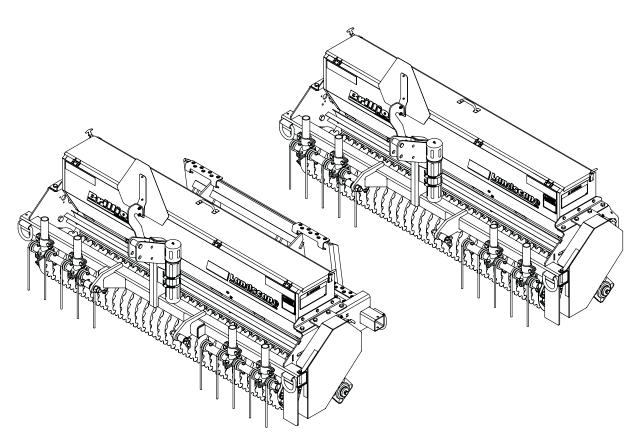


## Landscape Grass Seeder Models LSP5, LSP6 and LSS6 Operator's Manual



#### LANDOLL COMPANY, LLC

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## Manuals for Landscape Grass Seeder - LSP5, LSP6 and LSS6

Manual Number	Manual Type
7K458	Operator's Manual
7K457	Parts Manual

## **DANGER**

DO NOT operate or perform any maintenance tasks on this equipment until you have completed the following:

- 1. Receive proper training to operate this equipment safely.
- 2. Read and understand the operator's manual.
- 3. Be thoroughly trained on inspection and repair procedures.

Failure to comply with this warning may result in serious injury or possibly death.

## **Table of Contents**

1	Safety Information
	Introduction
	Description of Unit1-1
	Using this Manual
	Owner Assistance
	Warranty
	Safety
	Understanding Safety Statements
	Transporting Safety
	Safety Instructions for Towing Vehicles
	Attaching, Detaching, Storage1-3
	Maintenance Safety
	Protective Equipment
	Chemical Safety
	Prepare for Emergencies
	Safety Decals
2	Assembly
	Skid Steer Seeder Quick Attach Plate
	Agitator Installation
	Acre Meter Installation - Optional
	CAT2 Quick Hitch Adapter Kit - Optional
	Lift Sling Kit - Optional2-10
3	Operation
	Tractor Preparation - Attaching/Detaching
	SMV Position in Transport
	Skid Steer Preparation - Attaching/Detaching
	Skid Steer Seeder Quick Attach Plate
	General Operation
	Seed Rate Adjustment
	Seed Calibration Procedure
	Doubling the Seed Rate
	Track Remover Adjustment
	Loup Acre Meter Kit - Optional (After 05/15/2012)
	Loup Acre Meter Kit - Optional (Before 05/15/2012)
	Acre Meter Settings Charts 3-12
	Transporting the Seeder

#### **TABLE OF CONTENTS**

4	Maintenance
	General Torque Specifications
	Fasteners
	Lubrication
	Front and Rear Roller Adjustment
	Chain Tension
	Seed Box Slide Adjustment
	Acre Meter Troubleshooting
	Storage4-5
5	Specifications

ii 7K458-2311

## **Safety Information**

#### Introduction

The implement described in this manual has been designed with care and built by skilled workers using quality materials and processes. Proper assembly, maintenance and safe operation will allow this machine to provide you with satisfactory use for seasons to come.

## **A** DANGER

Read this entire manual before attempting to assemble, adjust or operate this machine. Failure to comply with this warning can result in personal injury or death, damage to the machine or its components and inferior operation.

### **Description of Unit**

LSP and LSS Seeders feature a Single Seed Box with openings 3" apart. Blade Agitators and adjustable slide, meters a wide variety of landscape seed varieties across the full width of the Seeder.

- 5FT Seed Box capacity is 3.75-bushel
- 6FT Seed Box capacity is 4.5-bushel

The Seeder is ground driven. Front and Rear Rollers have greaseable, flange style, self-aligning Bearings. 5FT and 6FT models offer an optional 9-1/2" Notched Rear Roller with Sprockets if more seed to soil contact is required. 6FT models, also offer an optional Front Spike Roller and Rear 11-1/2" Notched Heavy Roller with Sprockets.

LSP5 and LSP6 Models are equipped with 3-PT Hitch Category 1 and 2 Free Link and Category 1 Quick Coupler. Optional Category 2 Quick Coupler Adapter Kit is also available. LSS6 Model Skid Steer Quick-Attach Plate can be mounted on the front (skid steer pulls the Seeder) or rear (skid steer pushes the Seeder) of the Seeder. In addition, the front 3-PT Hitch may also be used.

Optional equipment include Acre Meter, Brush Agitators and Lift Sling.

### **Using this Manual**

This manual will familiarize you with safety, assembly, operation, adjustment, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

- The information in this manual is current at time of printing. Some parts may change to assure top performance.
- Location reference: Right and Left designations in this manual are determined by facing the direction the machine will travel during field operation, unless otherwise stated.

#### **Owner Assistance**

If customer service or repairs are needed, contact your Brillion dealer. Implement parts should only be replaced with Brillion parts. Have the Serial Number and complete Model Number available when ordering parts from your Brillion dealer. If items covered in this manual are not understood, contact your local Brillion dealer.

### Warranty

Brillion Farm Equipment, by Landoll, shall have no warranty obligation unless each product is registered, within 10 days of retail purchase, using the Landoll Company, LLC Ag Products on-line registration process. Please refer to the Ag Products Policy and Procedures Manual, accessible at <a href="https://www.landoll.com">www.landoll.com</a> for step by step instructions regarding product registration.

Enter your product information below for quick reference. Refer to the ID Plate as shown. **See Figure 1-1.** 

MODEL NUMBER

**SERIAL NUMBER** 

#### DATE OF PURCHASE



Figure 1-1: ID Plate

7K458-2311 1-1

## Safety

#### NOTE

Investigation has shown that nearly 1/3 of all farm accidents are caused by careless use of machinery. Insist that all people working with you or for you abide by all safety instructions.

## **Understanding Safety Statements**

You will find various types of safety information on the following pages and on the implement decals (signs) attached to the implement. This section explains their meaning.

#### **NOTICE**

Special notice - read and throughly understand.

## **!** CAUTION

Proceed with caution. Failure to heed caution may cause injury to person or damage product.

## **!** WARNING

Proceed with caution. Failure to heed warning <u>will</u> cause injury to person or damage product.

## DANGER

Proceed with extreme caution. Failure to heed notice will cause injury or death to person and/or damage product.

#### NOTE

You should read and understand the information contained in this manual and on the implement decals before you attempt to operate or maintain this equipment.

- Examine safety decals and be sure you have the correct safety decals for the implement.
   See Figure 1-2.
- · Order replacement decals through your Brillion dealer.
- Keep these signs clean so they can be observed readily. It is important to keep these decals cleaned more frequently than the implement. Wash with soap and water or a cleaning solution as required.
- Replace decals that become damaged or lost. Also, be sure that any new implement components installed during repair include decals which are assigned to them by the manufacturer.

 When applying decals to the implement, be sure to clean the surface to remove any dirt or residue. Where possible, sign placement should protect the sign from abrasion, damage, or obstruction from mud, dirt, oil

## **DANGER**

- Do not allow anyone to ride on the tractor or implement. Riders could be struck by foreign objects or thrown from the implement.
- Never allow children to operate equipment.
- Keep bystanders away from implement during operation.

### **Transporting Safety**

#### **IMPORTANT**

It is the responsibility of the owner/operator to comply with all state and local laws.

- When transporting the implement on a road or highway, use adequate warning symbols, reflectors, lights and slow moving vehicle sign as required. Slow moving tractors and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- Do not tow an implement that, when fully loaded, weighs more than 1.5 times the weight of the towing vehicle
- Carry reflectors or flags to mark the tractor and implement in case of breakdown on the road.
- Do not transport at speeds over 20 MPH under good conditions. Never travel at a speed which does not allow adequate control of steering and stopping. Reduce speed if towed load is not equipped with brakes.
- Avoid sudden stops or turns because the weight of the implement may cause the operator to lose control of the tractor.
- Use caution when towing behind articulated steering tractors; fast or sharp turns may cause the implement to shift sideways.
- Keep clear of overhead power lines and other obstructions when transporting. Know the transport height and width of your implement. See "Specifications" in Chapter 5.

1-2 7K458-2311

## Safety Instructions for Towing Vehicles

The maximum travel speed is the lesser of

- · The limit of the road conditions;
- The maximum specified ground speed;
  - for towing operations as indicated in this manual or SIS;
  - of the towed vehicle as indicated in its operator's manual, SIS, or information sign;
- The maximum ground speed of the towed equipment combination shall be limited to the lowest specified ground speed of any of the towed machines. This speed is the ground speed limitation.

**EXAMPLE:** If the tractor is capable of 25 mph, the first implement has a SIS for 19 mph, and the last implement's operator's manual states its specified ground speed is 15 mph, the towed equipment combination ground speed limitation is 15 mph.

### Attaching, Detaching, Storage

- Do not stand between the tractor/skid steer and implement when attaching or detaching implement unless both are not moving.
- Block implement so it will not roll when unhitched from the tractor/skid steer.

#### **Maintenance Safety**

- Block the implement so it will not roll when working on or under.
- Do not make adjustments or lubricate machine while it is in motion.
- Make sure all moving parts have stopped.
- Keep all guards in place. Replace any that become damaged.
- Understand the procedure before doing the work. Use proper tools and equipment.

### **Protective Equipment**

- Wear protective clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- Because prolonged exposure to loud noise can cause hearing impairment or hearing loss, wear suitable hearing protection, such as earmuffs or earplugs.

### **Chemical Safety**

Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil and property.

- Read chemical manufactures instructions and store or dispose of unused chemicals as specified. Handle chemicals with care and avoid inhaling smoke from any type of chemical fire.
- Store or dispose of unused chemicals as specified by the chemical manufacturer.

### **Prepare for Emergencies**

- Keep a First Aid Kit and Fire Extinguisher handy.
- Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.

7K458-2311 1-3

## **Safety Decals**





ITEM 2 - 8J310



ITEM 3 9J302



ITEM 8 - 7K343

A LANDOLL PRODUCT

ITEM 11 2P151

ITEM 5 528933



ITEM 6 528938



ITEM 9 - 193500

ITEM 9 - 4K036



ITEM 12 235624



ITEM 7 9J301



ITEM 13 1-573-010006



ITEM 10 - 247733



ITEM 10 - 8K487

Figure 1-2: Decals

1-4 7K458-2311

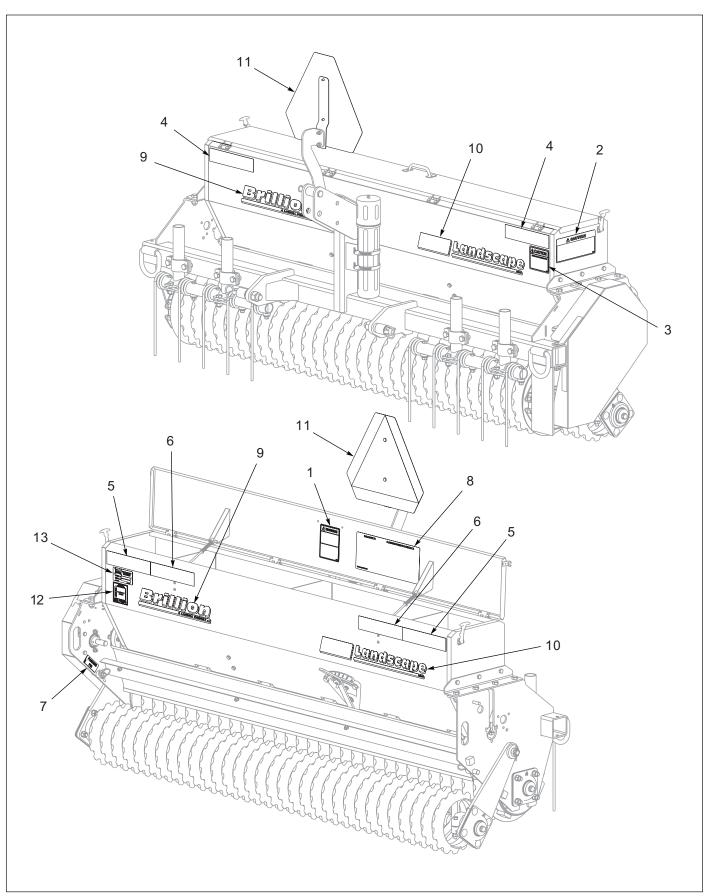


Figure 1-3: LSP Decal Locations (After 12/2023)

7K458-2311 1-5

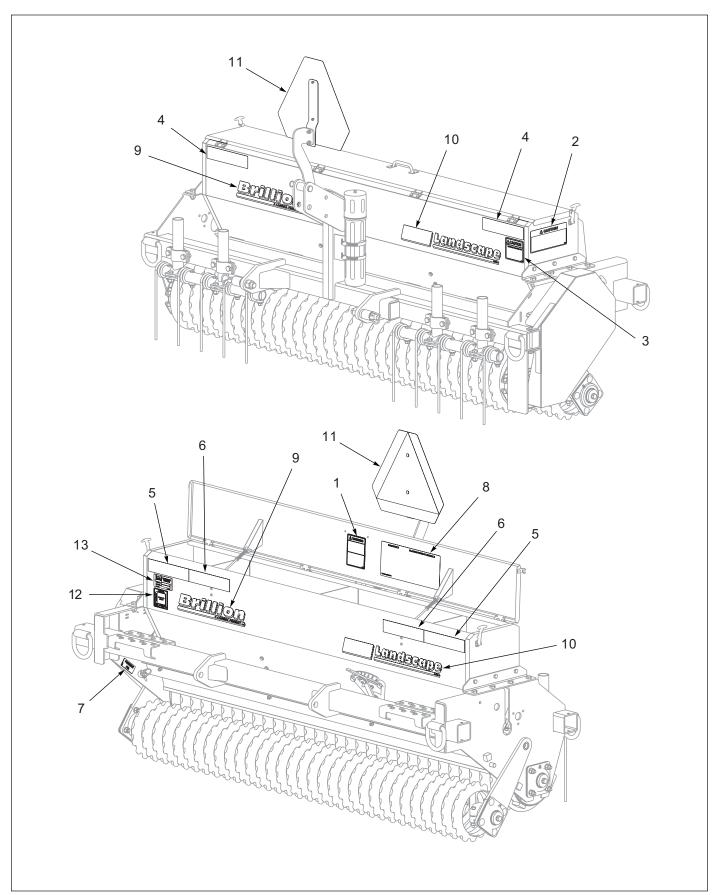


Figure 1-4: LSS6 Decal Locations (After 12/2023)

1-6 7K458-2311

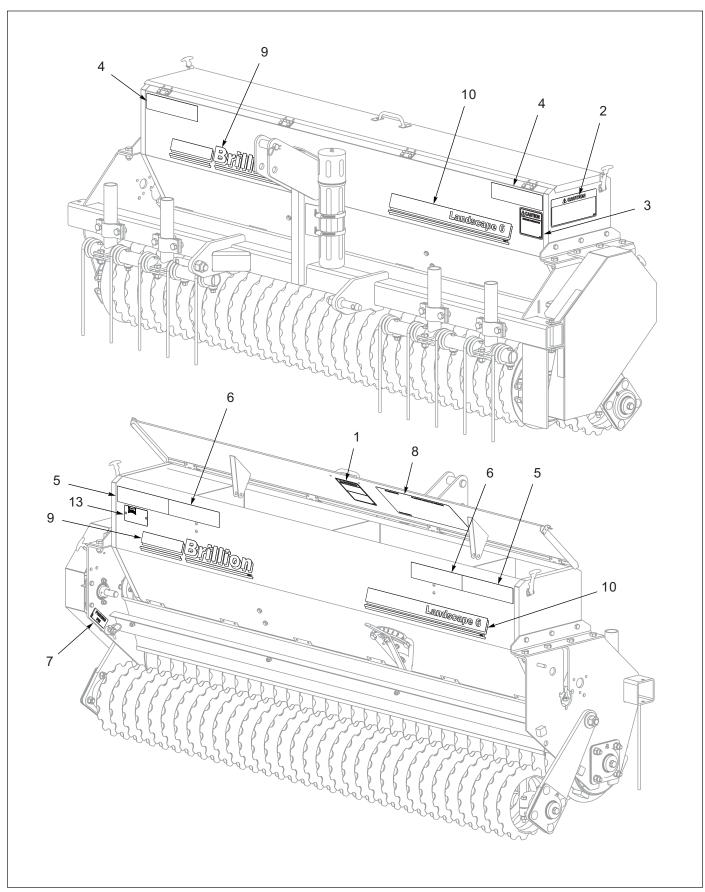


Figure 1-5: LSP Decal Locations (Before 12/2023)

7K458-2311 1-7

## **TABLE OF CONTENTS**

#### **SAFETY INFORMATION**

Table provided for general use. NOTES:

1-8 7K458-2311

## **Assembly**

The Seeder is shipped completely assembled. **See** Figure 2-1.

## **!** CAUTION

Do not work on or under this machine unless securely blocked and supported by a hoist or tractor or by other sufficient means.

## /! WARNING

Do not attempt to lift heavy parts manually. Use a hoist or a forklift to move these parts into position.

## DANGER

Never get out of Skid Steer by going under the boom and attachment.

#### NOTE

Refer to the repair parts manual 7K457 for identification of parts and for the approximate relationship of the parts in assembly. Your exact Seeder Model may vary slightly from the illustration.

To ensure alignment of assemblies, leave the nuts loose until completion of final assembly. Use lockwashers or flat washers as specified. Spread all cotter pins.

After completion of final assembly, tighten all nuts evenly to prevent misalignment, distortion or binding. Tighten all screws and nuts to the recommended torques.

#### **IMPORTANT**

- If pre-assembled parts or fasteners are temporarily removed, remember where they go. It is best to keep parts separated.
- Check that all working parts move freely, bolts are tight and cotter pins spread.

Refer to the Torque Table for proper torque valves. Note the different torque requirements for bolts with lock nuts. See "Specifications" on Chapter 5.

"Left" and "Right" refer to directions seen as if standing behind the machine and facing in the direction of forward travel.

#### **IMPORTANT**

All harnesses must be firmly attached to machine frame members so they don't sag or become torn loose by field debris. Use the tie wraps provided.

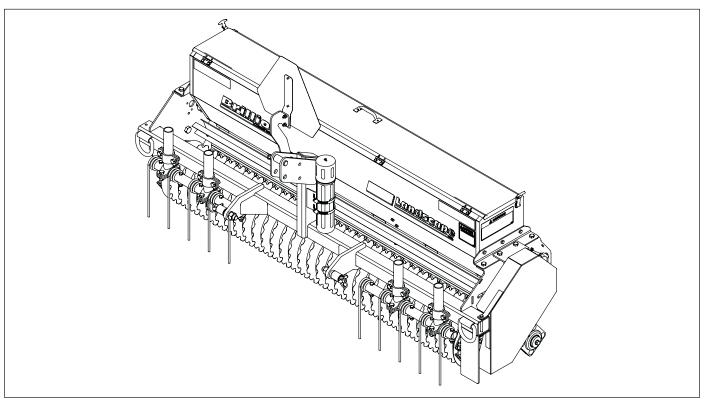


Figure 2-1: LSP6 Seeder

7K458-2311 2-1

# Skid Steer Seeder Quick Attach Plate

#### **IMPORTANT**

Always be sure the Seeder Parking Pins are engaged when Seeder is not attached to the Skid Steer.

Skid Steer Seeder is supplied with a Quick Attach Plate to attach the Seeder to the Skid Steer Mounting Plate. The Quick Attach Plate is attached to the Seeder Frame Lugs with  $7/8 \times 2-3/4$  Pins and Klik Pins. **See Figure 2-2.** 

The Quick Attach Plate can be mounted on the front (Skid Steer pulls the Seeder) or rear (Skid Steer pushes the Seeder) of the Seeder. **See Figure 2-3.** Quick Attach Plate when mounted on the rear can be offset. **See Figure 2-4.** 

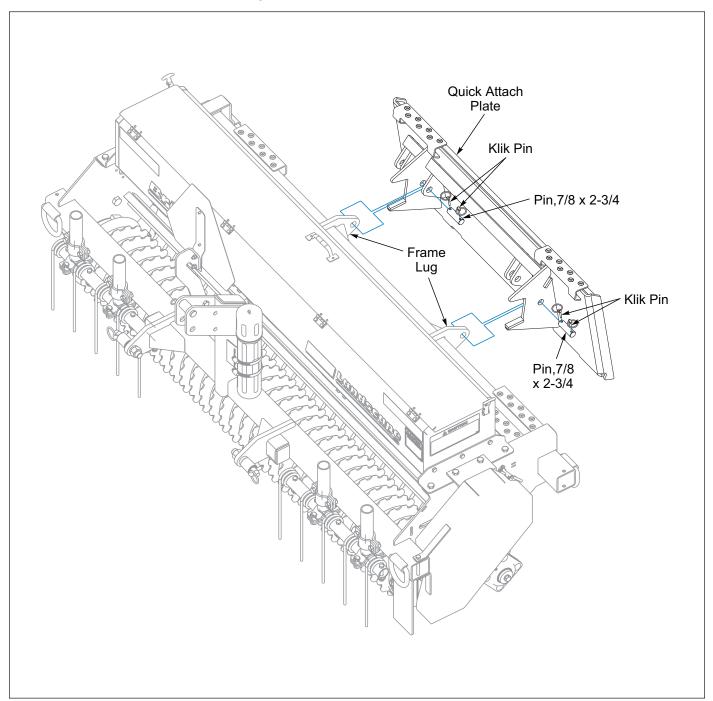


Figure 2-2: Skid Steer Seeder Quick Attach Plate

2-2 7K458-2311

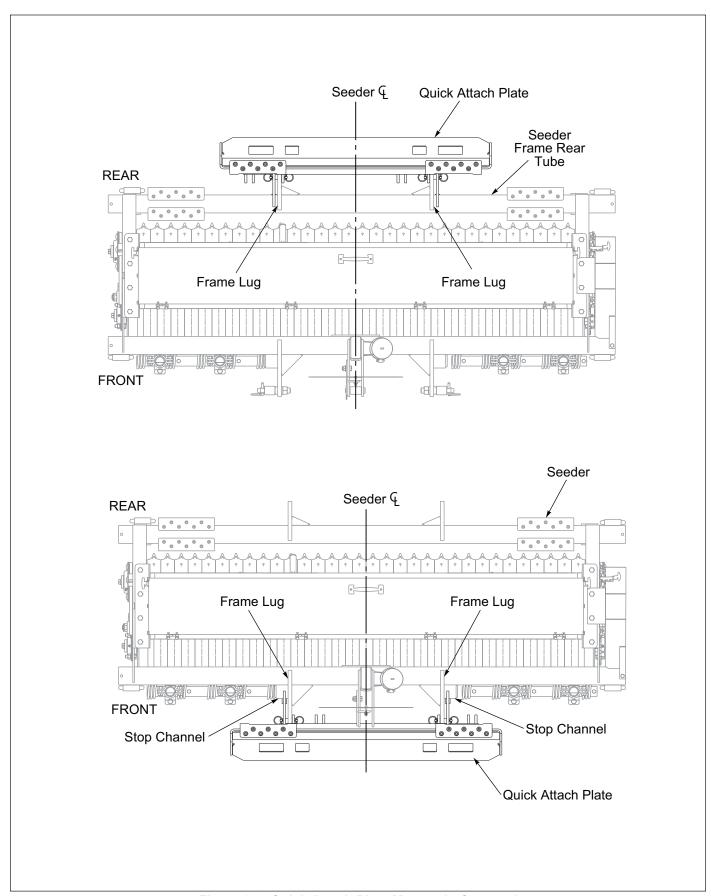


Figure 2-3: Quick Attach Plate Mounted - Centered

7K458-2311 2-3

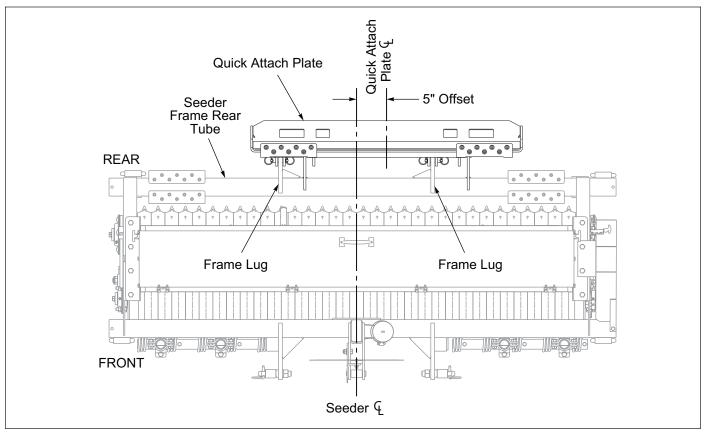


Figure 2-4: Quick Attach Plate Mounted - Offset

## **Agitator Installation**



Blade and 5-Strip Brush Agitators orientation is important. Be sure to determine the direction of shaft rotation before installation.

## **MARNING**

5-Strip Brushes will be destroyed if installed backwards.

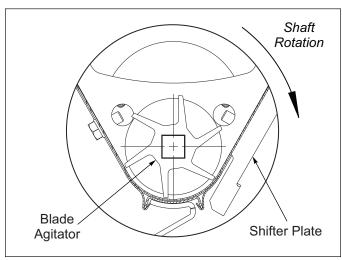
#### **IMPORTANT**

Never force to add a Square Bore Washer since it will cause binding. Agitators must be free to rotate.

Blade Agitators are standard. Blade Agitators must be installed with careful attention to the direction of the Shaft Rotation. **See Figure 2-5.** When the Blade Agitators operate, there should be a slight clearance between the Agitators and the bottom of the Seed Box.

Optional 5-Strip Brush, Cage and 8-Row Brush Agitators are available for specific varieties. Contact the Brillion office for rates and compatibility with unlisted seed varieties.

5-Strip Brush Agitators must be installed with the brushes facing backward, away from rotation to wipe over the seed openings. **See Figure 2-6.** Brush Agitators sweep the bottom of the Seed Box to control the flow of the seed. Chain breakage and excess brush wear may be caused by the Brush Agitators exerting too much pressure on the bottom of the Seed Box. Adjust the Brush Agitators by loosening the Bolts holding the Bearings inside the Seed Box and raising the Bearings up to reduce the excessive drag.



**Figure 2-5: Blade Agitator Orientation** 

2-4 7K458-2311

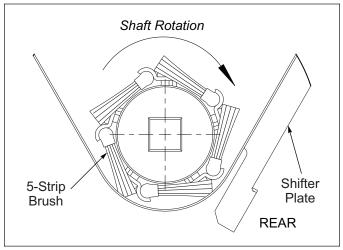


Figure 2-6: Brush Agitator Orientation

#### **Agitator Installation Steps**

- 1. On the left end of the Seed Box, remove the Roll Pin that connects the Seed Shaft and the Inner Drive Flange Hub. **See Figure 2-7.**
- 2. On the right end of the Seed Box, remove the 5/16-18 Hardware that attaches the end bearing to the inside of the Seed Box. **See Figure 2-8.**
- 3. Slide the Seed Shaft out of the right end of the Seed Box. 7/8 Flat Washers, Bushing and Cotter Pin stay with the Seed Shaft.
- 4. Remove existing Agitators and Square Bore Washers.
- 5. Orient if applicable and lay out the Agitators inside the Seed Box. Place Square Bore Washers on each end of the Agitators to prevent seed leakage and to reduce Agitator end play between the Agitator Bearings. Never force to add a Square Bore Washer since it will cause binding. Agitators must be free to rotate.
- 6. Reinstall the Seed Shaft aligning the Square Bore Bushings, Square Bore Washers, and Agitators
- 7. Reinstall the end bearing to the inside of the Seed Box with 5/16-18 Hardware.
- 8. Check to be sure agitators rotate freely.
- Reinstall on the left end of the Seed Box the Roll Pin that connects the Seed Shaft and the Inner Drive Flange Hub.
- If 5-Strip Brush Agitators were installed, apply Important Decal 5D505 to the front of the Seed Box in a place visible by the tractor driver. See Figure 2-9.

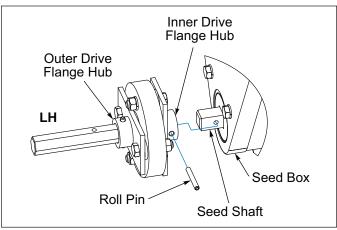


Figure 2-7: Agitator Installation - LH

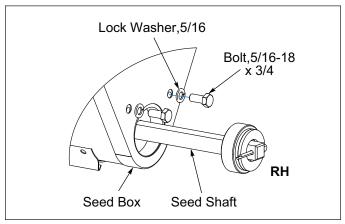


Figure 2-8: Agitator Installation - RH

#### **IMPORTANT**

DISENGAGE CLUTCH (IF SO EQUIPPED) OR RAISE SEEDER BEFORE BACKING UP. FAILURE TO DO SO WILL DAMAGE BRUSH AGITATORS.

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Figure 2-9: Agitator Decal

7K458-2311 2-5

# Acre Meter Installation - Optional

The Acre Meter Kit consists of three main parts, the Acre Meter, the Pick-Up Switch, and the Magnet Wheel Assembly. The Acre Meter is mounted on the front left side of the Seed Box.

## /! WARNING

Do not pressure clean with air or water.

#### NOTE

Alignment of the Pick-Up Switch and Magnet Wheel Assembly is critical. Improper alignment will cause the Acre Meter to record acres erratically or not at all.

- Mount the Acre Meter Assembly to the front left side of the Seed Box below the bend. See Figure 2-10. Place the Acre Meter Assembly Bracket against the Seed Box as a guide for the two 13/32" diameter holes. Drill holes into the Seed Box.
- 2. Attach the Acre Meter Assembly Bracket to the Seed Box with 3/8-16 x 1 Bolts, Flat Washers, Lock Washers, and Nuts.

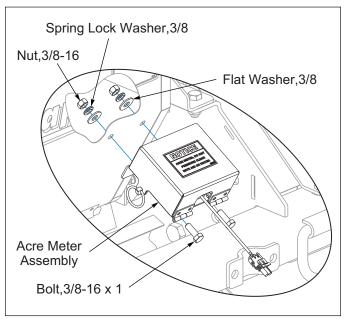


Figure 2-10: Mounting Acre Meter

- 3. On the Seeder back left side, install the Pick-Up Switch Bracket with the Transmission Shaft Bearing Bolts, Lock Washers and Nuts. **See Figure 2-11.**
- 4. Press the Magnet Wheel Assembly onto the Transmission Shaft. Secure to Shaft with Set Screw.
- 5. Attach the Pick-Up Switch to the Pick-Up Switch Bracket with #8-32 X 1-1/4 Screws, Flat Washers and Flange Locknut. Do not tighten at this time.

6. Attach the Pick-Up Switch short ground wire to the small hole in the Pick-Up Switch Bracket with #6-32 x 1/2 Screw and Nut. Remove paint under the wire connector to assure a good electrical ground connection.

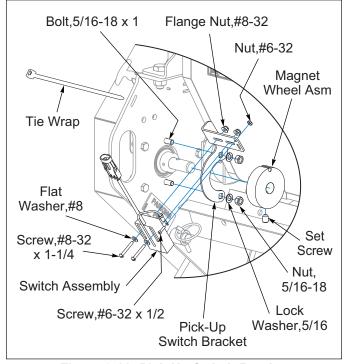


Figure 2-11: Pick-Up Switch Bracket

 Adjust the Pick-Up Switch on the Pick-Up Switch Bracket so the centerline of Magnet Wheel Assembly and Pick-Up Switch are horizontally and vertically aligned with maximum 1/8" between the Magnet Wheel Assembly and the Pick-Up Switch. Tighten #8-32 Screws. See Figure 2-12.

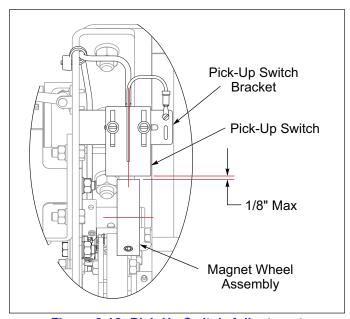


Figure 2-12: Pick-Up Switch Adjustment

2-6 7K458-2311

- 8. Connect the Acre Meter and Pick-Up Switch Connectors.
- Securely fasten the cords with tie wraps to the Seeder Frame End Plate to prevent cords from becoming entangled or rubbing on moving parts. See Figure 2-13.
- 10. Program the Acre Meter. See "Loup Acre Meter Kit Optional (After 05/15/2012)" on page 3-10.

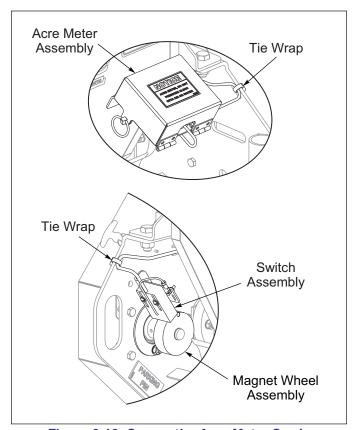


Figure 2-13: Secure the Acre Meter Cords

7K458-2311 2-7

# CAT2 Quick Hitch Adapter Kit - Optional

#### **IMPORTANT**

Always use the appropriate size Pins and Bushings when attaching Seeder to tractor's 3-PT Free Link or Quick Attach.

#### NOTE

Not compatible with Category 1 Free link.

- 1. Remove Seeder Lower Hitch Pins.
- Place the Hitch Lugs against the front and bottom of the Seeder Frame Tube and position each Hitch Lug 6" outward from the Seeder Frame Lug. See Figure 2-14.

- 3. Insert a Clamp Plate into each Hitch Lug Slot and over the top of the Seeder Frame Tube. Secure with 1/2-13 x 4-1/2 Bolts and Locknuts. **See Figure 2-15.**
- Orient and install the Lower Hitch Pin based on the style of 3-PT Hitch being used in the Frame Lower Hitch Lugs. If applicable, place bushing on each Hitch Pin. Secure Hitch Pin with Klik Pins. See Figure 2-16.
- 5. Remove the Upper Hitch Clevis Pin and Bushings. Based on the style of 3-PT Hitch being used, place the appropriate Bushing or Bushings between the Frame Upper Hitch Lugs aligning the holes and insert the Clevis Pin. Secure Clevis Pin with Hair Pin Cotter.

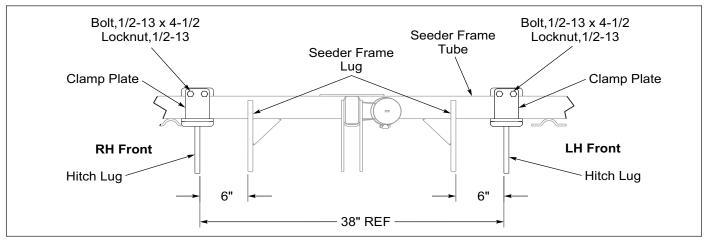


Figure 2-14: Quick Hitch Adapter Kit - Dimensions

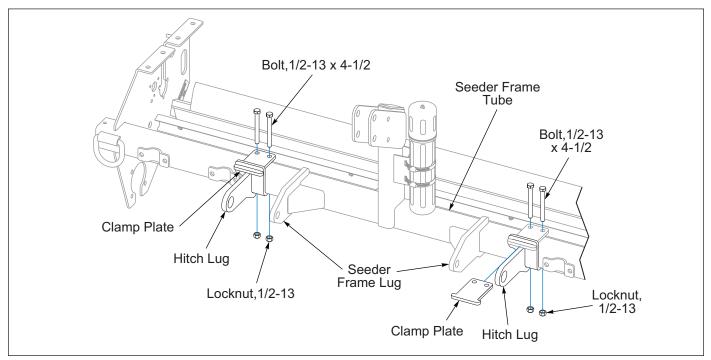
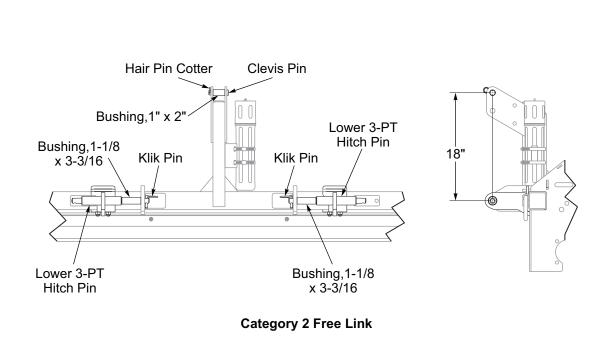


Figure 2-15: Quick Hitch Adapter Kit

2-8 7K458-2311



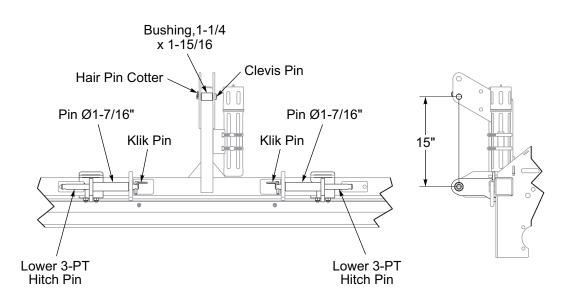


Figure 2-16: Quick Hitch Adapter Kit - Category Pin Positions

Category 1 & 2 Quick-Attach

7K458-2311 2-9

## **Lift Sling Kit - Optional**

## **!** WARNING

Stay clear of machine when using the lift sling to lift or move it. Do not work under machine using only the sling to support it. Keep observers away.

- 1. Attach a Mounting Bracket onto each side of the Seeder Frame with 1/2-13 x 1-3/4 Bolts, Lock Washers and Nuts. **See Figure 2-17.**
- 2. Attach Lift Sling to Mounting Brackets with 5/8-11 x 1-1/2 Bolts and Locknuts.
- 3. Install Stabilizer in the RH front Frame Tube. Secure with Clevis Pin and Hair Pin Cotter.

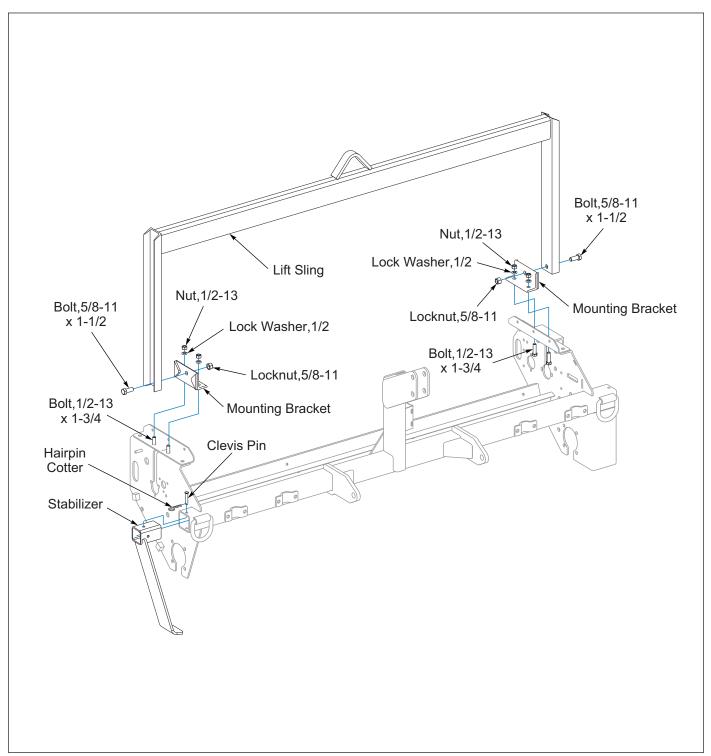


Figure 2-17: Lift Sling Kit

2-10 7K458-2311

## **Operation**

## **DANGER**

Never allow anyone to ride on the seeder at any time. Allowing a person to ride on the machine can inflict serious personal injury or death to that person.

## **!** WARNING

All 3-PT Hitch or Skid Steer mounted equipment must be lowered to the ground, when servicing or when equipment is idle. Failure to take preventative measures against accidental lowering can result in serious personal injury.

## **!** WARNING

Always be sure that the tractor hitch capacity is rated to carry the weight of the Seeder. Refer to "Specifications" and Tractor Operator's Manual.

### DANGER

Keep all bystanders away from the machine when transporting.

## DANGER

Always lock the tractor drawbar in the center position when transporting the unit. Failure to do so can result in serious injury or death and cause damage to the equipment.

## **!** CAUTION

When transporting farm implements on public roads, it is the responsibility of the operator to abide by state and local laws concerning wide loads, speed, safety emblems and safety lighting equipment. Drive at safe speeds, particularly when rounding corners, crossing rough ground or driving on hillsides, to prevent tipping the tractor.

## **!** WARNING

To prevent machine from tipping backward on the frame, disengage Parking Pins only when the Seeder is attached to the Tractor or Skid Steer.

## **DANGER**

Never get out of Skid Steer by going under the boom and attachment.

## **!** WARNING

Always be aware of your surroundings when driving the Skid Steer in reverse.

7K458-2311 3-1

# Tractor Preparation - Attaching/Detaching

The Landscape Seeder is available as a 3-PT Hitch or Skid Steer Quick Attach Plate.

#### **Tractor Preparation**

- The Seeder is designed to be used with Category 1 or 2 Free Link, Category 1 Quick Hitch. See Figure 3-3. Be sure Tractor's Hitch Capacity is not exceeded by the Laden Mass of the Seeder. Refer to Tractor Operator's Manual.
  - Optional Category 2 Quick Hitch Kit Adapter is available for purchase from your local dealer. See "CAT2 Quick Hitch Adapter Kit Optional" on page 2-8.
- Be sure Tractor is properly ballasted. A minimum 25% of Tractor and Equipment Laden Mass must be on Tractor Front Wheels in transport position to maintain stability. Calculate the Loaded Seeder Mass. See "Specifications" on page 5-1. (Seeder weight plus the seed box capacity with desired seed.) Refer to Tractor Operator's Manual.
- Check the Tractor tire inflation levels to ensure that they are properly inflated for the additional Laden Seeder Mass. Refer to the Tractor Operator's Manual. Be sure not to over ballast and exceed Tractor Tire Capacity.
- Set Tractor 3-PT Lower Links to allow lateral (torsional) float. Refer to Tractor Operator's Manual. If left rigid, your Brillion Seeder may not follow ground contours resulting in poor germination.
- 5. Set Lift Rod length long enough to ensure Seeder can float downward in the case of a furrow or waterway. Lower Links should be the same height, leveling your Brillion Seeder side to side. Fine adjustments may need to be made after hookup is completed. **Refer to the Tractor Operator's Manual.**

#### **Attaching Tractor to Seeder**

## **!** WARNING

To prevent machine from tipping backward on the frame, disengage Parking Pins only when the Seeder is attached to the Tractor. Be sure to observe the following sequences.

- Attach Seeder to the Tractor's 3-PT Free Link or Quick Hitch using the appropriate size pins and bushings. Be sure to use the hardware provided and is in good working order. See Figure 3-3.
- 2. **Refer to the Tractor Operator's Manual** for Quick Hitch Operation.
- 3. Raise Seeder.

- 4. Disengage both Parking Pins from the back LH and RH sides of the Seeder. This will allow the Rear Roller to float during operation. **See Figure 3-1.** 
  - Remove each Parking Pin Klik Pin.
  - Pull each Parking Pin inward aligning the second from end hole with the frame bushing hole.
  - · Secure each Parking Pin with a Klik Pin.
- Adjust or lock tractor sway stabilizers if equipped, centering the Seeder with the Tractor. Refer to the Tractor Operator's Manual.
- Lower Seeder. If necessary level Seeder side to side (laterally) by adjusting Lift Rod length. Level Seeder front to back by adjusting the Tractor Upper Link length as necessary. Refer to the Tractor Operator's Manual.

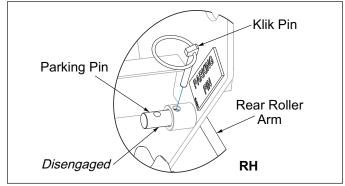


Figure 3-1: Parking Pin Disengaged

#### **Detaching Tractor from Seeder**

- 1. Raise Seeder.
- Engage both Parking Pins at the back LH and RH sides of the Seeder. This will limit the movement of the Rear Roller. See Figure 3-2.
  - · Remove each Parking Pin Klik Pin.
  - Push each Parking Pin outward aligning the end hole with the frame bushing hole.
  - Secure each Parking Pin with a Klik Pin.
- 3. Lower Seeder on a flat or even surface. Chock or block Front and Rear Roller Wheels.
- 4. Disconnect the Tractor from the Seeder.

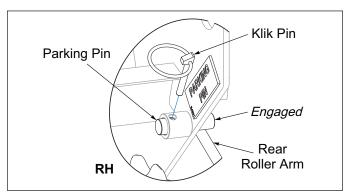


Figure 3-2: Parking Pin Engaged

3-2 7K458-2311

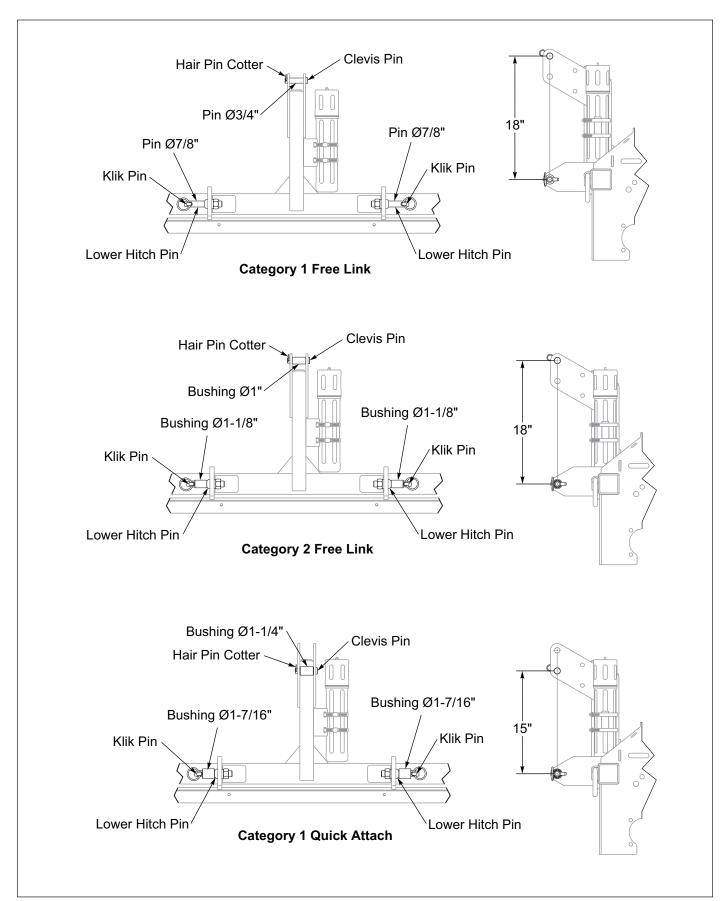


Figure 3-3: 3-PT Hitch - Category Pin Positions

7K458-2311 3-3

## **SMV Position in Transport**

The SMV should be clearly viewable from the rear of the Seeder and as vertical as possible when in transport.

- Loosen the 1/2-13 Hardware attaching the SMV Mount to the Seeder.
- Pivot the SMV Mount so that the SMV is vertical (perpendicular to the ground) when the Seeder is in transport.
- 3. Re-tighten the 1/2-13 Hardware.

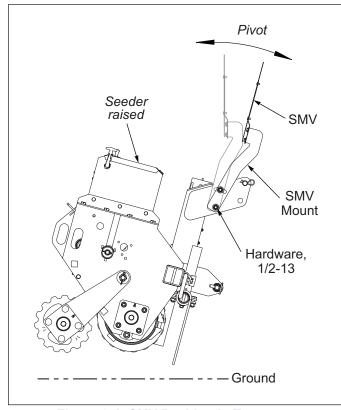


Figure 3-4: SMV Position In Transport

# Skid Steer Preparation - Attaching/Detaching

#### **Skid Steer Preparation**

- The Seeder Quick Attach Plate is designed to be used with a Skid Steer quick attachment system. Be sure Skid Steer operating capacity and tire capacity is not exceeded by the Laden Mass of the Seeder. Refer to Skid Steer Operator's Manual.
- Be sure Skid Steer is properly ballasted to maintain stability. Calculate the Loaded Seeder mass. (Seeder weight plus the seed box capacity with desired seed.)
   See "Specifications" on page 5-1. Install Rear Counter Weights if necessary. Refer to Skid Steer Operator's Manual.
- Check the Skid Steer tire inflation levels to ensure that they are properly inflated for the additional Laden Seeder Mass. Refer to the Skid Steer Operator's Manual.

#### **Attaching Skid Steer to Seeder**



To prevent machine from tipping backward on the frame, disengage Parking Pins only when the Seeder is attached to the Skid Steer. Be sure to observe the following sequences.

### DANGER

Never get out of Skid Steer by going under the boom and attachment.

- 1. Ensure that there is no debris on the Skid Steer Mounting Plate and on the Seeder Quick Attach Plate.
- Disengage the Skid Steer Mounting Plate Lock Pins. Visually check to make sure that the Lock Pins are fully retracted.
- 3. Mate the Skid Steer Mounting Plate into the Seeder Quick Attach Plate. Tilt the Skid Steer Mounting Plate forward and slowly engage the underside of the Seeder Quick Attach Plate Saddle. As the Seeder Quick Attach Plate is raised and rolled back, the back surface of the Seeder Quick Attach Plate comes to rest flat against the front surface of the Skid Steer Mounting Plate. When the Seeder Quick Attach Plate is fully supported by the Skid Steer Mounting Plate, engage the Skid Steer Mounting Plate Lock Pins into the Seeder Quick Attach Plate. Always visually inspect the Skid Steer Mounting Plate Locking Pins to make sure that they are not damaged and are fully engaged in the Seeder Quick Attach Plate before operating.

3-4 7K458-2311

- 4. Raise Seeder so Rollers are barely off the ground.
- 5. Disengage both Parking Pins from the back LH and RH sides of the Seeder. This will allow the Rear Roller to float during operation. **See Figure 3-5.** 
  - · Remove each Parking Pin Klik Pin.
  - Pull each Parking Pin inward aligning the second from end hole with the frame bushing hole.
  - Secure each Parking Pin with a Klik Pin.

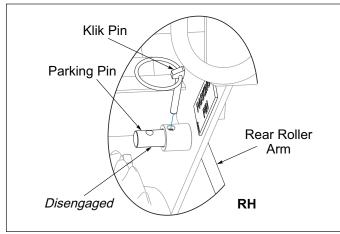


Figure 3-5: Parking Pin Disengaged

#### **Detaching Skid Steer from Seeder**

## WARNING

Always be aware of your surroundings when driving the Skid Steer in reverse.

## **A** DANGER

Never get out of Skid Steer by going under the boom and attachment.

- 1. Raise Seeder so Rollers are barely off the ground.
- 2. Engage both Parking Pins at the back LH and RH sides of the Seeder. This will limit the movement of the Rear Roller. **See Figure 3-6.** 
  - · Remove each Parking Pin Klik Pin.
  - Push each Parking Pin outward aligning the end hole with the frame bushing hole.
  - Secure each Parking Pin with a Klik Pin.
- 3. Lower Seeder on a flat or even surface. Chock or block Front and Rear Roller Wheels.
- 4. Disengage the Skid Steer Mounting Plate Lock Pins.
- 5. Tilt the Skid Steer Mounting Plate forward, and back the Skid Steer away from the Seeder. Aways be aware if your surroundings when driving Skid Steer in reverse.

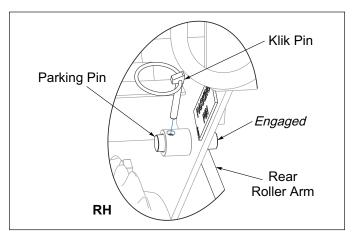


Figure 3-6: Parking Pin Engaged

## Skid Steer Seeder Quick Attach Plate

#### IMPORTANT

Always be sure the Seeder Parking Pins are engaged when Seeder is not attached to the Skid Steer.

The Quick Attach Plate can be mounted on the front (Skid Steer pulls the Seeder) or rear (Skid Steer pushes the Seeder) of the Seeder. **See Figure 2-3.** Quick Attach Plate when mounted on the rear can be offset. **See Figure 2-4.** 

## **General Operation**

- 1. The minimum horsepower requirement is typically 35 HP and up. This will vary widely due to speed, moisture, and types of soils. Local dealers can help in making recommendations for your areas.
- 3-PT Hitch capacity is based on the Seeder weight plus the Seed Box capacity with desired seed. See "Specifications" on page 5-1. Tractor must be sized accordingly. Refer to Tractor's Manual.
- Seeder weight plus the Seed Box capacity filled with the desired seed should be within Skid Steer operating capacity. See "Specifications" on page 5-1. Install Rear Counter Weights if necessary. Refer to Skid Steer Operator's Manual.
- Operating speed is typically 3-5 mph. Excess speed can result in undesirable germination, seeder bouncing, or other unpredictable results. Reduce speed in rocky conditions to prevent wheel breakage.
- 5. When not in use, install Parking Pins and lower Seeder to a flat or even surface. Chock or block Front and Rear Roller Wheels.

7K458-2311 3-5

## **Seed Rate Adjustment**

## **!** WARNING

5-Strip Brush Agitator Brushes will be destroyed if mixtures that contain small seeds such as Clover, Alfalfa, and Timothy are used.

#### IMPORTANT

If 5-Strip Brush Kit has been installed, always raise the Seeder before backing up. Brushes will be seriously damaged if they are rotated backwards.

The Seed Rate is adjusted by Shifting the Shifter Handle on the back of the Seed Box. Loosen the Wing Nut to move the Shifter Handle to the desired setting and re-tighten the Wing Nut. **See Figure 3-7.** 

A Seed Rate Chart is located inside the Seed Box Cover and in this manual. **See Figure 3-11.** It should be used as a reference only. Because of seed variations, a more accurate rate can be determined by performing the **Seed Calibration Procedure** to calibrate the seed.

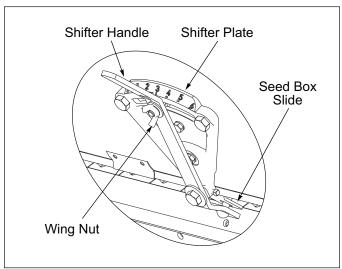


Figure 3-7: Shifter Handle Adjustment

Blade Agitators are standard. Optional Cage, 5-Strip Brush, and 8-Row Brush Agitators are available for specific varieties. **See Figure 3-8.** Contact the Brillion office for rates and compatibility of unlisted seed varieties.

 5-Strip Brush Agitators are typically used for Fluffy Native Seeds. 5-Strip Brush Agitators should never be used with small seed varieties such as Clover, Alfalfa, or Timothy. Small seeds can cause the brushes to swell and pull out of Brush Clips. See Figure 3-9. Cage and 8-Row Brush Agitators can be used to plant cereal grains such as Wheat, Oats, Rye, and Barley. However, Brillion does not recommend this for a harvestable grain crop because the seed will be placed in the top 1/4" to 1/2" of soil.

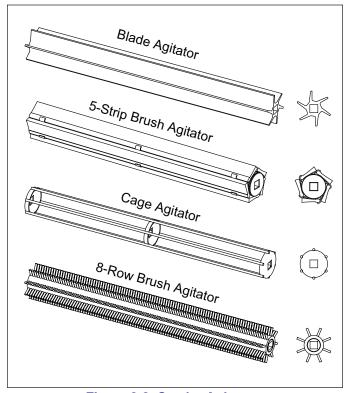


Figure 3-8: Seeder Agitators

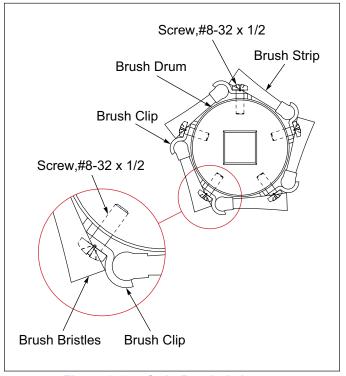


Figure 3-9: 5-Strip Brush Agitators

3-6 7K458-2311

#### **Seed Calibration Procedure**

#### NOTE

The information listed in the Seed Charts is subject to change without notice.

#### **IMPORTANT**

Planting rates are in pounds per acre. Rates are for 13 Tooth Driver. Double these values for 26 Tooth Driver.

Brillion assumes no liability pertaining to Seeding Rates achieved with this Seeder. Rates listed are general in nature and should be used as starting points only. Seed varieties and blends listed represent those calibrated through in-house test meters.

Variations in actual rates may be realized due to differences in seed lots. For accurate rates with seeds being used, follow the calibration instructions listed on the Seed Chart inside the Seed Box Cover or refer to this manual. See Figure 3-11. The information listed in the Seed Chart is subject to change without notice.

#### Calibrate unlisted seeds as follows:

- 1. Raise Machine.
- 2. Place a canvas or tarp under the Seeder to catch seed.
- Turn 3/4 Calibration Hex Counterclockwise (CCW).
  See Figure 3-10.

**5FT Seeder:** Turn 279 Revolutions. **6FT Seeder:** Turn 232 Revolutions.

4. Weigh Seed in Lbs. Multiply by 10 for 13 Tooth Driver and 20 for 26 Tooth Driver for approximate Planting Rate in Lbs/Acre.

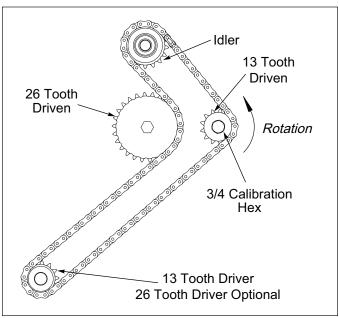


Figure 3-10: Seed Box Calibration

		POU	NDS PE	ER ACI	RE		P	OUND	S PER	1000 S	Q FT	
INDICATOR SETTINGS	1	2	3	4	5	6	1	2	3	4	5	6
	SEEDER EQ	UIPPE	D WITH	BLAD	E AGI	TATOF	RS					
Bent Grass, Highland		No	t Reco	mmen	ded			Not F	Recom	mende	d	
Bluegrass, Kentucky	52	227	505	836	1185	1638	1.2	5.2	11.6	19.2	27.2	37.6
Bluegrass, Merion		Not	Recor	nmend	ded		Not Recommended					
Fescue, Creeping Red	1.7	51	61	105	174	383	0.04	1.2	1.4	2.4	4	8.8
Oats*	17	70	174	296	418	470	0.4	1.6	4.0	6.8	9.6	10.8
Ryegrass, Annual	35	127	232	378	558	776	8.0	2.9	5.3	8.7	12.8	17.8
Ryegrass, Perennial	33	117	204	375	533	760	8.0	2.7	4.7	8.6	12.2	17.4
	7	19	40	73	112	188	0.2	0.4	0.9	1.7	2.6	4.3
	SEEDER EQ	UIPPE	D WITH	I 5-STF	RIP BR	USH A	GITATO	DRS				
Bent Grass, Highland	222	404	-	-	-	-	5.1	9.3	-	-	-	-
Bluegrass, Kentucky	58	187	298	391	-	-	1.3	4.3	6.8	9.0	-	-
Bluegrass, Merion	29	156	272	356	455	-	0.7	3.6	6.2	8.2	10.4	-
Fescue, Creeping Red	10.5	23	37	78	139	331	0.24	0.52	0.84	1.8	3.2	7.6
Oats*	-	20	81	131	209	258	-	0.5	1.9	3.0	4.8	5.9
Ryegrass, Annual	37	138	261	397	606	797	8.0	3.2	6.0	9.1	13.9	18.3
Ryegrass, Perennial	30	124	246	378	578	797	0.7	2.8	5.6	8.7	13.3	18.3
Wheat Grass, Tall	7	23	56	101	162	279	0.2	0.5	1.3	2.3	3.7	6.4
* Low germination may occur due to shallow seeding depth for this seed.												

Figure 3-11: Seed Rate Chart 13 Tooth Driver

7K458-2311 3-7

## **Doubling the Seed Rate**

Seed rates can be doubled by using the 26 Tooth Sprocket and extra Chain Links located on the Seeder Frame Left End Plate. **See Figure 3-12.** 

- Loosen Drive Chain and remove Connector Link.
- 2. Remove 1/4 x 1-1/2 Roll Pin from the 13 Tooth Sprocket on the Front Roller. **See Figure 3-12.**
- 3. Remove the 3/4-10 Locknut and 13 Tooth Sprocket from the end of the Front Roller.
- 4. On the left side of the Seeder, remove the 26 Tooth Sprocket from its storage position on the 3/4-10 Bolt. Store the removed 13 Tooth Sprocket on the 3/4-10 Bolt. Secure 13 Tooth Sprocket with 3/4-10 Nut.
- Add extra Chain (8 Links including Connector Link) to Drive Chain. See Figure 3-13.
- Install the 26 Tooth Sprocket on the end of the Front Roller.
- 7. Double check Sprocket alignment. Adjust with Washers as necessary.
- Secure 26 Tooth Sprocket with 1/4 x 1-1/2 Roll Pin and 3/4-10 Locknut.
- Install Drive Chain Connector Link. Adjust Chain Tension. See Figure 4-3.

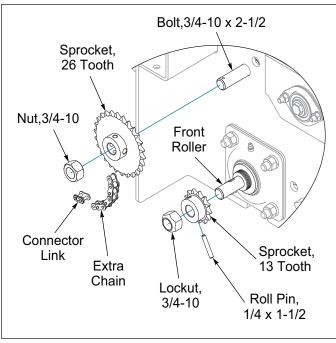


Figure 3-12: Speed Up Kit (1 of 2)

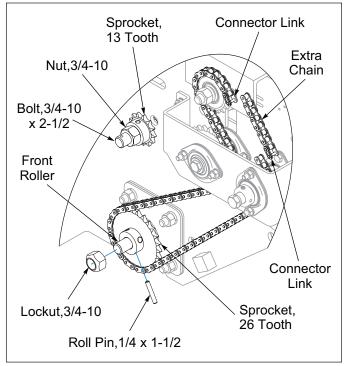


Figure 3-13: Speed Up Kit (2 of 2)

3-8 7K458-2311

## **Track Remover Adjustment**

The depth of the Tire Track Remover/s can be adjusted.

- 1. Loosen the Clamp Bolts that secure the Coil Tine Supports. **See Figure 3-14.**
- 2. Raise or lower the Coil Tine Supports on both sides to the desired depth.
- 3. Re-tighten the Clamp Bolt Nuts.

## The pitch of the Tire Track Remover/s can be adjusted.

- Loosen the Clamp Bolts that secure the Coil Tine Harrow Tube to the Coil Tine Supports. See Figure 3-14.
- 2. Rotate the Coil Tine Harrow/s to the desired pitch.
- 3. Re-tighten the Clamp Bolt Nuts.

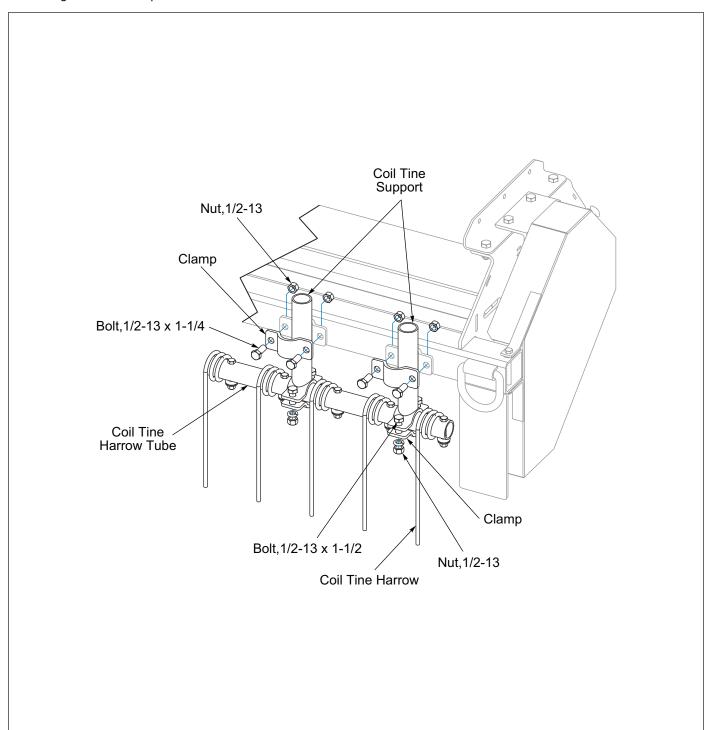


Figure 3-14: Track Remover - Optional

7K458-2311 3-9

# Loup Acre Meter Kit - Optional (After 05/15/2012)

#### IMPORTANT

Acre Meter is dust and splash resistant, under no circumstances should this unit be submerged in any conductive, corrosive, or flammable liquid. At no time use high pressure water or air to clean it, as this can damage the unit. See "Electric Clutch - Optional" on Page 5-10.

#### **Settings for Loup Acre Meters**

The battery operated Acre Meter operates in one of two modes.

- In sleep mode, the display is blank and the counter is accumulating acres. Sleep mode will be entered if a button is not pressed for 20 seconds.
- In entry mode, the display is on, and the operator can enter values. To get into entry mode, press the \*/FUNC button. If you continue to press the \*/FUNC button, the acre counter will cycle through the functions that it can perform. The LEDs above the display indicate which function is selected.

**The available functions are**: Field Acres, Total Acres, Pulses per 400 feet, Width, Password and Low Battery. **See Figure 3-15.** 

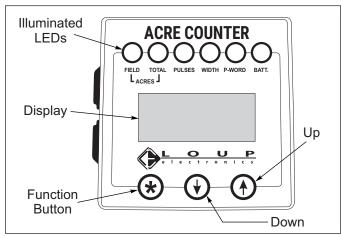


Figure 3-15: Acre Meter

#### **Field Acres**

Press the \*/FUNC button until the "FIELD" LED is lit. The digits indicate the acres covered since the field acre counter was cleared.

To clear the field acre count, press the **UP** and **DOWN** buttons simultaneously for two seconds. If a password has been entered, you will not be able to clear the total acre count. Field acres will count in tenths of an acre up to 9999.9 acres.

#### **Total Acres**

Press the \*/FUNC button until the "TOTAL" LED is lit. The digits indicate the acres covered since the total acre counter was cleared.

To clear the total acre count, press and hold the **UP** and **DOWN** buttons for two seconds. If a password has been entered, you will not be able to clear the total acre count.

Total acres will count from 1 to 99999 acres.

#### Pulses Per 400 Feet

Press the \*/FUNC button until the "PULSES" LED is lit. The number in the display indicates how many pulses are generated for every 400 feet driven. There are two methods to enter the pulses per 400 feet:

- If you know the number, select it using the UP and DOWN buttons. When you press the \*/FUNC button, the Acre Counter will accept the number in the display as the new pulses per 400 feet. See Table 3-1.
- 2. If you do not know the pulses per 400 feet, press and hold the **UP** and **DOWN** buttons until the "0" appears in the display. The "**PULSES**" LED will blink. The acre counter is now counting shaft rotations. Enter the cab, lower seeder, engage clutch if equipped, and drive 400 feet. Press the \*/**FUNC** button to wake up the acre counter. The "**PULSES**" LED will light. The number displayed is the pulses per 400 feet. Press the \*/**FUNC** button to accept the setting.

If a password is set, you will not be able to adjust the pulses.

#### Width

Press the **\*/FUNC** button until the "WIDTH" LED is lit. The number displayed is the length of your machine in feet.

To adjust the width, press the **UP** and **DOWN** buttons. If a password has been entered, you will not be able to adjust the width.

The width can be adjusted from .1 to 99.9 feet, in tenths of a foot.

#### **Password**

The password function allows you to protect the total acre count, pulses per 400 feet, and width settings with a password. This stops anyone from accidentally changing those settings. When the acre counter is shipped, the password is disabled. You can modify the pulses per 400 feet and machine width at any time.

Press the \*/FUNC button until the "PASS" LED is lit. The digits will display the word "Ent" or "dIS".

If the display shows "dIS". The password is disabled. The total acre count, pulses/400 feet, width, and password settings can be adjusted using the UP and DOWN buttons. The password can also be changed using the UP and DOWN buttons.

3-10 7K458-2311

If the display shows "Ent": You must enter your password using the UP and DOWN buttons. When your password is displayed, press the \*/FUNC button to test the password. If the password is correct, you will be able to change the acre counter settings. The password will be viewable until the acre counter enters sleep mode. When the acre counter is in entry mode again, you will have to re-enter the password to change settings.

If the password is not correct, you will not be able to change the acre counter settings. When the "PASS" function is selected again, "Ent" will appear in the display.

#### **Changing the Password**

Select a new password using the **UP** and **DOWN** buttons. Press the \*/FUNC button until the word "SEt" appears in the display. Release the \*/FUNC button. The number in the display is your new pass code. Make sure you record this number. Press and hold the \*/FUNC button until the word "dIS" appears in the display.

If the password is forgotten, it can be disabled by removing the batteries. The password is intended for rental units. It is recommended that a seal be affixed to the rear plate of the acre counter to determine if the settings have been tampered with.

#### **Battery Replacement**

The battery operated acre counter uses 3 AA batteries. The "BATT" LED will light when the batteries require replacement. Remove the acre counter from the machine and undo the 4 screws on the back of the case. See Figure 3-16. This will separate the housing from the rear plate. Replace the batteries with 3 high quality AA alkaline batteries.

#### See "Acre Meter Troubleshooting" on Page 4-5.

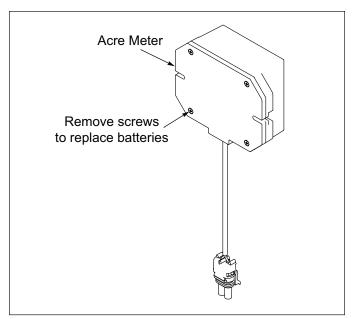


Figure 3-16: Battery Replacement

# **Loup Acre Meter Kit - Optional (Before 05/15/2012)**

#### **Settings**

- When the meter is set to "count" mode in pulses screen, meter will register only magnetic wheel revolutions.
- The meter must be in sleep mode (blank screen) to calculate acres or to count pulses.
- The count screen must have a value other than zero (0000) to scroll to other modes or screens.
- To reset the FIELD ACRES screen to zero (0000), press the UP and DOWN buttons simultaneously.

#### **To Program Meter**

- Press the Function (FUNC) button to scroll to pulses screen.
- 2. Enter the number of pulses using the **UP** or **DOWN** buttons for the model listed in the chart. **See Table 3-2.**
- 3. Press the **FUNC** to set the pulses. (If screen goes blank before you press **FUNC**, repeat steps 1 and 2).
- 4. Press the **FUNC** to scroll to the width screen.
- Enter the width of seeder using the UP or DOWN buttons for the model listed in the chart. See Table 3-2.
- 6. Press the **FUNC** to set the width. (If screen goes blank before you press the **FUNC**, repeat steps 4 and 5).
- 7. Press the **FUNC** to scroll through the screens to check that the correct pulses and width have been entered.

#### To Enter Password

- 1. Press the **FUNC** to scroll to password screen.
- Pick a numeric password and enter it by using the UP or DOWN buttons, until your password is displayed.
- Press the **FUNC** to set password; screen will show "(set)". Record number - it is required if you decide to disable password.
- 4. Let screen go blank password is now entered.
- 5. Press the **FUNC** to scroll to the password screen it will show "**Ent**". If the screen does not show "**Ent**", repeat steps 2, 3 and 4.

#### To Disable Password

- Press the FUNC to scroll to the password screen it will show "Ent".
- 2. Use **UP** or **DOWN** button to enter password (number).
- 3. Press the **FUNC** to scroll around to pass screen again. Number entered in step 2 will appear.
- 4. Press **UP** or **DOWN** button to enter 0.
- 5. Press the **FUNC**; (**dis**) will appear. Password is now disabled.

7K458-2311 3-11

## **Acre Meter Settings Charts**

	MOD	EL		Pulses per 400 FT	Width (Feet)
SSPT604				22	5.0
SSBP4	SSB4			44	4.0
SSBP5				44	5.0
SSBP6				44	6.0
SSBS6				44	6.0
SSP8	SSBP8	SS8	SSB8	58	8.0
SSP10	SSBP10	SS10	SSB10	58	10.0
SSP12	SSBP12	SS12	SSB12	58	12.0
SSP16	SSBP16	SS16	SSB16	45	16.0
SSP108	SS108			58	8.0
SSP110	SS110			58	10.0
SSP112	SS112			58	12.0
SSP208/2081	SS208/2081			58	8.0
SSP210/2101	SS210/2101			58	10.0
SSP212/2121	SS212/2121			58	12.0
SSP308/3081	SS308/3081			29	8.0
SSP310/3101	SS310/3101			29	10.0
SSP312/3121	SS312/3121			29	12.0
SLP8	SL8			314	8.0
SLP10	SL10			314	10.0
SLP12	SL12			314	12.0
SLP204/2041	SLPB204/2041			128	4.0
SLP206/2061	SLPB206/2061			128	6.0
SLP304/3041	SLPB304/3041			64	4.0
SLP306/3061	SLPB306/3061			64	6.0
LSP5				128	5.0
LSP6				128	6.0
LSS6				128	6.0
SLP208/2081	SLPB208/2081	SL208/2081	SLB208/2081	116	8.0
SLP210/2101	SLPB210/2101	SL210/2101	SLB210/2101	116	10.0
SLP212/2121	SLPB212/2121	SL212/2121	SLB212/2121	116	12.0
SLP308/3081	SLPB308/3081	SL308/3081	SLB308/3081	58	8.0
SLP310/3101	SLPB310/3101	SL310/3101	SLB310/3101	58	10.0
SLP312/3121	SLPB312/3121	SL312/3121	SLB312/3121	58	12.0
BOS4F1	BOS4S1	BOSB4F1	BOSB4S1	45	4.0
BOS6F1	BOS6S1	BOSB6F1	BOSB6S1	45	6.0
BPS6	BPSB6			51	6.0
GLP643	SSLP643			69	5.0
4620-24				45	24.0
4630-36				per Seeder	36.0
X19-27	XL28-36	XXL38-46		90	per Model
WFP23-37	WFP38-52			90	per Model

Table 3-1: Acre Meter Settings (After 05/15/2012)

3-12 7K458-2311

MODEL			Pulses	Width (Feet)	
SSPT604				293	5
SSP4		SS4		578	4
SSP5		SS5		578	5
SSP6		SS6		578	6
SSP8		SS8		764	8
SSP10		SS10		764	10
SSP12		SS12		764	12
SSP108		SS108		760	8
SSP110		SS110		760	10
SSP112		SS112		760	12
SSP208	SSP2081	SS208	SS2081	764	8
SSP210	SSP2101	SS210	SS2101	764	10
SSP212	SSP2121	SS212	SS2121	764	12
SSP308		SS308		382	8
SSP310		SS310		382	10
SSP312		SS312		382	12
SLP8		SL8		4147	8
SLP10		SL10		4147	10
SLP12		SL12		4147	12
SLP204	SLP2041			1690	4
SLP206	SLP2061			1690	6
SLP304	SLP3041			845	4
SLP306	SLP3061			845	6
LSP5				1690	5
LSP6				1690	6
LSS6				1690	6
SLP208	SLP2081	SL208	SL2081	1528	8
SLP210	SLP2101	SL210	SL2101	1528	10
SLP212	SLP2121	SL212	SL2121	1528	12
SLP308	SLP3081	SL308	SL3081	764	8
SLP310	SLP3101	SL310	SL3101	764	10
SLP312	SLP3121	SL312	SL3121	764	12
BOS4F1	BOS4S1	BOSB4F1	BOSB4S1	600	4
BOS6F1	BOS6S1	BOSB6F1	BOSB6S1	600	6
BPS6	BPSB6			679	6
GLP643		SSLP643		917	5

Table 3-2: Acre Meter Settings (Before 05/15/2012)

7K458-2311 3-13

# **Transporting the Seeder**

- 1. Check and follow all federal, state, and local requirements before transporting the Seeder.
- The Seeder should be transported only by tractor required for field operation. The machine weight should not exceed more than 1.5 times the tractor weight. Maximum transport speed for the Seeder is 20 mph.

# **!** CAUTION

Excessive speed may result in loss of control of the tractor and implement, reduced braking ability, or failure of the implement tire or structure. Do not exceed the implement maximum specified ground speed regardless of the capability of the maximum tractor speed.

- Slow down when driving on rough roads. Reduce speed when turning, or on curves and slopes to avoid tipping. Equipment altered other than the place of manufacture may reduce the maximum transport speed. Additional weight, added tanks, harrowing attachments, etc. may reduce machine load carrying capabilities.
- 4. Know the transport height and width of the implement being transported. Use caution when transporting near bridges and power lines.

## DANGER

Stay away from power lines when transporting, extending implement. Electrocution can occur without direct contact.

- Check to see that the tractor hitch capacity or Skid Steer operating capacity is rated to carry the weight of the Seeder. Refer to Tractor or Skid Steer Operator's Manual.
- 6. Use pins and bushings that properly fit the Tractor Lift Arms or Quick Hitch.
- 7. Always visually inspect the Skid Steer Mounting Plate Locking Pins to make sure that they are fully engaged into the Seeder Quick Attach Plate.
- Tractor: Raise the Seeder to full transport height.
  Skid Steer: Raise the Seeder enough to clear the ground, but not to obstruct the view of the Skid Steer operator.

- Verify that SMV sign, reflectors, and Safety Decals are clearly visible and tractor or Skid Steer lamps are functioning properly.
- 10. Transport during daylight hours whenever possible. Always use tractor or Skid Steer flashing warning lights, except where such use is prohibited by law. Make sure lights, reflectors and SMV emblem are clearly visible and operating. Remove any obstructions such as dirt, mud, stalks or residue that restricts view before transporting. See Figure 3-17.

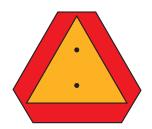


Figure 3-17: SMV Sign

3-14 7K458-2311

# **Maintenance**

## **General Torque Specifications**

(rev. 4/97)

This chart provides tightening torques for general purpose applications when special torques are not specified on process or drawing. Assembly torques apply to plated nuts and capscrews assembled without supplemental lubrication (as received condition). They do not apply if special graphite moly-disulfide or other extreme pressure lubricants are used. When fasteners are dry (solvent cleaned) add 33% to (as received condition) torque. Bolt head identification marks indicate grade and may vary from manufacturer to manufacturer. Thick nuts must be used on grade 8 capscrews. Use value in [ ] if using prevailing torque nuts

#### **TORQUE SPECIFIED IN FOOT POUNDS**

UNF SIZE	SAE Grade 2	SAE Grade 5	SAE Grade 8	UNF SIZE	SAE Grade 2	SAE Grade 5	SAE Grade 8
1/4-20	4 [5]	6 [7]	9 [11]	1/4-28	5 [6]	7 [9]	10 [12]
5/16-18	8 [10]	13 [13]	18 [22]	5/16-24	9 [11]	14 [17]	20 [25]
3/8-16	15 [19]	23 [29]	35 [42]	3/8-24	17 [21]	25 [31]	35 [44]
7/16-14	24 [30]	35 [43]	55 [62]	7/16-20	27 [34]	40 [50]	60 [75]
1/2-13	35 [43]	55 [62]	80 [100]	1/2-20	40 [50]	65 [81]	90 [112]
9/16-12	55 [62]	80 [100]	110 [137]	9/16-18	60 [75]	90 [112]	130 [162]
5/8-11	75 [94]	110 [137]	170 [212]	5/8-18	85 [106]	130 [162]	180 [225]
3/4/10	130 [162]	200 [250]	280 [350]	3/4-16	150 [188]	220 [275]	320 [400]
7/8-9	125 [156]	320 [400]	460 [575]	7/8-14	140 [175]	360 [450]	500 [625]
1-8	190 [237]	408 [506]	680 [850]	1-14	210 [263]	540 [675]	760 [950]
1-1/8-7	270 [337]	600 [750]	960 [1200]	1-1/8-12	300 [375]	660 [825]	1080 [1350]
1-1/4-7	380 [475]	840 [1050	1426 [1782]	1-1/4-12	420 [525]	920 [1150]	1500 [1875]
1-3/8-6	490 [612]	1010 [1375]	1780 [2225]	1-3/8-12	560 [700]	1260[1575]	2010 [2512]
1-1/2-6	650 [812]	1460 [1825]	2360 [2950]	1-1/2-12	730 [912]	1640[2050]	2660 [3325]

#### **METRIC:**

Coarse thread metric class 10.9 fasteners and class 10.0 nuts and through hardened flat washers, phosphate coated, Rockwell "C" 38-45. Use value in [ ] if using prevailing torque nuts.

Nominal Thread Diameter (mm)	Newton Meters (Standard Torque)	Foot Pounds (Standard Torque)	Nominal Thread Diameter (mm)	Newton Meters (Standard Torque)	Foot Pounds (Standard Torque)
6	10 [14]	7 [10]	20	385 [450]	290 [335]
7	16 [22]	12 [16]	24	670 [775]	500 [625]
8	23 [32]	17 [24]	27	980 [1105]	730 [825]
10	46 [60]	34 [47]	30	1330 [1470]	990 [1090]
12	80 [125]	60 [75]	33	1790 [1950]	1340 [1450]
14	125 [155]	90 [115]	36	2325 [2515]	1730 [1870]
16	200 [240]	150 [180]	39	3010 [3210]	2240 [2380]
18	275 [330]	205 [245]			

7K458-2311 4-1

#### **Fasteners**

Before operating your Brillion machine, check all hardware for tightness. Use the Tightening Torque Table as a guide. **See Page 4-1.** 

After a few hours of use, check entire machine and tighten any loose nuts or bolts. Daily or periodic checks should be made thereafter.

When replacing bolts, be sure to use fasteners of equal grade.

#### Lubrication

# **!** WARNING

Do Not lubricate Seeder while in motion. If Guard is opened for lubricating, it must be closed before operating.

- Oil Roller Chains periodically. It's a good practice to lubricate chain immediately after use while the chain is still warm for best penetration.
- Seeder has greaseable Bearings on the ends of the Front and Rear Rollers and should be greased every 20 hours. See Figure 4-1.

Guard must be closed after Lubricating the left Front Roller Bearing before operating

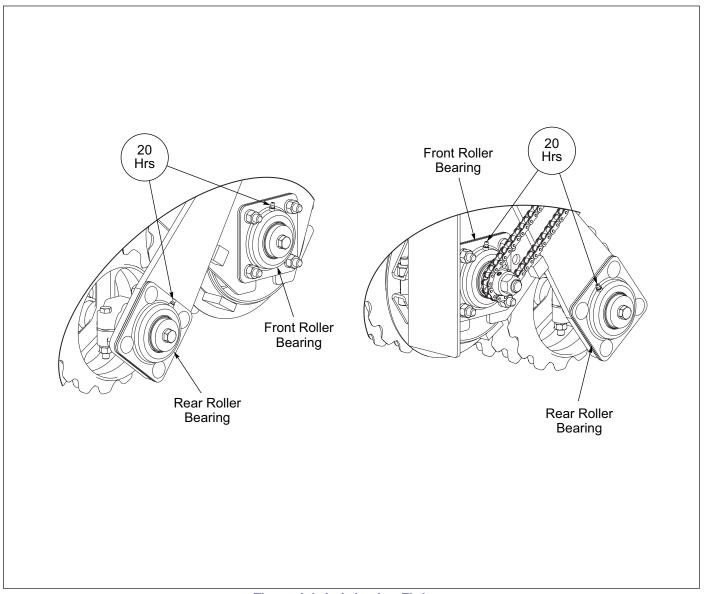


Figure 4-1: Lubrication Fittings

4-2 7K458-2311

# Front and Rear Roller Adjustment

#### NOTE

Failure to position the Front Roller Clamp Band Socket Head Bolt (Clamp Band open section) over the Roller Drum weld seam will cause Clamp Band to loosen and slide.

After an initial run of 5-10 hours, check the Front and Rear Roller Assemblies to ensure that the Wheels are tight to one another and that the Front Roller Clamp Bands and Rear Roller Axle Clamps are tight. If not, slide the Roller Wheels tight together and adjust the Front Roller Clamp Bands and Rear Roller Axle Clamps per Roller Adjustment Procedure. Front Roller, tighten the Clamp Band Socket Head Bolt (Clamp Band open section) over Roller Drum weld seam to 75 Ft-Lbs. Thereafter check Front and Rear Roller Assemblies every 50-100 hours.

#### **Roller Adjustment Procedure**

- Adjust the Front Roller Wheels first. Loosen Clamp Bands and slide the Roller Wheels snug against each other, centering the entire assembly with the Deflector.
- 2. Position the Clamp Band Socket Head Bolt (Clamp Band open section) over the weld seam on the Roller Drum. See Figure 4-2.

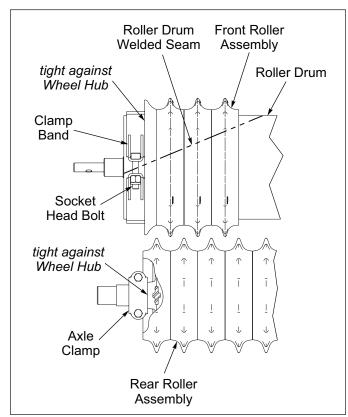


Figure 4-2: Roller Wheels

- 3. Slide the Clamp Band against the Half End Wheel on each end of the Front Roller and tighten the Clamp Band Socket Head Bolt to 75 Ft-Lbs.
- 4. Adjust the Rear Roller Wheels. Loosen the Axle Clamps. Start at the center of the Rear Roller and align the peaks of the Rear Roller Wheels with the valleys of the Front Roller Wheels as best as possible. This will provide the best alignment of worn Roller Wheels and maximize seed germination.
- Slide the Axle Clamp against the end Wheel Hub on each side of the Rear Roller and tighten the 7/16-14 Hardware per torque chart. See "General Torque Specifications" on page 4-1.

### **Chain Tension**

Seeder Drive Chain tension should have about 1/8" to 1/4" slack. **See Figure 4-3.** 

- 1. Loosen the 5/8-11 Idler Sprocket Hardware and move the Idler Sprocket in the Angle slot until 1/8" to 1/4" sag is achieved.
- 2. Re-tighten the 5/8-11 Idler Sprocket Hardware.

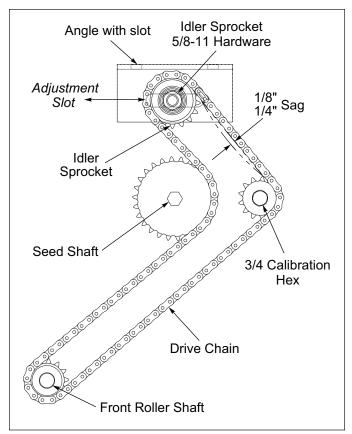


Figure 4-3: Chain Tension

7K458-2311 4-3

# **Seed Box Slide Adjustment**

When the Seed Box Slide is properly adjusted, the following should occur.

 When the Shifter Handle is set to "0" (closed), the Seed Box bottom opening end edge is aligned with the Slide opening end edge. See Figure 4-4.

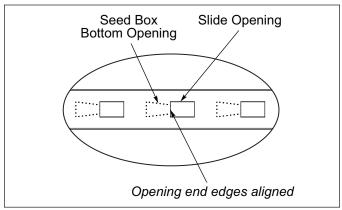


Figure 4-4: Shifter Handle Set at "0"

 When the Shifter Handle is set to "6" (open), the Seed Box bottom opening end edges are aligned with the Slide opening end edges. Seed Box bottom opening is completely visible. See Figure 4-5.

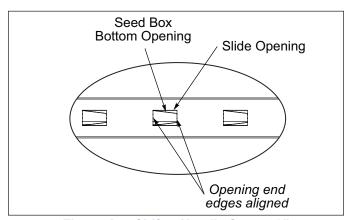


Figure 4-5: Shifter Handle Set at "6"

#### Adjusting the Seed Box Slide

- Loosen the Shifter Handle Wing Nut and move the Shifter Handle until the Slide opening edge is aligned with the Seed Box bottom opening edge. The Seed Box opening should be completely closed. See Figure 4-6.
- 2. The Shifter Handle should be at "0" and the opening in the bottom of the Seed Box should be completely closed. If not, loosen the hardware that attaches the Shifter Plate to the Seed Box. Move the Shifter Plate slightly until the Shifter Handle reads "0" in the triangular cutout.

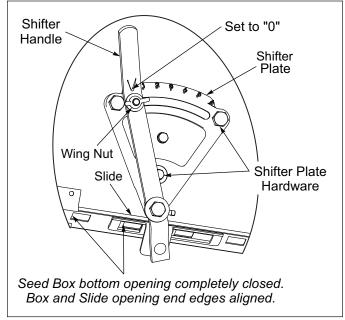


Figure 4-6: Agitator Box Completely Closed.

- 3. Re-tighten the Shifter Plate Hardware.
- 4. Check that the Shifter Handle functions properly in relationship with the Shifter Plate.
  - Shift the Shifter Handle to "0". The Seed Box bottom opening should be fully closed. See Figure 4-6.
  - Shift the Shifter Handle to "6". The Seed Box bottom opening should be completely open. See Figure 4-7.
- 5. Set the Shifter Handle to "0". Tighten Shifter Handle Wing Nut.

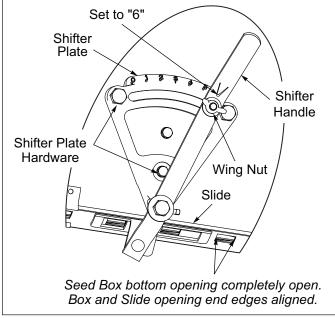


Figure 4-7: Agitator Box Completely Open.

4-4 7K458-2311

### **Acre Meter Troubleshooting**

#### IMPORTANT

Acre Meter is dust and splash resistant, under no circumstances should this unit be submerged in any conductive, corrosive, or flammable liquid. At no time use high pressure water or air to clean it, as this can damage the unit.



Figure 4-8: Acre Meter

#### NOTE

The ground wire is for static discharge protection and has no effect on the ability of the sensor to function properly under normal conditions.

The battery operated Acre Meter uses 3 AA batteries. The Acre Meter will display "LObat" when the batteries require replacement. Remove the Acre Meter from the implement and then the 4 Screws on the back of the case. See Figure 4-9. Separate the housing from the rear plate. Replace with 3 quality AA batteries.

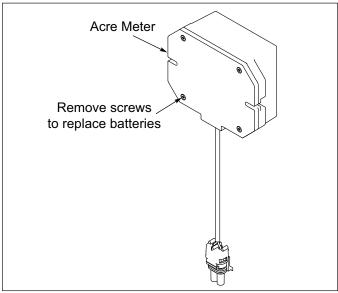


Figure 4-9: Battery Replacement

Acre Meter does not count pulses during calibration or does not count acres during operation.

 Check the position of the Magnet Wheel Assembly and Pick-Up Switch against the set-up instructions in this manual. See "Acre Meter Installation -Optional" on page 2-6.

- 2. Verify that the magnet in the Magnet Wheel Assembly has not come out.
- 3. Place the Acre Meter display in "Calibrate" mode by pressing the \*(FUNC) key until the "P-WORD" indicator is lit and then press the up/down arrow keys until the display shows 0 and the LED is blinking. Break the connection between the display and the Pick-Up Switch and short between pins A and B on the display harness connector. You should see the display increment +1 with each contact of the connector terminals.
- 4. If step 3 works then wave a magnet in front of the Pick-Up Switch face with it re-connected to the display and see if the display increments up. If not, put an ohm meter or continuity tester on the contacts of the Pick-Up Switch harness and place a magnet in front of the Pick-Up Switch face. The Pick-Up Switch should show continuity or near 0 ohms resistance.

# Acre Meter can not change the width or pulse count settings or clear the field and total acres.

- Check to see if a password needs to be entered by pressing the \*(FUNC) key until the "P-WORD" indicator LED is lit. If "dIS" is displayed (password disabled) no password is set.
- 2. If "Ent" is displayed a password must be entered to change the settings or the password must be disabled as instructed in the setup section of this manual.

### **Storage**

- 1. The service life of the Seeder will be extended by proper off-season storage practices. Prior to storing the unit, complete the following procedures:
  - · Vacuum all seed out of the Seed Box.
  - · Completely clean the unit.
  - Inspect the machine for worn or defective parts.
    Replace as needed.
  - Repaint all areas where the original paint is worn off.
  - Lubricate the machine as stated in "Lubrication" on page 4-2.
- 2. Store the unit in a shed or under a tarpaulin to protect it from the weather. The ground engaging components should rest on boards, or some other object, to keep them off the ground.
- 3. Raise the Seeder and install Parking Pins.
- 4. Raise Tire Track Remover if applicable.
- Lower Seeder on a flat or even surface. Chock or block Front and Rear Roller Wheels before unhitching from Tractor or Skid Steer.

7K458-2311 4-5

## TABLE OF CONTENTS

**MAINTENANCE** Table provided for general use. NOTES:

7K458-2311 4-6

# **Specifications**

Product Attributes	LSP-5	LSP-6		
Approximate Weight	966 lbs. (438 kg)	1,103 lbs. (500 kg)		
Working Width	5 ft. 0 in. (1.25 m)	6 ft. 0 in. (1.8 m)		
Transport Width	6 ft. 0 in. (1.8 m)	7 ft. 0 in. (2.1 m)		
Transport Height	Dependent Upon Tractor	Dependent Upon Tractor		
Overall Height	4 ft. 5 in. (1.4 m)	4 ft. 5 in. (1.4 m)		
Overall Length	2 ft. 6 in. (0.8 m)	2 ft. 6 in. (0.8 m)		
Seed Box	All Steel Construction w/ Cover	All Steel Construction w/ Cover		
Seed Box Capacity - (Agitator)	3.75 bu.	4.5 bu.		
Seed Metering System	Blade Agitator	Blade Agitator		
Seed Metering Drive System	Ground Driven	Ground Driven		
Agitator Box Opening Spacing	3 in. (76.2 mm)	3 in. (76.2 mm)		
Seed Delivery	Broadcast with Wind Deflector Tray	Broadcast with Wind Deflector Tray		
Pulverizer Roller - Front	11.5 in. (292 mm) Gray Cast Iron	11.5 in. (292 mm) Gray Cast Iron		
Pulverizer Roller - Rear	9.5 in. (241 mm) Gray Cast Iron	9.5 in. (241 mm) Gray Cast Iron		
Pulverizer Axle Bearings	Greaseable	Greaseable		
Pulverizer Axle Size - Front	8.625 in. (219 mm)	8.625 in. (219 mm)		
Pulverizer Axle Size - Rear	1.75 in. (44.5 mm)	1.75 in. (44.5 mm)		
Coil Tine Wheel Track Remover	Standard	Standard		
Hitch Type	3-PT Hitch	3-PT Hitch		
Hitch Category	Cat. 1,2 Free Link; Cat. 1 Quick Hitch	Cat. 1,2 Free Link; Cat. 1 Quick Hitch		
Cat. 2 Quick Hitch Adapter Kit	Optional	Optional		
Spike Roller - Front (6FT)	Optional	Optional		
Notched Roller w/Sprockets - Rear	Optional	Optional		
Notched Heavy Roller w/Sprockets - Rear (6FT)				
11.5 in. (292 mm) Cast Iron Wheels	Continued	Ontinual		
8.625 in (219 mm) Axle Size	Optional	Optional		
5-Strip Brush Agitator Kit	Optional	Optional		
8-Row Brush Agitator Kit	Optional	Optional		
Electronic Acre Meter Kit	Optional	Optional		
Lift Sling Kit	Optional	Optional		
SMV Emblem	Standard	Standard		
Powder Coat Paint, Red	Standard	Standard		
Horsepower Requirements	35 HP (26.88 kW) and up	35 HP (26.88 kW) and up		
Recommended Operating Speed	3 to 5 MPH (5 to 8.3 km/h)	3 to 5 MPH (5 to 8.3 km/h)		

Specifications subject to change with or without notice.

Figure 5-1: Specification (1 of 2)

7K458-2311 5-1

Product Attributes	LSS-6
Approximate Weight	1,300 lbs. (590 kg)
Working Width	6 ft. 0 in. (1.8 m)
Transport Width	7 ft. 0 in. (2.1 m)
Transport Height	Dependent Upon Tractor
Overall Height	4 ft. 5 in. (1.4 m)
Overall Length	3 ft. 8 in. (1.1 m)
Seed Box	All Steel Construction w/ Cover
Seed Box Capacity - (Agitator)	4.5 bu.
Seed Metering System	Blade Agitator
Seed Metering Drive System	Ground Driven
Agitator Box Opening Spacing	3 in. (76.2 mm)
Seed Delivery	Broadcast with Wind Deflector Tray
Pulverizer Roller - Front	11.5 in. (292 mm) Gray Cast Iron
Pulverizer Roller - Rear	9.5 in. (241 mm) Gray Cast Iron
Pulverizer Axle Bearings	Greaseable
Pulverizer Axle Size - Front	8.625 in. (219 mm)
Pulverizer Axle Size - Rear	1.75 in. (44.5 mm)
Coil Tine Wheel Track Remover	Standard
Hitch Type	Skid Steer Quick Attach Plate; 3-PT Hitch
Hitch Category	Cat. 1,2 Free Link; Cat. 1 Quick Hitch
Cat. 2 Quick Hitch Adapter Kit	Optional
Spike Roller - Front (6FT)	Optional
Notched Roller w/Sprockets - Rear	Optional
Notched Heavy Roller w/Sprockets - Re	ear (6FT)
11.5 in. (292 mm) Cast Iron Wheels 8.625 in (219 mm) Axle Size	Optional
5-Strip Brush Agitator Kit	Optional
8-Row Brush Agitator Kit	Optional
Electronic Acre Meter Kit	Optional
Lift Sling Kit	Optional
SMV Emblem	Standard
Powder Coat Paint, Red	Standard
Horsepower Requirements	35 HP (26.88 kW) and up
Recommended Operating Speed	3 to 5 MPH (5 to 8.3 km/h)

Specifications subject to change with or without notice.

Figure 5-2: Specification (2 of 2)

5-2 7K458-2311

# **Document Control Revision Log:**

Date	Form #	Improvement(s): Description and Comments
05/2008	102rev0508	Initial Release
10/2011	102rev1011	Updated, Incorporated Landoll Format
03/13/2013	102rev0313	Added New Acre Meter Data
02/2021	7K458-0221	Added CAT2 Quick Coupler Hitch Adaptor Kit
02/2022	7K458-0222	Updated: Assembly Chapter "Changing Agitator Kits"
11/2023	7K458-2311	ECN 49189, 49285, 49288, 49297, 49305, 49332, 49393, 49402, 49417 - Lift Sling Kit, SMV, Quick Hitch Sleeves *Revision Format "Year/Date"



Equipment from Landoll Company, LLC is built to exacting standards ensured by ISO 9001 registration at all Landoll manufacturing facilities.

# Landscape Grass Seeder Models LSP5, LSP6 and LSS6 Operator's Manual

# Re-Order Part Number 7K458

#### LANDOLL COMPANY, LLC

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