



*Ice* **STRIKER™**



# OWNER'S MANUAL

1200-8000 AM/CM POLY ELECTRIC MODULAR SPREADER

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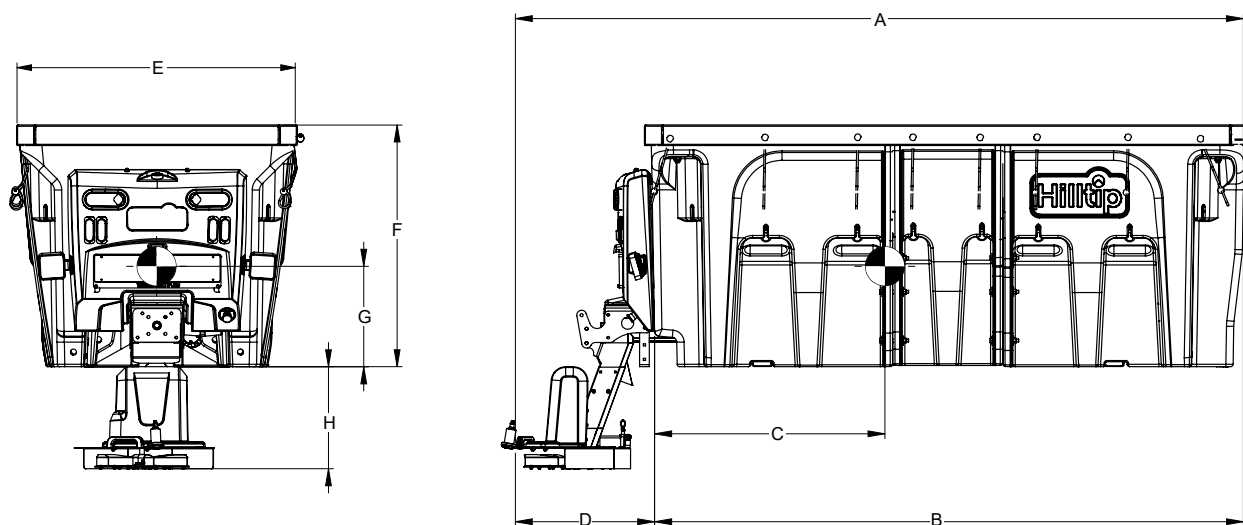
### CAUTION

Read this manual before installing or operating the spreader

## Spreader parts



## Technical information 1200-1500 AM



The drawing shows IceStriker 1500 AM spreader

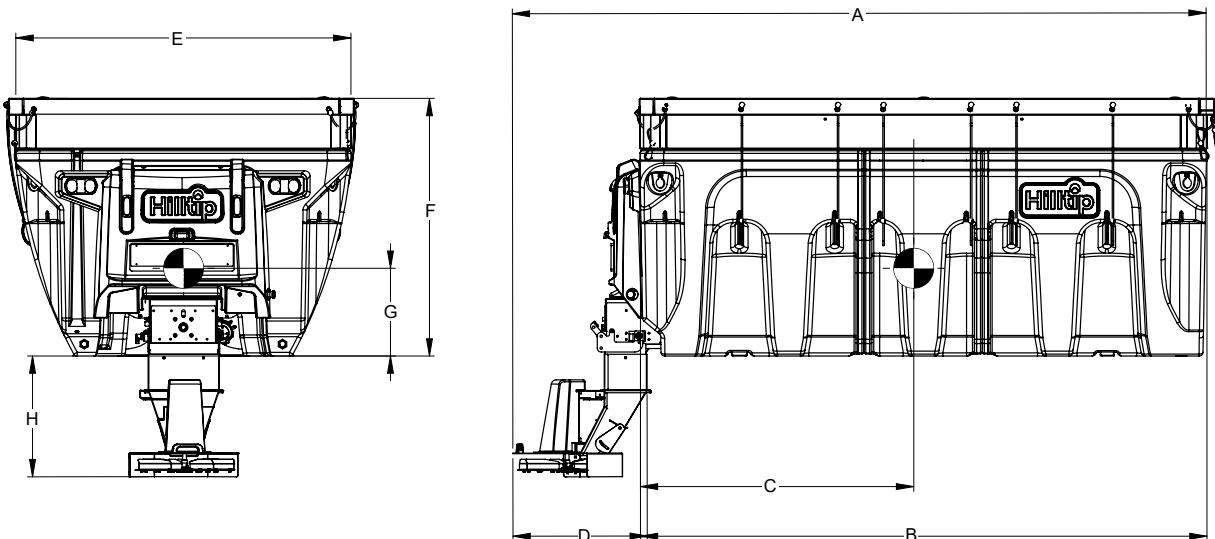
Key	Description	1200 AM	1500 AMS	1500 AM
A	Total length	8.6'	8.6'	9.8'
B	Maximum external hopper length	6.2'	6.2'	7.5'
C	Distance from the centre of gravity to the rear part of the hopper (empty)	29"	29"	37"
D	Total length of spreading group (disc + chute)	23-25"	23-25"	23-25"
E	Maximum external width (with tarp mounted)	45"	45"	45"
F	Total height of the hopper from the loading surface of the carrying vehicle	39"	45"	39"
G	Height of the centre of gravity from the loading surface of the carrying vehicle (empty)	15"	15"	16"
H	Distance between spreading disc and loading surface of the carrying vehicle	Standard chute: 17"		

Description	1200AM	1500 AMS	1500AM
Hopper volume, struck	1.0 cu yd	1.4 cu yd	1.4 cu yd
Hopper volume, rounded	1.2 cu yd	1.5 cu yd	1.6 cu yd
Liquid tank capacity	120 gal	120 gal	140 gal
Empty spreader weight	495 lbs	540 lbs	594 lbs
Full loaded spreader solid material, <i>struck volume</i>	2884 lbs	3828 lbs	3882 lbs
Full loaded spreader solid material, <i>rounded volume</i>	3314 lbs	4064 lbs	4352 lbs
Full loaded spreader solid material, <i>struck volume</i> , and liquid material full tank	3988 lbs	4932 lbs	5172 lbs
Full loaded spreader solid material, <i>rounded volume</i> , and liquid material full tank	4418 lbs	5168 lbs	5642 lbs

These numbers are only guidelines, and based on solid materials with a density of 87 lb/ft<sup>3</sup>, and brine liquid with a density of 69 lb/ft<sup>3</sup>.

Specifications are subject to change without notice. We do not take any responsibility in any direct or indirect damages or warranty cases concerning the values above.

# Technical information 2000-4200 AM/CM, 6000-8000 CM



The drawing shows IceStriker 4200 AM spreader

Key	Description	2000 AM/CM	2800 AM/CM	3400 AM/CM	4200 AM/CM	6000 CM	8000 CM
A	Total length	9.8'	9.8'	9.8'	11.8'	13.5'	15'
B	Maximum external hopper length	7.7'	7.7'	7.7'	9.5'	11.2'	12.8'
C	Distance from the centre of gravity to the rear part of the hopper (empty)	35"	36"	37"	49"	55"	65"
D	Total length of spreading group (disc + chute)	26.5-29"	26.5-29"	26.5-29"	26.5-29"	26.5-29"	26.5-29"
E	Maximum external width (with tarp mounted)	67"	67"	67"	67"	67"	67"
F	Total height of the hopper from the loading surface of the carrying vehicle	42"	47"	52"	52"	52"	52"
G	Height of the centre of gravity from the loading surface of the carrying vehicle (empty)	15"	17"	20"	23"	29"	39"
H	Distance between spreading disc and loading surface of the carrying vehicle	Normal chute: 20-24" Extended chute: 32-36"					

Description	2000 AM/CM	2800 AM/CM	3400 AM/CM	4200 AM/CM	6000 CM	8000 CM
Hopper volume, struck	2.0 cu yd	2.8 cu yd	3.4 cu yd	4.2 cu yd	5.5 cu yd	7.5 cu yd
Hopper volume, rounded	2.3 cu yd	3.2 cu yd	3.8 cu yd	4.7 cu yd	6.5 cu yd	8.5 cu yd
Liquid tank capacity	220 gal	220 gal	220 gal	260 gal	315 gal	370 gal
Empty spreader weight	792 lbs	869 lbs	946 lbs	1078 lbs	1650 lbs	2094 lbs
Full loaded spreader solid material, <i>struck volume</i>	5410 lbs	7350 lbs	8950 lbs	10930 lbs	14613 lbs	19711 lbs
Full loaded spreader solid material, <i>rounded volume</i>	6340 lbs	8270 lbs	9880 lbs	12170 lbs	17082 lbs	22060 lbs
Full loaded spreader solid material, <i>struck volume</i> , and liquid material full tank	6910 lbs	8710 lbs	10210 lbs	13316 lbs	16972 lbs	23092 lbs
Full loaded spreader solid material, <i>rounded volume</i> , and liquid material full tank	7770 lbs	9570 lbs	11070 lbs	15785 lbs	19441 lbs	25441 lbs

These numbers are only guidelines, and based on solid materials with a density of 87 lb/ft³, and brine liquid with a density of 69 lb/ft³.

Specifications are subject to change without notice. We do not take any responsibility in any direct or indirect damages or warranty cases concerning the values above.

## Safety definitions



### **WARNING**

Implies a potentially hazardous situation that, if not avoided, could result in death or serious personal injury.



### **NOTE**

Implies a situation or action that can lead to damage to your spreader and vehicle or other property. Other useful information can also be described.



### **CAUTION**

Implies 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.

## Safety precautions

Incorrect installation and operation can lead to serious personal injury and/or damage your equipment and property. Note and ensure that you understand this manual and all the labels before installing, operating or making adjustments to the spreader.



### **WARNING**

Observe these safety precautions before, during and after operating the spreader. You can prevent injury to persons and damage to the spreader by following these precautions.



### **WARNING**

Warning - Disconnect power and wait for spinner and auger to stop completely before servicing, opening the cover to the technical housing or removing the top screen. The auger is fully accessible inside the technical housing and may cause serious injury or death if it's still running while cover is open.

1. Read this manual before operating the spreader.
2. Before operating, make sure all the equipment is securely mounted into place.
3. Check that there are no persons within the spreader spray area when starting and operating this spreader.
4. Do not exceed your vehicle total weight beyond payload limits.
5. Always turn off the spreader before cleaning, lubricating or unclogging material jams.
6. Never climb or ride on or in the spreader.
7. Ensure that you have fastened the spreader to the vehicle according to descriptions in this manual.
8. A spreader in need of repairs or maintenance should not be operated.
9. Before removing or replacing any electrical components, always disconnect the battery.
10. Do not keep gasoline or other flammable liquids on the truck bed while spreader is mounted on the truck bed.

**WARNING**  
Always keep bystanders a minimum of 30 ft away when operating the spreader.

**CAUTION**  
Empty and clean the hopper after each use. Unused spreading material left in hopper could freeze or solidify, causing the spreader to not work properly.

**WARNING**  
Wait for auger and spinner to stop and lock out power before servicing the spreader.

**NOTE**  
Use a good quality multi-purpose grease to lubricate grease fittings after each use.

## Recommended vehicle requirements

This spreader is suitable for trucks and trailers with a minimum capacity of 4400 lb.

## Noise

The noise caused by the running spreader does not exceed 70 dB

## Personal safety

- To prevent accidents, secure long hair and do not wear jewelry or a necktie. Only wear tight-fitting clothes while working on your spreader or vehicle.
- Protect your eyes with safety goggles to avoid damage from battery acid, gasoline, dirt and dust.
- Always handle the solid and liquid materials carefully. Wear safety goggles, mouth mask, gloves and protective close to protect yourself from spattering material.

## Emergency stop

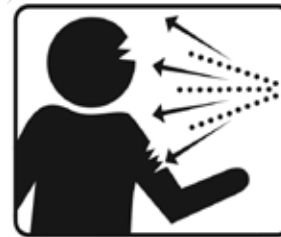
The spreader has an emergency stop button located at the right side of the chute. All spreader functions will immediately stop by pushing this button.



## Warning and caution labels

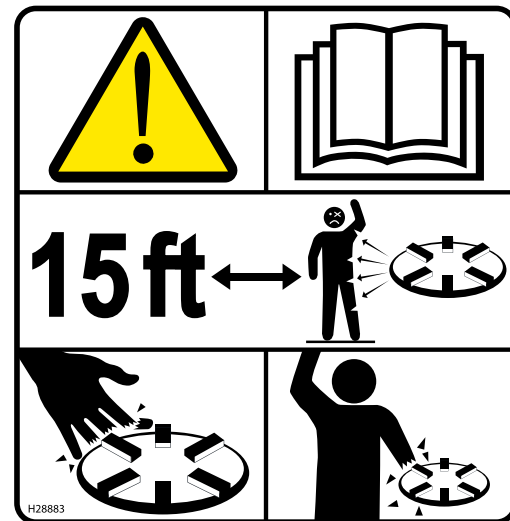
Please become familiar with warning and caution labels on the spreader.

Warning - Handling of abrasive and chemical material can cause injury



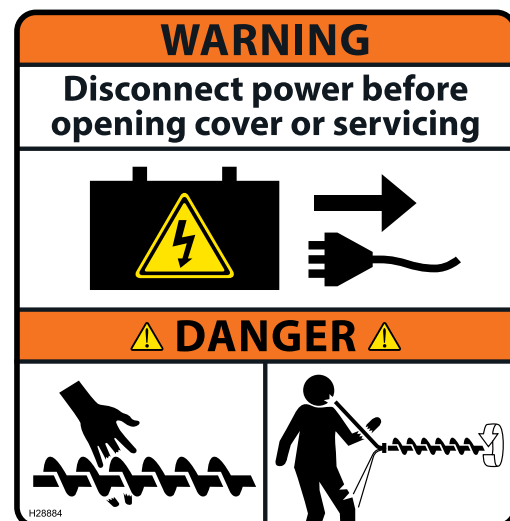
- Located on the chute

Warning - Keep away from spinner and spreader in motion. Stay clear of turning spinner. Moving parts can crush and cut



- Located on the chute

Warning - Disconnect power and wait for spinner and auger to stop completely before servicing, opening the cover to the technical housing or removing the top screen. The auger is fully accessible inside the technical housing and may cause serious injury or death if it's still running while cover is open.





## Accessory cables

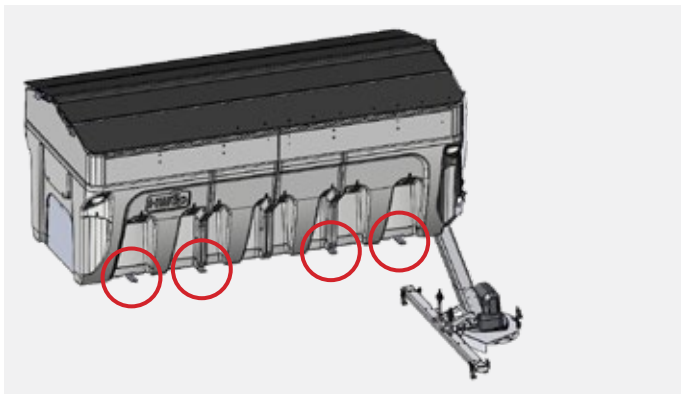
<b>Red</b>	= Emergency stop (standard)
<b>Black</b> (big connector)	= Water pump
<b>Black</b> (small connector)	= Water pump
<b>Yellow</b>	= Beacon light
<b>White</b>	= LED worklight

## Control placement

The controller should be mounted in a place where it can easily be reached and doesn't interfere with the access to vehicle controls or other equipment. Make sure that the spreader control panel doesn't block the vehicle airbag area. Protect the controller from water, dirt and dust.



## Mounting the spreader



There are fastening hooks on each side of the spreader bottom. Use these fastening points to bolt the spreader to the vehicle. The number of fastening hooks vary depending on the size of the spreader.



There are built-in tie-down loops on each corner of the hopper. Use these fastening points to secure the spreader to the vehicle by using tensioning straps.

### **WARNING**

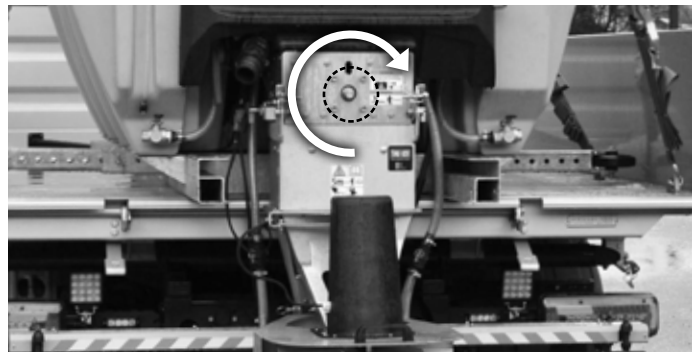
The spreader is required to be fastened with tensioning straps in all four corners and attached to the vehicle bed with bolts.



Ensure that the spreader is fully supported across the entire area beneath the poly hopper.

## Rotate jammed auger manually

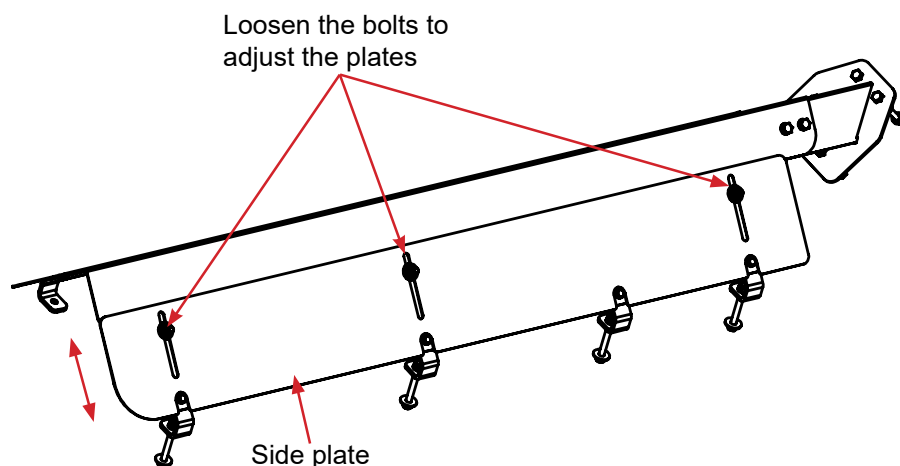
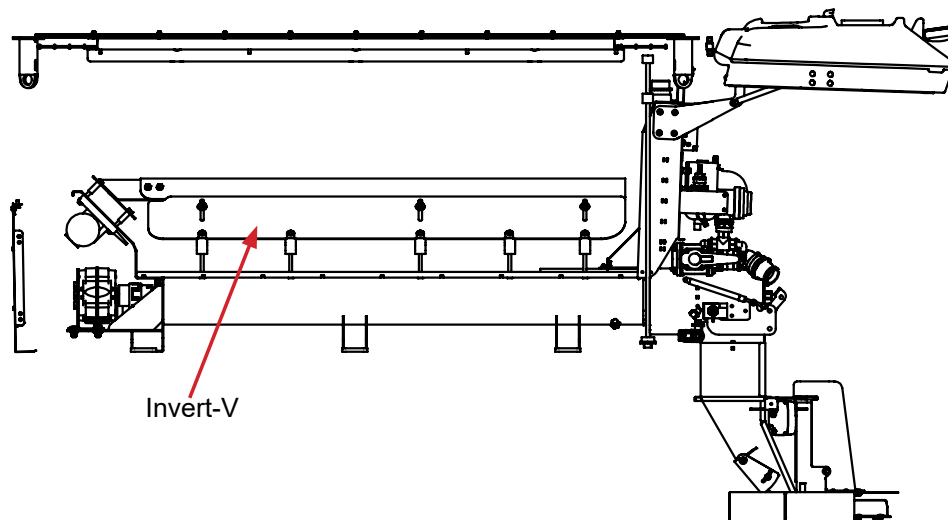
If the error code “Auger jammed” appears, the auger can be rotated manually to release any solidified material or rocks. Always turn off the spreader before servicing it. Use a 0.95” socket wrench or similar tool to turn the auger screw.



*Use a socket wrench to rotate auger manually by turning it clockwise*

## Adjustable invert-V

The invert-V has adjustable side plates. Unscrew the bolts on both sides to adjust the plates up or down. When the plates are fully opened (adjusted upwards) more material is flowing down to the auger and give a more even material output. It is also possible to remove the adjustable plates if the used spreading material is not flowing down to auger and causing bridging above the auger.



## Spreading symmetry adjustment

The spreading pattern can be adjusted by rotating the spinner plate and by adjusting the chute baffle that controls how far in on the spreading disc the material falls down.

The spinner plate is rotated to the left or right by using the adjuster arm or with the optional linear actuator (see images below).

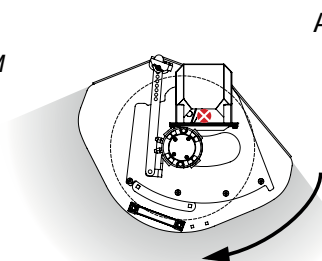
✕ = material drop point

Spinner plate rotated left

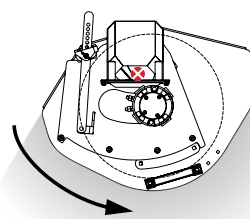
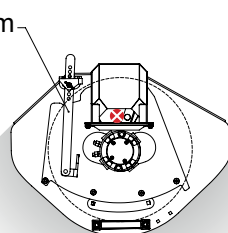
Spinner plate center

Spinner plate rotated right

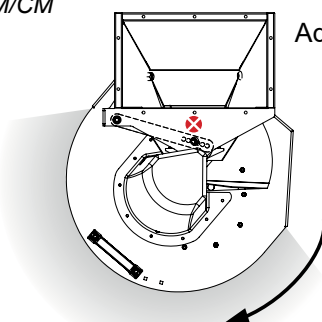
1200-1500 AM



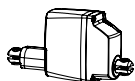
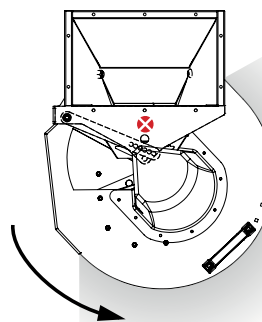
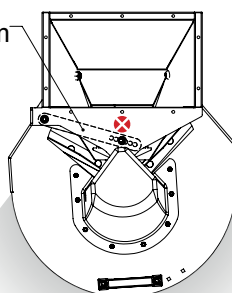
Adjuster arm



2000-6000 AM/CM



Adjuster arm



Adjuster arm can be changed to the optional linear actuator for the optional electric chute adjustment, cabin control.

## Electric spreading symmetry adjustment, cabin control (optional)

If the spreader is equipped with the optional electric chute adjustment the user adjusts the spreading symmetry from the controller inside the cab.

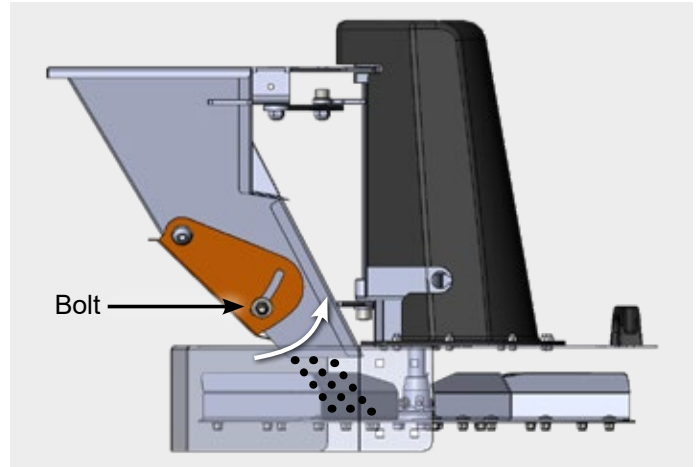
When the controller is in spreading mode, the icon on the left shows which position the chute is in. Push the round button so the selected area turns green and scroll the round button to adjust the chute. When scrolling the round button the spinner plate rotates to left or right.



The chute icon shows which position the chute is in.

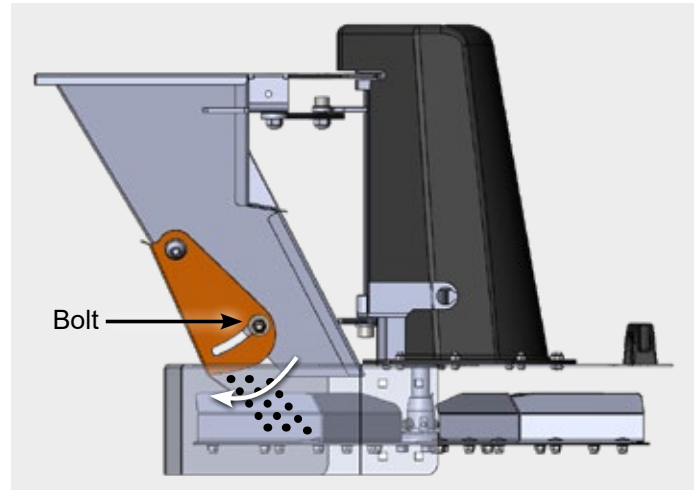
Loosen the bolts on both sides of the chute to adjust the chute baffle that controls how far in on the spreading disc the material falls down. **Note! Applies only to 3400-6000 AM/CM spreaders with the non-current chute model (produced before May 2022).**

When the chute baffle is fully closed (image 1) the spreading material falls down closer to the center of the disc and the material tends to spread more to the left (drivers side).



*Image 1. The spreading material falls down closer to the center of the disc.*

When the chute baffle is fully opened (image 2) the spreading material falls down further out on the disk and the material tends to spread more to the right (passengers side).



*Image 2. The spreading material falls down further out on the disk.*

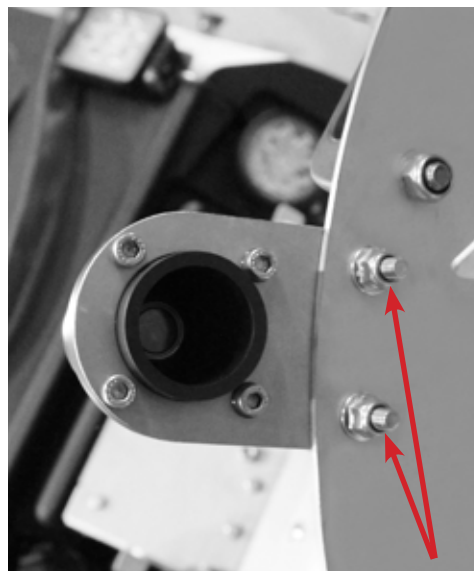
**NOTE!** The spreading pattern is also affected by the speed of the spinner and the type of spreading material used.

## End of material sensor (Optional)

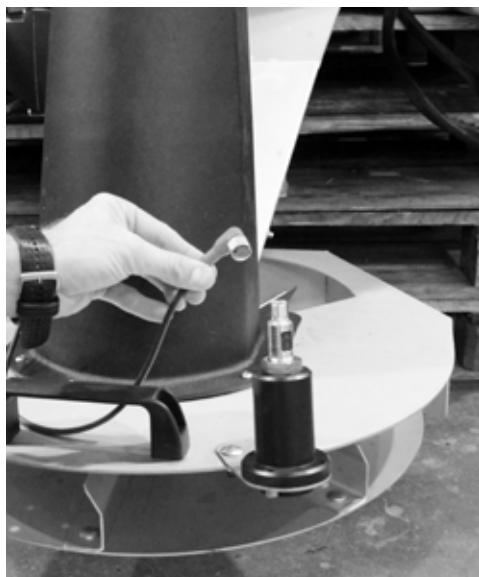
Use the optional “End of Material” (EOM) sensor to detect when no material is coming out from the spreader.



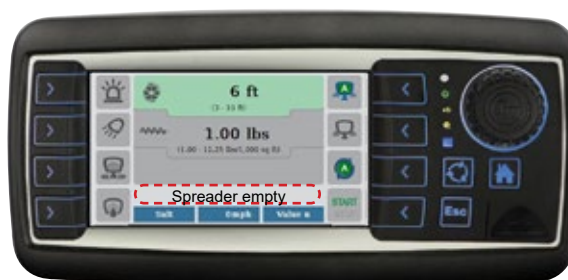
The EOM sensor's LED light lights orange when no material is coming out of the hopper and turns off when material is coming out of the hopper.



The sensor is bolted on the spinner frame.



Make sure you unscrew the cable from the sensor when removing the chute.

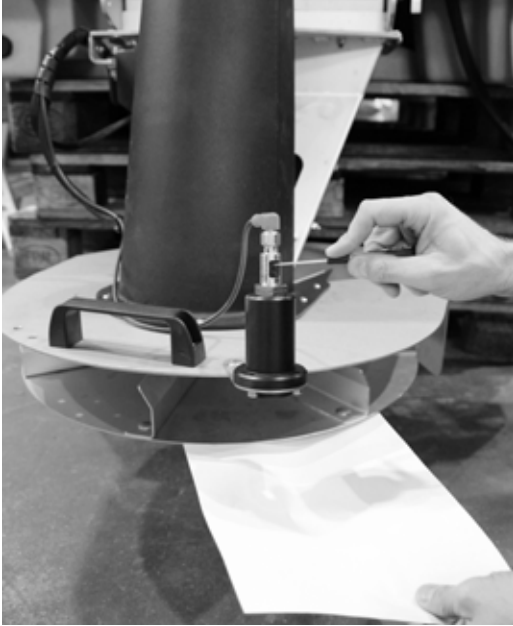


When there is no material coming out from the spinner, you see the message “spreader empty” on the controller. The message disappears when material is coming out from the spinner.

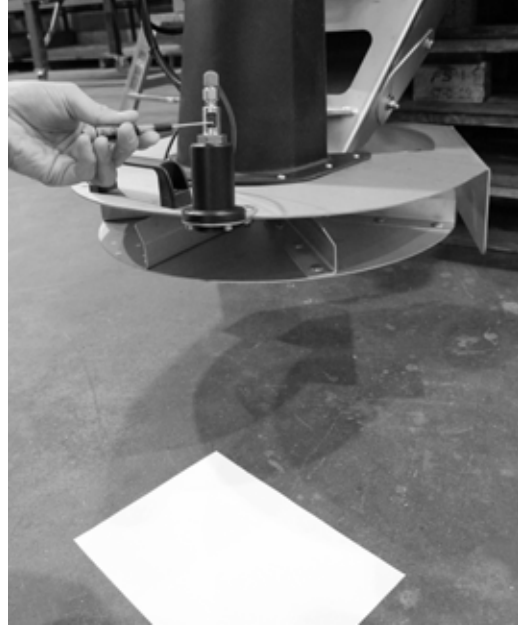
## Calibration of end of material sensor

If EOM sensor is not working properly, do a new calibration.

### How to calibrate:



1. Hold a piece of white paper at the same height as the spinner assembly and press the upper button until the orange led light starts to flash.



2. Put the white paper on the ground and press the lower button once. Now the led light is constant orange and the sensor is calibrated.

## Electrical installation of end of material sensor

Connect the sensor cable to the spreader module:

Blue - to ground terminal  
Black - to pin nr 29  
Brown - to pin nr 35

## Average material weights

Material	Weight (lb/ft³)	Weight (lb/yd³)	Weight (kg/m³)
Fine salt - dry	75	2024	1201
Coarse salt - dry	45	1215	721
Coarse sand - dry	100	2700	1602
Coarse sand - wet	120	3240	1922

Please see your local dealer for proper vehicle applications.



### **WARNING**

Do not overload your vehicle beyond GVWR or GAWR, overloading could result in accident or damage.



### **CAUTION**

These material weights are only guidelines, for more precise data, read and adhere to the manufacturer's ice-control material package labeling, including Material Safety Data sheet requirements.



## Removing the spreader



### CAUTION

Remove the spreader with a forklift with minimum 3300 lb lifting capacity. Make sure bystanders keep a safe distance.



### NOTE

The hopper should always be emptied before removing the spreader.



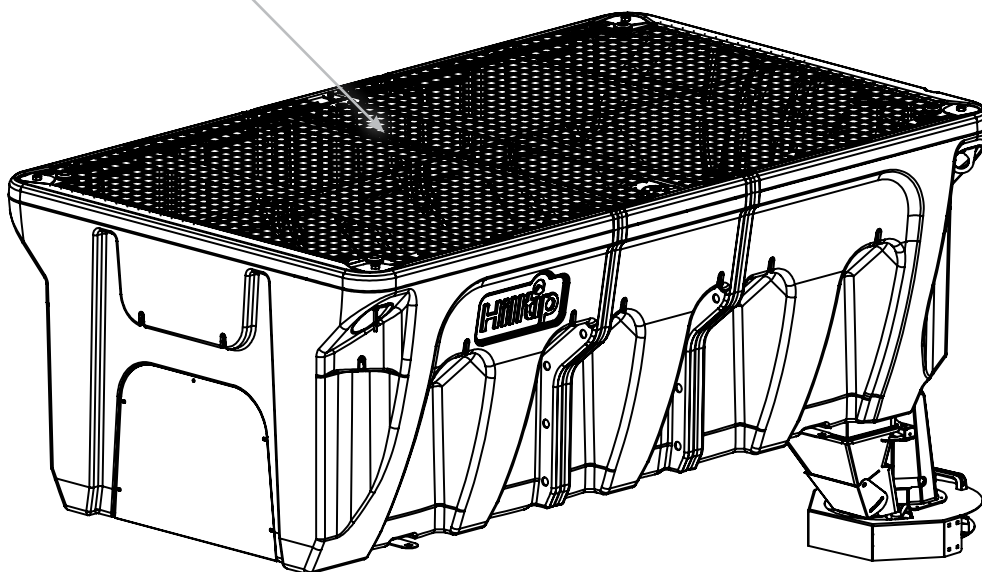
### NOTE

Always close hopper lid/ deploy tarp to avoid moisture buildup. Do not let spreader sit idle with material in the hopper for a long time.



### CAUTION

Do not lift spreader by this component. Lifting here could cause personal injury and material damage.





## Maintaining the spreader



### **WARNING**

Power should always be shut off before and during service or maintenance of the spreader.



### **WARNING**

Never remove spreader with material in hopper



### **NOTE**

You must follow all the steps in these maintenance checklist for warranty to be valid.



### **CAUTION**

- Do not operate a damaged spreader or a spreader in need of maintenance
- Spreader should be emptied and cleaned after each use. Left over material could freeze or solidify in the hopper causing the spreader to not work properly.

### Daily checklist

Empty the conveyor bottom plate.

### Periodical maintenance checklist (check weekly in high-season)

Clean the hopper carefully inside and out with water. Avoid spraying water into bearings, motor and electrical connections.

Check that all screws and fasteners are tight enough. If you notice any missing or damaged fasteners or other parts, replace immediately.

Check that all installations and parts are still securely fastened to the spreader assembly.

Apply dielectric grease on all electrical connections.

Lubricate grease fittings with a good quality multi purpose grease.

### Yearly maintenance checklist (e.g. before or after putting your spreader away for storage)

Clean the hopper carefully inside and out with water, before putting it in storage. Avoid spraying water into bearings, motor and electrical connections.

Clean and apply dielectric grease on all electrical plugs and connectors. Clean and install all dust caps before placing your spreader in storage

Lubricate grease fittings with a good quality multi purpose grease.

Check condition of bearings, replace if needed.

Cover the spreader with a tarp during storage, to protect it from sun fading and other weather conditions and circumstances.

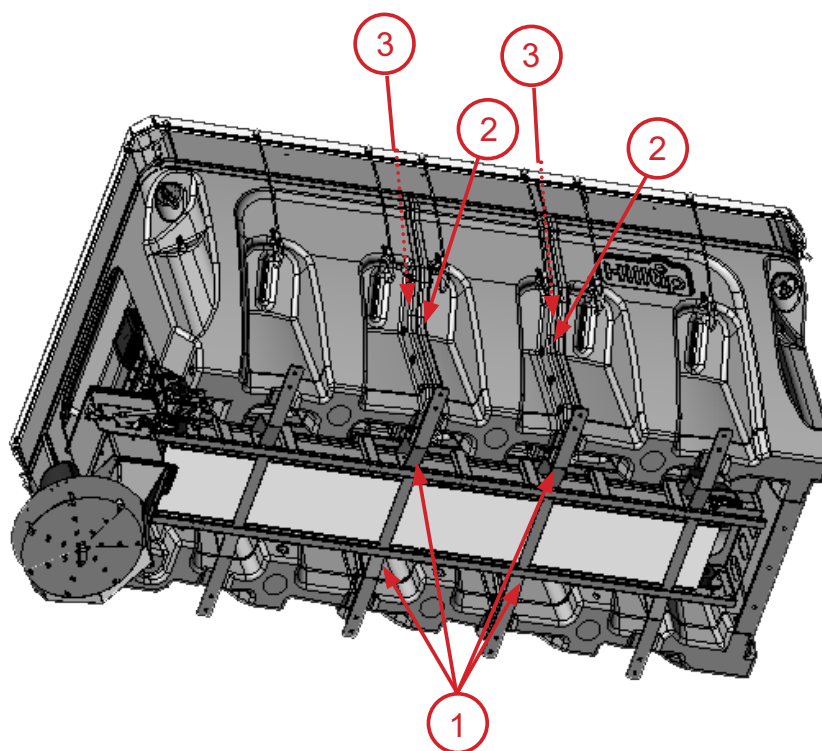
## Tighten all bolts that hold the modules together

All bolts that hold the modules together should be tightened seasonally. If the bolts have not been tightened regularly, the seal may come loose. If the seal has come loose, it must be put in place and after that the bolts should be tightened (25-30 Nm).

1. Place the spreader so that you can access the bolts under the spreader.
2. If the seal has come loose. Loosen the bolts and put the loose seal in place using e.g. a rubber mallet.

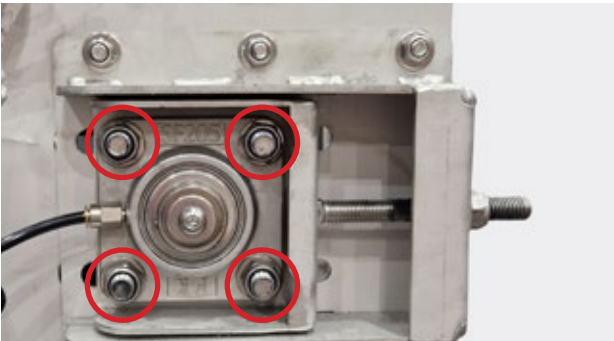


3. Tighten all bolts between 25 and 30 Nm. See the picture below where the bolts are located.

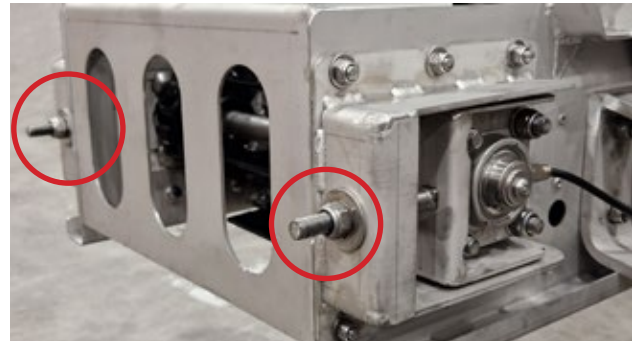


*The image shows where the bolts to be tightened are located*

## Chain tension adjustment

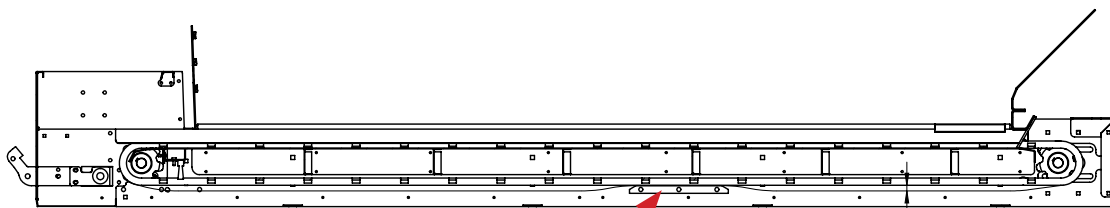
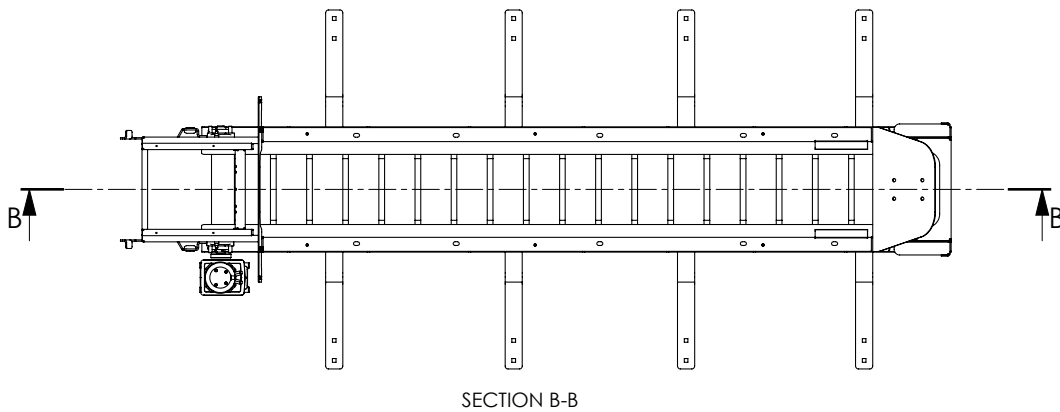


1. Loosen the bearing nuts before adjusting the chain tension.



2. Tighten the nuts to adjust the chain tension.

3. Retighten the bearing nuts.



Inspect chain plastic guides (H40448) for excessive wear and replace if necessary.

Chain tension should be adjusted so that slack is between 1/8-5/8" (3-15 mm).

## IMPORTANT:

It is strongly recommended and of great importance that you regularly apply dielectric grease on all electrical connectors and protect them with caps when not in use to prevent corrosion. While cables are connected, also connect matching caps to protect them from dirt and dust.



## Storage

Apply to these recommendations before placing your spreader in off-season storage to maintain it in a good condition.

- Cover your spreader using a tarp during storage periods
- Apply a protective compound such as dielectric grease on all electrical connectors and use caps for protection before storage.
- Disconnect and remove the control unit from your vehicle. Store it in a dry and cool place, and protect it from heat and moisture.
- Empty the hopper, remove all kinds of debris and clean the hopper from dirt before storage.
- Protect the hopper from excessive heat during storage periods.

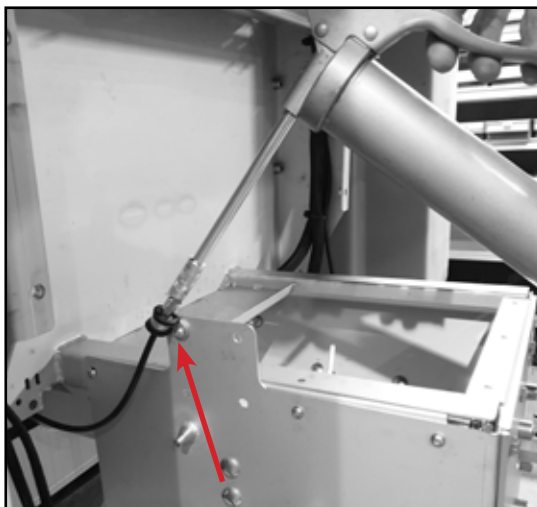
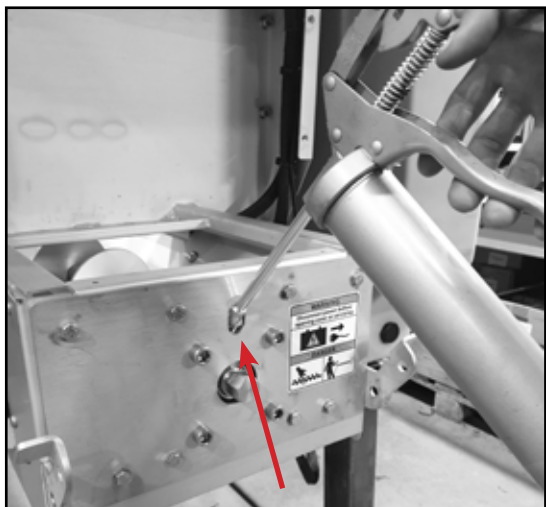
## Optional liquid system

The liquid tank should always be emptied after each use (turn the red handle). Also empty the filter. If liquids are left in the tank for an extended period of time, it may freeze and cause damage to your spreader. Also make sure to clean the filter regularly.

## Greasing points

Grease fittings should be lubricated approximately every 20 operating hours.

## Auger greasing points



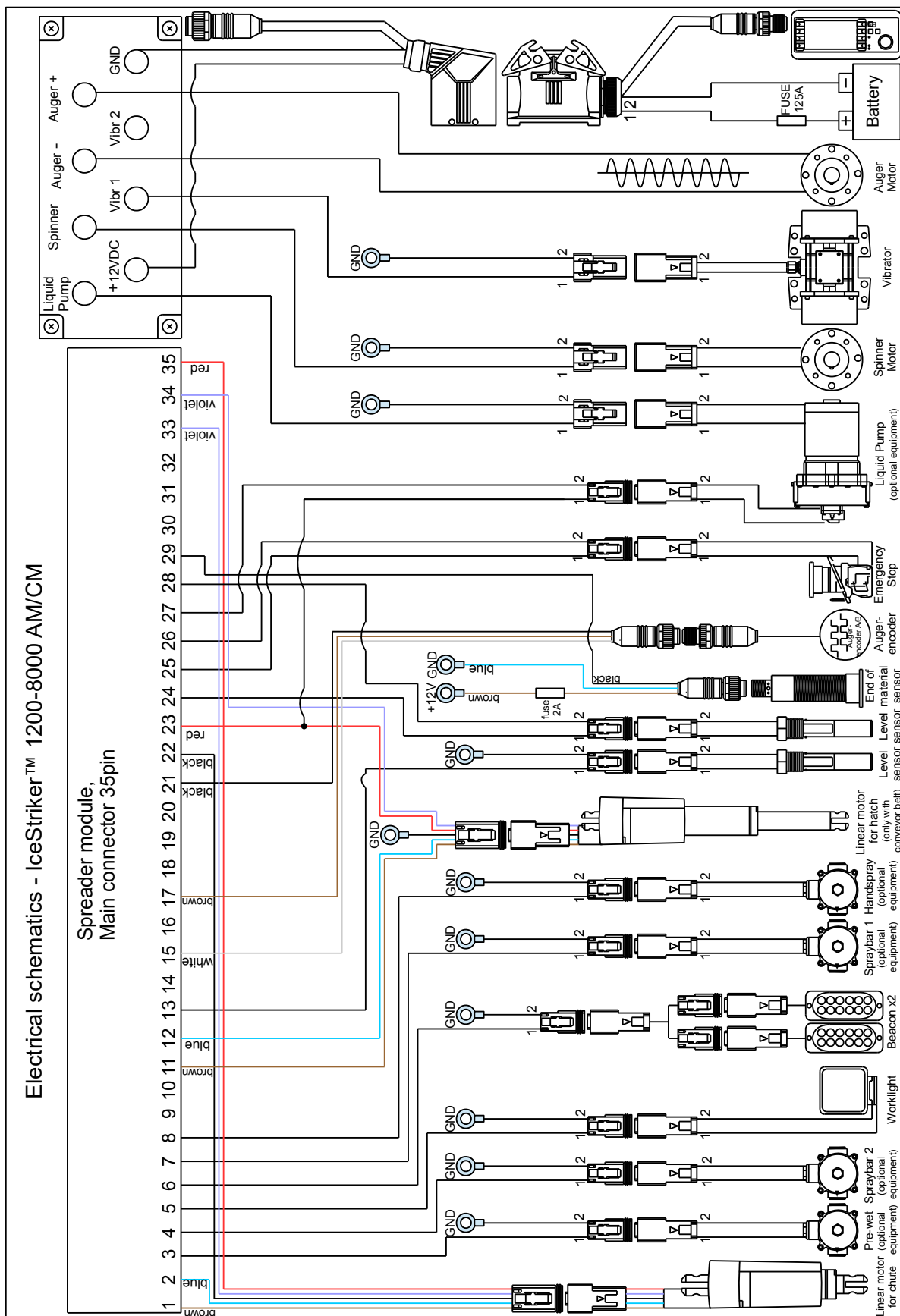
## Product EOL (End Of Life)



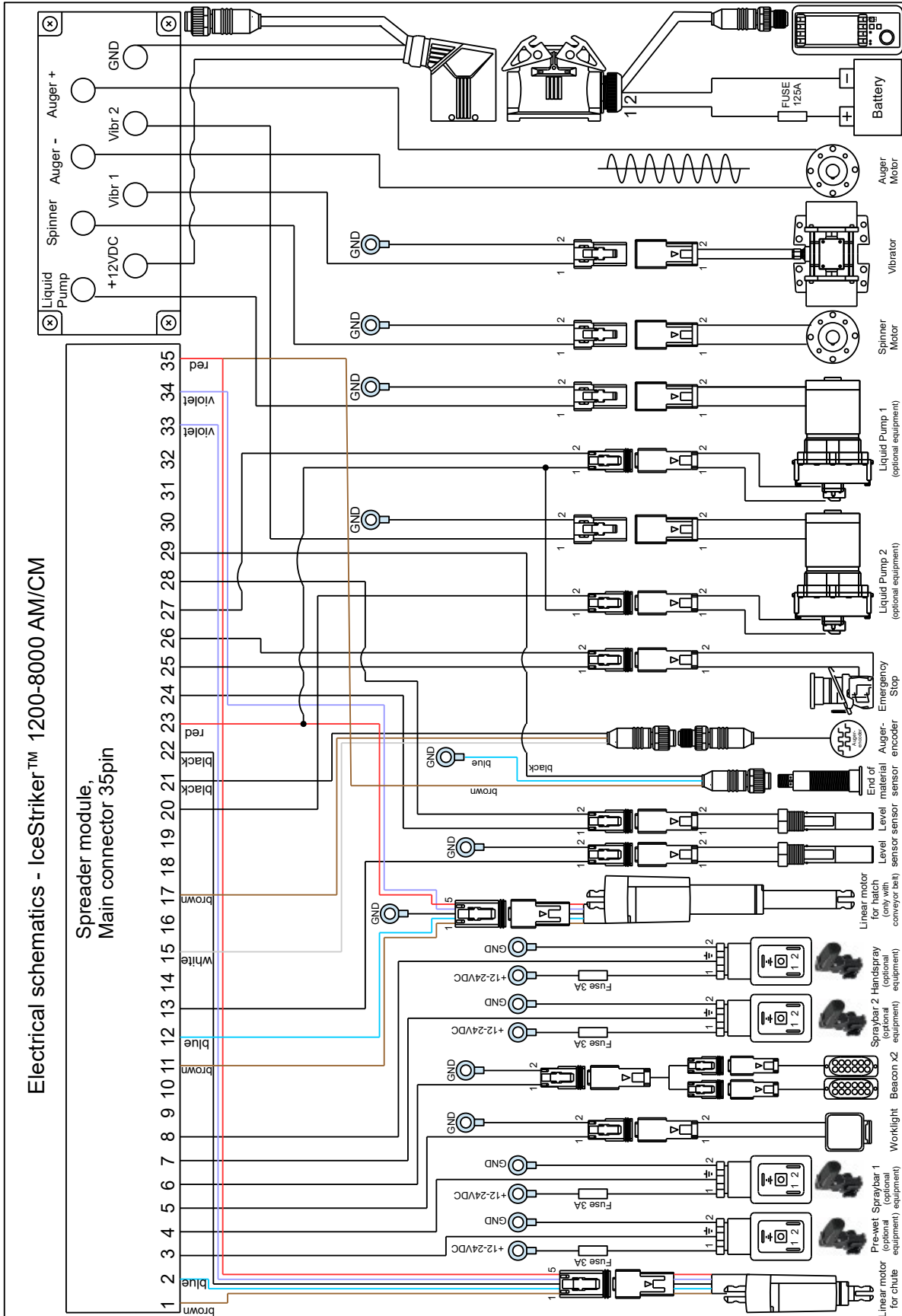
The body of this product is made of **LLDPE plastic**, a **100% recyclable** material.

For proper disposal, please contact your local recycling center for further instructions or advice.

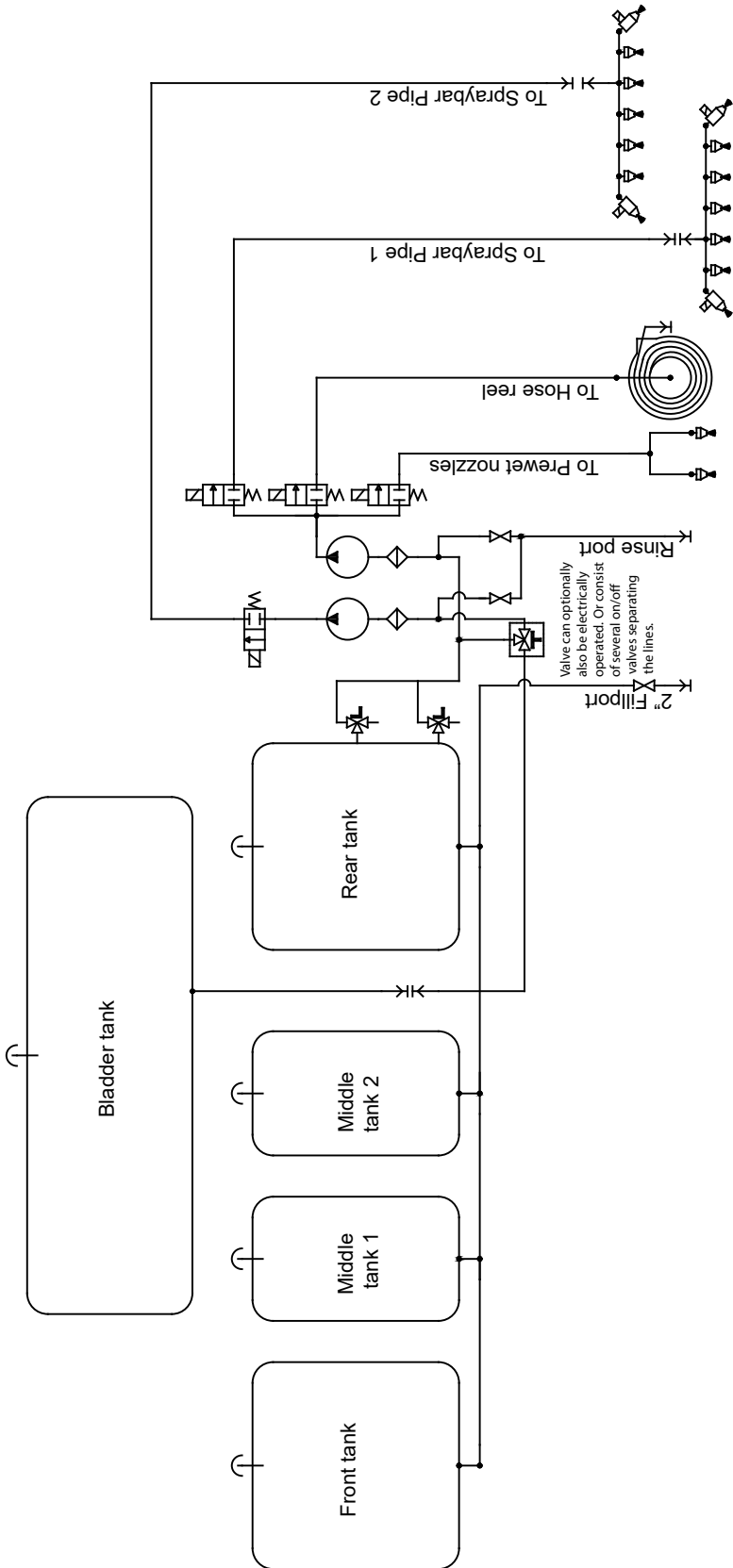
**NOTE!** Non-Current production model, serial number up to → XXXXX.20220519.010583



**NOTE!** Current production model, serial number starting from XXXXX.20220519.010584 →



FLUID SCHEMATICS





## WARRANTY INFORMATION

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*This warranty replaces all previous warranties*

### **Warranty**

This Limited Warranty applies to the IceStriker™ spreader, its spare parts and additional equipment (from now on referred to as the "product"), purchased from Hilltip or an authorized dealer.

### **What does this limited warranty cover?**

This Limited Warranty covers any defects in material or workmanship under normal use during the Warranty Period. During the Warranty Period, Hilltip, or an authorized dealer will repair or replace, at no charge, products or parts of a product that proves defective because of improper material or workmanship, under normal use and maintenance.

### **How long does the coverage last?**

The Warranty Period for the product purchased from Hilltip, or an authorized dealer is two (2) years from the date of purchase. The warranty period for a replacement part is one (1) year from the date of replacement or repair.

### **How to obtain warranty on your product?**

Make sure your dealer has registered your product. In order to obtain service under this warranty the product must be registered with the end user's contact details (name, address, e-mail address and phone number).

### **What does this limited warranty not cover?**

- Improperly installed parts.
- Damage caused by usage that is not in accordance with product instructions.
- Modification of the product, and/or the vehicle, is entirely at the purchaser's risk.
- This warranty does not include compensation for the drive to the service spot.
- Any damage in transit will be the responsibility of the carrier or at the risk of the purchaser.
- Hilltip will not provide replacement equipment or cover rental costs while your equipment is out of service.

This Limited Warranty does not cover any problem that is caused by:

- Misuse, neglect, accident, improper installation, maintenance or storage, or repair or alternation by anyone except Hilltip or an authorized dealer.

### **What do you have to do?**

To obtain warranty service, you must first contact us or your authorized dealer. The purchaser must notify Hilltip or an authorized dealer within ten (10) days after any defect in the product becomes known during the warranty period.

### **What will we do to correct problems?**

Hilltip, or an authorized dealer will repair or replace the part at no charge using either new or refurbished replacement parts.



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Construction, specifications and other details are subject to change without notice.