

Owner's/Operator's Manual

MAMMOTH



 **Bluestreak**equipment MAGNETICS
APPLICATION DRIVEN DESIGN

Bluestreak Equipment
1645 Hwy #3, Delhi, Ontario, Canada N4B 2W6

Mammoth Manual

Safety

Importance of Safety

Accidents can be very costly to human life and property. The operator is the #1 safety device on all types of vehicles or equipment, it is important that the operator read, learn, and know all safety recommendations for this product. The user is responsible to their family, friends, and co-workers to operate in a safe manner. Ensure that everyone who operates or assists in the operation or maintenance of this product read and understand all the elements required to safely operate this piece of equipment. This attachment has moving parts that include additional dangers.

It is the responsibility of the operator using this equipment to be acquainted with the safe operation.

Before lifting or lowering the magnet or sweeper, make sure the area is clear of bystanders or objects.

Machinery parts sometimes have sharp edges. Wear work gloves when moving parts. Always use caution around trailer parts as they often are very sharp.

Never use drugs or alcoholic drinks when operating or servicing this piece of equipment.

Always wear the proper personal protection equipment when servicing or operating this piece of equipment. Never service or operate this attachment with bare feet, sandals, or other light footwear.

For stability Mammoth magnetic sweeper should always be stored and transported with the magnet in the on (down) position

Keep limbs clear of the sweeper while raising and lowering the trailer or magnet.

If working on public roadway, display a Slow-Moving Vehicle emblem per your local regulations. Turn your flashers on.

Operate only during daylight or well-lit artificial light.

Store this sweeper in an area not frequented by children.

Allow no riders on this trailer. Keep all bystanders clear of attachment during operation.

Always replace worn, torn or missing safety decals before operating.

Before each operation of this trailer, check all hardware (bolts, nuts, pins, etc.) for their proper location and tightness.

Speed Kills! Operate this trailer at a safe working speed. When transporting the trailer, keep a safe speed to avoid losing control of the trailer or prime mover.

Keep proper clearance between the trailer and objects (utilities, tree stumps, large rocks, buildings, etc.). Contacting these objects with the trailer or prime mover could cause a loss of control or damage to the trailer or property.

Vehicle requirements

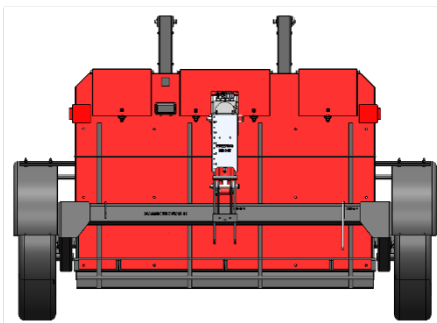
The tow vehicle must be equipped with a pintle hook to accept a 3" pintle ring

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Step #1 - Unpacking Your Shipment



Mammoth as Shipped on Pallet
What's on the Pallet



Sweeper Assembly (1pc)



Tongue(1pc) w/chains and jack installed



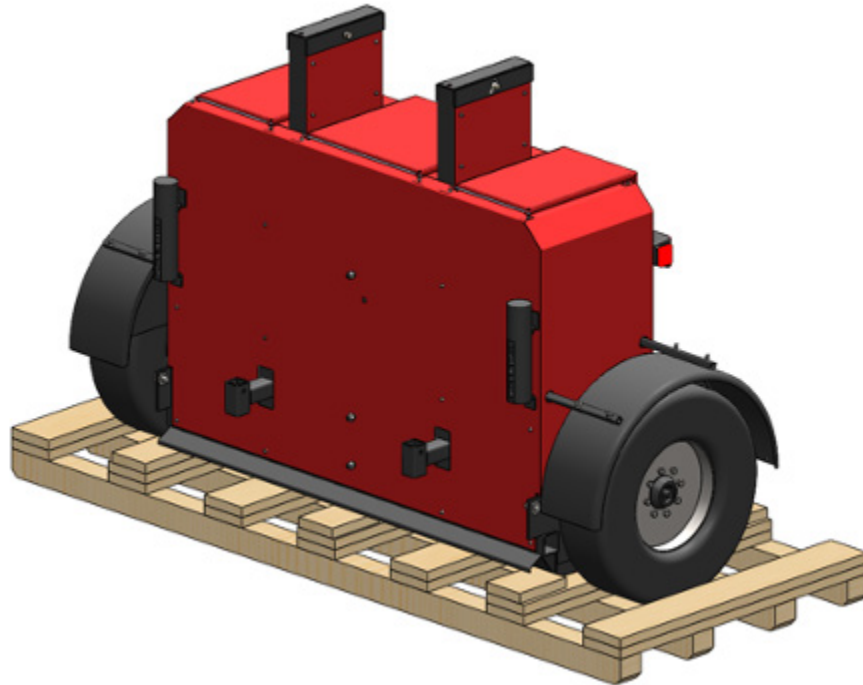
Side Brace (2pcs)



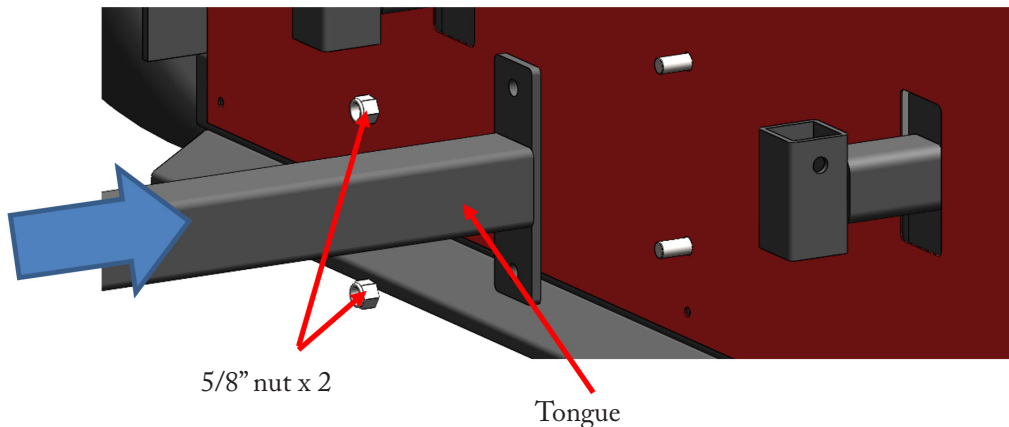
Upper Brace (1pc)

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Step #2 Install the Tongue



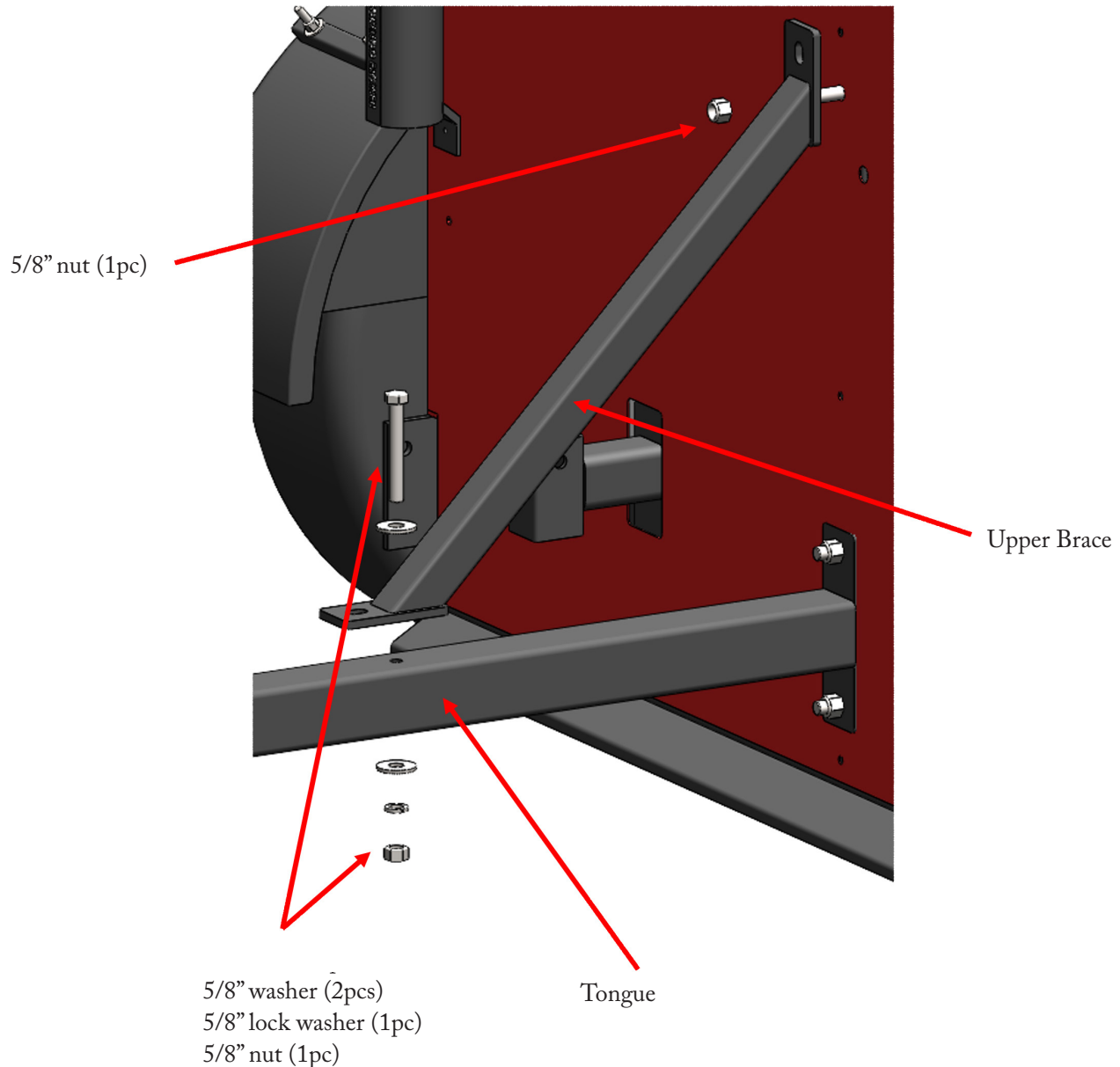
Remove the cage and keep the sweeper on the Pallet



Connect the Tongue to the Sweeper using the 2x 5/8" nuts (2pcs) that were installed on the sweeper.
Do not tighten yet.

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Step #2 continued



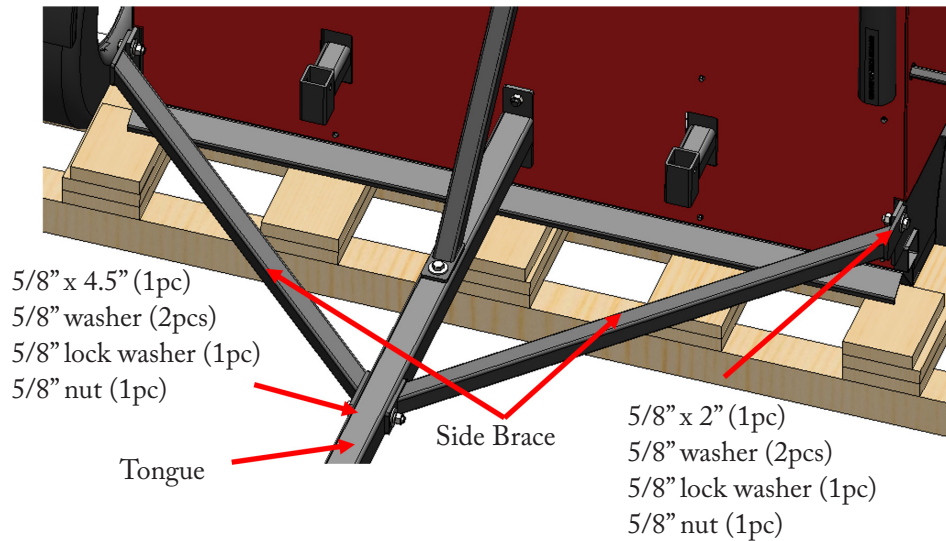
Connect the Upper Brace (1pc) to the Tongue and the Magnetic Sweeper using a 5/8" nut at the top.

Attached the lower end of the Brace to the Tongue by placing a 4.5" bolt placed through a washer, through the Strut, through the tongue, through a washer, through a lock washer and install the nut.

Do not tighten yet.

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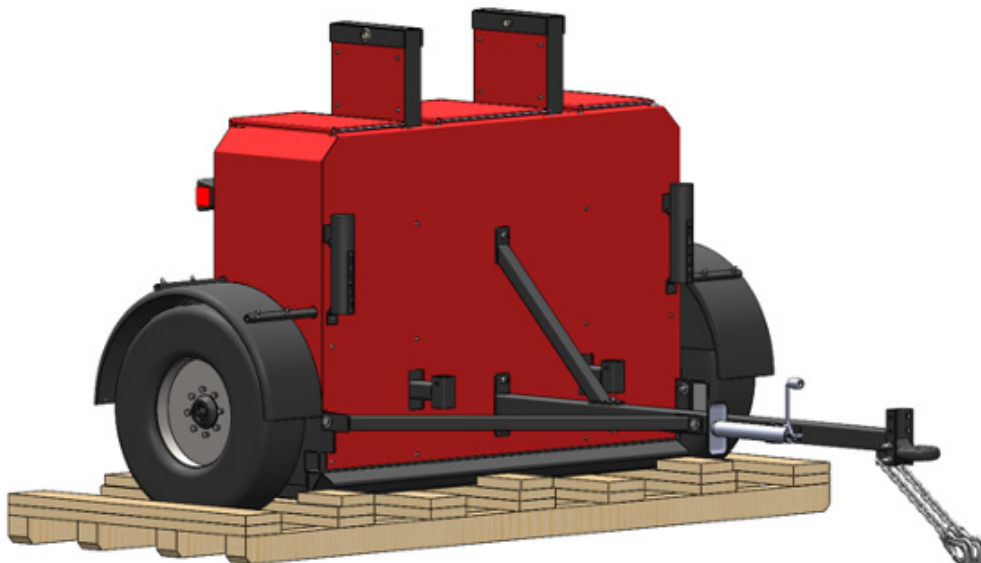
Step #2 continued



Connect the Side Braces (2pc) to the Tongue using 5/8" x 4.5" bolt (1pc) installed through a washer, through the Brace, through the Tongue, through the other strut, through a washer, through a lock washer and install the nut. Do not tighten yet.

Connect each Side Braces to the Sweeper using a 5/8" x 2" bolt (1pc) installed through a washer, through the Brace, through the sweeper, through a washer, through a lock washer and install the nut. Do not tighten yet

Progress So Far.



With the Tongue and Braces in place, fully tighten all bolts

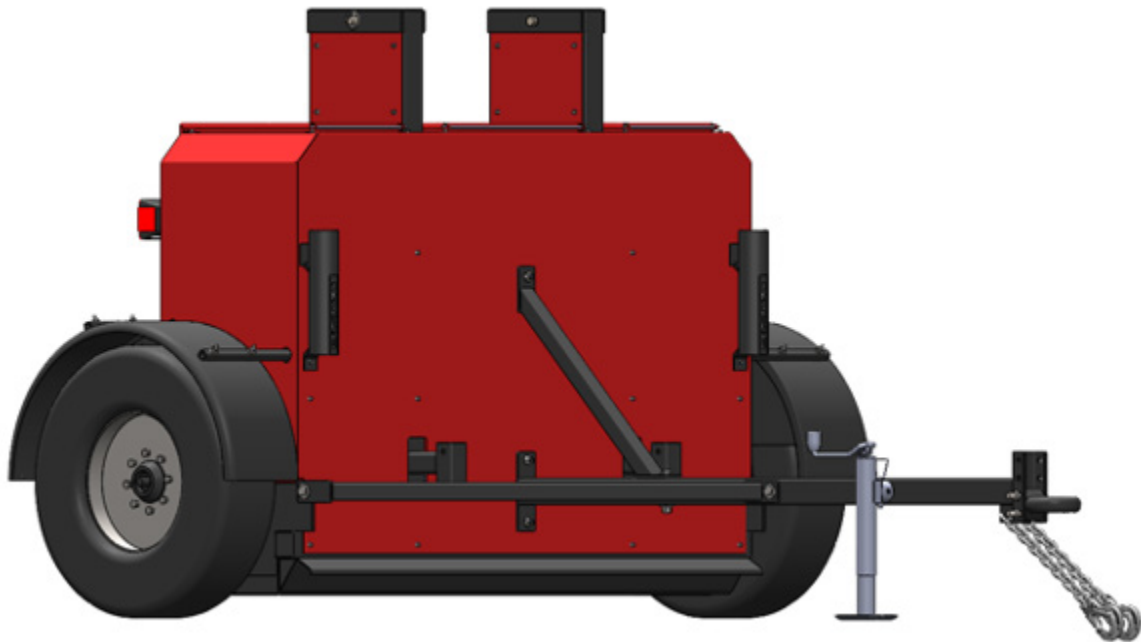
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The sweeper can now be removed from the pallet

Rotate jack stand to vertical position and install spring pin

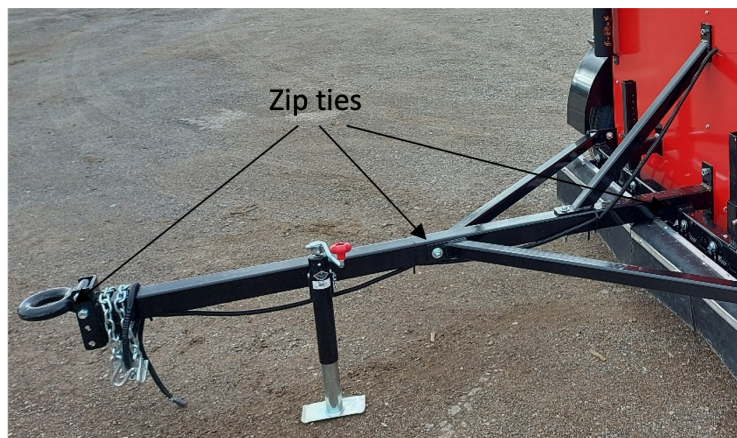
Using a forklift, lift sweeper off pallet from rear

Place sweeper on ground and extend jack stand until the tongue is level



Step #3 Install the trailing wiring

The trailer wiring should be zip tied to the tongue to ensure it doesn't wear from contacting the ground. Once the tongue and struts are installed use the included zip ties to fix the wiring in place. The white ground wire should be screwed into the tongue near the pintle ring using a self tapping screw.

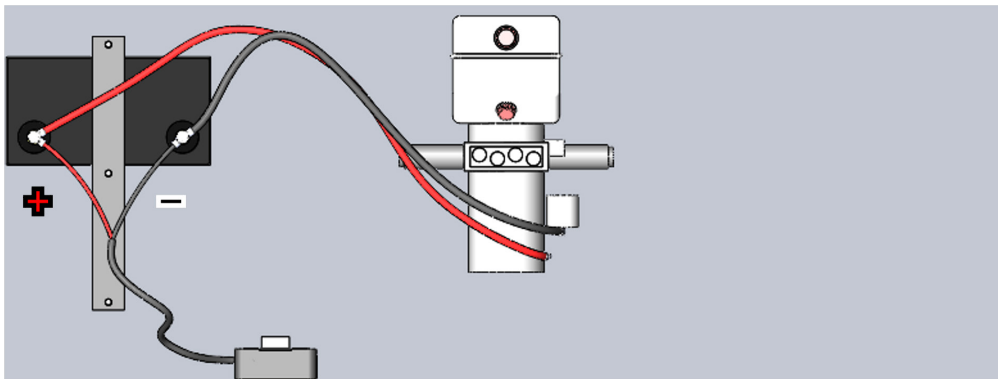


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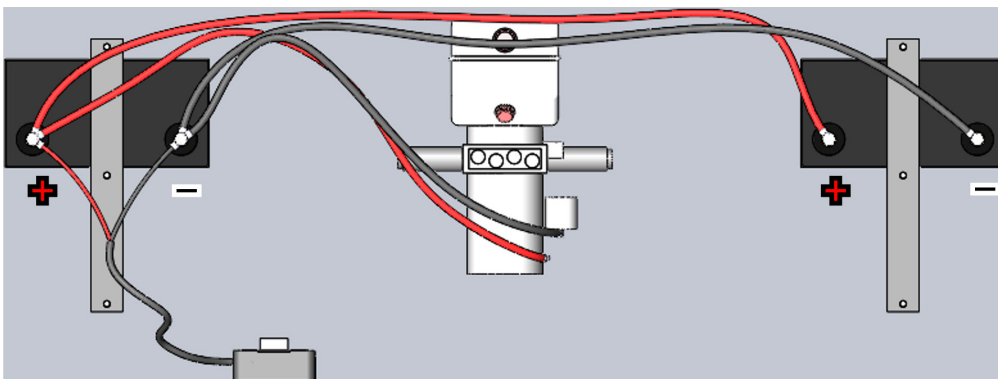
Step #4 Connecting the batteries

The Mammoth magnetic sweeper has space for up to four Group 31 deep cycle marine batteries. For stability of the sweeper and ease of adding batteries, position single and double batteries towards the front of the sweeper. To increase capacity, add 12V batteries in parallel, connecting positive terminals together and negative terminals together.

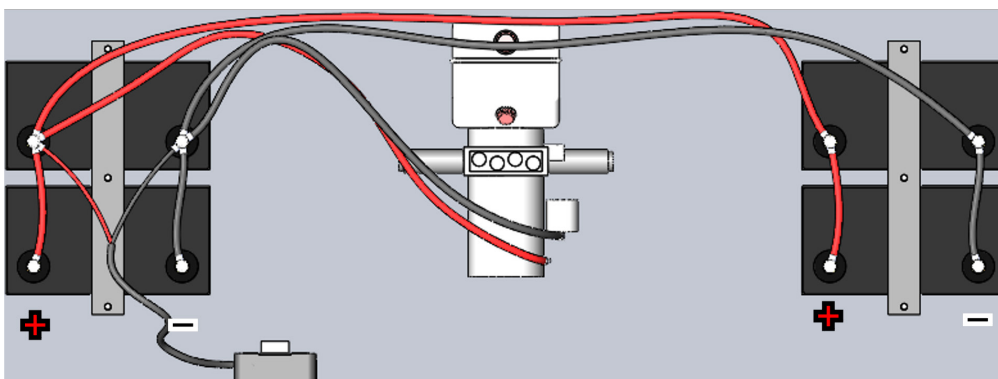
Single Battery Configuration



Double Battery Configuration



Quadruple Battery Configuration



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Remote control functions

The Mammoth hydraulics are operated by a remote control stored in a tube on the driver's side of the trailer. With the remote control the operator can turn on and off the magnet by raising and lowering it as well as raise and lower the trailer to increase ground clearance or disengage the optional DDR and grader accessories.



To use the remote:

1. Twist the emergency stop
2. Press the start button

In some cases, if a button is pressed for too long, the receiver goes into a fault mode. To fix this press the start button.

If the magnet is raised to the top position, in some instances it will not be possible to raise or lower the trailer due to magnetic interference. Lower the magnet to solve this problem.

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Step #5 Connecting the sweeper to the tow vehicle

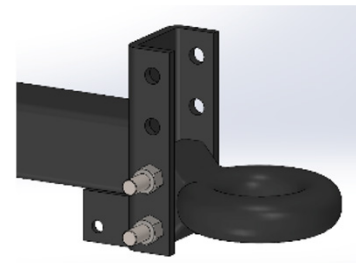
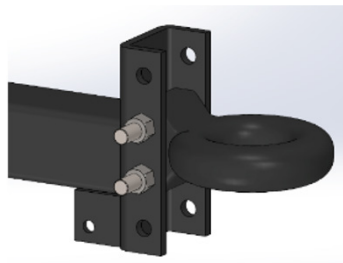
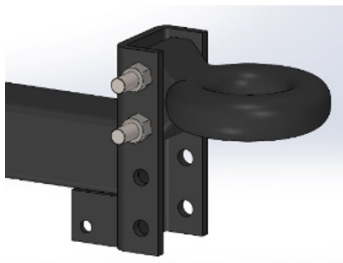
While the sweeper is supported by the jack stand



1. Reverse the vehicle to line up the pintle hook and the pintle ring
2. Once the pintle ring is over the hook, lower the ring using the jack stand
3. Clip on the safety chains and connect the trailer lights
4. Raise the jack stand and move it to the horizontal position by removing and reinstalling the spring pin



Ensure that the tongue is as level as possible. This can be adjusted by changing the mounting position of the pintle ring on the tongue.



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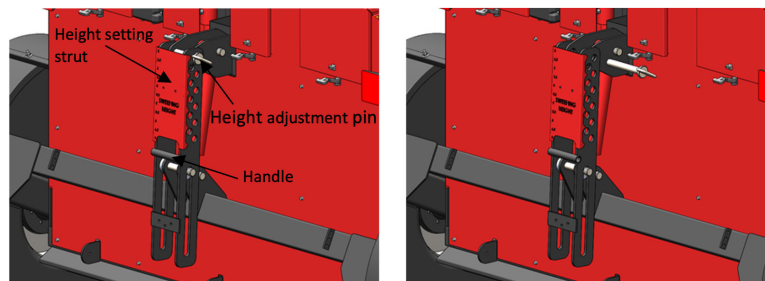
Step #6 Setting the sweeping height

The height adjustment setting for the Mammoth is located on the back of the trailer. The height setting strut displays approximate sweeping heights however the actual heights are affected by the sweeper tire pressure. To set the sweeping height:

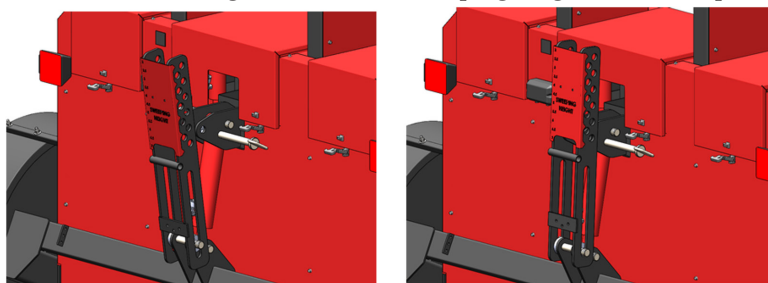
Press trailer raise button to raise trailer to maximum sweeping height



While holding the handle on the height setting strut, remove height adjustment pin



Pull up height adjustment strut and align with desired sweeping height and insert pin



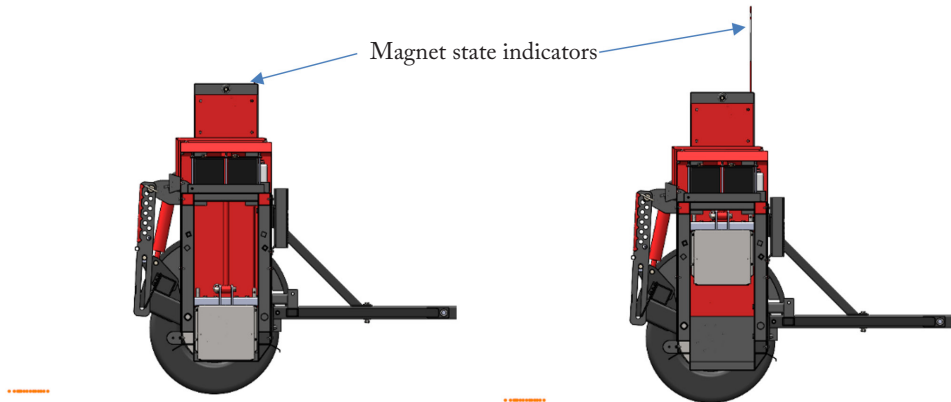
Press trailer lower button until the trailer reaches the selected sweeping height



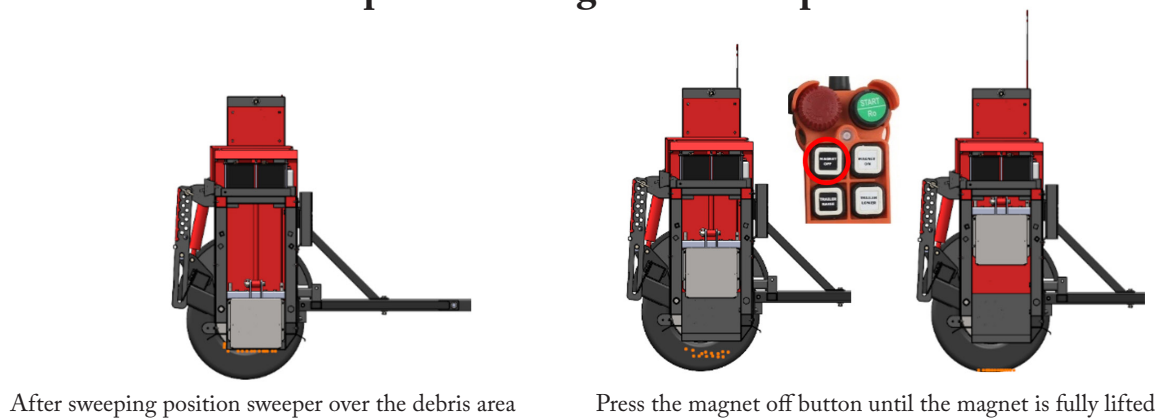
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Step #7 Using the sweeper

Before towing the sweeper, check that the trailer lights function properly, cycle the magnet and trailer up and down. Ensure that the magnet is in the ON (down) position before moving. The magnet has markers which extend out of the top of the sweeper to indicate when the magnet is in the up position.

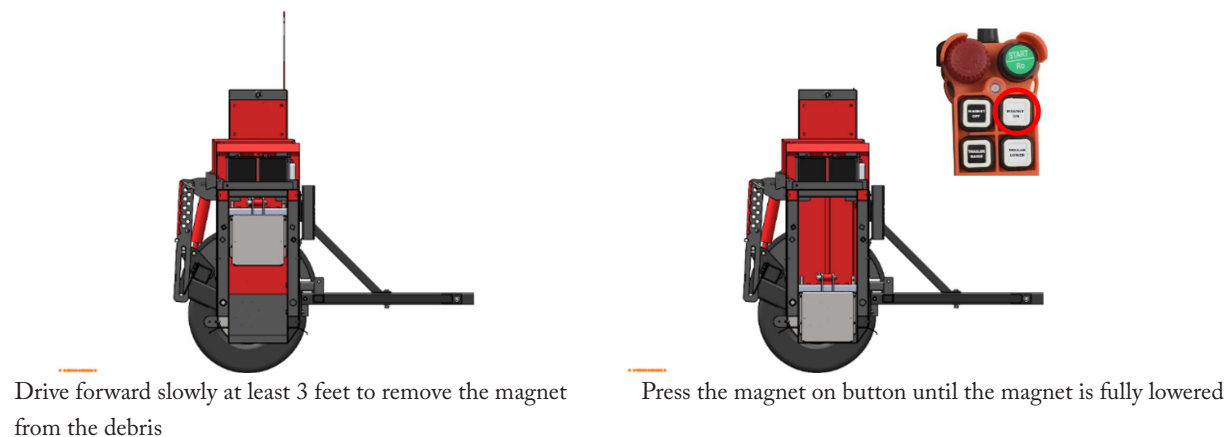


Step #8 Cleaning off the sweeper



After sweeping position sweeper over the debris area

Press the magnet off button until the magnet is fully lifted



Drive forward slowly at least 3 feet to remove the magnet from the debris

Press the magnet on button until the magnet is fully lowered

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Battery

The Mammoth magnetic sweeper has space for four group 31 deep cycle marine batteries and is equipped with a built-in battery charger and voltmeter. To optimize the life of the batteries it is recommended that the depth of discharge is kept below 25% or 12.4V. We recommend that you charge the batteries daily or when the voltage drops below 12.4V.

*Note: using the hydraulic power pack results in a large temporary drop in battery voltage. Wait a few minutes for the voltage to stabilize to get a true reading.

Battery Capacity (Ah)	Allowable DOD (%)	Number of Cycles
105	25%	35
210	25%	70
315	25%	105
420	25%	140

Travelling with the sweeper

To travel with the Mammoth magnetic sweeper, raise the sweeper and pin the height setting to the maximum. **The sweeper is NOT++ rated for highway use and should only be towed at low speeds.** If the optional DDR and grader blade are installed ensure that they are well clear of the ground.

Maintenance

Hydraulics

- Check hydraulic fluid level (reservoir size – 1 gal)
- Check for oil leaks
- Ensure fittings are tight
- Clean reservoir breather assembly
- Clean strainer
- Test and replace oil if necessary
- Bleeding the hydraulics
 - » Fill the reservoir to 80%
 - » Cycle the magnet and trailer up and down three times
 - » Top up reservoir to 80%

Note: in most cases, due to the configuration of the hydraulics, the top of cylinders and their attached hoses will be filled with air

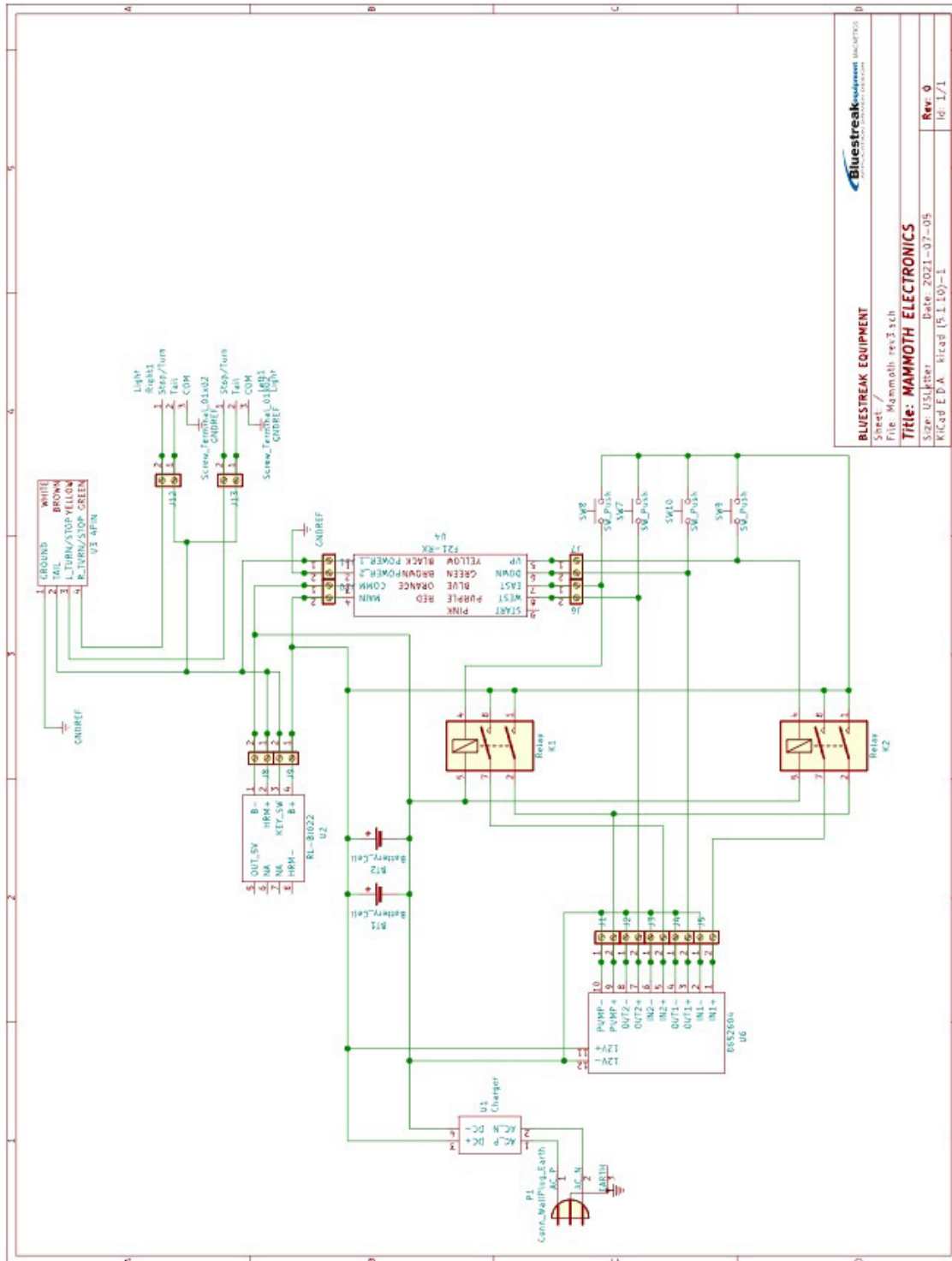
Electrical

- Charge batteries daily
- Check battery connections
- Check remote control batteries

Fasteners

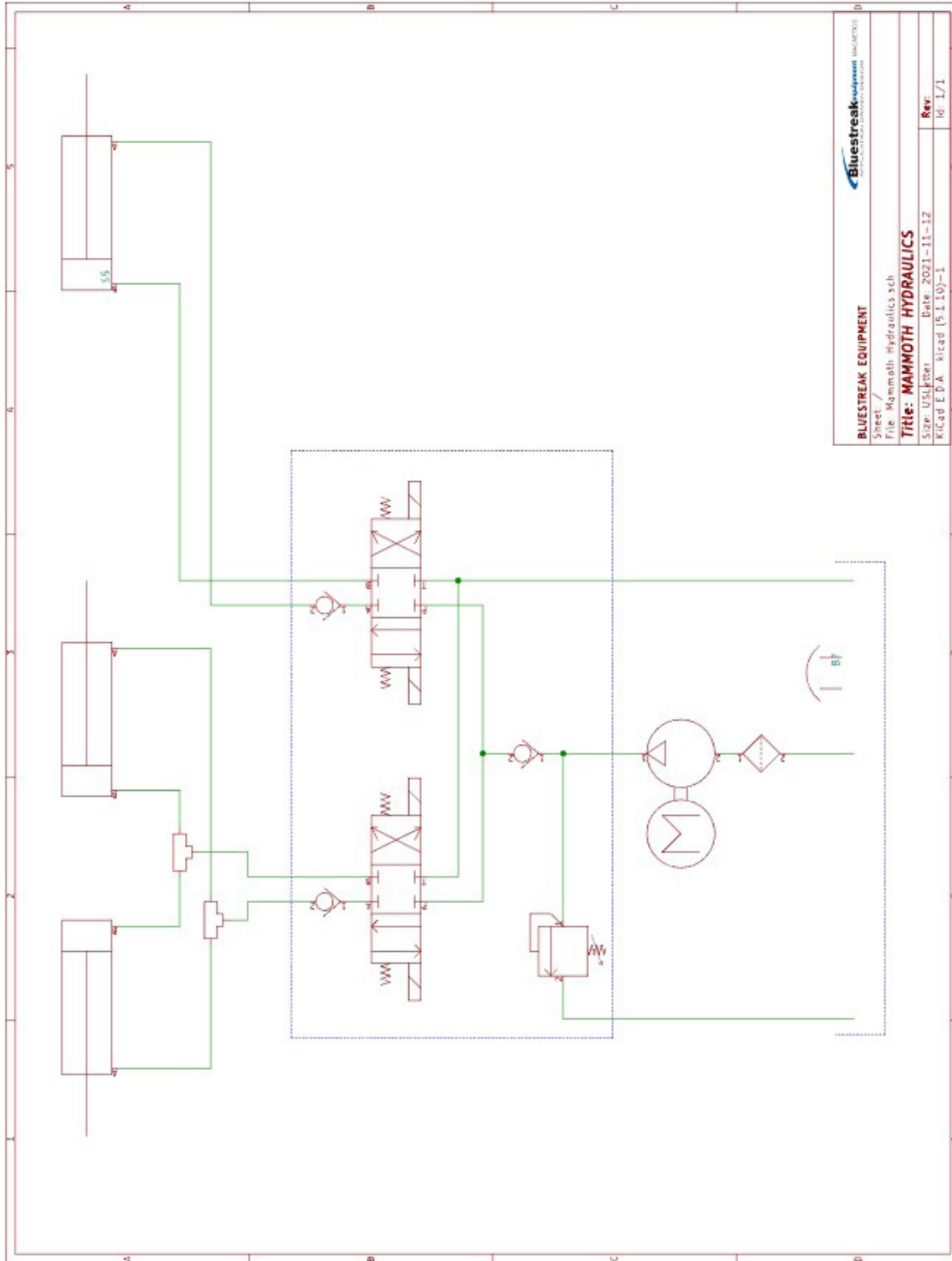
- Check that fasteners are tight
- Wheel lug torque – 180 ft-lb

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File: Mammoth_rev3.sch	
Title: MAMMOTH ELECTRONICS	
Size: USLetter	Date: 2021-07-05
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