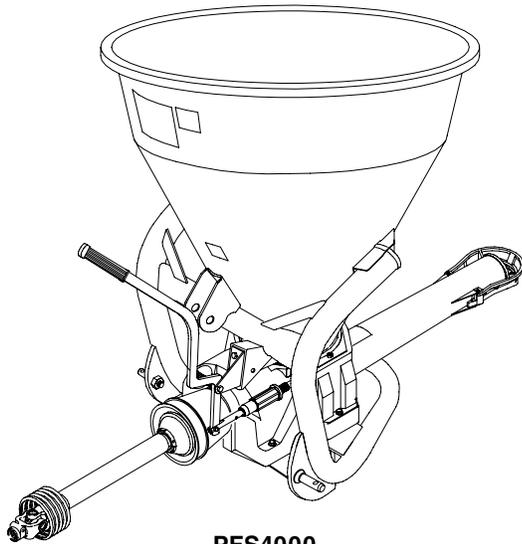
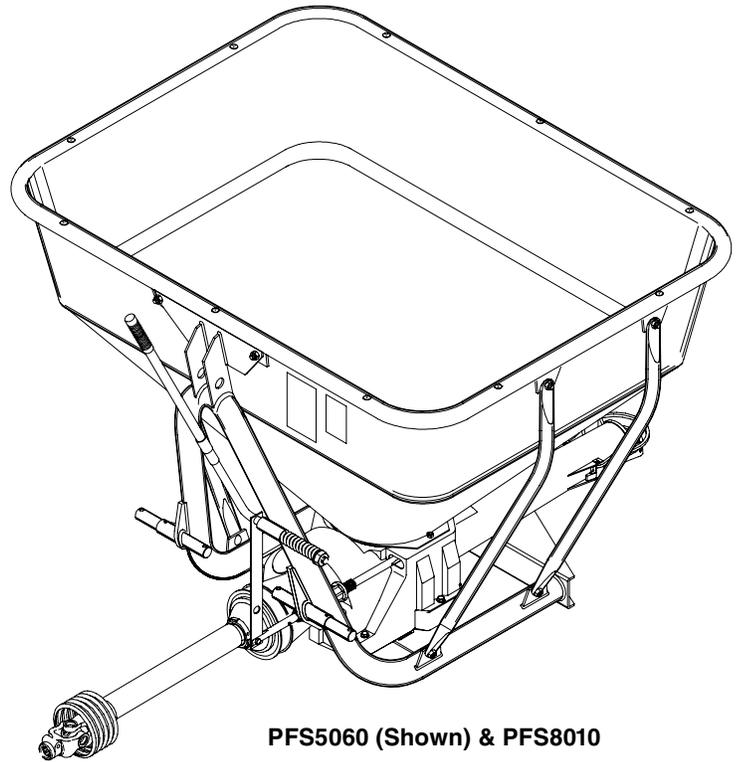


Pendulum Spreaders

PFS4000, PFS5060 & PFS8010



PFS4000



PFS5060 (Shown) & PFS8010

30752

309-124M 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!

Cover photo may show optional equipment not supplied with standard unit.

For an Operator's Manual and Decal Kit in French Language, please see your Land Pride dealer.



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 provided in the Specifications & Capacities Section of this manual with the Option(s) weight and measurements.

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

Dealer Contact Information

Name: _____

Street: _____

City/State: _____

Telephone: _____

Email: _____

California Proposition 65

 **WARNING:** Handling passenger or off-highway motor vehicle parts can expose you to chemicals such as phthalates and lead, which can cause cancer and reproductive harm. To minimize exposure, service the vehicle in a well-ventilated area, wear gloves, and wash your hands. For more information see www.P65Warnings.ca.gov/motor-vehicle-parts.



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Printed in the United States of America.



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See previous page for Table of contents.



Parts Manual QR Locator

The QR (Quick Reference) code on 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 on the left will link you to available dealers for Land Pride products. Refer to Parts Manual QR Locator on this page for detailed instructions.

Listed below are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Careful operation is your best assurance against an accident.

All operators, no matter how much experience they may have, should carefully read this manual and other related manuals, or have the manuals read to them, before operating the power machine and this implement.

- ▲ Thoroughly read and understand the "Safety Label" section. Read all instructions noted on them.
- ▲ Do not operate the equipment while under the influence of drugs or alcohol as they impair the ability to safely and properly operate the equipment.
- ▲ The operator should be familiar with all functions of the tractor and attached implement, and be able to handle emergencies quickly.
- ▲ Make sure all guards and shields appropriate for the operation are in place and secured before operating the implement.
- ▲ Keep all bystanders away from equipment and work area.
- ▲ Start tractor from the driver's seat with hydraulic controls in neutral.
- ▲ Operate tractor and controls from the driver's seat only.
- ▲ Never dismount from a moving tractor or leave tractor unattended with engine running.
- ▲ Do not allow anyone to stand between tractor and implement while backing up to implement.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ While transporting and operating equipment, watch out for objects overhead and along side such as fences, trees, buildings, wires, etc.
- ▲ Do not turn tractor so tight as to cause hitched implement to ride up on the tractor's rear wheel.
- ▲ Store implement in a safe and secure area where children normally do not play. When needed, secure implement against falling with support blocks.



Look for the Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety and extra precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. 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

A signal word designates a degree or level of hazard seriousness. They are:

- ▲ **DANGER:** Indicates a hazardous situation that, if not avoided, will result in death or serious injury.
- ▲ **WARNING:** Indicates a hazardous situation that, if not avoided, could result in death or serious injury.
- ▲ **CAUTION:** Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

Be Aware of Special Notices

Special notices are intended to point out important and helpful information that should be followed. They are usually placed inside a box. They are:

- ▲ **IMPORTANT:** Indicates that equipment or property damage could result if instructions are not followed.
- ▲ **NOTE:** Indicates supplementary explanations that will be helpful when using the equipment.

Safety Precautions for Children

Tragedy can occur if the operator is not alert to the presence of children, Children generally are attracted to implements and their work.

- ▲ Never assume children will remain where you last saw them.
- ▲ Keep children out of the work area and under the watchful eye of a responsible adult.
- ▲ Be alert and shut the implement and tractor down if children enter the work area.
- ▲ Never carry children on the tractor or implement. There is not a safe place for them to ride. They may fall off and be run over or interfere with the control of the power machine.
- ▲ Never allow children to operate the power machine, even under adult supervision.
- ▲ Never allow children to play on the power machine or implement.
- ▲ Use extra caution when backing up. Before the tractor starts to move, look down and behind to make sure the area is clear.

Tractor Shutdown & Storage

- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake.
- ▲ Turn off engine and remove ignition key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic lines.
- ▲ Wait for all components to stop before leaving operator's seat.
- ▲ Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.



Listed below are common practices that may or may not be applicable to the products described in this manual.

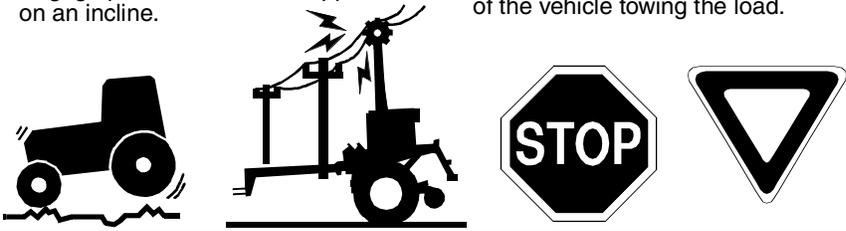
Use A Safety Chain

- ▲ A safety chain will help control drawn machinery should it separate from the tractor drawbar.
- ▲ Use a chain with the strength rating equal to or greater than the gross weight of the towed implement.
- ▲ Attach the chain to the tractor drawbar support or other specified anchor location. Allow only enough slack in the chain to permit turning.
- ▲ Always hitch the implement to the machine towing it. Do not use the safety chain to tow the implement.



Transport Safely

- ▲ Comply with federal, state, and local laws.
- ▲ Use towing vehicle and trailer of adequate size and capacity. Secure equipment towed on a trailer with tie downs and chains.
- ▲ Sudden braking can cause a towed trailer to swerve unexpectedly. Reduce speed if towed trailer is not equipped with brakes.
- ▲ Avoid contact with any overhead utility lines or electrically charged conductors.
- ▲ Always drive with load on end of loader arms low to the ground.
- ▲ Always drive straight up and down steep inclines with heavy end of skid steer on the "uphill" side.
- ▲ Engage park brake when stopped on an incline.
- ▲ Maximum transport speed for an attached equipment is 20 mph (32 km/h). **DO NOT EXCEED.** Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- ▲ As a guideline, use the following maximum speed weight ratios for attached equipment:
 - 20 mph (32 km/h)** when weight of attached equipment is less than or equal to the weight of machine towing the equipment.
 - 10 mph (16 km/h)** when weight of attached equipment exceeds weight of machine towing equipment but not more than double the weight.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.



Tire Safety

- ▲ Tire changing can be dangerous and must be performed by trained personnel using the correct tools and equipment.
- ▲ Always properly match the wheel size to the properly sized tire.
- ▲ Always maintain correct tire pressure. Do not inflate tires above recommended pressures shown in the Operator's Manual.
- ▲ When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- ▲ Securely support the implement when changing a wheel.
- ▲ When removing and installing wheels, use wheel handling equipment adequate for the weight involved.
- ▲ Make sure wheel bolts have been tightened to the specified torque.



Practice Safe Maintenance

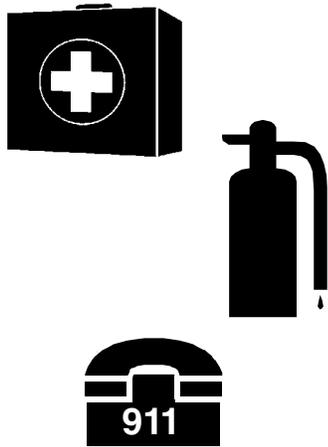
- ▲ Understand procedure before doing work. Refer to the Operator's Manual for additional information.
- ▲ Work on a level surface in a clean dry area that is well-lit.
- ▲ Lower implement to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- ▲ Do not work under any hydraulically supported equipment. It can settle, suddenly leak down, or be lowered accidentally. If it is necessary to work under the equipment, securely support it with stands or suitable blocking beforehand.
- ▲ Use properly grounded electrical outlets and tools.
- ▲ Use correct tools and equipment for the job that are in good condition.
- ▲ Allow equipment to cool before working on it.
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Inspect all parts. Make certain parts are in good condition & installed properly.
- ▲ Replace parts on this implement with genuine Land Pride parts only. Do not alter this implement in a way which will adversely affect its performance.
- ▲ Do not grease or oil implement while it is in operation.
- ▲ Remove buildup of grease, oil, or debris.
- ▲ Always make sure any material and waste products from the repair and maintenance of the implement are properly collected and disposed.
- ▲ Remove all tools and unused parts from equipment before operation.
- ▲ Do not weld or torch on galvanized metal as it will release toxic fumes.



Listed below are common practices that may or may not be applicable to the products described in this manual.

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 the phone.



Wear Personal Protective Equipment (PPE)

- ▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety glasses, hard hat, dust mask, and ear plugs.
- ▲ Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- ▲ Operating a machine safely requires the operator's full attention. Avoid wearing headphones while operating equipment.



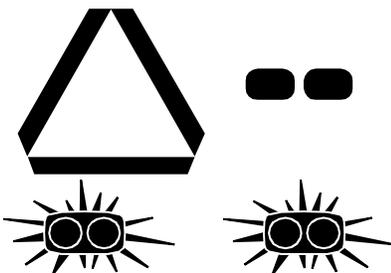
Avoid High Pressure Fluids

- ▲ Escaping fluid under pressure will penetrate the skin or eyes causing serious injury.
- ▲ Relieve all residual pressure before disconnecting hydraulic lines or performing work on the hydraulic system.
- ▲ Make sure all hydraulic fluid connections are properly tightened/torqued and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ **DO NOT DELAY.** If an accident occurs, seek immediate emergency medical care or gangrene may result.



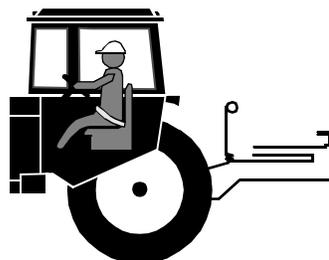
Use Safety Lights and Devices

- ▲ A Slow moving power machine can create a hazard when driven on public roads. They are difficult to see, especially at night. Use the Slow Moving Vehicle (SMV) sign when on public roads.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.



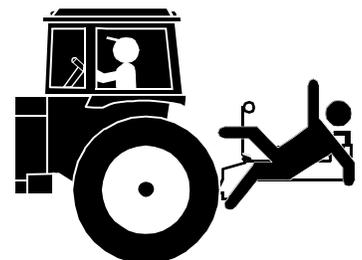
Use Seat Belt and ROPS

- ▲ Land Pride recommends the use of a CAB or roll-over-protective-structures (ROPS) and seat belt in almost all power machines. Combination of a CAB or ROPS and seat belt will reduce the risk of serious injury or death if the power machine should be upset.
- ▲ If ROPS is in the locked-up position, fasten seat belt snugly and securely to help protect against serious injury or death from falling and machine overturn.



Keep Riders Off Machinery

- ▲ Never carry riders on the tractor or implement.
- ▲ Riders obstruct operator's view and interfere with the control of the power machine.
- ▲ Riders can be struck by objects or thrown from the equipment.
- ▲ Never use the tractor or implement to lift or transport riders.



Listed below are common practices that may or may not be applicable to the products described in this manual.

Avoid crystalline Silica (quartz) Dust

Because crystalline silica is a basic component of sand and granite, many activities at construction sites produce dust containing crystalline silica. Trenching, sawing, and boring of material containing crystalline silica can produce dust containing crystalline silica particles. This dust can cause serious injury to the lungs (silicosis).

There are guidelines which should be followed if crystalline silica (quartz) is present in the dust.



- ▲ Be aware of and follow OSHA (or other local, State, or Federal) guidelines for exposure to airborne crystalline silica.
- ▲ Know the work operations where exposure to crystalline silica may occur.
- ▲ Participate in air monitoring or training programs offered by the employer.
- ▲ Be aware of and use optional equipment controls such as water sprays, local exhaust ventilation, and enclosed cabs with positive pressure air conditioning if the machine has such equipment. Otherwise respirators shall be worn.
- ▲ Where respirators are required, wear a respirator approved for protection against crystalline silica containing dust. Do not alter respirator in any way. Workers who use tight-fitting respirators can not have beards/mustaches which interfere with the respirator seal to the face.
- ▲ If possible, change into disposable or washable work clothes at the work site; shower and change into clean clothing before leaving the work site.
- ▲ Do not eat, drink, use tobacco products, or apply cosmetics in areas where there is dust containing crystalline silica.
- ▲ Store food, drink, and personal belongings away from the work area.
- ▲ Wash hands and face before eating, drinking, smoking, or applying cosmetics after leaving the exposure area.

Handle Chemicals Properly

- ▲ Protective clothing should be worn.
- ▲ Handle all chemicals with care.
- ▲ Follow instructions on container label.
- ▲ Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil, and property.
- ▲ Inhaling smoke from any type of chemical fire can be a serious health hazard.
- ▲ Store or dispose of unused chemicals as specified by the chemical manufacturer.



Dig Safe - Avoid Underground Utilities

- ▲ **USA: Call 811**
CAN: digsafecanada.ca
Always contact your local utility companies (electrical, telephone, gas, water, sewer, and others) before digging so that they may mark the location of any underground services in the area.
- ▲ Be sure to ask how close you can work to the marks they positioned.





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Important Safety Information

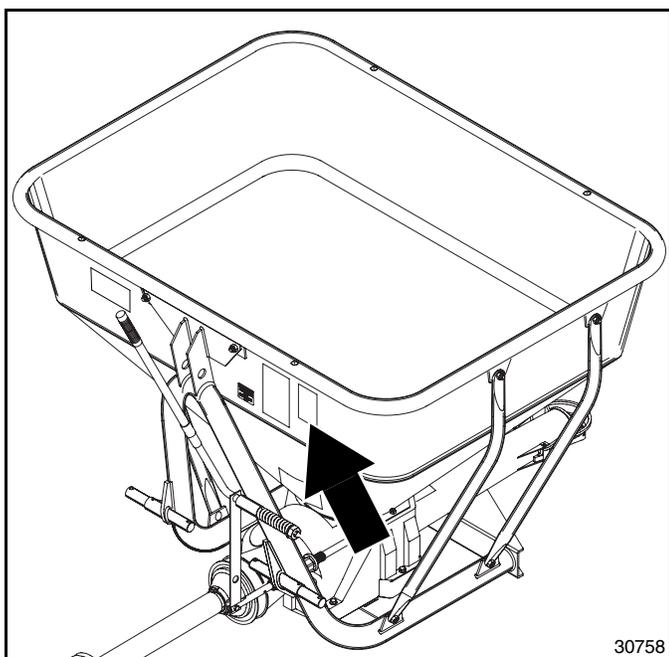
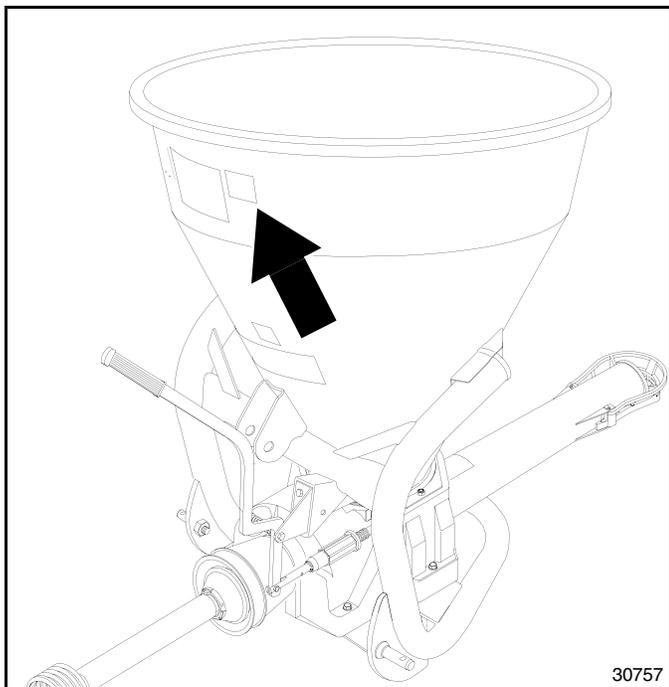
Safety Labels

Your Pendulum Spreader comes equipped with all safety labels in place. They were designed to help you safely operate your spreader. Read and follow their directions.

1. Keep all safety labels clean and legible.
2. Refer to this section for proper label placement. Replace all damaged or missing labels. Order new labels from your nearest Land Pride dealer. To find your nearest dealer, visit our dealer locator at www.landpride.com.
3. Some new equipment installed during repair requires safety labels to be affixed to the replaced component as

specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.

4. Refer to this section for proper label placement. To install new labels:
 - a. Clean surface area where label is to be placed.
 - b. Spray soapy water onto the cleaned area.
 - c. Peel backing from label and press label firmly onto the surface.
 - d. Squeeze out air bubbles with edge of a credit card or with a similar type of straight edge.



DANGER

TOXIC CHEMICAL HAZARD

WEAR RUBBER GLOVES DO NOT INGEST CHEMICAL

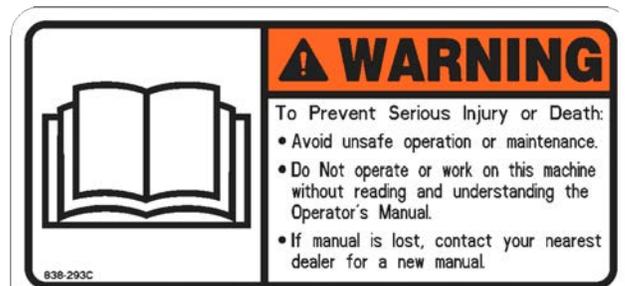
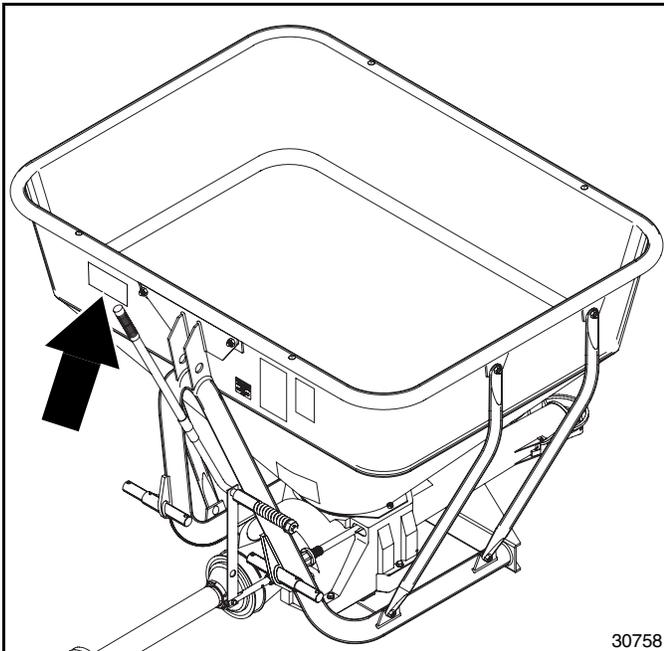
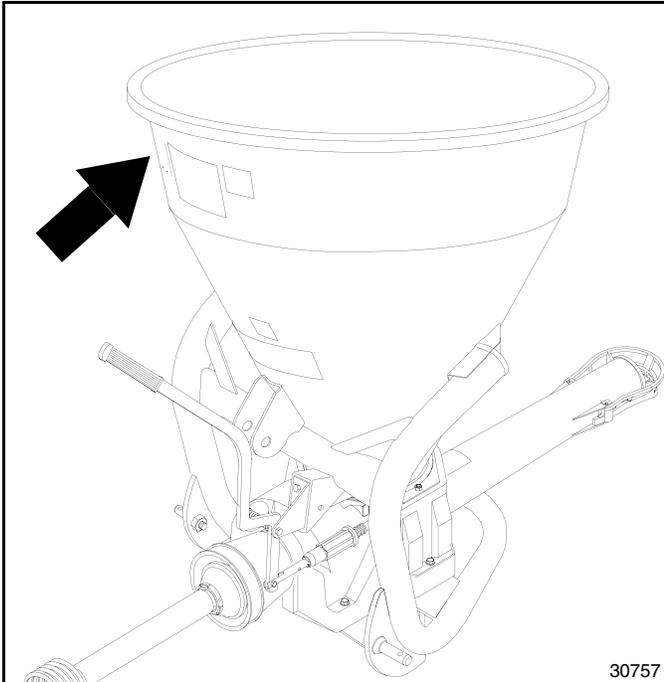
- Do not allow chemical or solution to touch skin. Some can be absorbed through the skin.
- Chemicals can be toxic.
- Wear rubber gloves and protective gear at all times.
- If in eyes or mouth, read chemical manufacturers instructions and follow exactly.
- Seek medical attention immediately.
- A poison control number is normally inside the front cover of your telephone book.

FAILURE TO FOLLOW THESE INSTRUCTIONS WILL RESULT IN SERIOUS INJURY OR DEATH.

818-541C

818-541C

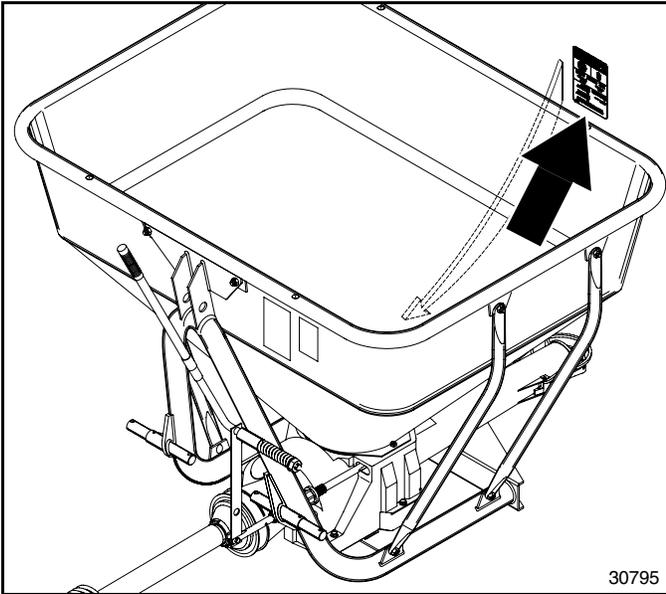
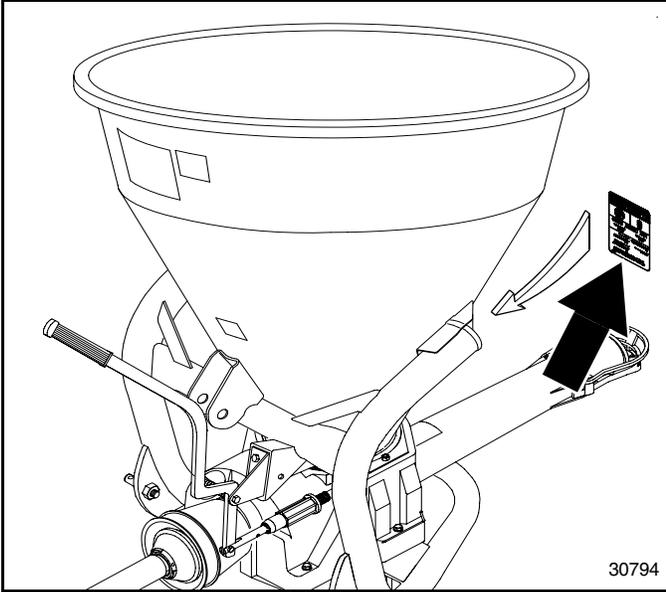
Danger: Toxic Chemical Hazard
 1 Place: On the front of the hopper



838-293C

Warning: Read Operator's Manual - General Warning
1 Place: On the front of the hopper

Important Safety Information

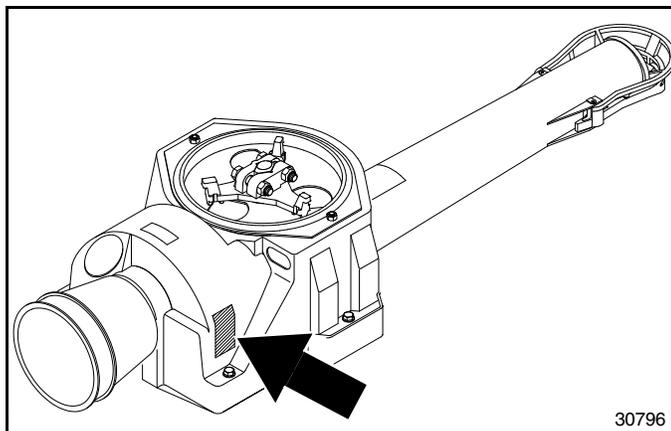


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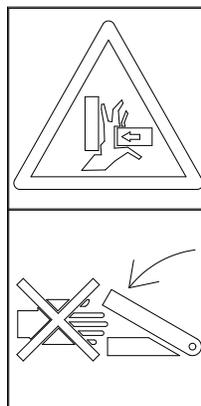
⚠ DANGER	
<p>THROWN OBJECT / ROTATING PADDLES HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> • Keep away from discharge area and rotating paddles during operation. • Keep others away. • Disconnect and lockout power source BEFORE adjusting or servicing. • DO NOT point discharge towards people, animals, or buildings when operating. • Keep hands, feet, hair, and clothing away from moving parts. <p style="text-align: right;">818-539C</p>	

818-539C

Danger: Thrown Object / Rotating Paddles Hazard
 1 Place: On the back of the hopper



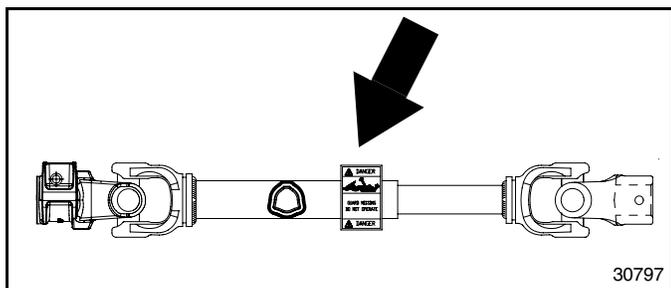
30796



308.004

Danger: Pinch Point Hazard

1 Place: On the left side of the gearbox



30797

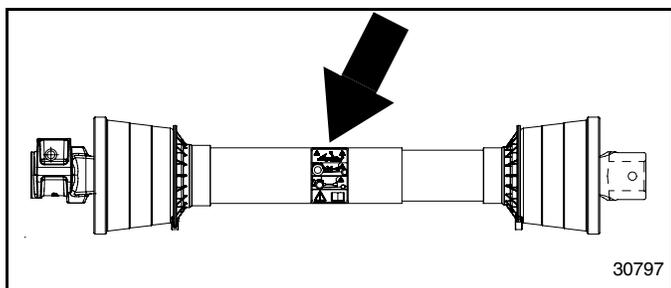


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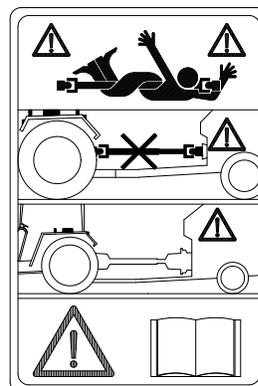
818-540C

Danger: Guard Missing - DO NOT Operate

1 Place: On the driveline outer profile



30797



311.416

Danger: Rotating Driveline Hazard

1 Place: on the driveline outer shield



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Introduction

Land Pride welcomes you to the growing family of new product owners. This Pendulum Spreader has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance and safe operating practices will help you get years of satisfactory use from this spreader.

Application

The Land Pride's PFS4000, PFS5060 and PFS8010 are professional pendulum-type seeder/broadcast spreaders that provide maximum spreading accuracy, ease of operation and simple calibration. Each model is offered with a specific hitch category:

- PFS4000 3-point hitchCategory I
- PFS5060 3-point hitchCategory I & II
- PFS8010 3-point hitch Category II

They are capable of spreading seed, sand, salt, top dressings, prilled/granular fertilizer, lime, and most all other types of granular materials at a delivery rate ranging from 4 to 890 lbs/acre (4.5 to 998 kgs/ha).

Each model offers specific hopper capacities. (Capacity is based on average weight of granular fertilizer.)

- PFS4000 hopper capacity 925 lbs . .(432 kgs)
- PFS5060 hopper capacity:
 - with Standard extension 1,150 lbs . .(522 kgs)
 - with optional extension 1,393 lbs . .(632 kgs)
- PFS8010 hopper capacity:
 - with standard extension 2,040 lbs . .(825 kgs)
 - with optional extension 2,522 lbs . .(1144 kgs)
 - with optional large extension . . 2,998 lbs .(1360 kgs)
- Effective spout spread width:
 - Standard Spout #309-138A . . .20-46 ft . (6.1-14 m)
 - Spout #309-131A.2.3-14.7 ft (0.7-4.5 m)
 - Spout #309-132A.6.5-13.08 ft . . (2-4 m)
 - Spout #309-133A.6.5-32.75 ft . . (2-10 m)

The precision spread pattern and range of hopper capacities make the Land Pride's Fertilizer Spreaders well suited for applications on vineyards, orchards, farms, golf courses, park systems, athletic fields, and large campuses. They also work well for smaller municipal or commercial applications of salt and sand for snow and ice control.

See "**Specifications & Capacities**" on page 51 and "**Features & Benefits**" on page 52 for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.

- To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com.

Terminology

"Right" or "Left" as used in this manual is determined by the direction the operator faces while sitting in the operator's seat looking forward unless otherwise stated.

Owner Assistance

The dealer should complete the Online Warranty Registration at the time of purchase. This information is necessary to provide you with quality customer service

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the spreader.

The parts on your Pendulum Spreader have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your spreader require replacement parts go to your Land Pride dealer.

Serial Number

For quick reference and prompt service, record model and serial number on the inside cover page and again on the warranty page. Always provide model number and serial number when ordering parts and in all correspondences with your Land Pride dealer. For location of your serial number plate, Refer to Figures 1 & 2 on page 13.

Further Assistance

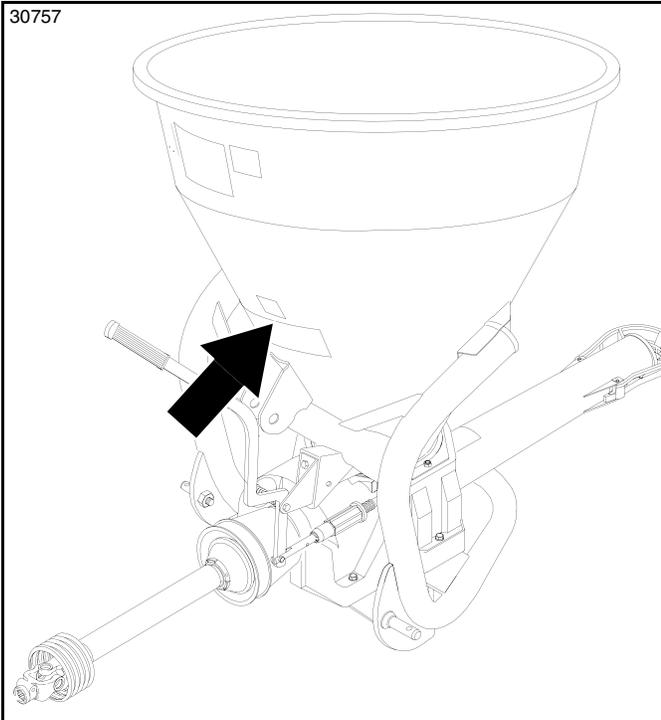
Your dealer wants you to be satisfied with your new Pendulum Spreader. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

1. Discuss any problems you have with your Pendulum spreader with your dealership service personnel so they can address the problem.
2. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the question/problem and request assistance.
3. For further assistance write to:

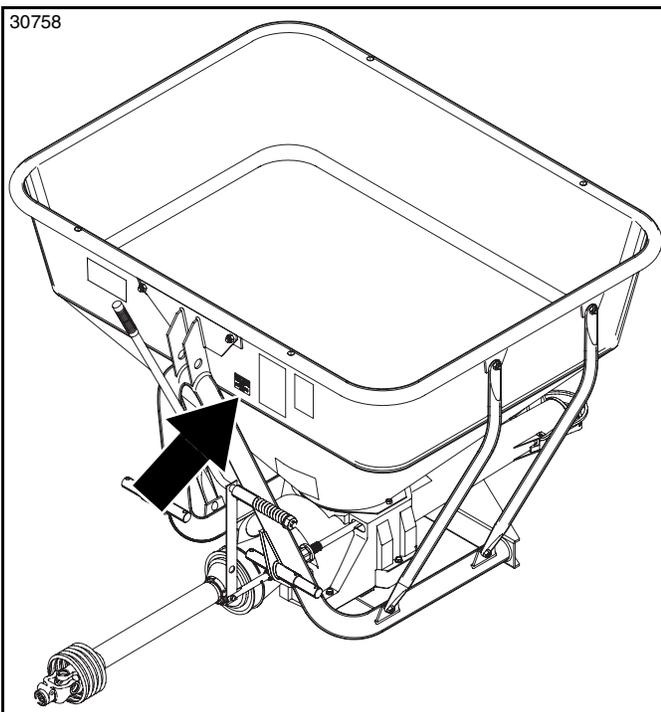
Land Pride Service Department
1525 East North Street
 P.O. Box 5060
 Salina, Ks. 67402-5060

E-mail address
lpSERVICE@landpride.com

Introduction



**PFS4000 Serial Number Plate Location
Figure 1**



**PFS5060 & PFS8010 Serial Number Plate Location
Figure 2**

Tractor Requirements

! WARNING

To avoid serious injury or death:

Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control. Consult your tractor Operator's Manual to determine proper weight requirements and maximum weight limitations.

Minimum Horsepower¹ 6 hp (4.5 kW)
Minimum Tractor Weight See Warning Above

3- Point Hitch Type:

PFS4000 Cat. I
PFS5060 Cat. I inside & Cat. II outside the frame
PFS8010 Cat. II

Rear Power Take-Off Speed 540 rpm

Power Take-Off Shaft Type 1 3/8"-6 Spline

Hydraulic Outlet² Single Outlet

Notes:

¹ Horsepower required to power the drive unit only.

² Required for optional PFS5060 & PFS8010 Hydraulic Gate Kit only.

Section 1: Drive Unit Assembly

Assembly & Set-Up

This Pendulum Spreader will require some assembly before the unit can be attach to the customer's tractor. Read and understand this Operator's Manual before assembling the spreader. An understanding of how the unit works will aid in the assembly and setup.

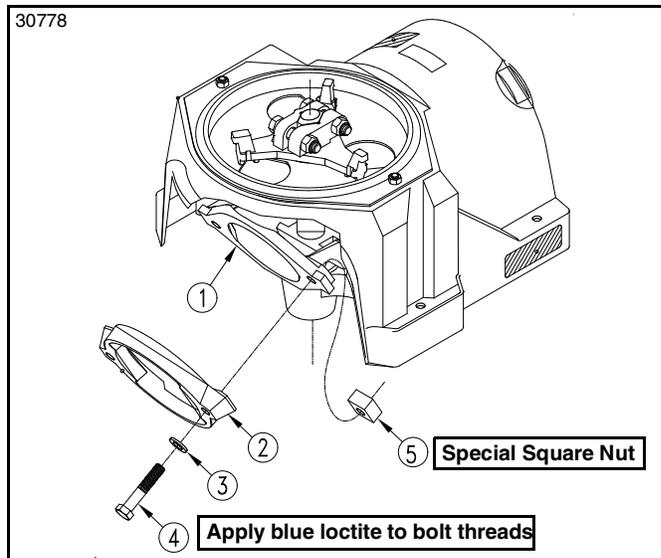
Torque Requirements

Refer to "Torque Values Chart for Common Bolt Sizes" on page 54 to determine correct torque values when tightening hardware.

Pendulum Flange Assembly

Refer to **Figure 1-1**:

1. Apply blue loctite (not permanent loctite) to M12-10.9 x 65 bolts (#4). Loctite to be supplied by the customer.
2. Attach flange (#2) to drive unit flange (#1) with M12-10.9 x 65 bolts (#4), flat washers (#3) and special square nuts (#5). Screw bolts onto nuts only 3 or 4 complete 360° turns. Do not tighten at this time.

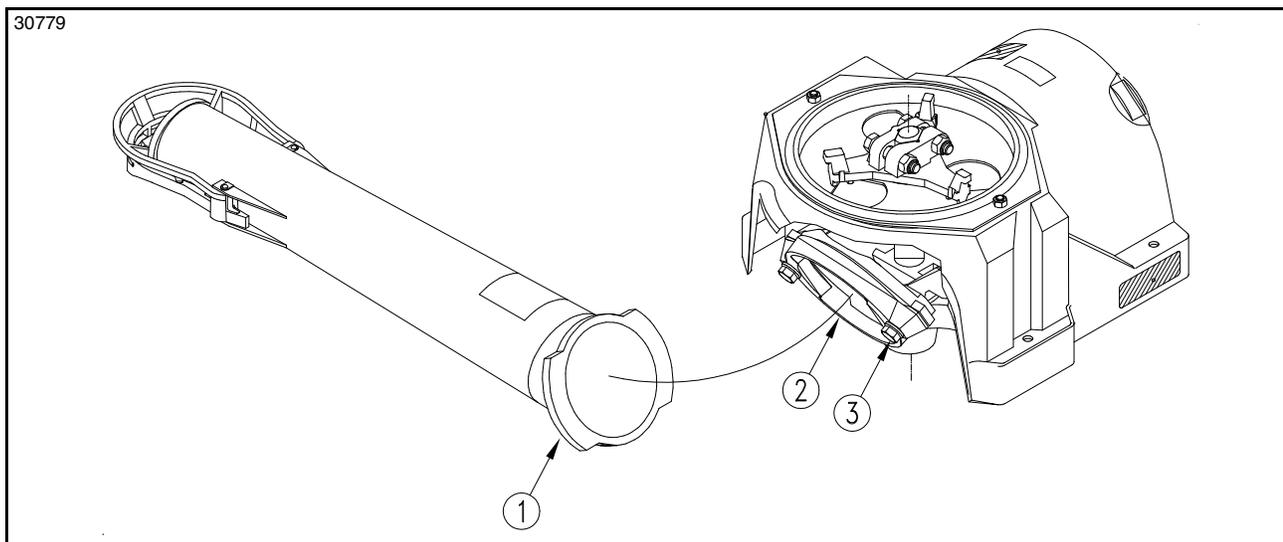


Pendulum Flange Assembly
Figure 1-1

Pendulum Spout Assembly

Refer to **Figure 1-2**:

1. Rotate pendulum spout (#1) 90 degrees counterclockwise and insert into flange opening (#2).
2. Rotate pendulum spout 90 degrees clockwise to upright position. Verify spout is properly seated and then tighten bolts (#3) to the correct torque.



Pendulum Assembly (Upright Rotation Shown)
Figure 1-2

Section 1: Drive Unit Assembly

Shaft Shield Assembly

Refer to Figure 1-3:

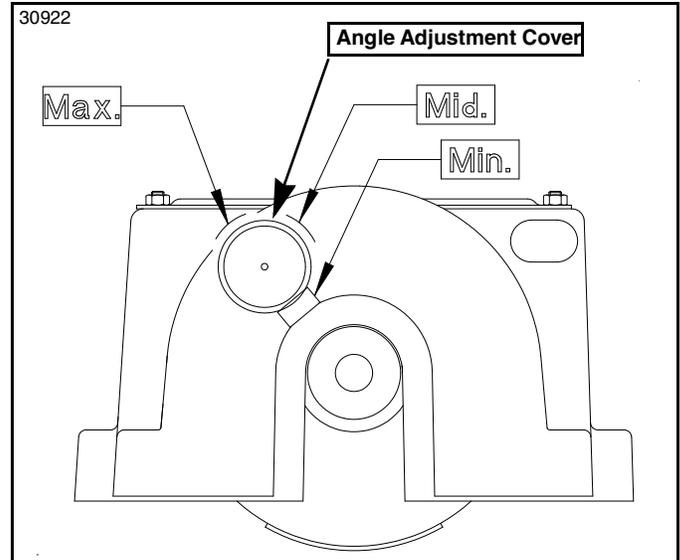
1. Position shaft shield (#1) with hole in shield up.
2. Center shaft shield over input shaft and attach shield to drive unit (#2) with three #10 x 3/4" self tapping screws (#3) and fender washers (#4). Tighten self tapping screws.
3. Position regulation bar (#5) with numbers on bar in front of adjusting nut and facing to the left
4. Rotate front of regulation bar (#5) away from drive unit and hook end of bar to gate fork "A"
5. Push on regulation bar until end of adjusting nut is against drive unit housing.

MIN, MID, & MAX Decal Placement

Refer to Figure 1-4:

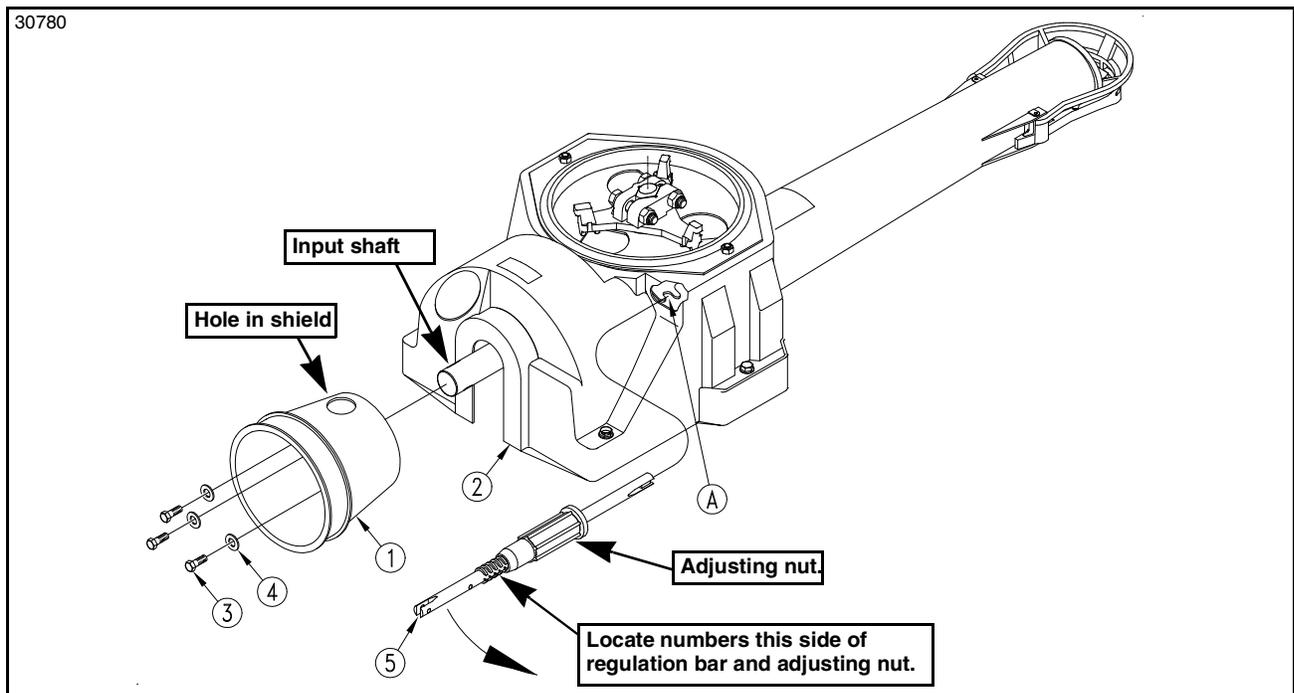
If the three (Max., Mid., & Min) decals are include, peel their backing paper and place them on the drive unit as noted below.

1. Place "Max." decal above the angle adjustment cover on the smooth flat area provided.
2. Place "Min." decal below the angle adjustment cover on the smooth flat area provided.
3. Place "Mid." decal in-between the "Max." and "Min." decals as shown.



Min & Max Decal Location
Figure 1-4

4. The drive unit is now ready to be assembled to the main frame. Continue as follows:
 - Go to page 16 for PFS4000 Assembly & Set-Up.
 - Go to page 18 for PFS5060 Assembly & Set-Up.
 - Go to page 21 for PFS8010 Assembly & Set-Up.



Shaft Shield Assembly
Figure 1-3

Section 2: PFS4000 Assembly & Set-Up

The following instructions are for the PFS4000 model. See page 18 for PFS5060 and page 21 for PFS8010. See page 13 for drive unit assembly instructions.

Drive Unit Assembly to Main Frame

Refer to Figure 2-1:

1. Attach hitch pins (#7) to the main frame with 3/4" hex nuts (#8). Tighten nuts to the correct torque.

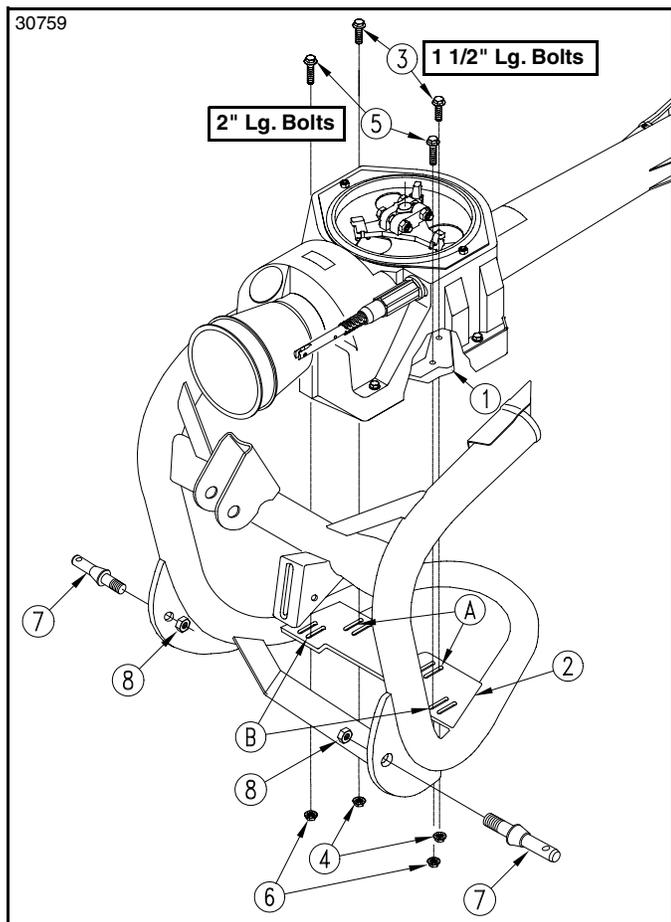
IMPORTANT: Drive Unit assembly is heavy and requires 2 people to safely install to the main frame.

Do not tighten nuts (#4 & #6) until after hopper is installed. This will allow for proper alignment of hopper to drive unit assembly.

2. Insert M12 x 50 bolts (#5) into front holes and M12 x 40 bolts (#3) into the back holes of drive frame (#1).

NOTE: If rear bolts (#3) are difficult to install into slots "A" in mounting plate (#2), pivot rear of drive unit up and down to insert bolts through slots "A".

3. Attach drive frame (#1) to inside slots "B" first and outside slots "A" last in mounting plate (#2) with hex nuts (#4 & #6). Do not tighten hex nuts at this time.

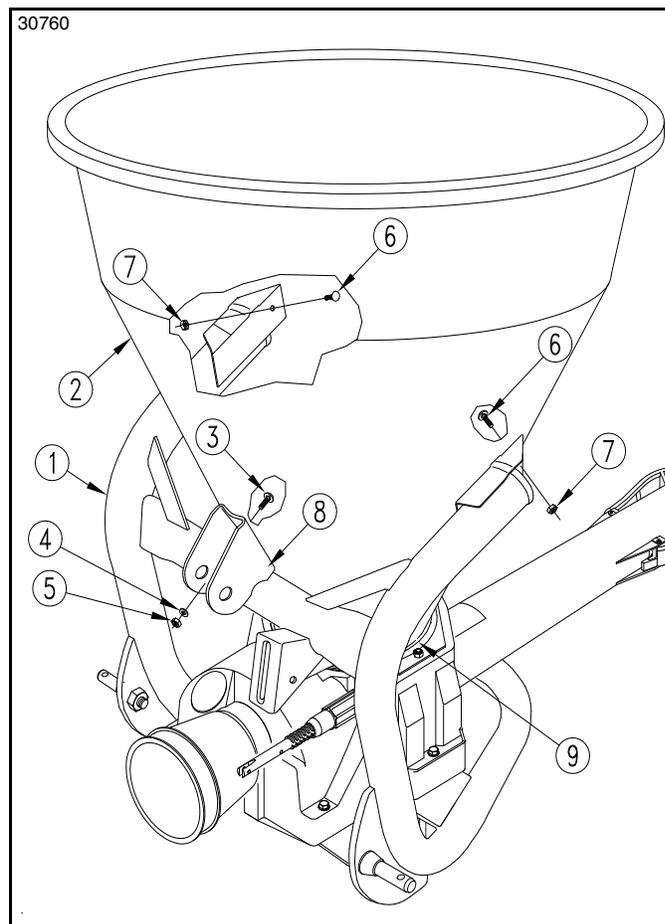


**Drive Unit Assembly
Figure 2-1**

Hopper Assembly

Refer to Figure 2-2:

1. Rotate hopper until mounting holes in hopper are in alignment with main frame mounting holes (Land Pride Logo will be to the back).
2. Lower hopper (#2) onto main frame (#1) until centered and resting above drive unit flange (#9).
3. Attach hopper sides first to the main frame with M10 x 30 round head screws (#6) and hex nuts (#7). Draw nuts up snug, do not tighten at this time.
4. Adjust drive unit forward or rearward until hole in the front of the hopper mates with hole in the 3-point clevis bracket (#8) and hopper bottom is centered over the drive unit flange (#9).
5. Attach hopper front to 3-point clevis bracket (#8) with M10 x 30 round head screw (#3), flat washer (#4) and hex nut (#5) as shown.
6. Tighten hopper mounting nuts (#5 & #7) to the correct torque.
7. **Refer to Figure 2-1:** Make final adjust to the position of the drive unit and tighten hex nuts (#4 & #6) to the correct torque.



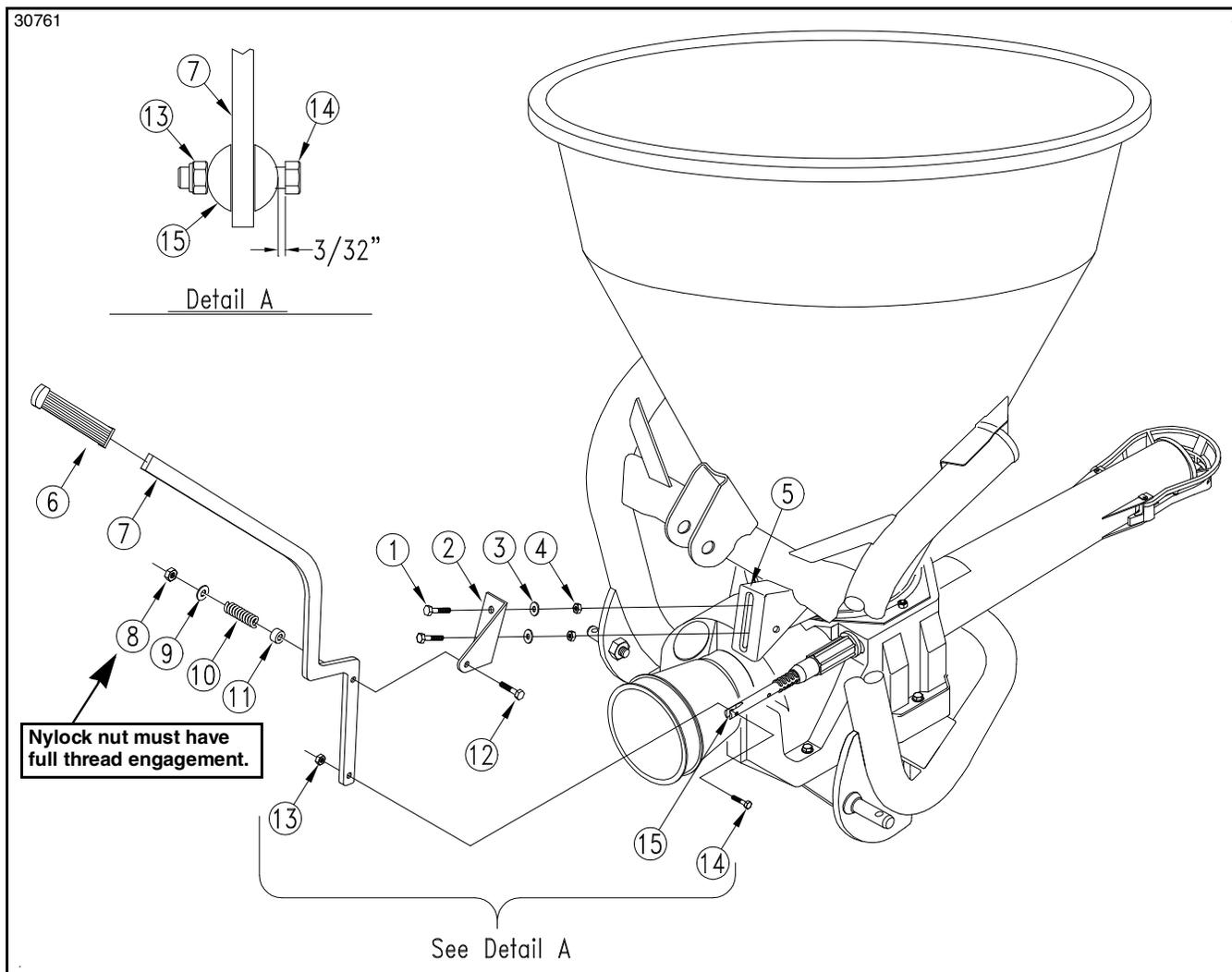
**Hopper Assembly
Figure 2-2**

Section 2: PFS4000 Assembly & Set-Up

Gate Lever Assembly

Refer to Figure 2-3:

1. Attach gate lever mounting bracket (#2) to spreader main frame bracket (#5) with M10 x 25 hex screws (#1), flat washers (#3) and hex nuts (#4). Draw nuts up snug, do not tighten.
2. Attach gate handle (#6) to gate lever (#7).
3. Attach gate lever (#7) to mounting bracket (#2) with M10 x 80 screw (#12), nylon bushing (#11), 40 x 30 x 10 mm (13/32") compression spring (#10), flat washer (#9) and self locking nut (#8). Draw nut up snug, do not tighten.
4. Spread fork on end of regulation bar (#15) and attach gate lever to regulation bar with M6 x 25 hex head bolt (#13) and hex nylock nut (#14).
5. **See Detail "A"**: Draw hex nut (#14) up until bolt has approximately 3/32" (2.4 mm) movement. Make sure nylock nut has full thread engagement.
6. Adjust height of mounting bracket (#2) as needed to level regulation bar (#15).
7. Tighten hex nuts (#4) to the correct torque.
8. Tighten nylock nut (#8) until lever (76) has enough resistance to not move during field use. Some adjustment to nut (#8) may be required during field application. Make sure nylock nut has as a minimum full thread engagement.
9. Turn to page 24 for "Driveline Assembly and Set-Up" instructions.



Gate Lever Assembly
Figure 2-3

Section 3: PFS5060 Assembly & Set-Up

The following instructions are for the PFS5060 model. See page 16 for PFS4000 and page 21 for PFS8010 models. See page 13 for drive unit assembly instructions.

Drive Unit Assembly to Main Frame

Refer to "Tractor Requirements" on page 13 for instructions on how to assemble the drive unit.

Refer to **Figure 3-1**:

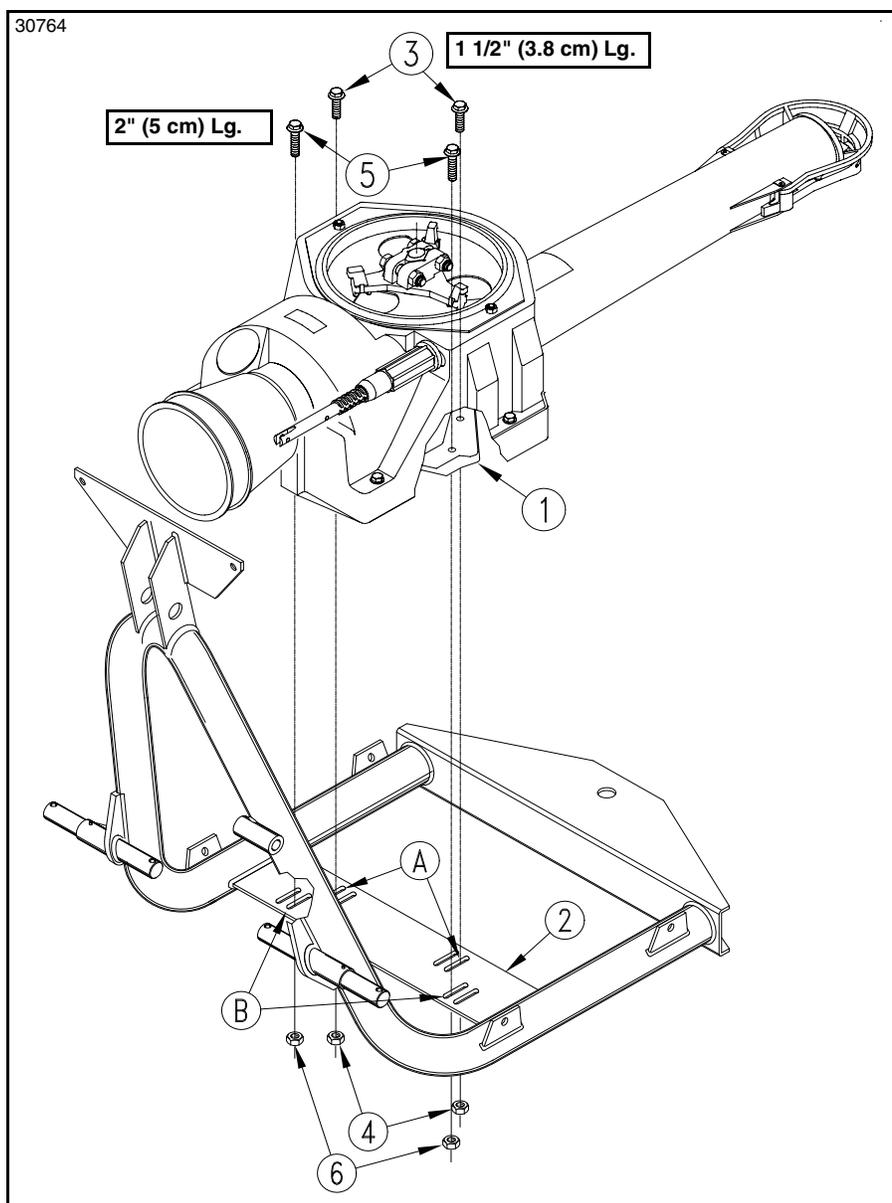
IMPORTANT: Drive Unit assembly is heavy and requires 2 people to safely install to the main frame.

Do not tighten nuts (#4 & #6) until after hopper is installed. This will allow for proper alignment of hopper to drive unit assembly.

1. Insert M12 x 50 bolts (#5) into front holes and M12 x 40 bolts (#3) into the back holes of drive frame (#1).

NOTE: If rear bolts (#3) are difficult to install into slots "A" in mounting plate (#2), pivot rear of drive unit up and down to insert bolts through slots "A".

2. Attach drive frame (#1) to inside slots "B" first and outside slots "A" last in mounting plate (#2) with hex nuts (#4 & #6). Do not tighten hex nuts at this time.



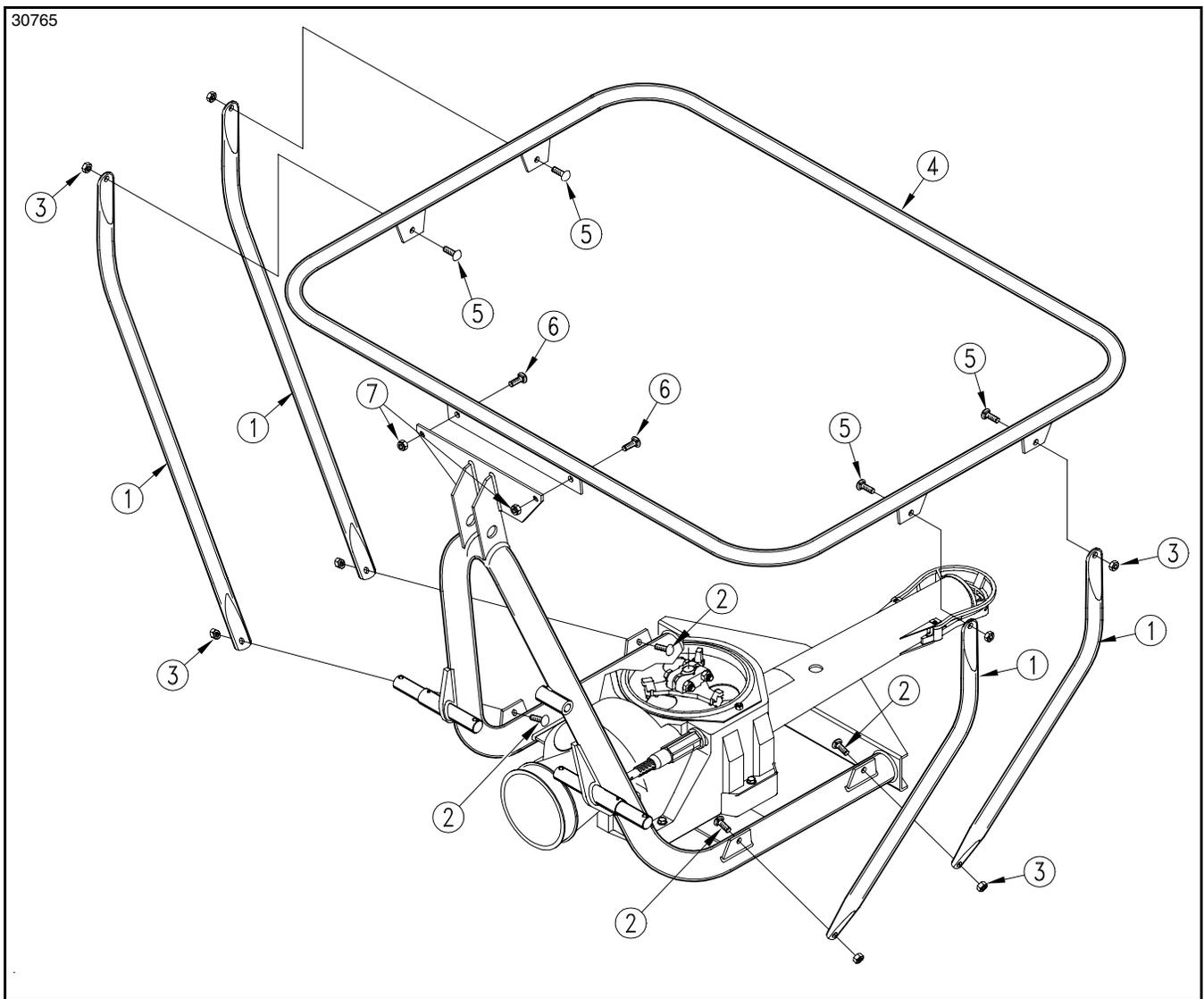
**Drive Unit Assembly
Figure 3-1**

Section 3: PFS5060 Assembly & Set-Up

Hopper Support Frame Assembly

Refer to Figure 3-2:

1. Position support rods (#1) with bend ends up and attach to the main frame with M10 x 30 carriage bolts (#2) and hex nuts (#3). Draw hex nuts up snug, do not tighten at this time.
2. Attach hopper support ring (#4) to support rods with M10 x 30 carriage bolts (#5) and nuts (#3). Draw nuts up snug, do not tighten at this time.
3. Attach hopper support ring (#4) to the front of the main frame with M10 x 30 carriage bolts (#6) and hex nuts (#7). Tighten hex nuts (#7) to the correct torque.
4. Push down on the hopper ring at the support rod and tighten hex nuts (#3) at the top and bottom of that support rod.
5. Repeat step 4 at each support rod while tightening the remaining hex nuts (#3).



Hopper Support Frame Assembly
Figure 3-2

Section 3: PFS5060 Assembly & Set-Up

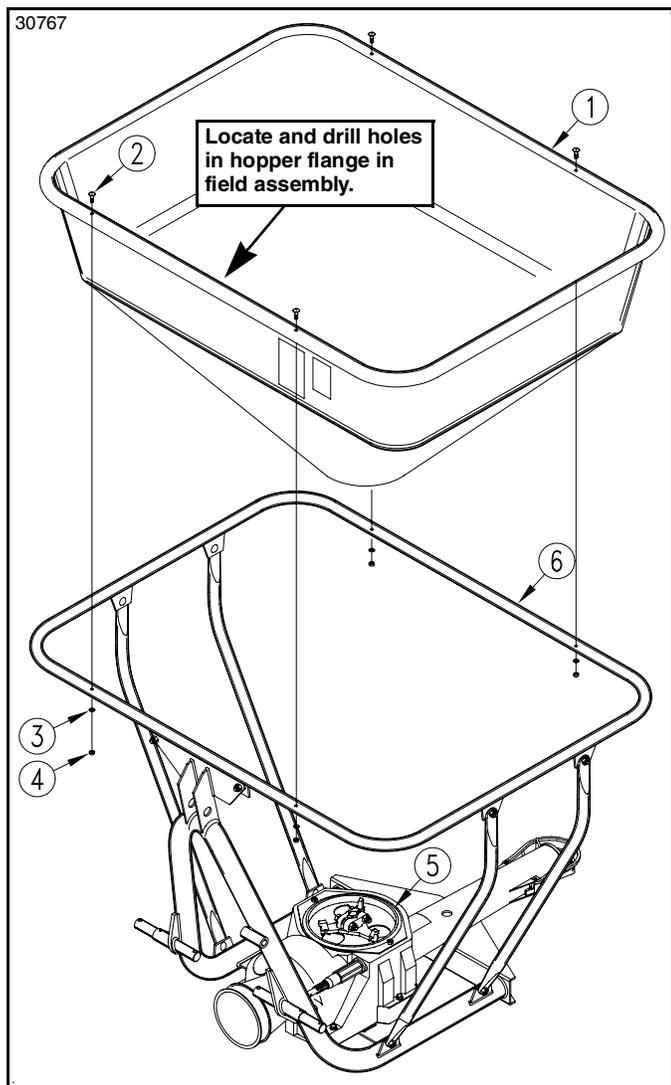
Hopper Assembly

Refer to Figure 3-3:

1. Orient hopper (#1) with decals facing front as shown and lower hopper onto hopper support ring (#6). Make certain drive unit (#5) is centered under the hopper bottom. (Land Pride Logo is on the back.)

NOTE: Make certain hopper is fully seated against hopper support ring on all four sides before continuing with step 2 below.

2. Refer to Figure 3-1 on page 18: Make any final adjustment to the drive unit and then tighten hex nuts (#4 & #6) to the correct torque.
3. If included, install optional hopper extension at this time. See "Hopper Top Extension Kit" on page 32 for installation instructions.
4. Using holes in hopper support ring as a template, slowly drill 10 mm (13/32") holes up from the bottom of the support ring through the hopper flange.



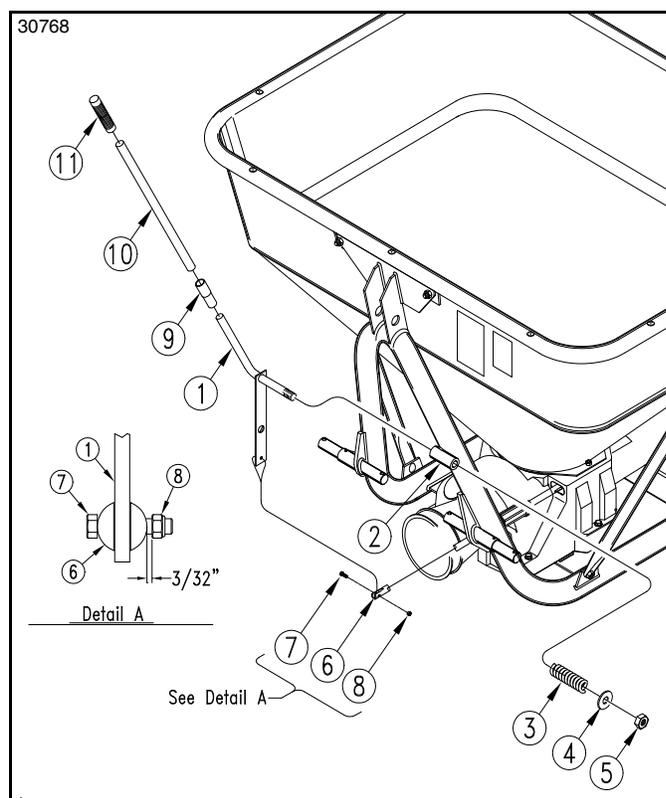
Hopper Assembly
Figure 3-3

5. Attach hopper to hopper support ring with M10 x 60 round head screws (#2), flat washers (#3) and hex head nuts (#4). Do not tighten nuts until after all bolts and nuts have been installed.
6. Hand tighten nuts (#4) with a hand wrench. Do not use a power wrench.

Gate Lever Assembly

Refer to Figure 3-4:

1. Insert gate lever (#1) into mounting bracket (#2) as shown and secure with compression spring (#3), flat washer (#4) and M16 self locking hex nut (#5). Draw nut up snug, do not tighten.
2. Spread fork on end of regulation bar (#6) and attach gate lever (#1) to regulation bar with M6 x 25 hex bolt (#7) and hex nut (#8).
3. See Detail "A": Draw hex locknut (#8) up until bolt has approximately 3/32" (2.4 mm) movement.
4. Attach handle (#11) to gate lever extension (#10).
5. Attach gate lever extension (#10) to gate lever (#1) with PVC sleeve (#9).
6. Tighten nylock nut (#5) until lever (#1) has enough resistance to not move during field use. Some adjustment to nut (#5) may be required during field application. Make sure nylock nut has full thread engagement.
7. Turn to page 24 for "Driveline Assembly and Set-Up" instructions.



Gate Lever Assembly
Figure 3-4

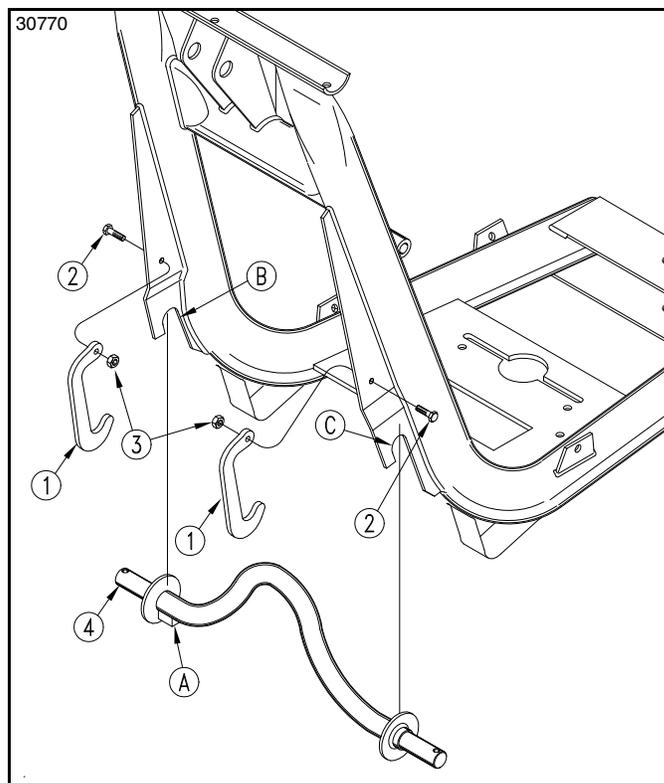
Section 4: PFS8010 Assembly & Set-Up

The following instructions are for the PFS8010 model. See page 16 for PFS4000 and page 18 for PFS5060 models. See page 13 for drive unit assembly instructions.

Connecting Hooks & Hook-Up Bar

Refer to Figure 4-1:

1. Orient shaped hook-up bar (#4) with guide lug "A" on the right side as shown.
2. Insert shaped hook-up bar into slots "B" & "C" with circular guide plates outside the slots.
3. Hold hook-up bar against top of slots while attaching hooks (#1) to the main frame with M10 x 35 bolts (#2) and self locking hex nuts (#3).
4. Make certain right hand hook is positioned under guide lug "A" and then tighten self locking nuts (#3) to the correct torque.



3-Point Hook Assembly
Figure 4-1

Drive Unit Assembly to Main Frame

Refer to "Tractor Requirements" on page 13 for instructions on how to assemble the drive unit.

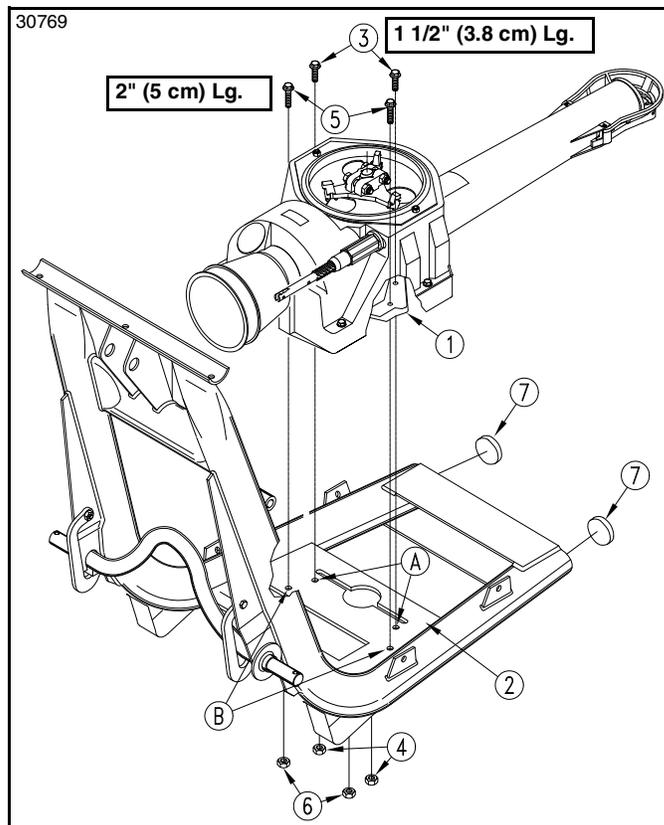
Refer to Figure 4-2:

IMPORTANT: Drive Unit assembly is heavy and requires 2 people to safely install to the main frame. Do not tighten nuts (#4 & #6) until after hopper is installed. This will allow for proper alignment of hopper to drive unit assembly.

1. Insert M12 x 50 bolts (#5) into front holes and M12 x 40 bolts (#3) into the back holes of drive frame (#1).

NOTE: If rear bolts (#3) are difficult to install into holes "A" in mounting plate (#2), pivot rear of drive unit up and down to insert bolts through holes "A".

2. Attach drive frame (#1) to holes "B" and "A" in mounting plate (#2) with hex nuts (#4 & #6). Do not tighten hex nuts at this time.
3. Press end caps (#7) into the tube ends.



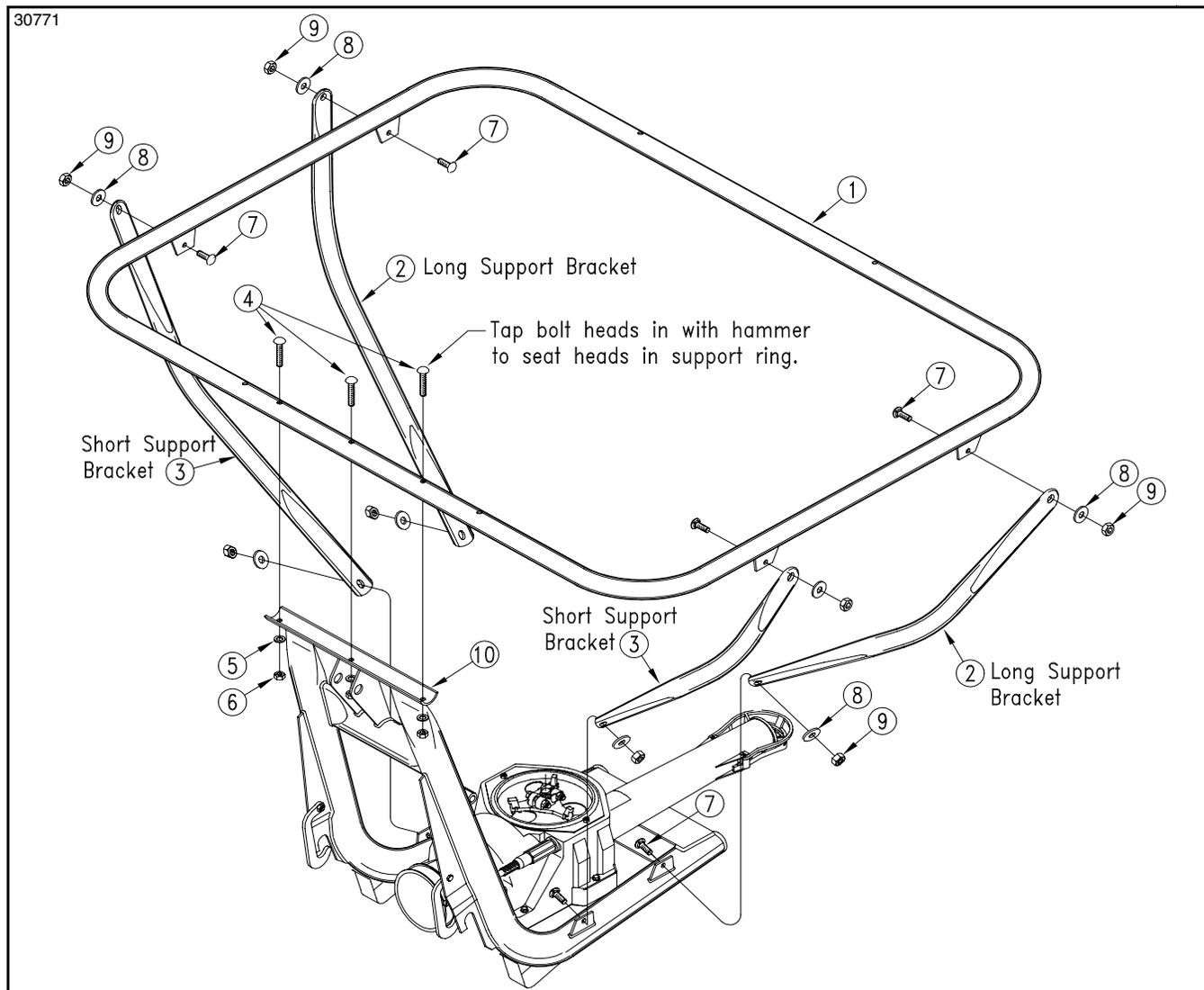
Drive Unit Assembly
Figure 4-2

Section 4: PFS8010 Assembly & Set-Up

Hopper Support Ring Assembly

Refer to Figure 4-3:

1. Attach long support brackets (#2) with bent ends up to the main frame rear tabs with M10 x 30 carriage bolts (#7), flat washers (#8) and hex nuts (#9). Draw nuts up snug, do not tighten.
2. Attach hopper support ring (#1) to main frame support saddle (#10) with M10 x 70 carriage bolts (#4). Tap bolt heads into support rings with hammer. Secure bolts with flat washers (#5) and hex nuts (#6). Draw nuts (#6) up snug, do not tighten.
3. Attach long support brackets (#2) to hopper support ring (#1) with M10 x 30 carriage bolts (#7), flat washers (#8) and nuts (#9). Draw nuts up snug, do not tighten.
4. Attach short support brackets (#3) with bent ends up to the main frame front tabs and to hopper support ring (#1) with M10 x 30 carriage bolts (#7), flat washers (#8) and nuts (#9). Draw nuts up snug, do not tighten.
5. Tighten nuts (#6 & #9) to the correct torque in the following sequential order:
 - a. Press down on the hopper support ring at the back to make certain the rear support brackets are in their lowest position in the mounting slots and tighten nuts (#9) in the bottom rear tabs.
 - b. Continue pressing down on the support ring at the back and tighten nuts (#9) at the top of the rear support brackets.
 - c. Tap on heads of bolts (#4) to seat them into the support ring (#1).
 - d. Center bolts (#4) in the support saddle slots and tighten middle nut (#6).
 - e. Tighten outside two nuts (#6).
 - f. Tighten nuts (#9) at the top and bottom of the front support brackets (#3).



Hopper Support Ring Assembly
Figure 4-3

Section 4: PFS8010 Assembly & Set-Up

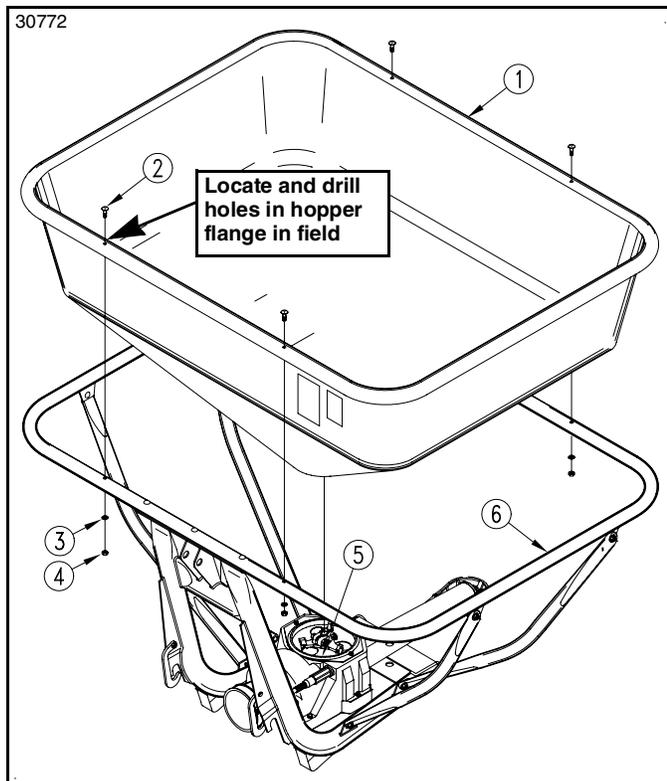
Hopper Assembly

Refer to Figure 4-4:

1. Orient hopper (#1) with decals facing front as shown and lower hopper onto hopper support ring (#6). Make sure drive unit (#5) is centered under the hopper bottom. (Land Pride Logo is on the back.)

NOTE: Make certain hopper is fully seated against hopper support ring on all four sides before continuing with step 2 below.

2. Refer to Figure 4-2 on page 21: Move drive unit forward and backward to make certain hopper is centered and fully seated on drive unit. Tighten hex nuts (#4 & #6) to the correct torque.
3. If included, install optional hopper extension at this time. See "Hopper Top Extension Kit" on page 32 for installation instructions.
4. Using holes in hopper support ring as a template, slowly drill 10 mm (13/32") diameter holes up from the bottom through the hopper flange.
5. Attach hopper to hopper support ring with M10 x 80 round head screws (#2), flat washers (#3) and hex head nuts (#4). Do not tighten nuts until after all bolts and nuts have been installed.
6. Position flat face of bolt facing forward and tap heads in before tightening nuts. Hand tighten nuts (#4) with a hand wrench. (Do not use power wrench.)

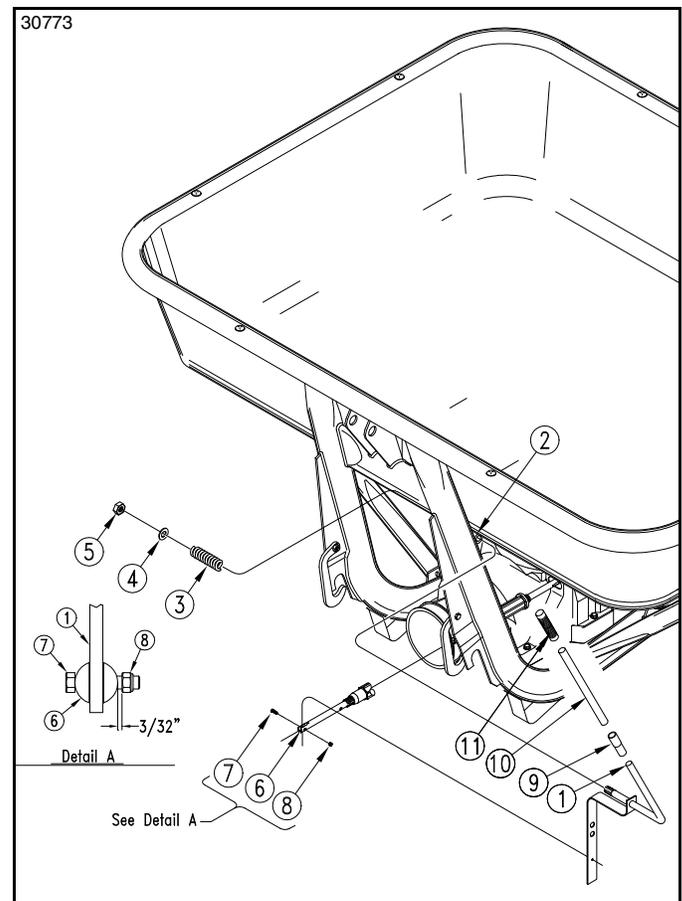


**Hopper Assembly
Figure 4-4**

Gate Lever Assembly

Refer to Figure 4-5:

1. Insert gate lever (#1) into mounting bracket (#2) as shown and secure with compression spring (#3), flat washer (#4) and self locking hex nut (#5). Draw nut up snug, do not tighten.
2. Spread fork on end of regulation bar (#6) and attach gate lever (#1) to regulation bar (#6) with M6 x 25 hex bolt (#7) and hex nut (#8).
See Detail "A": Draw hex locknut (#8) up until bolt has approximately 3/32" (2.4 mm) movement.
3. Attach handle (#11) to gate lever extension (#10).
4. Attach gate lever extension (#10) to gate lever (#1) with PVC sleeve (#9).
5. Tighten nylock nut (#5) until lever (#1) has enough resistance to not move during field use. Some adjustment to nut (#5) may be required during field application. Make sure nylock nut has full thread engagement.
6. Turn to page 24 for "Driveline Assembly and Set-Up" instructions.



**Gate Lever Assembly
Figure 4-5**

Section 5: Driveline Assembly & Set-Up

Driveline Installation

Refer to **Figure 5-1** & **Figure 5-2**:

IMPORTANT: The driveline must be lubricated before putting it into service. Refer to “Lubrication Points” on page 49.

NOTE: Remove paint from inside of yoke bore with an emery cloth before attaching driveline to the spreader’s input shaft

The driveline is bolted to the spreader drive unit input shaft and coupled to the tractor power take-off shaft with a push pin:

1. Lubricate inner driveline profile as instructed on page 50 before hooking-up the driveline.
2. Remove plastic cover on input shaft of drive unit (#4).
3. Remove nut (#2) and bolt (#1) from driveline (#6).
4. Align yoke on inner driveline with the input shaft on drive unit (#6) and push yoke onto the input shaft until bolt holes in the yoke and input shaft align.
5. Secure driveline yoke to the input shaft with existing M10-8.8 x 70 bolt (#1) and hex nut (#2). Tighten nut to the correct torque.
6. Move driveline yoke back and forth several times to make sure it is locked to the input shaft.

Tractor 3-Point Hook-Up

DANGER

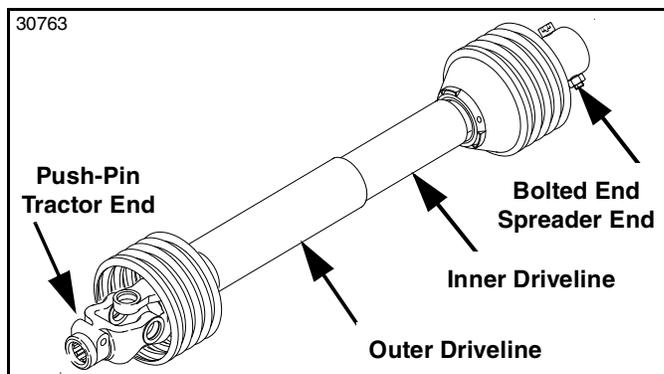
To avoid serious injury or death:

A crushing hazard exists while hooking-up and unhooking the implement. Keep people and animals away while backing-up to the implement or pulling away from the implement. Do not operate hydraulic controls while a person or animal is directly behind the power machine or near the implement.

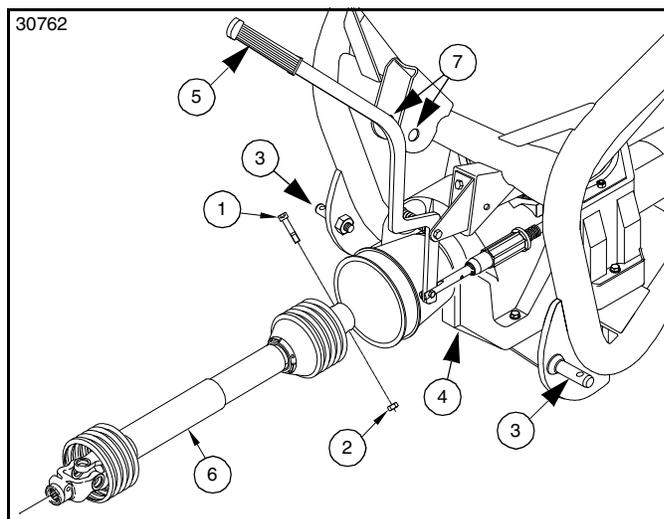
WARNING

To avoid serious injury or death:

- Always follow “Tractor Shutdown Procedure” provided in this manual before dismounting the tractor.
- Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control. Consult your tractor Operator’s Manual to determine proper weight requirements and maximum weight limitations.



Pull Collar Driveline
Figure 5-1



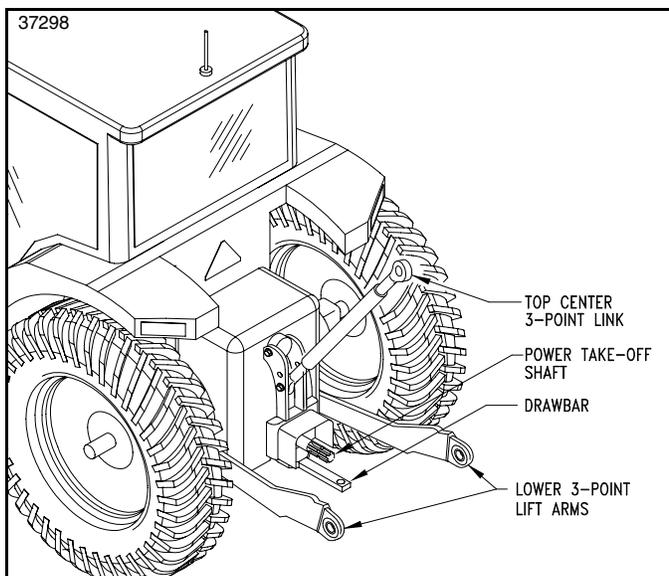
Driveline Assembly (PFS4000 Shown)
Figure 5-2

IMPORTANT: The lower 3-Point arms must be stabilized to prevent side-to-side movement over 2" (5 cm). Most tractors have sway blocks or adjustable chains for this purpose.

IMPORTANT: Do not to back into the gate lever while hooking-up PFS4000 spreader. If needed, shorten gate lever by cutting off end of lever.

NOTE: See “Tractor Requirements” on page 13 to determine correct hitch category requirement. Use bushings when connecting a Cat. II 3-point hitch to Cat. I hitch pins. (Bushing supplied by customer.)

Section 5: Driveline Assembly & Set-Up

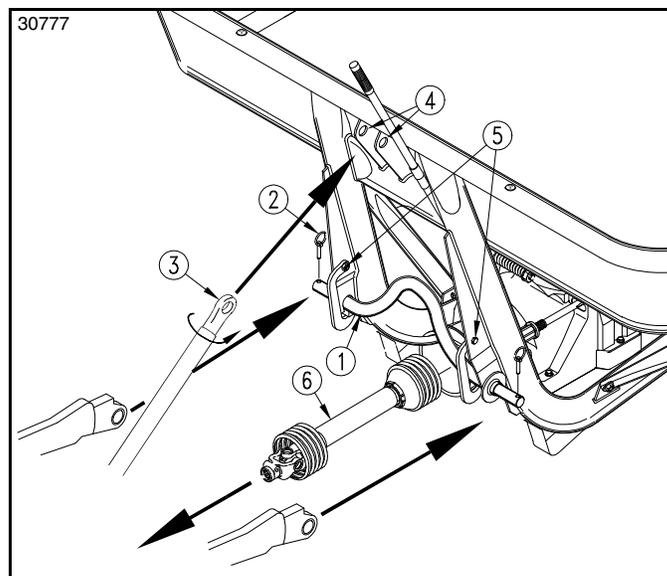


Tractor 3-Point Hook-Up
Figure 5-3

PFS4000 & PFS5060 3-Point Hook-Up

Refer to Figure 5-2 on page 24 & Figure 5-3:

1. Be careful not to back into gate lever (#5) while hooking-up the spreader. If needed, shorten the gate lever by cutting off its end and reinstalling the handle to the cut-off end.
2. While backing-up to the spreader, use hydraulic controls to align the lower 3-point arm hitch holes with spreader hitch pins (#3).
3. Engage tractor park brake or place tractor transmission in park, shut tractor engine off, and remove ignition key before dismounting.
4. Attach tractor's lower 3-point lift arms to hitch pins (#3) and secure them with 7/16" linchpins. (Linchpins are supplied by the customer.)
5. Connect tractor's center link hitch hole to the spreader's center clevis mounting holes (#7) with a hitch pin. Secure hitch pin with a hairpin or linchpin. (Hitch pin and hairpin or linchpin are supplied by the customer.)
6. Make certain lower hitch arms are stabilized.
7. Continue with "**Driveline Hook-up**" on page 26.



Tractor 3-Point Hook-up
Figure 5-4

PFS8010 3-Point Hook-Up

Refer to Figure 5-4:

1. Slowly back tractor to the Pendulum Spreader while using the hydraulic controls to align lower 3-point arm hitch holes with spreader hook-up bar (#1).
2. Engage tractor park brake or place tractor transmission in park, shut tractor engine off, and remove ignition key before dismounting.
3. Attach tractor's lower 3-point lift arms to hook-up bar (#1) and secure them with 7/16" linchpins (#2). (Linchpins are supplied by the customer.)
4. Connect tractor's center link hitch hole (#3) to the spreader's center clevis mounting holes (#4) with a hitch pin. Secure hitch pin with a hairpin or linchpin. (Hitch pin and hairpin or linchpin are supplied by the customer.)
5. Verify bolts (#5) are tightened to the correct torque.
6. Make certain lower hitch arms are stabilized.
7. Continue with "**Driveline Hook-up**" on page 26.



Section 5: Driveline Assembly & Set-Up

Driveline Hook-up

DANGER

To avoid serious injury or death:

- *Tractor power take-off shaft shield, driveline shields, and gearbox shaft shields must be installed and in good working condition to avoid driveline entanglement and projectiles flying off of the driveline.*
- *Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.*
- *Do not use a power take-off adapter. The adapter will increase strain on the tractor's power take-off shaft causing possible damage to shaft and driveline. It will also defeat the purpose of the tractor's power take-off shield.*
- *Make certain driveline yokes are securely fastened at each end. A loose yoke can work free allowing the driveline to rotate uncontrollably.*

WARNING

To avoid serious injury or death:

- *Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.*
- *Check driveline when lowering implement to make sure it does not interfere with the tractor drawbar at maximum depth. If needed, shut tractor off and move or remove drawbar to prevent driveline damage.*
- *Do not operate a broken or bent driveline. Such a driveline will break apart while rotating at high speeds. Always remove the implement from use until the damaged driveline can be repaired or replaced.*

IMPORTANT: The spreader drive unit, tractor and driveline can be damaged if driveline is installed improperly. Be certain to follow all installation instructions.

IMPORTANT: Always check driveline length for each different tractor the spreader is attached. An additional driveline may be required when more than one tractor is used.

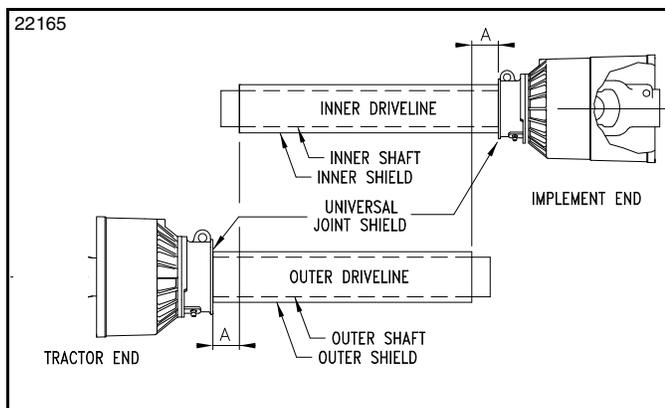
IMPORTANT: Some tractors are equipped with multi-speed power take-off ranges. Be certain your tractor's power take-off is set for 540 rpm.

IMPORTANT: Check driveline minimum collapsible length before completing "**Driveline Hook-up**". Structural damage to the tractor and spreader can occur if this check is not made. Refer to "**Check Driveline Collapsible Length**" on page 27.

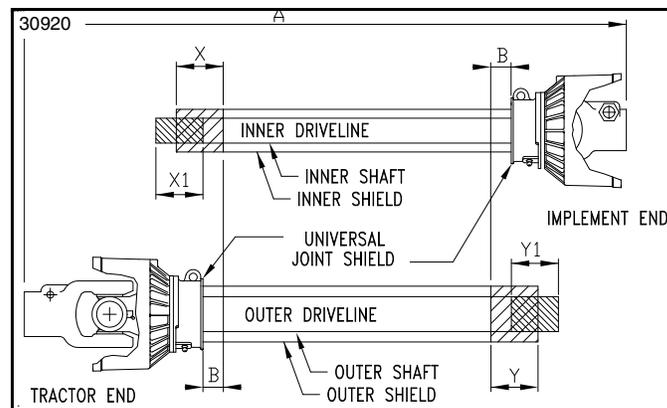
**Refer to Figure 5-2 on page 24
or Figure 5-4 on page 25:**

1. If driveline collapsible length has not been checked, go to "**Check Driveline Collapsible Length**" on page 27. Otherwise, continue with step 2 below.
2. Shut tractor down before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 35.
3. If tractor drawbar interferes with the driveline during hook-up, move drawbar forward, to the side, or remove.
4. Collapse driveline (#6) by pushing tractor end of driveline toward the spreader.
5. Align yoke spline on the outer driveline with the tractor power take-off shaft splines.
6. Push in on the push-pin and push yoke partway onto the tractor's power take-off shaft.
7. Release push-pin and continue to push driveline yoke forward until the push-pin locks in place.
8. Move driveline yoke back and forth several times to make sure push-pin has locked in place and cannot slip off the power take-off shaft.
9. Continue with "**Check Driveline Interference**" on page 28.

Section 5: Driveline Assembly & Set-Up



Check Driveline Minimum Length
Figure 5-5



Driveline Shortening
Figure 5-6

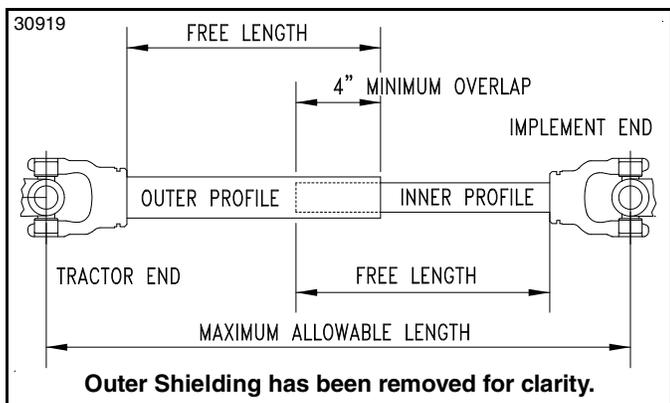
Check Driveline Collapsible Length

IMPORTANT: A driveline that is too long can bottom out causing structural damage to the tractor and implement. Always check driveline minimum length during initial setup, when connecting to a different tractor, and when alternating between using a quick hitch and a standard 3-point hitch. More than one driveline may be required to fit all applications.

IMPORTANT: The tractor's power take-off shaft and spreader input shaft must be level and in-line with each other to obtain the shortest distance between the two shafts. A driveline that is too long can damage tractor and spreader.

1. With the driveline attached only to the spreader, remove outer driveline (tractor end) from inner driveline to separate the two profiles.
 2. Park tractor and spreader on a level surface.
 3. Raise spreader until its input shaft is level and in-line with the tractor's power take-off shaft.
 4. Securely block the spreader at this height to keep it from lowering.
 5. With the spreader resting on the support blocks, shut tractor down according to "**Tractor Shutdown Procedure**" on page 35.
- Refer to Figure 5-5:**
6. Attach outer driveline to the tractor's power take-off shaft. Refer to steps 5-8 under "**Driveline Hook-up**" on page 26.
 7. Hold inner and outer drivelines parallel to each other as shown in Figure 5-5 and measure distance "A".
 - If "A" is less than 1" (2.5 cm), continue with step 8.
 - If "A" is greater than or equal to 1" (2.5 cm), skip to "**Check Driveline Maximum Length**" on page 28.
8. Shorten driveline as follows:
 - a. Measure 1" (2.5 cm) ("**B1**" dimension) back from outer driveline shield and make a mark at this location on the inner driveline shield.
 - b. Measure 1" (2.5 cm) ("**B2**" dimension) back from the inner driveline shield and make a mark at this location on the outer driveline shield.
 9. Remove outer driveline from the tractor power take-off shaft and inner driveline from the spreader's input shaft.
 10. Cut off non-yoke end of inner driveline as follows:
 - a. Measure from end of inner shield to scribed mark ("**X**" dimension) and record.
 - b. Cut off inner shield at the mark. Cut same amount off the inner shaft ("**X1**" dimension).
 11. Cut off non-yoke end of outer driveline as follows:
 - a. Measure from end of outer shield to scribed mark ("**Y**" dimension) and record.
 - b. Cut off outer shield at the mark. Cut same amount off the outer shaft ("**Y1**" dimension).
 12. Remove all burrs and cuttings.
 13. Continue with "**Check Driveline Maximum Length**" on page 28.

Section 5: Driveline Assembly & Set-Up



Driveline Maximum Allowable Length

Figure 5-7

Check Driveline Maximum Length

Refer to Figure 5-7:

The driveline maximum allowable length must, when fully extended, have 14" (36 cm) minimum overlap of the profile tubes with both inner and outer profile tubes having the same equal free length as shown. Check maximum allowable length as follows:

1. Make sure "**Check Driveline Collapsible Length**" on page 27 has been completed.
2. If attached, unhook the driveline from the tractor and spreader.
3. If the inner and outer profiles have not been greased, pull the two profiles apart and apply multi-purpose grease to the inside of the outer profile.
4. Reassemble the two driveline profiles with 4" (10 cm) overlapping of the profiles as shown in Figure 5-7.
5. Once assembled, measure and record the maximum allowable length for future reference.
Record maximum allowable length here: _____

IMPORTANT: The driveline must be lubricated before putting it into service.

6. Lubricate driveline u-joints, bearings, and profiles. Refer to "**Lubrication Points**" on page 49.
7. Attach driveline to the spreader input shaft. Refer to "**Driveline Installation**" on page 24.
8. Without removing the support blocks, continue with "**Driveline Hook-up**" on page 26.

Check Driveline Interference

Refer to Figure 5-8 & Figure 5-9:

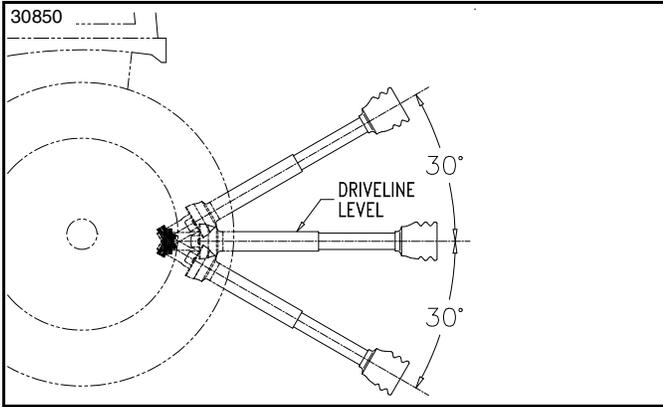
WARNING

To avoid serious injury or death:

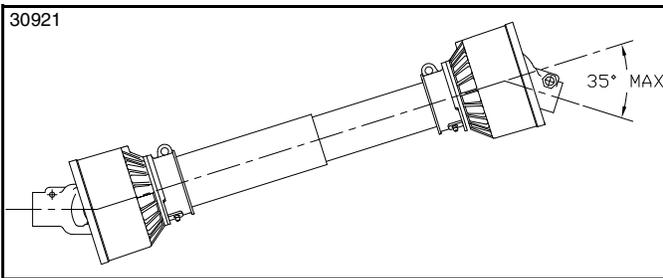
Avoid premature driveline breakdown. A driveline that is operating must not exceed an angle of 30 degrees up or down and yoke angle must not exceed 35° off center line of driveline while operating 3-point lift.

1. Start tractor, raise spreader slightly, and drive forward enough to clear support blocks used to "**Check Driveline Collapsible Length**" on page 27.
2. With power take-off disengaged and stopped, slowly engage tractor hydraulic 3-point control lever to lower spreader while checking for all of the following at the same time:
 - Sufficient clearance between drawbar and driveline. Move drawbar ahead, aside, or remove it if required.
 - PFS8010 only: Sufficient clearance between driveline and spreader hook-up bar (#1). (Refer to Figure 5-4 on page 25.)
3. Start tractor, raise spreader fully up, and back spreader over the support blocks used to "**Check Driveline Collapsible Length**" on page 27.
4. With power take-off disengaged and stopped, raise spreader fully up to make the following driveline checks:
 - Driveline does not exceed 30° up. (See Figure 5-8)
 - Driveline yoke angle at either end does not exceed 35° off center line of driveline. (See Figure 5-9)
 - Driveline does not exceed maximum allowable length recorded in step 5 under "**Check Driveline Maximum Length**" on this page.
5. If any limit was exceeded, adjust tractor 3-point lift limiter to the height that will keep the driveline within the recommended limit listed above.
6. If needed, repeat steps 1-5 until all limits mentioned in step 4 are maintained.
7. Start tractor, raise spreader slightly, and drive forward enough to clear support blocks.
8. Lower spreader to ground and shut tractor down before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 35.

Section 5: Driveline Assembly & Set-Up



Maximum Driveline Angle
Figure 5-8



Driveline Maximum Yoke Angle
Figure 5-9

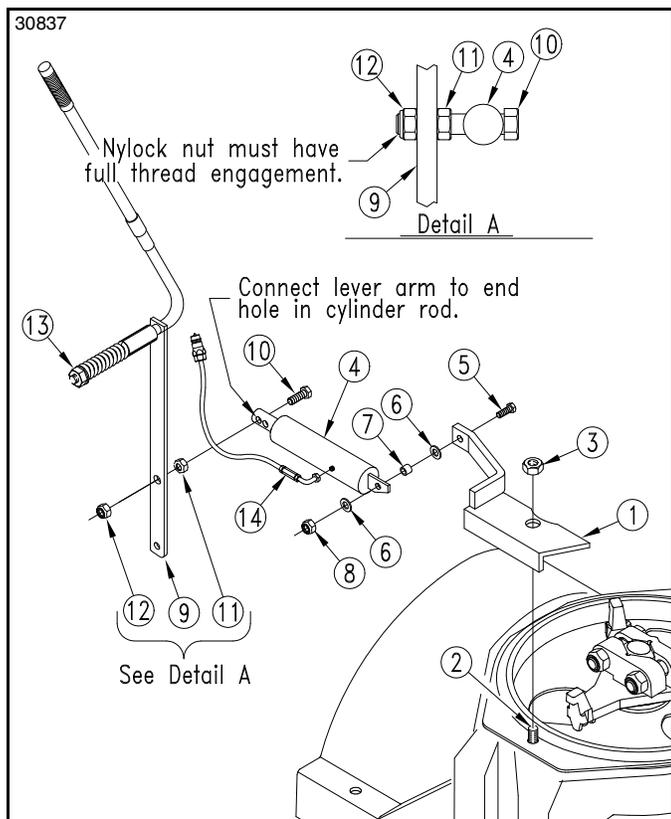
Section 6: Options & Accessories

PFS5060 Hydraulic Gate Kit

309-126A HYDRAULIC OPENING SYSTEM

Refer to Figure 6-1:

1. Remove nut (#3) from drive unit stud (#2).
2. Attach mounting bracket (#1) to stud (#2) with existing nut (#3). Tighten nut to the correct torque.



Hydraulic Gate Kit And Assembly & Set-Up
Figure 6-1

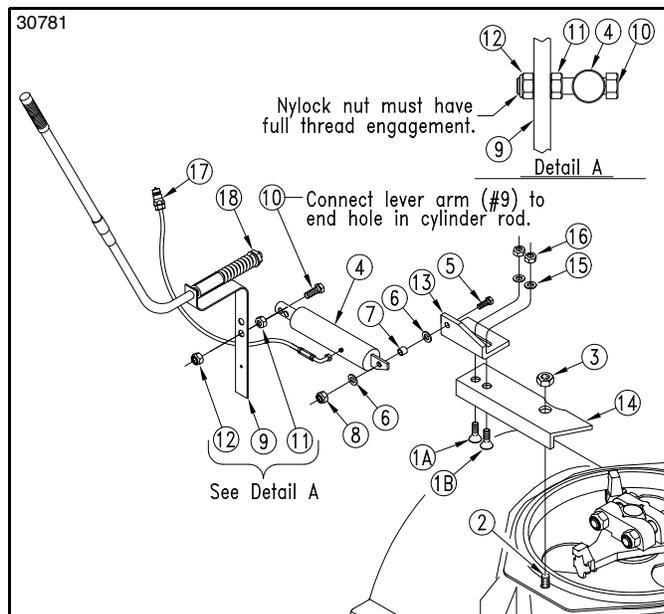
3. Insert bushing (#7) into mounting hole in base of hydraulic cylinder (#4).
4. Attach hydraulic cylinder (#4) to cylinder mounting bracket (#1) with M8 x 30 bolt (#5), flat washers (#6), and self locking nut (#8). Tighten self locking nut to the correct torque.
5. Insert M12 x 60 hex head bolt (#10) through end hole in hydraulic cylinder rod (#4) and screw jamb nut (#11) part way onto bolt (#10).
6. Insert bolt (#10) into bottom hole in lever arm (#9) and screw self locking nut (#12) onto bolt (#10) until nut has full thread engagement. Tighten jamb nut (#11) against lever arm.
7. Attach hydraulic hose (#14) to double acting hydraulic cylinder (#4). Rotate elbow end of hose up 45° and tighten elbow to hydraulic cylinder port.
8. Wrap hydraulic hose around main frame as needed to keep hose out of driveline and cylinder pinch points. Attach coupling end of hydraulic hose to tractor duplex outlet.

PFS8010 Hydraulic Gate Kit

309-130A HYDRAULIC OPENING SYSTEM

Refer to Figure 6-2:

1. Bolt adjusting bracket (#13) to cylinder mounting bracket (#14) with M8 x 20 hex socket flat head screws (#1A & #1B), flat washers (#15) and self locking nuts (#16). Draw nuts up snug, do not tighten.
2. Remove nut (#3) from drive unit stud (#2).
3. Attach mounting bracket (#14) to stud (#2) with existing nut (#3). Tighten nut the correct toque.



Hydraulic Gate Kit And Assembly & Set-Up
Figure 6-2

4. Insert bushing (#7) into mounting hole in base of hydraulic cylinder (#4).
5. Attach hydraulic cylinder rod (#4) to bracket (#13) with M8 x 30 bolt (#5), flat washers (#6), and self locking nut (#8) as shown. Tighten self locking nut to the correct torque.
6. Loosen compression spring nut (#18) until lever (#9) moves freely.
7. Insert M12 x 60 hex head bolt (#10) through end hole in hydraulic cylinder rod (#4) and screw jamb nut (#11) part way onto bolt (#10).
8. Insert bolt (#10) into bottom hole in lever arm (#9) and screw self locking nut (#12) onto bolt (#10) until nut has full thread engagement. Tighten jamb nut (#11) against lever arm.
9. Attach hydraulic hose (#17) to double acting hydraulic cylinder (#4). Rotate elbow end of hose up 35° and tighten elbow to hydraulic cylinder port.
10. Wrap hydraulic hose around main frame as needed to keep hose out of driveline and cylinder pinch points. Attach coupling end of hydraulic hose to tractor duplex outlet.

Section 6: Options & Accessories

11. Refer to **Figure 6-4**: Set regulation bar adjusting nut (#19) on "0" as shown.
12. With tractor hydraulic control lever, fully extend hydraulic cylinder (#4).
13. Push regulation bar adjusting nut against drive unit housing.
14. Refer to **Figure 6-5**: Check gate openings (#20) in hopper bottom. The openings should be fully closed and not open as shown in the illustration.
15. Refer to **Figure 6-4**: If gate openings are not fully closed, adjust regulation bar adjusting nut (#19) until gates are fully closed.
16. Refer to **Figure 6-2** on page 30: Secure adjusting bracket (#13) to mounting bracket (#14) by tightening hex socket flat head screw (#1A) first and then (#1B).
17. If screw (#1B) will not tighten, remove self locking nut (#12) and hex nut (#3). Remove cylinder (#4), adjusting bracket (#13) with mounting bracket (#14) from stud (#2). Tighten hex socket flat head screw (#1B) to the correct torque.
18. Reattach mounting bracket to stud (#2) with nut (#3), and cylinder (#4) to arm (#9) with locking nut (#12). Tighten nuts to the correct torque.

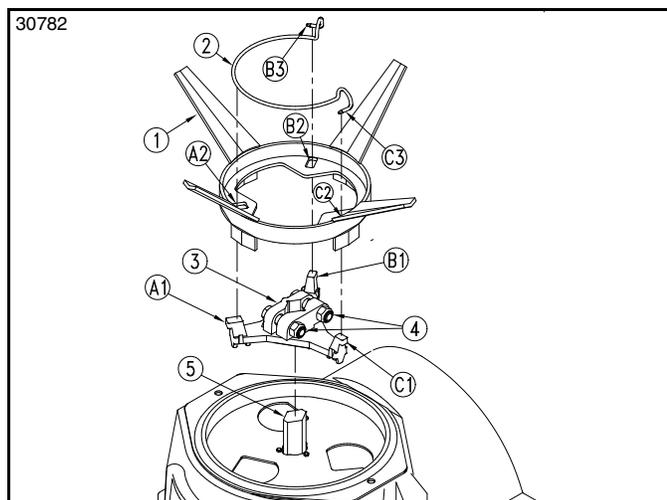
PFS5060 & PFS8010 Agitator Extension Kit

309-134A PFS5060/8010 AGITATOR EXTENSION

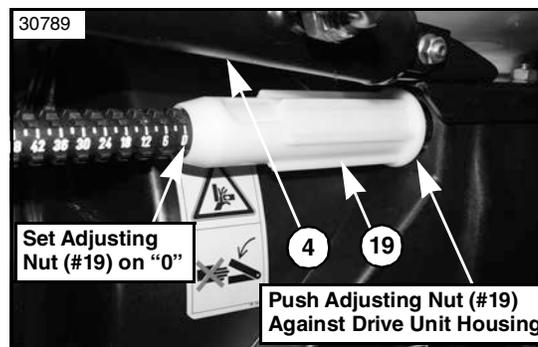
Refer to **Figure 6-3**:

IMPORTANT: Do not use Agitator Extension Kit when spreading granular or prilled fertilizer. The agitator extension is only intended for material that does not easily flow through gate openings such as damp fertilizer, lime, etc.

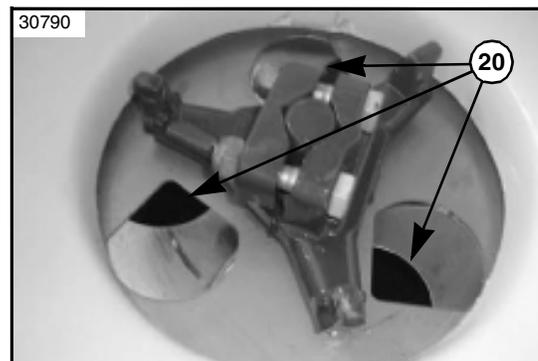
NOTE: Assembly of spring retainer (#2) is easier if agitator (#3) is removed from hopper and drive unit.



PFS5060 & PFS8010 Agitator Kit And Assembly
Figure 6-3



Gate Adjusting Nut
Figure 6-4



Gate Openings Not Fully Closed
Figure 6-5

CAUTION

To avoid minor or moderate injury:

Keep body and body extremities clear of recoiling forces while attaching spring retainer (#2) to agitator (#3).

1. For easier installation, loosen nuts (#4) and remove agitator (#3) from drive unit.

NOTE: Some grinding on the sides of ear (A1) may be required to fit slot (A2) over ear (A1) properly.

2. One of the three ears (A1, B1 & C1) is slightly thicker and one of the three slots (A2, B2 & C2) is slightly wider. For instructional purposes, mate the thicker ear (A1) with the wider slot (A2). See Note above.
3. Install slots (A2, B2 & C2) over ears (A1, B1 & C1) respectively as shown.
4. Secure extension agitator (#1) to agitator (#3) with spring retainer (#2) as follows:
 - a. Pivot extension Agitator (#1) at ear A1 by raising the far side from ear A1 up.
 - b. Catch center of retainer (#2) under ear (A1).
 - c. Snap spring retainer end (B3) under ear (B1).
 - d. With a large pair of pliers, snap spring retainer end (C3) under ear (C1).
5. Install agitator (#3) to drive unit output shaft (#5) and tighten hex nuts (#4) to the correct torque.

Section 6: Options & Accessories

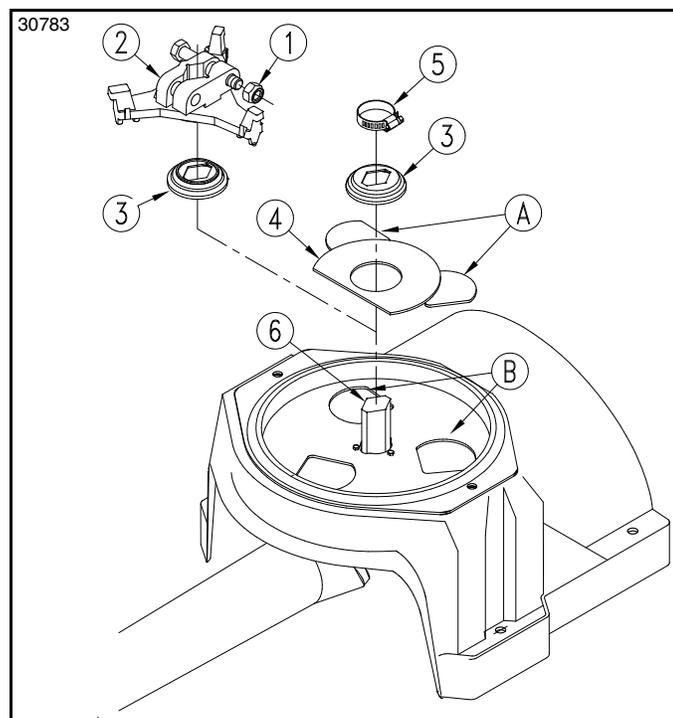
Small Seed Kit

309-136A SMALL SEED LIMITER KIT

Refer to Figure 6-7:

The Small Seed Kit closes the front two gate openings "B" to allow fine metering of small seed through the back center gate opening. Examples of small seed: Clovers, Granular Pesticides, Alfalfa, Bermuda Seed, etc.

1. Loosen both nuts (#1) and remove agitator (#2) from agitator shaft (#6). Save for reuse.
2. Remove agitator cap (#3).
3. Install seed limiter plate (#4) over agitator shaft (#6). Make sure limiter plate ears "A" are inserted into holes "B".
4. Replace agitator cap (#3) and secure cap with hose clamp (#5).



**Small Seed Limiter Kit And Assembly
Figure 6-7**

Hopper Top Extension Kit

309-127A PFS5060 TOP EXTENSION 240 LB

309-128A PFS8010 TOP EXTENSION 480 LB

309-129A PFS8010 TOP EXTENSION 960 LB

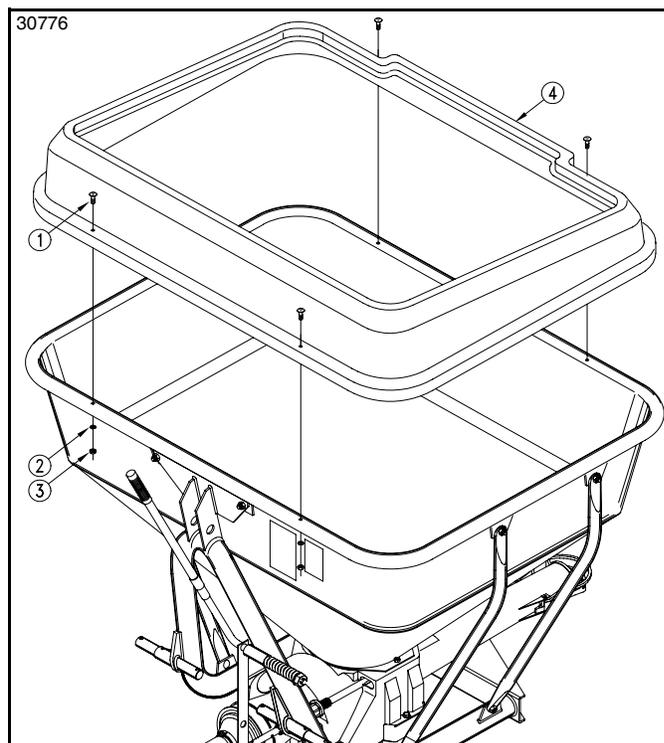
Refer to Figure 6-8:

NOTE: It may be necessary to clamp hopper extension against hopper and hopper support ring to start washers and nuts.

NOTE: Install hopper extension with tall side facing forward. All four sides are equal length on hopper extension part number 309-129A.

NOTE: Use foam tape with adhesive backing or silicone caulk between hopper and hopper extension if concerned product will seep at joint line.

1. Remove bolts, washers and nuts (#1, #2 & #3).
2. Center hopper extension (#4) on hopper with tall side facing forward.
3. Drill 10 mm (13/32") diameter holes up from the bottom through the hopper extension.
4. Attach hopper extension with existing M10 bolts (#1), flat washer (#2) and hex nuts (#3).
5. PS8010 only: Position flat face of bolts facing forward and tap bolt heads in before tightening.
6. Hand tighten nuts (#3) with a hand wrench. Do not use a power wrench.



**Hopper Top Extension Kit And Assembly
(PFS5060 Extension Shown)
Figure 6-8**

Section 6: Options & Accessories

Spout Accessories

Refer to Figures 6-9 to 6-12:

IMPORTANT: Use only genuine Land Pride spouts, special screws and nuts when replacing or changing spouts.

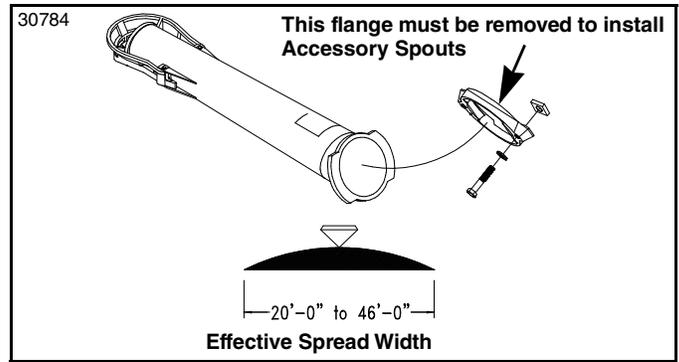
IMPORTANT: Keep spout flange hardware tightened to proper torque or damage will result to spout.

The Pendulum Spreader is supplied with pendulum spout number 309-138A (See Figure 6-9). It is capable of spreading granular fertilizer 20'-0" to 46'-0" (6.1 to 14 m) effective spread width (Depending on material). See explanation of "Effective Spread Width" on page 38.

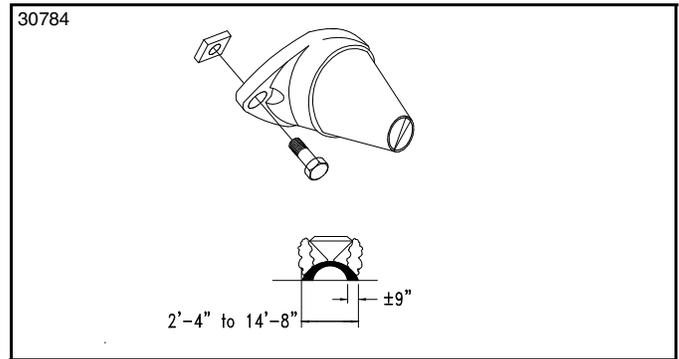
Three other accessory spouts may be purchased with different spread patterns for specific applications.

- Land Pride Spout No. 309-131A is for placing product on a row or rows with a spread width of 2'-4" to 14'-8" (0.7 to 4.47 m) +/- 9" (23 cm).
- Land Pride Spout No. 309-132A is for spreading product in a narrow 6'-6" to 13'-1" (2 to 4 m) effective spread width.
- Land Pride Spout No. 309-133A is for placing product on a row or rows with a spread width of 6'-6" to 32'-9" (2 to 10 m) and +/- 18" (46 cm).

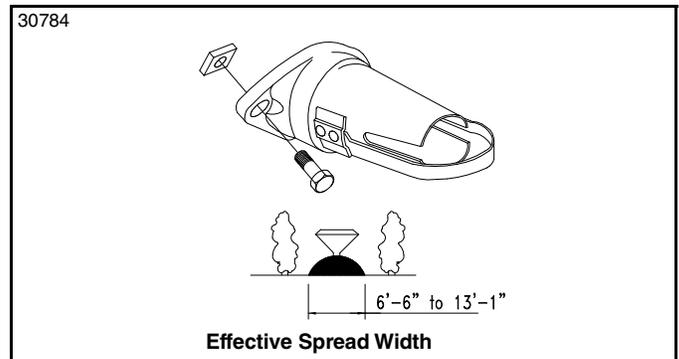
NOTE: Banding width can be changed to directly place material on the vineyard rows by raising or lowering the 3-point arms, changing power take-off speed and changing accessory spouts.



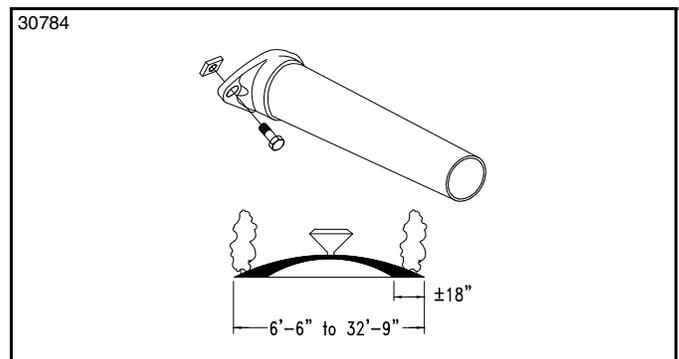
Standard Spout No. 309-138A
Figure 6-9



Accessory Spout No. 309-131A
Figure 6-10



Accessory Spout No. 309-132A
Figure 6-11



Accessory Spout No. 309-133A
Figure 6-12



Section 7: Operating Procedures

Operating Checklist

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transportation, maintenance and storage of the spreader. Therefore, it is absolutely essential that no one operates the spreader unless they have read, fully understood, and are totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, page 1
- **Sections 1 - 5: Assembly & Set-Up**, page 8
- **Section 6: Options & Accessories**, page 30
- **Section 7: Operating Procedures**, page 34
- **Section 8: Adjustments**, page 40
- **Section 9: Maintenance & Lubrication**, page 48

Perform the following inspections before using your spreader.

Operating Checklist

✓	Check	Page
✓	Make certain spreader is hooked to the tractor properly. Refer to "Tractor 3-Point Hook-Up".	24
✓	Make certain spreader is level and the 3-point control lever is set at the correct discharge height. Refer to "Leveling & Setting Spreader Height".	36
✓	Make certain hopper is adjusted to discharge product at the correct rate. Refer to "Set Hopper Discharge Rate".	37
✓	Check pendulum to make certain it is not plugged, worn, cracked or broken. Refer to "General Maintenance".	48
✓	Make certain spreader is properly lubricated. Refer to "Lubrication Points" instructions.	49
✓	Check spreader initially and periodically for loose bolts and pins. Refer to Torque Values Chart.	54

Make the following inspections after the spreader is attached to a tractor and before loading the hopper with product.

IMPORTANT: Disengage power take-off, set tractor park brake, shut engine off, and remove ignition key before making the first three checks.

1. Check tractor safety equipment. Make sure it is in good working condition.
2. Check all guards to make certain they are in good working condition and in place.
3. Check wear on distributor vanes. Replace vanes that are wore out.
4. With power take-off, start tractor and carefully raise and lower spreader to ensure tractor drawbar, tires, and other equipment do not contact spreader frame or driveline.

5. Set 3-Point control lever stop to support spreader disc between 27 1/2" and 31 1/2" (70-80 cm) above ground level.
6. Set tractor throttle to idle and engage power take-off. If unit runs smoothly, increase power take-off speed to 540 rpm. Stop power take-off immediately if at any time unit begins to vibrate. Wait for power take-off to make a complete stop before dismounting from tractor to check for probable causes.

Safety Information

DANGER

To avoid serious injury or death:

- Do not allow anyone near the tractor or implement while they are operating. Stop operation if bystanders are too close. They can be hit by flying projectiles, become entangled in the equipment, or ran over.
- Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.
- Do not allow anyone to climb inside the hopper for any reason. Serious injury or death can result from someone becoming entangled in the hopper.
- Keep away from the pendulum while machine is operating. Body extremities can become pinched or sheared causing serious bodily injury or death.
- Be careful not to hit solid objects with equipment in tow. Hitting solid objects can cause the front of the tractor to raise up suddenly, throw the operator from his/her seat and/or cause loss of steering control.

WARNING

To avoid serious injury or death:

- Always shut tractor down according to "Tractor Shutdown Procedure" provided in this manual before allowing anyone including the operator to hook up or unhook the implement.
- Do not allow any person or animal inside the danger zone while pendulum is slinging product (within a radius of 35 yards from the spreader). Stop application immediately should anyone come inside the danger zone. Product thrown from the spreader can cause bodily injury or death.
- Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off shaft is set-up to operate at 540 rpm. Do not exceed 540 rpm power take-off speed. Excessive speed can damage drive/driven components and increase the risk of a thrown object hazard.
- Keep Pendulum Spreader clean of rocks, tools and other debris that can damage the operation of the machine or be thrown causing bodily injury or death.
- Do not pull equipment that is too heavy for hitch load rating. See "Tow hitch capacity" in Specifications on page 51. Equipment that is too heavy can damage spreader unit and raise front of tractor up causing loss of steering control.

Section 7: Operating Procedures

- Do not operate and/or travel across inclines where the tractor and/or implement can rollover. Consult your tractor's manual for acceptable inclines the tractor is capable of traveling across.
 - Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control. Consult your tractor Operator's Manual to determine proper weight requirements and maximum weight limitations.
 - Do not allow tractor and spreader to run unattended and never dismount from tractor with spreader operating. Always engage parking brake, shut off tractor and remove switch key before dismounting from tractor.
 - Always wear non slip shoes, gloves, protective clothing, safety glasses and a breathing mask capable of filtering powders when cleaning, servicing, lubricating and filling your Pendulum Spreader to prevent injury to the body and/or injury from inhalation of product. Refer to chemical manufacturers' labels for specific protective requirements.
 - Use a cab tractor with filters on the ventilation system or wear a breathing mask capable of filtering powders to prevent inhalation of product.
 - Always park Pendulum Spreader on a hard level surface and always empty hopper of product before disconnecting spreader from tractor.
 - Never carry riders on the implement or tractor. Riders can obstruct the operator's view, interfere with controls, be pinched by moving components, become entangled in rotating components, struck by objects, thrown about, fall off and be run over, etc.
 - Clear area of debris and other unforeseen removal objects before spreading product. Mark any potential hazards that cannot be removed such as tree stumps, post, rocks, holes and drop-offs with a visible flag.
 - Do not use implement as a man lift, work platform or as a wagon to carry objects. It is not properly designed or guarded for this use.
 - Do not use spreader to carry objects. Doing so can damage the spreader, cause serious bodily injury or result in death.
3. Lower spreader to ground or onto non-concrete support blocks.
 4. Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
 5. Relieve all hydraulic pressure to auxiliary hydraulic lines.
 6. Wait for all components to come to a complete stop before leaving the operator's seat.
 7. Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.

Transporting

WARNING

To avoid serious injury or death:

- When traveling on roadways, travel in such a way that other vehicles may pass you safely. Always use LED lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.
- Select a safe ground speed that will allow adequate control of steering and stopping. Never exceed 20 mph (32 km/h) with attached equipment. Rough terrain requires a slower speed.

CAUTION

To avoid minor or moderate injury:

Empty hopper before transporting from site to site especially when transporting on public roads.

IMPORTANT: Do not travel long distances with product in hopper or carry bags stacked on top of product in hopper. Doing so will cause product to compress resulting in improper discharge.

1. Make sure power take-off is disengaged before transporting from one location to another.
2. Be sure to reduce tractor ground speed when turning; and leave enough clearance so that the spreader does not contact obstacles such as buildings, trees or fences.
3. Select a safe ground speed when transporting from one area to another. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
4. When traveling over rough or hilly terrain, shift tractor to a lower gear.
5. The PFS4000 and PFS5060 Pendulum Spreaders are equipped with a towing hitch. Maximum towing capacity is 800 pounds with maximum tongue weight of 50 pounds.

CAUTION

To avoid minor or moderate injury:

Keep Broadcast Spreader clean of rocks, tools, and other debris that can damage the operation of the machine or be thrown causing bodily injury.

Tractor Shutdown Procedure

The following are basic tractor shutdown procedures. Follow these procedures and any additional shutdown procedures provided in your tractor Operator's Manual before leaving the operator's seat.

1. Reduce engine speed and disengage power take-off if engaged.
2. Park tractor and spreader on level, solid ground.

Section 7: Operating Procedures

Leveling & Setting Spreader Height

1. Locate tractor and spreader on a flat level surface.
2. Lower spreader down to approximately 6" (15 cm) off the ground.
3. Engage tractor park brake or place tractor gearshift in park position, shut tractor engine off and remove key before dismounting from tractor.

Refer to Figure 5-3 on page 25:

4. Manually adjust either one of both of the tractor's lower 3-point arms up or down until they are both an equal distance off the ground at the hitch pins.
5. Manually adjust tractor's top center link until spreader is parallel to the ground from front to back as follows:

- **PFS4000:**

Measure from top of hopper cone at the front and back to ground. Adjust tractor's top center link until these two measurements are equal.

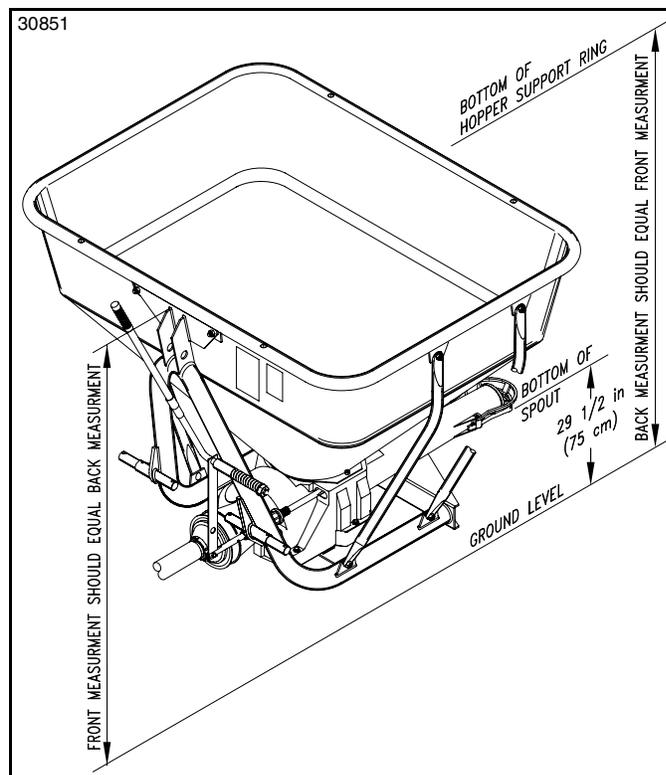
- **PFS5060 & 8010:** Refer to Figure 7-1 on page 36: Measure from bottom of hopper support ring at the front and back to ground. Adjust tractor's top center link until these two measurements are equal. See Important Note below.

IMPORTANT: DO NOT take parallel measurements from top of hopper extensions to the ground as they are not always equal in height front to back.

6. Raise spreader off the ground until bottom of spout end is 29 1/2" (75 cm) off the ground. Set tractor lift stop at this height.

NOTE: DEPENDING ON THE TRACTOR, your spreader may not be able to level out and obtain the 29 1/2" (75 cm) spout height. Land Pride recommends keeping unit level with spreader at its highest possible position. Heights lower than 29 1/2" (75 cm) will effect spread width slightly. Adjust application pattern to keep half the spread width of material being spread.

7. Verify spreader is parallel to the ground with bottom of spout end 29 1/2" (75 cm) off the ground. If not, repeat steps 5-7.



PFS5060 & PFS8010 Spreaders
Figure 7-1

Initial Adjustments and Checks

WARNING

To avoid serious injury or death:

- The spreader must be properly hitched to a tractor capable of handling a fully loaded hopper before loading hopper with product.
- Always wear non slip shoes, gloves, protective clothing, safety glasses and a breathing mask capable of filtering powders when cleaning, servicing, lubricating and filling your Pendulum Spreader to prevent injury to the body and/or injury from inhalation of product. Refer to chemical manufacturers' labels for specific protective requirements.
- Always read and comply with all instructions and precautions on the label of the product being used.

NOTE: To spread product more uniformly and correctly, operate spreader only on calm (non windy) days with dry product (not humid) that does not have lumps.

1. Operate spreader empty to make sure pendulum is oscillating properly.
2. Stop spreader on a hard level surface, engage park brake, shut engine off and remove ignition key before dismounting from tractor.
3. Make certain hopper is parallel to the ground.



Section 7: Operating Procedures

4. Check pendulum for cleanliness and wear. Clean pendulum if needed. Replace worn pendulum with genuine Land Pride parts only.
5. Make sure discharge gates open and close properly.
6. Close discharge gates.

Set Hopper Discharge Rate

1. Transport to the site to spread product.
2. Stop tractor and Pendulum Spreader on a hard level surface.
3. Make sure power take-off is disengaged and then lower spreader until it is resting on support blocks or on the ground.
4. Engage park brake, shut engine off and remove ignition key before dismounting from tractor.
5. Check driveline to make sure it has not come apart in the middle or loose from the power take-off shafts.
6. Determine material spread width in feet or meters and spout swing angle (Max., Mid, or Min) using Spread Width and Spout Angle in the Spreader Charts. Refer to:
 - “**English Spreader Chart**” on page 43.
 - “**Metric Spreader Chart**” on page 47.
7. Adjust spout swing angle to distribute product at the desired spread width. Refer to:
 - “**Spout Swing Angle (English System)**” on page 40.
 - “**Spout Swing Angle (Metric System)**” on page 44.

IMPORTANT: Maximum safe travel speed will be determined by ground conditions and tractor size.

8. Use “**English Spreader Chart**” on page 43 or “**Metric Spreader Chart**” on page 47 to determine travel speed (mph or km/h, quantity of material dispersed (lbs/acre or kg/hectare), and regulation bar setting. For instructions on how to set the regulation bar, see “**Regulation Bar (English System)**” on page 40 or “**Regulation Bar (Metric System)**” on page 44.
9. Check discharge gate to make sure it opens and closes properly. End check by fully closing the gate.
10. Follow instructions under “**Filling the Hopper**” on this page. Fill hopper with precise amount of product needed to cover one acre or one hectare.
11. Make a test run traveling at the speed you intend to apply product while dispersing it over a pre-marked acre/hectare to verify if any additional adjustments need to be made.
12. Make a measurement of the spread pattern to be used later when applying product on the field.

Filling the Hopper

WARNING

To avoid serious injury or death:

- Always read and comply with all instructions and precautions on the label of the product being used.
- Make sure safety labels are in their proper location and are in good condition before operating the attached implement. Read and obey all instructions on the labels.
- Always wear non slip shoes, gloves, protective clothing, safety glasses, and a breathing mask capable of filtering powders when filling hopper to prevent injury to the body and/or injury from inhalation of product. Refer to the chemical manufacturer labels for specific protective requirements.
- Fill hopper with product only after the Broadcast Spreader has been properly hitched to a tractor capable of handling a fully loaded hopper.
- Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control. Consult your tractor Operator’s Manual to determine proper weight requirements and maximum weight limitations.

IMPORTANT: Product must be dry (not humid) without lumps to spread uniformly and correctly.

NOTE: Calibration Information provided in the Spreader Charts on pages 43 and 47 must only be used as a starting guide. Actual distribution rates may vary due to travel speed, spread width, material quality, feed speed, weight, density, specific gravity, humidity, treatment, wind, roughness of terrain, and material brand or variety.

1. Transport tractor with empty spreader to the site to spread product before filling hopper to prevent compression and settling of product in hopper.
2. Stop tractor with Pendulum Spreader on a hard level surface before filling hopper.
3. Make sure power take-off is disengaged and stopped. Lower spreader completely down until it is resting on the ground.
4. Engage park brake, shut engine off and remove ignition key before dismounting from tractor.
5. Make certain driveline has not come apart in the middle or loose from the tractor and drive unit shafts.
6. Make certain the gate is fully closed.

NOTE: Land Pride recommends filling hopper with a mechanical device rather than filling hopper manually.

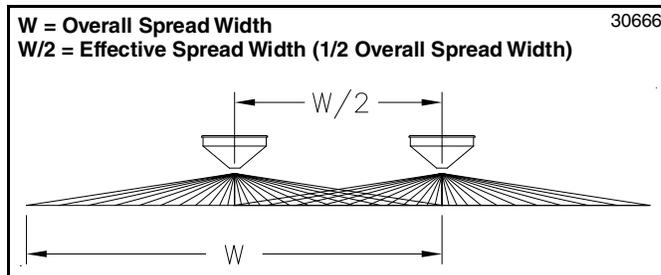
7. Fill hopper with product.

Section 7: Operating Procedures

Effective Spread Width

Refer to Figure 7-2:

The spread pattern of the Pendulum Spreader takes the shape of a pyramid. That is to say, the distribution is heaviest directly behind the spreader and steadily decreases the farther away the product is thrown. This decreasing pattern is approximately equal on the left and right side. To achieve an even amount of spreading over the surface of the ground, the tractor and spreader should travel parallel to the previous path at a distance equal to 1/2 the overall spread width away from the first path. This distance is known as the "Effective Spread Width". It is recommended that a GPS or markers be used to control the path the tractor will travel.



Spreader Pattern
Figure 7-2

Refer to Figure 7-2:

W = Overall Spread Width
W/2 = Effective Spread Width (1/2 of overall spread width)

Field Application

Refer to Figure 7-3:

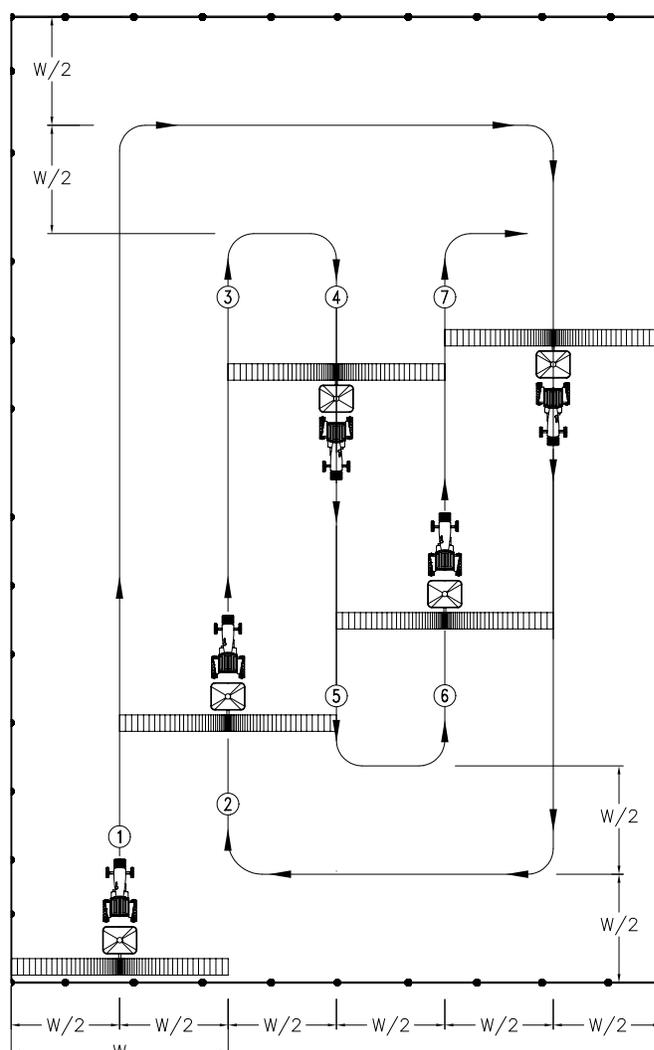
IMPORTANT: Always disengage power take-off before fully closing the discharge gate. Running power take-off with gate closed can crush product, break drive unit components and break or bend the regulation bar.

IMPORTANT: When manually opening discharge gate, hold gate lever in the open position until power take-off is running. Release grip of lever slowly.

NOTE: Do not travel long distances with product in the hopper or carry fertilizer bags stacked on top of product in the hopper. Both situations will cause fertilizer to compress and settle in the hopper resulting in improper discharge rate.

1. Be sure hopper discharge rate is set and spreader is at the application site before filling the hopper.
2. Start tractor #1 in a field corner at a distance equal to (W/2) away from the field edge.
3. Maintain this half distance from the field edge as you travel around the complete perimeter of the field.
4. When approaching starting point, turn tractor #2 when at distance (W/2) away from the first run and travel parallel to the first run until the tractor #3 is at distance (W/2) away from perimeter run.
5. Turn tractor and drive forward until at distance (W/2) away from the last run and then turn the tractor #4 again to head back across the field.
6. Continue back parallel to the previous run until tractor #5 is again at distance (W/2) away from perimeter run.
7. Continue this back and forth pattern (2 to 3, 4 to 5, 6 to 7 etc.) until field plot has been covered.

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Field Application Pattern
Figure 7-3



Section 7: Operating Procedures

Unhook the Pendulum Spreader

Unhook Pendulum Spreader from the tractor as follows:

1. Empty hopper of product and thoroughly clean spreader before unhooking spreader from tractor.
2. Park spreader on a level solid hard surface.
3. Lower spreader to level ground or onto blocks supporting the spreader just above ground level.
4. Engage tractor park brake, shut tractor engine off and remove key before dismounting from tractor.
5. Disconnect driveline from tractor power take-off shaft
6. Unhook 3-point hitch from tractor. Reinstall hitch pins, linchpins and hairpin cotters in the spreader hitch.
7. Support driveline off the ground to keep dirt out of the u-joints.

General Operating Instructions

By now you should have properly hitched your Land Pride Pendulum Spreader to your tractor. Based on the type of material and pounds per acre or kilograms per hectare you intend to broadcast, you should have referred to the “**English Spreader Chart**” on page 43 or “**Metric Spreader Chart**” on page 47 to determine the proper tractor ground speed, distribution gate opening, and spread pattern setting for your spreader. This process of taking prescribed fertilizer or seed label rates and making the necessary spreader adjustments is called “initial calibration”.

When setting your spreader up for initial calibration, following the chemical or seed supplier’s label directions and using the manufacturer’s application rate setting charts is highly encouraged. Once you have achieved your initial calibration, it is time to make “final calibration” adjustments.

Travel to the area with tractor and hopper where chemicals or seed are to be applied. Measure off a test area. An acre is preferred. Measure out exactly enough product to cover an acre at the manufacturer’s prescribed rate and put it in the hopper. You should have already determined the appropriate ground speed that will allow you to meet the application rate. Start tractor and open distribution gate just as you move onto the plot traveling at proper ground and engine speed. Look back often to observe your distribution width and pattern density. Typically the pattern won’t be as dense on the outer edges. As you make your turn for an adjacent pass, adjust your travel path to achieve uniform overlap and pattern density. (See “Effective Spread Width” on page 38.) You may need to close and open the distribution gate at the beginning and ending of each pass. Your hopper should empty out just as you complete coverage of your one-acre plot. If not, make the necessary adjustments until you are absolutely confident that you have achieved the proper final calibration.

Once you have achieved final calibration, load the spreader hopper with the appropriate amount of material to be spread. Do not overload hopper with more weight than is specified for your individual model. If the tractor front end becomes too light for proper steering, add tractor weights to the front end. Proceed with spreading operations looking back often to ensure a uniform distribution pattern and to make sure there are no interruptions to hopper flow.

With a little practice you should become a very good applicator. Once you are done spreading, park the tractor, set the brake, shut off the tractor, and remove the keys. When finished, always clean out the spreader to prevent rust and corrosion.

Section 8: Adjustments

English System of Measurements

The following discussions use the English system of measurements. For Metrics, refer to “**Metric System of Measurements**” on page 44.

Spout Swing Angle (English System)

Refer to Figure 8-1:

The drive unit can be set to spread products at three different spread widths by adjusting spout swing angle to 48° (Min), 52° (Mid), or 56° (Max). When adjusted, the standard spout will spread product an effective width of 20 & 39 ft (6.1 & 11.9 m) Min, 30 & 43 ft (9.14 & 13.11 m) Mid, and 39 & 46 ft (11.9 m 14 m) Max. Reduce tractor power take-off speed to decrease effective spread width or change the standard spout to an optional spout. Adjust spout swing as follows:

1. Remove angle adjustment cover (#1) from drive unit.
2. Rotate flywheel (#3) at the input shaft until wing nut cover (#2) is in alignment with opening.
3. Unscrew wing nut cover (#2) and remove.
4. Align tabs on angle adjustment key (#6) with notches in notched retaining ring (#4).
5. Press angle adjustment ring (#6) in and turn angle adjustment ring with square insert (#4) to the desired pendulum swinging width (Max., Mid., or Min.).
6. Align key tabs with notches in retaining ring and remove angle adjustment key (#6). Make certain angle adjustment ring (#4) is against notched retaining ring (#5).

IMPORTANT: Make certain angle adjustment ring (#4) is against notched retaining ring (#5) before installing covers (#1 & #2). The drive unit housing and adjustment ring assembly will break if angle adjustment ring (#4) did not returned after removing angle adjustment key (#6) and will void the warranty.

7. Replace wing nut cover (#2). Hand tighten only.
8. Snap angle adjustment cover (#1) in drive housing.

Regulation Bar (English System)

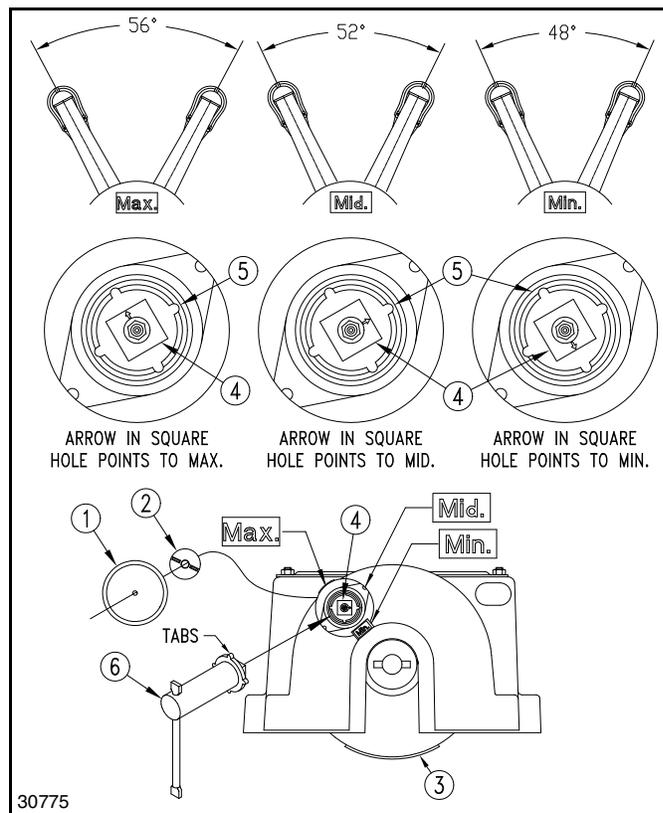
The following must be met to adjust regulation bar.

- Tractor power take-off speed is at 540 rpm.
- The standard pendulum spout is attached.
- The spout is parallel to ground surface.
- The spout discharge end is 29 1/2" (75 cm) above ground.

Adjust regulation bar as follows:

1. In the “**English Spreader Chart**” on page 43, locate material to be spread and lbs/acre at a given travel speed. If “**English Spreader Chart**” is not applicable, see “**Slide Ruler Calibration (English System)**” instructions on page 42.
2. In the “**English Spreader Chart**” on page 43, find regulation bar setting at required lbs/acre and set
 - a. Use “**Slide Ruler Calibration (English System)**” instructions on page 42 to calculate new discharge rate in lbs/min.

adjusting nut at this setting. Regulation bar is illustrated in Figure 8-2 on page 41.



Spout Angle Adjustment
Figure 8-1

3. Verify angle adjustment ring on the drive unit has been set to the preferred Min, Mid, or Max setting.
 - See “**English Spreader Chart**” on page 43 to determine spout swing angle (Min, Mid, or Max)
 - See “**Spout Swing Angle (English System)**” on this page to adjust spout swing angle.
4. Park tractor with product in the spreader and pendulum spout attached on a level surface with end of pendulum spout 29 1/2" (75 cm) off the ground.
5. Place gearshift in park position, open discharge gate and commence to operate spreader at 540 rpm for one to two seconds.
6. Disengage power take-off, shut tractor engine off, remove switch key and wait for power take-off to stop rotating before dismounting from tractor.
7. Measure distance (overall spread width) product was thrown from left to right. Divide overall spread width by 2 to get the effective spread width. Record effective spread width in feet for reuse.
8. If effective spread width in step 7 is different than that provided in the “**English Spreader Chart**” on page 43, then reset adjusting nut as follows:
 - a. Use “**Slide Ruler Calibration (English System)**” instructions on page 42 to calculate new discharge rate in lbs/min.

Section 8: Adjustments

- b. Find lbs/min in the “**English Spreader Chart**” on page 43 under material being distributed that is equal to or closest to the calculated lbs/min.
 - c. **Refer to Figure 8-2:** Adjust regulation adjusting nut to this new setting.
9. There are several different Calibration methods to verify the regulation bar is set correctly. They are Stationary Calibration, Field Calibration, and Slide Ruler Calibration. The Slide Ruler Calibration is a tool to assist Stationary and Field Calibrations. See instructions for Stationary Calibration or Field Calibration on this page.

Stationary Calibration (English System)

The pendulum spreader can be accurately calibrated without making a field test. With this method, knowledge of the effective spread width, 5 gallon bucket, weigh scales and clock are need to calibrate the spreader.

1. Complete “**Regulation Bar (English System)**” adjustment instructions on page 40 before continuing with step 2.
2. Remove spout by removing the 2 bolts and nuts connecting the spout to the spreader.
3. Position a bucket under the spreader to catch discharged material.
4. Restart tractor, set power take-off speed at 540 rpm and open discharge gate for only 1 minute and then close gate.
5. Disengage power take-off, shut tractor engine off, remove switch key and wait for power take-off to stop rotating before dismounting from tractor.
6. Weigh material discharged into the bucket.
7. Compare pounds of material in the bucket to lbs/min in the “**English Spreader Chart**” on page 43 or to the “**Slide Ruler Calibration (English System)**” on page 42. Pounds of material in the bucket and lbs/min should be the same.
8. **Refer to Figure 8-2:** If weight of material in the bucket does not equal lbs/min readjust regulation adjusting nut to increase or decrease discharge rate and repeat

steps 3 to 7 until required discharged rate in lbs/min is obtained.

- Adjust regulation adjusting nut to a higher number will increase discharge rate.
- Adjust regulation adjusting nut to a lower number will decrease discharge rate.

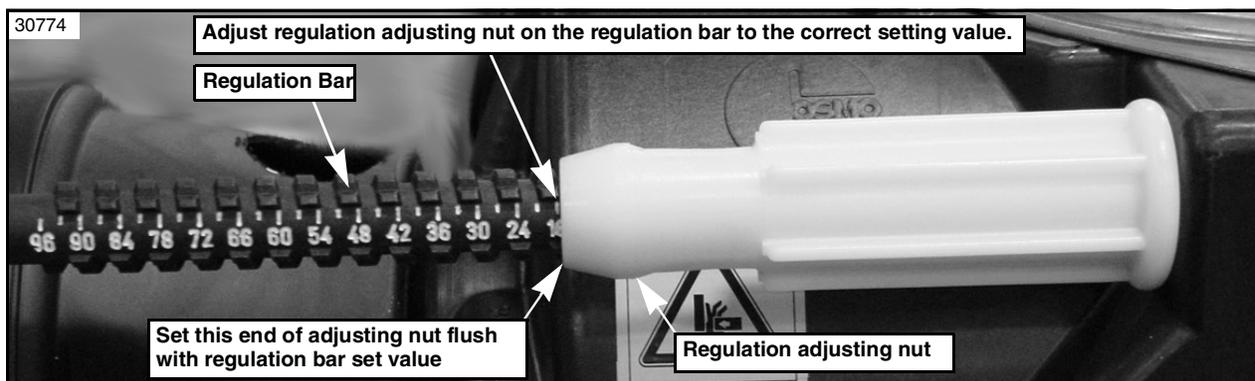
Field Calibration (English System)

The spreader can be calibrated in the field in one acre plots with the assistance of the “**English Spreader Chart**” on page 43.

1. Complete “**Regulation Bar (English System)**” instructions on page 40 before continuing with step 2 below.
2. Mark out one acre the tractor will travel over. Remember to use effective spread width when calculating the acre.

Example:

- a. Say overall spread width is 80 feet. Divide 80 by 2 for an effective spread width of 40.
 - b. One acre equals 43,560 sq ft.
43,560 divided by 40 = 1,089 ft of travel distance
 - c. The tractor will need to travel 1,089 ft to cover one acre.
3. Fill hopper with precise amount of material in pounds to cover one acre.
 4. Make a test run dispersing product while traveling over the pre-marked acre at the required ground speed with engine rpm speed set at 540 power take-off speed.
 5. **Refer to Figure 8-2:** If hopper emptied too soon or if hopper still has material in it after covering one acre, readjust regulation adjusting nut to increase or decrease discharge rate and repeat steps 2 to 4 until required discharged rate is obtained.
 - Adjust regulation adjusting nut to a higher number will increase discharge rate.
 - Adjust regulation adjusting nut to a lower number will decrease discharge rate.



Regulation Bar and Adjusting Nut
Figure 8-2

Section 8: Adjustments

Slide Ruler Calibration (English System)

Refer to Figure 8-3:

The quantity of product being spread is controlled by the regulation bar, effective spread width and ground speed. It is necessary to use the Slide Ruler when effective spread width or lbs/acre is different than what is found in the “English Spreader Chart” on page 43. The Slide Ruler is developed to calibrate discharge rates under the following conditions:

- Tractor power take-off speed is 540 rpm.
- The standard pendulum spout is attached.
- The spout is parallel to ground surface.
- The distance between the spout discharge end and ground is 29 1/2" (75 cm).

IMPORTANT: Before using the Slide Ruler, make sure the inner slide is oriented correctly. When the Slide Ruler is held with English System facing up and the inner slide is pulled part-way out to the right, you should be able to read **ft** in the upper right corner of the inner slide. If not, pull inner slide out and reinsert with **ft** marking in the upper right corner.

1. Make sure “ft” marking is in the upper right corner of the inner slide is showing when Slide Ruler is oriented as shown with English System facing up.
2. Locate on the Slide Ruler effective spread width in feet.

Example:

Say 40 feet is the effective spread width in the test run. Locate 40 on the Slide Ruler.

3. Determine amount of product (lbs/acre) to be distributed and adjust Slide Ruler until that amount is aligned with the effective spread width.

Example:

Say 110 lbs/acre is the distribution rate. Adjust inner slide until 110 lbs/acre is aligned with 40 feet.

4. Locate on the Slide Ruler tractor travel speed in mph (miles per hour). Read and record discharge rate given below travel speed in lbs/min.

Example:

Say the tractor will travel 4 mph. Locate 4 mph on the Slide Ruler and read the given 35 lbs/min under the travel speed.

Refer to English Spreader Chart on page 43:

5. Locate lbs/min for the particular product to be spread in the “English Spreader Chart” on page 43.

Example:

Say product is Prills at 35 lbs/min Find for Prills that 35 lbs/min requires the regulation bar be set a 18.

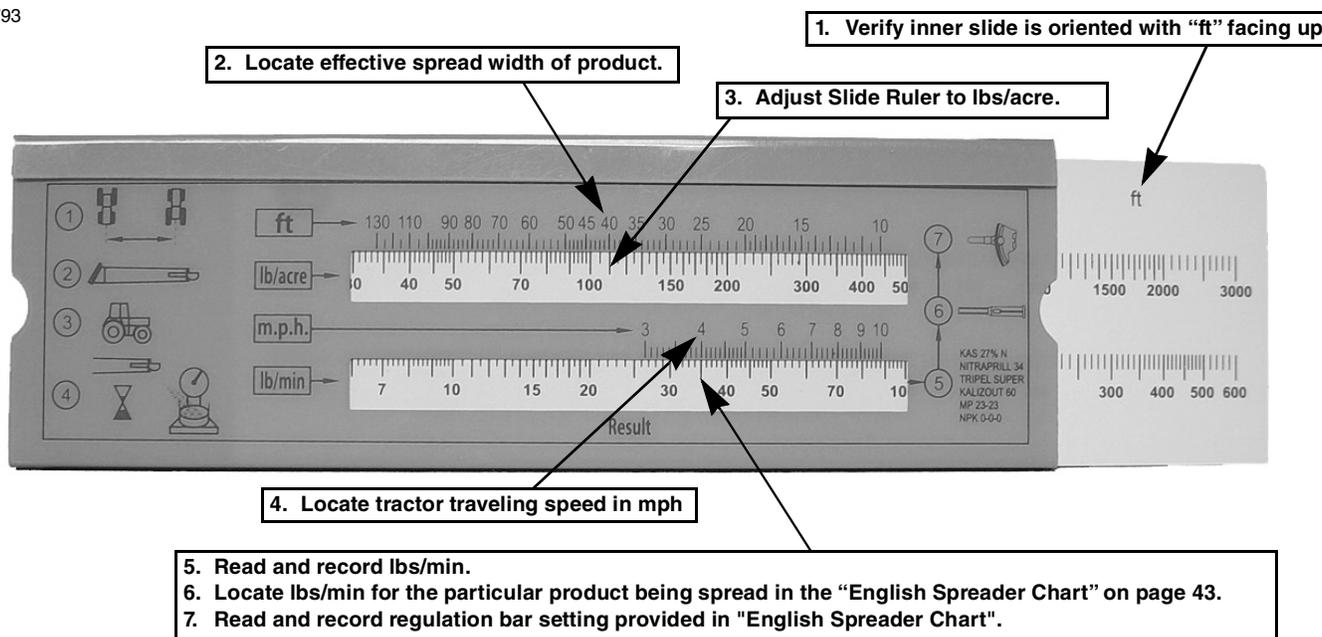
Refer to Figure 8-2 on page 41:

6. Set adjusting nut to 18.

Example:

Adjust regulation adjusting nut until front edge of nut is even with the number 18 on the regulation bar.

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Slide Ruler
Figure 8-3



Section 8: Adjustments

English Spreader Chart

Regulation Bar	Results	Effective Spread Width	Pounds / Acre At Travel Speed					Spout Angle	Regulation Bar	Results	Effective Spread Width	Pounds / Acre At Travel Speed					Spout Angle
			3	4	5	6	7					3	4	5	6	7	
setting	lbs/min	ft	Travel Speed (mph)						setting	lbs/min	ft	Travel Speed (mph)					
GRANULAR FERTILIZER FINE								FURDAN (SMALL SEEDS KIT)									
33	55	40	235	176	142	119	102	MAX	12	7.5	32	40	30	24	20	17	MAX
36	64	40	273	205	165	138	119	MAX	18	15	32	77	57	46	38	34	MAX
42	85	40	367	275	222	185	160	MAX	24	22	32	114	85	58	57	50	MAX
54	134	40	574	431	346	290	250	MAX	27	32	32	164	123	99	83	71	MAX
GRANULAR FERTILIZER COARSE								WHEAT									
24	40	40	169	127	103	85	74	MAX	27	72	40	179	134	107	90	78	MAX
30	57	40	245	184	148	124	107	MAX	36	66	40	282	212	171	143	123	MAX
36	79	40	339	254	205	171	148	MAX	39	77	40	328	246	198	165	143	MAX
48	138	40	593	446	267	300	258	MAX	42	88	40	375	282	228	189	163	MAX
PRILLS								SOYBEANS									
18	35	40	147	110	89	74	64	MAX	24	22	45	80	60	48	40	35	MAX
24	57	40	245	184	148	124	107	MAX	32	35	45	129	97	77	65	55	MAX
30	81	40	348	261	210	175	152	MAX	36	50	45	189	139	111	93	80	MAX
36	110	40	471	353	285	238	205	MAX	40	55	45	202	151	121	100	86	MAX
UREA 46% N								ALFALFA (SMALL SEEDS KIT)									
18	38	32	198	149	119	100	86	MAX	14	4.8	30	27	20	16	14	11	MAX
27	68	32	384	263	211	177	152	MAX	18	7.7	30	44	33	26	22	19	MAX
30	77	32	395	297	238	200	172	MAX	22	15	30	85	63	51	43	37	MAX
36	100	32	514	386	310	259	224	MAX	27	109	30	107	81	65	54	47	MAX
LIME (AGITATOR EXTENSION*)								CRIMSON CLOVER (SMALL SEEDS KIT)									
39	68	20	582	441	355	295	254	MID	12	3.7	32	16	12	9	8	7	MAX
46	95	20	808	609	491	410	352	MID	14	3.7	32	19	14	11	9	8	MAX
53	158	20	1356	1020	818	684	590	MID	16	6.3	32	33	25	20	16	14	MAX
62	262	20	2243	1683	1355	1128	975	MID	18	6.8	32	35	37	21	18	16	MAX
FERTRELL (WINDSHIELD and AGITATOR EXTENSION*)								RYE GRASS (AGITATOR EXTENSION*)									
18	46	20	395	297	238	199	172	MID	18	4.8	20	41	31	25	21	18	MAX
24	70	20	602	452	364	303	262	MID	19	5.2	20	45	34	27	22	20	MAX
27	79	20	678	509	409	342	295	MID	20	5.9	20	51	38	31	26	22	MAX
36	110	20	941	707	568	474	410	MID	22	7.9	20	68	50	41	34	30	MAX
MOCAP (SMALL SEEDS KIT)								TIMOTHY (SMALL SEEDS KIT)									
12	3	20	19	15	12	9	8	MAX	12	3.1	26	19	14	11	10	8	MAX
18	7	20	62	47	37	32	27	MAX	18	6.6	26	42	31	25	21	18	MAX
24	13	20	113	84	68	57	49	MAX	24	16	26	102	76	61	51	63	MAX
27	17	20	147	110	88	74	54	MAX	32	21.6	26	137	103	82	68	58	MAX

*PFS5060 & PFS8010 only. Agitator extension does not fit PFS4000.

NOTE: Values provided in spreader chart may be inconsistent with actual values due to varying conditions of the product, terrain, and speed. Adjustment to the regulation bar may be required to compensate.

Formulas:

$$\text{lbs/acre} = \frac{\text{lbs/min} \times 495}{\text{spread width} \times \text{mph}}$$

$$\text{lbs/min} = \frac{\text{spread width} \times \text{mph} \times \text{lbs/acre}}{495}$$

Section 8: Adjustments

Metric System of Measurements

The following discussions use the Metric system of measurements. For English, see “English System of Measurements” on page 40.

Spout Swing Angle (Metric System)

Refer to Figure 8-4:

The drive unit can be set to spread products at three different spread widths by adjusting spout swing angle to 48° (Min), 52° (Mid), or 56° (Max). When adjusted, the standard spout will spread product an effective width of 6 & 12 meters (Min), 9 & 13 meters (Mid), and 12 & 14 meters (Max). Reduce tractor power take-off speed to decrease effective spread width or change the standard spout to an optional spout. Adjust spout swing as follows:

1. Remove angle adjustment cover (#1) from drive unit.
2. Rotate flywheel (#3) at the input shaft until wing nut cover (#2) is in alignment with opening.
3. Unscrew wing nut cover (#2) and remove.
4. Align tabs on angle adjustment key (#6) with notches in notched retaining ring (#4).
5. Press angle adjustment key (#6) in and turn angle adjustment ring with square insert (#4) to the desired pendulum swinging width (Max., Mid., or Min.).
6. Align key tabs with notches in retaining ring and remove angle adjustment key (#6). Make certain angle adjustment ring (#4) is against notched retaining ring (#5).

IMPORTANT: Make certain angle adjustment ring (#4) is against notched retaining ring (#5) before installing covers (#1 & #2). The drive unit housing and adjustment ring assembly will break if angle adjustment ring (#4) did not returned after removing angle adjustment key (#6) and will void the warranty.

7. Replace wing nut cover (#2). Hand tighten only.
8. Snap angle adjustment cover (#1) in drive housing.

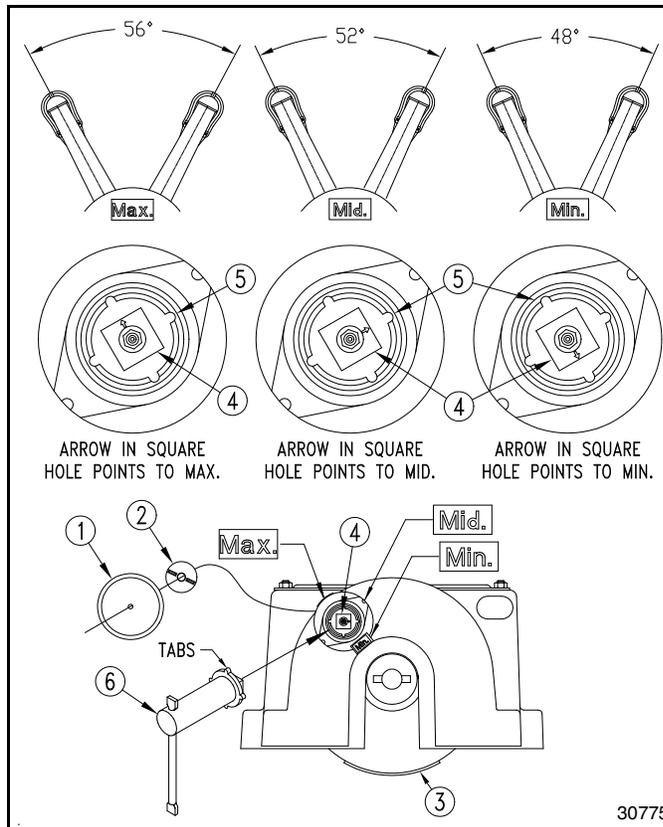
Regulation Bar (Metric System)

The following must be met to adjust regulation bar.

- Tractor power take-off speed is at 540 rpm.
- The standard pendulum spout is attached.
- The spout is parallel to ground surface.
- The spout discharge end is 29 1/2" (75 cm) above ground.

Adjust regulation bar as follows:

1. In the “Metric Spreader Chart” on page 47, locate material to be spread and Kilograms / hectare at a given travel speed. If “Metric Spreader Chart” is not applicable, see “Slide Ruler Calibration (Metric System)” instructions on page 46.
2. In the “Metric Spreader Chart” on page 47, find regulation bar setting at required kg/ha and set adjusting nut at this setting. Regulation bar is illustrated in Figure 8-5 on page 45.



Spout Angle Adjustment
Figure 8-4

3. Verify angle adjustment ring on the drive unit has been set to the preferred Min, Mid, or Max setting.
 - See “Metric Spreader Chart” on page 47 to determine spout swing angle (Min, Mid, or Max)
 - See “Spout Swing Angle (Metric System)” on this page to adjust spout swing angle.
4. Park tractor with product in the spreader and pendulum spout attached on a level surface with end of pendulum spout 29 1/2" (75 cm) off the ground.
5. Place gearshift in park position, open discharge gate and commence to operate spreader at 540 rpm for one to two seconds.
6. Disengage power take-off, shut tractor engine off, remove switch key and wait for power take-off to stop rotating before dismounting from tractor.
7. Measure distance (overall spread width) product was thrown from left to right. Divide overall spread width by 2 to get the effective spread width. Record effective spread width in feet for reuse.
8. If effective spread width in step 7 is different than that provided in the “Metric Spreader Chart” on page 47, then reset adjusting nut as follows:
 - a. Use “Slide Ruler Calibration (English System)” instructions on page 42 to calculate new discharge rate in kg/min.

Section 8: Adjustments

- b. Find kg/min. in the “**Metric Spreader Chart**” under material being distributed equal to or closest to the calculated kg/min.
 - c. **Refer to Figure 8-5:** Adjust regulation adjusting nut to this new setting.
9. There are several different Calibration methods to verify the regulation bar is set correctly. They are Stationary Calibration, Field Calibration, and Slide Ruler Calibration. The Slide Ruler Calibration is a tool to assist Stationary and Field Calibrations. See instructions for Stationary Calibration or Field Calibration on this page.

Stationary Calibration (Metric System)

The pendulum spreader can be accurately calibrated without making a field test. With this method, knowledge of the effective spread width, 18 liter bucket, weigh scales and clock are need to calibrate the spreader.

1. Complete “**Regulation Bar (Metric System)**” instructions on page 40 before continuing with step 2.
2. Remove spout by removing the 2 bolts and nuts connecting the spout to the spreading unit.
3. Position a bucket under the spreader to catch discharged material.
4. Restart tractor, set power take-off speed at 540 rpm and open discharge gate for only 1 minute and then close gate.
5. Disengage power take-off, shut tractor engine off, remove switch key and wait for power take-off to stop rotating before dismounting from tractor.
6. Weigh material discharged into the bucket.
7. Compare kilograms of material in the bucket to kg/min in the “**Metric Spreader Chart**” on page 47 or to the “**Slide Ruler Calibration (Metric System)**” on page 46. Kilograms of material in the bucket and kg/min should be the same.
8. **Refer to Figure 8-5:** If weight of material in the bucket does not equal kg/min, readjust regulation adjusting nut to increase or decrease discharge rate

and repeat steps 3-7 until required discharged rate in kg/min is obtained.

- Adjust regulation adjusting nut to a higher number will increase discharge rate.
- Adjust regulation adjusting nut to a lower number will decrease discharge rate.

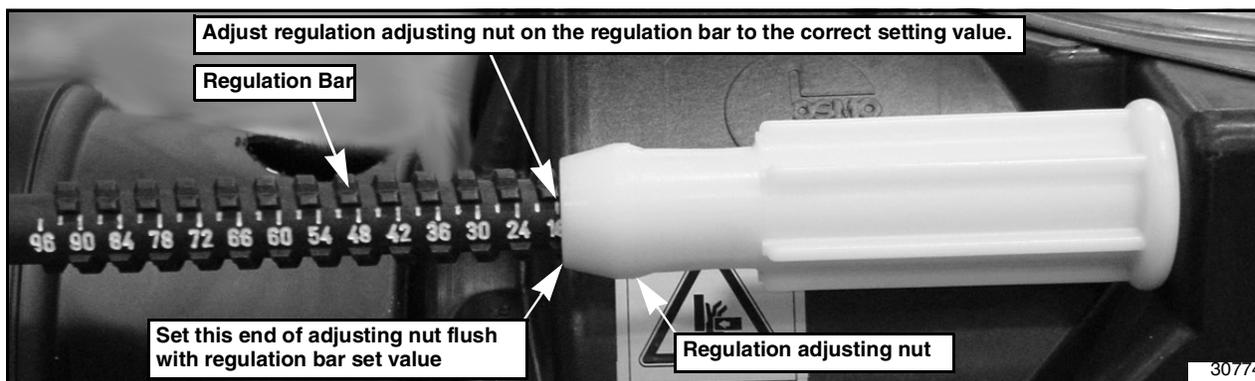
Field Calibration (Metric System)

The spreader can be calibrated in the field in one acre plots with the assistance of the “**Metric Spreader Chart**” on page 47.

1. Complete “**Regulation Bar (Metric System)**” on page 44 before continuing with step 2 below.
2. Mark out one hectare the tractor will travel over. Remember to use effective spread width when calculating the hectare.

Example:

- a. Say overall spread width is 24 meters. Divide 24 by 2 for an effective spread width of 12.
 - b. One hectare equals 10,000 square meters. 10,000 divided by 12 = 833.3 meters of travel distance
 - c. The tractor will need to travel 833.3 meters to cover one hectare.
3. Fill hopper with precise amount of material in pounds to cover one hectare.
 4. Make a test run dispersing product while traveling over the pre-marked hectare at the required ground speed with engine rpm speed set at 540 power take-off speed.
 5. **Refer to Figure 8-5:** If hopper emptied too soon or if hopper still has material in it after covering one acre, readjust regulation adjusting nut to increase or decrease discharge rate and repeat steps 2-4 until required discharged rate is obtained.
 - Adjust regulation adjusting nut to a higher number will increase discharge rate.
 - Adjust regulation adjusting nut to a lower number will decrease discharge rate.



Regulation Bar and Adjusting Nut
Figure 8-5

Section 8: Adjustments

Slide Ruler Calibration (Metric System)

Refer to Figure 8-6:

The quantity of product being spread is controlled by the regulation bar, effective spread width and ground speed. It is necessary to use the Slide Ruler when effective spread width or kgs/hectare is different than what is found in the “**Metric Spreader Chart**”. The Slide Ruler is developed to calibrate discharge rates under the following conditions:

- Tractor power take-off speed is 540 rpm.
- The standard pendulum spout is attached.
- The spout is parallel to ground surface.
- The distance between the spout discharge end and ground is 29 1/2" (75 cm).

IMPORTANT: Before using the Slide Ruler, make sure the inner slide is oriented correctly. When the Slide Ruler is held with Metric System facing up and the inner slide is pulled part-way out to the right, you should be able to read **m** in the upper right corner of the inner slide. If not, pull inner slide out and reinsert with **m** marking in the upper right corner.

1. Make sure “m” marking is in the upper right corner of the inner slide is showing when Slide Ruler is oriented as shown with Metric System facing up.
2. Locate on the Slide Ruler effective spread width in meters.

Example: Say 12 meters is the effective spread width in the test run. Locate 12 on the Slide Ruler.

3. Determine amount of product (kg/hectare) to be distributed and adjust Slide Ruler until that amount is aligned with the effective spread width.

Example:

Say 128 kg/ha is the distribution rate. Adjust inner slide until 128 lbs/acre is aligned with 12 meters.

4. Locate on the Slide Ruler tractor travel speed in km/h (kilometers per hour). Read and record discharge rate given below travel speed in kg/min.

Example:

Say the tractor will travel 10 km/h. Locate 10 km/h on the Slide Ruler and read the given 25 kg/min. under the travel speed.

Refer to Metric Spreader Chart on page 47:

5. Locate 25 kg/min for the particular product to be spread in the “**Metric Spreader Chart**”.

Example:

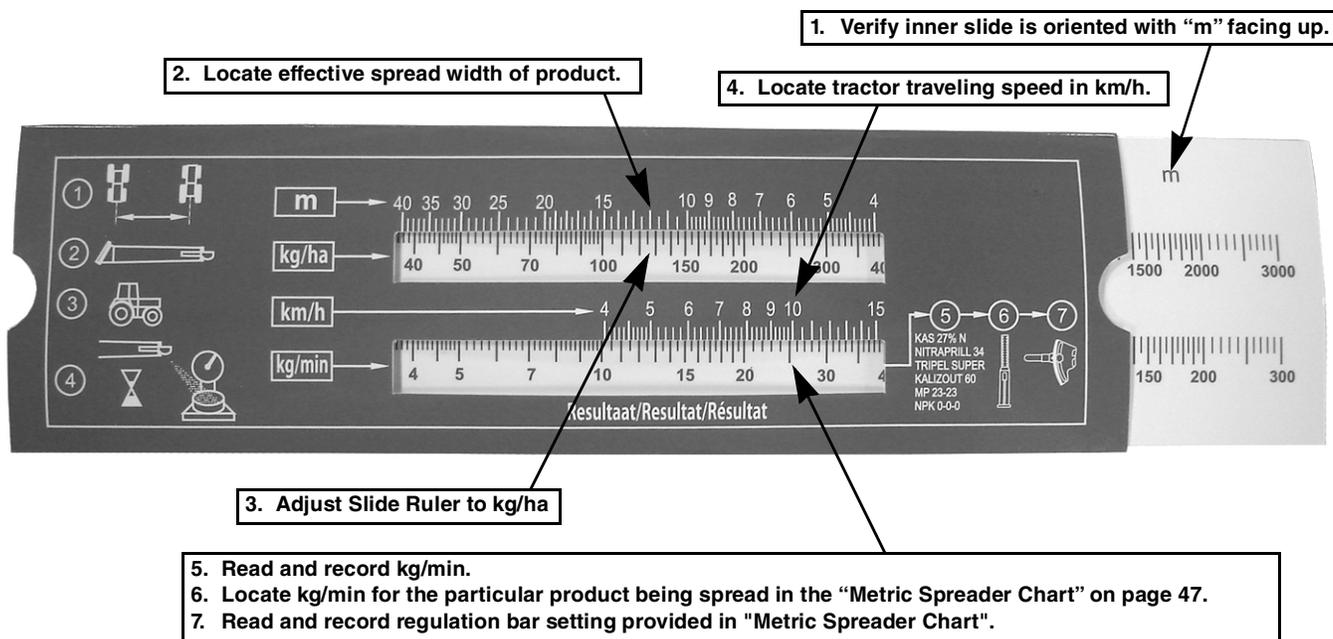
Say product is Granular Fertilizer Fine at 25 kg/min. Find for Granular Fertilizer Fine that 25 kg/min requires that the regulation bar be set at 33.

Refer to Figure 8-5 on page 45:

6. Set adjusting nut to 33.

Example:

Adjust regulation adjusting nut until front edge of nut is even with the number 33 on the bar.



**Slide Ruler
Figure 8-6**

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Section 8: Adjustments

Metric Spreader Chart

Regulation Bar	Results	Effective Spread Width	Kilograms / Hectare (kg/ha) At Travel Speed					Spout Angle	Regulation Bar	Results	Effective Spread Width	Kilograms / Hectare (kg/ha) At Travel Speed					Spout Angle
			5	6.5	8	10	11					5	6.5	8	10	11	
setting	kg/min	meters	Travel Speed (km/h)						setting	kg/min	meters	Travel Speed (km/h)					
GRANULAR FERTILIZER FINE								FURDAN (SMALL SEEDS KIT)									
33	25	12	256	197	160	128	116	MAX	12	3.4	9.75	43	33	27	21	20	MAX
36	29	12	298	229	186	149	135	MAX	18	7	9.75	86	66	54	43	39	MAX
42	39	12	396	304	247	198	180	MAX	24	10	9.75	126	97	79	63	57	MAX
54	61	12	624	480	390	312	284	MAX	27	15	9.75	183	141	115	92	83	MAX
GRANULAR FERTILIZER COARSE								WHEAT									
24	18	12	186	143	116	93	85	MAX	27	19	12	195	150	122	98	89	MAX
30	26	12	265	204	166	133	121	MAX	36	30	12	307	236	192	154	140	MAX
36	36	12	368	283	230	184	167	MAX	39	35	12	358	276	224	179	163	MAX
48	63	12	642	494	401	321	292	MAX	42	40	12	410	315	256	205	186	MAX
PRILLS								SOYBEANS									
18	16	12	163	125	102	81	74	MAX	24	10	13.75	89	69	56	45	41	MAX
24	26	12	265	204	166	133	121	MAX	32	16	13.75	142	109	89	71	65	MAX
30	37	12	377	290	236	189	171	MAX	36	23	13.75	203	156	127	102	92	MAX
36	50	12	512	394	320	256	233	MAX	40	25	13.75	223	172	140	112	102	MAX
UREA 46% N								ALFALFA (SMALL SEEDS KIT)									
18	17	9.75	218	167	136	109	99	MAX	14	2.2	9	30	23	19	15	14	MAX
27	31	9.75	389	300	243	195	177	MAX	18	3.5	9	48	37	30	24	22	MAX
30	35	9.75	441	339	276	220	200	MAX	22	7	9	93	72	58	47	42	MAX
36	45	9.75	573	441	358	286	260	MAX	27	9	9	118	91	74	59	54	MAX
LIME (AGITATOR EXTENSION*)								CRIMSON CLOVER (SMALL SEEDS KIT)									
39	31	6	633	487	396	317	288	MID	12	1.4	9.75	18	14	11	9	8	MAX
46	43	6	884	680	553	442	402	MID	14	1.7	9.75	21	16	13	11	10	MAX
53	72	6	1471	1131	919	735	669	MID	16	2.9	9.75	36	28	23	18	16	MAX
62	119	6	2439	1876	1524	1220	1109	MID	18	3.1	9.75	39	30	24	19	18	MAX
FERTRELL (WINDSHIELD & AGITATOR EXTENSION*)								RYE GRASS (AGITATOR EXTENSION*)									
18	21	6	428	329	268	214	195	MID	18	2.2	6	45	34	28	22	20	MAX
24	32	6	652	501	407	326	296	MID	19	2.4	6	48	37	30	24	22	MAX
27	36	6	735	566	460	368	334	MID	20	2.7	6	55	42	34	27	25	MAX
36	50	6	1024	788	640	512	465	MID	22	3.6	6	74	57	46	37	33	MAX
MOCAP (SMALL SEEDS KIT)								TIMOTHY (SMALL SEEDS KIT)									
12	1.4	6	28	21	17	14	13	MAX	12	1.4	8	22	17	14	11	10	MAX
18	3.2	6	65	50	41	33	30	MAX	18	3	8	46	35	29	23	21	MAX
24	6	6	121	93	76	61	55	MAX	24	7	8	112	86	70	56	51	MAX
27	8	6	158	122	99	79	72	MAX	32	10	8	151	116	94	75	69	MAX

*PFS5060 & PFS8010 only. Agitator extension does not fit PFS4000.

NOTE: Values provided in spreader chart may be inconsistent with actual values due to varying conditions of the product, terrain, and speed. Adjustment to the regulation bar may be required to compensate.

Formulas:

$$\text{Kg/Hectare} = \frac{\text{kg/min} \times 615.7}{\text{spread width} \times \text{km/h}}$$

$$\text{Kg/min} = \frac{\text{Spread width} \times \text{km/h} \times \text{kg/hectare}}{615.7}$$



Section 9: Maintenance & Lubrication

General Maintenance

Proper servicing and adjustments are key to the long life of any implement. With careful inspection and routine maintenance, you can avoid costly downtime and repair.

DANGER

To avoid serious injury or death:

Remove all traces of fertilizer before performing any electrical or gas welding operations. Fertilizers containing nitrates are very dangerous and can explode when brought in contact with fire causing injury or death.

WARNING

To avoid serious injury or death:

- Make sure controls are all in neutral position or park before starting the power machine.
- Maintenance, adjustments and cleaning of the spreader must always be done with unit resting on the ground or on stable, non-concrete supports and with tractor park brakes applied, engine turned off, and ignition key removed.
- Always wear non slip shoes, gloves, protective clothing, safety glasses and a breathing mask capable of filtering powders when cleaning, servicing, lubricating and filling your Pendulum Spreader to prevent injury to the body and/or injury from inhalation of product. Refer to chemical manufacturers' labels for specific protective requirements.
- Do not alter implement or replace parts on the implement with other brands. Other brands may not fit properly or meet OEM (Original Equipment Manufacturer) specifications. They can weaken the integrity and impair the safety, function, performance, and life of the implement. Replace parts only with genuine OEM parts.

IMPORTANT: Refer to Figure 9-1 on page 49: Check pendulum spout attachment bolts and special nuts before each filling of the hopper to make certain they are tight. A loose bolt can quickly damage the spout, spreader frame and drive unit.

IMPORTANT: In the event of irregular or unusual vibrations, stop the machine immediately and assess the problem. Make necessary repairs before continuing.

IMPORTANT: Clean all residual from the grease zerks before injecting lubrication into them.

1. Refer to Figure 9-1 on page 49: Check spout attachment bolts and nuts before each filling of the hopper to make certain they are tight.
2. Check all bolts daily to be certain they are tight.
3. Make certain driveline is secured on both ends.
4. Check pendulum for wear, cracks and breaks. Replace pendulum if needed. Use only genuine Land Pride spouts, screws and nuts when replacing or changing spouts.
5. Engage power take-off to make sure the pendulum swings back and forth properly.

6. Check gate opening for wear and mechanical operation.
7. Lubricate bearings as noted under Lubrication on page 49.
8. Repaint parts where paint is worn or scratched to prevent rust.
9. Replace any worn, damaged or illegible safety labels by obtaining new labels from your Land Pride Dealer.

Long-Term Storage

Clean, inspect, service, and make necessary repairs to the Pendulum Spreader when storing it for long periods and at the end of the season. This will help ensure the unit is ready for field use the next time you hook-up to it.

WARNING

To avoid serious injury or death:

- Always wear safety glasses and safety masks when cleaning the Pendulum Spreader with pressurized air or water.
- Keep animals and other persons away from the spreader while cleaning the unit.

IMPORTANT: Particles of fertilizer are corrosive and should be thoroughly cleaned from the machine before parking it for a long period of time.

Clean, inspect, service and make necessary repairs to the Pendulum Spreader after each use, when parking it for long periods and when parking it at the end of a working season. This will help ensure that the spreader is ready for field use the next time you hook-up to it.

1. Empty hopper of product before unhooking unit from tractor.
2. Clean off all particles of fertilizer, dirt and grease that may have accumulated on the frame, hopper and moving parts.
3. Wash Pendulum Spreader thoroughly inside and outside with a garden hose. Make sure all particles of fertilizer have been removed. Allow to completely dry before closing gates.
4. Inspect for loose, damaged or worn parts. Make needed adjustments, tighten loose parts and replace damaged and worn parts.
5. Lubricate as noted in the *Lubrication* portion of this section starting on page 49.
6. Repaint parts where paint is worn or scratched to prevent rust. Ask your dealer for Aerosol Land Pride touch-up paint.
7. Replace any worn, damaged or illegible safety labels by obtaining new labels from your Land Pride Dealer.
8. Store spreader in a clean, dry place away from atmospheric conditions to protect unit from further deterioration.
9. Make sure spreader is stable. Use auxiliary supports if necessary to prevent unit from tipping over.

Section 9: Maintenance & Lubrication

Lubrication Points

Lubrication Legend	Multi-purpose spray lube	Multi-purpose grease lube	Multi-purpose oil lube	50 Hrs	Intervals in hours at which lubrication is required

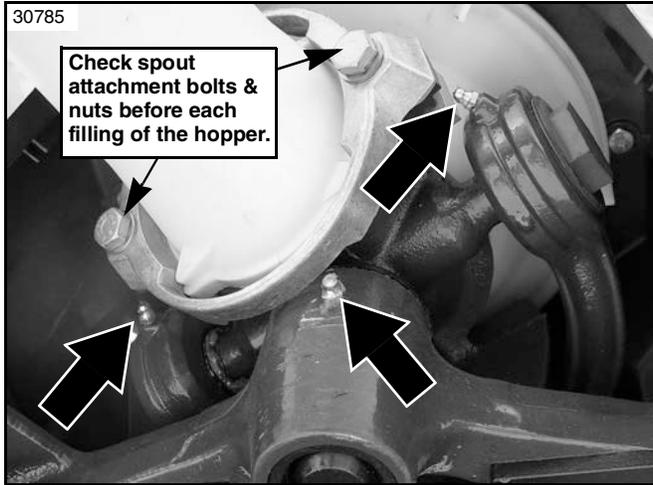


Figure 9-1

		8 Hours
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Spout Pivot

3 - Zerks (Clean zerks before injecting lubrication)
 Type of Lubrication: Multi-purpose Grease
 Quantity: 1 to 2 pumps

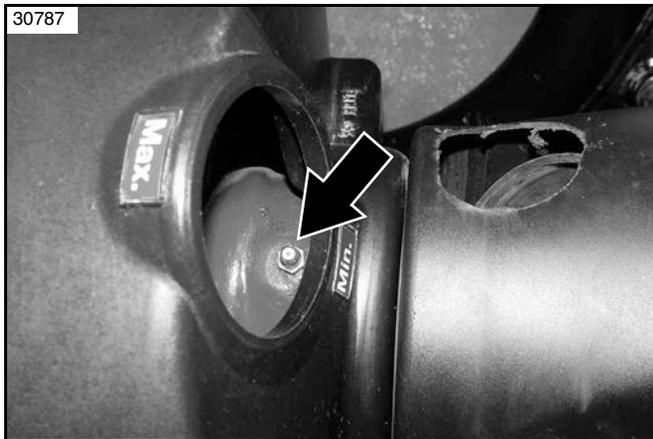


Figure 9-2

		8 Hours
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Drive Unit Input Shaft

1 - Zerk (Clean zerk before injecting lubrication)
 Refer to Figure 8-1 on page 40: Remove angle adjustment cover (#1) and rotate flywheel (#3) until input shaft zerk is expose below.
 Type of Lubrication: Multi-purpose Grease
 Quantity: 1-2 pumps

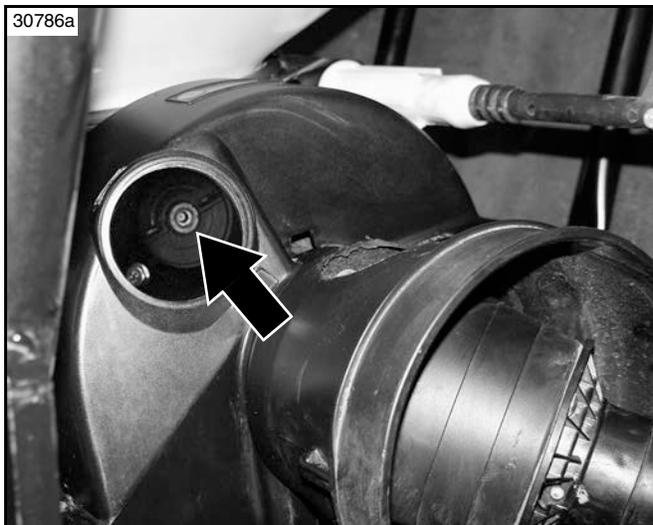


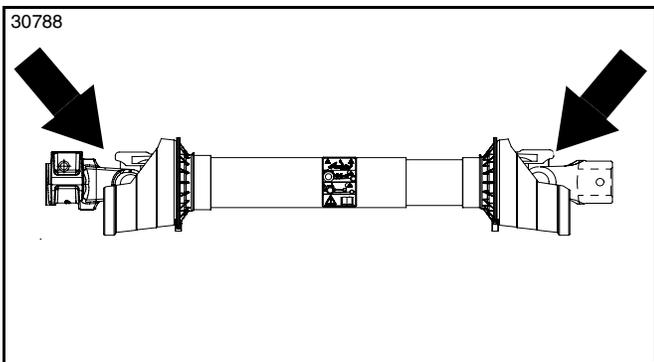
Figure 9-3

		8 Hours
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Spout Angle

1 - Zerk (Clean zerk before injecting lubrication)
 Refer to Figure 8-1 on page 40: Remove angle adjustment cover (#1) and rotate flywheel (#3) until wing nut cover (#2) is in alignment with opening. Unscrew wing nut cover (#2) to expose zerk.
 Type of Lubrication: Multi-purpose Grease
 Quantity: 1-2 pumps

Section 9: Maintenance & Lubrication



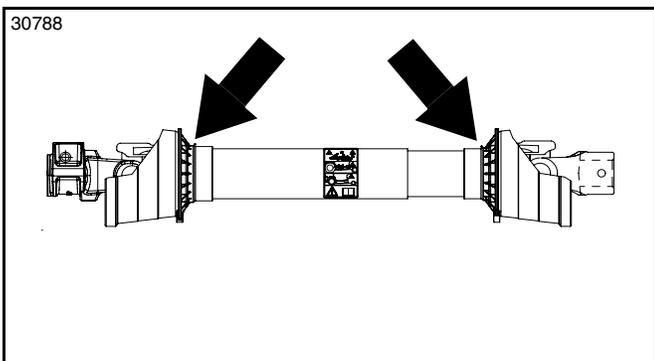
		8 Hours
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Driveline Yokes

2 - Zerks (Clean zerks before injecting lubrication)

Type of Lubrication: Multi-purpose Grease

Quantity: 1 to 2 pumps



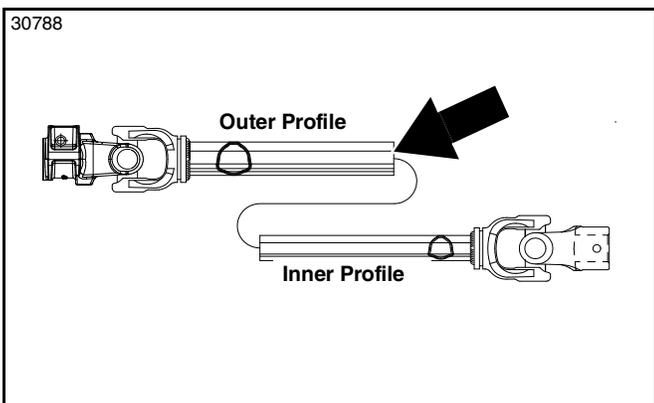
	Seasonally
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Inner Tube Bearings

2 - Zerks (Clean zerks before injecting lubrication)

Type of Lubrication: Multi-purpose Grease

Quantity: As required



	Seasonally
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Driveline Profiles

Clean and coat the inside of the outer profile tube with a light coat of Multi-purpose Grease and then reassemble.



Section 10: Specifications & Capacities

PFS4000, PFS5060, & PFS8010 Pendulum Spreaders

Description	Specifications & Capacities		
Model Numbers	PFS4000	PFS5060	PFS8010
Horsepower @ 540 rpm required to power drive unit only.	6 hp (4.5 kW)	6 hp (4.5 kW)	6 hp (4.5 kW)
Hitch type	3-Point Cat. I	3-Point Cat. I & II	3-Point Cat. II
Capacity * Without hopper top extension	13.6 ft ³ / 925 lbs (.39 m ³ / 419.6 kg)	17 ft ³ / 1,150 lbs (.48 m ³ / 521.6 kg)	30 ft ³ / 2,040 lbs (.85 m ³ / 925.3 kg)
With optional hopper top extension	-----	20.5 ft ³ / 1,392 lbs (.58 m ³ / 419.6 kg)	37 ft ³ / 2,522 lbs (1.05 m ³ / 1144 kg)
With larger optional hopper top extension	-----	-----	44 ft ³ / 2,998 lbs (1.25 m ³ / 1359.9 kg)
Weights ** Without hopper top extension	196 lbs (88.9 kg)	287 lbs (130.2 kg)	403 lbs (182.8 kg)
With optional hopper top extension	-----	302 lbs (137 kg)	419 lbs (190 kg)
With larger optional hopper top extension	-----	-----	425 lbs (192.8 kg)
Overall width	46" (1.17 m)	55.1" (1.40 m)	75" (1.91 m)
Overall length	46" (1.17 m)	43.3" (1.10 m)	53.2" (1.35 m)
Overall height / Loading height	47" (1.19 m)	35.5" (0.90 m)	38" (0.97 m)
Without hopper top extension	-----	40" (1.02 m)	42" (1.07 m)
With optional hopper top extension	-----	-----	47" (1.19 m)
With larger optional hopper top extension	-----	-----	-----
Tow hitch capacity	Can tow up to 800 lbs (363 kg) with a maximum tongue weight of 50 lbs (23 kg)		Not Available
Delivery type	Pendulum		
Pendulum construction	Plastic spout		
Working height (End of pendulum)	29 1/2" (75 cm)		
Effective spread width (min.-max.)	2'-4" to 46'-0" (0.71 m to 14.02 m) Depending on spout, material and power take-off speed at 540 rpm.		
Power take-off speed	540 rpm		
Drive unit	1 3/8" shaft with 1:1 ratio		
Hopper material	Polyethylene Cone	Square hopper constructed of seamless fiberglass	
Frame construction and finish	Steel welded tubular frame with baked on epoxy finish		
Adjustment levers	Plated		
Agitator Extension Kit	Not Available	Optional	
Hydraulic Gate Kit	Not Available	Optional	
Hopper Extension Kit	Not Available	Optional	
Ground coverage per hour	7.3 - 17 acres/hr. (3 - 6.9 hectare/hr.) traveling at 3 - 7 mph. (4.8 - 11.3 km/h)		
20 ft (6.10 m) Effective spread width	9.5 - 22 acres/hr. (3.8 - 8.9 hectare/hr.) traveling at 3 - 7 mph. (4.8 - 11.3 km/h)		
26 ft (7.92 m) Effective spread width	11.6 - 27 acres/hr. (4.7 - 10.9 hectare/hr.) traveling at 3 - 7 mph. (4.8 - 11.3 km/h)		
32 ft (9.75 m) Effective spread width	14.5 - 34 acres/hr. (5.9 - 13.8 hectare/hr.) traveling at 3 - 7 mph. (4.8 - 11.3 km/h)		
40 ft (12.19 m) Effective spread width	16.7 - 39 acres/hr. (6.8 - 15.8 hectare/hr.) traveling at 3 - 7 mph. (4.8 - 11.3 km/h)		
45 ft (13.72 m) Effective spread width	-----		

* Weights are based on average weight of granular fertilizer.

** Weights include driveline and PFS8010 shaped hook-up bar. Weights do not include Hydraulic Gate Kit, Agitator Extension Kit and Small Seed Kit.



Section 11: Features & Benefits

PFS4000, PFS5060 & PFS8010 Pendulum Spreaders

Features	Benefits
High hopper capacities	Able to cover large areas between hopper refills.
Low profile hoppers	Low filling height. Easy to fill.
Drive unit is without gears or hydraulic motors	Provides simple maintenance.
One piece hopper molded of fiberglass or polyethylene	Plastic construction to eliminate corrosion. Seamless for accurate and consistent emptying.
Parts in direct contact with product are constructed of non corrosive materials	Helps eliminate corrosion of parts.
Spreader capacity	Highly productive at 44 to 890 lbs per acre.
Pendulum type broadcast	Provides even spreading and controlled coverage up to 50 ft effective spread width. Pendulum system insures that the material is always spread the same on left and right side.
Two position pendulum angle	Allows to increase or decrease spread width.
Heavy-duty tubular frame	Supports hopper weight with optional extensions when full.
Tow hitch	Good for pulling a trailer loaded with product to fill the spreader or pulling a drag harrow. (Not available with PFS8010 model.)
540 rpm shielded power take-off	For added safety.
Standard Plastic pendulum spout	Protects from corrosive material to enhance longevity. Optional spouts are constructed of stainless steel to enhance longevity.
Variable adjustable gate	Provides for precision control of discharge rate.
Stainless steel gate	Protects from corrosive material enabling gate to operate smoothly.
Plated adjustment levers	Protects from corrosive material to enhance longevity.
PFS4000 with Cat. I 3-point hitch PFS5060 with Cat. I & II 3-point hitch PFS8010 with Cat. II 3-point hitch	For attachment to a wide range of tractors.
Optional Agitator Kit	Helps keep light fluffy material from bridging.(Not available on the PFS4000 model.)
Optional Hydraulic Gate Kit	Allows the operator to open and close the discharge gate hydraulically on the go. (Not available on the PFS4000 model.)
Optional Hopper Extensions Kit	Increases hopper capacity. (Not available on the PFS4000 model.)



Troubleshooting Chart

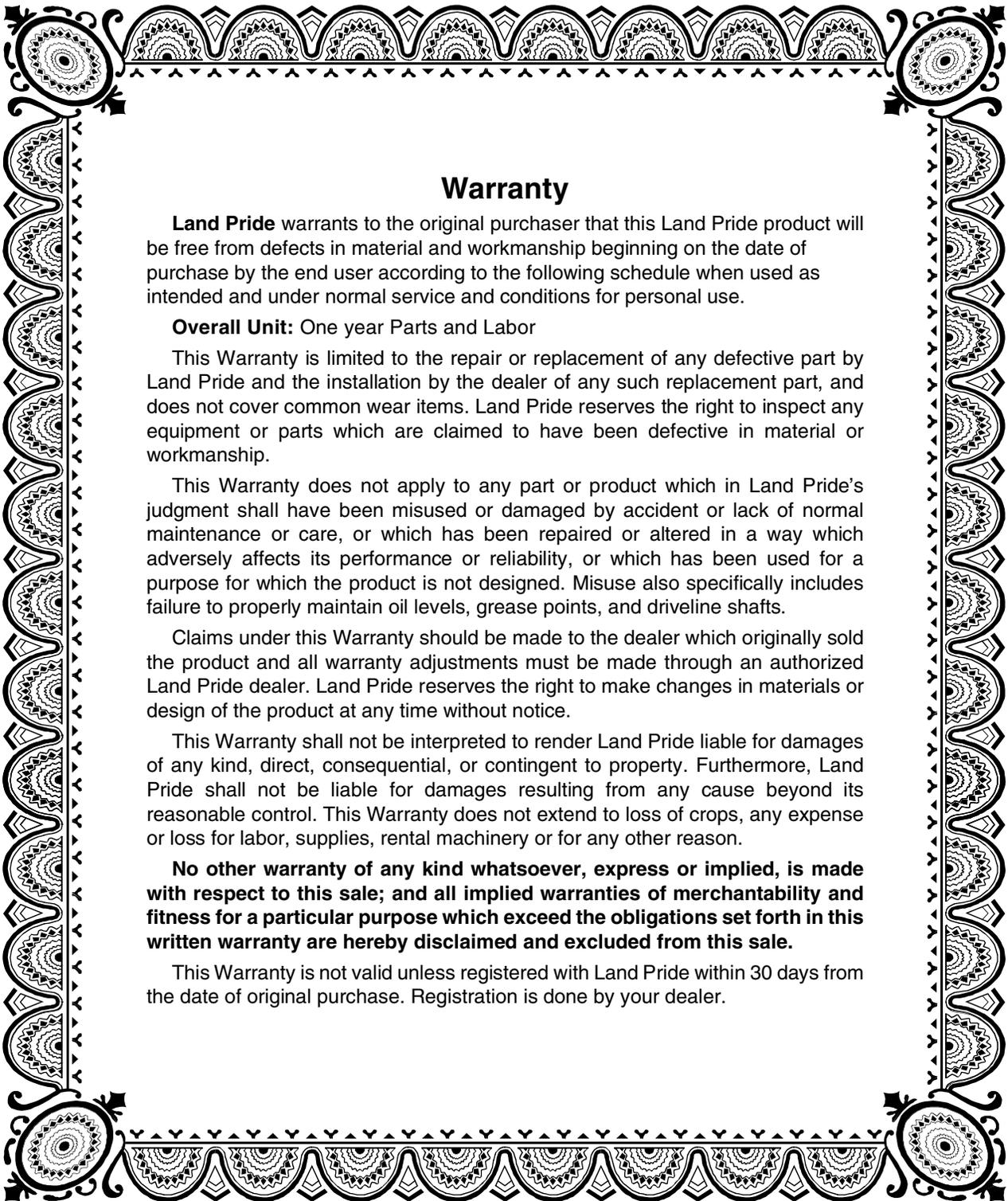
Problem	Cause	Solution
Field Skips	Not traveling parallel to the preceding pass at half the spread width away from the pass.	Travel parallel to the preceding pass at half the spread width away from the pass with slight overlapping of each pass. Set spreader to disperse product at half the rate and go over the field plot twice using a 2nd pattern that crosses the first pattern.
	Wind is blowing the product around.	Spread product on a calm non-windy day.
Spread width not suitable	Pendulum swing not adjusted correctly.	Readjust Pendulum swing.
	Wind is blowing product around.	Spread product on a calm non-windy day.
	Incorrect working height.	Adjust 3-point so that end of pendulum is 29 1/2" above the ground.
	Hopper and pendulum is not parallel to the ground.	Adjust 3-point lower arms and center link to level hopper parallel with ground.
Effective spread pattern not correct	Incorrect pendulum attached to spreader.	Change pendulums.
	Travel speed is incorrect.	Set tractor power take-off speed to 540. Power take-off speed can be slowed a little to disperse product at a smaller width.
	Pendulum is worn, cracked or broken.	Replace pendulum.
Uneven distribution of product	Roughness of terrain.	Slow down and decrease gate openings.
	Wind is blowing product around.	Spread product on a calm non-windy day.
Product won't discharge out of end of pendulum properly	Product is too wet or humid.	Use dry product only.
	Excessive fertilizer lumps, product particulates are larger than normal or foreign body in product.	Clean product or replace product.
	Hopper exits are clogged.	Clean hopper exits.
	Pendulum is plugged.	Clean pendulum.
	Discharge gate won't open.	Check gate operation for obstructions. Clean obstructions from gate operation.
		Check gate mechanics for bent or broken parts. Repair or replace parts.
	Pendulum spout is worn, cracked or broken.	Replace pendulum spout.
Deflector on end of pendulum spout is worn, cracked or broken.	Replace pendulum spout.	
Spreader Chart is inconsistent with actual discharge rate	Varying product size, specific gravity, treatment, moisture content, inert material in product, lumps, different mixtures and roughness of terrain can cause the chart to be inconsistent.	Make adjustments to adjust nut on the regulation bar and to tractor gear speed to achieve desired discharge rate. Refer to "Set Hopper Discharge Rate" on page 37.



Section 13: Torque Values Chart

Torque Values Chart for Common Bolt Sizes													
Bolt Size (inches)	Bolt Head Identification						Bolt Size (Metric)	Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8			 Class 5.8		 Class 8.8		 Class 10.9	
in-tpi ¹	N · m ²	ft-lb ³	N · m	ft-lb	N · m	ft-lb	mm x pitch ⁴	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1-1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1-1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1-1/4" - 12	750	555	1680	1240	2730	2010	¹ in-tpi = nominal thread diameter in inches-threads per inch ² N · m = newton-meters ³ ft-lb= foot pounds ⁴ mm x pitch = nominal thread diameter in millimeters x thread pitch						
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							

Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.
 All locknuts or lubricated fasteners: Use 75% of torque value. (i.e. 1/2"-13 GR5 = 76 ft-lb; 75% of 76 or .75 x 76 = 57 ft-lb)



Warranty

Land Pride warrants to the original purchaser that this Land Pride product will be free from defects in material and workmanship beginning on the date of purchase by the end user according to the following schedule when used as intended and under normal service and conditions for personal use.

Overall Unit: One year Parts and Labor

This Warranty is limited to the repair or replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items. Land Pride reserves the right to inspect any equipment or parts 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 judgment 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. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride 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, 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. Registration is done by your dealer.

IMPORTANT: The Online Warranty Registration should be completed by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

Model Number _____

Serial Number _____



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