



HD STRINGER CART

SINGLE AXLE • TANDEM AXLE • 3-POINT

OPERATOR'S MANUAL

SERIAL NUMBER

Soil-Max, Inc. 2018
Rev A

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Warranty Policy

Soil-Max, Inc. stands by all new products with a 2-Year Limited Warranty from the warranty start date. Soil-Max will repair or replace at no charge any component of our system that fails during normal service within 2 years from the warranty start date.

The warranty start date is established upon receipt of the registration/warranty card indicating the End User's date of initial purchase of new product from an authorized Soil-Max dealer. Soil-Max reserves the right to request from the dealer proof of the date of purchase stated. If no registration is received, the warranty period will start on the date the product was shipped from Soil-Max.

Repaired, rebuilt, used or exchanged products will be warranted for a period of 90 days beginning the date the product was shipped from Soil-Max, or the remainder of the original warranty period, whichever is longer.

Warranty coverage is NOT provided for damage resulting from abuse, modification, neglect, accidents, vandalism, acts of nature or any cause that is outside of the normal, intended use of the Soil-Max HD Stringer Cart.

Soil-Max shall not be liable for indirect, incidental, or consequential damages to the Dealer, End User, or Third Parties arising from the sale, installation, or use of any Soil-Max product.

Soil-Max does not reimburse or compensate the Dealers or End User for labor, mileage, and loss of incidental expenses associated with service after the sale to perform upgrades, repairs, replacements, warranty claims or similar service related activities.

Soil-Max reserves the right to repair products that fail during the warranty period. Specifically, in the case where a product failure is reported after the product has been installed and used successfully for its intended purpose for any period of time.

CONVENTIONS USED IN THIS MANUAL

CAUTIONS AND WARNINGS

The operator's manual uses the following text formatting schemes to call attention to information related to simplifying system operation and proper operating practices to prevent accidental data loss. If in doubt about the results of performing an action or deleting an item from the system, back up all system files to the USB external drive prior to proceeding with the action.



DANGER: Indicates an immediate hazardous situation that, if not avoided, will result in death or serious injury.



WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.



CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in injury. It may also be used to alert against unsafe practices.

CAUTION: Indicates specific instructions to avoid accidental loss of data, system configurations settings, or property damage.

IMPORTANT: Indicates specific settings, calibrations, and procedures that must be followed for proper system performance and operation.

Note: Provides informative tips to assist with system setup, calibration, and operation.



Before using the Gold Digger drainage plow, call 811. You need to have a determination made as to whether or not any underground gas lines, electrical lines, fiber optic or normal phone lines, or any other underground object or condition exist in the area you will be running the plow. Have these thoroughly marked and maintain the recommended distance from these areas.

Soil-Max is not liable for any damages or injury which may result from contact with any above ground or underground object.



**Know what's below.
Call 811 before you dig.**

RECOGNIZE SAFETY INFORMATION



- This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.
- Follow recommended precautions and safe operating practices.

FOLLOW SAFETY INSTRUCTIONS



- Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your dealer.
- Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.
- Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.
- If you do not understand any part of this manual and need assistance, contact your dealer.

USE A SAFETY CHAIN



- A safety tow chain will help control the cart should it accidentally separate from the vehicle.
- Using the appropriate adapter parts, attach the chain to the anchor location. Provide only enough slack in the chain to permit turning.

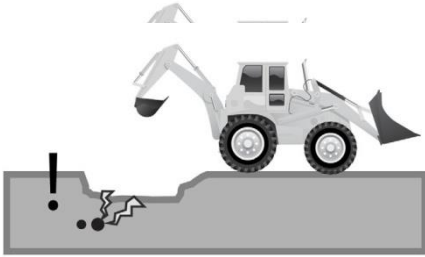
AVOID POWER LINES



- Serious injury or death can result if tractor, loader, cart or plow contacts electric lines.
- Check height clearance before raising cart or plow.
- Do not leave the operator's seat if any part of the cart or plow contacts power lines.

DIG SAFELY

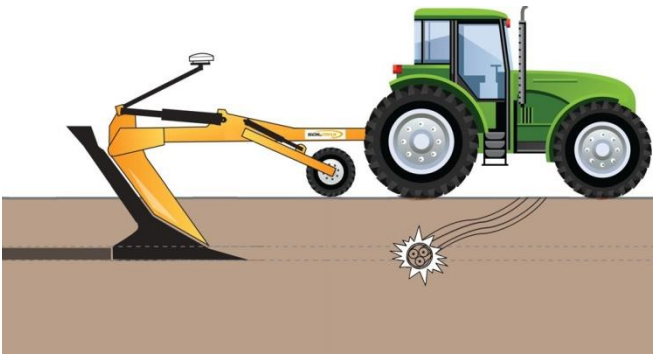
CALL 811 BEFORE YOU DIG!



- Before digging, check location of cables, gas lines, and water mains.
- Do not leave the operator's seat if any part of the plow contacts cables.

AVOID POWER LINES

CALL 811 BEFORE YOU DIG!



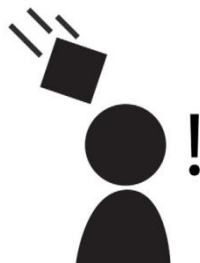
- Running the tile plow through gas, electric, or water lines can cause serious injury or death to you or others. Always contact local utility companies to mark off gas, electric and water lines prior to tiling a field.
- Locate Pipes And Cables Before Tiling.

REMOVE PAINT BEFORE WELDING OR HEATING



- Avoid potentially toxic fumes and dust.
 - Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.
 - Remove paint before heating:
 - Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
-
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
 - If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.
 - Do not use a chlorinated solvent in areas where welding will take place.
 - Do all work in an area that is well ventilated to carry toxic fumes and dust away.
 - Dispose of paint and solvent properly.

STORE ATTACHMENTS SAFELY



- Stored attachments can fall and cause serious injury or death.
- Securely store attachments to prevent falling. Keep playing children and bystanders away from storage area.

AVOID HIGH-PRESSURE FLUIDS



- Escaping fluid under pressure can penetrate the skin causing serious injury.
 - Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.
 - Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.
- If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

CHECK HOSES FOR DAMAGE

- Hydraulic hoses can fail due to physical damage, kinks, age and exposure.
- Check hoses regularly.
- Replace damaged hoses.

OBSERVE MAXIMUM TRANSPORT SPEED



- The maximum transport speed for the stringer cart is 48 km/h (30 mph). Some tractors are capable of operating at speeds that exceed the maximum transport speed of the stringer cart. Regardless of the maximum speed capability of the tractor being used, do not exceed the implement's maximum transport speed.

Exceeding the plow's maximum transport speed can result in:

- Loss of control of the tractor/implement combination
- Reduced or no ability to stop during braking
- Implement tire failure
- Damage to the carts structure or its components

Use additional caution and reduce speed when towing under adverse surface conditions, when turning, and when on inclines.

Do not transport the cart with a vehicle weighing less than 2/3 the weight of the cart. Only tow with a properly ballasted vehicle.

USE A SIGNAL PERSON



- Use a signal person to direct movement of the stringer cart whenever the tractor operator's view is obstructed.
- Designate one individual as THE signal person. Always have signal person stand in clear view. Be sure signal person stays a safe distance away from the machine when it is moving.
- Prior to using the stringer cart, discuss hand signals and what each signal means to avoid misunderstandings and confusion which could result in a serious injury or fatal accident for someone.
- Keep all bystanders away whenever the machine is moved.

HD STRINGER CART



Single Axle



Tandem Axle



3-Point

SERIAL NUMBER LOCATIONS

(LOCATE AND RECORD ON FRONT PAGE)

Pull Type

Serial Number Plate is located at the tongue of the cart as pictured.



3-Point

Serial Number Plate is located on the inside of the cart frame as pictured.



BEFORE USING STRINGER CART

**Attach Cart Hitch To Pull Vehicle Prior To Use
Not Doing So Could Result In Damage And Injury**

Open the toolbox that contains the hydraulic pump and motor.



You will need to first install a battery to power the hydraulic motor.
We recommend a deep cycle battery but a standard car battery will also work.

A battery is not supplied due to battery manufacturer's warranty.

NOTE: Using a tall battery will not allow you to use the supplied battery tie-down.

**Maximum Battery Height: 7.5 Inches
Maximum Battery Width: 9 Inches**

GREASE POINTS

IMPORTANT: INSPECT AND GREASE DAILY BEFORE USE

Caster Wheels

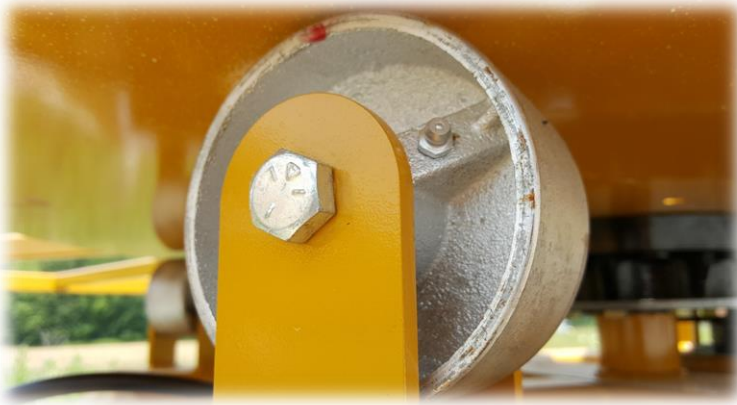


Table Pivots



Tandem Axle Spindles



GREASE POINTS CONTINUED

IMPORTANT: GREASE ANNUALLY

Wheel Bearings*



Main Table Hub**



* Requires removal of wheel and hub.

** Requires removal of cart table and hub.

HYDRAULIC CONTROLS (Pull Type Only)

The Soil-Max HD Cart comes equipped with an easy to use 2-Button Control Box with a 25 foot cable to control the lifting and lowering of the cart table as well as braking with the hydraulic caliper.



UP Button: Lifts cart table and applies brake simultaneously. You will press UP to raise the table back to load a tile roll.

DOWN Button: Lowers cart table. You will press DOWN when you have loaded the tile roll and are ready to lift the roll off of the ground and onto the cart.

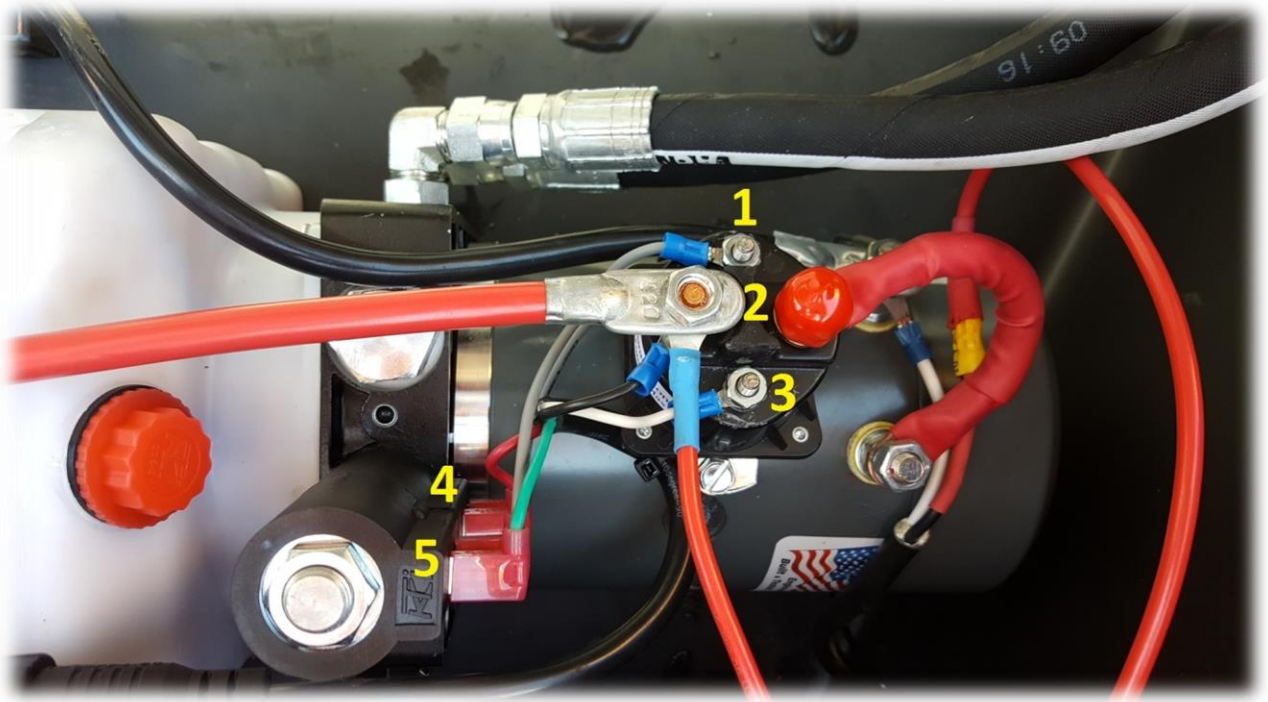
Wireless Remote Control (Optional)

As an optional upgrade, Soil-Max offers a Wireless Remote option that will allow users to control the lifting and lowering of the cart table as well as apply the brake as long as they are within a 300ft radius of the HD Cart.

This upgrade comes with 1 remote standard but additional remotes can be added if desired.



HYDRAULIC PUMP WIRING - WIRED REMOTE

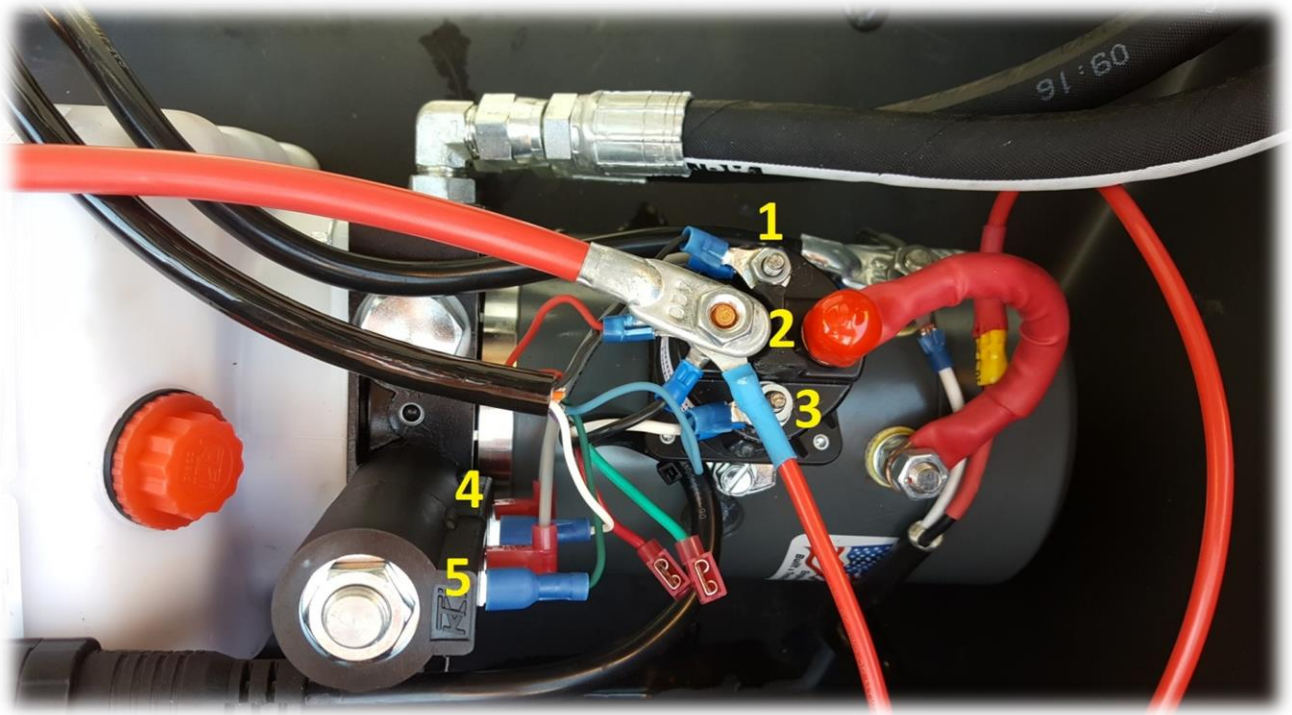


- 1. Gray – Ground
- 2. Red – 12v Power
- 3. White – Pump Start

COILS

- 4. Red – Down
- 5. Green – Up
(Gray – Ground)

HYDRAULIC PUMP WIRING - WIRELESS REMOTE



Wireless Remote Installation Instructions

1. Gray & Black – Ground
2. Red – 12v Power
3. White & Blue – Pump Start

COILS

4. White – Down
5. Green – Up
(Gray – Ground)

Note: The wired remote will not be usable when the wireless remote is installed as current back-feed could potentially damage the wireless receiver.

1. Unplug the Green Wire from the Pumps UP Coil and Connect the Green Wire from wiring harness.
2. Unplug the Red Wire from the Pumps DOWN Coil and Connect the White Wire from the wiring harness.
3. Connect the Blue Wire from the wiring harness to the post where the Small White Wire on the Pump Solenoid is attached.
4. Connect the Black Wire from the wiring harness to the post where the Small Gray Wire on the Pump Solenoid is attached.
5. Connect the Red Wire from the wiring harness to the post where the Red Battery Power Wire on the Pump Solenoid is attached.

BATTERY CHARGING MODULE (Pull Type Only)

The Soil-Max HD Stringer Cart will maintain your battery's charge during use with the pre-installed Trailer Battery Charging Module. (Pull Type with Hydraulic Unit Only)

NOTE: This requires that the 7-Pin Trailer Harness is connected to a properly wired trailer harness on the pull vehicle that has an output of at least 13.5 volts.



7-Pin Trailer Harness Wiring Diagram



STRINGER CART JACK STAND (Pull Type Only)

IN USE / TRANSPORT



STORAGE



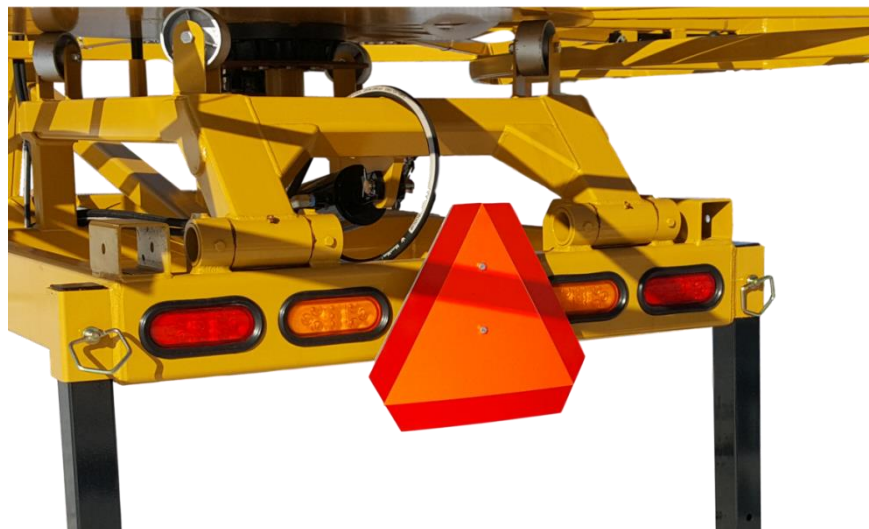
SAFETY & LIGHTING

For added safety both Pull-Type and 3-Point Soil-Max HD Carts are equipped with both Tail Lights and Turn Lights.

For these lights to properly function it is required that it is attached using a properly wired 7-Pin Trailer Harness (see page 16).

When transporting the cart on a road please have the Safety Triangle properly installed in the rear hitch as seen in the images below.

IMPORTANT: Remove the Safety Triangle if transporting cart on a trailer going over 30 MPH.



3- POINT HOOKUP



When hooking up a 3-Point Stringer Cart, make sure to use the proper pin locations and adjust your top and bottom arms so that the stringer cart is level.

Top Link Pin Locations

CAT 3 - Top Hole

CAT 2 - Middle/Bottom Hole



Bottom Link Pin Locations

Outer - CAT 3

Inner - CAT 2

FOLDING TABLE WING

Once you have the table locked to prevent it from spinning (see page 23), the next step is to fold in the table wing on the rear of the stringer cart. This is to give proper ground clearance while tilting the cart table all the way back to load or unload a tile roll.

First you must remove the safety pin from the locking lever. Slightly lift on the table wing and slide the locking lever back to allow the table wing to drop down.

Fold table wing back under the table and lock it into place with the locking lever and then reinsert the safety pin.

In Use



Loading/Unloading and Transport



Locking Bar in Locked Position



TILTING THE TABLE



Fold Table Wing(s) under before tilting Stringer Cart Table (See previous page)

WARNING
DO NOT TILT THE TABLE WITHOUT
FOLDING THE TABLE WING(S) FIRST!
YOU WILL DAMAGE THE TABLE



With the Table Wing(s) folded as shown you can now tilt the table back safely.

STRINGER CART SETUP

SPOOL STINGER



With the Table locked and the Wings folded under, tilt the table back as pictured to the left.

With a helper, lift and position the stinger on the center of the cart table and secure the stinger tube in place with one of the bolts using two washers and a nut.



Install the remaining bolts, washers and nuts to securely attach the stinger tube to the cart table.

LOADING TILE ROLL

Once you have completed the initial steps to prepare your Soil-Max HD Stringer Cart for use, you can now continue with the following steps to load your tile roll.

LOCKING THE TABLE

First you should lock the table using the lever and locking pin. This will keep the table from spinning. Spin the table to align the lock pin to the hole in the table. Lift the lock pin up and turn to lock pin in place.

UNLOCKED



LOCKED



WARNING: Not locking the table while lifting table could potentially damage the cart.

With the Stringer Cart attached to the pull vehicle, tilt the table back as pictured below.

If using a cart with Tractor Hydraulic control, use your tractors remotes to tilt the table back.

If using a Pull Type Cart equipped with a hydraulic power unit, press and hold the UP Button on the Control Box until the cart table is vertical and stinger is horizontal. This will allow you to insert the stinger tube into the tile roll.



Once the stinger is fully inserted into the tile roll, place the spool topper onto the end of the stinger as seen below.



Once the spool topper is inserted you can now begin lifting the tile roll by pressing the Down Button on the control box or by using the tractors remotes depending on how your cart is set up.



UNFOLDING TABLE WING

With the tile roll vertical you can now unfold the table wing(s) and lock them into place.

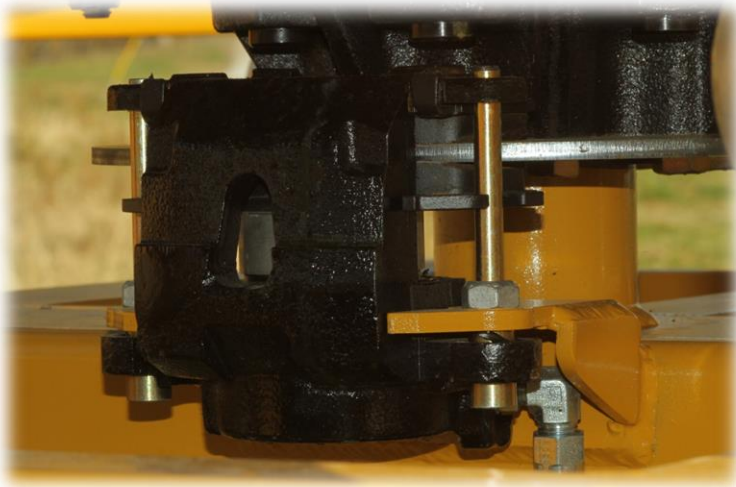
If using a 3-point cart, you may find it easier to accomplish this if you first unlock the table and rotate it so that the wings are on the sides (as shown in the pictures below).



HYDRAULIC BRAKE SYSTEM



The Soil-Max HD Stringer Cart is equipped with a braking system that consists of a hydraulic brake caliper, brake pads and brake rotor.



If replacement brake parts are needed, please contact your Soil-Max dealer to place your order.

NOTE: Once the tile roll is upright, if the table does not spin freely, Press the DOWN Button on the control box or lever on the tractor once more as this should release the pressure being applied to the brake caliper. However, there will be a slight drag caused by the brake caliper as this is normal and the nature of the brake caliper.

SPECIFICATIONS

HD Stringer Cart	HD Single Axle	HD Tandem Axle	HD 3pt
Width (Outside of Tires)	7' 6" (90")	8' 3" (99")	4' 3" (51")
Width (Outside of Table Fold)	8' (96")	8' (96")	8' (96")
Length	15' 8" (188")	15' 8" (188")	12' 3" (147")
Height (Top of Hay Rack)	5' 4" (64")	5' 4" (64")	5' 1" (61")
Height (Top of Big Wheel)	3' 7" (43")	3' 7" (43")	3' 6" (42")
Out from Table to Hitch	4' (48")	4' (48")	(10")
Weight (Aprox)	2,500 lbs	3,000 lbs	1,700 lbs
Tire Size	12.5" x 15	12.5" x 15	
Tire Pressure	38-40 PSI	38-40 PSI	

Hydraulic Fluid (Pull Type w/ Pump): AW-32 Non Foaming Fluid or ATF

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Soil-Max, Inc.
1201 S 1st St
Terre Haute, IN 47802
1-888-764-5629