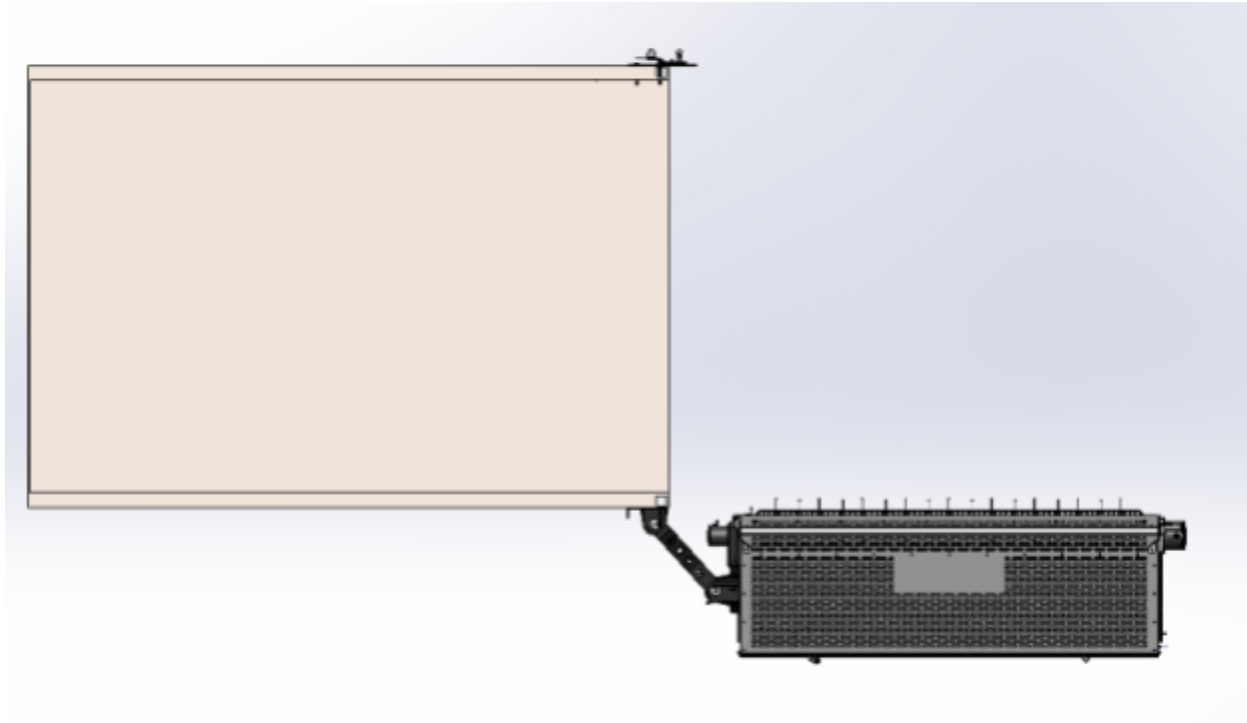
With the machine still in the open position, you will see 2 tapped holes on the inside plate of the hinge (see image on next page). Thread one provided $\frac{1}{2}$ "-13 flange nut onto one $\frac{1}{2}$ "-13 x 4.5in carriage bolt so that the flange of the nut is facing away from the head of the carriage bolt.



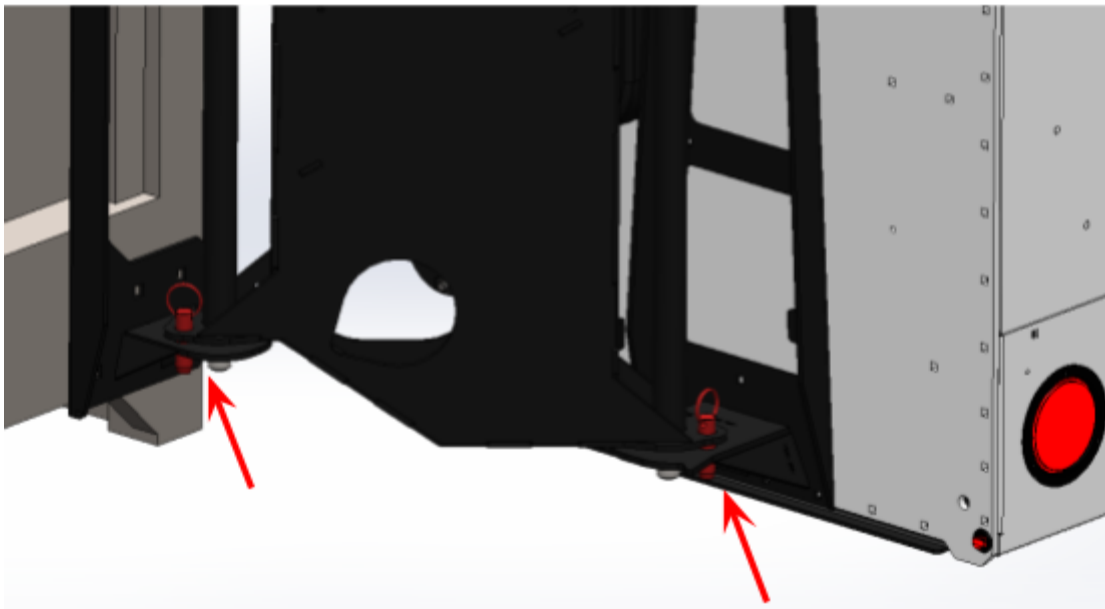
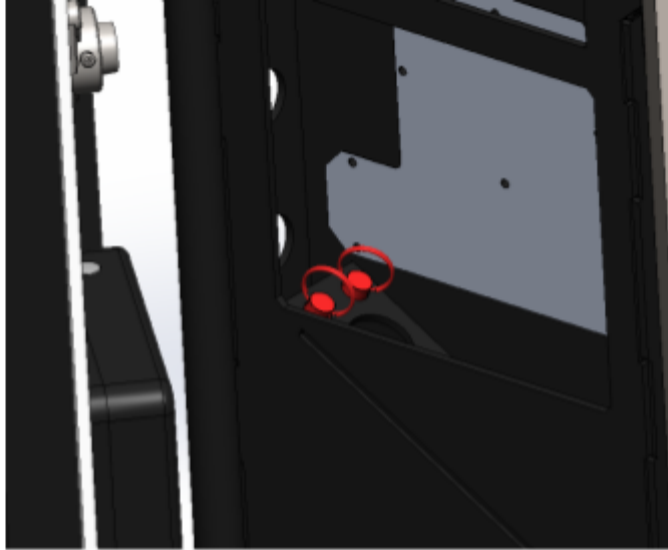
Thread the carriage bolt and nut assembly into the upper threaded hole on the hinge. For the lower hole thread the $\frac{1}{2}$ "-13 socket head screw from the inside face of the hinge outwards and then add the $\frac{1}{2}$ "-13 thin hex nut. Now close the Mulch Mate and adjust the bolts so that they just touch the metal panels across from them and so that the Mulch Mate is fully closed and centered on your truck. These will keep the machine from shifting side to side when on the road. Now tighten down the flange nuts against the hinge plate to act as jam/lock nuts.



The Mulch Mate can also be locked out in an open position as seen below.

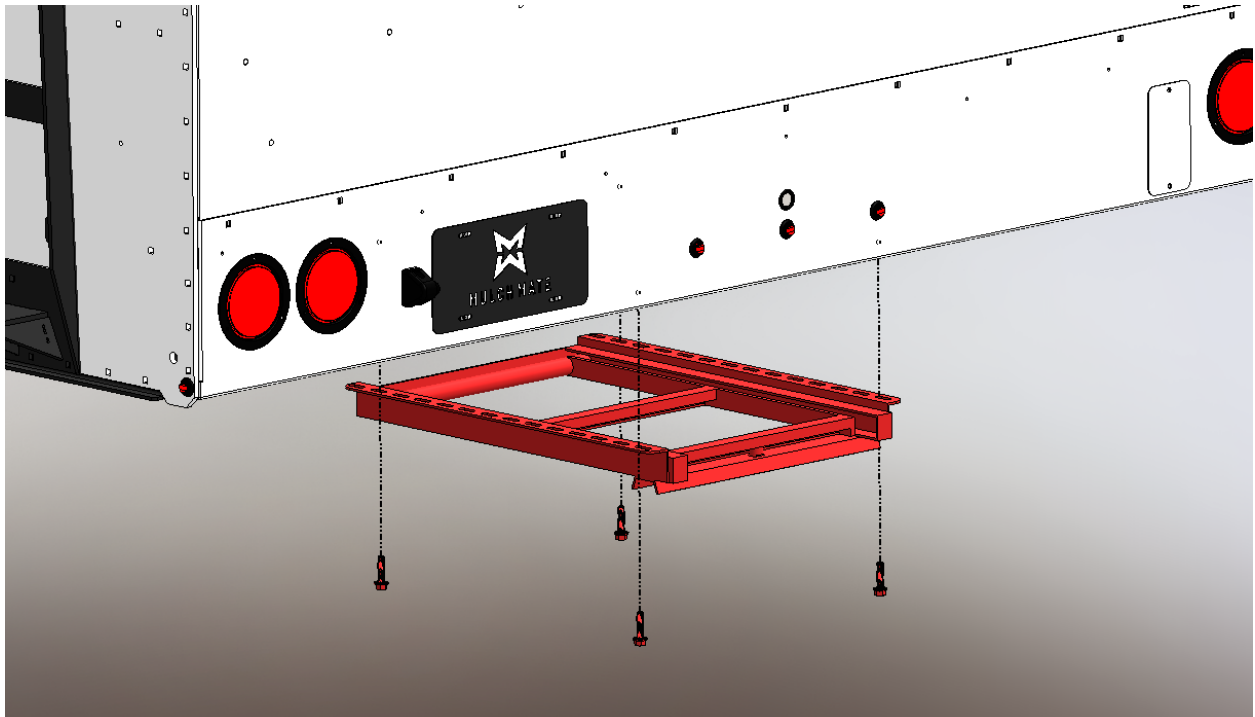


To lock the Mulch Mate out in the position seen above. Take the 2 pins out from the inside of the Hinge, where they are meant to be stored. Open the Mulch Mate to the shown position, and insert them into the holes going through the hinge and the hinge mounts.



Step 10 (installing the ladder)

Using the provided $\frac{3}{8}$ -16 x 1.5" flange hex head bolts, mount the ladder to the bottom of the Mulch Mate. Make sure the ladder opens to the back of the Mulch Mate.



Step 11 (installing/replacing the batteries)

Now it is time to install the two batteries inside your Mulch Mate. Make sure the planetary lever is disengaged and the E-stop button is pressed in for safety (fig 18).

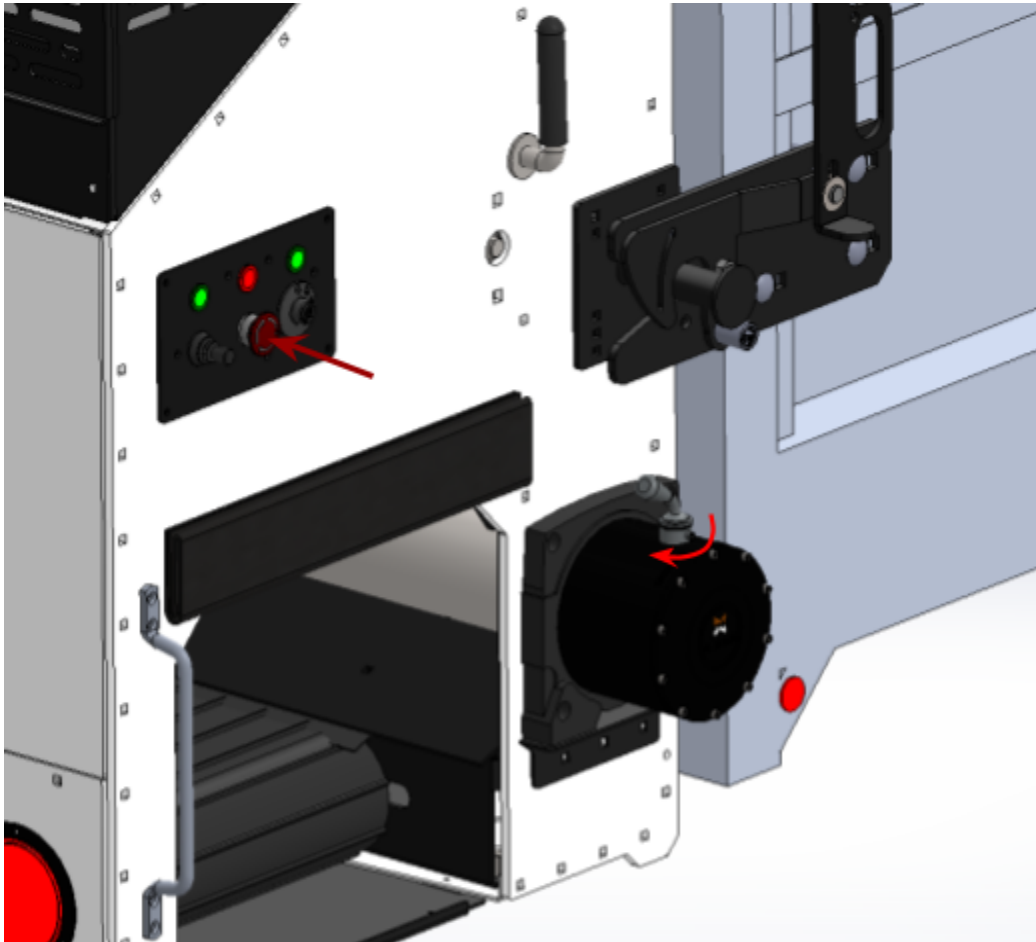


Fig 18.

Remove the battery covers (fig 19).

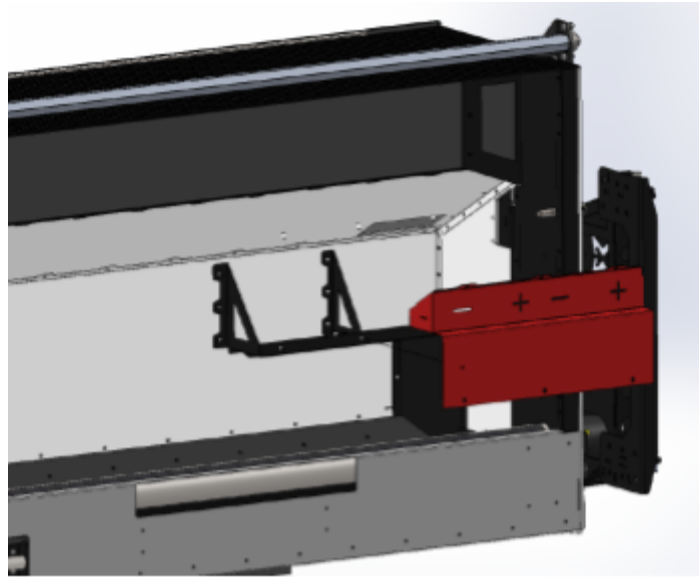


Fig 19. (Battery Cover)

Install the two batteries as shown in the diagram below (fig 20) and connect them together with the two wires provided. Connect the two lead wires already inside the Mulch Mate to the threaded positive and negative terminals on the battery in the corner (fig 20). You now have POWER!!!!

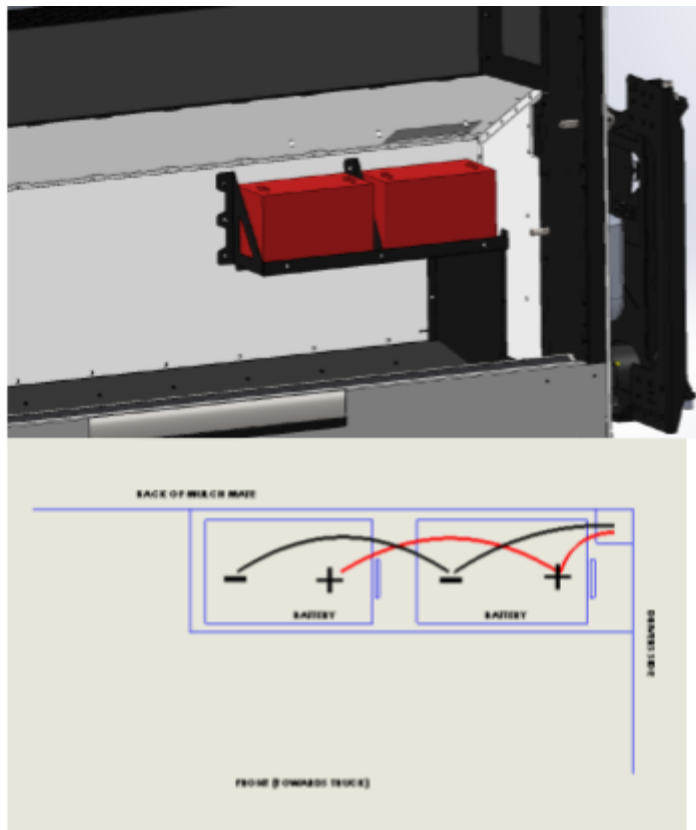
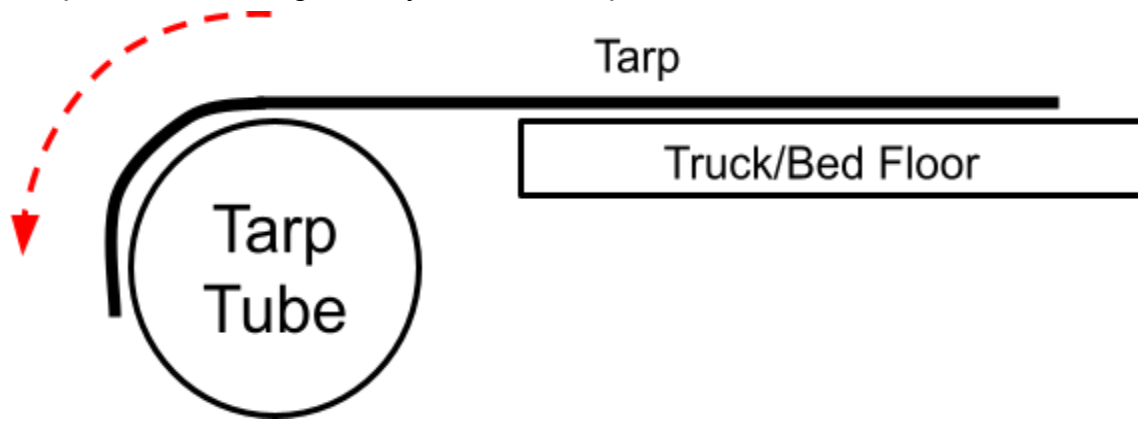


Fig 20. (Battery Installation)

Re-install the battery covers.

Step 12 (installing the tarp)

Lay the tarp out so that the side with the velcro faces down. Be sure to keep the velcro clean (do not drag it through dirt). Attach the velcro down onto the top of the tarp roller tube inside the Mulch Mate. ***Be sure the machine is off and the Emergency stop button is compressed (red light is on).*** Have one person hold the tarp square to the machine and the other use the joystick or remote to roll up the tarp into the machine. Keep clear of the augers as you roll the tarp into the machine.



Step 13 (connecting the backup camera system)

Now it is time to install the backup camera system. All you will need to do is run the provided RCA cable from the RCA port in the bottom of the distribution box on the driver's side of the Mulch Mate to the spring on the bottom of the truck mount then through the frame of the truck in a safe location up into the cab. The wire will be hooked to and hanging from the spring. Be sure to stay away from any hot areas or areas the wire can be pinched. This wire is also sensitive to flowing electrical current and its best to keep it away from any other wires as well. Once this wire is in the cab of the truck it is time to run it through the dash, up the A-pillar, and up into the headliner. Now you will need to install the video monitor, it simply clips to the existing mirror and you will run the wire back up under the headliner to the reverse signal wire in your dash. See owners manual for wire color and location. Once the RCA cable is connected and the video mirror monitor is operational, you will need to reinstall all your factory panels back into their original places.

Congratulations!!!!

You now have the power of Mulch Mate at the palm of your hands.

If you have any questions please feel free to contact our tech help line
at 888.776.8524 ex804

It is **highly** recommended for anyone operating the machine to watch the
online training video **and** take the certification exam

<https://mulchmateusa.com/video-training>

-----SEE CHARGING HARNESS INSTALLATION GUIDE-----

-----SEE DEFLECTOR PANEL INSTALLATION GUIDE-----