

# Arena Ace

## 80117385

### THANK YOU FOR PURCHASING THIS PRODUCT

Behlen Country has been in the business of providing quality products for more than 80 years. Our products will provide many years of service when maintained by the owner and used in accordance with the capabilities of the product. For questions about this product, or for parts inquiries, please contact our Customer Service Center listed below.



**Behlen<sup>®</sup>**  
**COUNTRY**

### CUSTOMER SERVICE CENTER

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## SAFETY

**READ AND FOLLOW THE INSTRUCTIONS IN THIS MANUAL, ESPECIALLY IN THE SAFETY SECTION. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR DEATH.**



**THIS SYMBOL MEANS ATTENTION! BE ON THE ALERT! YOUR SAFETY IS INVOLVED!**

**TAKE NOTE! THIS SAFETY ALERT SYMBOL IS FOUND THROUGHOUT THIS MANUAL. THIS SYMBOL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS CONCERNING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS.**

### CRITICAL TERMS:

The critical terms **CAUTION**, **WARNING**, and **DANGER** are used with the safety messages in this manual and with each safety decal. They are defined as follows:



**CAUTION**



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



**WARNING**



**WARNING:** Indicates a potentially hazardous situation that, if not avoided, **MAY** result in serious injury or death, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



**DANGER**



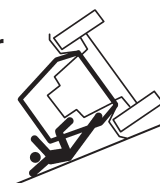
**DANGER:** Indicates an immediate hazardous situation that, if not avoided, **WILL** result in serious injury or death. This Critical Term is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

### EQUIPMENT SAFETY GUIDELINES

• Safety of the operator and bystanders is one of the main concerns in designing and developing a Arena Ace. However, every year accidents occur which could have been avoided by a few moments of thought and a

more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions and insist those working with or for you adhere to them.

- In order to provide a better view, certain illustrations in this manual may show an assembly with a safety guard removed. However, equipment should never be operated in this condition. Keep all guards in place. If guard removal becomes necessary for repairs, reinstall the guard prior to use.
- Heed all safety decals and replace any that are not legible or missing. The locations of such safety decals are indicated in this manual.
- Never operate this equipment while using alcoholic beverages or drugs that can hinder alertness or coordination. Consult your doctor about operating this machine while taking prescription medications.
- Under no circumstances should children under the age of 18 be allowed to work with or around this equipment. Do not allow anyone to operate or assemble this equipment until they have read this manual and have developed a thorough understanding of the safety precautions and operation. Review safety instructions with all users often.
- This equipment is dangerous to anyone unfamiliar with its operation. The owner/operator is responsible for reading and following all of the instructions in the manual. The operator should be a responsible, properly qualified and physically able person familiar with farm machinery and competent in this equipment's operation.
- Never exceed the limits of a piece of machinery. If its ability to do a job, in a safe manner, is in question - **DON'T TRY IT.**
- Use a tractor equipped with a Roll Over Protective System (ROPS) and seat belts. Only properly trained people should operate this machine. Always stop the PTO, set break, shut off the tractor engine, remove the tractor key, and allow implement to come to a complete stop before dismounting tractor. **Never leave equipment unattended with tractor running.**



## BEFORE YOU START!!

Read the safety messages on the implement and as shown in the manual. Observe the rules of safety and common sense!

### Important Safety Information

Working with unfamiliar equipment can lead to careless injuries. Read this manual and the manual for your tractor before assembly or operating, to acquaint yourself with both machines. It is the Owner/Operator's responsibility, if this machine is used by any person other than yourself, or is loaned or rented, to make certain prior to operating:

1. The operator's manual is read and understood.
2. Safety issues are understood and followed, and proper usage is understood.

The use of this equipment is subject to certain hazards which cannot be protected against by mechanical means or product design. All operators of this equipment must read and understand this entire manual, paying particular attention to safety and operating instructions, prior to use. If there is something in this manual you do not understand, ask your dealer or manufacturer, to explain it to you. Improper use can occur on machines that are loaned out or rented to someone who has not read the owner's manual and is not familiar with the Arena Ace.



### CAUTION - For safe operation, read rules and instructions carefully.

The following safety precautions should be thoroughly understood before attempting to begin the assembly of this machine.

1. Select an area for assembly that is clean and free of debris which might cause persons working on the assembly to trip.
2. Preview the assembly instructions in your operator's manual before proceeding further.
3. If the assembly instructions call for parts or assemblies to be blocked up, use only blocking material that is in good condition and is capable of handling the weight of the assembly to be blocked. Also insure that the blocking material is on a clean, dry surface.

4. NEVER put hands, or any part of the body, under blocked up assemblies if at all possible.
5. After completing assembly, thoroughly inspect the implement to be sure that all nuts, bolts, or any other fastened assemblies have been thoroughly tightened.
6. Before operating the Arena Ace, thoroughly READ and UNDERSTAND the operation section of your operator's manual.
7. Before operating, READ the maintenance section of your operator's manual to be sure that any parts requiring lubrication are serviced to avoid any possible damage.
8. Before operating equipment - If you have any questions regarding the proper assembly or operation, contact your Behlen Country dealer or representative.

### Safety Information



This Arena Ace was designed for one-man operation from the tractor seat.

Most accidents occur because of neglect or carelessness. It is the responsibility of the operator to see that no one is within twenty-five feet (25') of the Arena Ace when it is in operation. Do not operate the implement with another person near, or in contact with, any part of the Arena Ace. Serious personal injury or death may result if any attempt is made to assist operation by hand.

Please remember it is important that you read and heed the safety decals on the Arena Ace, and the safety rules set forth herein. Clean or replace all safety stickers if they cannot be clearly read and understood. They are there for your safety as well as the safety of others. The safe use of this implement is strictly up to you, the operator.



**All things with moving parts** are potentially hazardous. There is no substitute for a cautious, safety-minded operator who recognizes potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached, to minimize the chance of accidents. Study this manual to make sure you have all the safety equipment attached.



**When maneuvering close to buildings** or passing through narrow areas, be sure to allow sufficient clearance for the implement and tractor. NEVER operate tractor and implement under trees with low hanging limbs. Operators can be knocked off tractor and run over by the implement.



**This Arena Ace** is only designed for speeds less than 8 mph. Reduce speed on rough surfaces.



**When the use of hand tools is required** to perform any part of assembly, installation, adjustment, maintenance, repairing, removal or moving the S-Tine, be sure the tools used are designed and recommended by the tool manufacturer for that specific task.



**Personal protection equipment** including hard hats, safety glasses, safety shoes, and gloves are recommended during assembly, installation, operation, adjustments, maintenance, repairing, removal, or moving the Arena Ace.



**Always use two people** to handle heavy, unwieldy components moving the Arena Ace.

**Never place any part of your body** where it would be in danger, if movement should occur during assembly, operation, maintenance, repairing, or moving the Arena Ace.



**Never place yourself** between the tractor and Arena Ace while implement is in operation.

**A heavy load** can cause instability of the tractor.



Use extreme care during travel. Slow down on turns and watch out for bumps.

The tractor may need front counterweights to counter-balance the weight of the Arena Ace.

**Never use alcoholic beverages or drugs** which can hinder alertness or coordination while operating this equipment. Consult your doctor about operating this machine while taking prescription and some over-the-counter medications.



**DO NOT ALLOW RIDERS** on the Arena Ace or tractor at any time. There is NO safe place for any riders. **NEVER ALLOW CHILDREN TO OPERATE IMPLEMENT OR BE AROUND SHARP EDGES.**



**Before you operate the Arena Ace**, check over all pins, bolts and connections to be sure all are securely in place. Replace any damaged or worn parts immediately.



**Consult local utility companies** to make certain there are no buried gas lines, electrical cables, etc., in the work area before beginning operation.



**Do NOT allow anyone** who is not familiar with the safety rules and operation instructions to use this Arena Ace.



**Never replace any bolt** with any length other than what is specified in this manual. A longer, or protruding fastener is more likely to grab loose clothing or gloves which can result in serious injury or death.



**Watch for** hidden hazards on the surface during operation.



**Turn curves** or go up or down hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the tractor's weight is on the front wheels to maintain safe steering. Slow down on rough or uneven surfaces.



**Check that all hardware** is properly installed. Always tighten all bolts to proper torque. Make sure attachment is properly secured, adjusted and in good operating condition.



**Where replacement parts are necessary** for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. The manufacturer will not be responsible for the use of unapproved parts and/or accessories and the damages that can result in their use.



**Keep alert and watch** the front as well as the rear when working with equipment. **DO NOT** operate close to ditches or creeks.



**Make adjustments to implement** only when it is attached to a tractor and blocked up. Always keep all persons and children away from area when performing adjustments, service or maintenance. Worn edges can seriously affect the Arena Ace's operation. Check for wear before each use and replace as necessary.





**Know your controls** and how to stop your tractor, engine, and implement quickly in an emergency.

**Do not operate** the Arena Ace without checking that all movable parts are in good working order. Always use care when operating the Arena Ace.



## Instructions

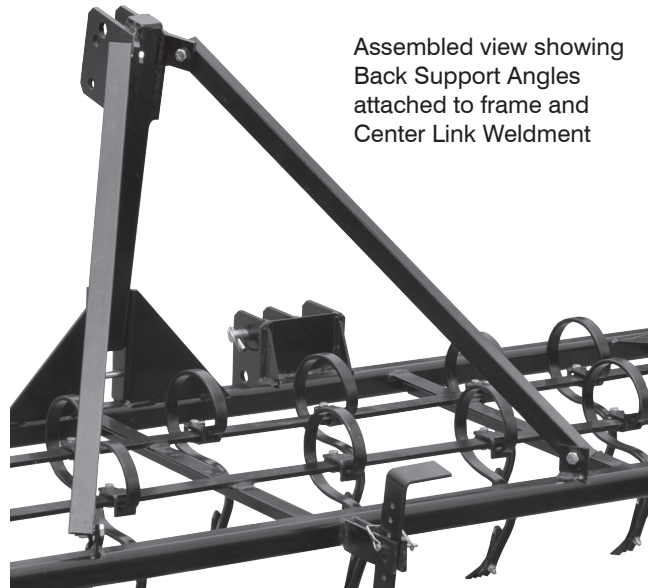
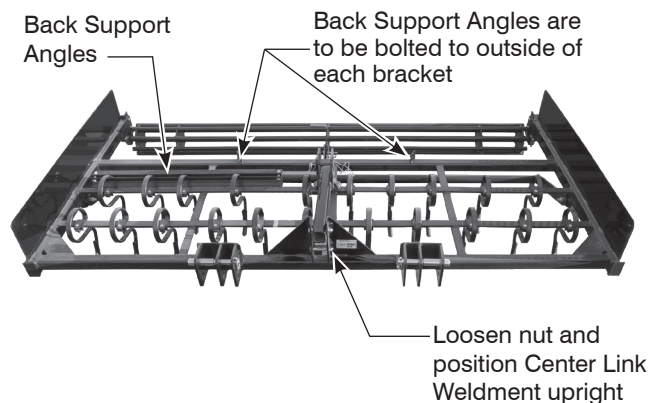
### Tractor Requirements and Assembly

The Arena Ace is designed to fit Category 1 & 2 tractors equipped with a standard 3-Point hitch.

Check the tractor's 3-Point hydraulic lift system. It should operate up and down smoothly and have enough power to lift the Arena Ace. Refer to your tractor's operators manual or dealer for any adjustments necessary to put the 3-Point hydraulic lift system in good working order. (I&T shop manuals will list most specifications and adjustment instructions - available from most farm equipment dealers).

Smaller size tractors may need front counter weights to counter-balance the weight of the Arena Ace. It is recommended that the tractor be equipped with a Rollover Protection System (ROPS) and a seat belt that is used.

**NOTE:** The Arena Ace is shipped with the Back Support Angles bolted to the Arena Ace frame. They must be disassembled and one end attached to the outside of each of the angled brackets on the frame as shown. The nut holding the Center Link Weldment to the frame will need to be unbolted and the Center Link Weldment put in an upright position. The Back Support Angles will need to be bolted to the outside of the angled brackets on each side of the Center Link Weldment as shown (above right).



Assembled view showing Back Support Angles attached to frame and Center Link Weldment

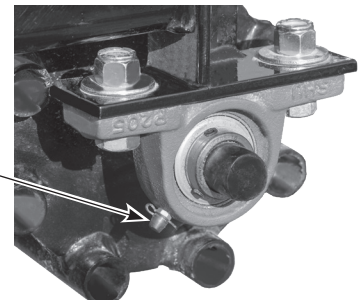
### Lubrication

The pillow block bearing units are factory pre-lubricated but still do require supplemental grease before service life begins.

Re-lubrication, when administered correctly, can substantially increase the life of a bearing. It is recommended that all these bearings be greased daily to weekly, depending on the conditions that the Arena Ace is exposed to.

**NOTE:** Over lubrication is a major cause of bearing failures, so re-lubricate conservatively. When selecting a bearing lubrication, use any lithium based NLGI #2 grease.

Lubricate Pillow Block Bearing at Grease Zerk on either end of the implement.



**CAUTION**



**A heavy load can cause instability in driving a tractor. Make sure the front of the tractor is properly counter-balanced with weights. Always drive slowly, especially around turns. An unstable tractor could steer badly and possibly tip over, causing injury or death.**

## Mounting

1. Back tractor up to the Arena Ace making sure that the lift arms of tractor are on the outside of the lift points on the Arena Ace.
2. Slide lifting arms of tractor over lift pins on the Arena Ace.
3. Use lynch pins to secure implement to the tractor.
4. Connect top link (customer supplied) from the tractor to the top center lifting point of the Arena Ace and insert hitch pin.
5. Make any adjustments necessary to level the implement from side to side.



**NEVER use the Arena Ace in reverse. The Arena Ace is not built to operate in this position and will void all warranties.**

## Preparation Procedure

- Thoroughly read and understand your Operator's Manuals.
- Before beginning operation, contact your local utility company to make certain there are no gas lines, electrical cables, etc., in the work area.
- Check for any obstacles that could cause the tractor to roll.
- Be sure tractor tires and rims are in good condition. Inflate tires to proper air pressure.
- All persons should be at least twenty-five feet (25') away during operation. Clear the area of helpers, bystanders, and especially children.
- Do NOT allow anyone to stand between the 3 Point hitch and the Arena Ace.
- It is only recommended that tractors with wide front axles use the Arena Ace. Tricycle front wheel arrangements are inherently unstable and can cause rollover accidents.
- Make sure all safety stickers are installed and in good condition. Replace if damaged.

- Do NOT allow riders. There is no safe place for anyone to ride or sit on the tractor or implement.
- Check that all equipment is properly installed and securely attached to the tractor.

## Operation

**If you have any questions regarding the proper operation of this Arena Ace, contact your dealer or the manufacturer.**

It is the responsibility of the operator to see that no one else is within twenty-five feet (25') of the tractor when it is started.

- Raise or lower the Arena Ace to determine how much or how little material you would like to work with.
- The deeper you set the S-Tines, the slower you will need to go with your tractor and the more stress you put on the Arena Ace as well as the tractor. It is better to take less material and do it more times than to try to do it all in one pass.
- This unit is not made to push, only to be pulled. Pushing can damage the Top Link on the tractor as well as the tractor lift arms.
- Lower Arena Ace to the ground and start moving forward. Your speed will be determined by the condition of the soil. You may need to use less or more angle depending on the job.
- Speed of the tractor should not exceed 8 mph.
- Pass diagonally through sharp dips and avoid sharp drops to prevent "hanging up" the tractor and Arena Ace.
- Watch for hidden hazards on the terrain during operation.



**DO NOT TAKE A DITCH AT 90° (straight on)! Always go in at an angle or damage may occur.**



**The cutting edges of the Reversible Spikes are sharp. Exercise caution when working around or near the cutting edges. Failure to stay clear of the cutting edges can result in serious injury.**



## CAUTION



Before dismounting power unit or performing any adjustments to the Arena Ace, lower 3-Point hitch and all raised components to the ground, operate valve levers to release any hydraulic pressure, set parking break, stop engine, remove key and allow tractor to come to a complete stop before dismounting. Never leave equipment unattended with tractor running.

It is essential that everyone involved in the operation, transportation, maintenance, and storage of this equipment be aware, concerned, prudent and properly trained in safety.



## CAUTION



Stop IMMEDIATELY upon striking an obstruction. Turn off engine, remove key, inspect, and repair any damage before resuming operation. Never leave the seat of the tractor while engine is engaged.



## WARNING



Watch for hidden obstructions when operating the Arena Ace as damage to the unit can occur.

## Drag Patterns

Alternate the pattern in which you drag your arena with the Arena Ace to avoid issues with compaction or ruts and to help with evenly distributing footing on top of the arena base. Shown are some patterns in which to drag your arena to help with these issues. (Dependent on arena size.)

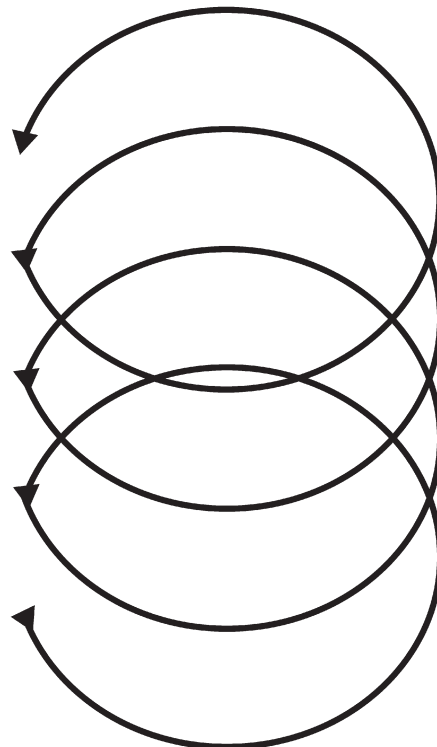
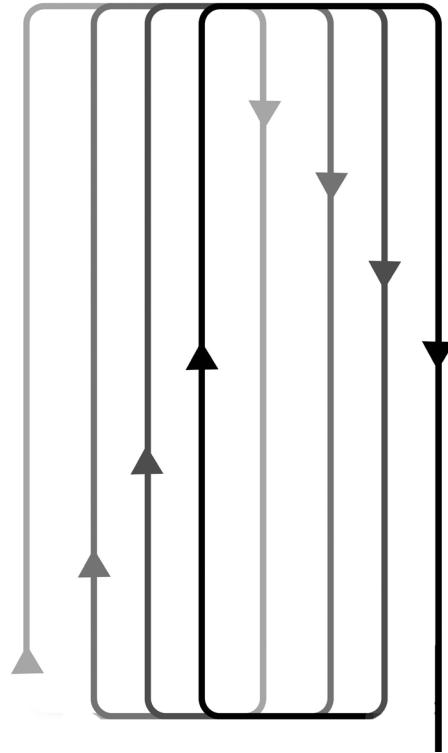
**Tip: Keep a consistent speed to prevent undulations or unevenness to your footing.**

**Tip: Drag your arena often. Ideally every day to keep consistent moisture throughout.**

**Tip: Drag thin or compacted spots more thoroughly than lesser used areas of the arena.**

**Tip for Standard Pattern: Change the direction of your pattern (Standard Pattern in Reverse) to work out hard or compacted spots.**

The spinning, circular pattern re-levels your arena if it has many undulations. **Tip: Do NOT do this pattern if you have a crown in your arena.** Dragging over the middle will remove the crown. Instead, do this pattern down one long side of the arena and then back up the other.



# Transportation Guidelines

When transporting, unit should be lifted as high as the tractor will allow being sure the unit is clear of the ground.

Care should be taken that at least 20% of tractor weight should be on the front tires. A safe speed should be maintained during transportation.

Tractor weight ballast may be needed to even out weight to maintain proper steering.

Do **NOT** lower unit to pavement, blacktop or gravel road while transporting. Damage to the unit can occur.

When transporting on roadways always use a Slow Moving Vehicle sign, and drive in a manner to allow other vehicles to pass you safely.



When traveling on public roads, whether at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. Comply with all federal, state, and local laws.

## Maintenance

Before servicing the Arena Ace, engage the parking break or place the transmission in “**PARK**”, shut off tractor, and remove key.

1. Maintain all safety and instruction decals attached to the Arena Ace. If they are lost, damaged, or painted over, order replacements from Behlen Country at 1-800-447-2751.
2. Keep unit clean to minimize rusting and wear.
3. Keep Reversible Spikes clean on S-Tine Shanks. Sharp cutting edges work easier and better. Check more often if working in rough soil conditions.
5. Replace worn or damaged parts immediately.
6. Check all bolts and nuts for tightness.
7. **NEVER** go underneath equipment. Never place any part of the body underneath equipment or between movable parts even when the engine is turned off. Servicing this Arena Ace does not require going underneath.

## Replacing Reversible Spikes

To service the Arena Ace when attached to the tractor, it must be blocked off the ground.

1. Place 4” x 4” blocks under each side frame of the Arena Ace.
2. Lower Arena Ace to rest securely on the blocks.
3. Remove the nuts and plow bolts from the S-Tine Shank and the Reversible Spike. Turn cutting edge over and use new edge, or replace it if both sides are worn out. The Reversible Spikes **MUST** be reversed and/or replaced as they wear to prevent damage to the S-Tine Shank.
4. Reattach Reversible Spike to the S-Tine Shank with plow bolt and hex nut previously removed, and tighten.

## Cleaning And Storage

### After Each Use

- Remove debris such as clumps of dirt, residue, etc. from S-Tine Shanks, Roller, and Depth Adjustment Bar.
- Inspect Arena Ace and replace worn, damaged or missing parts
- Replace any safety decals that are missing or not readable. Order replacements from Behlen Country at 1-800-447-2751.

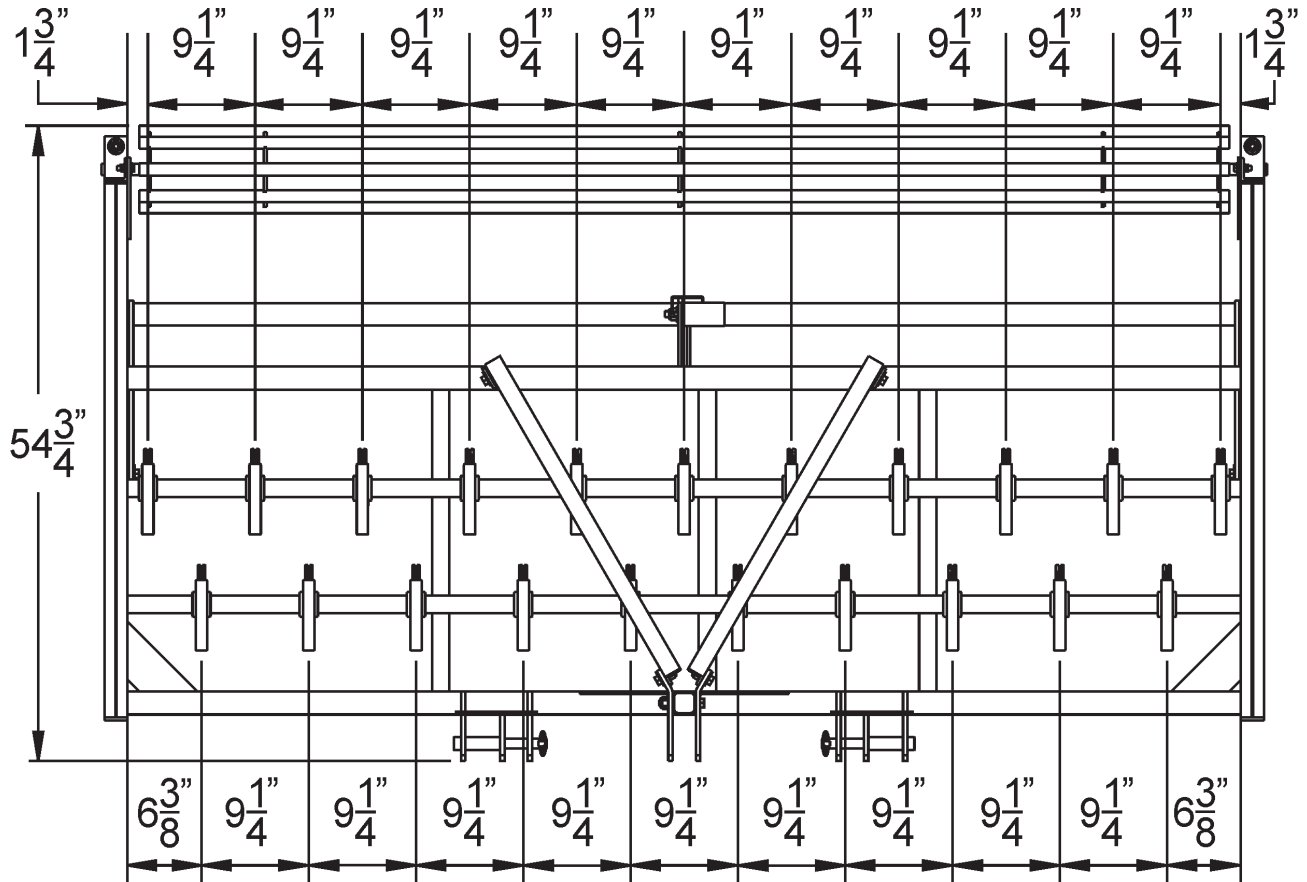
### Before Extended Storage

- Follow cleaning instructions from above.
- Wash implement using low-pressure water spray. Be careful when spraying near scratched or torn safety decals or near edges of decals as water spray can peel decals off surface.
- Spraying near chipped or scratched paint can also cause paint to peel more.
- Inspect implement for worn or damaged parts and replace any missing safety stickers.
- Sand down scratches and edges where paint is missing and repaint to prevent rust.



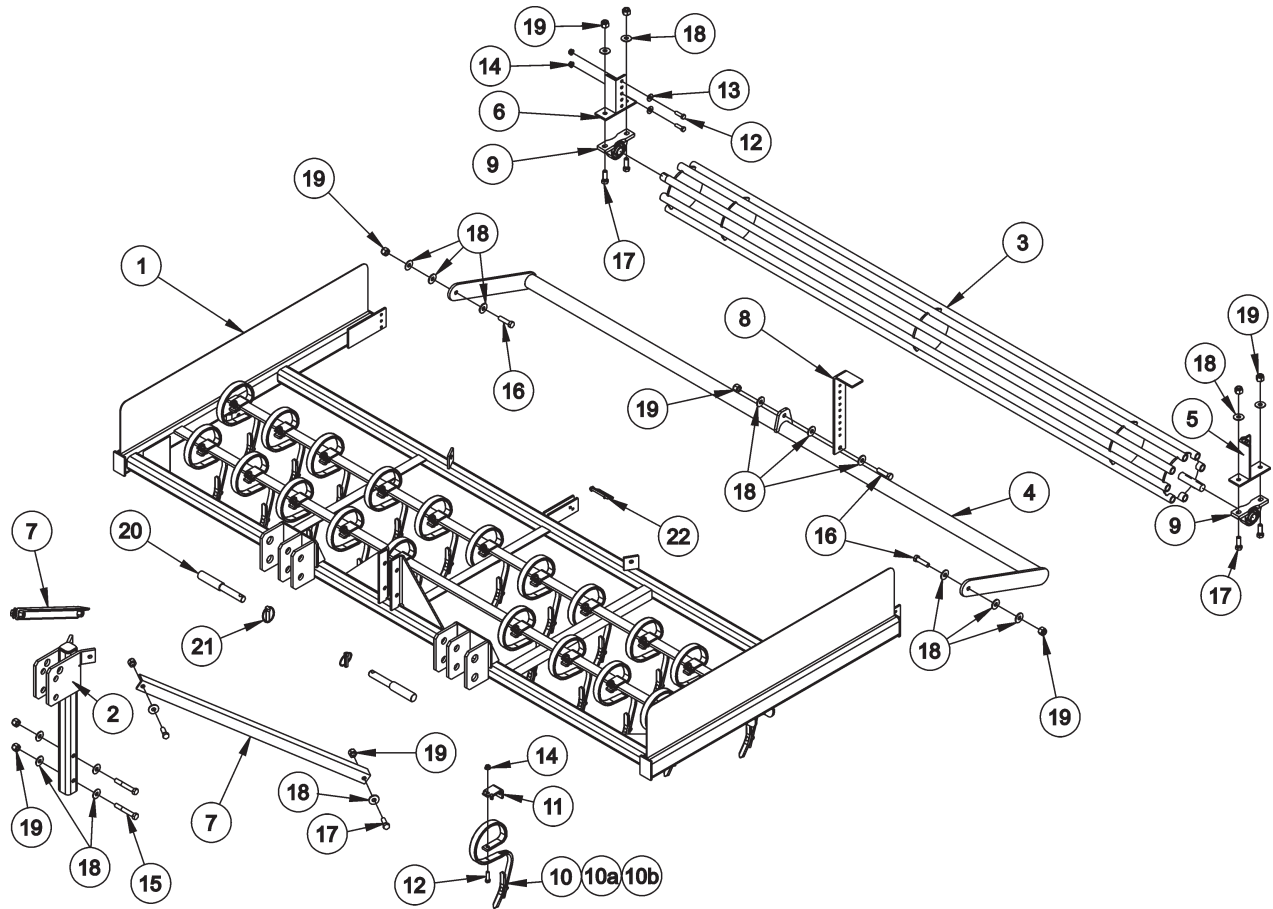
- Store the implement in a shed or under a tarpaulin to protect it from the weather. The implement should be resting on boards or some other object. Keep out of soil when storing.
- Store in a clean, dry place away from human activity or livestock.

Should the S-Tine Shanks ever need to be replaced, below are the dimensions for reinstalling them.



## WARRANTY

This unit carries a 1 year warranty, with the exception of wear parts. Dated proof of purchase required on all claims.



REF. NO.	PART NO.	DESCRIPTION	QTY.
1	80507385	AA Frame Weldment	1
2	80407405	AA Center Link Weldment	1
3	80407385	AA Roller Weldment	1
4	80407395	AA Depth Adjustment Bar Weldment	1
5	80407415	AA Bearing Plate LH	1
6	80407425	AA Bearing Plate RH	1
7	80609455	AA Back Support Angle	2
8	80609235	AA Adjustment Handle	1
9	1228011	UCP205-16 Pillow Block, 1"	2
10	3018550	S-Tine Shank, Complete Assembly	21
10a	3018551	S-Tine Reversible Spike	21
10b	3018581	CP1358G Silver Nut & Plow Bolt	21
11	3018552	S-Tine Clamp	21
12	3188143	Bolt, HHC 3/8" x 1 1/4" Gr 5 Plated	25
13	3948003	Washer, Wrought 3/8" Plated	4
14	2688220	Nut, Flange Whiz-Lock 3/8" ZP	25
15	3188352	Bolt, Hex 1/2"-13 x 3.5 Gr 5 ZP 5	2
16	HOOBOLTP044	Bolt, HHC 1/2" x 2" Gr 5 Plated	3
17	HOOBOLTP040	Bolt, HHC 1/2" x 1 1/2" Gr 5 Plated	8
18	3948002	Washer, 1/2" Std Wrought Pltd	21
19	2688138	Nut, Hex 1/2"-13 w/Nylon Insert Gr 5	13
20	3018393	Double Dia. Lift Arm Pin	2
21	3018427	Pin, Lynch 7/16" x 1 3/4" Plated	2
22	2868060	1/4" Dia. x 2.5" L 18-8S/S P795	1