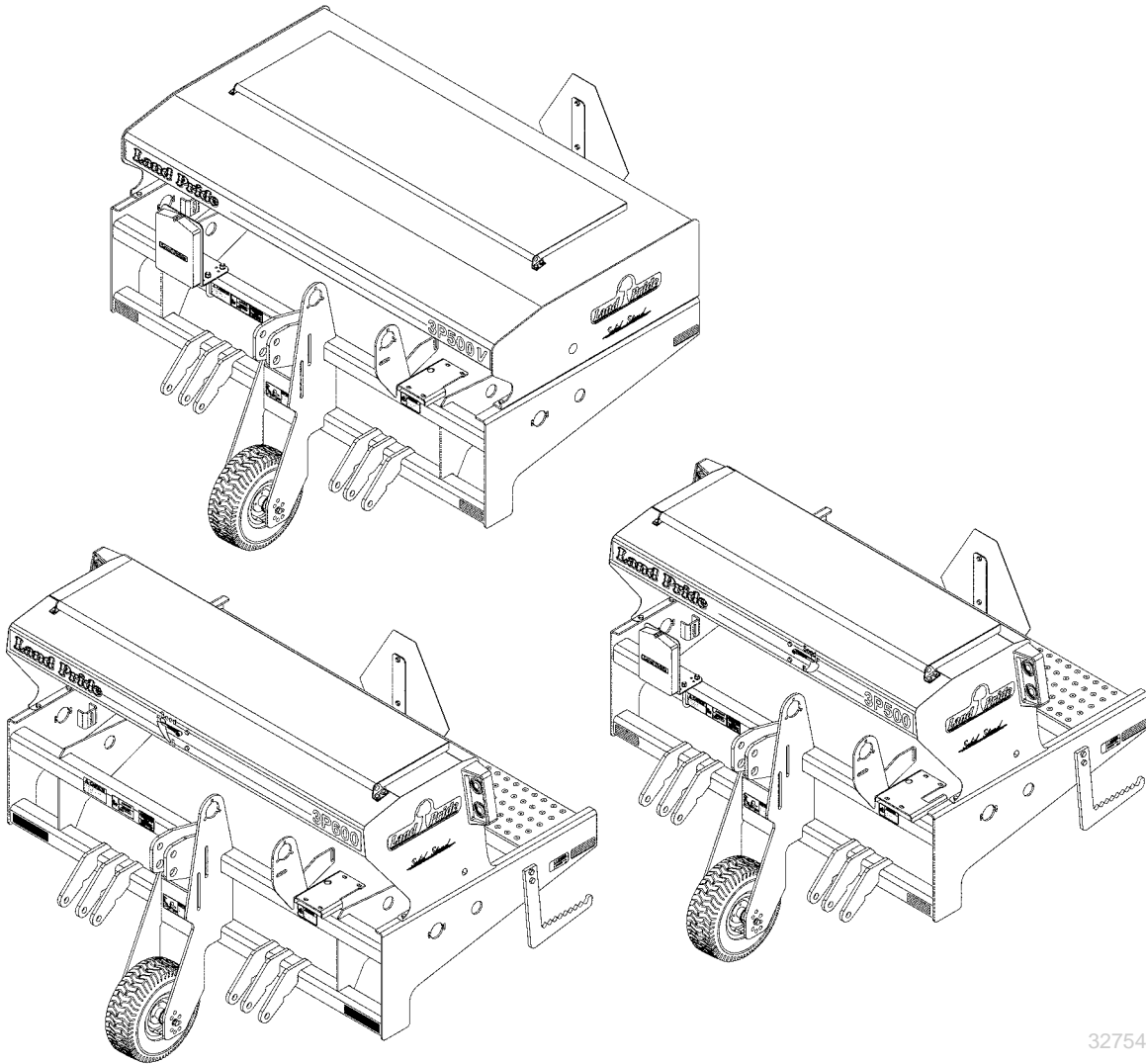


Compact Drills

3P500, 3P500V & 3P600



32754

ORIGINAL INSTRUCTIONS

313-517M
Operator's Manual



Read the Operator's Manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Illustrations may show optional equipment not supplied with standard unit.



Machine Identification

Record your machine details in the log below. If you replace this manual, be sure to transfer this information to the new manual.

If you or the dealer have added options not originally ordered with the machine, or removed options that were originally ordered, the weights and measurements are no longer accurate for your machine. Update the record by adding the machine weight and measurements with the option(s) weight and measurements.

Model Number	
Serial Number	
Machine Height	
Machine Length	
Machine Width	
Machine Weight	
Year of Construction	
Delivery Date	
First Operation	
Accessories	 <hr/> <hr/> <hr/>

Dealer Contact Information

Name: _____

Street: _____

City/State: _____

Telephone: _____

Email: _____

Dealer's Customer No.: _____

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov

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Printed in the United States of America

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Important Safety Information

Look for Safety Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.



Be Aware of Signal Words

Signal words designate a degree or level of hazard seriousness.

DANGER, and the color Safety Red, indicate an imminent hazard which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.



WARNING, and the color Safety Orange, indicate a potential hazard which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



CAUTION, and the color Safety Yellow, indicate a potential hazard which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



Prepare for Emergencies


- ▲ *Be prepared if a fire starts*
- ▲ *Keep a first aid kit and fire extinguisher handy.*
- ▲ *Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.*



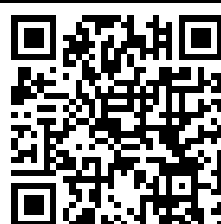
Be Familiar with Safety Decals

- ▲ *Read and understand "Safety Decals" on page 5, thoroughly.*
- ▲ *Read all instructions noted on the decals.*
- ▲ *Keep decals clean. Replace damaged, faded and illegible decals.*





Parts Manual QR Locator
 The QR Code® (Quick Reference) on the front cover and to the left will take you to the Parts Manual for this equipment. Download the appropriate App on your smart phone, open the App, point your phone on the QR Code® and take a picture.



Dealer QR Locator
 The QR Code® at left will link you to available dealers for Land Pride products. Refer to Parts Manual QR Locator for detailed instructions.

Wear Protective Equipment

- ▲ *Wear protective clothing and equipment.*
- ▲ *Wear 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.*
- ▲ *Because operating equipment safely requires your full attention, avoid wearing entertainment headphones while operating machinery.*



Handle Chemicals Properly

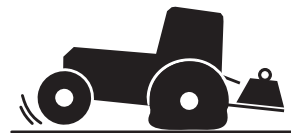
Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil and property.

- ▲ *Do not use liquid seed treatments with the drill.*
- ▲ *Read and follow chemical manufacturer's instructions.*
- ▲ *Wear protective clothing.*
- ▲ *Handle all chemicals with care.*
- ▲ *Avoid inhaling smoke from any type of chemical fire.*
- ▲ *Never drain, rinse or wash dispensers within 100 feet (30 m) of a freshwater source, nor at a car wash.*
- ▲ *Store or dispose of unused chemicals as specified by chemical manufacturer.*
- ▲ *Dispose of empty chemical containers properly. Laws generally require power rinsing or rinsing three times, followed by perforation of the container to prevent re-use.*



Use an Adequate Tractor

- ▲ *Ensure that the tractor is rated for, and correctly ballasted for the drill's 3-point loading. Check that drill plus ballast does not exceed the tractor's capability.*
- ▲ *Avoid transport with material loaded in boxes.*



Keep Riders Off Machinery

Riders obstruct the operator's view. Riders could be struck by foreign objects or thrown from the machine.

- ▲ *Never allow children to operate equipment.*
- ▲ *Keep all bystanders away from machine during operation.*



Use Safety Lights and Devices

Slow-moving tractors and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.

- ▲ *Use flashing warning lights and turn signals whenever driving on public roads.*
- ▲ *Use lights and devices if provided with implement.*



Transport Machinery Safely

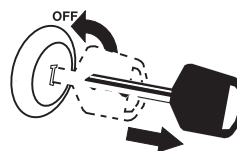
Maximum transport speed for the implement on its own tires is 20 mph (30 kph). Rough terrain may require a slower speed. Sudden braking can cause a towed load to swerve and upset.

- ▲ Do not exceed 20 mph (30 kph). Travel only at a speed which allows adequate control of steering and stopping.
- ▲ Comply with state and local laws.
- ▲ Carry reflectors or flags to mark drill in case of breakdown on the road.
- ▲ 3-point implements reduce weight on steering tires. Verify that tractor is correctly ballasted. Watch for signs of poor steering traction.



Shutdown and Storage

- ▲ Park on level ground.
- ▲ Unhitch and store the drill in an area where children normally do not play.



Tire Safety

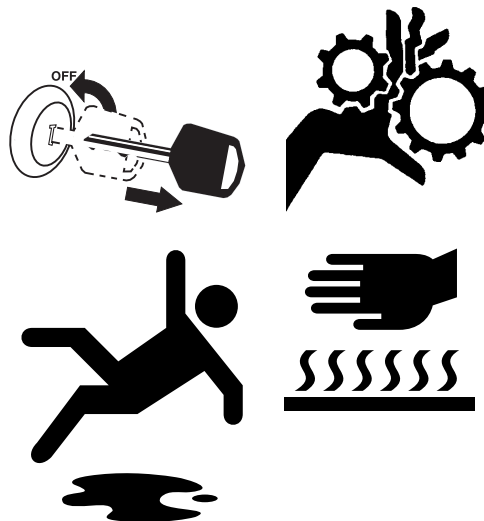
Tire changing can be dangerous and should be performed by trained personnel using correct tools and equipment.

- ▲ When inflating tires, use a clip-on chuck and extension hose long enough for you to stand to one side—not in front of or over tire assembly. Use a safety cage if available.
- ▲ When removing and installing wheels, use wheel-handling equipment adequate for weight involved.



Practice Safe Maintenance

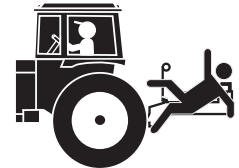
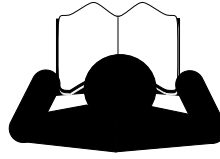
- ▲ Understand procedure before doing work. Use proper tools and equipment. Refer to this manual.
- ▲ Work in a clean, dry area.
- ▲ Lower the drill, put tractor in park, turn off engine, and remove key before performing maintenance. If work must be performed with implement raised, use blocks or jackstands rated for the drill weight.
- ▲ Make sure all moving parts have stopped and all system pressure is relieved.
- ▲ Allow drill to cool completely.
- ▲ Disconnect lighting connector before servicing or adjusting electrical systems.
- ▲ Welding: Disconnect battery ground. Avoid fumes from heated paint.
- ▲ Inspect all parts. Make sure parts are in good condition and installed properly.
- ▲ Remove buildup of grease, oil or debris.
- ▲ Remove all tools and unused parts from drill before operation.



Safety At All Times

Thoroughly read and understand the instructions in this manual before operation. Read all instructions noted on the safety decals.

- ▲ *Be familiar with all drill functions.*
- ▲ *Operate machinery from the driver's seat only.*
- ▲ *Do not leave drill unattended with tractor engine running.*
- ▲ *Do not stand between the moving tractor and drill during hitching.*
- ▲ *Keep hands, feet and clothing away from power-driven parts.*
- ▲ *Wear snug-fitting clothing to avoid entanglement with moving parts.*
- ▲ *Make sure all persons are clear of working area.*



Safety Decals

Safety Reflectors and Decals

Your implement comes equipped with all lights, safety reflectors and decals in place. They were designed to help you safely operate your implement.

- ▲ *Read and follow decal directions.*
- ▲ *Keep lights in operating condition.*
- ▲ *Keep all safety decals clean and legible.*
- ▲ *Replace all damaged or missing decals. Order new decals from your Land Pride dealer. Refer to this section for proper decal placement.*
- ▲ *When ordering new parts or components, also request corresponding safety decals.*

Reflector: Slow Moving Vehicle (SMV) 818-055C



Models 3P500 and 3P600

At center of walkboard;
1 total

See transport topic on page 14.

Reflector: Slow Moving Vehicle (SMV) 818-055C



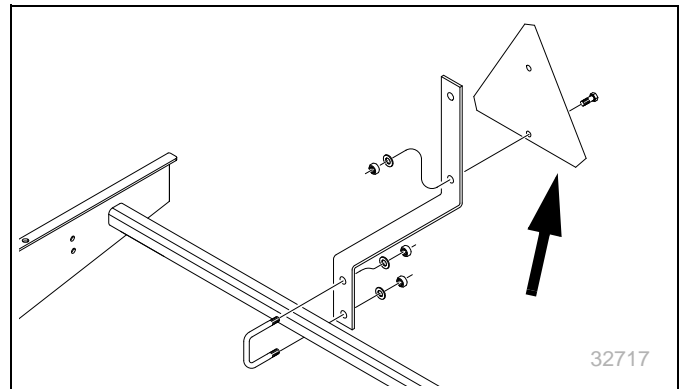
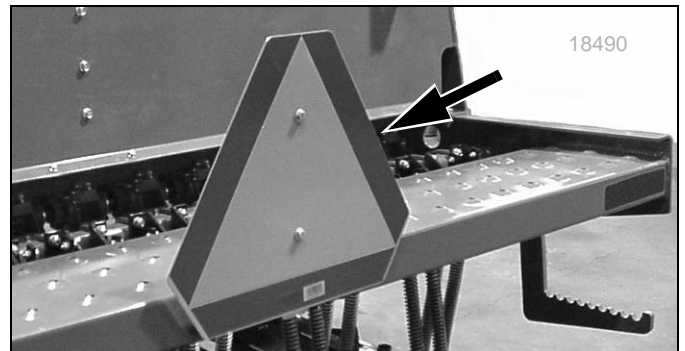
Model 3P500V

At center of walkboard;
1 total

See transport topic on page 14.

To install new decals:

1. Clean the area on which the decal is to be placed.
2. Peel backing from decal. Press firmly on surface, being careful not to cause air bubbles under decal.



Reflectors: Red

838-266C

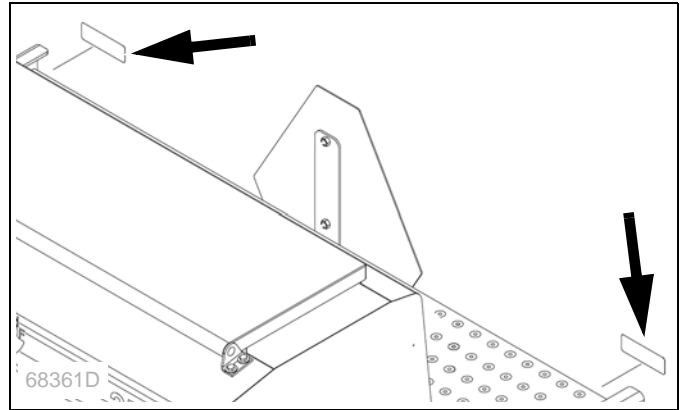


Models 3P500 and 3P600 (standard)

Model 3P500V (Option)

On rear face of walkboard, left and right ends;
2 total

See transport topic on page 14.



Reflectors: Red

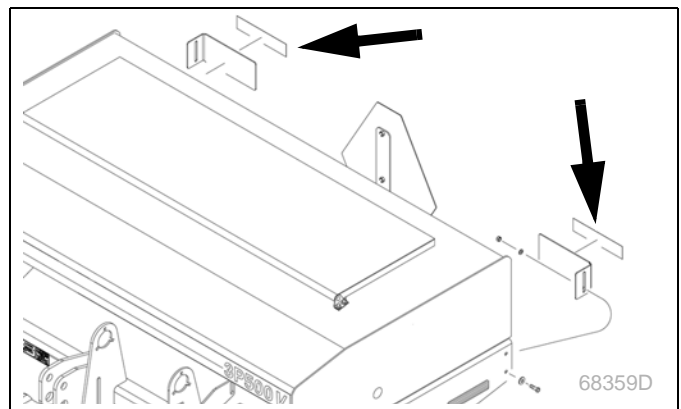
838-266C



Model 3P500V (Standard)

On bracket at rear of seed box, left and right ends;
2 total

See transport topic on page 14.



Reflectors: Amber

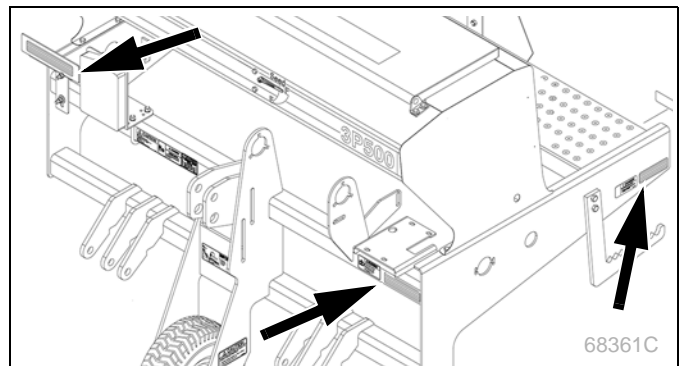
838-265C



Models 3P500 and 3P600

On outside face of side frames, at rear; on front face of
upper front tool bar, left end; and on bracket on upper
front tool bar, right end;
4 total

See transport topic on page 14.



Reflectors: Amber

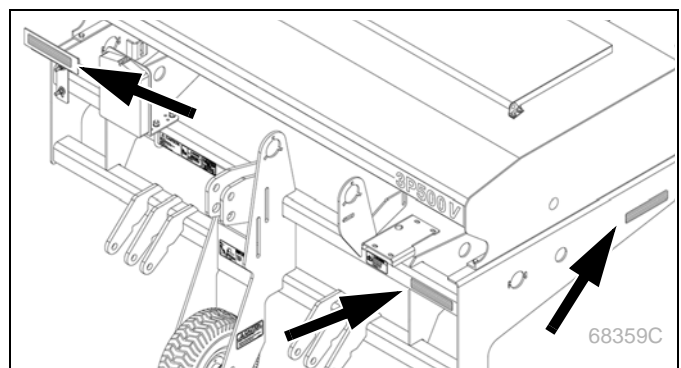
838-265C



Model 3P500V

On outside face of side frames, at rear; on front face of
upper front tool bar, left end; and on bracket on upper
front tool bar, right end;
4 total

See transport topic on page 14.



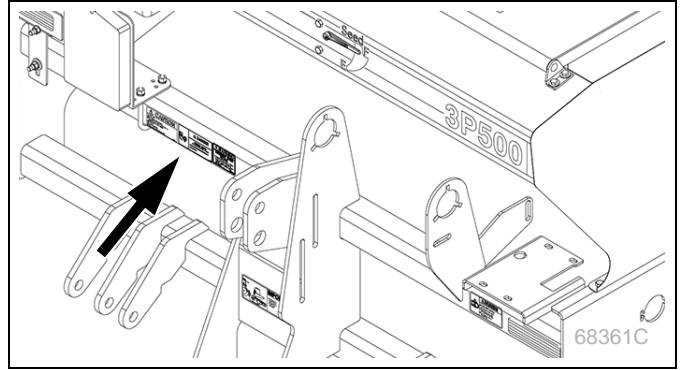
Danger: Hitch Crush

818-590C



All Models

Front face, top front tool bar, right of center;
2 total



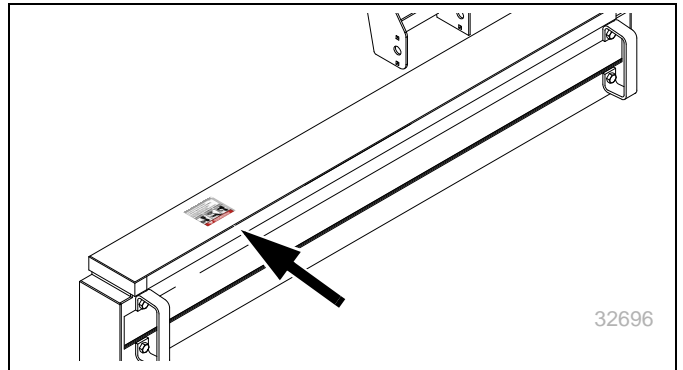
Danger: Possible Chemical Hazard (Option)

838-467C



(with Small Seeds Option only)

Under lid;
1 total



Warning: Falling Hazard

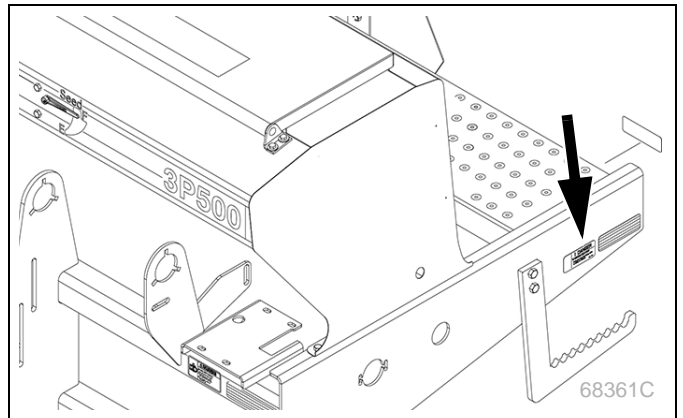
838-102C



Models 3P500 and 3P600 (standard)
Model 3P500V (Option)

On side frames at walkboard ends;
2 total

See "Loading Seed" on page 15.



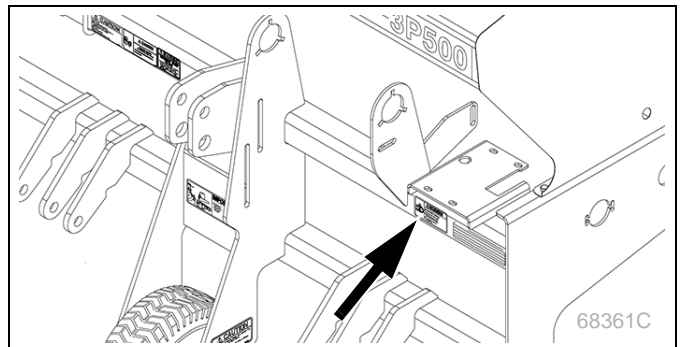
Warning: Moving Parts (standard)

818-860C



All Models

On front face, upper front frame tube, below gearbox;
1 total



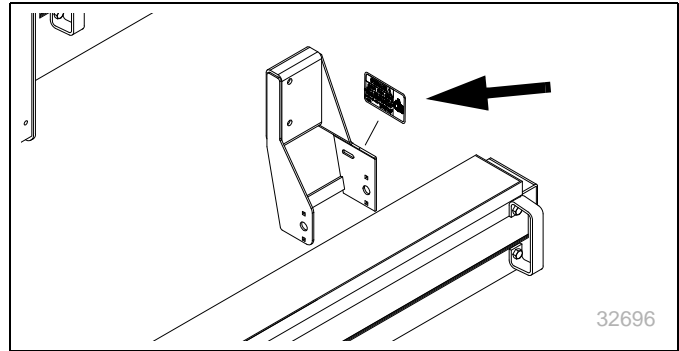
Warning: Moving Parts (Option)

818-860C



(with Small Seeds Option only)

On front face, upper front frame tube, below gearbox;
1 total



Warning: Speed

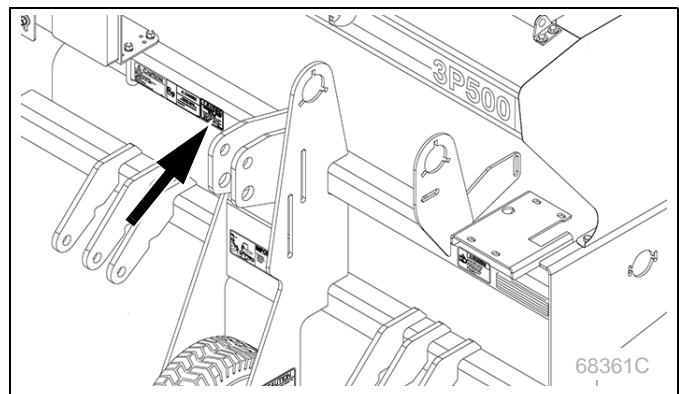
818-337C



All Models

On front face, upper front frame tube, right of center;
1 total

See transport topic on page 14.



Caution: General

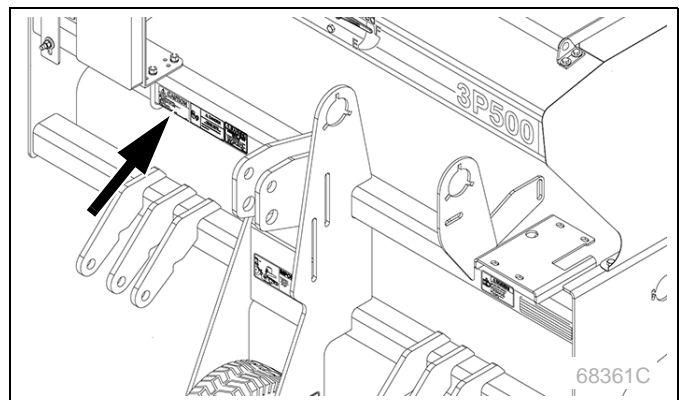
818-719C



All Models

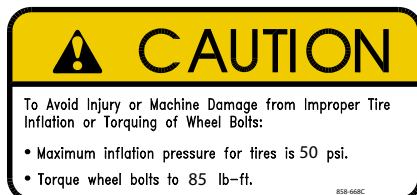
On front face, upper front frame tube, right of center;
1 total

See "Important Safety Information" on page 1.



Caution: Tire Pressure

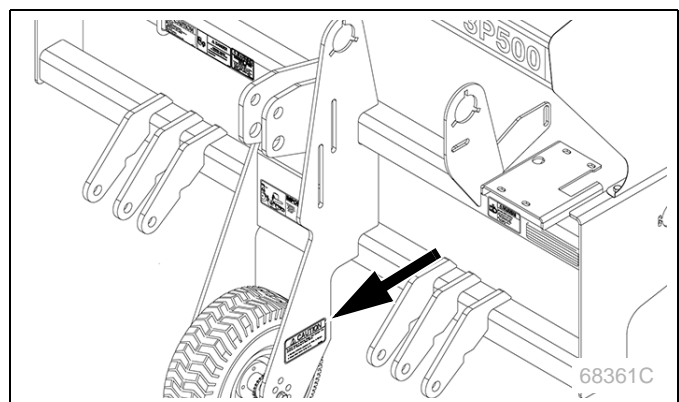
858-668C



All Models

On each side of wheel;
2 total

See "Important Safety Information" on page 1.



Introduction

Land Pride welcomes you to its growing family of new product owners. Your no-till drill has been designed with care and built by skilled workers using quality materials. Proper setup, maintenance, and safe operating practices will help you get years of satisfactory use from the machine.

Description of Unit

The 3P500, 3P500V and 3P600 are 3-point seeding implements. The drill has straight arm, double disc 00 Series openers. The opener discs make a seed bed, and seed tubes mounted between the discs place seed in the furrow. Press wheels following the opener discs close the furrow and gauge opener seeding depth. A T-handle on the opener body makes seeding depth adjustments.

The metering system is driven from the gauge wheel. Seeding rates are set by rate adjustment handles and a Drive Type gearbox for the main seed box.

Intended Usage

Use this implement to seed production-agriculture crops in conventional or minimum tillage applications.

Models Covered

This manual applies to Land Pride drill models:

3P500	7-Row 7.5 in. (19.1 cm)
3P500	9-Row 6 in. (15.2 cm)
3P500V	9-Row 6 in. (15.2 cm)
3P600	9-Row 7.5 in. (19.1 cm)
3P600	11-Row 6 in. (15.2 cm)

Standard drills have a Main Seed box. Small Seeds capability may be added to Models 3P500 or 3P600.

The Model 3P500V (Vineyard) is a low-profile version of the 3P500.

Document Family

313-517M	Operator Manual (this document)
313-517P	Parts Manual
313-522B	Seed Rate Manual
152-314M	Electronic Acremeter Manual

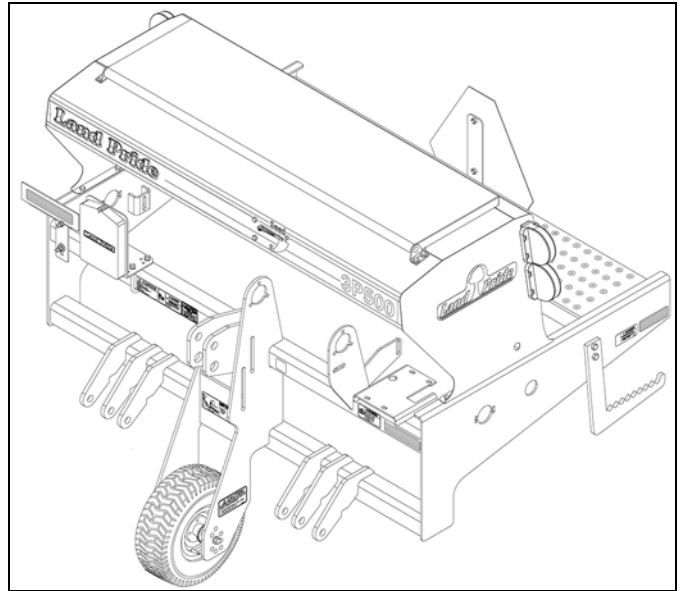


Figure 1
3P500 Compact Drill

68361F

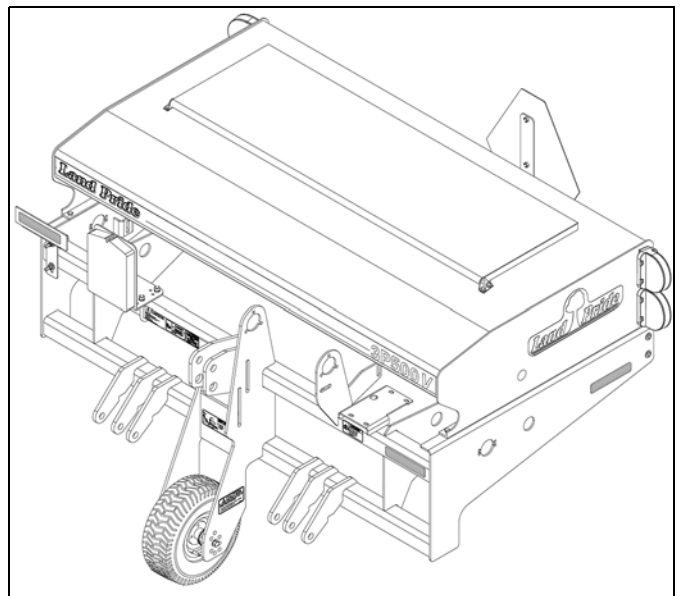


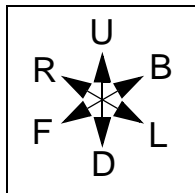
Figure 2
3P500V Compact Drill

68359F

Using This Manual

This manual familiarizes you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

Right-hand and left-hand as used in this manual are determined by facing the direction the machine will travel while in use unless otherwise stated. An orientation rose in some line art illustrations shows the directions of: Up, Back, Left, Down, Front, Right.



Owner Assistance

If you need customer service or repair parts, contact a Land Pride dealer. They have trained personnel, repair parts and equipment specially designed for Land Pride products.

Refer to Figure 3

Your machine's parts were specially designed and should only be replaced with Land Pride parts. Always use the serial and model number when ordering parts from your Land Pride dealer. The serial-number plate is located on the upper front frame tube, left of center.

Record your drill model and serial number here and at the bottom of the Warranty page (inside back cover) for quick reference:

Model Number: _____

Serial Number: _____

Your Land Pride dealer wants you to be satisfied with your new machine. If you do not understand any part of this manual or are not satisfied with the service received, please take the following actions.

1. Discuss the matter with your dealership service manager. Make sure they are aware of any problems so they can assist you.
2. If you are still unsatisfied, seek out the owner or general manager of the dealership.

NOTICE

Identifies an Economic (not a Safety) Risk:

NOTICE provides a crucial point of information related to the current topic. Read and follow the instructions to avoid damage to equipment and ensure desired field results.

Note: This form sets off useful information related to the current topic, or forestalls possible misunderstanding.

The information in this manual is current at printing. Some parts may change to assure top performance.

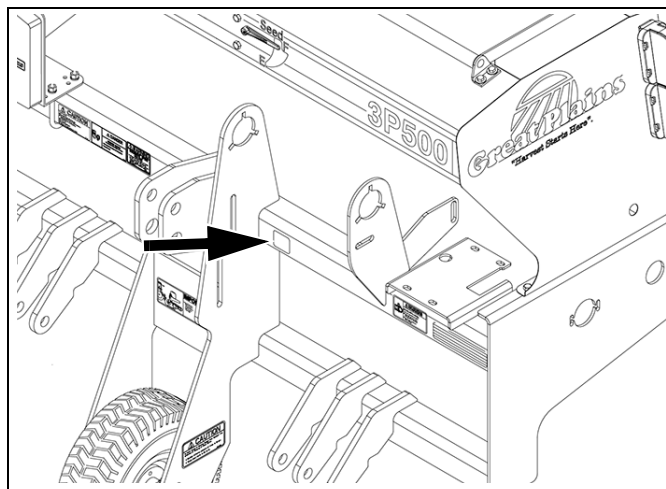


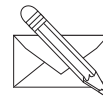
Figure 3
Serial Number Location

68361E

For further assistance write to:

Product Support

Land Pride, Service Department
PO Box 5060
Salina, KS 67402-5060



E-mail address:

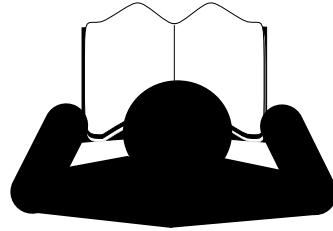
lp servicedept@landpride.com

Preparation and Setup

This section helps you prepare your tractor and drill for use. Before using the drill in the field, you must hitch the drill to a suitable tractor and also setup the drill.

Pre-Setup Checklist

1. Verify that dealer pre-delivery is complete and optional accessories are installed (page 44).
2. Read and understand “**Important Safety Information**” on page 1.
3. Check that all working parts are moving freely, bolts are tight, and cotter pins are spread.
4. Check that all grease fittings are in place and lubricated. See “**Lubrication and Scheduled Maintenance**” on page 32.
5. Check that all safety decals and reflectors are correctly located and legible. Replace if damaged. See “**Safety Decals**” on page 5.
6. Inflate tires and tighten wheel bolts as at “**Tire Pressures**” on page 39.



Hitching Tractor to Drill

⚠ DANGER

Crushing Hazard:

You may be severely injured or killed by being crushed between the tractor and drill. Do not stand or place any part of your body between drill and moving tractor. Stop tractor engine and set park brake before installing the hitch pin.

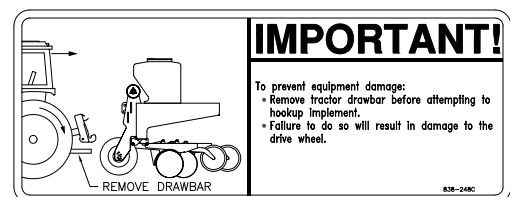
NOTICE

Certain Machine Damage:

Remove tractor draw bar before hitching. The drill drive wheel will be damaged if drawbar is not removed.

1. Raise or lower tractor 3-point arms as needed and pin lower arms to drill.
2. Pin upper arm to drill.
3. Slowly raise drill. Watch for cab interference.
4. Adjust top 3-point link so the top edge of drill box is parallel with the ground when drilling.

Note: Do not use link to adjust opener depth. For opener adjustments, refer to “**Opener Depth (Press Wheel Height)**” on page 25. Set your tractor 3-point draft control to Float position for planting.



NOTICE

Equipment Damage Risk:

Due to interference with the gauge wheel assembly, drill models 3P500, 3P500V and 3P600 are not compatible with Great Plains accessory hitches CPH, PFH and SSH, nor with the Land Pride hitch set-back kit.

Electrical Connection (Option)

Refer to Figure 4

5. Plug drill electrical lead into tractor seven-pin connector. If your tractor is not equipped with an SAE-J560B seven-pin connector, contact your dealer for installation.

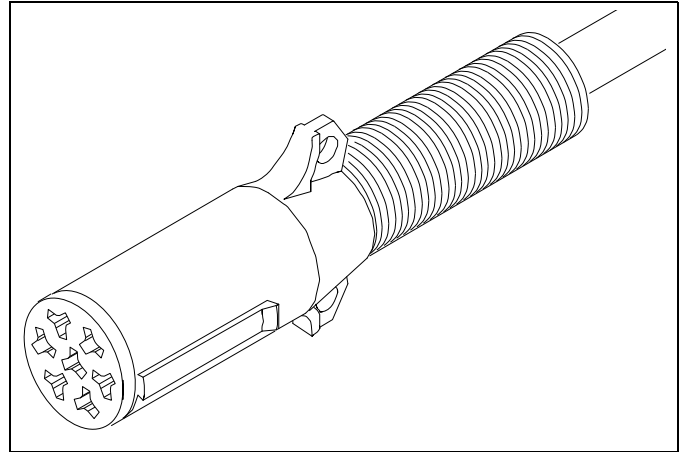


Figure 4
Lighting Connector

26467

Height and Leveling the Drill

Refer to Figure 5 and Figure 9 on page 19

1. Initially adjust drill so opener tool bar runs 18 in. (45.7 cm) above ground when drill is lowered in the field.
2. The drive wheel should be in the fourth mounting hole from the top (factory setting).

Note: The drive may need to be adjusted due to ground conditions.

3. Level the drill frame with the top 3-point link.

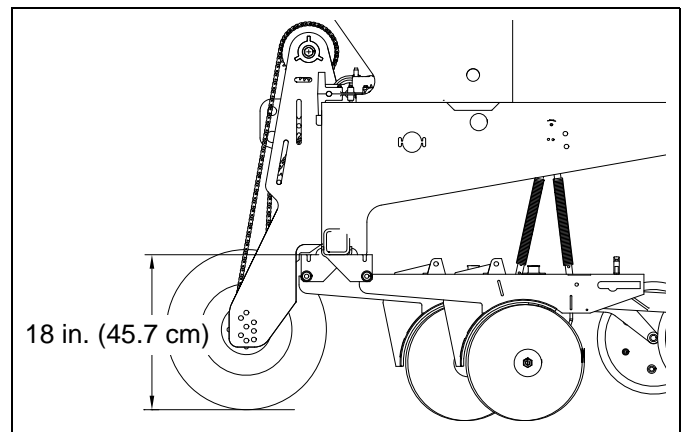


Figure 5
Initial Field Height

18545

Refer to Figure 6

4. When drill is level, the gap between the spring-rod casting and the cross bolt will be about 2 inches. This is a general dimension that will vary with the amount of down pressure required for your planting conditions.

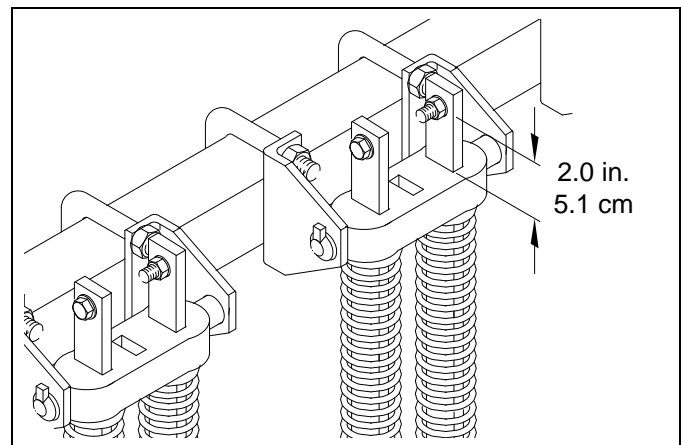
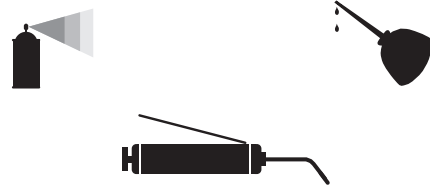


Figure 6
Initial Spring Rod Reveal

10548

Operation Instructions

This section covers general operating procedures. Experience, machine familiarity and the following information will lead to efficient operation and good working habits. Always operate farm machinery with safety in mind.



Pre-Start Checklist

1. Carefully read “**Important Safety Information**” starting on page 1.
2. Lubricate drill per “**Lubrication and Scheduled Maintenance**” starting on page 32.
3. Check all tires for proper inflation. See “**Tire Pressures**” on page 39.
4. Check all bolts, pins and fasteners. See “**Torque Values Chart**” on page 39.
5. Check drill for worn or damaged parts. Repair or replace faulty parts before going to the field.
6. Rotate both drive wheel to verify that the drive and meters are working properly and free from foreign material.



WARNING

Falling Hazard:
 Watch your step when walking on drill steps and walkboard.
 Falling from drill could cause severe injury or death.



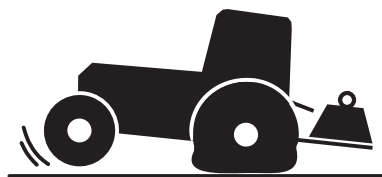
Transporting

Use an Adequate Tractor (3-Point)

⚠ DANGER

Loss of Control Hazard:

Insufficient weight on tractor steering tires can dangerously reduce steering authority, particularly during acceleration and ascending hills. You can lose directional control entirely, which could result in a major accident, serious injury, or death. Adding too much ballast could lead to brake or other mechanical failures, tire failures and loss of control.



- ▲ Ensure that the tractor is rated for, and correctly ballasted for the drill's 3-point loading. Check that drill plus ballast does not exceed the tractor's capability.
- ▲ Avoid transport with material loaded in boxes.

The total drill weight and center of gravity vary with drill configuration and material load. See tables below.

3P500 Example Weights

	3P500 Configuration	
	7-Row 7.5 Inch (19.1 cm)	9-Row 6 inch (15.2 cm)
Standard Drill (Main Seed Only), Empty	1100 lbs (500 kg)	1300 lbs (590 kg)
Standard Drill with Main Seed Loaded	1700 lbs (770 kg)	1900 lbs (860 kg)
Drill with Small Seeds Option, Empty	1170 lbs (530 kg)	1370 lbs (620 kg)
Dril with Main and Small Seeds Loaded	1840 lbs (840 kg)	2040 lbs (930 kg)

3P500V Example Weights

	3P500V Configuration
	9-Row 6 in (15.2 cm)
Standard Drill (Main Seed Only), Empty	1300 lbs (590 kg)
Standard Drill with Main Seed Loaded	1900 lbs (860 kg)

3P600 Example Weights

	3P600 Configuration	
	9-Row 7.5 Inch (19.1 cm)	11-Row 6 inch (15.2 cm)
Standard Drill (Main Seed Only), Empty	1380 lbs (630 kg)	1500 lbs (680 kg)
Standard Drill with Main Seed Loaded	2100 lbs (950 kg)	2220 lbs (1010 kg)
Drill with Small Seeds Option, Empty	1470 lbs (670 kg)	1590 lbs (720 kg)
Dril with Main and Small Seeds Loaded	2270 lbs (1030 kg)	2390 lbs (1090 kg)

Transport Cautiously

Keep Clearance in Mind

Remember that the drill may be wider than the tractor. Allow safe clearance.

Observe Road Rules

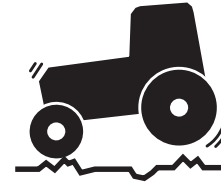
Comply with all national, regional and local safety laws when traveling on public roads.

Reduce speed on rough roads.

WARNING

Loss of Control Hazard:

Towing at high speeds or with a vehicle that is not heavy enough could lead to loss of vehicle control. Loss of vehicle control could lead to a serious road accident, injury and death. To reduce the hazard, do not exceed 20 mph (30 kph).



Loading Seed

Fully loaded with dense seed, the drill weight can be nearly double the empty weight. Include seed weight when checking tractor capability.

The drill must be hitched for seed loading.

Load slightly more seed than needed, because consumption rates can vary between compartments even though the furrow rates are identical.

WARNING

Falling Hazard:

Watch your step on the walkboard and walkboard steps. A fall could result in serious injury or death. Load seed only with the drill hitched and lowered.

WARNING

Possible Chemical or Dust Hazards:

Take all prescribed material safety precautions.

Main Seed Box Loading

1. Check that all meter doors are positioned for the seed size, and not set for clean-out. See "**Position Seed Cup Doors**" in seed Rate Manual. If loading prior to transport, set them to position 1 (smallest seed).
2. Install or remove optional seed plugs as desired for the row spacing planned. Refer to Seed Rate Manual.

If loading prior to transport, and calibration has not yet been done, set Seed Rate Handle to 0. At 0, and with the doors at 1, no seed can leak during transport.

3. The main seed box lid handle is also a latch. It needs to pivot up to release the lid.
4. Load seed evenly into compartments.

To reduce wear, remove final drive chain if an unused Small Seeds box is installed.

Loading Small Seeds Box

1. If loading prior to transport, and calibration has not yet been done, set Seed Rate Handle to 0. At 0, no seed can leak during transport.
2. Take all necessary materials safety precautions if the seed is treated.
3. The Small Seeds lid is held closed by two external rubber latches. Pull them up and to the rear to release the lid.
4. Load seed evenly into compartments.
5. To reduce wear, remove main shaft drive chain for main seed box, if unused.

Acremeter Operation

An electronic acremeter or hectare meter is standard on new drills.

Refer to *Figure 7* and *Figure 8*

The acremeter counts shaft rotations whenever the shaft is rotating - this is with the drill lowered and in motion or during crank operation. The meter is programmed to display rotations as acres or hectares, when using all rows, factory-specified tires and tire inflations. See the Electronic Acremeter Manual 152-314M.

Normal Operating Sequence

1. Record the acremeter reading at the start of planting (and after calibration). The large "12345.6" format display is the grand total area planted since meter installation. The smaller number in the lower left corner is the number of revolutions per acre (or hectare) for which the meter was programmed. If the display is blank, see "**Dormant Display**" below.

Note: The acremeter counts rotations during drill calibration (and if so, can be useful for calibration, although the meter must be on, or moved to, the shaft being cranked).

2. Lower drill and plant. The acremeter counts shaft rotations, calculates acres or hectares, and adds to the running grand total.
3. During planting (drill lowered and moving forward), the display blanks (goes dormant), but area tally continues.
4. When raised for turns, obstructions and transport, the drive wheel stops, and the meter counts no additional (non-planting) rotations.
5. Whenever shaft rotation stops, the LCD display activates after 30 to 60 seconds, and remains visible for 30 to 45 minutes.
6. At the completion of planting, record the final reading or the grand total. If the display goes dormant before you can read it, see "**Dormant Display**".
7. Subtract the reading at step 1 from the reading at step 6 for the total planted in the present session.

Dormant Display

To conserve power, the LCD display blanks itself most of the time. If you need to read the display after it has "timed-out" and gone dormant:

- use the calibration crank to turn the jackshaft once, or
- gently tap or wave a magnet at either of the logo spots ① on the lower region of the display. Be careful not to scratch the window.



Figure 7
Electronic Acremeter

27378

Note: Unusual conditions and/or non-standard row spacings can cause the acremeter tally to vary from actual acres planted.



Figure 8
Meter Display (Acres)

32808

Field Operation

1. Hitch drill to a suitable tractor (page 11).
2. Set seed population per rate chart and calibration, from Seed Rate manual.
3. Load box with clean seed.
4. Raise drill. Using calibration crank or 3-point gauge gauge wheel, operate the meter drive system. Check that feed cups, seed tubes and drives are working properly and free from foreign material by looking for seed flow under each opener.
5. Lower drill. Set hitch to Float.
6. Pull forward. Stop. Check tool bar height and opener depth.
7. Begin seeding.
8. Always lift drill out of the ground when turning at row ends and for other short-radius turns. Seeding stops automatically as drill is raised.

Parking

Perform the following steps when parking the drill for 36 hours or less. Refer to “**Storage**”, to prepare for long-term storage.

1. Park drill on a level, solid area.
2. Lower 3-point hitch until drill is on the ground.
3. Unplug wiring harness from tractor. Do not allow harness end to rest on the ground.
4. Extend or retract the top link of the tractor until top 3-point pin is free. Remove pin.
5. Remove pins from lower links.

NOTICE

Machine Damage Risk:

Never back up with openers in the ground. Seed tube and firmer damage is likely. Seed tube plugging is almost certain. Always raise the drill when stopped and prior to reversing.

Storage

Store drill where children do not play. If possible, store the drill inside for longer life.

1. Unload seed boxes. Thoroughly clean seed-treatment residue from boxes and feed cups. See “**Seed Clean-Out**” on page 29.
2. Remove any dirt and debris that can hold moisture and cause corrosion.
3. Lubricate and adjust all roller chains.
4. Take special care to oil feed cup drive sprocket in its square bore.
5. Perform “**Lubrication and Scheduled Maintenance**” starting on page 32.
6. Inspect drill for worn or damaged parts. Make repairs and service during the off season.
7. Use spray paint to cover scratches, chips and worn areas on the drill to protect the metal.
8. Disconnect seed hoses from openers. Permanent elongation and premature cracking of hoses may occur if stored connected. Plug hose ends to prevent pest entry into seed boxes.
9. Cover with a tarp if stored outside.

Adjustments

To get full performance from your drill, you need an understanding of all component operations, and many provide adjustments for optimal field results. Some of these have been covered earlier in this manual.

Even if your planting conditions rarely change, some items need periodic adjustment due to normal wear.

Planting Depth

Setting nominal planting depth, and achieving it consistently, is affected by multiple adjustable drill functions. From greatest to least effect they are:

- Opener depth (press wheel height)
- Opener down-pressure (spring)
- Row unit down-pressure spring
- Opener (tool bar) height
- Disc blade adjustments (as discs wear)

Seed Rates

Seeds are applied by fluted feed meters driven by the gauge wheel. Independent mechanisms control the rate for each box. Changing one box rate does not affect the other.

Details of rate setting are in the 313-522B Seed Rate Manual

Main Box seed rate is controlled by adjustments for:

- Drive Type gearbox lever
- Rate handle at seed box (drill front)
- Feed Cup Door handle (one each seed tube)

Small Seeds (Option) rate is controlled by a Rate Handle (drill rear).

Adjustment	Page	The Adjustment Affects
Main Seed Box Rate		
Drive Type	SRM ^a	Coarse seed rate
Rate Adjustment Handle	SRM ^a	Fine seed rate
Seed Cup Doors	SRM ^a	Consistent seed metering
Small Seeds Rate	SRM ^a	Fine seed rate
3-Point Height	19	Compensate for unusual opener depths
Frame Level	12	Consistent seed depth
00 Series Row Unit Adjustments		
Opener Springs	21	Consistent seed depths in challenging conditions
Disc Blade Adjustments	22	Compensate for disc wear
Disc Scraper Adjustment	23	Consistent seeding depth
Opener Depth (Press Wheel Height)	25	Primary control of seed depth
Press Wheel Selection	35	Furrow coverage behind seeding

a. SRM: Seed Rate Manual: This adjustment is described in manual 313-522B.

Adjusting 3-Point Height

Raising the gauge wheel spindle allows deeper opener disc depth (as set by T-handle) while keeping the opener frame level. Lowering the wheel provides shallower depth.

Note: Do not lower drill to aid in penetrating hard soil. Instead, increase opener down-force (page 21).

Refer to **Figure 9**

1. Determine new opener depth desired. With new discs, the axle holes provide these depths:

Hole No. (from top)	Opener Depths (n)	
	Inches	mm
1	3 1/4 in	83 mm
2	2 5/8 in	67 mm
3	2 1/8 in	54 mm
4 (f)	1 5/8 in	41 mm
5	1 1/8 in	29 mm
6	5/8 in	16 mm
7	1/8 in	3 mm
8	0 in	0 mm

2. Raise drill, unless wheel is already off ground sufficiently to allow wheel spindle relocation.
3. Relax chain idlers.
4. Remove wheel bolts. Move spindle to new hole pair. Re-install wheel bolts.
5. Re-engage chain idlers.

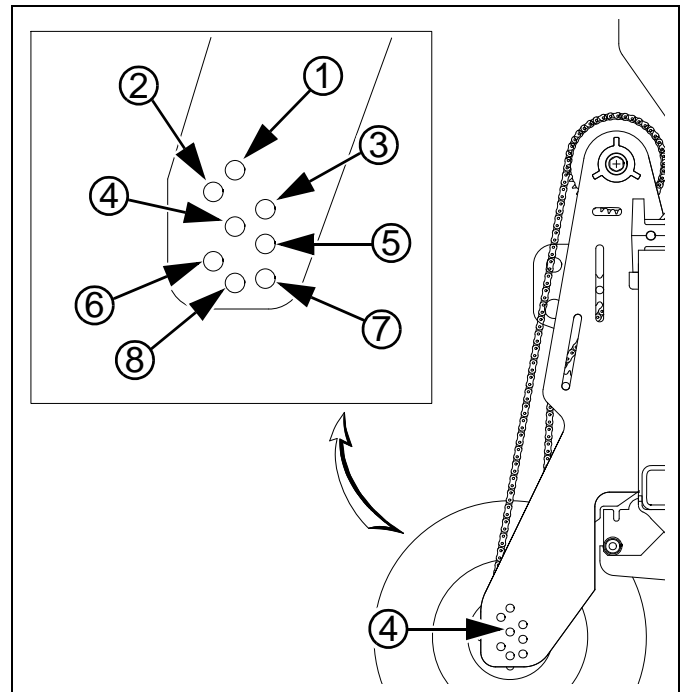


Figure 9
Height Adjustment

32806

00 Series Row Unit Adjustments

Refer to Figure 10 (which depicts a row unit fully populated with all optional accessories [except carbide scraper and optional seed firmer] supported for use with the 00 Series compact drills)

From front to back, a Land Pride 00 Series row unit can include the following capabilities (some optional):

1. Disc Blades: standard, 2 per row unit
Double disc blades open a furrow, creating the seed bed. Spacers adjust the blades for a clean furrow. See “**Disc Blade Adjustments**” on page 22.
2. Seed delivery tube: standard
No adjustments are necessary.
3. Seed firmer:
seed flap (shown) standard:

Seed-Lok[®] firming wheel (not shown)
Improves seed-soil contact. See “**Seed-Lok[®] Lock-Up (Option)**” on page 24.

Keeton[®] seed firmer (not shown)
Improves seed-soil contact, and provides a stable arm for a low-rate liquid fertilizer delivery tube. See “**Keeton[®] Seed Firmer Adjustment (Option)**” on page 24.
4. Disc Scraper: standard
In sticky soils, a scraper helps keep the opener discs operating freely. A slotted scraper is standard. A spring-loaded carbide scraper is optional. See “**Disc Scraper Adjustment**” on page 23.
5. Dual Down Pressure Springs: standard
Each row unit is mounted on the drill as a pivoting arm which allows the row unit to independently move up and down. The adjustable springs provide the force to get the row unit and attachments into the soil. See “**Opener Springs**” on page 21.
6. Small Seeds delivery tube: Option
The tube may be angled forward or back as needed for optimal placement. See “**Small Seeds Tube Adjustment (Option)**” on page 25.
7. T-Handle: standard
This is the primary control seed depth. See “**Opener Depth (Press Wheel Height)**” on page 25.
8. Press wheels: standard (choice of types)
These close the seed trench. The wheels also support the free end of the row unit, and provide the primary control over seeding depth. The only adjustment is the T-handle.

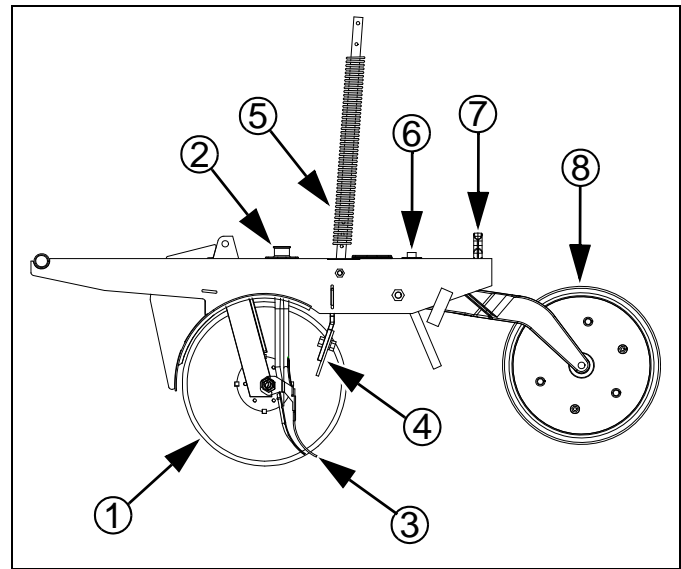


Figure 10
00 Series Row Unit

32809

NOTICE

Equipment Damage Risk:

Do not back up with row units in the ground. To do so will cause severe damage and row unit plugging.

Opener Springs

Opener springs provide the down pressure necessary for opener discs to open a seed trench. The springs allow the openers to float down into depressions and up over obstructions.

Each opener spring can be adjusted for down pressure. This is useful when planting in tractor tire tracks.

If coulter depth is altered for a row, the spring pre-compression needs to be changed to compensate for the change in row unit operating height.

Refer to Figure 11 and Figure 12

To adjust the pressure, remove "W" clip at bottom of spring. Place "W" clip in a higher hole in spring rod for more pressure or in a lower hole for less pressure.

Do not set row force higher on all rows. Use this adjustment only for a few rows, typically in tire tracks.

Re-check drill level (page 12) after adjusting row force.

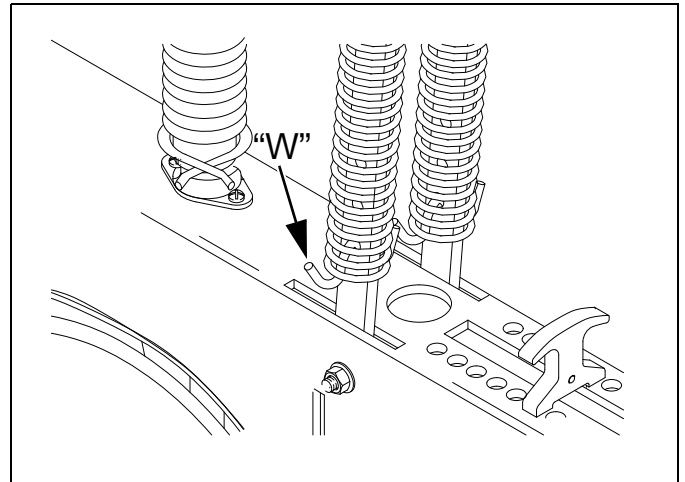


Figure 11
Minimum Force

12102

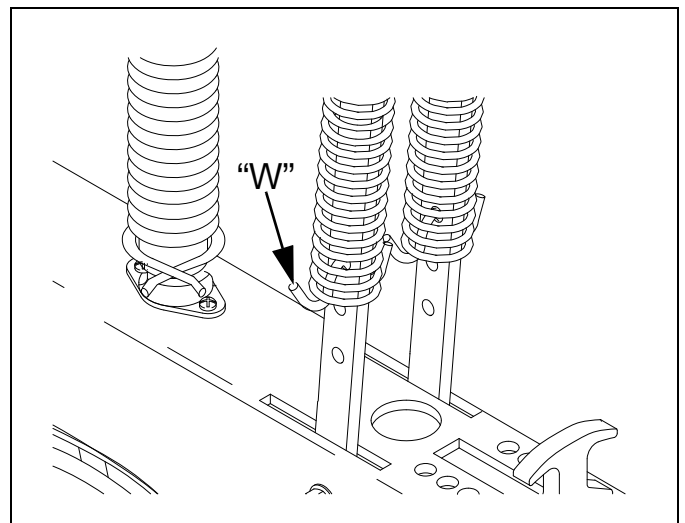


Figure 12
Maximum Force

12103

Disc Blade Adjustments

Raise drill and block it up or lock it up.

Opener Disc Spacing



Sharp Object Hazard:

Be careful working around and handling disc blades. Wear gloves. Edges of both new and well-worn blades can be sharp.

Opener disc angle and stagger is not adjustable, but disc-to-disc spacing is, and may need attention as discs experience normal wear. Spacers must be reset when blades are replaced.

Refer to Figure 13

The ideal spacing causes the blades to be in contact for about one inch. If you insert two pieces of paper between the blades, the gap between them should be

0 to 1.75 in. (0 to 4.4 cm)

If the blades do not touch, they should at least be close enough so that a business card encounters some friction when passing between them.

If the contact region is significantly larger or the gap too wide, it needs to be adjusted by moving one or more spacer washers. If the contact region varies with blade rotation, one or both blades is likely bent and in need of replacement. If removing all spacers cannot bring the blades into contact, they are worn out and need replacing.

Adjusting Disc Contact

Refer to Figure 14

1. Remove the bolt ① retaining the opener disc on one side. Carefully remove the disc, noting how many spacers ② are outside the disc and inside the disc. Do not lose the hub components and dust cap ③.

Note: It is not necessary to remove the hub flange or bearing for this adjustment.

2. To reduce the spacing between the discs (the normal case), move one spacer washer ① from the inside to the outside of the disc. It may be necessary to loosen the scraper (page 23) to reduce disc-to-disc spacing.
3. Re-assemble and check disc contact.
4. Re-adjust scraper.

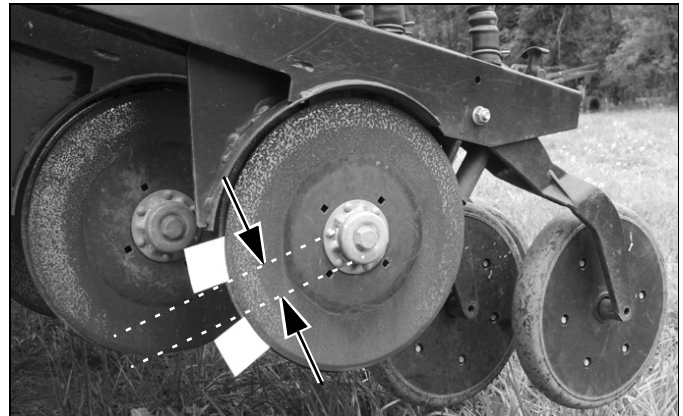


Figure 13
Checking Disc Contact

26451

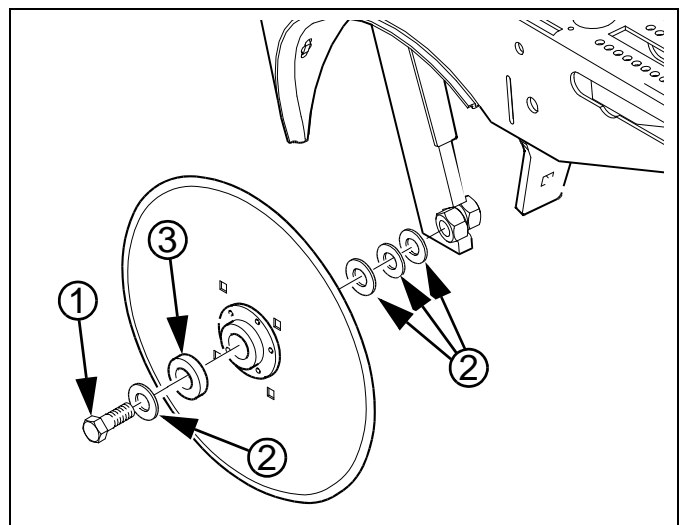


Figure 14
Adjusting Disc Spacers

26385

Disc Scraper Adjustment

To keep opener discs turning freely, dirt scrapers are mounted between discs to clean as the discs rotate. As field conditions vary, scrapers may need to be adjusted. In damp conditions, scrapers may need to be lowered. If openers are not turning freely, scrapers may need to be raised.

Re-adjust scrapers when replacing discs or adjusting disc spacing.

Refer to Figure 15

To adjust scrapers, loosen $\frac{3}{8}$ inch bolt ④ shown in and move scraper as needed.

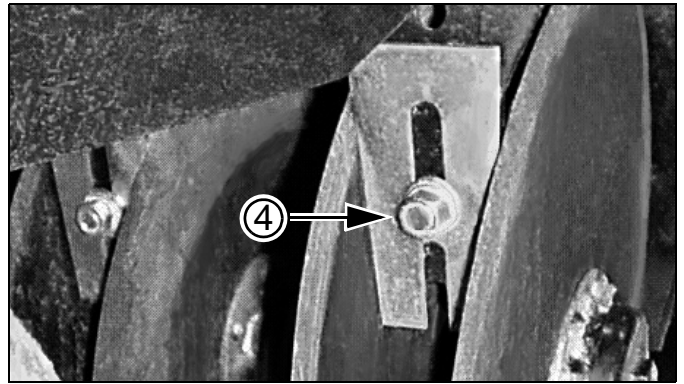


Figure 15
Disc Scraper Adjustment

18647

Seed Firmer Adjustments

Standard 05/06 Series row units include a seed flap. An optional Seed-Lok[®] or Keeton[®] seed firmer may be ordered separately.

The seed flap requires no adjustment, but may need to be replaced if worn, and may need to be shortened if an optional seed firmer is added after initial delivery. See also “**Seed Flap Replacement**” on page 30.

CAUTION

Sharp Object Hazard:

Use caution when making adjustments in this area. Row unit disc blades may be sharp. To adjust the Keeton[®] Seed Firmer, lower the drill until the discs of the row units are resting on the ground.

Seed-Lok[®] Lock-Up (Option)

Optional Seed-Lok[®] firming wheels provide additional seed-to-soil contact. The wheels are spring loaded and do not require adjusting. In some wet and sticky conditions the wheels may accumulate soil. To avoid problems associated with this, you can lock-up the firmers.

Refer to Figure 16 (shown with an opener disc removed for clarity - this task can be performed with discs mounted)

To lock up Seed-Lok[®] wheels:

1. Pull catch wire ⑤ aside.
2. Pull firming-wheel arm ⑥ up and release wire to catch arm.

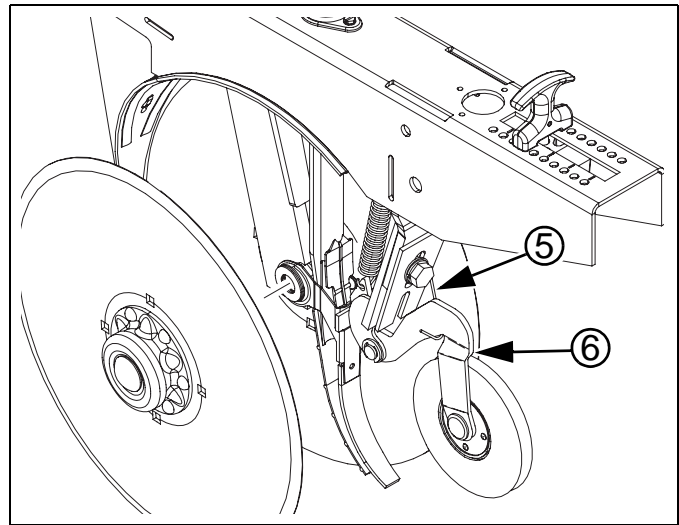


Figure 16
Seed-Lok[®] Lock-Up

27122

Keeton[®] Seed Firmer Adjustment (Option)

The optional Keeton[®] Seed Firmer is an engineered polymer shape that slides down the seed trench. It traps seeds as they exit the seed tube and firms them into the bottom of the furrow “V”.

Refer to Figure 17

The Firmer is provided with a preset tension which is recommended for using the first year. The tension screw ① can be tightened in subsequent years according to your needs. Firmers should provide just enough tension to push seeds to the bottom of the trench.

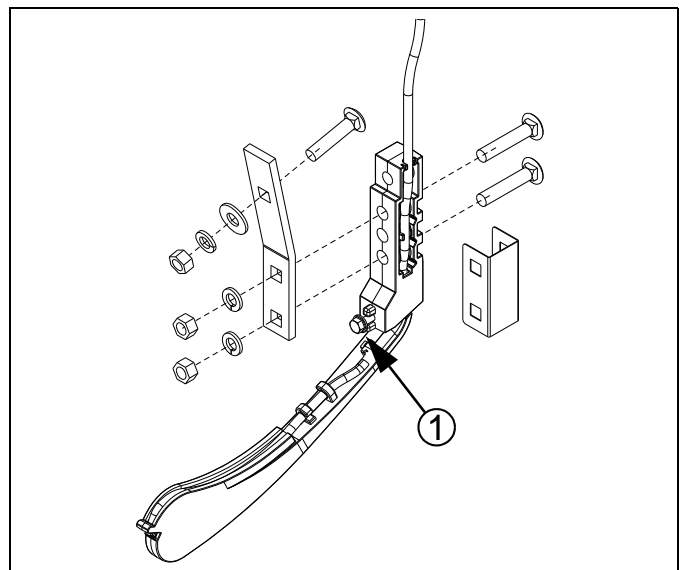


Figure 17
Keeton[®] Seed Firmer

26390

Small Seeds Tube Adjustment (Option)

Refer to Figure 18

On a drill with the Small Seeds option, deeper seed placement may be achieved by rotating the seed tube ① to face forward.

This orientation is suggested only if the seed firmer is a seed flap. If a Keeton® or Seed-Lok® is present, seed falls on the firmer and may be scattered rather than placed deeper.

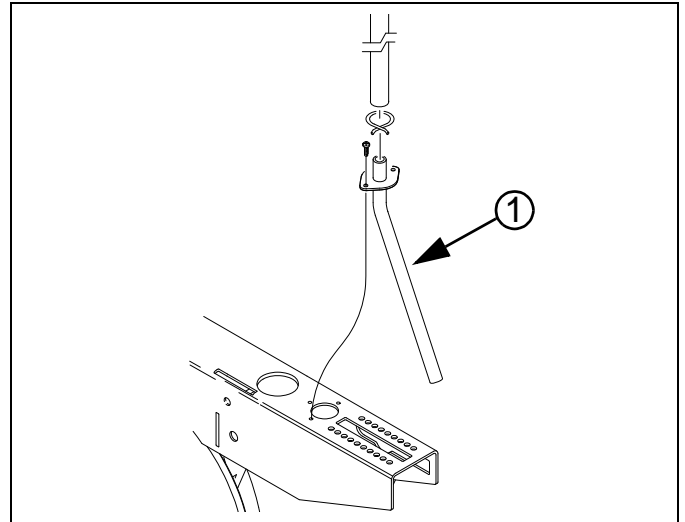


Figure 18
Small Seeds Tube

32810

Opener Depth (Press Wheel Height)

Each seed opener has a press wheel that controls seeding depth by pressing firmly down upon the seed and soil. The press wheels also close the seed trench and gently press soil over seed during planting. To set the seeding depth ①, adjust the press-wheel height ② on each opener.

To adjust, first raise openers slightly, then lift and slide T handles ② on top of openers. Adjust all press wheels to the same height.

- For more shallow seeding, slide T handles forward (F) toward implement.
- For deeper seeding, slide T handles backward (B) away from implement.

If press wheels are lifting off the ground, increase hydraulic down pressure. If press wheels are digging into the ground reduce hydraulic down pressure.

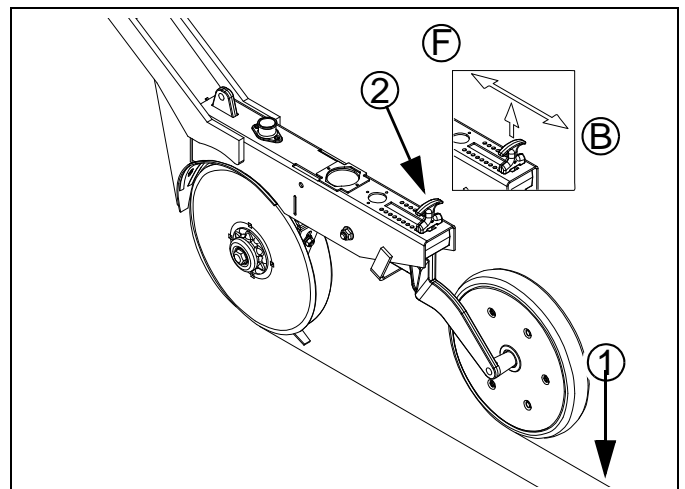


Figure 19
Adjusting Opener Depth

26441

Troubleshooting

Problem	Cause	Solution
Uneven seed spacing or uneven stand	Excessive field speed	Reduce field speed.
	Feed cups plugging	Clean out feed cups.
	Seed tubes plugging	Clean out seed tubes.
	Opener discs not turning freely	See "Opener discs not turning freely" in this Troubleshooting section.
	Opener not penetrating low spots	Adjust opener spring (page 21).
	Ground drive wheel slippage	Check frame height. Solution may require drier conditions.
	Seed cups too wide	Use faster Drive Type speed and close feed cup flutes to a more narrow position.
	Chain skipping	Check chain slack and wear.
	Mud build-up on Seed-Lok [®] wheel	Lock-up Seed-Lok [®] (page 23) or wait for drier conditions.
Uneven seed depth	Excessive field speed	Reduce field speed.
	Planting conditions too wet	Wait until drier weather.
	Drill not level	Readjust level (page 12).
Opener discs not turning freely	Trash or mud build up on disc scraper	Adjust scraper (page 23)
	Scraper adjusted too tight, restricting movement	Adjust scraper (page 23).
	Failed disc bearings	Replace disc bearings.
	Bent or twisted opener frame	Replace opener frame.
	Planting conditions too wet	Wait until drier weather.
	Too much opener down pressure	If opener discs turn freely by hand but not in field, reduce down pressure (page 21).
	Incorrect press wheel adjustment	Readjust press wheel (page 25).
Actual seed rate different than desired	Incorrect tire pressure	Check tire pressure (page 39).
	Incorrect frame height	Check frame height (page 12).
	Build up of seed treatment in feed cup	Clean out seed treatment from feed cups.
	Incorrect rate adjustment	Check gearbox, sprocket, seed-rate handle and seed door settings. Perform calibration if not already done. See Seed Rate Manual.
Excessive seed cracking	Excessive field speed	Reduce field speed.
	Feed cup flutes not open enough	Open feed cups to a wider position and use a lower Drive Type. See Seed Rate Manual.
	Feed cup door handle not open enough	Open feed cup door handle to a lower position. See Seed Rate Manual.
Press wheels not compacting soil as desired	Too wet or cloddy	Wait until drier weather or rework ground.
	Not enough down pressure on disc openers	Increase down pressure on openers (page 21).

Problem	Cause	Solution
Boxes not emptying evenly	Some boxes do not have same number of feed cups between each divider of bulkhead.	Load more material than required. Re-distribute when re-loading.
	Main box seed cup door setting	Set all doors the same, per seed size.
	Seed plug(s) installed	Remove seed plug(s).
	Meter or tube blocked	Clear blockage.
Press wheel or openers plugging	Planting conditions too wet	Wait until drier weather.
	Too much down pressure on openers	Reduce down pressure on openers (page 21).
	Backed up with drill in the ground	Clean out and check for damage.
	Failed disc bearings	Replace disc bearings.
	Scraper worn or damaged	Replace scraper.
Feed cup sprockets locked up or twisted feed cup drive shaft	Foreign matter lodged in one or more feed cup sprockets	Clean out feed cup sprockets. Use clean seed.
	Dried liquid insecticide inside feed cups	Remove build up by disassembling each feed cup and scraping foreign substance from turn surfaces.
Small seeds box not emptying evenly	Adjustable divider (Option) not set evenly	Move adjustable divider to create more volume in areas that run out first.
Chain fouling	Debris in retainer clip	Be sure retainer clip is facing opposite way of chain travel (page 30).
Acremeter inaccurate	Excess wheel slippage	Check frame height. If correct, solution may be to wait for drier conditions.
	Passes misaligned	Check that planting passes are not leaving gaps (under-reporting area) or causing overlap (over-reporting area).
	Wheel slippage is varying from nominal	If variance is consistent, develop a correction factor for your conditions.
	Check that acremeter is for your drill.	Activate display. Lower left corner must be: 3P500: 928 revs/ac or 2293.1 revs/ha 3P500V: 928 revs/ac or 2293.1 revs/ha 3P600: 786 revs/ac or 1942.2 revs/ha Contact dealer if otherwise.
	Acremeter battery failing	Replace acremeter (page 16). Unit is sealed and battery is not replaceable).

Maintenance and Lubrication

Maintenance

Proper servicing and maintenance is the key to long implement life. With careful and systematic inspection, you can avoid costly maintenance, downtime and repair.

Always turn off and remove the tractor key before making any adjustments or performing any maintenance.

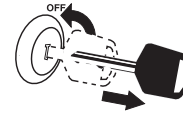
WARNING

Crushing Hazard:

Always have frame sufficiently blocked up when working on, and particularly under implement. You may be severely injured or killed by being crushed under a falling implement.

After using drill for several hours, check all bolts to be sure they are tight.

1. Securely block drill before working on it.
2. Adjust idlers to remove excess slack (page 30).
3. Lubricate areas listed under “**Lubrication and Scheduled Maintenance**” on page 32.
4. Clean any fittings that do not take grease.
5. Inflate tires as specified on “**Tire Pressures**” on page 39.
6. Replace any worn, damaged or illegible safety decals. Order new decals from your Land Pride dealer. See “**Safety Decals**” on page 5.



Seed Clean-Out

Main Box Clean-Out

Refer to Figure 20, which depicts the seed cup door handle ① in a normal operating position.

1. Set the Seed Rate Handle to zero (0). This moves the seed cup sprockets out of the seed path.
2. Position a tarp or bucket under each row or set of rows to be cleaned out.
3. At the seed cup for that row, pull the door handle ① out of the operating detent range, and swing it down to position ②.
4. Open the main seed box and use a small brush to sweep seed toward seed cups set to clean-out. If seed does not flow freely, inspect seed cup, hose and seed tubes for obstructions.
5. If a vacuum cleaner is available, use it to remove residual matter.

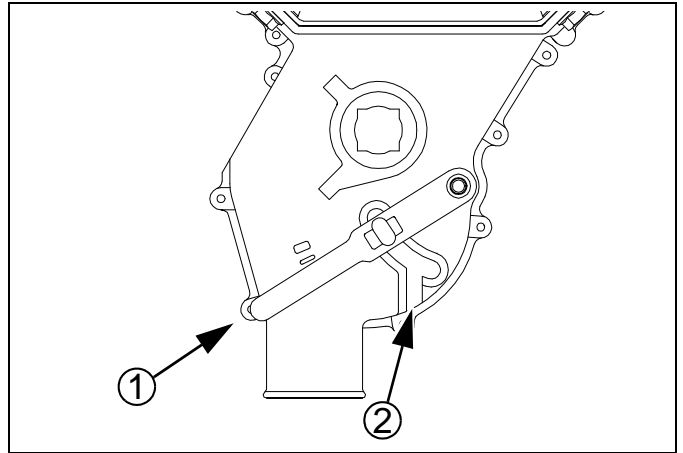


Figure 20
Seed Cup Clean-Out

26211

It is not necessary to operate the seed meter drive shaft for clean-out. With the Seed Rate set to zero, nothing moves inside the seed cups; however, an inspection of the flutes for excess wear and damage does require shaft rotation.

Set the Seed Rate Handle to 100. Raise and lock-up the drill. Turn the seed meter jackshaft with the calibration crank, while another person inspects the flutes from the open seed boxes.

Small Seeds Box Clean-Out

1. Open lid of each box and scoop out as much seed as possible.
2. To recover remaining seed, place a collection tarp under the small seeds tubes at the openers.
3. Raise drill.
4. Set seed rate handle to 100.
5. Rotate calibration crank or ground drive wheel until no seed flows.
6. If a vacuum cleaner is available, remove any residual seed from top of meters.

Seed Flap Replacement

Refer to Figure 21

To replace a seed flap ①, use needle nose pliers or similar tool to grasp “T” top of flap. Pull upward to remove flap from metal bracket ②.

Push new seed flap ① down through metal bracket ② until flap snaps into place with “T” top resting on top of bracket.

If a Seed-Lok® or Keeton® seed firmer is also installed, it may be necessary to shorten the flap.

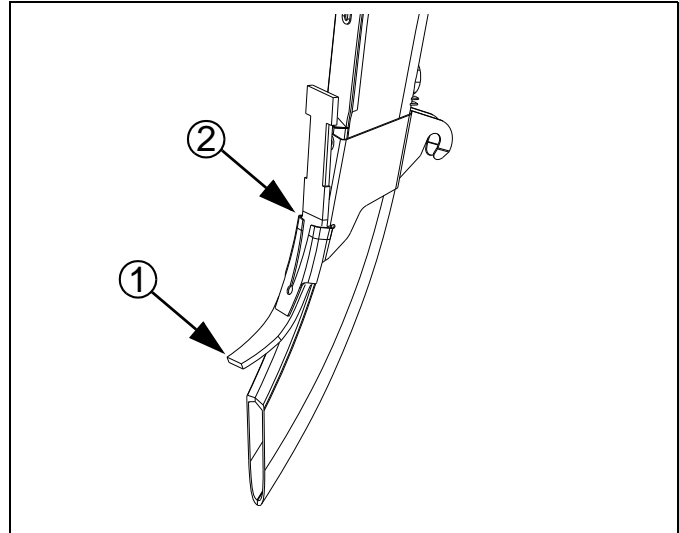


Figure 21
Seed Tube Flap

31047

Chain Maintenance

Initially check the drive chains after the first 10 hours of drill use. The slack of new chains tends to increase during the first few hours of operation due to seating. Thereafter, check the chains every 100 hours.

Lubricate chains any time there is a chance of moisture, and when being stored at the end of the planting season.

Chain Slack

Refer to Figure 22, which, for clarity, greatly exaggerates slack, and omits the idlers.

1. Measure the span ① for allowable slack:
Locate the longest span of each chain (usually the span which does not run through the idlers).
2. Determine the ideal slack:
Long chains (over 36 inches / 91 cm):
 $\frac{1}{4}$ in. per ft (21 mm/m)
Vertical short chains:
 $\frac{1}{4}$ in. per ft (21 mm/m)
Horizontal short chains:
 $\frac{1}{2}$ in. per foot (42 mm/m).
3. Measure the current slack ②:
Acting at a right angle to the chain span at the center of the span, deflect the chain in both directions. The slack is the distance of the movement.
4. Adjust the idlers for ideal slack.

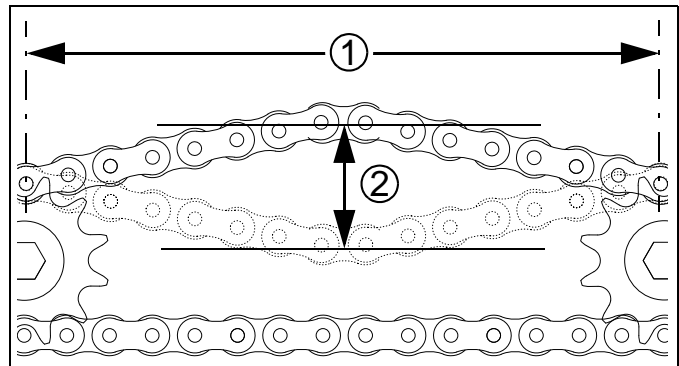


Figure 22
Measuring Chain Slack

27264

Whenever mounting a chain, make sure the clip at the removable link is oriented to minimize snags.

Refer to Figure 23 (arrow shows chain direction)

Install clip with open end facing away from direction of chain travel (shown by gray or striped arrows in chain routing diagrams).

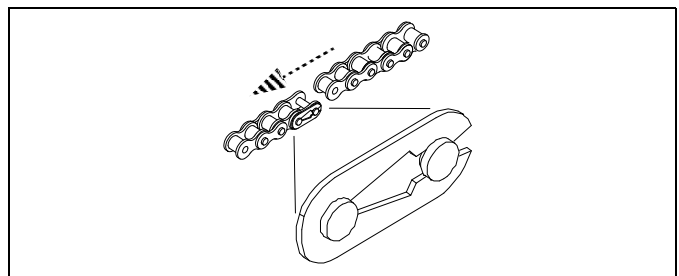


Figure 23
Chain Clip Orientation

26482

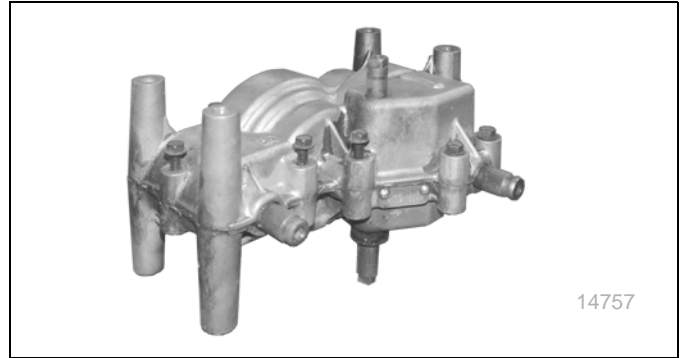
Gearbox Maintenance

The gearbox is lubricated and sealed at the factory. Under normal conditions, it does not require maintenance or lubrication.

If the gearbox has been opened for repair, repack all gears and around shaft bearings using at least 7 oz. (200 mL) of gear lube, Great Plains Part No. 788067.

Keep moisture and dirt out of gearbox. Inspect (replace if needed) the rubber seals on gearbox drive and shifter shafts.

Spread a small skim coat of anaerobic sealant (Loctite[®] 525 or equivalent) to gear case mating surfaces before bolting them back together.








NOTICE

Machine Damage Risk:

Use sealant sparingly. Excess sealant may squeeze off the intended surface and lock bearings or gears.

1. Loctite[®] is a registered trademark of Henkel Corporation.

Lubrication and Scheduled Maintenance

 Multi-purpose spray lubricant	 Multi-purpose grease lubricant	 Multi-purpose oil lubricant	 Inspection <small>34208</small>	 50 Intervals (operating hours) at which service is required
---	--	---	---	---

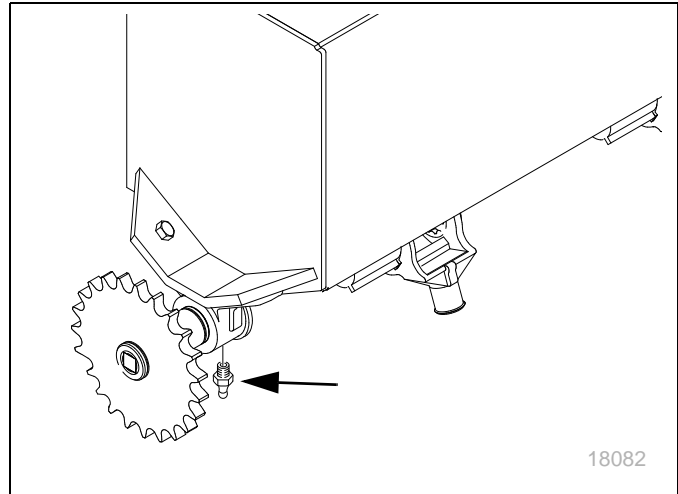
Small Seeds Shaft Bearings (Option)

	 15
---	--

1 zerk total

Type of Lubrication: Grease

Quantity: Until grease emerges



Seed Cup Drive Shaft Sprocket

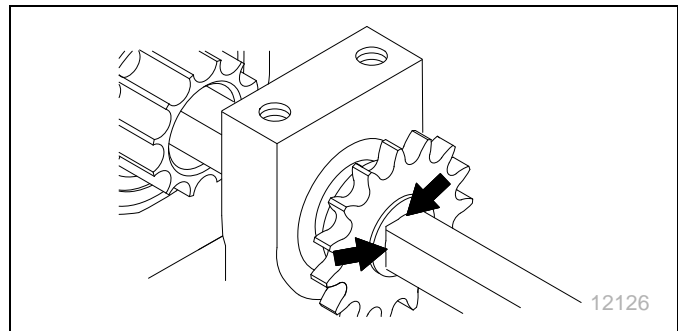
	 50
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1 sliding sprocket

Type of Lubrication: Oil

Quantity: Coat thoroughly

Move the Seed Rate adjustment handle back and forth to get oil into the square bore. Perform this with seed box empty, or handle may be difficult to set to 100.



Drive Chains (Model: 3P500 or 3P600)

		As Required
--	--	--------------------

2 to 7 Chains Present:

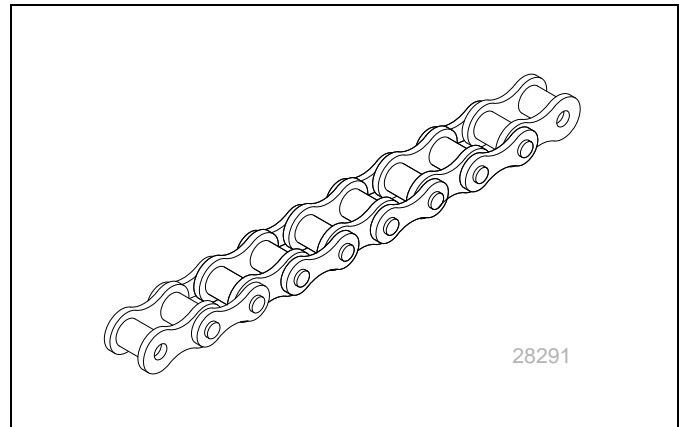
Type of Lubrication: Chain Lube
Quantity: Coat thoroughly

Standard Chains

- drive wheel to jackshaft
- jackshaft to gearbox input
- gearbox output (right) to main seed cup shaft

Option Chains:

- gearbox output (left) to accessory jackshaft
- accessory jackshaft to main box agitator
- accessory jackshaft to Small Seeds jackshaft
- Small Seeds jackshaft to meter shaft drive



Drive Chains (Model: 3P500V)

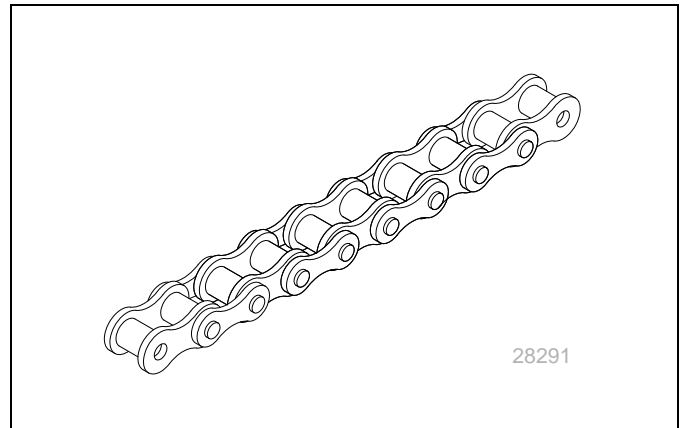
		As Required
--	--	--------------------

5 Chains Present:

Type of Lubrication: Chain Lube
Quantity: Coat thoroughly

Standard Chains

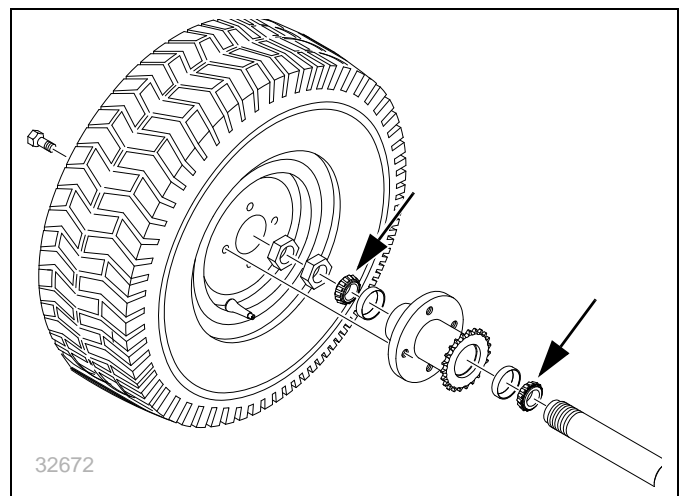
- drive wheel to jackshaft
- jackshaft to gearbox input
- gearbox output (right) to main seed cup shaft
- gearbox output (left) to accessory jackshaft
- accessory jackshaft to main box agitator



Wheel Bearings 2 races total

		Seasonal
--	--	-----------------

Type of Lubrication: Bearing grease
Quantity: Re-pack



Options

Accessories are listed in alphabetical order. To order an accessory, contact your Land Pride dealer.

Alternate Acremeter

An electronic acremeter is standard on new drills. If you need a replacement meter, a meter with an alternate units of measure, order one of the following parts.

Drill Model	Units	Part Number
3P500		891-001C
3P500		891-002C
3P500V	acres	891-001C
3P500V	hectares	891-002C
3P600		891-003C
3P600		891-004C

See “Acremeter Operation” on page 16.



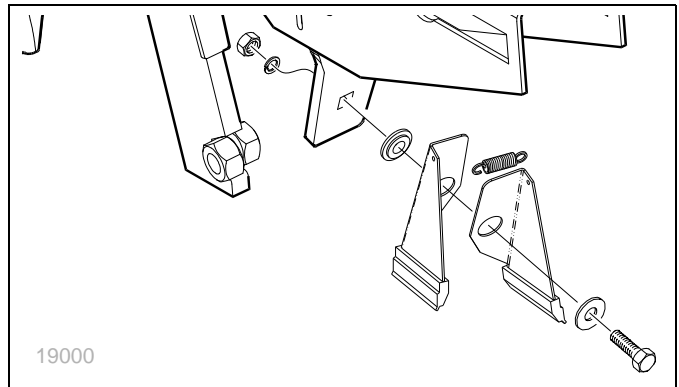
Carbide Disc Scraper

Slotted scrapers are standard.

Optional carbide disc scrapers are spring-loaded and require no periodic adjustment. Scrapers are compatible with the standard seed flap and Seed-Lok®, but not Keeton®.

Description	Part Number
SPRING SCRAPER ASSEMBLY	121-781A

See “Carbide Disc Scraper Installation” on page 44.



Main Seed Box Accessories

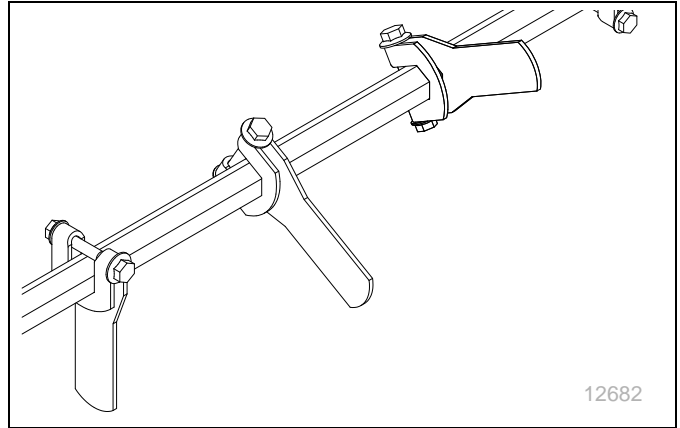
Agitator (Main Seed)

An optional agitator can be added to the main seed box on Models 3P500 and 3P600. It is standard on Model 3P500V.

It stirs the seed directly above the metering cups, helping prevent bridging of light, fluffy seeds and separating soybeans that are sticky with inoculant.

The “w/Drive” kit includes an accessory jackshaft drive subsystem. If your drill is also equipped with a Small Seeds attachment, order the “w/o Drive” kit.

Drill Model	Row Spacing	Part Number	
		w/Drive	w/o Drive
3P500	6 inch	118-790A	118-791A
3P500	7 ¹ / ₂ inch	118-792A	118-793A
3P500V	any	Standard	Standard
3P600	6 inch	118-788A	118-789A
3P600	7 ¹ / ₂ inch	118-748A	118-749A

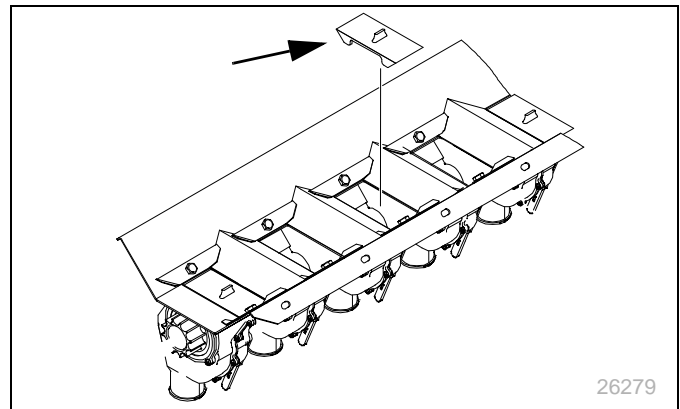


Seed Tube Plug (Main Seeds)

This plug stops seed flow from the main seed box above the meter. Order one per row to be set inactive.

Description	Part Number
Fluted Feed Meter Plug	817-087C

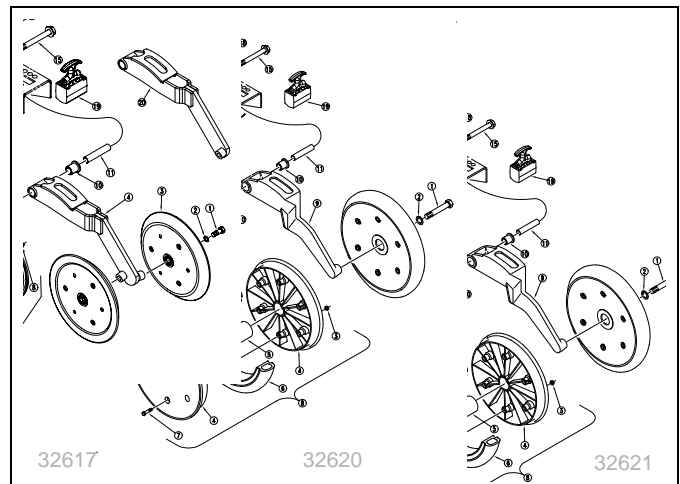
See “Main Seed Row Shutoff” in Seed Rate Manual.



Press Wheel Selection

The base drill includes a choice of press wheels. Additional wheels are available, and all may be field-installed.

This manual does not list kit part numbers as the available wheels are often region-specific. Consult your Land Pride dealer.



Small Seeds Attachment

The Small Seeds (SGS) attachment is designed to meter various small seeds in-row. The standard attachment includes an independent drive system, 1.2 or 1.44 bushel box, meters and seed tubes.

The Small Seeds attachment may be ordered as an Option with a new drill, or as a field installed kit.

Drill Model	Row Spacing	Option	Field Kit
3P500	6 inch	(91)	133-150A82
3P500	7 ¹ / ₂ inch	(91)	133-151A82
3P500V	any	n/a ^a	n/a
3P600	6 inch	(91)	133-122A82
3P600	7 ¹ / ₂ inch	(91)	133-123A82

a. Small Seeds is not available for Model 3P500V.

For operation, see:

“**Loading Seed**” on page 15 and

“**Small Seeds Rate**” in Seed Rate Manual.

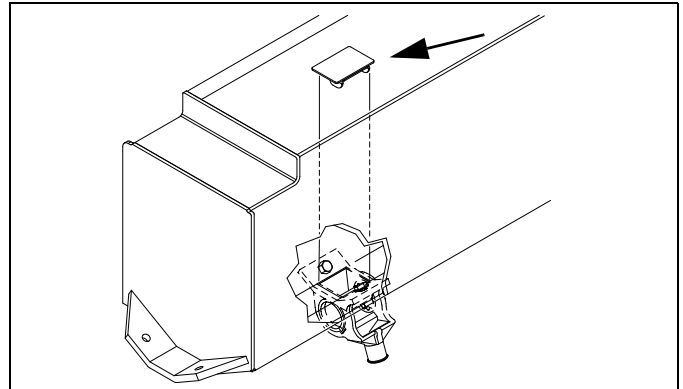


Small Seeds Tube Plug

This plug stops seed flow from the small seeds box above the meter. Order one per row to set inactive.

Description	Part Number
SML SDS CUP PLUG	133-315H

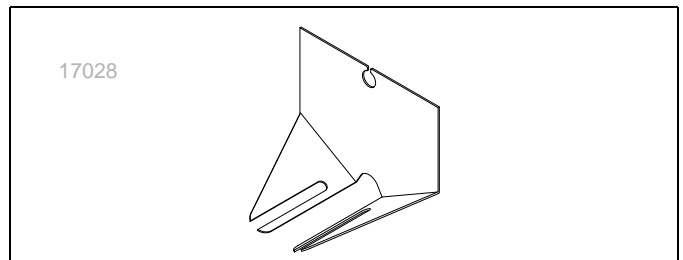
See Seed Rate Manual for use.



Small Seeds Partition

This partition reduces side-to-side seed flow in the small seeds box. This can prevent seed pile-up when drilling across slopes and in other situations where the seed is particularly fluid. Partitions are sold individually. Order quantity desired.

Description	Part Number
RMVBL SMALL SEED BOX PARTITION	123-409D



Seed Firmers

The standard drill includes seed flaps. A choice of firmers is an option in the product bundles, or may be field-installed as kits. Only one type of optional seed firmer may be installed at the same time. Order one firmer kit per opener.

Keeton® Seed Firmer

The optional Keeton® seed firmer is an engineered polymer shape that slides down the seed trench. It traps seeds as they exit the seed tube and firms them into the bottom of the furrow. Order one per row.

Description	Part Number
Keeton® Seed Firmer	890-810C

The Keeton® seed firmer supports low-rate fertilizer delivery. For this use, a liquid fertilizer system must also be installed on the tractor¹.

Seed-Lok® Seed Firmer

The spring-loaded Seed-Lok® firming wheel presses seed directly into the bottom of the seed bed. The Seed-Lok® option provides more even emergence since seeds are planted and firmed at the same depth.

Description	Part Number
Seed-Lok® kit	122-193K

Seed-Lok® can be used on all configurations except Native Grass, unless the Native Grass seed tube is removed during Seed-Lok® use.

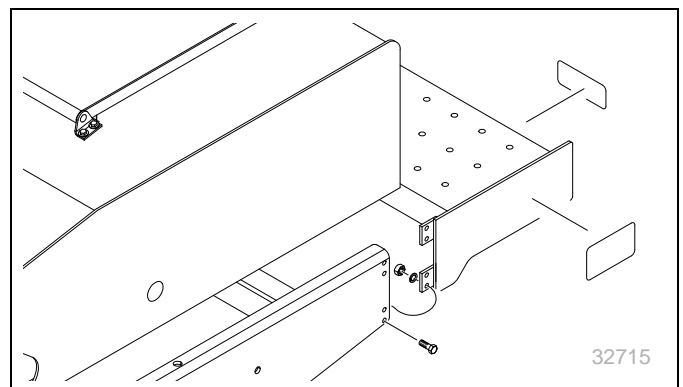
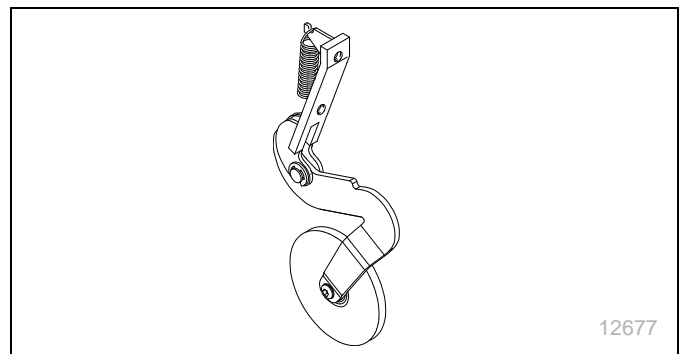
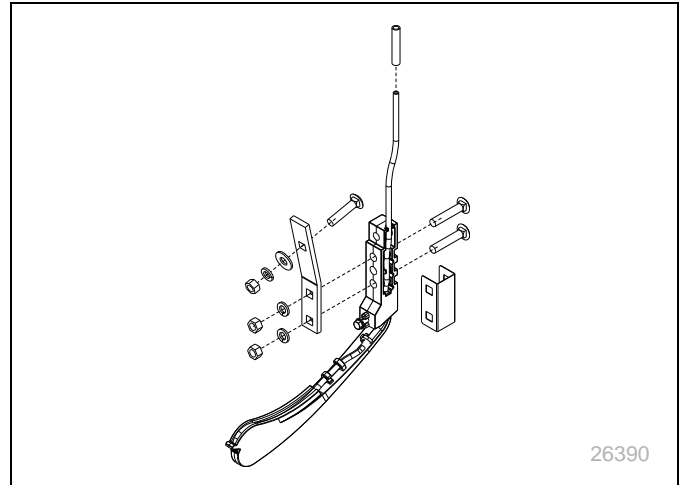
For operations, see “Seed-Lok® Lock-Up (Option)” on page 23.

3P500V Walkboard

The standard Model 3P500V does not include a walkboard. One may be ordered as an Option with a new drill, or as a field installed kit. It includes the walkboard, safety decals and mounting hardware.

Drill Model	Row Spacing	Option	Field Kit
3P500V	6 inch	(40)	119-301A82

See page 48 for installation. A walkboard is standard on Models 3P500 and 3P600.



1. The Great Plains PFH accessory hitch is incompatible with 3P500, 3P500V and 3P600 drills due to interference with the ground drive.

Appendix A - Reference Information

Specifications and Capacities: 3P500 and 3P600

Drill Model	3P500		3P600	
Row Count	7	9	9	11
Row Spacing	7.5 in (19.1 cm)	6.0 in (15.2 cm)	7.5 in (19.1 cm)	6.0 in (15.2 cm)
Swath	52.5 in (133.4 cm)		67.5 in (171.5 cm)	
Transport Width (w/o Lights)	59.3 in (151 cm)		74.1 in (188 cm)	
Length	67 in (145 cm)			
Working Heights	61 in (155 cm)			
Weights, Maximum, Empty	1170 lbs (530 kg)	1370 lbs (620 kg)	1466 lbs (665 kg)	1586 lbs (720 kg)
Weight, Maximum, Full	1840 lbs (840 kg)	2040 lbs (930 kg)	2270 lbs (1030 kg)	2390 lbs (1090 kg)
Main Seed Box Capacity	10 bu. (350 liters)		12 bu. (420 liters)	
Small Seeds Box Capacity	1.2 bu. (42 liters)		1.44 bu. (51 liters)	
Seed Box Agitator	Optional in Main Seed box			
Min. Tractor HP Req.	35 hp (26 kW)		40 hp (30 kW)	
Hitch Type	Category I & II			
Tire Size	5.70L X 8 Lug Type			
Operating Depth	0 to 3.5 in (0 to 8.9 cm)			

Specifications and Capacities: 3P500V

Drill Model	3P500V
Row Count	9
Row Spacing	6.0 in (15.2 cm)
Swath	54.0 in (137.2 cm)
Transport Width (w/o Lights)	58 in (146 cm)
Length	57 in (145 cm)
Working Heights	50 in (127 cm)
Weights, Maximum, Empty	1300 lbs (590 kg)
Weight, Maximum, Full	1810 lbs (230 kg)
Main Seed Box Capacity	8.5 bu (300 liters)
Seed Box Agitator	Standard
Min. Tractor HP Req.	35 hp (26 kW)
Hitch Type	Category I & II
Tire Size	5.70L X 8 Lug Type
Operating Depth	0 to 3.5 in (0 to 8.9 cm)

Tire Pressures




Tire Size	Inflation
5.70L-8 Lug Type, 715 lb (324 kg) load rating	50 psi 345 kPa




Tire Warranty Information

All tires are warranted by the original manufacturer of the tire. Tire warranty information is found online at the manufacturer's websites listed below. For assistance or information, contact your nearest Authorized Farm Tire Retailer.

Manufacturer	Website
Firestone	www.firestoneag.com
Gleason	www.gleasonwheel.com
Titan	www.titan-intl.com

Torque Values Chart

Bolt Size in-tpi ^a	Bolt Head Identification					
						
	N-m ^b	ft-lb ^d	N-m	ft-lb	N-m	ft-lb
1/4 - 20	7.4	5.6	11	8	16	12
1/4 - 28	8.5	6	13	10	18	14
5/16 - 18	15	11	24	17	33	25
5/16 - 24	17	13	26	19	37	27
3/8 - 16	27	20	42	31	59	44
3/8 - 24	31	22	47	35	67	49
7/16 - 14	43	32	67	49	95	70
7/16 - 20	49	36	75	55	105	78
1/2 - 13	66	49	105	76	145	105
1/2 - 20	75	55	115	85	165	120
9/16 - 12	95	70	150	110	210	155
9/16 - 18	105	79	165	120	235	170
5/8 - 11	130	97	205	150	285	210
5/8 - 18	150	110	230	170	325	240
3/4 - 10	235	170	360	265	510	375
3/4 - 16	260	190	405	295	570	420
7/8 - 9	225	165	585	430	820	605
7/8 - 14	250	185	640	475	905	670
1 - 8	340	250	875	645	1230	910
1 - 12	370	275	955	705	1350	995
1 1/8 - 7	480	355	1080	795	1750	1290
1 1/8 - 12	540	395	1210	890	1960	1440
1 1/4 - 7	680	500	1520	1120	2460	1820
1 1/4 - 12	750	555	1680	1240	2730	2010
1 3/8 - 6	890	655	1990	1470	3230	2380
1 3/8 - 12	1010	745	2270	1670	3680	2710
1 1/2 - 6	1180	870	2640	1950	4290	3160
1 1/2 - 12	1330	980	2970	2190	4820	3560

Bolt Size mm x pitch ^c	Bolt Head Identification					
						
	N-m	ft-lb	N-m	ft-lb	N-m	ft-lb
M05 X 0.8	4	3	6	5	9	7
M06 X 1	7	5	11	8	15	11
M08 X 1.25	17	12	26	19	36	27
M08 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

- a. in-tpi = nominal thread diameter in inches-threads per inch
- b. N-m = newton-meters
- c. mm x pitch = nominal thread diameter in mm x thread pitch
- d. ft-lb = foot pounds

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.

Drive System Diagrams

3P500 and 3P600 Drives

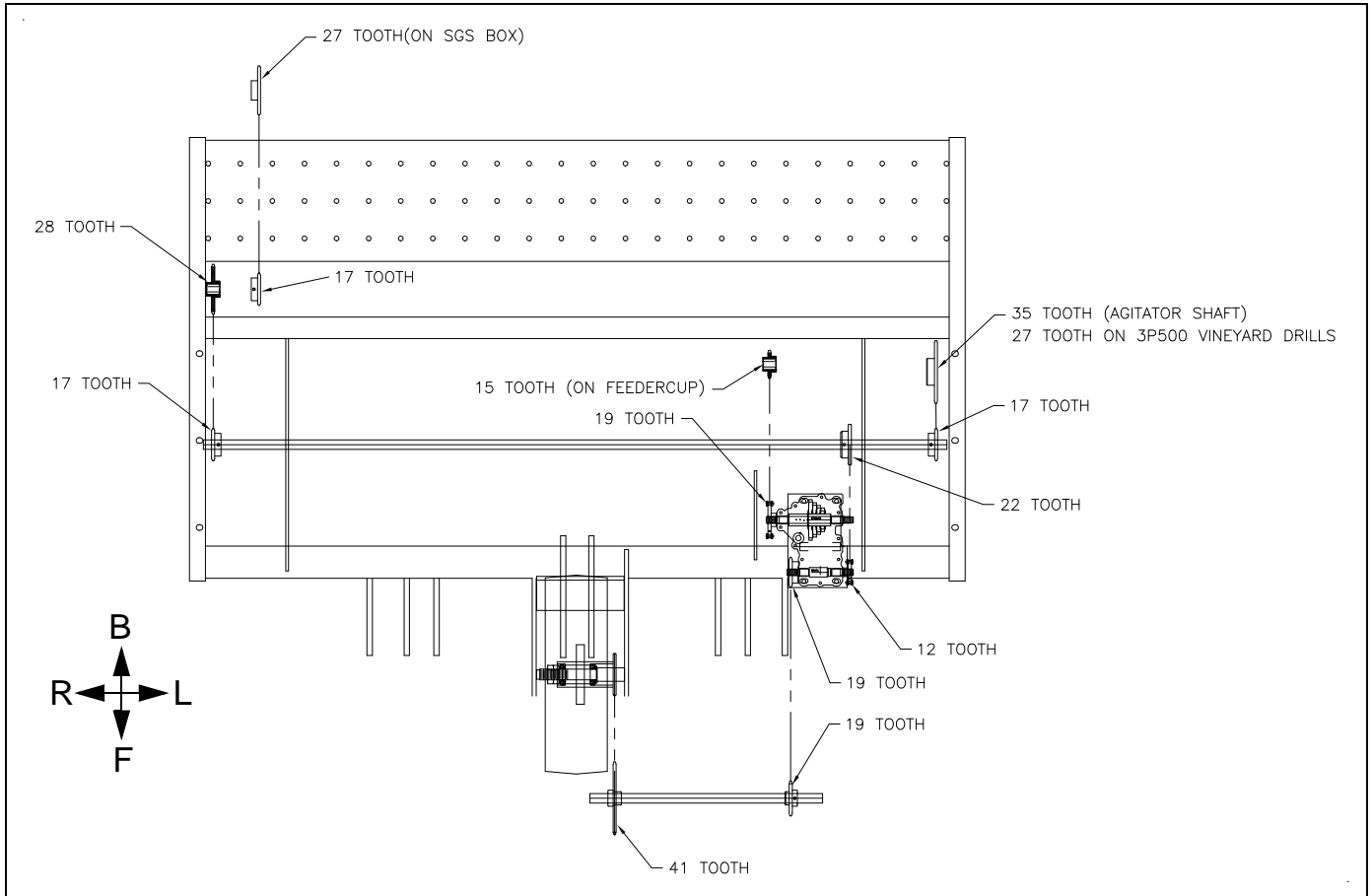


Figure 24
3P500 and 3P600 Sprocket Configuration

23211

3P500V Drive System

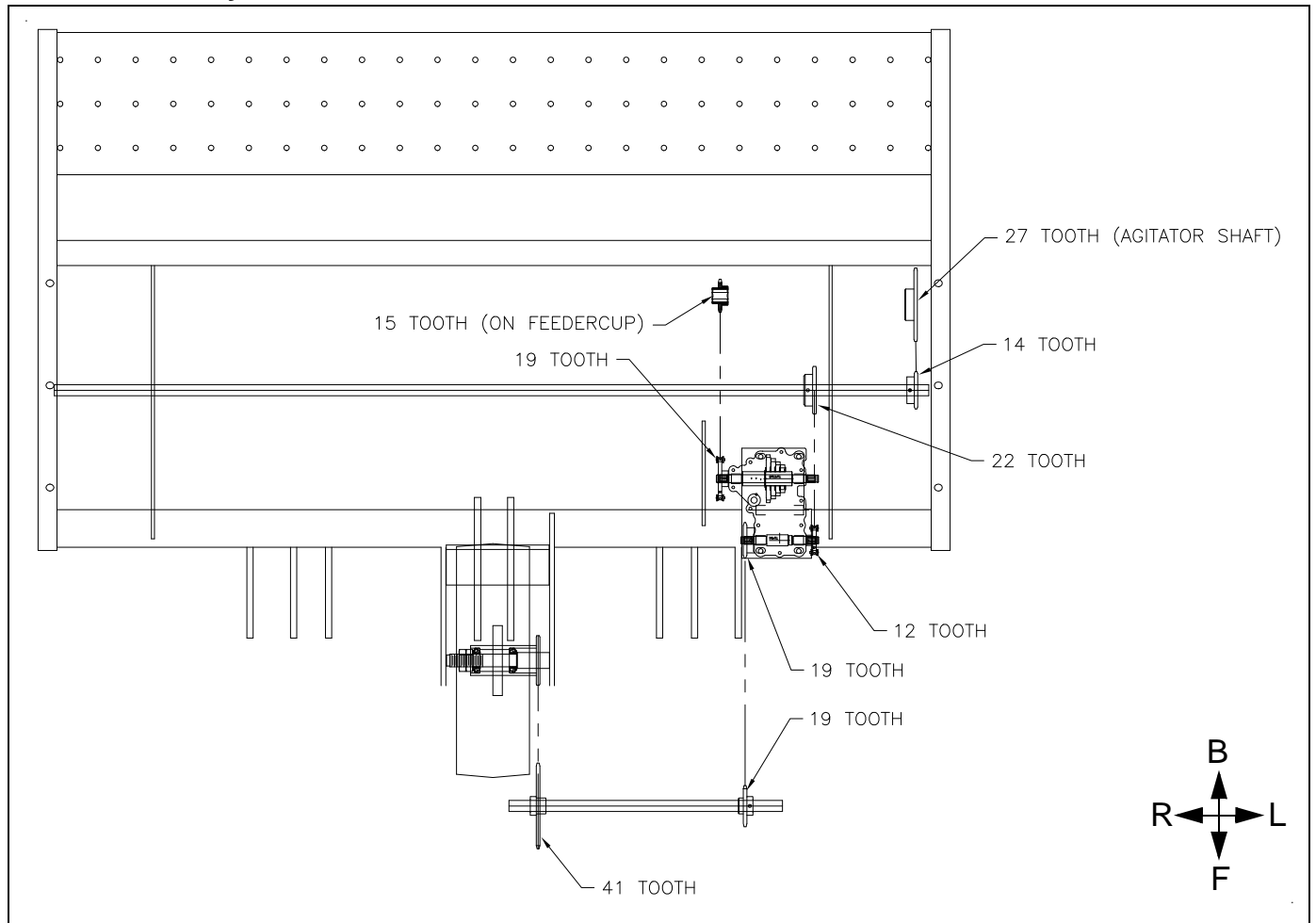


Figure 25
3P500V Sprocket Configuration

23219

Appendix B - Pre-Delivery

Attach Meter Hoses at Rows

All meter hoses are shipped disconnected at the row units. Clamps are shipped inside a seed box. The opener frame has openings for up to three material hoses:

- The forward hole (f) is always used for the seed delivery tube for the main seed box.
- The rear hole (r) is used for optional Small Seeds.

Start with the left row unit (row 1). For each row:

Refer to Figure 26

Attach a Main Seed Hose

Select one:

(21) 800-268C SINGLE WIRE HOSE CLAMP #23

Open the clamp (21). Place it onto the outlet end of the hose (37), up against the ribs. Slide the outlet end of the hose fully onto the seed tube inlet at the forward row unit opening (f). Move the clamp to just below the raised lip of the seed tube inlet.

Attach a Small Seeds Hose

Select one:

(22) 800-321C HOSE CLAMP NO.12 3/4 ID

Open the clamp (22). Place it onto the outlet end of the hose (40), up against the ribs. Slide the outlet end of the hose fully onto the small seeds tube inlet at the rear row unit opening (r). Move the clamp to halfway onto the hose neck.

Note: These items are normally completed by the dealer prior to delivery.

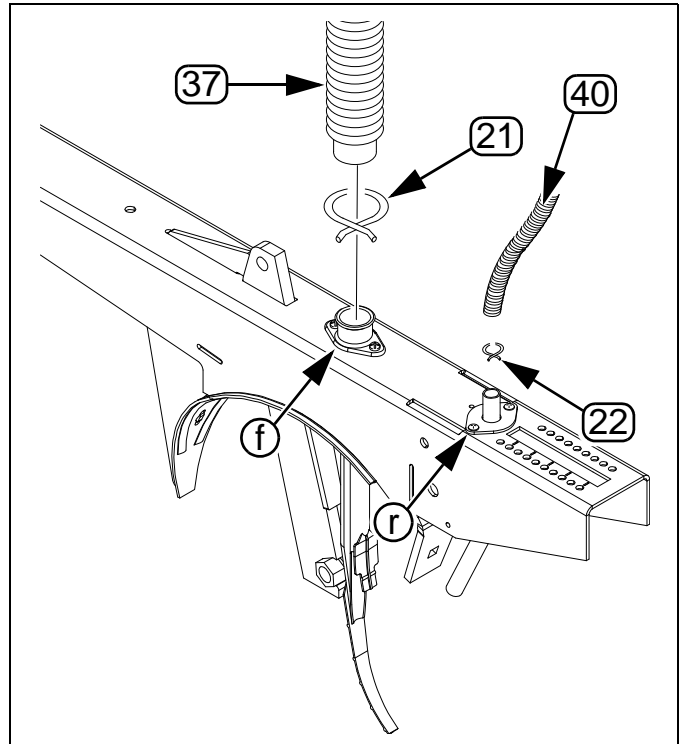


Figure 26
Seed and Fertilizer Hoses

32812

Install SMV Reflector

SMV on Model 3P500, 3P600 (and 3P500V with Walkboard Option)

Refer to Figure 27

The SMV reflector (44) is shipped pre-assembled to the mount (48), but mounted inverted on the walkboard. The SMV must be repositioned to upright to prevent contact with row units during operation.

Remove and save two sets:

- (26) 802-007C HHCS 5/16-18X3/4 GR5
- (32) 804-009C WASHER LOCK SPRING 5/16 PLT
- (29) 803-008C NUT HEX 5/16-18 PLT

Orient the reflector assembly (48) upright, and red/orange reflective side to rear. Secure mount (48) to walkboard with bolts (26), lock washers (32) and nuts (29).

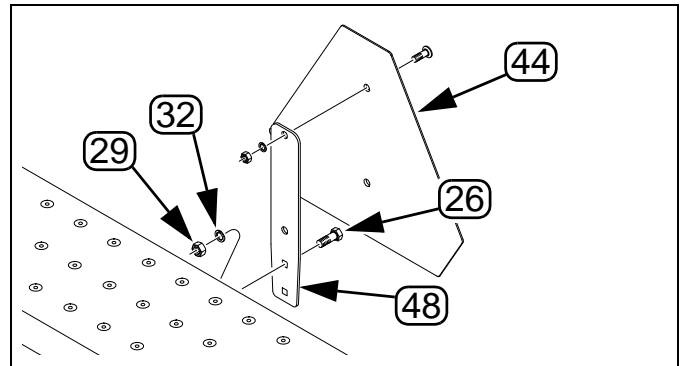


Figure 27
Walkboard SMV Reflector

32648

SMV on Standard Model 3P500V

If also installing a walkboard (page 45), install the SMV first.

Refer to Figure 28

1. Select one each:

- (16) 123-524D SMV MOUNT BRACKET, EXTENDED
 - (35) 806-004C U-BOLT 3/8-16 X 2 X 2 3/4
- and two sets:

- (34) 804-013C WASHER LOCK SPRING 3/8 PLT
- (30) 803-014C NUT HEX 3/8-16 PLT

Mount the bracket (16) at the center of the rear face of the rear cross tube under the seed box. The short break is down and forward. Secure with U-bolt (35), lock washers (34) and nuts (30).

2. Select one:

- (44) 818-055C DECAL SLOW MOVING-GALV. BACKED
- and two sets:
- (25) 802-004C HHCS 1/4-20X3/4 GR5
 - (31) 804-006C WASHER LOCK SPRING 1/4 PLT
 - (28) 803-006C NUT HEX 1/4-20 PLT

Orient the reflector (44) upright, and red/orange reflective side to rear. Secure reflector to mount (16) to walkboard with bolts (25), lock washers (31) and nuts (28).

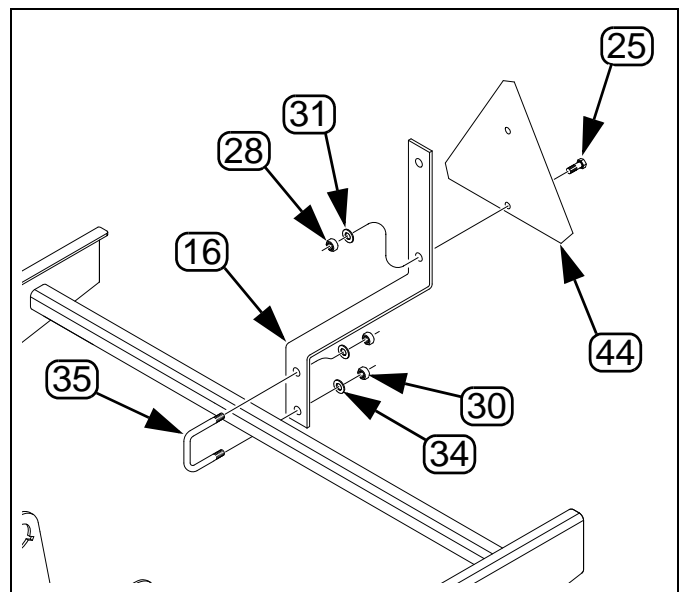


Figure 28
3P500V SMV Reflector

32717

Appendix C - Accessory Installation

Carbide Disc Scraper Installation

These instructions apply to an installation of scraper kit part number 121-781A.

Optional carbide disc scrapers are not factory installed. Start with row 1 (left-most row unit):

3. Remove one or both disc blades to gain safe access to the mount ①. Note the position of bushings and spacers for correct re-assembly (page 22).
4. Remove the existing slotted scraper.

Refer to Figure 29

5. Select one:

②⑦ 802-079C HHCS 3/8-16X1 1/4 GR5

If Seed-Lok[®] is present, or also being mounted, also select one:

③④ 804-013C WASHER LOCK SPRING 3/8 PLT

Place the lock washer ③④ on the bolt ②⑦ (because the nut is not used).

6. Select one:

③③ 804-012C WASHER FLAT 3/8 SAE PLT

Place this flat washer on the bolt.

7. Select one:

890-357C SCRAPER-SPRING LOAD-AIR DESIGN

If the blades were not completely pre-assembled, select one each:

⑤④ K7090 AIR DESIGN SCRAPER LH SIDE

⑤⑤ K7091 AIR DESIGN SCRAPER RH SIDE

⑤⑦ K7096 SPACER AND WASHER ASSEMBLY

⑤⑥ K7093 AIR DESIGN SCRAPER 15LB SPRING

Nest one side (⑤④, ⑤⑤) behind the other. Connect the spring ⑤⑥ between the sides, using the small top holes. Insert the spacer ⑤⑦ from the front, with the narrow raised center to the rear (in the large blade holes).

8. Insert the bolt through the scraper blades (⑤④, ⑤⑤) and spacer ⑤⑦.

9. If no Seed-Lok[®] is present, select one each:

③④ 804-013C WASHER LOCK SPRING 3/8 PLT

③① 803-014C NUT HEX 3/8-16 PLT

Secure the scraper assembly to the scraper mount ① using the lock washer ③④ and nut ③①.

If a Seed-Lok[®] is present (not shown), secure the scraper assembly to the Seed-Lok[®], using a threaded hole present in the Seed-Lok[®]. The hex nut is ③① unused.

10. Re-mount the removed disc blade.

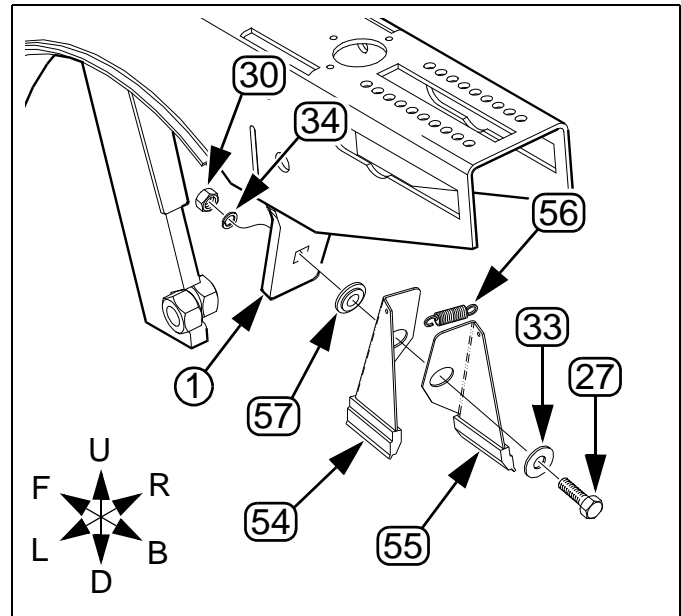


Figure 29
Carbide Disc Scraper Installation

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Walkboard Installation (3P500V)

These instructions apply to an installation of walkboard kit part number 119-301A82.

Installation of the 119-301A82 kit usually requires two workers. If also installing the SMV (page 46), install the SMV first.

Refer to Figure 30

1. Select one:
 - ⑭ 119-300H82 5' VINEYARD WALKBOARD
 and two sets:
 - ⑳ 802-079C HHCS 3/8-16X1 1/4 GR5
 - ㉑ 804-013C WASHER LOCK SPRING 3/8 PLT
 - ㉒ 803-014C NUT HEX 3/8-16 PLT
2. Align the top holes ① of the top tabs on the walkboard with the top rear holes ② in the drill side frames. Insert bolts ⑳ from the outside. Loosely secure with lock washers ㉑ and nuts ㉒.
3. Select six sets:
 - ⑳ 802-079C HHCS 3/8-16X1 1/4 GR5
 - ㉑ 804-013C WASHER LOCK SPRING 3/8 PLT
 - ㉒ 803-014C NUT HEX 3/8-16 PLT
 Insert bolts ⑳ at remaining tab and frame holes. Add lock washers ㉑ and nuts ㉒. Tighten all to Grade 5 torque.
4. Clean and dry the outside end faces of the walkboard, and the rear face near the outside ends.
5. Select two:
 - ㉓ 838-102C DECAL WARNING FALLING HAZARD
 Remove the release paper backing on a decal. Carefully align it on an end plate. Apply it to the end plate and smooth out any air bubbles. Repeat for other end of walkboard.
6. Select two:
 - ㉔ 838-266C DECAL REFLECTOR RED 1 1/2X9
 Remove the release paper backing on the decal. Carefully align it on outside end of the rear face of the walkboard. Apply it to the face and smooth out any air bubbles. Repeat for other end of walkboard.

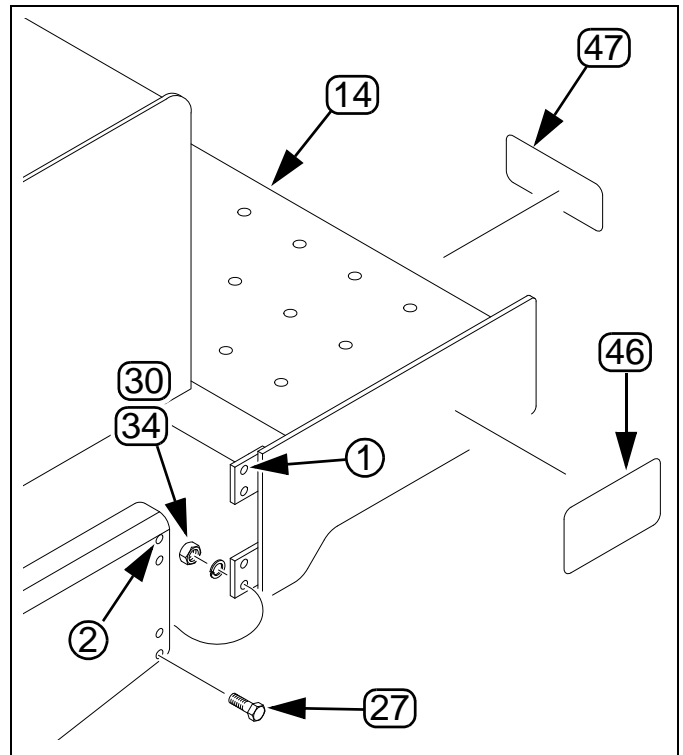
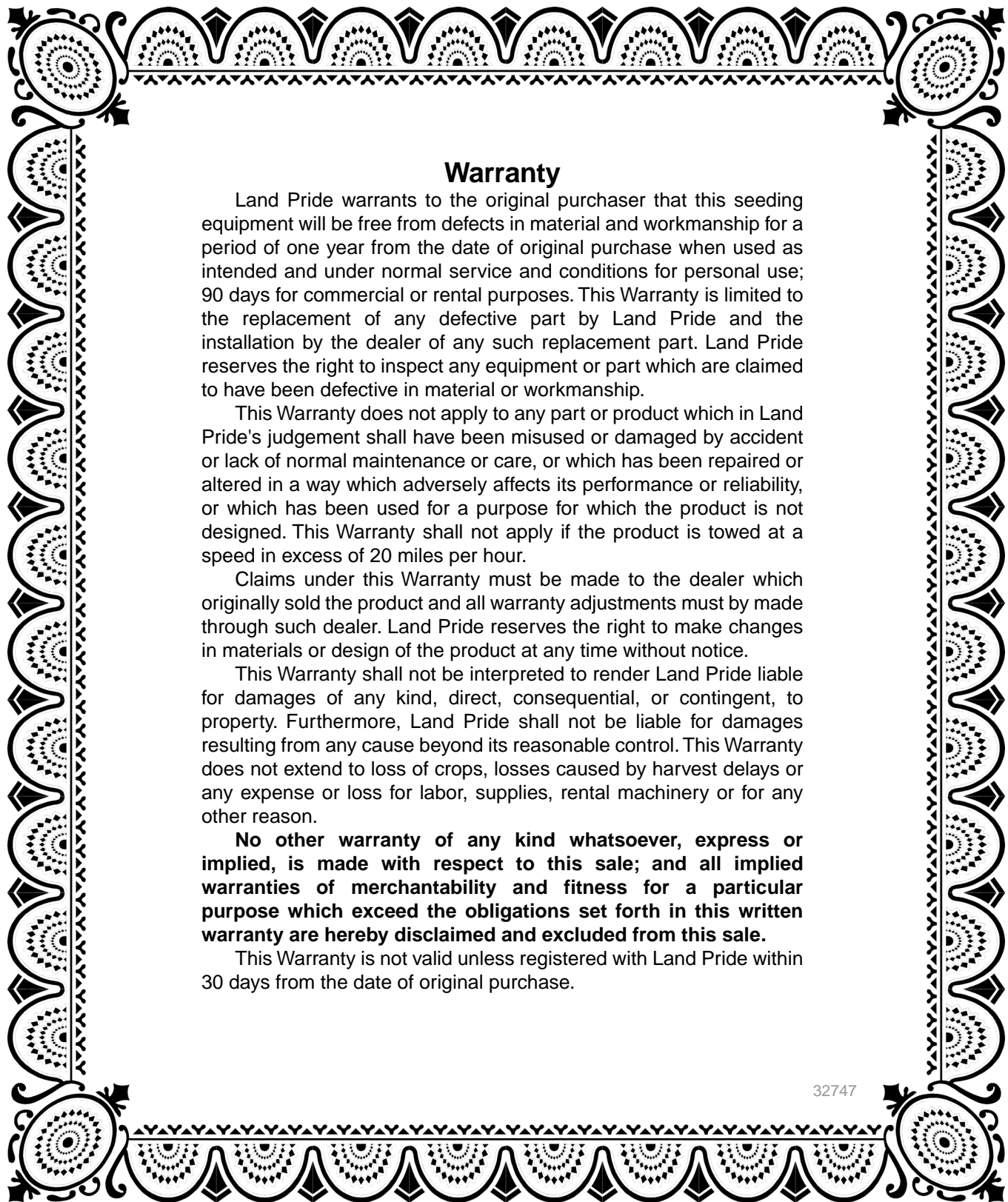


Figure 30
3P500V Walkboard

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Warranty

Land Pride warrants to the original purchaser that this seeding equipment will be free from defects in material and workmanship for a period of one year from the date of original purchase when used as intended and under normal service and conditions for personal use; 90 days for commercial or rental purposes. This Warranty is limited to the replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part. Land Pride reserves the right to inspect any equipment or part which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgement shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. This Warranty shall not apply if the product is towed at a speed in excess of 20 miles per hour.

Claims under this Warranty must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

This Warranty shall not be interpreted to render Land Pride liable for damages of any kind, direct, consequential, or contingent, to property. Furthermore, Land Pride shall not be liable for damages resulting from any cause beyond its reasonable control. This Warranty does not extend to loss of crops, losses caused by harvest delays or any expense or loss for labor, supplies, rental machinery or for any other reason.

No other warranty of any kind whatsoever, express or implied, is made with respect to this sale; and all implied warranties of merchantability and fitness for a particular purpose which exceed the obligations set forth in this written warranty are hereby disclaimed and excluded from this sale.

This Warranty is not valid unless registered with Land Pride within 30 days from the date of original purchase.

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Model Number: _____

Serial Number: _____

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Corporate Office: P.O. Box 5060
Salina, Kansas 67402-5060 USA
