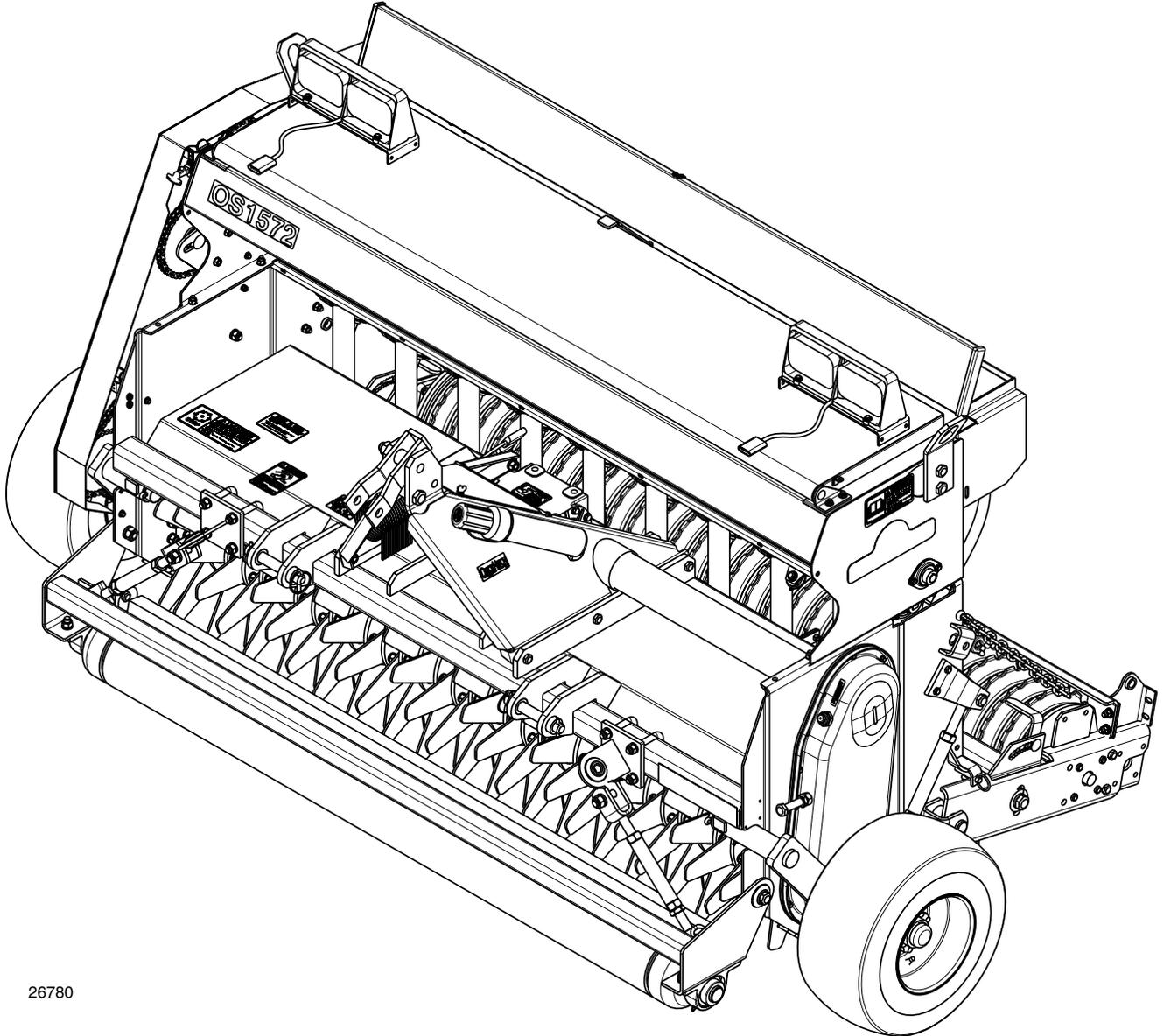


Overseeder (S/N 166724+)

OS1548 and OS1572



26780

308-303M 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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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. Scan 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 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 your 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 the implement and tractor while backing up to the implement.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ While transporting and operating equipment, watch out for objects overhead and along the sides 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.

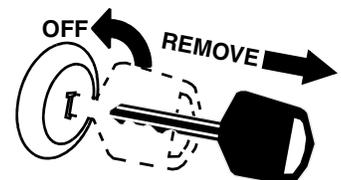
Safety Precautions for Children

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

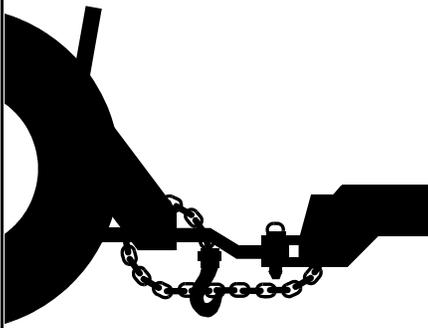
- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake.
- ▲ Turn off engine and remove ignition key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic 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.



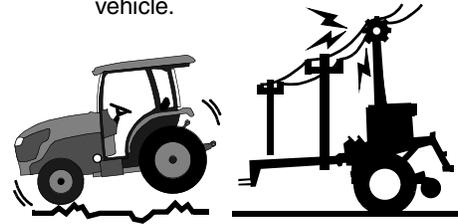
Towing Safely

- ▲ Comply with federal, state, and local laws.
- ▲ Use towing vehicle and trailer of adequate size and capacity. Secure equipment towed on a trailer with chocks, tie downs, and chains.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.
- ▲ Sudden braking can cause a towed trailer to swerve unexpectedly. Reduce speed if trailer is not equipped with brakes.



Transport Safely

- ▲ Comply with federal, state, and local laws.
- ▲ Avoid contact with any overhead utility lines or electrically charged conductors.
- ▲ Engage park brake when stopped on an incline.
- ▲ Maximum transport speed for an implement 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. Sudden braking can cause a towed load to swerve and upset.
- ▲ Do not tow an implement that, when fully loaded, weights more than 1.5 times the weight of towing vehicle.



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.

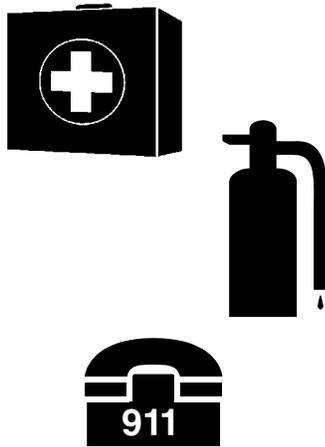
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Inspect all parts. Make certain parts are in good condition & installed properly.
- ▲ Replace parts on this implement with genuine Land Pride parts only. Do not alter this implement 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 of.
- ▲ 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.



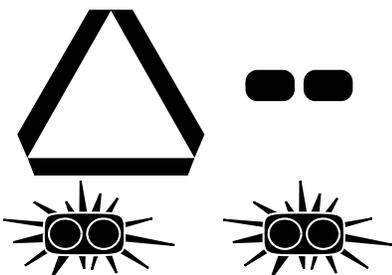
Avoid High Pressure Fluids

- ▲ 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.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.
- ▲ For tractors and other agriculture equipment, a Slow Moving Vehicle (SMV) sign is required when traveling 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 the operator against serious injury or death from falling and/or 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: <http://www.clickbeforeyoudig.com>
- ▲ 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

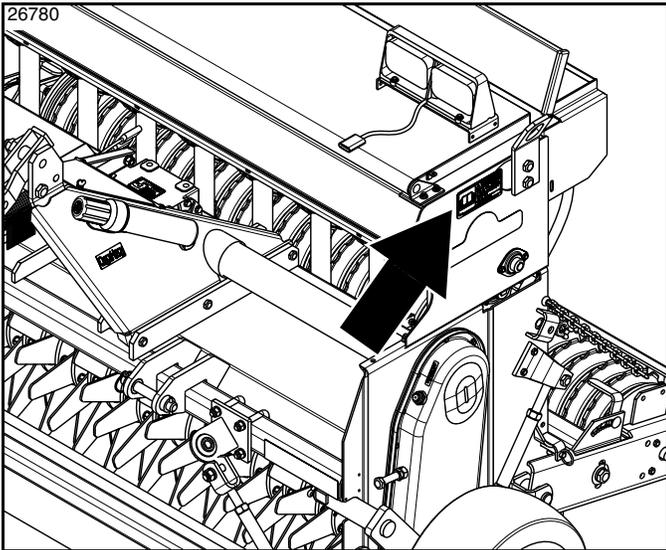
Safety Labels

Your Overseeder comes equipped with all safety labels in place. They were designed to help you safely operate your implement. 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.

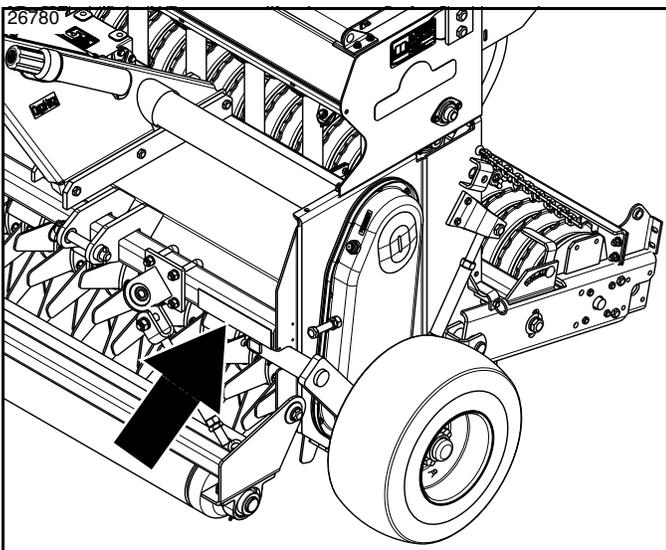
4. Refer to this section for proper label placement. To install new labels:
 - a. Clean surface area where label is to be placed.
 - b. Spray soapy water onto the cleaned area.
 - c. Peel backing from label and press label firmly onto the surface.
 - d. Squeeze out air bubbles with edge of a credit card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



838-293C

Warning: Read Operator's Manual

1 Place

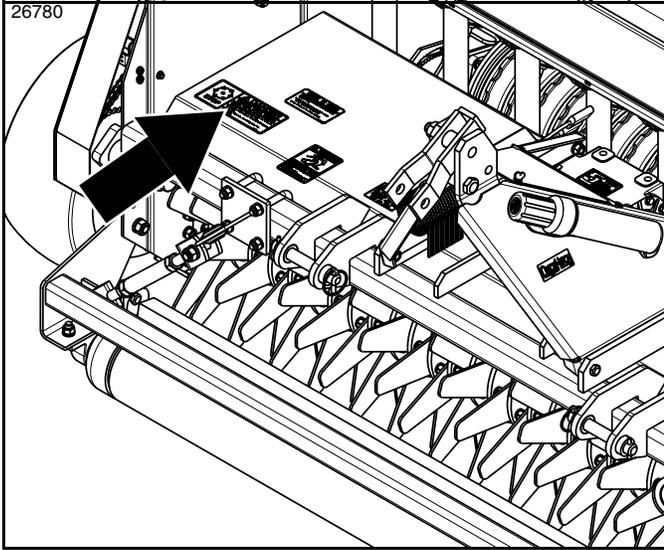


73138

838-615C (OS1572 Only)

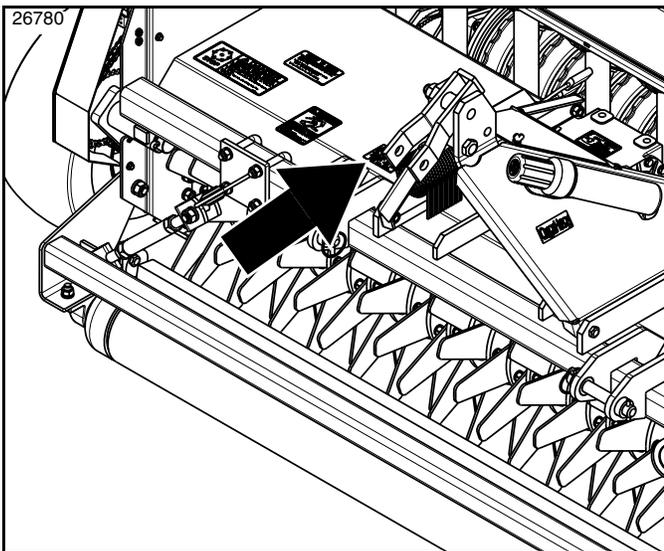
Amber Reflector: 2" x 9"

1 Place



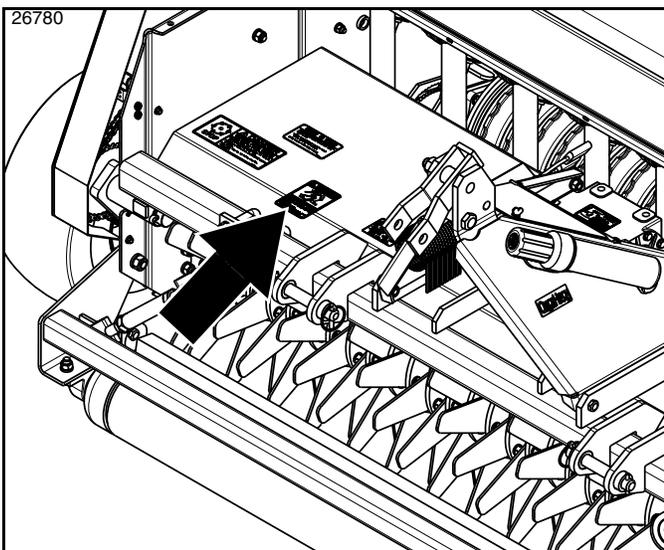
72085

858-772C
 Danger: Rotating Parts Hazard
 1 Place



70382

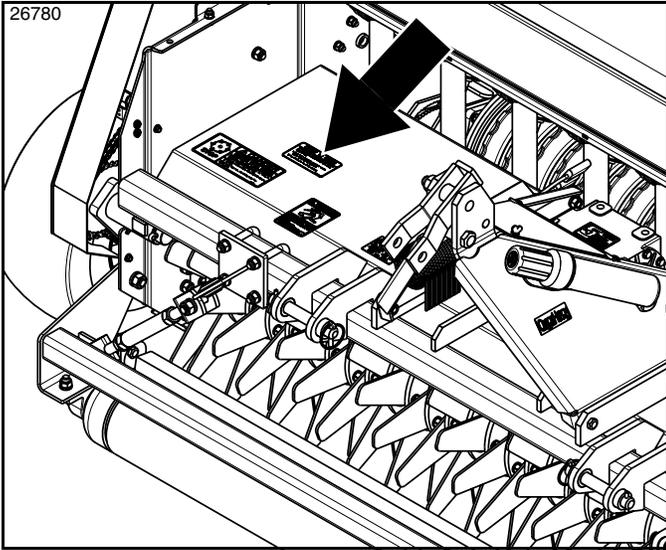
818-130C
 Warning:
 Operate only with 540 rpm Power Take-off Speed
 1 Place



70640

818-132C
 Danger: Thrown Object Hazard
 1 Place

Important Safety Information



NOTICE TO OWNER

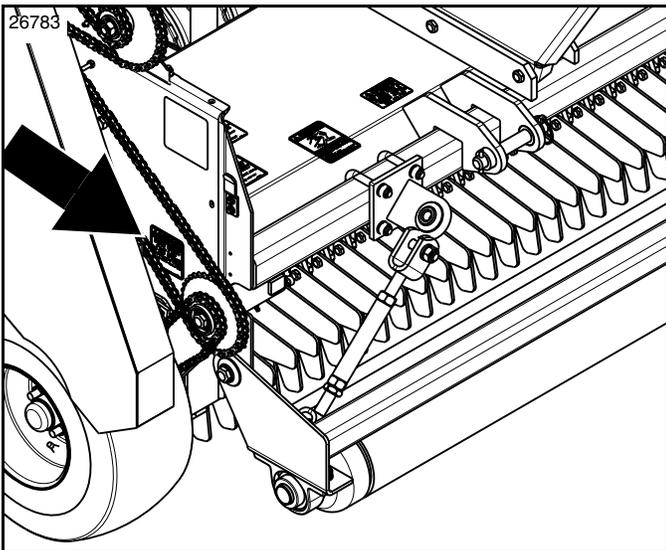
If you have not received the operator's manual for this implement please contact your selling dealer at once.

1. Read and understand operator's manual before operating the implement.
2. Pay attention to the safety messages.

818-560C

70377

818-560C
 Notice: Read Operator's Manual and Safety Messages
 1 Place



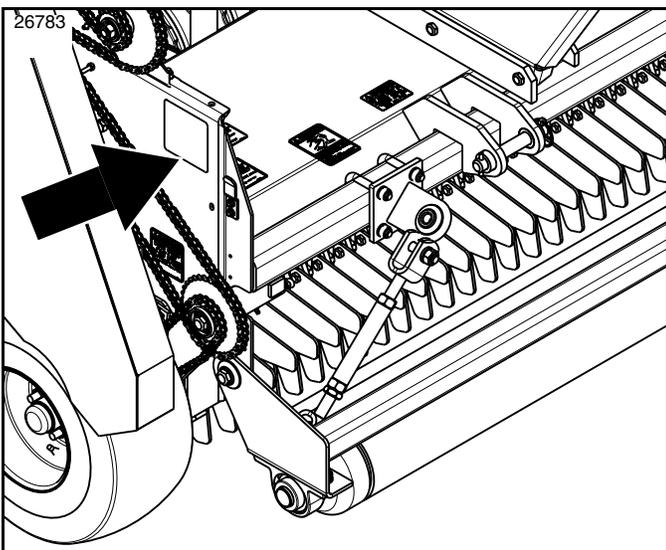
⚠ DANGER

GUARD MISSING
 When this is visible
DO NOT OPERATE
 ENTANGLEMENT HAZARD
 will cause Serious Injury or Death

818-543C

70358

818-543C
 Danger: Guard Missing Hazard - Do not Operate
 1 Place: Beneath Chain Guard

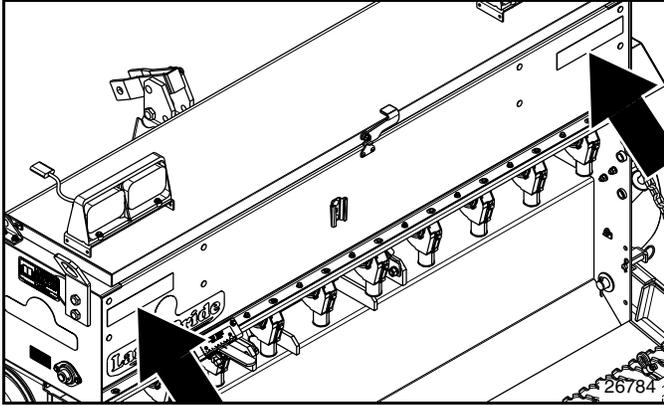


⚠ DANGER

To Prevent Serious Injury Or Death From Moving Parts:
KEEP AWAY. Moving parts can crush and dismember.
 Do not operate without guards and shields in place.
 Disconnect and lockout power source before adjusting and servicing. SW108

70576

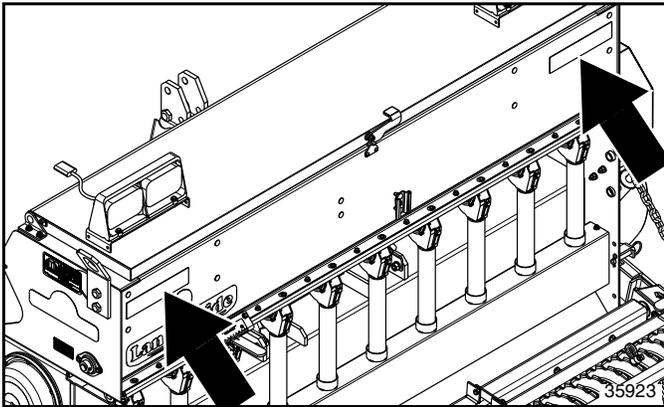
838-111C
 Danger: Keep Away - Moving Parts Hazard
 1 Place



838-614C (OS1572 Only)

Red Reflector: 2" x 9"

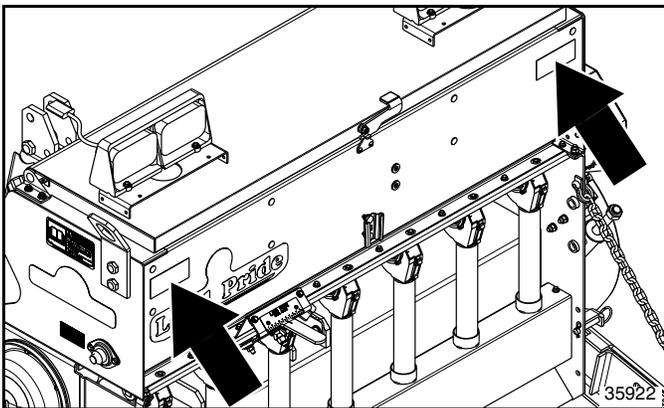
2 Places: On the back of the main seeds box



838-614C (OS1572 Only)

Red Reflector: 2" x 9"

2 Places: On the back of the small seeds box

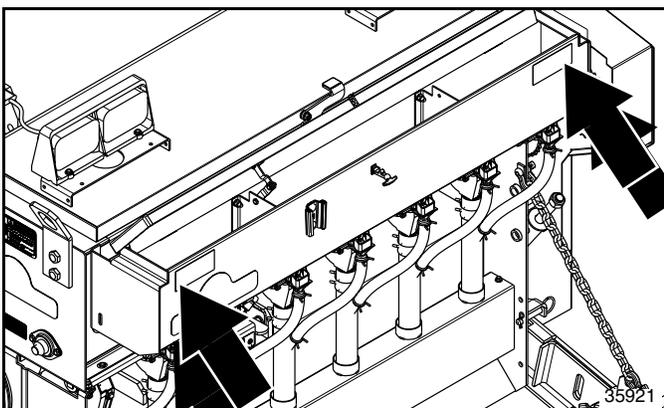


70486

858-095C (OS1548 Only)

Red Reflector: 2" x 4 1/2"

2 Places: On the back of the main seeds box



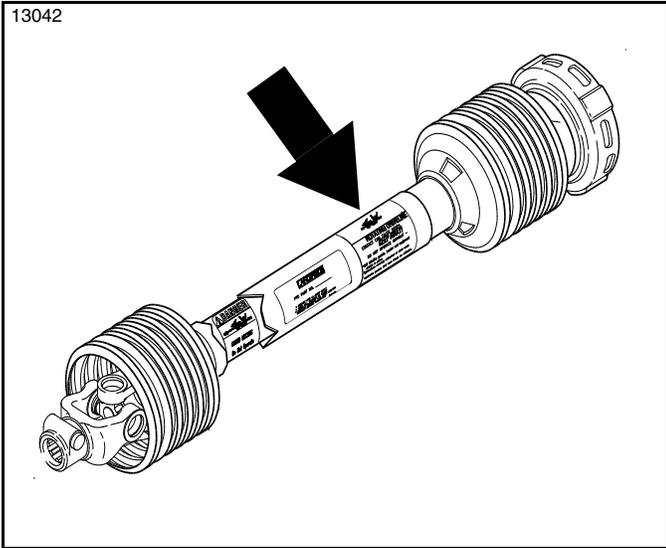
70486

858-095C (OS1548 Only)

Red Reflector: 2" x 4 1/2"

2 Places: On the back of the small seeds box

Important Safety Information



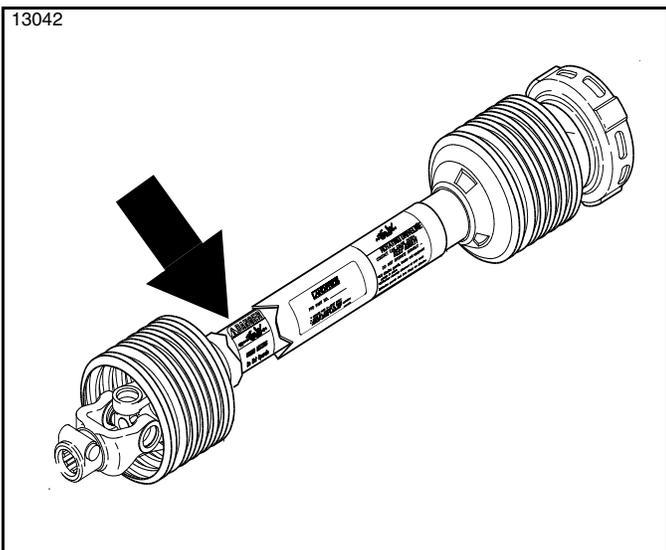
70375



818-552C

Danger: Rotating Driveline - Keep Away

1 Place: On the driveline outer shield



70374



818-540C

Danger: Guard Missing Hazard - DO NOT Operate

1 Place: On the driveline outer profile

Introduction

Land Pride welcomes you to the growing family of new product owners. This Overseeder 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 machine.

Application

The Land Pride OS1548 and OS1572 Overseeders are a highly versatile and well engineered seed planting systems designed to open up the soil or turf surface, precisely meter out seed, and then press the seed into full soil contact. They may be used for either over-seeding or primary seeding applications. Their versatility and precision seeding capabilities make them an excellent choice for applications in wild game food plots, hunting clubs, resorts, golf courses, sports turf, ranches, turf farms, game preserves, landscaping, professional turf maintenance, and municipalities.

The opening or slitting action is achieved by employing power take-off powered to a 48" or 72" (1.22 or 1.83 m) wide rotary vertically driven knives on either 2" or 3" (5.1 or 7.6 cm) centers. Depth control of the slitter knives is achieved by either:

- End-mounted adjustable gauge wheels.
- Front mounted anti-scalping roller attachment.
- Positive height control of the tractors 3-point hitch draft-links.

Seed distribution and placement is accomplished by utilization of high capacity water-tight seedboxes with agitators and seed cups with powdered metal flutes. The agitators deliver seed to the seed cups which in turn dispense seed into clear vinyl transfer tubes attached to an evenly spaced seed distribution manifold. The distribution manifold uniformly and evenly spreads the seed across the working profile of the seeder. Actual rate and metering control is accomplished by either an end mounted gauge wheels drive or by a rear roller seedbox drive mechanism. Units equipped with the rear roller drive will be able to achieve a higher germination rate since this drive also serves as a roller-compactor to help achieve maximum seed to soil contact.

An optional spring-tine harrow is available to enhance seed to soil contact. Also, a precision Slit-seeding attachment is available to deliver seed directly into the slits created by the rotary knives. This slit seeder attachment is not compatible with the spring-tine harrow attachment.

For additional information and performance enhancing options, see **"Specifications & Capacities"** on page 62 and **"Features & Benefits"** on page 64.

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.

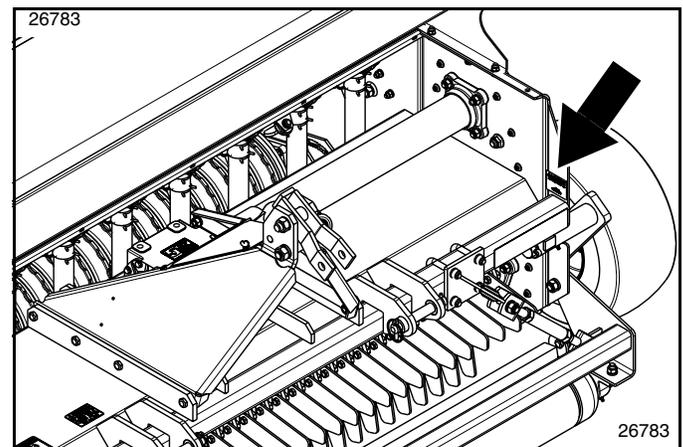
Owner Assistance

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

The parts on your Overseeder have been specially designed by Land Pride and should only be replaced with genuine Land Pride parts. Contact a Land Pride dealer if customer service or repair parts are required. Your Land Pride dealer has trained personnel, repair parts, and equipment needed to service the implement.

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, see Figure 1.



Serial Number Plate Location
Figure 1



Further Assistance

Your dealer wants you to be satisfied with your new Overseeder. 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 implement 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



Section 1: Assembly & Set-up

Tractor Requirements

Tractor horsepower should be within the range noted below. Tractors outside the horsepower range must not be used.

- Horsepower rating 25-60 hp (15-45 kW)
- 3-Point hitch type Cat. I
- Rear power take-off speed 540 rpm
- Tractor weight See Warning alert below

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 weight requirements and maximum limitations.

Shipping information

Your Overseeder is shipped partly assembled via flat bed truck. It is the responsibility of the dealer to unload and assemble the Overseeder.

Unload all equipment before beginning assembly. Do not attempt any assembly work while Overseeder is on the truck.

Read and understand the previous section, “**Important Safety Information**” page 1, before starting assembly.

Assembly Checklist

The information in the “**Pre-Assembly Checklist**” is general in nature and was written to aid the operator in preparing of the tractor and Overseeder for use, and to provide general operating procedures. The operator’s experience, familiarity with the machine, and the following information combined should provide efficient Overseeder operation and good working habits.

Having all the parts and equipment readily at hand will speed your assembly task and make the job as safe as possible. Please review Assembly Checklist now.

Torque Requirements

Refer to “**Torque Values Chart**” on page 66 to determine correct torque values when tightening hardware.

Pre-Assembly Checklist

	Check	Reference
<input type="checkbox"/>	Make sure miscellaneous assembly tools are on hand: Hammer, tape measure, hacksaw, assortment of wrenches and sockets, 3/8" drill, drill bits, and spirit level.	
<input type="checkbox"/>	Have a forklift or hoist with properly sized chains and safety stands on hand capable of lifting 2000 lbs.	
<input type="checkbox"/>	Have a minimum of two people available during assembly. See Specifications on page 62 for unit weights.	
<input type="checkbox"/>	Check to see if auxiliary tractor weights are needed.	
<input type="checkbox"/>	Make sure all major components and loose parts are shipped with the machine.	Operator's Manual
<input type="checkbox"/>	Double check to make sure all fasteners and pins are installed in the correct location. Refer to the Parts Manual if unsure. NOTE: All assembled hardware from the factory has been installed in the correct location. Remember location of a part or fastener if removed during assembly. Keep parts separated.	Operator's and Parts Manual
<input type="checkbox"/>	Make sure working parts move freely, bolts are tight and cotter pins are spread.	Operator's Manual
<input type="checkbox"/>	Make sure all grease fittings are in place and lubricated.	Page 49
<input type="checkbox"/>	Make sure gearbox is filled with gear lube as indicated in “Lubrication Points”.	Page 56
<input type="checkbox"/>	Make sure all drive chains are properly tension and aligned.	Operator's Manual
<input type="checkbox"/>	Make sure all safety labels are correctly located and legible. Replace if damaged.	Safety Labels Page 6
<input type="checkbox"/>	Make sure all tires are inflated to the specified psi air pressure.	Page 66
<input type="checkbox"/>	Make sure all wheel bolts and axle nuts are tightened to the specified torque.	Page 66

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 implement on level, solid ground.
3. Lower implement to ground or onto non-concrete support blocks.
4. Put tractor in park or set park brake, turn off engine, and remove ignition 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.

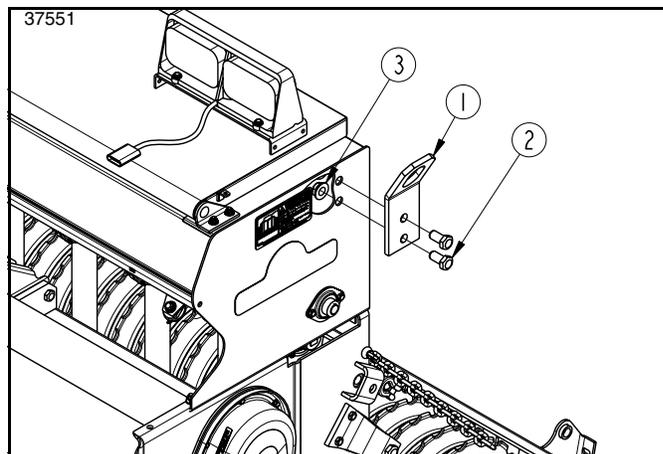
Section 1: Assembly & Set-up

Sling Brackets

Refer to Figure 1-1:

After the unit is uncrated, check to see if the sling brackets (#1) are installed, if not, install one on each end of unit now with 5/8"-11 x 1 1/4" GR5 bolts (#2), and hex flange locknuts (#3). The sling brackets allow points at each end to hook the chain for lifting of the unit.

NOTE: When hooking hoist chain to sling brackets, be certain to either use a spreader bar on the chain or use a long chain to prevent bending sling brackets.



Sling Bracket Installation
Figure 1-1

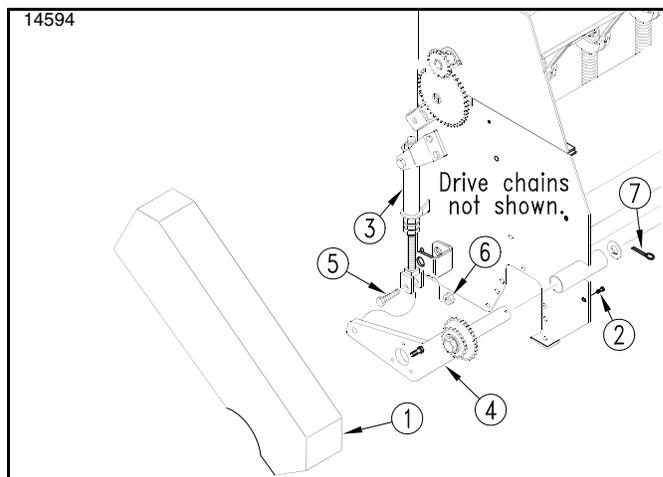
Quick Change Rotor

Use an overhead hoist for rotor installation. Attach chain, cable, or lifting strap to the two Overseeder sling brackets and raise Overseeder with the overhead hoist.

Refer to Figure 1-2:

Complete steps 1 to 4 if the Overseeder is equipped with gauge wheel drive. Skip to step 5 if gauge wheels are not included.

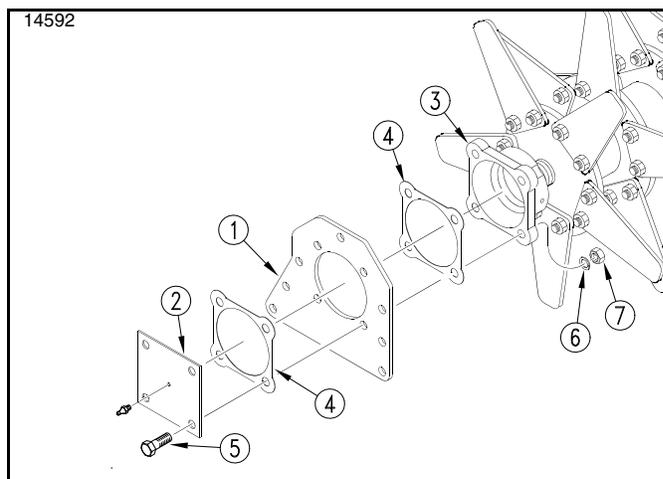
1. Remove chain cover (#1) on the right-hand side by removing 1/4" x 1/2" long bolts (#2).
2. Disconnect right-hand spring loaded gauge wheel link (#3) from right-hand gauge wheel arm (#4) by removing 5/8" x 2 1/2" bolt (#5) and 5/8" nut (#6).
3. Remove drive wheel chain.
4. Remove cotter pin (#7) that retains the right-hand gauge wheel arm and remove gauge wheel arm assembly. Be careful not to lose any components.



Gauge Wheel Drive Disassembly
Figure 1-2

Refer to Figure 1-3:

5. Remove right-hand bearing mount plate (#1) from Overseeder main frame.
6. Separate right-hand bearing cover (#2) from right-hand bearing mount plate (#1).
7. Between parts (#1 & #2) are two bearing mount gaskets (#4). Place one of these bearing mount gaskets between bearing mount (#3) and bearing mount plate (#1).
8. Then place the other bearing mount gasket between bearing mount plate (#1) and bearing cover (#2).
9. Retain these parts with 1/2" x 1 3/4" long bolts (#5), 1/2" lock washers (#6), and 1/2" hex nuts (#7). Hand tighten nuts at this time. Final torquing of these bolts will be later in the assembly process.
10. Check to make sure set screws in the hub inside the bearing mount (#3) are loose so it is free to rotate on the rotor shaft.



Bearing Mount Plate and Rotor Assembly (RH Side)
Figure 1-3

Section 1: Assembly & Set-up

Refer to Figure 1-4:

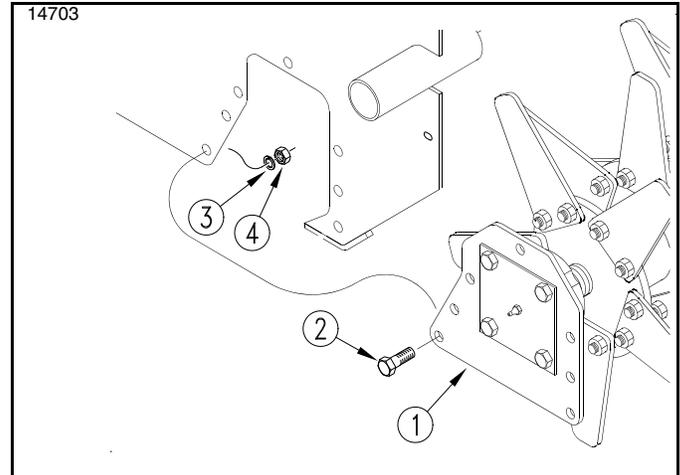
11. Lift Overseeder high enough to roll rotor into position under the Overseeder frame.
12. With rotor properly positioned, slowly lower Overseeder making sure the right-hand bearing mount plate (#1) is to the outside of the right-hand frame end panel.

Refer to Figure 1-5:

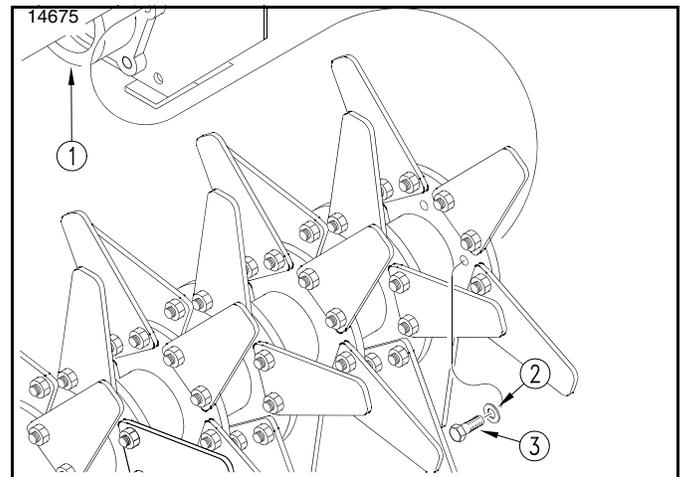
13. Connect rotor to rotor drive hub (#1) on the left-hand side using 7/16" x 1" long bolts (#3) and 7/16" lock washer (#2). Leave bolts loose.

Refer to Figure 1-4:

14. Connect right-hand bearing mount plate to the Overseeder main frame using 1/2" x 1 1/4" bolt (#2), 1/2" lock washer (#3), and 1/2" hex nut (#4). Draw nuts up snug, do not tighten.
15. Torque bolts to the proper specifications, see "**Torque Values Chart**" on page 66. Tighten bolts in the following order:
 - a. Rotor to rotor drive hub.
 - b. Bearing mount plate to Overseeder main frame.
 - c. Bearing cover through bearing mount plate to bearing mount.
16. Position hub inside bearing mount against bearing seal and tighten set screws.
17. Add grease to right-hand bearing by using grease zerk located on the right-hand bearing cover.
18. Reassemble gauge wheel and drive chains. Reattach chain guard.



Rotor to Overseeder Assembly (RH Side)
Figure 1-4



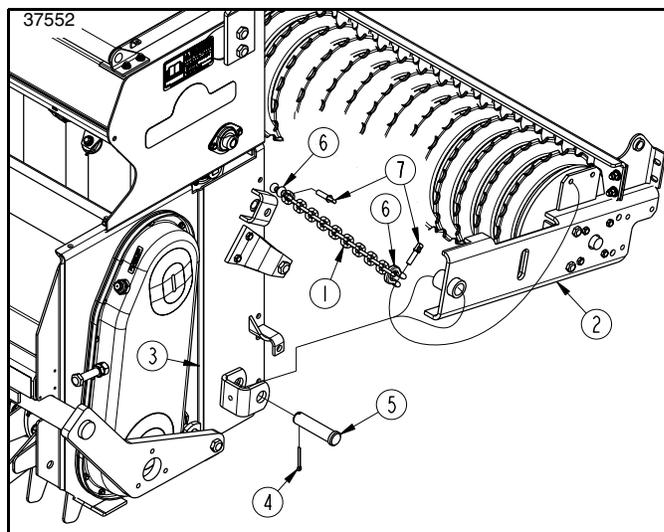
Rotor to Overseeder Installation-Left-hand Side
Figure 1-5

Section 1: Assembly & Set-up

Rear Roller Assembly

Refer to Figure 1-6:

1. Attach packer wheel assembly (#2) to Overseeder frame using 1" x 3 11/16" long clevis pins (#5), flat washers (#3), and 3/16" x 1 3/4" cotter pins (#4).
2. If Overseeder has a rear roller drive, skip to "Rear Roller Drive (Optional)" below.
3. Attach support chains (#1) to Overseeder frame and to packer wheel arms using 5/16" utility clevises (#6) and clevis pins (#7). Tighten clevis pins.



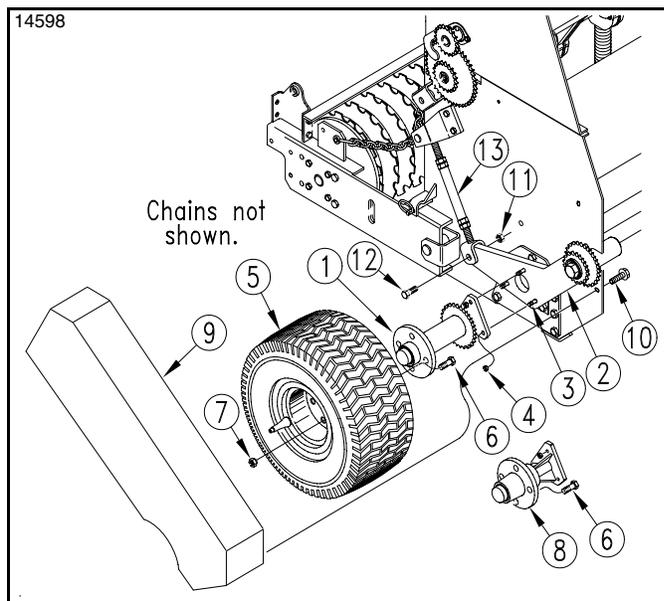
Rear Roller Installation
Figure 1-6

Gauge Wheel Drive (Optional)

Refer to Figure 1-7:

1. Remove locknut (#11) and bolt (#12). Rotate gauge wheel arm (#2) down.
2. Bolt drive spindle and hub (#1) to gauge wheel arm (#2) with 5/16" x 1 1/2" bolts (#3) and 5/16" locknuts (#4).
3. Rotate gauge wheel arm (#2) up and bolt to turnbuckle (#13) with removed bolt (#12) and locknut (#11). Draw locknut up snug, do not tighten.
4. Attach wheel (#5) to hub (#1) with 1/2" x 1 3/8" lug bolts (#6) and lug nuts (#7). Repeat steps 1 to 3 for the left-hand side, except use non-drive spindle and hub (#8) with bolts (#6).

IMPORTANT: Roller chains must be installed on the seeder at the correct gear ratio. Refer to "Speed Change Sprocket" starting on page 28 to determine correct chain installation.



Gauge Wheel Drive Assembly
Figure 1-7

5. Bolt chain guard (#9) to the right-hand frame end plate using 1/4" x 1/2" long bolts (#10).

Section 1: Assembly & Set-up

Rear Roller Drive (Optional)

Refer to Figure 1-8:

1. Attach solid links (#1) to back of frame with 5/8" x 2 3/4" long bolts (#2) on top and 5/8" x 1 3/4" bolts (#4) on the bottom.

IMPORTANT: Roller chains must be installed on the seeder at the correct gear ratio. Refer to “**Speed Change Sprocket**” starting on page 28 to determine correct chain installation.

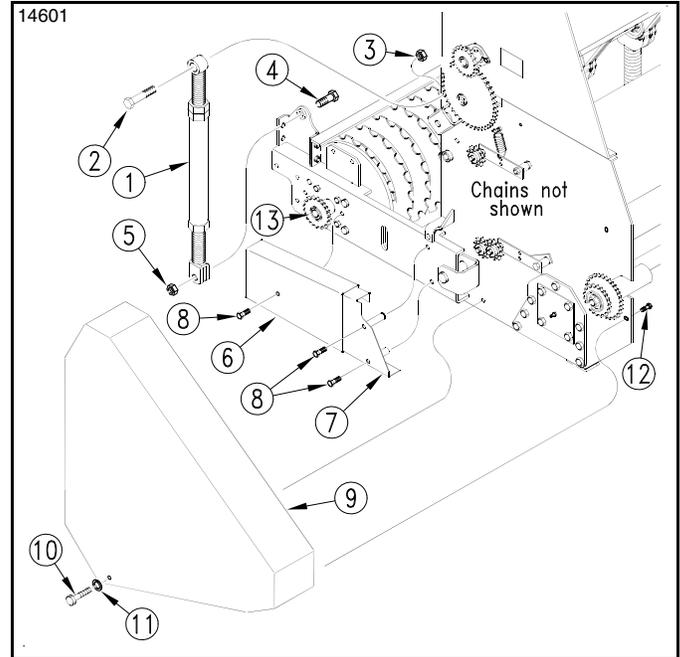
2. Bolt chain guard (#9) to end plate using 5/16" x 6" bolt (#10), 5/16" lock washer (#11), and 1/4" x 1/2" bolts (#12).

NOTE: See “**Rear Arm Length Adjustment**” on page 38 for definition of long arm and short arm.

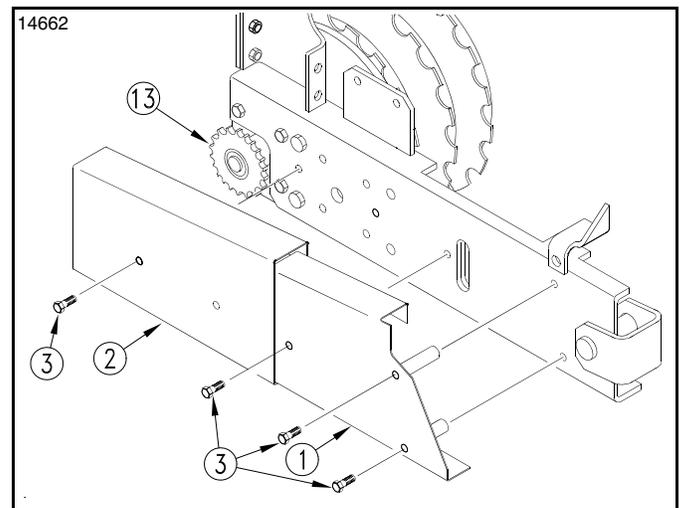
3. If rear roller (#13) is in the short arm position as shown, attach front chain guard (#7) and rear chain guard (#6) with 5/16" x 2 1/2" bolts (#8) in the locations shown.

Refer to Figure 1-9:

4. If rear roller (#13) is in the long arm position, attach front chain guard (#1) and rear chain guard (#2) with 5/16" x 2 1/2" bolts (#3) as shown below.

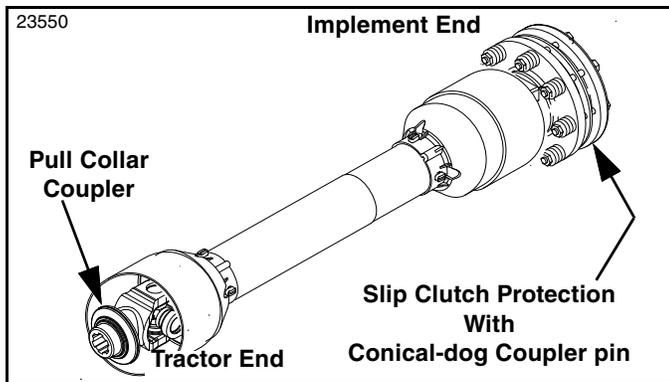


Rear Roller Drive Assembly with Short Arm
Figure 1-8



Long Arm Chain Guard Location
Figure 1-9

Section 1: Assembly & Set-up



Slip Clutch Protection With Conical-dog Coupler Pin
Figure 1-10

Driveline Installation

Refer to Figure 1-10:

The driveline is coupled to the gearbox input shaft with a conical-dog pin. A slip clutch is provided for protection from shock loads.

IMPORTANT: The driveline must be lubricated before putting it into service. Refer to “**Lubrication Points**” on page 56.

Refer to Figure 1-12:

1. Remove gearbox input shaft protection cover located above the gearbox.
2. Remove existing nut, flat washer, and conical-dog pin from slip-clutch yoke (#8).
3. Slide splined end of slip clutch coupler (#8) onto the gearbox input shaft. Make certain that the slip-clutch yoke is fully onto the shaft splines.
4. Attach slip-clutch yoke to the gearbox input shaft with removed conical-dog pin, flat washer, and nut. Tighten nut to the correct torque.
5. Push/pull on slip-clutch yoke to ensure it is securely fastened to the gearbox input shaft.
6. Secure gearbox protection cover to the 3-point hitch frame with removed wing nuts. Tighten wing nuts.
7. Collapse driveline (#7) by pushing the tractor end (#9) toward the implement's gearbox.
8. Continue with “**Tractor Hook-up**” on page 18.

Tractor Hook-up

Refer to Figure 1-12 on page 19:

DANGER

To avoid serious injury or death:

A crushing hazard exists while connecting and disconnecting 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:

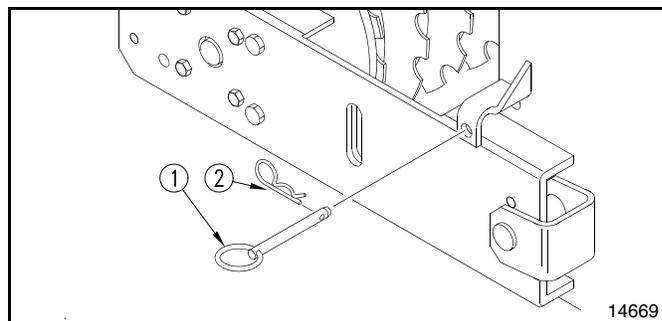
Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control.

Consult your tractor Operator's Manual to determine weight requirements and maximum limitations.

NOTE: Land Pride's Quick Hitch can be attached to the tractor to provide quick and easy 3-point hook-up and detachment. See your nearest Land Pride dealer to purchase a Quick-Hitch.

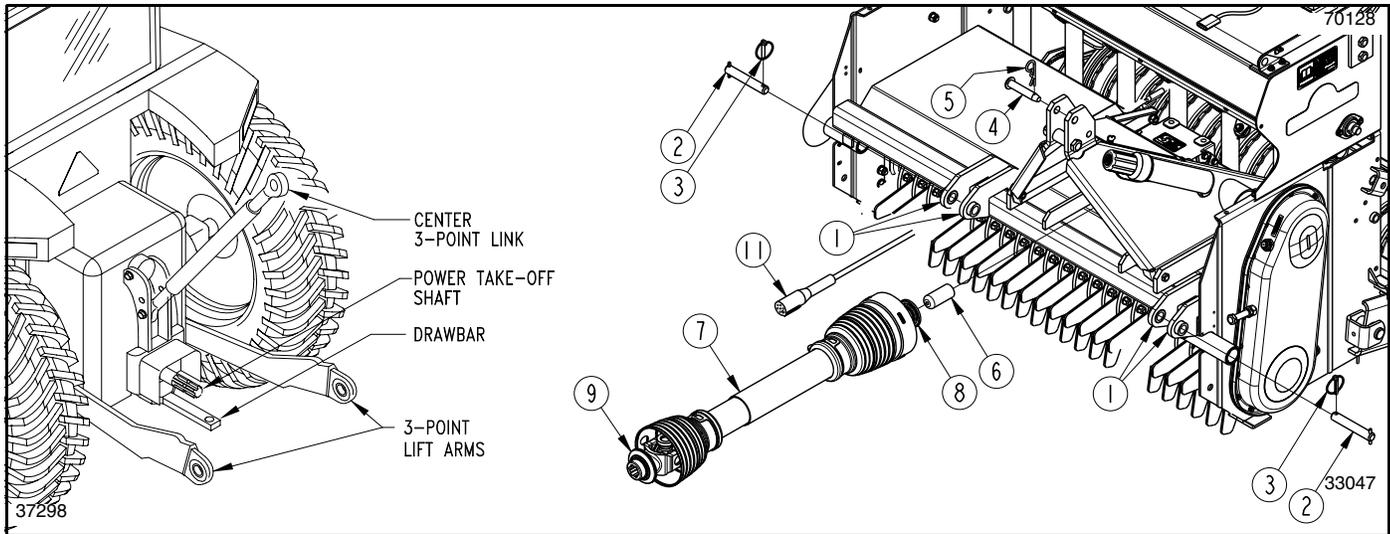
When using tractors with multi-speed power take-off, be certain power take-off is set for 540 rpm.

1. Slowly back tractor up to the Overseeder while using the tractor's hydraulic control lever to align the tractor's lower hitch holes with the seeder's lower clevis lug holes (#1).
2. Shut tractor down properly before dismounting. Refer to “**Tractor Shutdown Procedure**” on this page.
3. Attach tractor's lower 3-point lift arms to the seeder's lower hitch clevises (#1) using 7/8" diameter hitch pins (#2). Secure hitch pins with linchpins (#3).
4. Attach tractor's top center link to the seeder's top center hitch lug holes using 3/4" hitch pin (#4) and hitch pin keeper (#5). Hitch pin (#4) and keeper (#5) are customer supplied.
5. Ensure that the lower hitch arms are blocked to prevent excessive side movement.
6. Return to tractor and slowly operate controls up and down to make sure seeder clears tractor tires, frame, and drawbar. Move or remove drawbar if it interferes.
7. Manually adjust one of the tractor's lower lift arms up or down to level the seeder from left to right.
8. Shut tractor down according to “**Tractor Shutdown Procedure**” on page 13 before dismounting.
9. With the seeder resting on level ground, manually adjust tractor's top link until the seeder is level from front to rear.
10. **Refer to Figure 1-11:** Remove rear roller stop pin (#1) and hairpin cotter (#2) out of parking position.



Rear Roller Stop Pin in Parking Position
Figure 1-11

Section 1: Assembly & Set-up



Tractor Hook-Up
Figure 1-12

Driveline Hook-up

Refer to Figure 1-12 & Figure 1-10:

! 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 connecting or disconnecting 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.
- 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.
- 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.

IMPORTANT: An additional driveline may be required if implement will be attached to more than one tractor.

IMPORTANT: Drivelines with friction clutches must go through a "run-in" prior to initial use and after long periods of inactivity. For detailed instructions, see "Drivelines With Slip Clutches" on page 53.

IMPORTANT: Check driveline minimum collapsible length before completing "Driveline Hook-up". Structural damage to the tractor and implement can occur if this check is not made. Refer to "Check Driveline Collapsible Length" on page 21.

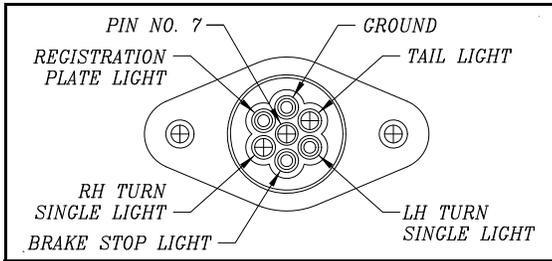
1. If driveline collapsible length has not been checked, go to "Check Driveline Collapsible Length" on page 21. Otherwise, continue with step 2 below.
2. Park tractor and implement on a level surface.
3. Shut tractor down before dismounting. Refer to "Tractor Shutdown Procedure" on page 13.
4. If tractor drawbar interferes with the driveline during hook-up, disconnect driveline and move drawbar forward, to the side, or remove.
5. Collapse driveline (#5) by pushing tractor end of driveline toward the implement's gearbox.
6. Pull back on driveline pull collar (#7) and push yoke onto the tractor power take-off shaft. Release pull collar and continue to push driveline yoke forward until pull collar pops out and locks in place.
7. Pull on driveline yokes at the tractor and implement end to make sure they are secured to the tractor power take-off shaft and implement's gearbox shaft.
8. The tractor's lower 3-point arms should be adjusted for lateral float. Please consult your tractor's manual.
9. Continue with "Hook-up LED Lights" on page 20.

Section 1: Assembly & Set-up

Hook-up LED Lights

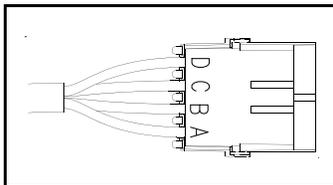
Refer to Figure 1-12 on page 19:

The lead wiring harness (#11) is equipped with a 7-way round pin connector for connecting to the tractor's 7-pin electrical outlet shown in Figure 1-13.



Tractor 7-Pin Electrical Outlet
Figure 1-13

1. Route lead wire harness (#11) to the tractor.
2. Connect wire harness (#11) to the tractor's 7-way round pin receiver. See Figure 1-13.
3. It is best to have a second person verify the lights are operating. Start tractor and operate lights as follows:
 - a. Turn on head lights to verify red lights illuminate.
 - b. Turn on flasher lights to verify amber light are blinking on and off.



Electrical Connector Pin Letters
Figure 1-14

4. **Refer to Figure 1-14:** If lights did not operate properly, check all electrical connections on the wire harness. Yellow and red wires with same pin letters should match at the connections. Make necessary changes and repeat step 3 above.
5. Check wire harness routing to make sure wires will not be pinched while raising and lowering the seeder.
6. Continue with "**Check Driveline Interference**" below.

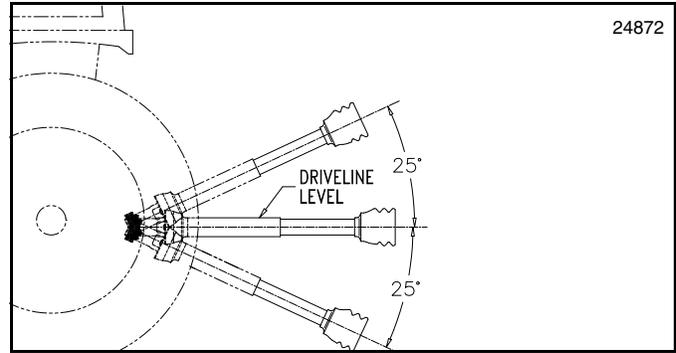
Check Driveline Interference

Refer to Figure 1-15:

WARNING

To avoid serious injury or death:

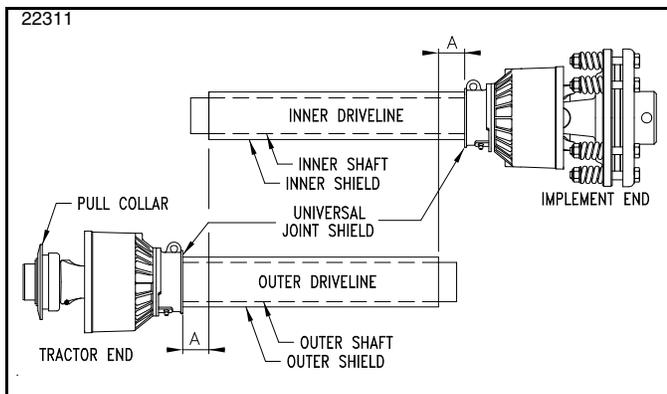
Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control. Consult your tractor Operator's Manual to determine weight requirements and maximum limitations.



Maximum Driveline Movement During Operation
Figure 1-15

1. Start tractor and raise seeder up just enough to remove support blocks.
2. Without changing 3-point lift height, shutdown tractor properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 13.
3. Remove support blocks.
4. Return to the tractor seat and start tractor. Slowly engage 3-point control lever to lower the implement while checking for sufficient drawbar clearance.
5. Skip to step #7 if drawbar does not need adjusting. If adjustment is required, shutdown tractor properly before dismounting. Move drawbar ahead, aside, or remove if needed.
6. Return to the tractor seat and start tractor.
7. Raise and lower implement to find maximum extended driveline length.
8. Without changing 3-point lift height, shutdown tractor properly before dismounting to check driveline maximum length and angle.
9. Block implement up before checking driveline length and angle.
10. Check driveline length to make certain it does not exceed the maximum allowable length recorded in step 2 under "**Check Driveline Maximum Length**" on page 22.
11. Check driveline angle to verify it does not exceed the maximum angle of 25° up or down.
12. If needed, repeat steps 6-8 except this time find the maximum height the 3-point lift can be operated at without exceeding driveline maximum length and angle.
13. Set tractor 3-point lift limiter at the height that will keep the driveline within the maximum allowable length and maximum 25° angle.

Section 1: Assembly & Set-up



Check Driveline Minimum Length
Figure 1-16

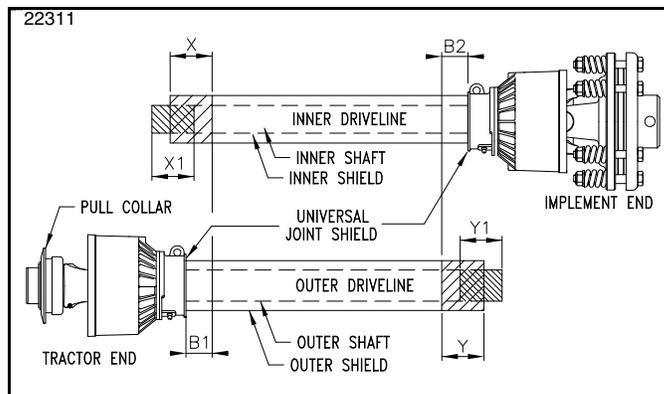
Check Driveline Collapsible Length

Refer to Figure 1-16:

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 power take-off shaft and gearbox input shaft must be aligned and level with each other when checking driveline minimum length. A driveline that is too long can damage tractor and implement.

1. With driveline attached only to the 3-point implement, remove outer driveline (tractor end) from inner driveline to separate the two profiles.
2. Park tractor and implement on a level surface.
3. Raise implement until gearbox input shaft is level with tractor power take-off shaft. Securely block implement at this height to keep unit from lowering.
4. Shut tractor down without removing support blocks. Refer to **“Tractor Shutdown Procedure”** on page 13.
5. Attach outer driveline to the tractor’s power take-off shaft. Refer to steps 2-7 under **“Driveline Hook-up”** on page 19.
6. Hold inner and outer drivelines parallel to each other. If dimension “A” is greater than or equal to 1" (2.5 cm), then skip to **“Check Driveline Maximum Length”** on page 22. Otherwise continue with step 7.

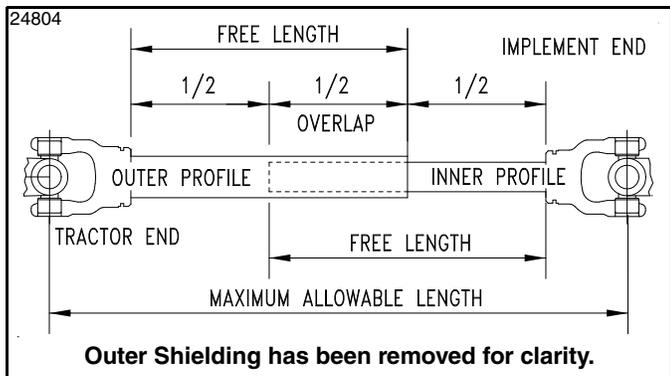


Driveline Shortening
Figure 1-17

Refer to Figure 1-17:

7. If dimension “A” in step 6 was less than 1" (2.5 cm), 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.
8. Remove outer driveline from the tractor power take-off shaft and inner driveline from the implement’s gearbox shaft.
9. 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).
10. 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).
11. Remove all burrs and cuttings.
12. Continue with **“Check Driveline Maximum Length”** on page 22.

Section 1: Assembly & Set-up



Driveline Maximum Extended Length

Figure 1-18

Check Driveline Maximum Length

Refer to Figure 1-18:

The driveline maximum allowable length must, when fully extended, have a minimum overlap of profile tubes by not less than 1/2 the free length with both inner and outer profile tubes being of equal length.

1. Apply multi-purpose grease to the inside of the outer shaft and reassemble the driveline.
2. Assemble the two driveline profiles together with just 1/2 overlapping of the profile tubes as shown. Once assembled, measure and record maximum allowable length here. _____
3. Reattach driveline to the tractor power take-off shaft and gearbox input shaft. Refer to “**Driveline Installation**” on page 18 and “**Driveline Hook-up**” on page 19.
4. Continue with “**Driveline Hook-up**” on page 19.



Section 2: Operating Instructions

Operating Checklist

Hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training involved in the operation, transport, storage, and maintenance of the seeder. Therefore, it is absolutely essential that no one operates the Overseeder without first having read, fully understood, and become totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, page 1
- **Section 1: Assembly & Set-up**, page 13
- **Section 2: Operating Instructions**, page 23
- **Section 3: Adjustments**, page 28
- **Section 4: Maintenance & Lubrication**, page 49

The following information should be known and inspections made before operating your seeder.

Operating Checklist

✓	Check	Page No.
	Read and follow all safety rules and alerts carefully. Refer to "Important Safety Information".	Page 1
	Make sure all guards and shields are in place. Refer to "Important Safety Information".	Page 1
	Read and follow all operating procedures. Refer to "Section 2: Operating Instructions".	Page 23
	Read and make all required adjustments. Refer to "Section 3: Adjustments".	Page 28
	Read and follow all maintenance instructions. Refer to "Section 4: Maintenance & Lubrication".	Page 49
	Read and follow all lubrication instructions. Refer to "Lubrication Points".	Page 56
	Make sure all gearboxes are properly lubricated. Refer to Gearbox Lubrication.	Page 59
	Check tire pressure. See to "Tire Inflation Chart"	Page 66
	Inspect seed cups and seed tubes for foreign matter.	Page 30
	Set speed change sprocket for drive type desired.	Page 28
	Set seed rate. See "Seed Rate Charts".	Page 32
	Check seeder initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	Page 66

Safety Information

DANGER

To avoid serious injury or death:

- All guards and shields must be installed and in good working condition. Loose clothing caught on rotating components can pull a person into the machinery. Hands and other body extremities can become entangled in the machinery.
- Do not use rollers or tires as a step. They can move suddenly causing a falling hazard against metal protruding objects even when they appear to be solid against the ground.

- Do not let children play on or around the equipment including when stored. Children and/or equipment can fall.
- Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to the hydraulics is off.
- Do not engage power take-off while connecting or disconnecting the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.
- Keep yourself and all others away from rotating components and drivetrain. Always disengage power take-off and lockout power source before making adjustments or servicing the implement. A person's body, hair, or clothing can become entangled in rotating components causing serious bodily injury or death.
- 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 be aware of your footing and surroundings when working on or around the Seeder. Something as simple as a misstep can cause a person to fall and get seriously injured.
- Perform scheduled maintenance. Check for loose hardware, missing parts, broken parts, structural cracks, and excessive wear. Make repairs before putting the equipment back into service.
- Never carry riders on the equipment or power machine. 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.
- Make sure safety labels are in their proper location and are in good condition before operating the attached equipment. Read and obey all instructions on the labels.
- Allow only persons to operate this equipment who have fully read and comprehended this manual, and who have been properly trained in the safe operation of this attachment. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.
- Make sure controls are all in neutral position or park before starting the power machine.
- Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.
- Avoid hitting solid objects with this attachment. Solid objects can damage equipment and throw the operator forward causing loss of control, bodily injury, or death.



Section 2: Operating Instructions

- Dress properly for the job. Do not wear loose fitting clothing or clothing with pull strings. Keep long hair tucked in. Clothing and hair can become entangled in rotating components. Wear footwear that will improve footing on slippery surfaces.
- Keep body, body extremities, loose clothing, pull strings, etc. away from pinch points such as rotating, extending, and/or retracting components. Secure pinch point areas to ensure they will not move before working on or near them.
- Do not use this equipment to lift, carry, push or tow other equipment and objects. It is not properly designed or guarded for this use.
- Avoid exposure to dust containing crystalline silica particles. This dust can cause serious injury to the lungs (silicosis). 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.
- Operate only power machines equipped with a certified Roll-Over Protective Structure (ROPS) and seat belt. Keep folding ROPS in the “locked up” position when appropriate. 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.
- Do not alter equipment or replace parts 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 equipment. Replace parts only with genuine OEM parts.
- 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.
- 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.
- 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.

IMPORTANT: Make sure all safety labels are in their proper location and in good condition before operation. Follow all directions on the safety labels.

Transporting

WARNING

To avoid serious injury or death:

- 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.
- When traveling on public roads, use hazard lights, slow moving vehicle sign, clean reflectors, and other adequate devices to warn operators in other vehicles of your presence. If implement blocks visibility of slow moving vehicle sign, relocate sign so it is visible from the back at all times. Always comply with all federal, state, and local laws.
- Reduce ground speed when turning and leave enough clearance to avoid making contact with obstacles such as buildings, trees, fences, etc.
- Slow down when traveling over rough or hilly terrain. If needed, shift to a lower gear to maintain engine rpm.
- Slow down when traveling over rough or hilly terrain that can cause equipment to bounce, or to hit obstacles that are close by. Either situation can cause damage and/or the operator to lose control.

Refer to Figure 2-2 on page 25:

IMPORTANT: The slow moving vehicle sign should not be used when transporting equipment on a truck or trailer exceeding speeds of 25 mph. Cover or remove the slow moving vehicle sign when hauling the Overseeder.

1. Relocate slow moving vehicle Safety sign from back of your tractor to the slow moving vehicle mounting bracket (#6) on the back of the seeder. If needed, a slow moving vehicle sign can be purchased from your nearest Land Pride dealer. Refer to “**Slow Moving Vehicle Sign**” on page 61.
2. This seeder can be transported with a full box of seed, however; it is best not to do this unless necessary because the increased weight does increase the chances for problems on the road.
3. Select a safe ground travel speed when transporting from one area to another. Do not exceed 20 miles per hour travel speed.
4. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
5. Reduce tractor ground speed when turning. Leave enough clearance so the seeder does not contact obstacles such as buildings, trees, or fences.
6. Shift tractor to a lower gear when traveling over rough or hilly terrain.

Section 2: Operating Instructions

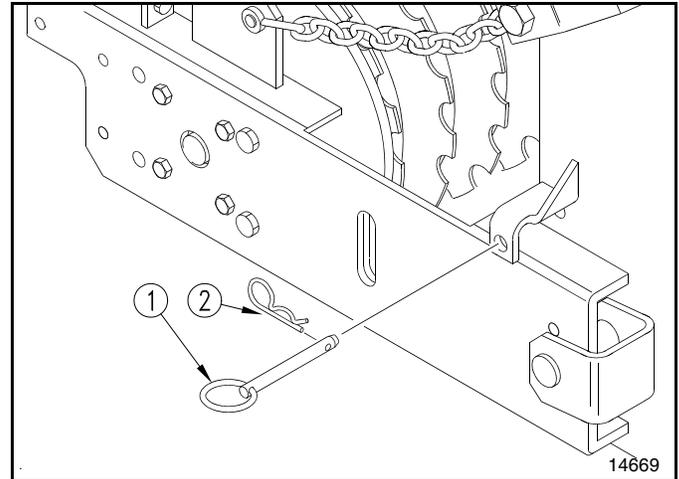
Fill Seedbox

CAUTION

To avoid minor or moderate injury:

Always lower the Overseeder to the ground to check seed level in the seedbox and before filling the seedbox. This will keep the rollers from turning while working around them.

1. Always lower the Overseeder to the ground, engage tractor park brake, shut tractor engine off, and remove key before filling the seedbox.
2. Release lid latch handle and open seedbox lid until over center latch arms have locked in place. Doing this will keep the lid from falling while filling the box.
3. Fill seedbox from the rear while standing on the ground. **Do not** step or climb on the rear roller to fill the seedbox. **Make sure** the rear roller is on the ground so it cannot turn while filling the box.
4. The bag opener (sharp point on top of baffle plate located inside the seedbox) can be used to tear open the seed bags.
5. Make certain the seedbox is filled uniformly to ensure one side dose not run out of product ahead of the other side.
6. Close lid by pulling on the handle of the over center latch arms with one hand while holding the lid up with the other hand. Lower lid gently while keeping hands and fingers clear.
7. Lock lid down with lid latch handle to keep moisture out.



Rear Roller Stop Pin in Park Position
Figure 2-1

Park Seeder

The following steps should be done when preparing to store the Overseeder or unhitching it from the tractor. See also *Storage* under the “**Maintenance and Lubrication**” section on page 55 for additional information on long term storage of your Overseeder.

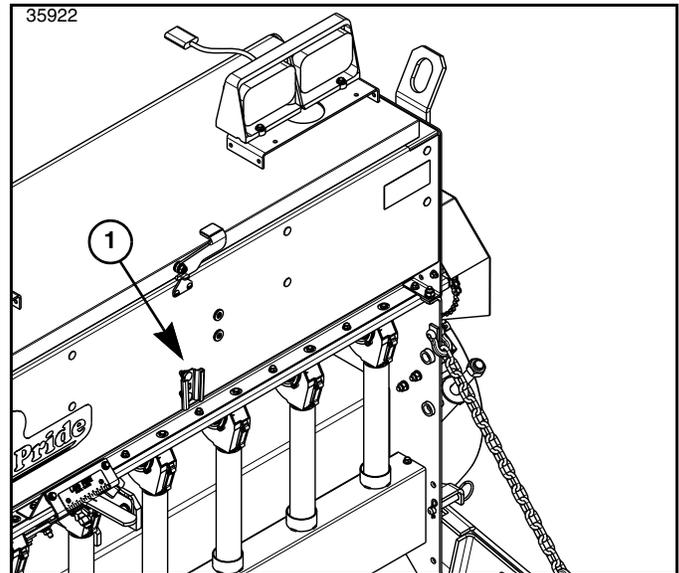
1. Park the Overseeder on a level, solid area.
2. Lower seeder to level ground or onto blocks supporting the seeder just above ground level.
3. Place gear selector in park or set park brake, Shut off tractor engine, and remove switch key.

Refer to Figure 2-1:

4. Place rear roller stop pin (#1) and hairpin cotter (#2) in parking position.
5. Chock front and back of wheels to keep unit from moving.
6. Unhook 3-point hitch from tractor. Reinstall hitch pins and linchpins in seeder hitch for storage.

Refer to Figure 2-2:

7. Remove slow moving vehicle sign from mounting bracket (#1) on the back of the Overseeder.
8. Reinsert slow moving vehicle Sign in the mounting bracket on the back of your tractor.



Receiver Socket for Slow Moving Vehicle Sign
Figure 2-2



Section 2: Operating Instructions

How the Seeder Works

The following is a brief description of how your Overseeder works.

The power to drive the seed cups comes from the gauge wheels or rear roller turning against the ground while traveling. Power is then transmitted through roller chains to the seed cups. Seed is metered out of the cups at a rate proportional to the distance driven. This ensures that the rate applied in pounds per 1000 square feet or pounds per acre remains constant as ground speed is varied.

Cup metering speed can be adjusted to either a high or low range by changing the speed change sprocket. Also, the rate seed falls through the seed cups is adjustable using the seed rate adjustment lever located at the back of the seeder.

Metered seed is broadcast onto the ground surface and into the slits made by the rotor knives. Seeds drop in front of the rear roller to allow the roller to firm the soil around the seeds.

General Notes for Field Operations

Before proceeding with the first time set-up or before making any adjustments mentioned in this section, make every effort to obtain and hitch a tractor to the Overseeder.

1. This Overseeder can be transported with a full box of seeds. It is best not to do this unless necessary because the increased weight does increase the chances for problems on the road.
2. Do not exceed 20 miles per hour when transporting.
3. Calibrate your seeder sprocket speed and seed cup rate adjustment lever based on type of seed you are using. Calibration information is located on the inside of your box lid or in the Seed Rate Charts starting on page 32.
4. Refer to Figure 3-8 on page 31. Make sure the feed cup door adjustment handle on each cup is set the same across the Overseeder. Usually in the highest position.
5. Never allow anyone to ride on the Overseeder.
6. Maximum seeding speed will vary according to soil conditions.
7. Check oil level in gearbox and chaincase.
8. Check that all plugs and caps have been replaced properly.
9. Be sure all Overseeder knives, bolts, and nuts are tight.
10. Be certain all guards and shields are in place and secure.
11. Grease power take-off shaft and all other grease fittings.
12. Clear the area to be over-seeded of rocks, branches, and other foreign objects.
13. Tall grass and weeds should be mowed before overseeding.
14. Operate with 540 rpm power take-off tractor.
15. At first begin overseeding at a slow forward speed and shift up until the desired speed is achieved.
16. Overseeder knives will cut better at a faster rotor speed than at reduced throttle.
17. Do not engage power take-off at full throttle.
18. Never back up with Overseeder in the ground.
19. Overseeding should not be done in wet conditions as soil will stick to the knives.
20. After overseeding the first 50 feet, stop and check to see that the Overseeder is adjusted properly.
21. Do not make sharp turns or attempt to back up while Overseeder is in the ground.
22. Do not engage power take-off with machine in the fully raised or fully lowered position.



Section 2: Operating Instructions

General Operating Instructions

Once you have read the operators manual, properly installed you Land Pride Overseeder to the tractors 3-point hitch, ran through the Operating Checklist, filled the hopper with seed, and calibrated the unit for proper seed rate delivery, it's time to do some serious seeding.

The power to run the horizontal rotor shaft, which is equipped with the vertically mounted slitter knives, is provide by the tractors 540 rpm power take-off. You should have already set the desired slitter depth by adjusting the height of the side-mounted gauge wheels or the front mounted anti-scalping roller, whichever one your unit is so equipped with. The only other means of achieving slitter depth control, if your unit is equipped with the rear drive roller only, is by maintaining the depth stop control on the draft-links of your tractors three-point hitch.

The OS1548 and OS1572 have ground driven seed delivery systems. The power to drive the seed metering system comes from the forward momentum of the tractor. As the tractor moves forward the ground driven rear roller compactor or side mounted gauge wheels transfer power via chain driven sprockets to the seed metering system so the seed rate remains constant and in direct proportion to the distance traveled and is affected very little by actual ground speed. The most accurate and productive seed rate applications will usually be achieved between three and 5 miles per hour. Seeding should not be attempted in wet or muddy conditions. Now that you understand how it works its time to begin seeding. You should already have removed any large stones or obstacles from the area you plan to seed. Line the tractor up for the first pass and choose a tractor gear selection that will deliver a ground speed of approximately 3-5mph. Lower the three-point hitch and seeder slowly to a point approximately six inches off of the ground. Raise the tractor rpm slightly and engage power take-off. Raise power take-off speed to 540 rpm and begin driving forward slowly at first until you get comfortable with what you are doing. As you approach the end of the lane you are seeding slow down and come to a stop. Raise the Overseeder off of the ground approximately six inches. With Overseeder raised, line up for your next pass and repeat the process. Look back often and avoid making very sharp turns with your Overseeder on the ground if you expect to develop a uniform seeding pattern. The more experienced you become the better you will get at developing beautiful seed plots and beautiful lawns.

Always clean the seeder out and perform all maintenance prescribed in the Operator's Manual at the end of each planting. Never leave seed stored in the hopper or seed cups for prolonged periods.

Section 3: Adjustments

Speed Change Sprocket

The Overseeder is designed with two drive speeds to accommodate different seed sizes and dispersal rates. They are high range (fast speed) and low range (slow speed). Use seed charts beginning on page 32 to determine which range is correct for the seed you are dispersing. Some seeds work with both ranges.

High Range Set-up With Gauge Wheel Drive

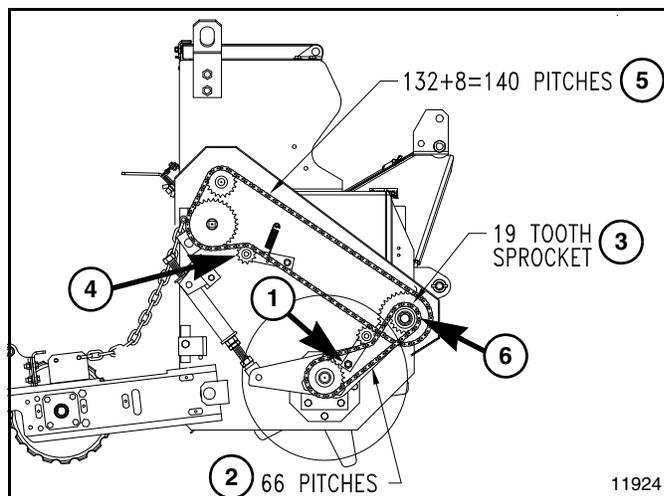
Instructions below change seeder from low to high range.

Refer to Figure 3-2 & Figure 3-3:

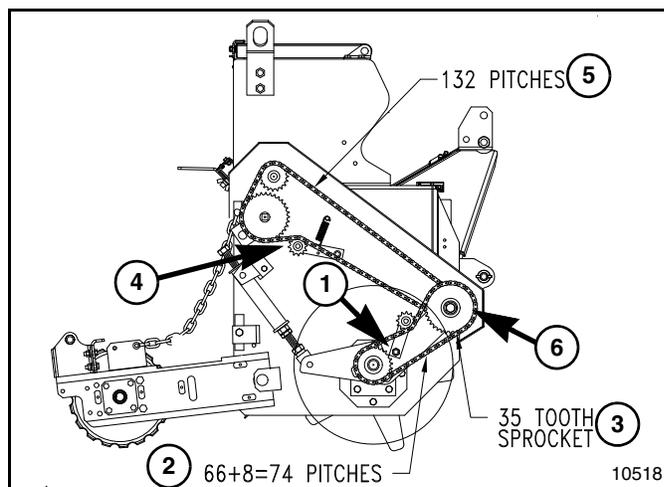
1. Loosen flange locknut (#1) and remove drive chain (#2) from speed change sprocket (#3).
2. Pull down on spring idler sprocket (#4) and remove driven chain (#5) from speed change sprocket (#3).
3. Being careful not to lose the washer behind the 19/35 tooth sprocket (#3), remove 5/8" bolt, lock washer, and flat washer (#6).

Refer to Figure 3-1 & Figure 3-3:

4. Make certain existing washer is still on the idler shaft. Install 19/35 tooth sprocket (#3) with 19 tooth sprocket in front of 35 tooth sprocket. Secure speed change sprocket with flat washer, lock washer, and 5/8" bolt (#6). Tighten bolt to correct torque.
5. Drive chain (#2) should be 66 pitches long and driven chain (#5) should be 140 pitches long. If drive chain has 74 pitches, remove 8 pitches from it and add those 8 pitches to the driven chain.
6. Replace 140 pitch driven chain (#5) first and then the 66 pitch drive chain (#2). Make sure the spring idler sprocket (#4) is pressing against driven chain (#5).
7. Retention drive chain (#2) by pressing down on its idler sprocket. When tensioned properly, tighten 1/2" flange locknut (#1) to maintain that tension.



High Range Set-up with Gauge Wheel Drive
Figure 3-1



Low Range Set-up with Gauge Wheel Drive
Figure 3-2

Low Range Set-up With Gauge Wheel Drive

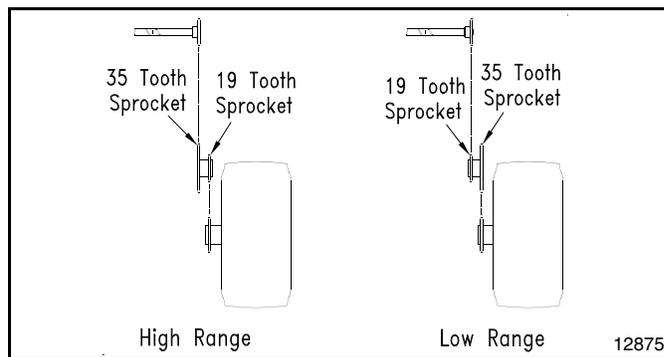
Instructions below change seeder from high to low range.

Refer to Figure 3-1 & Figure 3-3:

1. Loosen flange locknut (#1) and remove drive chain (#2) from speed change sprocket (#3).
2. Pull down on spring idler sprocket (#4) and remove driven chain (#5) from speed change sprocket (#3).
3. Being careful not to lose the washer behind the 19/35 tooth sprocket (#3), remove 5/8" bolt, lock washer, and flat washer (#6).

Refer to Figure 3-2 & Figure 3-3:

4. Make certain existing washer is still on the idler shaft. Install 19/35 tooth sprocket (#3) with 35 tooth sprocket in front of 19 tooth sprocket. Secure speed change sprocket with flat washer, lock washer, and 5/8" bolt (#6). Tighten bolt to correct torque.
5. Drive chain (#2) should be 74 pitches long and driven chain (#5) should be 132 pitches long. If driven chain has 140 pitches, remove 8 pitches from it and add those 8 pitches to the drive chain.



Sprocket Alignment with Gauge Wheel Drive
Figure 3-3

6. Replace 132 pitch driven chain (#5) first and then the 74 pitch drive chain (#2). Make sure the spring idler sprocket (#4) is pressing against driven chain (#5).
7. Retention drive chain (#2) by pressing down on its idler sprocket. When tensioned properly, tighten 1/2" flange locknut (#1) to maintain that tension.

Section 3: Adjustments

High Range Set-up With Rear Roller Drive

Instructions below change seeder from low to high range.

Refer to Figure 3-5 & Figure 3-6:

1. Pull down on spring idler sprocket (#1) and remove drive chain (#2) from speed change sprocket (#3).
2. Pull down on spring idler sprocket (#4) and remove driven chain (#5) from speed change sprocket (#3).
3. Being careful not to lose the washer behind the 19/35 tooth sprocket (#3), remove 5/8" bolt, lock washer, and flat washer (#6).

Refer to Figure 3-4 & Figure 3-6:

4. Make certain existing washer is still on the idler shaft. Install 19/35 tooth sprocket (#3) with 19 tooth sprocket in front of 35 tooth sprocket. Secure speed change sprocket with flat washer, lock washer, and 5/8" bolt (#6). Tighten bolt to correct torque.

NOTE: Refer to "Rear Arm Length Adjustment" on page 38 for definition of long arm and short arm.

5. Driven chain (#5) should be 140 pitches long. If it is short, remove 8 pitches from the drive chain (#2) and add those 8 pitches to the driven chain.
6. Replace 140 pitch driven chain (#5) first and then the 174 or 194 pitch drive chain (#2).
7. Make sure spring tensioned idler sprockets (#1 & #4) are pressing against the drive and driven chains.

Low Range Set-up With Rear Roller Drive

Instructions below change seeder from high to low range.

Refer to Figure 3-4 & Figure 3-6:

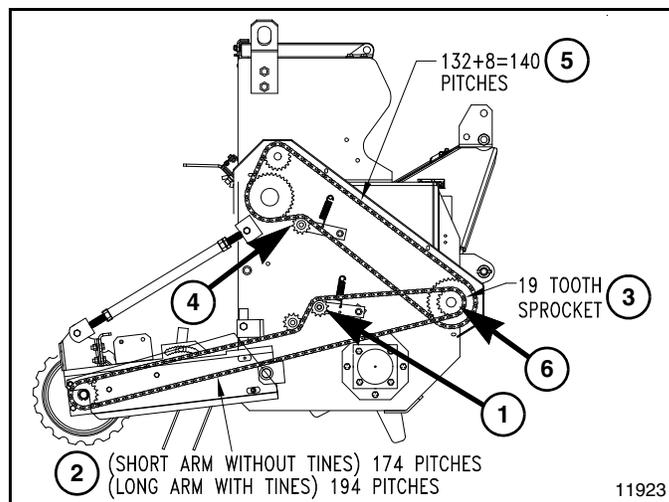
1. Pull down on spring idler sprocket (#1) and remove drive chain (#2) from speed change sprocket (#3).
2. Pull down on spring idler sprocket (#4) and remove driven chain (#5) from speed change sprocket (#3).
3. Being careful not to lose the washer behind the 19/35 tooth sprocket (#3), remove 5/8" bolt, lock washer, and flat washer (#6).

Refer to Figure 3-5 & Figure 3-6:

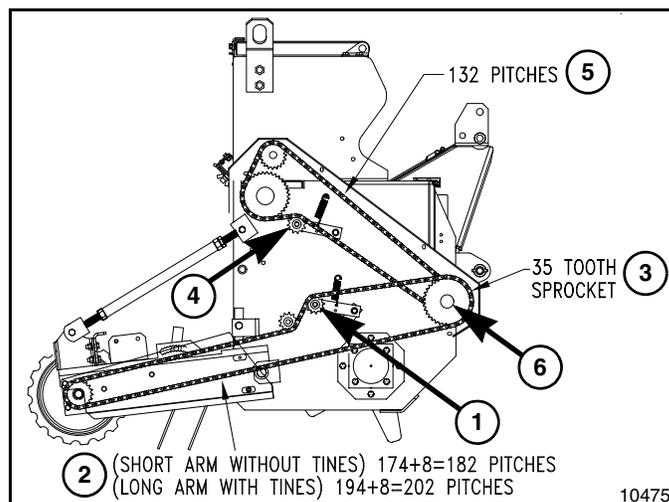
4. Make certain existing washer is still on the idler shaft. Install 19/35 tooth sprocket (#3) with 35 tooth sprocket in front of 19 tooth sprocket. Secure speed change sprocket with flat washer, lock washer, and 5/8" bolt (#6). Tighten bolt to correct torque.

NOTE: Refer to "Rear Arm Length Adjustment" on page 38 for definition of long arm and short arm.

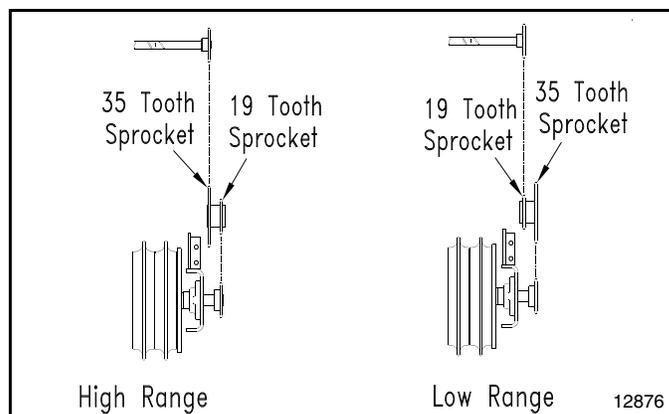
5. Driven chain (#5) should be 132 pitches long. If it is longer, remove 8 pitches from it and add those 8 pitches to the driven chain (#2).
6. Replace 132 pitch driven chain (#5) first and then the 182 or 202 pitch drive chain (#2).
7. Make sure spring tensioned idler sprockets (#1 & #4) are pressing against the drive and driven chains.



High Range Set-up with Rear Roller Drive
Figure 3-4



Low Range Set-up with Rear Roller Drive
Figure 3-5



Sprocket Alignment with Rear Roller Drive
Figure 3-6

Section 3: Adjustments

Seed Cup Settings

Refer to Figure 3-7:

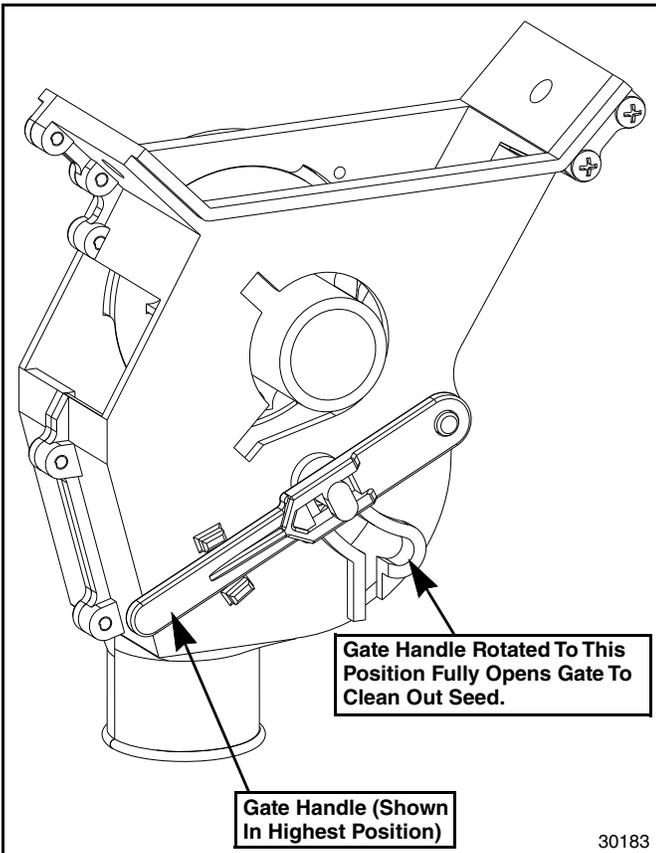
Each seed cup is equipped with a four-position gate. The highest gate handle position shown is for small seeds, the second and third positions are for larger seeds. The fourth position (Handle rotated fully down below the bottom tab) sets the gate at wide open to allow complete clean-out of seed cup.

Seed rate charts are based on the gate handle being set in the highest position. Typically, most seeds will use the highest gate handle position. If using larger seed and it is not discharging properly, you can try using the other two gate handle positions.

IMPORTANT: Most applications for this seeder require the gate handle be placed in the highest position.

MAKE SURE all gate handles are in the same position before seeding.

Do Not set gate handles in the fourth position and seed rate adjustment lever to the widest open position (See Figure 3-8 on page 31) with seed in the box unless complete clean out is desired.



Seed Cup Settings
Figure 3-7

Calibrate Main Seedbox Seed Rate

See page 42 for instructions on how to calibrate the Small Seeds Seedbox.

IMPORTANT: Seed rates provided in the charts may be inconsistent with actual planting rates due to seed size, weight, treatment, moisture content, surface condition, ratio of inert material to seed, different seed mixtures, humidity, tire size, tire pressure, tire configuration, tire or rear roller slippage, and ground preparation. Minor adjustments may be needed to compensate.

NOTE: To determine seed rates for seeds not listed in the charts, compare weight and size to those listed and use a similar setting. Follow steps 1-3 to calibrate seed rate.

1. Use main seedbox seed rate charts beginning on page 32 to determine seed rate and drive range:
 - a. Decide which drive range is required (low or high range). If necessary, change speed change sprocket to accommodate correct speed range. See **“Speed Change Sprocket”** on page 28.
 - b. **Refer to Figure 3-8 on page 31:** Move seed rate adjustment lever to cup setting number obtained from the seed rate charts. For best results, first move adjustment lever all the way to the left and then to the desired setting.
 - Increase setting if seed is lighter than average.
 - Decrease setting if seed is heavier than average.
2. Complete the following procedure to calibrate dispersal rate for your specific seed.
 - a. Place several pounds of seed over three of the seed cups at the outboard end of the seeder. **Do not** allow any of the seed to reach other cups.
 - b. Pull the seed tubes out of these three drops.
 - c. Support drive unit off the ground as follows:
 - **Gauge wheel drive units:** Raise and support drive tire (right tire) off the ground using a jack.
 - **Rear roller drive units:** Raise and support rear roller off the ground using a jack.

NOTE: Rotate tire/rear roller by grasping the tire/roller at the bottom and pulling away from the front of the seeder and pushing toward the front of the seeder at the top of the tire/rear roller.

- d. Rotate tire or rear roller to make sure drive system is working properly and that the feed cups are free from foreign matter.
- e. Place a container under the three seed tubes to gather seed as it is metered.
- f. Make sure the three seed cups have plenty of seed falling into them.

Section 3: Adjustments

Model No	Number of Rear Roller Rotations For:			
	1/10 Acre	1000 Sq. Ft.	1/20 Hectare	100 Sq. M
OS1548	398	91	492	98.5
OS1572	265	61	327	66

Model No	Number of Gauge Wheel* Rotations For:			
	1/10 Acre	1000 Sq. Ft.	1/20 Hectare	100 Sq. M
OS1548	236	54	292	58
OS1572	157	36	194	39

* Seed rates listed in charts for gauge wheel units are based on Overseeder having 18 x 8.50 x 8 turf tires with 20 psi.

- g. Rotate rear roller the number of rotations noted in the table above. Be sure to check the three feed cups to make sure each cup has plenty of seed coming into it.
- h. Weigh the seed which has been metered out and divide that weight by three to get the number of pounds or kilograms per seed cup.

NOTE: If total weight for 3 seed cups is in ounces, divide that weight by 48 instead of 3.

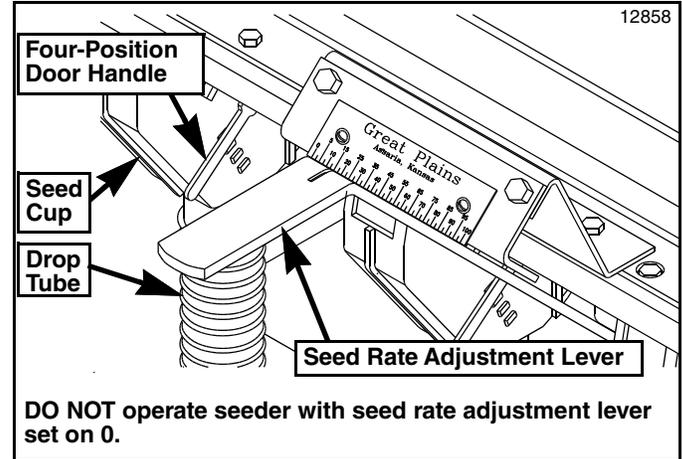
- i. Next, multiply number of pounds or kilograms per seed cup by the number of seed cups on the grass seeds seedbox to arrive at weight "A."
 - j. If Weight "A" is calculated based on:
 - 1/10 acre, then "A" x 10 = lbs/acre
 - 1000 sq ft, then "A" x 43.56 = lbs/acre
 - 1000 sq ft, then "A" x 1 = lbs/1000 sq ft
 - 1/20 hectare, then "A" x 20 = kg/hectare
 - 100 sq meters, then "A" x 100 = kg/hectare
 - 100 sq meters, then "A" x 10 = kg/1000 sq m
 - k. If calculated grass seed rate is different than the suggested settings in the charts, then increase or decrease the seed cup adjustment lever.
3. Repeat calibration procedure if the results of the calibration vary greatly with the chart.

NOTE: Field conditions will affect seeding rates. Check amount of seed being used by noting size of area being seeded, amount of seed added to the seeder, and level of seed in the seedbox.

It may be necessary to make minor adjustments to the seeding rate if the seeder has been accurately calibrated and is seeding more or less seed than desired.

IMPORTANT: Do Not operate seed rate adjustment lever at -0- setting. Seed cup damage may occur.

Do Not set door handles and seed rate adjustment lever to the widest open position with seed in the box unless complete clean out is desired.



Seed Rate Adjustment Lever
Figure 3-8



Section 3: Adjustments

Main Seedbox Seed Rate Charts (English)

Pounds per acre and 1000 square feet

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Alfalfa (Pounds per Acre)																					
High Range	0	54	125	198	269	341	412	485	555	626	699	769	842	913	985	1056	1129	1199	1270	1343	1413
Low Range	0	17	40	63	85	108	131	154	176	198	221	244	267	289	312	335	358	380	402	425	448
Alfalfa (Pounds per 1000 Square Feet)																					
High Range	0.0	1.2	2.9	4.5	6.2	7.8	9.2	11.1	12.8	14.4	16.1	17.7	19.4	21.0	22.6	24.3	25.9	27.6	29.2	30.9	32.5
Low Range	0.0	0.4	0.9	1.4	2.0	2.5	3.0	3.5	4.0	4.6	5.1	5.6	6.1	6.6	7.2	7.7	8.2	8.7	9.2	9.8	10.3
Bent Grass (Pounds per Acre)																					
High Range	0	37	80	115	152	185	206	239	265	293	326	358	380	413	439	467	499	528	554	586	619
Low Range	0	17	29	42	54	66	77	89	99	110	122	131	140	149	159	168	175	184	191	198	205
Bent Grass (Pounds per 1000 Square Feet)																					
High Range	0.0	0.8	1.8	2.6	3.5	4.2	4.7	5.5	6.1	6.7	7.5	8.2	8.7	9.5	10.1	11.5	12.1	12.7	12.7	13.5	14.2
Low Range	0.0	0.4	0.7	1.0	1.2	1.5	1.8	2.0	2.3	2.5	2.8	3.0	3.2	3.4	3.6	3.9	4.0	4.2	4.4	4.5	4.7
Bermuda (Pounds per Acre)																					
High Range	0	61	101	161	206	250	295	341	386	430	475	521	565	610	654	701	745	789	834	880	925
Low Range	0	19	32	51	65	79	93	108	122	136	150	165	179	193	207	222	236	250	264	279	293
Bermuda (Pounds per 1000 Square Feet)																					
High Range	0.0	1.4	2.3	3.7	4.7	5.8	6.8	7.8	8.9	9.9	10.9	12.0	13.0	14.0	15.0	16.1	17.1	18.1	19.2	20.2	21.3
Low Range	0.0	0.4	0.7	1.2	1.5	1.8	2.1	2.5	2.8	3.1	3.8	3.8	4.1	4.4	4.8	5.1	5.4	5.7	6.1	6.4	6.7
Buffalo Grass (Pounds per Acre)																					
High Range	0	0	0	22	52	76	106	130	159	185	213	241	259	293	321	352	371	395	417	430	434
Low Range	0	0	0	13	21	29	38	46	56	65	73	83	92	99	109	118	127	134	143	147	150
Buffalo Grass (Pounds per 1000 Square Feet)																					
High Range	0.0	0.0	0.0	0.5	1.2	1.7	2.4	3.0	3.6	4.2	4.9	5.5	6.2	6.7	7.4	8.1	8.5	9.1	9.6	9.9	10.0
Low Range	0.0	0.0	0.0	0.3	0.5	0.7	0.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.4	3.5
Clover - Red (Pounds per Acre)																					
High Range	0	77	143	202	263	321	380	438	499	557	616	676	734	793	852	913	971	1030	1090	1149	1207
Low Range	0	24	45	64	83	102	120	139	158	177	195	214	233	251	270	289	308	326	346	364	383
Clover - Red (Pounds per 1000 Square Feet)																					
High Range	0.0	1.8	3.3	4.6	6.0	7.4	8.7	1.1	11.5	12.8	14.2	15.5	16.9	18.2	19.6	21.0	22.3	23.7	25.1	26.4	27.8
Low Range	0.0	0.6	1.0	1.5	1.9	2.3	2.8	3.2	3.6	4.1	4.5	4.9	5.4	5.8	6.2	6.6	7.1	7.5	7.9	8.4	8.8
Clover - White (Pounds per Acre)																					
High Range	0	77	151	224	297	372	444	517	592	664	737	812	884	957	1032	1104	1177	1252	1324	1397	1472
Low Range	0	24	48	71	94	118	141	164	187	211	234	257	280	303	327	350	373	397	420	443	466
Clover - White (Pounds per 1000 Square Feet)																					
High Range	0.0	1.8	3.5	5.2	6.8	8.5	10.2	11.9	13.6	15.3	16.9	18.7	20.3	22.0	23.7	25.4	27.1	28.8	30.4	32.1	33.8
Low Range	0.0	0.6	1.1	1.6	2.2	2.7	3.2	3.8	4.3	4.8	5.4	5.9	6.4	7.0	7.5	8.0	8.6	9.1	9.6	10.2	10.7
Fescue - Fine Blade, Turf Type (Pounds per Acre)																					
High Range	0	20	46	75	103	131	160	188	216	242	271	299	327	355	384	412	440	468	497	525	553
Low Range	0	6	15	24	33	42	51	60	69	77	86	95	104	113	122	131	140	148	157	166	175
Fescue - Fine Blade, Turf Type (Pounds per 1000 Square Feet)																					
High Range	0.0	0.5	1.1	1.7	2.4	3.0	3.7	4.3	5.0	5.6	6.2	6.9	7.5	8.2	8.8	9.5	10.1	10.8	11.4	12.1	12.7
Low Range	0.0	0.1	0.3	0.5	0.7	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0
Fescue K31 (Pounds per Acre)																					
High Range	0	0	21	50	83	113	140	165	186	223	243	272	305	328	355	382	48	433	439	450	454
Low Range	0	0	6	15	26	35	44	51	58	69	76	84	95	102	110	118	127	134	136	140	141
Fescue K31 (Pounds per 1000 Square Feet)																					
High Range	0.0	0.0	0.5	1.1	1.9	2.6	3.2	3.8	4.3	5.1	5.6	6.3	7.0	7.5	8.2	8.8	9.4	10.0	10.1	10.3	10.4
Low Range	0.0	0.0	0.1	0.4	0.6	0.8	1.0	1.2	1.3	1.6	1.7	1.9	2.2	2.3	2.5	2.7	2.9	3.1	3.1	3.2	3.2
Kentucky Blue Grass (Pounds per Acre)																					
High Range	0	23	48	73	103	125	155	178	205	227	250	274	293	322	334	365	387	406	426	442	455
Low Range	0	8	16	24	34	41	51	58	67	74	82	90	96	106	109	119	127	133	140	145	149
Kentucky Blue Grass (Pounds per 1000 Square Feet)																					
High Range	0.0	0.5	1.1	1.7	2.4	2.9	3.6	4.1	4.7	5.2	5.7	6.3	6.7	7.4	7.7	8.4	8.9	9.3	9.8	10.1	10.5
Low Range	0.0	0.2	0.4	0.5	0.8	0.9	1.2	1.3	1.5	1.7	1.9	2.1	2.2	2.4	2.5	2.7	2.9	3.1	3.2	3.3	3.4

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.



Section 3: Adjustments

Main Seedbox Seed Rate Chart (English)

Pounds per acre and 1000 square feet

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Lovegrass - Sand (Pounds per Acre)																						
High Range	0	89	140	191	242	293	343	394	445	496	547	598	649	700	751	802	852	925	977	1029	1081	
Low Range	0	28	44	61	77	93	109	125	141	157	173	189	206	222	238	254	270	286	302	319	335	
Lovegrass - Sand (Pounds per 1000 Square Feet)																						
High Range	0.0	2.0	3.2	4.4	5.6	6.7	7.9	9.1	10.2	11.4	12.6	13.7	14.9	16.1	17.3	18.4	19.6	21.3	22.5	23.7	24.9	
Low Range	0.0	0.6	1.0	1.4	1.8	2.1	2.5	2.9	3.2	3.6	4.0	4.4	4.7	5.1	5.5	5.8	6.2	6.6	6.9	7.3	7.7	
Lovegrass Weeping (Pounds per Acre)																						
High Range	0	109	176	226	287	343	396	448	501	553	606	658	711	763	816	868	921	973	1026	1078	1133	
Low Range	0	35	56	72	91	109	125	142	159	175	192	209	225	242	259	275	292	308	325	342	359	
Lovegrass Weeping (Pounds per 1000 Square Feet)																						
High Range	0.0	2.5	4.0	5.2	6.6	7.9	9.1	10.3	11.5	12.7	13.9	15.1	16.3	17.5	18.7	20.0	21.2	22.4	23.6	24.8	26.0	
Low Range	0.0	0.8	1.3	1.6	2.1	2.5	2.9	3.3	3.6	4.0	4.4	4.8	5.2	5.6	5.9	6.3	6.7	7.1	7.5	7.8	8.2	
Orchard Grass (Pounds per Acre)																						
High Range	0.0	4.0	6.0	10.0	15.0	20.0	27.0	34.0	41.0	49.0	58.0	66.0	75.0	85.0	94.0	103.0	112.0	121.0	130.0	138.0	146	
Low Range	0.0	1.0	2.0	3.0	5.0	7.0	9.0	12.0	15.0	18.0	22.0	25.0	29.0	33.0	36.0	40.0	44.0	48.0	51.0	55.0	58	
Orchard Grass (Pounds per 1000 Square Feet)																						
High Range	0.0	0.1	0.1	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.3	1.5	1.7	1.9	2.2	2.4	2.6	2.8	3.0	3.2	3.3	
Low Range	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	
Rye Grass - Annual (Pounds per Acre)																						
High Range	0	21	59	95	131	168	204	242	279	315	351	388	426	462	499	535	573	610	646	682	719	
Low Range	0	7	19	30	42	53	65	77	88	100	111	123	135	147	158	170	182	193	205	216	228	
Rye Grass - Annual (Pounds per 1000 Square Feet)																						
High Range	0.0	0.5	1.3	2.2	3.0	3.9	4.7	5.6	6.4	7.2	8.1	8.9	9.8	10.6	11.5	12.3	13.2	14.0	14.9	15.7	16.5	
Low Range	0.0	0.2	0.4	0.7	1.0	1.2	1.5	1.8	2.0	2.3	2.6	2.8	3.1	3.4	3.6	3.9	4.2	4.4	4.7	5.0	5.2	
Rye Grass - Perennial (Pounds per Acre)																						
High Range	0	36	77	115	156	196	234	275	315	353	394	434	475	513	553	594	632	672	713	751	791	
Low Range	0	12	24	37	49	62	74	87	100	112	125	138	150	163	175	188	200	213	226	238	251	
Rye Grass - Perennial (Pounds per 1000 Square Feet)																						
High Range	0.0	0.8	1.8	2.6	3.6	4.5	5.4	6.2	7.2	8.1	9.0	10.0	10.9	11.8	12.7	13.6	14.5	15.5	16.4	17.3	18.2	
Low Range	0.0	0.3	0.6	0.8	1.1	1.4	1.7	2.0	2.3	2.6	2.9	3.2	3.5	3.7	4.0	4.3	4.6	4.9	5.2	5.5	5.8	
Sudan Grass (Pounds per Acre)																						
High Range	0	35	68	103	141	179	220	262	306	352	398	446	495	545	596	648	701	754	808	862	916	
Low Range	0	18	28	41	55	71	89	107	127	147	168	189	210	231	252	271	290	308	325	339	352	
Sudan Grass (Pounds per 1000 Square Feet)																						
High Range	0.0	0.8	1.6	2.4	3.2	4.1	5.1	6.0	7.0	8.1	9.1	10.2	11.4	12.5	13.7	14.9	16.1	17.3	18.5	19.8	21.0	
Low Range	0.0	0.4	0.6	0.9	1.3	1.6	2.0	2.5	2.9	3.4	3.9	4.3	4.8	5.3	5.8	6.2	6.7	7.1	7.5	7.8	8.1	
Vetch (Pounds per Acre)																						
High Range	0	78	135	191	245	302	358	415	471	525	582	638	695	749	805	862	918	973	1029	1089	1142	
Low Range	0	21	38	56	73	90	108	125	142	159	177	194	211	228	246	263	280	298	315	333	350	
Vetch (Pounds per 1000 Square Feet)																						
High Range	0.0	1.8	3.1	4.4	5.6	6.9	8.2	9.5	10.8	12.1	13.4	14.7	16.0	17.2	18.5	19.8	21.1	22.4	23.7	25.1	26.2	
Low Range	0.0	0.5	0.9	1.3	1.7	2.1	2.5	2.9	3.3	3.7	4.1	4.5	4.9	5.2	5.6	6.0	6.4	6.9	7.2	7.6	8.0	
Wheatgrass - Crested (Pounds per Acre)																						
High Range	0	22	36	51	67	81	95	111	125	139	153	170	184	198	214	228	242	258	273	287	301	
Low Range	0	7	12	16	21	26	30	35	40	44	49	54	58	63	68	72	77	82	86	91	95	
Wheatgrass - Crested (Pounds per 1000 Square Feet)																						
High Range	0.0	0.5	0.8	1.2	1.5	1.9	2.2	2.6	2.9	3.2	3.5	3.9	4.2	4.5	4.9	5.2	5.6	5.9	6.3	6.6	6.9	
Low Range	0.0	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.6	1.7	1.8	1.9	2.0	2.1	2.2	
Wheatgrass - Western (Pounds per Acre)																						
High Range	0	7	24	41	58	76	93	110	127	144	161	179	196	213	230	247	265	282	299	316	333	
Low Range	0	2	8	13	19	24	29	35	4	46	51	57	62	67	73	78	84	89	95	100	106	
Wheatgrass - Western (Pounds per 1000 Square Feet)																						
High Range	0.0	0.2	0.5	0.9	1.3	1.7	2.1	2.5	2.9	3.3	3.7	4.1	4.5	4.9	5.3	5.7	6.1	6.5	6.9	7.3	7.7	
Low Range	0.0	0.0	0.2	0.3	0.4	0.5	0.7	0.8	0.9	1.0	1.2	1.3	1.4	1.5	1.7	1.8	1.9	2.1	2.2	2.3	2.4	

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.



Section 3: Adjustments

Main Seedbox Seed Rate Charts (Metric)

Kilograms per hectare and 1000 square meters

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Alfalfa (Kilograms per Hectare)																					
High Range	0	61	140	222	302	382	462	544	622	702	783	862	944	1023	1104	1184	1265	1344	1423	1505	1584
Low Range	0	19	45	71	95	121	147	173	197	222	248	273	299	324	350	375	401	426	451	476	502
Alfalfa (Kilograms per 1000 Square Meters)																					
High Range	0.0	6.1	14.0	22.2	30.2	38.2	46.2	54.4	62.2	70.2	78.3	86.2	94.4	102.3	110.4	118.4	126.5	134.4	142.3	150.5	158.4
Low Range	0.0	1.9	4.5	7.1	9.5	12.1	14.7	17.3	19.7	22.2	24.8	27.3	29.9	32.4	35.0	37.5	40.1	42.6	45.1	47.6	50.2
Bent Grass (Kilograms per Hectare)																					
High Range	0	41	90	129	170	207	231	268	297	328	365	401	426	463	492	523	559	592	621	657	694
Low Range	0	19	33	47	61	74	86	100	111	123	137	147	157	167	178	188	196	206	214	222	230
Bent Grass (Kilograms per 1000 Square Meters)																					
High Range	0.0	4.1	9.0	12.9	17.0	20.7	23.1	26.8	29.7	32.8	36.5	40.1	42.6	46.3	49.2	52.3	55.9	59.2	62.1	65.7	69.4
Low Range	0.0	1.9	3.3	4.7	6.1	7.4	8.6	10.0	11.1	12.3	13.7	14.7	15.7	16.7	17.8	18.8	19.6	20.6	21.4	22.2	23.0
Bermuda (Kilograms per Hectare)																					
High Range	0	68	113	180	231	280	331	382	433	482	532	584	633	684	733	786	835	884	935	986	1037
Low Range	0	21	36	57	73	89	104	121	137	152	168	185	201	216	232	249	265	280	296	313	328
Bermuda (Kilograms per 1000 Square Meters)																					
High Range	0.0	6.8	11.3	18.0	23.1	28.0	33.1	38.2	43.3	48.2	53.2	58.4	63.3	68.4	73.3	78.6	83.5	88.4	93.5	98.6	103.7
Low Range	0.0	2.1	3.6	5.7	7.3	8.9	10.4	12.1	13.7	15.2	16.8	18.5	20.1	21.6	23.2	24.9	26.5	28.0	29.6	31.3	32.8
Buffalo Grass (Kilograms per Hectare)																					
High Range	0	0	0	25	58	85	119	146	178	207	239	270	290	328	360	395	416	443	467	482	486
Low Range	0	0	0	15	24	33	43	52	63	73	82	93	103	111	122	132	142	150	160	165	168
Buffalo Grass (Kilograms per 1000 Square Meters)																					
High Range	0.0	0.0	0.0	2.5	5.8	8.5	11.9	14.6	17.8	20.7	23.9	27.0	29.0	32.8	36.0	39.5	41.6	44.3	46.7	48.2	48.6
Low Range	0.0	0.0	0.0	1.5	2.4	3.3	4.3	5.2	6.3	7.3	8.2	9.3	10.3	11.1	12.2	13.2	14.2	15.0	16.0	16.5	16.8
Clover - Red (Kilograms per Hectare)																					
High Range	0	86	160	226	295	360	426	491	559	624	690	758	823	889	955	1023	1088	1154	1222	1288	1353
Low Range	0	27	50	72	93	114	135	156	177	198	219	240	261	281	303	324	345	365	388	408	429
Clover - Red (Kilograms per 1000 Square Meters)																					
High Range	0.0	8.6	16.0	22.6	29.5	36.0	42.6	49.1	55.9	62.4	69.0	75.8	82.3	88.9	95.5	102.3	108.8	115.4	122.2	128.8	135.3
Low Range	0.0	2.7	5.0	7.2	9.3	11.4	13.5	15.6	17.7	19.8	21.9	24.0	26.1	28.1	30.3	32.4	34.5	36.5	38.8	40.8	42.9
Clover - White (Kilograms per Hectare)																					
High Range	0	86	169	251	333	417	498	579	664	744	826	910	991	1073	1157	1237	1319	1403	1484	1566	1650
Low Range	0	27	54	80	105	132	158	184	210	236	262	288	314	340	367	392	418	445	471	497	522
Clover - White (Kilograms per 1000 Square Meters)																					
High Range	0.0	8.6	16.9	25.1	33.3	41.7	49.8	57.9	66.4	74.4	82.6	91.0	99.1	107.3	115.7	123.7	131.9	140.3	148.4	156.6	165.0
Low Range	0.0	2.7	5.4	8.0	10.5	13.2	15.8	18.4	21.0	23.6	26.2	28.8	31.4	34.0	36.7	39.2	41.8	44.5	47.1	49.7	52.2
Fescue - Fine Blade, Turf Type (Kilograms per Hectare)																					
High Range	0	22	52	84	115	147	179	211	242	271	304	335	367	398	430	462	493	525	557	588	620
Low Range	0	7	17	27	37	47	57	67	77	86	96	106	117	127	137	147	157	166	176	186	196
Fescue - Fine Blade, Turf Type (Kilograms per 1000 Square Meters)																					
High Range	0.0	2.2	5.2	8.4	11.5	14.7	17.9	21.1	24.2	27.1	30.4	33.5	36.7	39.8	43.0	46.2	49.3	52.5	55.7	58.8	62.0
Low Range	0.0	0.7	1.7	2.7	3.7	4.7	5.7	6.7	7.7	8.6	9.6	10.6	11.7	12.7	13.7	14.7	15.7	16.6	17.6	18.6	19.6
Fescue K31 (Kilograms per Hectare)																					
High Range	0	0	24	56	93	127	157	185	208	250	272	305	342	368	398	428	54	485	492	504	509
Low Range	0	0	7	17	29	39	49	57	65	77	85	94	106	114	123	132	142	150	152	157	158
Fescue K31 (Kilograms per 1000 Square Meters)																					
High Range	0.0	0.0	2.4	5.6	9.3	12.7	15.7	18.5	20.8	25.0	27.2	30.5	34.2	36.8	39.8	42.8	5.4	48.5	49.2	50.4	50.9
Low Range	0.0	0.0	0.7	1.7	2.9	3.9	4.9	5.7	6.5	7.7	8.5	9.4	10.6	11.4	12.3	13.2	14.2	15.0	15.2	15.7	15.8
Kentucky Blue Grass (Kilograms per Hectare)																					
High Range	0	26	54	82	115	140	174	200	230	254	280	307	328	361	374	409	434	455	477	495	510
Low Range	0	9	18	27	38	46	57	65	75	83	92	101	108	119	122	133	142	149	157	163	167
Kentucky Blue Grass (Kilograms per 1000 Square Meters)																					
High Range	0.0	2.6	5.4	8.2	11.5	14.0	17.4	20.0	23.0	25.4	28.0	30.7	32.8	36.1	37.4	40.9	43.4	45.5	47.7	49.5	51.0
Low Range	0.0	0.9	1.8	2.7	3.8	4.6	5.7	6.5	7.5	8.3	9.2	10.1	10.8	11.9	12.2	13.3	14.2	14.9	15.7	16.3	16.7

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.



Section 3: Adjustments

Main Seedbox Seed Rate Chart (Metric)

Kilograms per hectare and 1000 square meters

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Lovegrass - Sand (Kilograms per Hectare)																					
High Range	0	100	157	214	271	328	384	442	499	556	613	670	727	785	842	899	955	1037	1095	1153	1212
Low Range	0	31	49	68	86	104	122	140	158	176	194	212	231	249	267	285	303	321	338	358	375
Lovegrass - Sand (Kilograms per 1000 Square Meters)																					
High Range	0.0	10.0	15.7	21.4	27.1	32.8	38.4	44.2	49.9	55.6	61.3	67.0	72.7	78.5	84.2	89.9	95.5	103.7	109.5	115.3	121.2
Low Range	0.0	3.1	4.9	6.8	8.6	10.4	12.2	14.0	15.8	17.6	19.4	21.2	23.1	24.9	26.7	28.5	30.3	32.1	33.8	35.8	37.5
Lovegrass Weeping (Kilograms per Hectare)																					
High Range	0	122	197	253	322	384	444	502	562	620	679	738	797	855	915	973	1032	1091	1150	1208	1270
Low Range	0	39	63	81	102	122	140	159	178	196	215	234	252	271	290	308	327	345	364	383	402
Lovegrass Weeping (Kilograms per 1000 Square Meters)																					
High Range	0.0	12.2	19.7	25.3	32.2	38.4	44.4	50.2	56.2	62.0	67.9	73.8	79.7	85.5	91.5	97.3	103.2	109.1	115.0	120.8	127.0
Low Range	0.0	3.9	6.3	8.1	10.2	12.2	14.0	15.9	17.8	19.6	21.5	23.4	25.2	27.1	29.0	30.8	32.7	34.5	36.4	38.3	40.2
Orchard Grass (Kilograms per Hectare)																					
High Range	0	4	7	11	17	22	30	38	46	55	65	74	84	95	105	115	126	136	146	155	164
Low Range	0	1	2	3	6	8	10	13	17	20	25	28	33	37	40	45	49	54	57	62	65
Orchard Grass (Kilograms per 1000 Square Meters)																					
High Range	0.0	0.4	0.7	1.1	1.7	2.2	3.0	3.8	4.6	5.5	6.5	7.4	8.4	9.5	10.5	11.5	12.6	13.6	14.6	15.5	16.4
Low Range	0.0	0.1	0.2	0.3	0.6	0.8	1.0	1.3	1.7	2.0	2.5	2.8	3.3	3.7	4.0	4.5	4.9	5.4	5.7	6.2	6.5
Rye Grass - Annual (Kilograms per Hectare)																					
High Range	0	24	66	106	147	188	229	271	313	353	393	435	477	518	559	600	642	684	724	764	806
Low Range	0	8	21	34	47	59	73	86	99	112	124	138	151	165	177	191	204	216	230	242	256
Rye Grass - Annual (Kilograms per 1000 Square Meters)																					
High Range	0.0	2.4	6.6	10.6	14.7	18.8	22.9	27.1	31.3	35.3	39.3	43.5	47.7	51.8	55.9	60.0	64.2	68.4	72.4	76.4	80.6
Low Range	0.0	0.8	2.1	3.4	4.7	5.9	7.3	8.6	9.9	11.2	12.4	13.8	15.1	16.5	17.7	19.1	20.4	21.6	23.0	24.2	25.6
Rye Grass - Perennial (Kilograms per Hectare)																					
High Range	0	40	86	129	175	220	262	308	353	396	442	486	532	575	620	666	708	753	799	842	887
Low Range	0	13	27	41	55	69	83	98	112	126	140	155	168	183	196	211	224	239	253	267	281
Rye Grass - Perennial (Kilograms per 1000 Square Meters)																					
High Range	0.0	4.0	8.6	12.9	17.5	22.0	26.2	30.8	35.3	39.6	44.2	48.6	53.2	57.5	62.0	66.6	70.8	75.3	79.9	84.2	88.7
Low Range	0.0	1.3	2.7	4.1	5.5	6.9	8.3	9.8	11.2	12.6	14.0	15.5	16.8	18.3	19.6	21.1	22.4	23.9	25.3	26.7	28.1
Sudan Grass (Kilograms per Hectare)																					
High Range	0	39	76	115	158	201	247	294	343	395	446	500	555	611	668	726	786	845	906	966	1027
Low Range	0	20	31	46	62	80	100	120	142	165	188	212	235	259	282	304	325	345	364	380	395
Sudan Grass (Kilograms per 1000 Square Meters)																					
High Range	0.0	3.9	7.6	11.5	15.8	20.1	24.7	29.4	34.3	39.5	44.6	50.0	55.5	61.1	66.8	72.6	78.6	84.5	90.6	96.6	102.7
Low Range	0.0	2.0	3.1	4.6	6.2	8.0	10.0	12.0	14.2	16.5	18.8	21.2	23.5	25.9	28.2	30.4	32.5	34.5	36.4	38.0	39.5
Vetch (Kilograms per Hectare)																					
High Range	0	87	151	214	275	338	401	465	528	588	652	715	779	840	902	966	1029	1091	1153	1221	1280
Low Range	0	24	43	63	82	101	121	140	159	178	198	217	236	256	276	295	314	334	353	373	392
Vetch (Kilograms per 1000 Square Meters)																					
High Range	0.0	8.7	15.1	21.4	27.5	33.8	40.1	46.5	52.8	58.8	65.2	71.5	77.9	84.0	90.2	96.6	102.9	109.1	115.3	122.1	128.0
Low Range	0.0	2.4	4.3	6.3	8.2	10.1	12.1	14.0	15.9	17.8	19.8	21.7	23.6	25.6	27.6	29.5	31.4	33.4	35.3	37.3	39.2
Wheatgrass - Crested (Kilograms per Hectare)																					
High Range	0	25	40	57	75	91	106	124	140	156	171	191	206	222	240	256	271	289	306	322	337
Low Range	0	8	13	18	24	29	34	39	45	49	55	61	65	71	76	81	86	92	96	102	106
Wheatgrass - Crested (Kilograms per 1000 Square Meters)																					
High Range	0.0	2.5	4.0	5.7	7.5	9.1	10.6	12.4	14.0	15.6	17.1	19.1	20.6	22.2	24.0	25.6	27.1	28.9	30.6	32.2	33.7
Low Range	0.0	0.8	1.3	1.8	2.4	2.9	3.4	3.9	4.5	4.9	5.5	6.1	6.5	7.1	7.6	8.1	8.6	9.2	9.6	10.2	10.6
Wheatgrass - Western (Kilograms per Hectare)																					
High Range	0	8	27	46	65	85	104	123	142	161	180	201	220	239	258	277	297	316	335	354	373
Low Range	0	2	9	15	21	27	33	39	4	52	57	64	69	75	82	87	94	100	106	112	119
Wheatgrass - Western (Kilograms per 1000 Square Meters)																					
High Range	0.0	0.8	2.7	4.6	6.5	8.5	10.4	12.3	14.2	16.1	18.0	20.1	22.0	23.9	25.8	27.7	29.7	31.6	33.5	35.4	37.3
Low Range	0.0	0.2	0.9	1.5	2.1	2.7	3.3	3.9	0.4	5.2	5.7	6.4	6.9	7.5	8.2	8.7	9.4	10.0	10.6	11.2	11.9

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.

Section 3: Adjustments

Rotary Cutting Depth Adjustment

There are three options for setting your cutting depth. They are gauge wheel drive, rear roller drive, and rear roller drive with front roller. The option you use is determined by your Overseeder drive type.

Gauge Wheel Drive

WARNING

Before making adjustments on the Overseeder, shut off tractor, disengage power take-off, wait for all moving parts to stop, and lock brakes before dismounting tractor. Be sure Overseeder is securely supported on safe supporting stands.

NOTE: The cutting depth of the knives is set by adjusting the height of the gauge wheels.

Refer to Figure 3-9:

1. Start by adjusting the left-hand gauge wheel first. Loosen the jam nut (#1) and back it off.
2. Rotate turnbuckle (#2) to shorten or lengthen it to achieve proper depth, dimension (A).
3. Tighten jam nut (#1) to lock turnbuckle in place.

Refer to Figure 3-10:

4. Adjust right-hand gauge wheel next. Lower Overseeder to the ground and support the right gauge wheel tire with a block beneath it, thus causing the spring loaded gauge wheel link to bottom out.
5. Loosen jam nut (#3) and back it off.
6. Turn adjuster nut (#4) to shorten or lengthen spring loaded link (#5).
7. Dimension (B) should be the same on both right and left-hand gauge wheels to achieve the same cutting depth (A) at both ends of the Overseeder.
8. Adjust 3-point top center link at the tractor to re-level the Overseeder.

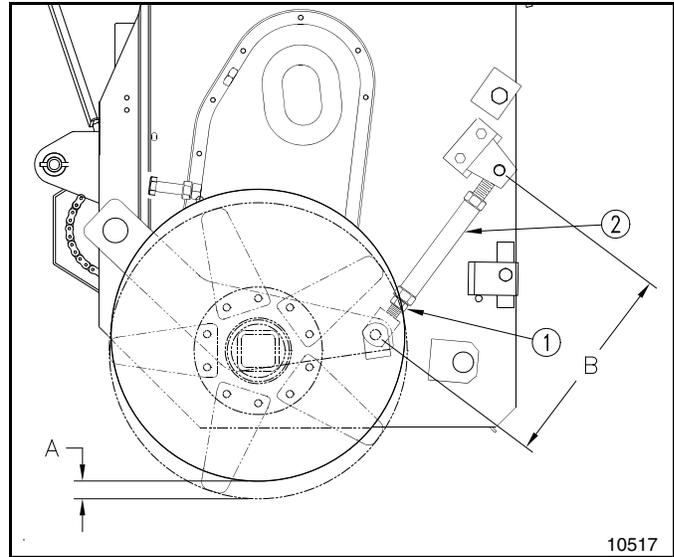
NOTE: Dimension (B) on the right-hand gauge wheel can only be checked when the stop washer (#6) is bottomed on the spring tube (#7) as shown.

Rear Roller Drive

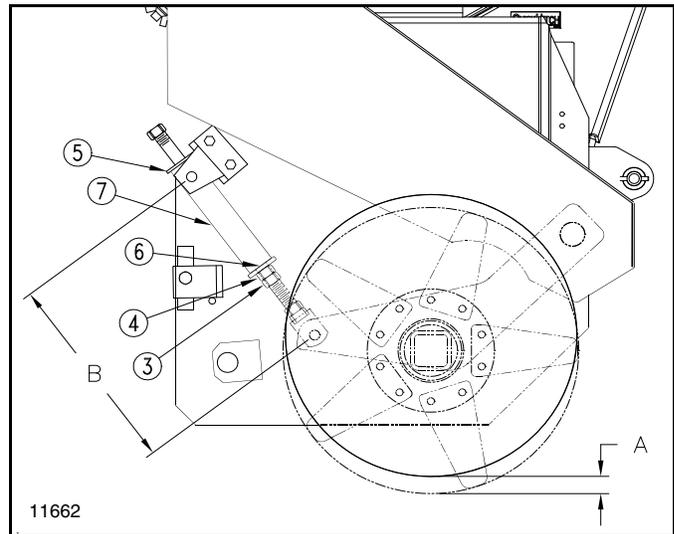
Refer to Figure 3-11:

NOTE: The cutting depth of the knives is set by raising or lowering the tractor's lower 3-point arms.

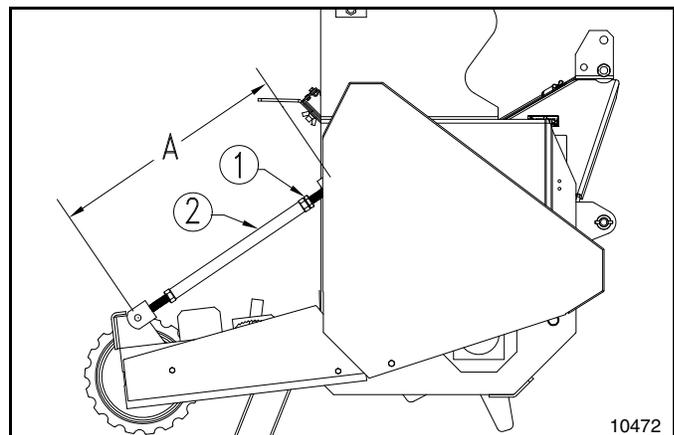
1. Raise or lower the lower arms on the tractor 3-point hitch until the desired cutting depth is obtained.
2. Adjust rigid links as necessary by loosening jam nuts (#1) and turning the turnbuckles (#2) to get a firm pressing action on the packer wheels.
3. Tighten jam nuts making sure that dimension (A) is equal in both sides.



Left-hand Gauge Wheel
Figure 3-9



Right-hand Gauge Wheel
Figure 3-10



Rear Roller Drive Without Front Roller
Figure 3-11

Section 3: Adjustments

Rear Roller Drive With Front Roller Cutting Depth Adjustment

Refer to Figure 3-12:

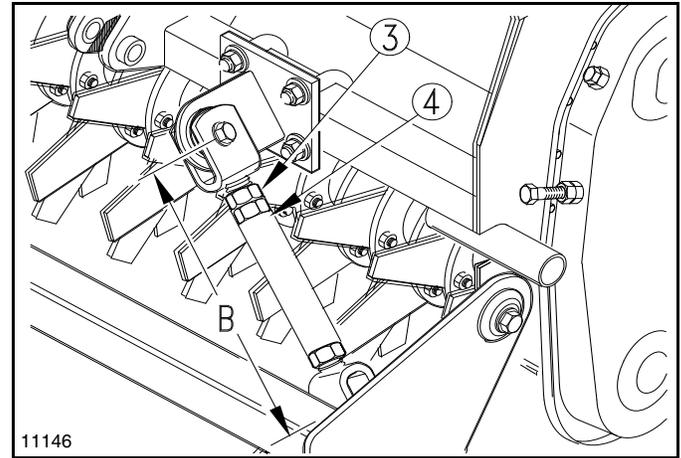
IMPORTANT: The lower arms on the tractor's 3-point hitch should be in float position.

NOTE: With this option, the cutting depth of the knives is set by the front roller. One method to adjust the front roller would be to place a spacer equal to the thickness of the desired knife cutting depth under the center of the front roller and then adjust turnbuckles an equal length until knives just touching the ground.

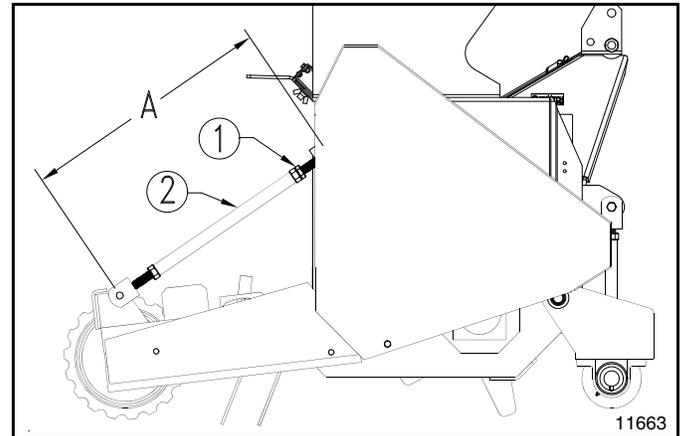
1. Adjust turnbuckles on the front roller as necessary by loosening jam nuts (#3) and turning turnbuckles (#4) to get proper cutting depth.
2. Tighten jam nuts making sure dimension (B) is equal at both turnbuckles.

Refer to Figure 3-13:

3. Level Overseeder from front to rear by loosening jam nuts (#1) and adjusting rear roller turnbuckles (#2).
4. Tighten jam nuts making sure dimension (A) is equal on both sides.
5. Recheck knife depth to make sure no additional adjustments are needed to the front roller and rear roller turnbuckles.



Front Roller Turnbuckle
Figure 3-12



Rear Roller Drive w/Front Roller
Figure 3-13

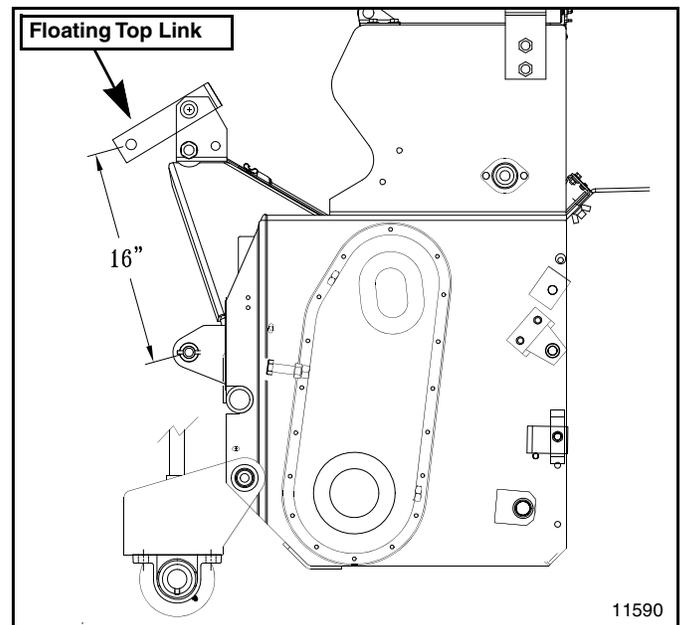
Floating Top Link Adjustment

Refer to Figure 3-13:

Floating top link is used only when the seeder set-up is rear roller drive with front roller support.

Refer to Figure 3-14:

Set floating top link 16" (40 cm) from center line of top center link hitch hole to center line of lower lift arm hitch holes by adjusting length of tractor's top center link.



Floating Top Link
Figure 3-14

Section 3: Adjustments

Rear Arm Length Adjustment

The rear roller is normally mounted to the short arm holes to keep tractor ballast weight to a minimum. Use long arm hole setting only if optional rear tine attachment is included. See **“Tine Attachment (Optional)”** on this page.

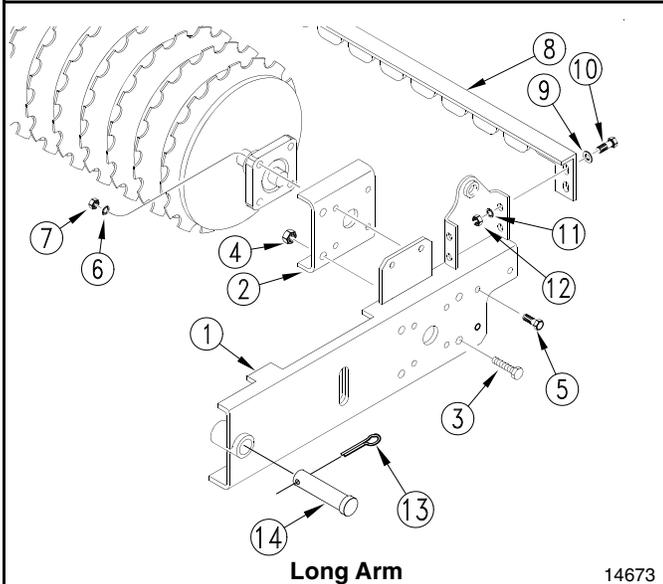
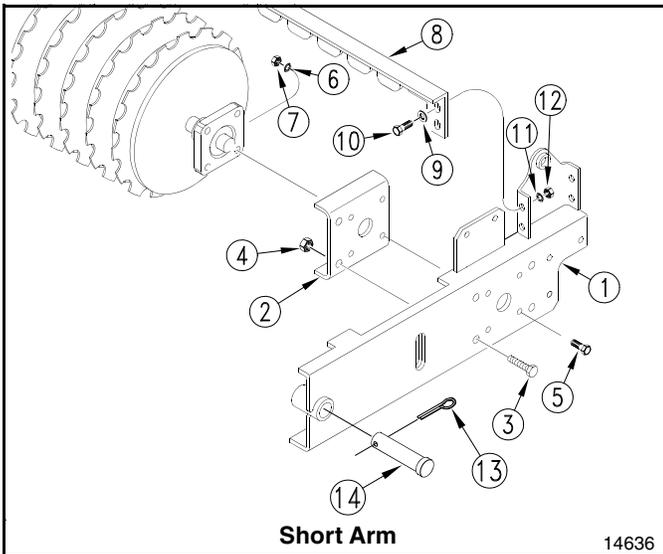
1. Support Overseeder with an overhead hoist to adjust rear roller for short arm or long arm use.

Refer to Figure 1-8 on page 17:

2. If Overseeder is equipped with rear roller drive, remove rear chain guard (#6), front chain guard (#7), right and left solid links (#1), rear roller drive chain, and drive sprocket (#13).

Refer to Figure 3-15:

3. Remove roller scraper (#8) by removing 3/8" x 1" bolts (#10), flat washers (#9), lock washers (#11), and nuts (#12) from both arms (#1).



Rear Roller Adjustment
Figure 3-15

4. Remove both rear roller arms (#1) from Overseeder frame by removing cotter pin (#13) and 1" clevis pin (#14).
5. Remove rear roller adjustment bracket (#2) from both rear roller arms by removing 1/2" x 1 1/4" long bolts (#3) and 1/2" flange nuts (#4).
6. Remove from each roller arm 3/8" x 1 1/2" bolts (#5), lock washer (#6), and hex nut (#7). Do not remove bearings from rear roller shaft.
7. The rear roller should be free to move now. Reposition rear roller adjustment bracket (#2) to the long or short arm location on roller arms (#1) and reassemble in reverse order.

NOTE: For long arm assembly, you may need to add 3 or more flat washers between the bottom rear bolt (#5) and rear roller adjustment bracket (#2).

Tine Attachment (Optional)

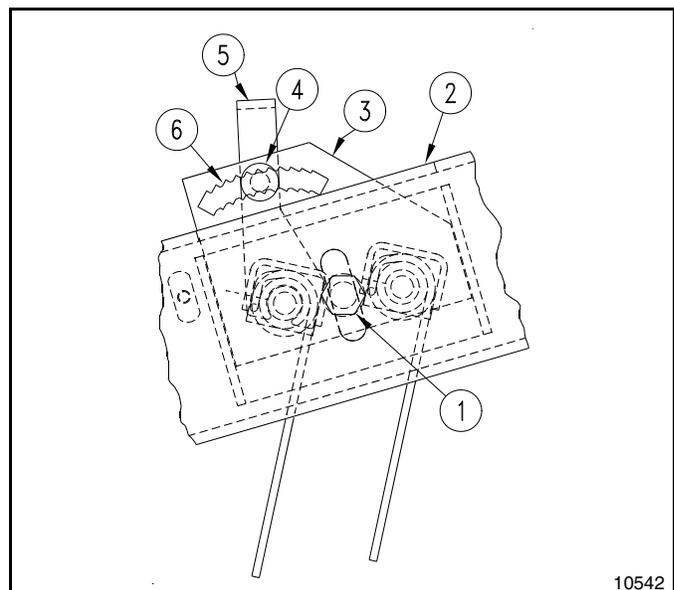
Refer to Figure 3-16:

To adjust height of tines:

1. Loosen 3/4" bolt (#1) on outside of right-hand and left-hand roller packer support channels (#2).
2. Raise or lower tine assembly (#3) and tighten 3/4" bolt (#1).

To adjust angle of tines:

3. Loosen 1/2" nut on carriage bolts (#4) and push head of carriage bolt from its notch (#6) on each side of the tine assembly.
4. Move handle (#5) forward or backward to the desired tine angle.
5. Make sure carriage bolts (#4) are nested in the same notch (#6) on both sides and tighten carriage bolt nuts.



Torsion Tine Height and Angle Adjustment
Figure 3-16

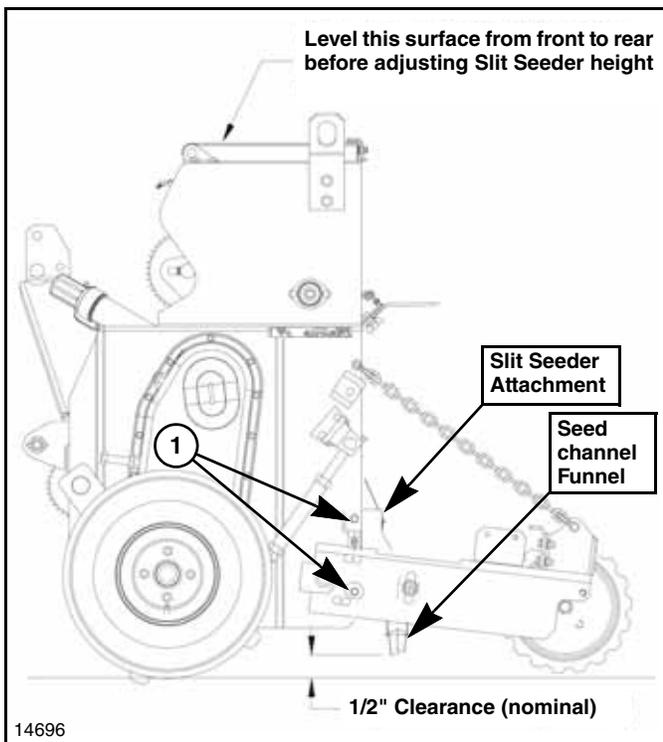
Section 3: Adjustments

Slit Seeder Attachment (Optional)

Refer to Figure 3-17:

The initial mid-range location of the slit seeder should be adequate for most overseeding operations. Most important is to ensure proper adjustment and leveling of the Overseeder.

1. Loosen four 3/8" hex head cap screws (#1) (2 per side) and adjust slit seeder up or down to achieve 1/2" (13 mm) clearance between seed funnel and ground as shown.
2. Tighten 3/8"-16 x 2 1/2 GR5 hex head cap screws to the proper torque.
3. Operator can adjust slit seeder attachment up and down to suit.



Slit Seeder Adjustment
Figure 3-17

Feed Cup Drive System Adjustment

Your Overseeder uses standard no. 40 roller chain throughout its feed cup drive system. The drive system is simple and designed for low maintenance.

1. Check drive idler to ensure that it is taking up any excess chain slack.
2. Check each chain to ensure that it is not over-tight.
3. Annually clean and lubricate chain with chain oil.

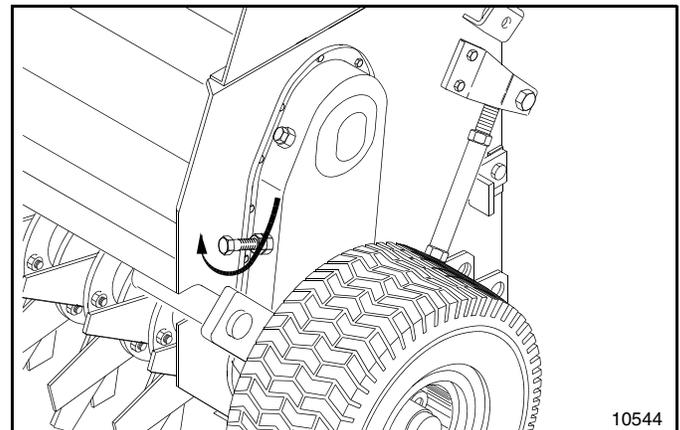
Rotor Drive Chain Adjustment

Refer to Figure 3-18:

Drive chain tension can be easily adjusted by using the special chain tightener shown in Figure 3-18. Should backlash occur:

1. Loosen locknut and turn bolt clockwise as indicated by the arrow until idler arm is firm against chain.
2. Then back bolt off counterclockwise 1/4 turn.
3. Re-tighten locknut while holding head of bolt in place.

NOTE: Excessive sprocket and chain wear will result if chain is overtightened.



Rotor Drive Chain Adjustment
Figure 3-18

Section 3: Adjustments

Small Seeds Drivetrain

IMPORTANT: The Small Seeds Seedbox drivetrain must be set-up correctly to match the “drive range” used for the Main Seedbox.

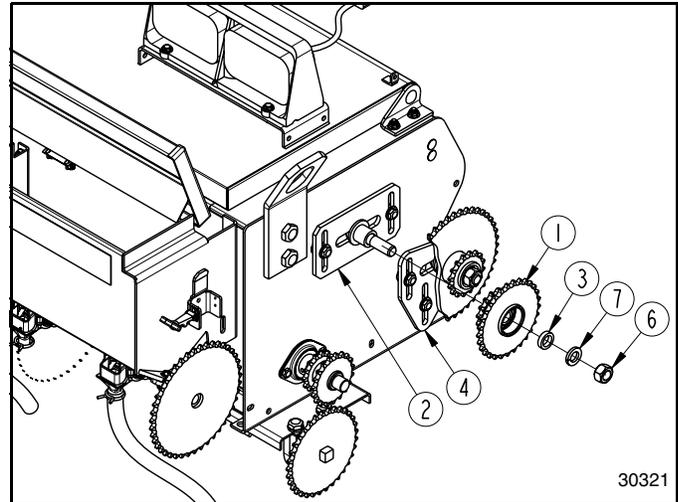
1. Use Small Seeds Seed Rate charts beginning on page 43 to determine seed rate.

Refer to Figure 3-20 & Figure 3-21 on page 41:

2. Determine which range and drive type the main seedbox is in and then check to make sure the Small Grass Seeds box drivetrain is set-up correctly.

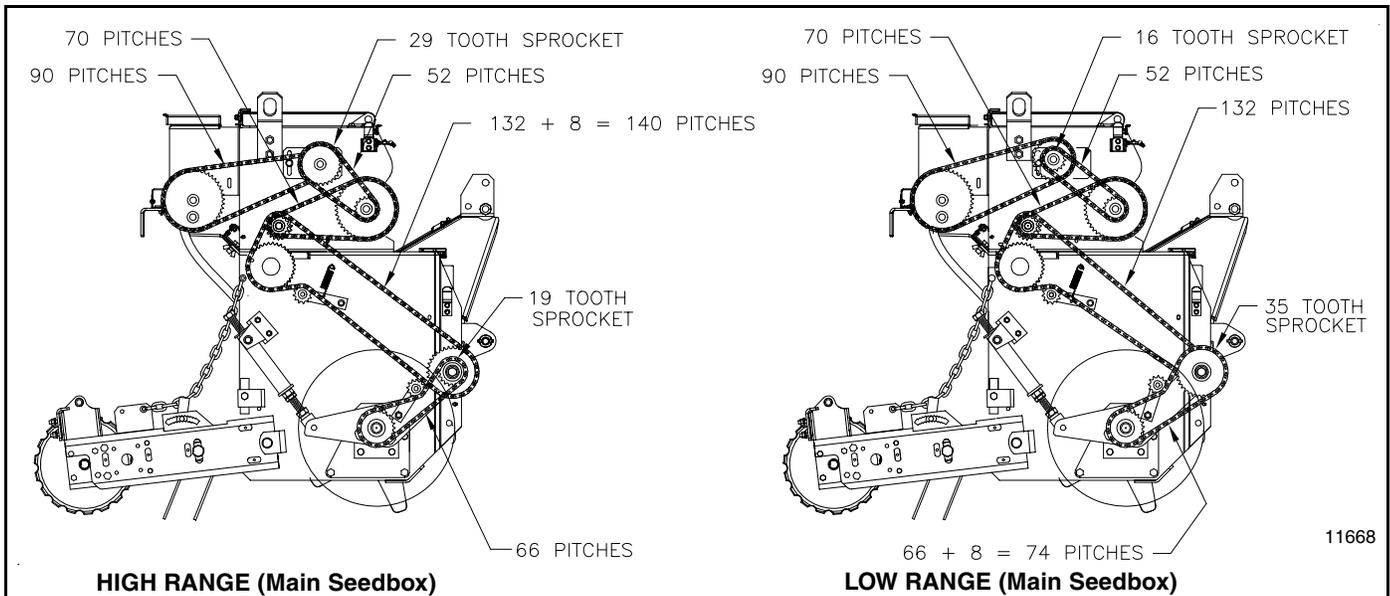
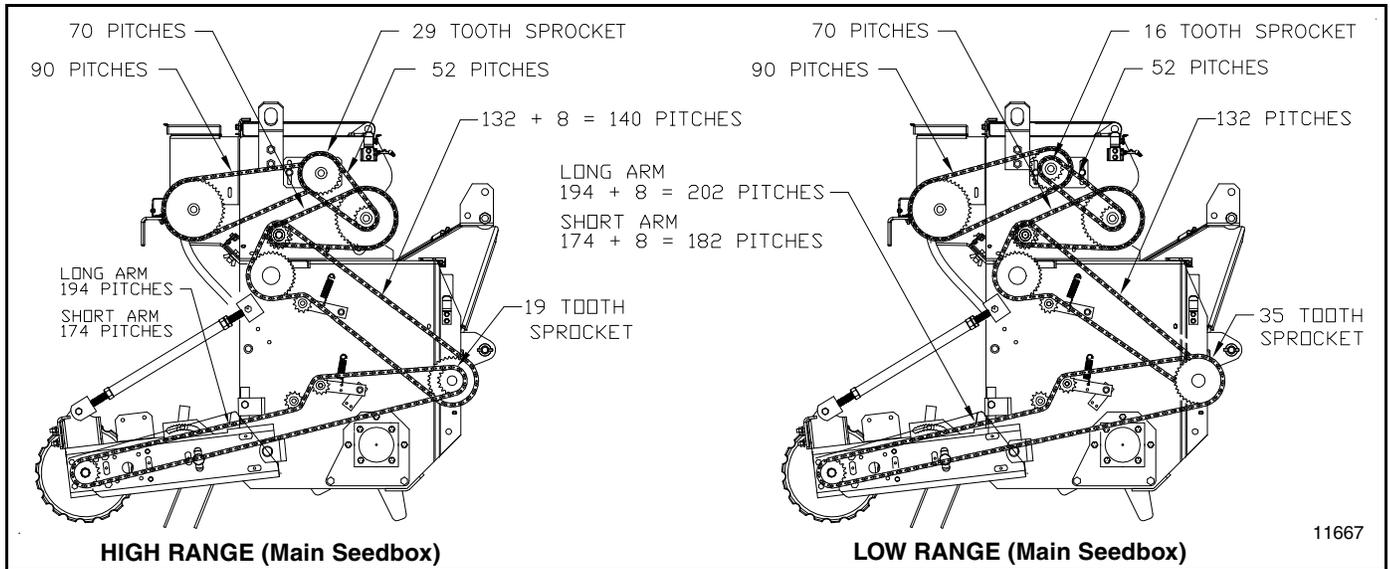
Refer to Figure 3-19:

3. Skip to “**Calibrate Small Seeds Seedbox**” if its drivetrain is set-up correct. If the drivetrain set-up is incorrect, change sprocket (#1) as follows.
 - a. Remove chain guard (not shown).
 - b. Loosen idler plates (#2 & #4) and remove roller chains wrapped around sprocket (#1).
 - c. Remove 5/8" nut (#5), 5/8" lock washer (#6), and 1" OD x 1/4" long spacer (#3).
 - d. Flip double sprocket (#1) to desired drive type and reassemble.
 - e. Install removed chains and adjust idler plates (#2 & #4) for chain tightness.
 - f. Install removed chain guard.



**Small Seeds Drivetrain
Figure 3-19**

Section 3: Adjustments





Section 3: Adjustments

Calibrate Small Seeds Seedbox

See page 30 for instructions on how to calibrate the Main Seedbox.

IMPORTANT: Seed rates provided in the charts may be inconsistent with actual planting rates due to seed size, weight, treatment, moisture content, surface condition, ratio of inert material to seed, different seed mixtures, humidity, tire size, tire pressure, tire configuration, tire or rear roller slippage, and ground preparation. Minor adjustments may be needed to compensate.

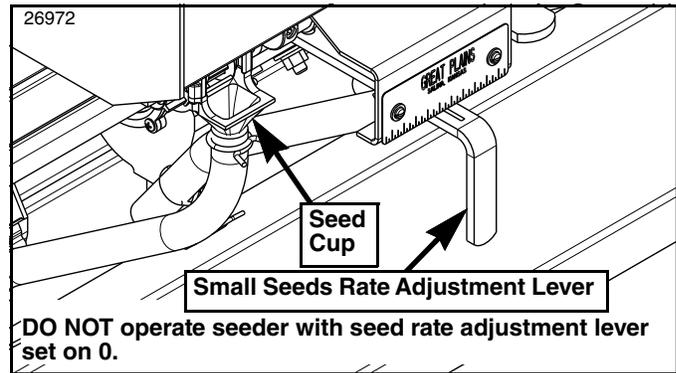
IMPORTANT: Do Not operate small seeds seedbox with seed rate adjustment lever at -0- setting. Seed cup damage may occur.

1. **Refer to Figure 3-22:** Locate seed rate adjustment lever at the rear of the seeder. Move lever to indicator cup setting number obtained from the small seeds seed rate charts starting on page 43. For best results, first move adjustment lever all the way to the left. Then move lever to desired setting, moving from a lower to a higher number.
 - Increase seed rate if seed is lighter than average.
 - Decrease seed rate if seed is heavier than average.
2. Complete the following procedure to calibrate dispersal rate for your specific seed.
 - a. Place several pounds of seed over three of the seed cups at the outboard end of the Overseeder. **Do not** allow any of the seed to reach other cups.
 - b. Pull the seed tubes out of these three drops.
 - c. Support drive unit off the ground as follows:
 - **Gauge wheel drive units:** Raise and support drive tire (right tire) off the ground using a jack.
 - **Rear roller drive units:** Raise and support rear roller off the ground using a jack.
 - d. Rotate tire or rear roller to make sure drive system is working properly and that the feed cups are free from foreign matter.
 - e. Place a container under the three seed tubes to gather seed as it is metered.

- f. Rotate rear roller the number of rotations noted in the table. Check the three feed cups to make sure each cup has plenty of seed coming into it.
- g. Weigh the seed which has been metered out and divide that weight by three to get the number of pounds or kilograms per seed cup.

NOTE: If total weight for 3 seed cups is in ounces, divide that weight by 48 instead of 3.

- h. Next, multiply number of pounds or kilograms per seed cup by the number of seed cups on the grass seeds seedbox to arrive at weight "A".
 - i. If Weight "A" is calculated based on:
 - 1/10 acre, then "A" x 10 = lbs/acre
 - 1000 sq ft, then "A" x 1 = lbs/1000 sq ft
 - 1/20 hectare, then "A" x 20 = kg/hectare
 - 100 sq meters, then "A" x 100 = kg/hectare
 - 100 sq meters, then "A" x 10 = kg/1000 sq m
 - j. If calculated grass seed rate is different than the suggested settings in the charts, then increase or decrease the seed cup adjustment lever.
3. Repeat calibration procedure if the results of the calibration vary greatly with the chart.



Small Seeds Rate Adjustment Lever
Figure 3-22

Model No	Number of Rear Roller Rotations For:			
	1/10 Acre	1000 Sq. Ft.	1/20 Hectare	100 Sq. M
OS1548	398	91	492	98.5
OS1572	265	61	327	66

Model No	Number of Gauge Wheel* Rotations For:			
	1/10 Acre	1000 Sq. Ft.	1/20 Hectare	100 Sq. M
OS1548	236	54	292	58
OS1572	157	36	194	39

* Seed rates listed in charts for gauge wheel units are based on Overseeder having 18 x 8.50 x 8 turf tires with 20 psi.



Section 3: Adjustments

Small Seeds Seed Rate Chart (English)

Pounds per acre and 1000 square feet

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Alfalfa (Pounds per Acre)																					
	0.0	0.0	2.4	3.9	5.3	6.7	8.2	9.7	10.9	12.3	13.9	15.3	16.7	18.2	19.4	21.1	22.4	23.7	25.3	26.6	28
Alfalfa (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6
Alsike Clover (Pounds per Acre)																					
	0.0	0.0	0.0	0.0	0.0	0.9	3.5	5.7	8.7	12.2	14.4	16.5	18.3	21.3	23.9	28.3	30.0	32.2	35.2	39.1	
Alsike Clover (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	
Bent Grass (Pounds per Acre)																					
	0.0	0.0	0.0	1.3	2.4	3.2	4.0	5.1	6.1	6.8	7.8	8.2	8.8	9.3	9.8	10.3	10.7	11.1	11.6	11.7	11.9
Bent Grass (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Bermuda (Pounds per Acre)																					
	0.0	0.0	0.9	1.4	2.0	2.5	3.0	3.7	4.3	4.7	5.3	5.5	5.9	6.2	6.7	7.2	7.9	8.7	9.8	10.4	11.3
Bermuda (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Biologic Brassica (Pounds per Acre)																					
	0.0	0.0	0.4	3.0	4.3	6.1	8.7	9.1	11.3	11.7	14.4	17.4	18.7	20.4	23.1	24.8	26.1	27.4	30.4	33.1	35.7
Biologic Brassica (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8
Biologic Chicory (Pounds per Acre)																					
	0.0	2.2	3.0	6.1	6.1	8.7	10.0	12.2	14.8	15.2	18.3	19.1	21.3	23.9	26.1	27.0	29.6	30.9	33.1	34.4	36.1
Biologic Chicory (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8
Biologic New Zealand Clover Plus (Pounds per Acre)																					
	3.0	3.0	5.7	6.5	8.7	10.9	13.0	14.8	17.8	20.4	23.1	26.1	27.0	30.0	33.1	35.7	37.4	40.5	43.1	46.1	47.8
Biologic New Zealand Clover Plus (Pounds per 1000 Square Feet)																					
	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9	1.0	1.1	1.1
Biologic New Zealand Full Draw (Pounds per Acre)																					
	0.0	0.0	0.0	0.0	0.0	0.4	3.5	7.0	8.7	12.6	15.2	16.5	20.0	22.2	24.8	25.2	27.4	29.1	35.2	41.3	41.8
Biologic New Zealand Full Draw (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.9	1
Biologic New Zealand Maximum (Pounds per Acre)																					
	2.6	2.9	3.5	5.2	7.8	9.6	11.7	14.4	14.8	17.8	20.4	23.1	25.2	27.0	29.6	32.2	33.5	36.5	37.4	41.3	43.5
Biologic New Zealand Maximum (Pounds per 1000 Square Feet)																					
	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1
Birdsfoot Trefoil (Pounds per Acre)																					
	0.0	0.0	1.9	3.9	6.1	8.5	10.9	13.1	15.5	17.7	20.1	22.5	24.9	27.4	29.8	32.4	34.9	37.3	39.5	41.9	44.3
Birdsfoot Trefoil (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1
Brown Top Millet (Pounds per Acre)																					
	0.0	0.0	0.0	0.4	3.0	3.0	6.1	6.1	8.7	9.6	12.6	13.5	16.1	18.3	20.4	21.3	24.4	25.2	27.0	30.0	30.9
Brown Top Millet (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7
Canary Grass (Pounds per Acre)																					
	0.0	0.0	1.7	3.3	4.8	6.5	8.2	9.9	11.6	13.3	15.0	16.9	18.9	20.6	22.8	24.4	26.4	28.2	30.3	32.0	33.9
Canary Grass (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.

NOTE: Overseeders with gauge wheels are based on having 18 x 8.50 x 8 turf tires with 20 psi.



Section 3: Adjustments

Small Seeds Seed Rate Chart (English)

Pounds per acre and 1000 square feet

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Coated Centipede (Pounds per Acre)																					
	0.0	3.0	3.9	6.1	8.3	9.6	12.2	13.9	16.1	18.3	21.7	24.4	26.5	30.0	32.2	35.7	38.3	41.3	43.1	50.9	51.8
Coated Centipede (Pounds per 1000 Square Feet)																					
	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.2	1.2
Evolved Harvest Provide (Pounds per Acre)																					
	0.0	0.0	2.6	6.1	9.6	12.2	14.8	17.8	20.0	23.9	27.0	30.0	33.1	36.5	40.0	43.1	47.8	52.2	53.9	58.3	
Evolved Harvest Provide (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.2	1.2	1.3
Evolved Harvest Rack Force Alfalfa Forage (Pounds per Acre)																					
	0.0	0.4	2.6	3.5	6.5	9.1	11.3	13.9	15.7	18.7	22.2	24.8	27.4	30.4	35.2	38.3	40.9	43.5	47.0	50.0	54.8
Evolved Harvest Rack Force Alfalfa Forage (Pounds per Acre)																					
	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.3
Evolved Harvest Shot Plot (Pounds per Acre)																					
	0.0	0.0	0.4	1.3	3.5	6.5	7.8	9.6	11.7	13.0	15.2	17.4	19.6	21.7	24.4	25.7	27.8	30.4	32.2	34.4	37.4
Evolved Harvest Shot Plot (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.9
Evolved Harvest Throw & Gro (Pounds per Acre)																					
	0.0	0.0	0.0	0.0	0.4	2.2	2.6	3.5	6.1	9.1	11.3	12.6	14.4	14.4	16.5	18.3	19.6	22.2	22.6	23.5	25.2
Evolved Harvest Throw & Gro (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6
Fescue (Pounds per Acre)																					
	0.0	0.0	0.0	1.1	1.7	2.4	3.1	4.0	5.1	6.1	6.9	7.7	8.4	9.0	9.5	10.1	10.5	10.9	11.2	11.7	12.1
Fescue (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
Imperial Alfa-Rack Plus (Pounds per Acre)																					
	0.0	0.0	0.4	3.5	6.1	9.1	10.0	12.2	15.2	18.3	19.6	23.5	25.2	27.8	30.9	33.5	36.5	39.6	41.8	49.6	47.8
Imperial Alfa-Rack Plus (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1
Imperial NO-Plow (Pounds per Acre)																					
	0.0	0.0	0.0	2.2	3.5	6.1	7.0	9.1	12.6	12.6	15.2	17.4	18.3	20.9	23.1	24.8	26.5	29.1	30.0	32.6	35.2
Imperial NO-Plow (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8
Imperial Whitetail Chicory Plus (Pounds per Acre)																					
	0.0	0.4	0.4	3.5	6.1	8.7	10.0	12.6	15.2	18.3	20.9	23.9	27.0	29.6	31.3	33.9	37.0	40.0	42.2	45.2	48.3
Imperial Whitetail Chicory Plus (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1
Imperial Whitetail Clover (Pounds per Acre)																					
	0.0	0.0	3.0	3.9	6.5	9.6	11.7	14.8	16.1	18.7	21.3	23.9	27.0	29.6	32.6	35.7	37.0	40.0	45.2	45.2	48.3
Imperial Whitetail Clover (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1
Imperial Whitetail Double Cross (Pounds per Acre)																					
	0.0	0.0	3.0	3.9	6.5	8.3	11.3	13.0	16.1	18.3	21.3	23.9	26.1	29.6	32.6	34.8	37.0	40.5	42.6	45.7	48.3
Imperial Whitetail Double Cross (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.1
Imperial Whitetail Extreme (Pounds per Acre)																					
	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.6	3.0	5.7	6.1	6.1	7.8	8.7	9.1	10.0	10.4	11.3	13.5	14.4	17
Imperial Whitetail Extreme (Pounds per 1000 Square Feet)																					
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.

NOTE: Overseeders with gauge wheels are based on having 18 x 8.50 x 8 turf tires with 20 psi.



Section 3: Adjustments

Small Seeds Seed Rate Chart (English)

Pounds per acre and 1000 square feet

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Imperial Whitetail Winter Greens (Pounds per Acre)																						
	0.0	2.6	2.6	3.5	6.5	7.0	10.9	12.6	15.7	17.4	19.6	22.2	24.4	26.5	29.1	31.8	28.7	34.4	35.2	38.7	42.2	
Imperial Whitetail Winter Greens (Pounds per 1000 Square Feet)																						
	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.7	0.8	0.8	0.9	1	
Kentucky Blue Grass (Pounds per Acre)																						
	0.0	0.0	0.3	1.4	2.0	3.4	3.9	4.8	5.5	6.2	6.9	7.6	8.1	8.8	9.4	9.9	10.0	11.1	11.6	12.1	12.6	
Kentucky Blue Grass (Pounds per 1000 Square Feet)																						
	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Ladino Clover (Pounds per Acre)																						
	0.0	0.7	1.9	3.6	5.2	6.7	8.7	10.8	12.8	14.5	16.2	18.2	20.1	21.5	23.2	24.9	26.5	28.3	30.3	32.4	33.9	
Ladino Clover (Pounds per 1000 Square Feet)																						
	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.8	
Lettuce (Pounds per Acre)																						
	0.0	0.0	0.0	0.0	0.0	2.6	3.0	3.0	6.1	6.1	6.5	8.3	9.1	9.6	12.2	12.2	13.9	15.2	15.7	17.8	19.1	
Lettuce (Pounds per 1000 Square Feet)																						
	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.4	0.4	
Lovegrass Weeping (Pounds per Acre)																						
	0.0	0.4	2.2	6.1	7.0	8.7	10.4	10.9	13.0	13.9	16.1	17.4	18.7	20.4	21.7	23.1	24.8	27.0	27.4	29.1	30.4	
Lovegrass Weeping (Pounds per 1000 Square Feet)																						
	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	
Orchard Grass (Pounds per Acre)																						
	0.0	0.0	0.0	0.2	0.7	1.0	1.5	1.7	2.2	2.7	3.1	3.6	3.9	4.4	4.8	5.3	5.6	6.1	6.3	6.8	7	
Orchard Grass (Pounds per 1000 Square Feet)																						
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	
Red Clover (Pounds per Acre)																						
	0.0	0.2	2.2	4.1	6.1	8.0	9.9	12.1	14.0	16.0	17.9	19.9	21.8	23.7	25.9	27.8	29.8	31.7	33.6	35.6	37.8	
Red Clover (Pounds per 1000 Square Feet)																						
	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.

NOTE: Overseeders with gauge wheels are based on having 18 x 8.50 x 8 turf tires with 20 psi.



Section 3: Adjustments

Small Seeds Seed Rate Chart (Metric)

Kilograms per hectare and 1000 square meters

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Alfalfa (Kilograms per Hectare)																					
	0.0	0.0	2.7	4.4	5.9	7.5	9.2	10.9	12.2	13.8	15.6	17.1	18.7	20.4	21.7	23.6	25.1	26.6	28.4	29.8	31.4
Alfalfa (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.3	0.4	0.6	0.8	0.9	1.1	1.2	1.4	1.6	1.7	1.9	2.0	2.2	2.4	2.5	2.7	2.8	3.0	3.1
Alsike Clover (Kilograms per Hectare)																					
	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.9	6.4	9.8	13.7	16.1	18.5	20.5	23.9	26.8	31.7	33.6	36.1	39.5	43.8
Alsike Clover (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.6	1.0	1.4	1.6	1.8	2.1	2.4	2.7	3.2	3.4	3.6	3.9	4.4
Bent Grass (Kilograms per Hectare)																					
	0.0	0.0	0.0	1.5	2.7	3.6	4.5	5.7	6.8	7.6	8.7	9.2	9.9	10.4	11.0	11.5	12.0	12.4	13.0	13.1	13.3
Bent Grass (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.1	0.3	0.4	0.4	0.6	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.2	1.2	1.2	1.3	1.3	1.3
Bermuda (Kilograms per Hectare)																					
	0.0	0.0	1.0	1.6	2.2	2.8	3.4	4.1	4.8	5.3	5.9	6.2	6.6	6.9	7.5	8.1	8.9	9.8	11.0	11.7	12.7
Bermuda (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.1	1.2	1.3
Biologic Brassica (Kilograms per Hectare)																					
	0.0	0.0	0.4	3.4	4.8	6.8	9.8	10.2	12.7	13.1	16.1	19.5	21.0	22.9	25.9	27.8	29.3	30.7	34.1	37.1	40.0
Biologic Brassica (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.3	0.5	0.7	1.0	1.0	1.3	1.3	1.6	2.0	2.1	2.3	2.6	2.8	2.9	3.1	3.4	3.7	4.0
Biologic Chicory (Kilograms per Hectare)																					
	0.0	2.5	3.4	6.8	6.8	9.8	11.2	13.7	16.6	17.0	20.5	21.4	23.9	26.8	29.3	30.3	33.2	34.6	37.1	38.6	40.5
Biologic Chicory (Kilograms per 1000 Square Meters)																					
	0.0	0.2	0.3	0.7	0.7	1.0	1.1	1.4	1.7	1.7	2.1	2.1	2.4	2.7	2.9	3.0	3.3	3.5	3.7	3.9	4.0
Biologic New Zealand Clover Plus (Kilograms per Hectare)																					
	3.4	3.4	6.4	7.3	9.8	12.2	14.6	16.6	20.0	22.9	25.9	29.3	30.3	33.6	37.1	40.0	41.9	45.4	48.3	51.7	53.6
Biologic New Zealand Clover Plus (Kilograms per 1000 Square Meters)																					
	0.3	0.3	0.6	0.7	1.0	1.2	1.5	1.7	2.0	2.3	2.6	2.9	3.0	3.4	3.7	4.0	4.2	4.5	4.8	5.2	5.4
Biologic New Zealand Full Draw (Kilograms per Hectare)																					
	0.0	0.0	0.0	0.0	0.0	0.4	3.9	7.8	9.8	14.1	17.0	18.5	22.4	24.9	27.8	28.2	30.7	32.6	39.5	46.3	46.9
Biologic New Zealand Full Draw (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.0	0.0	0.4	0.8	1.0	1.4	1.7	1.8	2.2	2.5	2.8	2.8	3.1	3.3	3.9	4.6	4.7	
Biologic New Zealand Maximum (Kilograms per Hectare)																					
	2.9	3.3	3.9	5.8	8.7	10.8	13.1	16.1	16.6	20.0	22.9	25.9	28.2	30.3	33.2	36.1	37.5	40.9	41.9	46.3	48.8
Biologic New Zealand Maximum (Kilograms per 1000 Square Meters)																					
	0.3	0.3	0.4	0.6	0.9	1.1	1.3	1.6	1.7	2.0	2.3	2.6	2.8	3.0	3.3	3.6	3.8	4.1	4.2	4.6	4.9
Birdsfoot Trefoil (Kilograms per Hectare)																					
	0.0	0.0	2.1	4.4	6.8	9.5	12.2	14.7	17.4	19.8	22.5	25.2	27.9	30.7	33.4	36.3	39.1	41.8	44.3	47.0	49.7
Birdsfoot Trefoil (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.2	0.4	0.7	1.0	1.2	1.5	1.7	2.0	2.3	2.5	2.8	3.1	3.3	3.6	3.9	4.2	4.4	4.7	5.0
Brown Top Millet (Kilograms per Hectare)																					
	0.0	0.0	0.0	0.4	3.4	3.4	6.8	6.8	9.8	10.8	14.1	15.1	18.0	20.5	22.9	23.9	27.3	28.2	30.3	33.6	34.6
Brown Top Millet (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.0	0.3	0.3	0.7	0.7	1.0	1.1	1.4	1.5	1.8	2.1	2.3	2.4	2.7	2.8	3.0	3.4	3.5
Canary Grass (Kilograms per Hectare)																					
	0.0	0.0	1.9	3.7	5.4	7.3	9.2	11.1	13.0	14.9	16.8	18.9	21.2	23.1	25.6	27.3	29.6	31.6	34.0	35.9	38.0
Canary Grass (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.2	0.4	0.5	0.7	0.9	1.1	1.3	1.5	1.7	1.9	2.1	2.3	2.6	2.7	3.0	3.2	3.4	3.6	3.8

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.

NOTE: Overseeders with gauge wheels are based on having 18 x 8.50 x 8 turf tires with 20 psi.



Section 3: Adjustments

Small Seeds Seed Rate Chart (Metric)

Kilograms per hectare and 1000 square meters

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Coated Centipede (Kilograms per Hectare)																					
	0.0	3.4	4.4	6.8	9.3	10.8	13.7	15.6	18.0	20.5	24.3	27.3	29.7	33.6	36.1	40.0	42.9	46.3	48.3	57.1	58.1
Coated Centipede (Kilograms per 1000 Square Meters)																					
	0.0	0.3	0.4	0.7	0.9	1.1	1.4	1.6	1.8	2.1	2.4	2.7	3.0	3.4	3.6	4.0	4.3	4.6	4.8	5.7	5.8
Evolved Harvest Provide (Kilograms per Hectare)																					
	0.0	0.0	2.9	6.4	6.8	10.8	13.7	16.6	20.0	22.4	26.8	30.3	33.6	37.1	40.9	44.8	48.3	53.6	58.5	60.4	65.3
Evolved Harvest Provide (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.3	0.6	0.7	1.1	1.4	1.7	2.0	2.2	2.7	3.0	3.4	3.7	4.1	4.5	4.8	5.4	5.9	6.0	6.5
Evolved Harvest Rack Force Alfalfa Forage (Kilograms per Hectare)																					
	0.0	0.4	2.9	3.9	7.3	10.2	12.7	15.6	17.6	21.0	24.9	27.8	30.7	34.1	39.5	42.9	45.8	48.8	52.7	56.0	61.4
Evolved Harvest Rack Force Alfalfa Forage (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.3	0.4	0.7	1.0	1.3	1.6	1.8	2.1	2.5	2.8	3.1	3.4	3.9	4.3	4.6	4.9	5.3	5.6	6.1
Evolved Harvest Shot Plot (Kilograms per Hectare)																					
	0.0	0.0	0.4	1.5	3.9	7.3	8.7	10.8	13.1	14.6	17.0	19.5	22.0	24.3	27.3	28.8	31.2	34.1	36.1	38.6	41.9
Evolved Harvest Shot Plot (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.1	0.4	0.7	0.9	1.1	1.3	1.5	1.7	2.0	2.2	2.4	2.7	2.9	3.1	3.4	3.6	3.9	4.2
Evolved Harvest Throw & Gro (Kilograms per Hectare)																					
	0.0	0.0	0.0	0.0	0.4	2.5	2.9	3.9	6.8	10.2	12.7	14.1	16.1	16.1	18.5	20.5	22.0	24.9	25.3	26.3	28.2
Evolved Harvest Throw & Gro (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.7	1.0	1.3	1.4	1.6	1.6	1.8	2.1	2.2	2.5	2.5	2.6	2.8
Fescue (Kilograms per Hectare)																					
	0.0	0.0	0.0	1.2	1.9	2.7	3.5	4.5	5.7	6.8	7.7	8.6	9.4	10.1	10.6	11.3	11.8	12.2	12.6	13.1	13.6
Fescue (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.4
Imperial Alfa-Rack Plus (Kilograms per Hectare)																					
	0.0	0.0	0.4	3.9	6.8	10.2	11.2	13.7	17.0	20.5	22.0	26.3	28.2	31.2	34.6	37.5	40.9	44.4	46.9	55.6	53.6
Imperial Alfa-Rack Plus (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.4	0.7	1.0	1.1	1.4	1.7	2.1	2.2	2.6	2.8	3.1	3.5	3.8	4.1	4.4	4.7	5.6	5.4
Imperial NO-Plow (Kilograms per Hectare)																					
	0.0	0.0	0.0	2.5	3.9	6.8	7.8	10.2	14.1	14.1	17.0	19.5	20.5	23.4	25.9	27.8	29.7	32.6	33.6	36.5	39.5
Imperial NO-Plow (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.2	0.4	0.7	0.8	1.0	1.4	1.4	1.7	2.0	2.1	2.3	2.6	2.8	3.0	3.3	3.4	3.7	3.9
Imperial Whitetail Chicory Plus (Kilograms per Hectare)																					
	0.0	0.4	0.4	3.9	6.8	9.8	11.2	14.1	17.0	20.5	23.4	26.8	30.3	33.2	35.1	38.0	41.5	44.8	47.3	50.7	54.1
Imperial Whitetail Chicory Plus (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.4	0.7	1.0	1.1	1.4	1.7	2.1	2.3	2.7	3.0	3.3	3.5	3.8	4.1	4.5	4.7	5.1	5.4
Imperial Whitetail Clover (Kilograms per Hectare)																					
	0.0	0.0	3.4	4.4	7.3	10.8	13.1	16.6	18.0	21.0	23.9	26.8	30.3	33.2	36.5	40.0	41.5	44.8	50.7	50.7	54.1
Imperial Whitetail Clover (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.3	0.4	0.7	1.1	1.3	1.7	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0	4.1	4.5	5.1	5.1	5.4
Imperial Whitetail Double Cross (Kilograms per Hectare)																					
	0.0	0.0	3.4	4.4	7.3	9.3	12.7	14.6	18.0	20.5	23.9	26.8	29.3	33.2	36.5	39.0	41.5	45.4	47.7	51.2	54.1
Imperial Whitetail Double Cross (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.3	0.4	0.7	0.9	1.3	1.5	1.8	2.1	2.4	2.7	2.9	3.3	3.7	3.9	4.1	4.5	4.8	5.1	5.4
Imperial Whitetail Extreme (Kilograms per Hectare)																					
	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.9	3.4	6.4	6.8	6.8	8.7	9.8	10.2	11.2	11.7	12.7	15.1	16.1	19.1
Imperial Whitetail Extreme (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.6	0.7	0.7	0.9	1.0	1.0	1.1	1.2	1.3	1.5	1.6	1.9

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.
NOTE: Overseeders with gauge wheels are based on having 18 x 8.50 x 8 turf tires with 20 psi.



Section 3: Adjustments

Small Seeds Seed Rate Chart (Metric)

Kilograms per hectare and 1000 square meters

Cup Setting	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Imperial Whitetail Winter Greens (Kilograms per Hectare)																					
	0.0	2.9	2.9	3.9	7.3	7.8	12.2	14.1	17.6	19.5	22.0	24.9	27.3	29.7	32.6	35.6	32.2	38.6	39.5	43.4	47.3
Imperial Whitetail Winter Greens (Kilograms per 1000 Square Meters)																					
	0.0	0.3	0.3	0.4	0.7	0.8	1.2	1.4	1.8	2.0	2.2	2.5	2.7	3.0	3.3	3.6	3.2	3.9	3.9	4.3	4.7
Kentucky Blue Grass (Kilograms per Hectare)																					
	0.0	0.0	0.3	1.6	2.2	3.8	4.4	5.4	6.2	6.9	7.7	8.5	9.1	9.9	10.5	11.1	11.2	12.4	13.0	13.6	14.1
Kentucky Blue Grass (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.2	0.2	0.4	0.4	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.1	1.2	1.3	1.4	1.4
Ladino Clover (Kilograms per Hectare)																					
	0.0	0.8	2.1	4.0	5.8	7.5	9.8	12.1	14.3	16.3	18.2	20.4	22.5	24.1	26.0	27.9	29.7	31.7	34.0	36.3	38.0
Ladino Clover (Kilograms per 1000 Square Meters)																					
	0.0	0.1	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.3	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8
Lettuce (Kilograms per Hectare)																					
	0.0	0.0	0.0	0.0	0.0	2.9	3.4	3.4	6.8	6.8	7.3	9.3	10.2	10.8	13.7	13.7	15.6	17.0	17.6	20.0	21.4
Lettuce (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.7	0.7	0.7	0.9	1.0	1.1	1.4	1.4	1.6	1.7	1.8	2.0	2.1
Lovegrass Weeping (Kilograms per Hectare)																					
	0.0	0.4	2.5	6.8	7.8	9.8	11.7	12.2	14.6	15.6	18.0	19.5	21.0	22.9	24.3	25.9	27.8	30.3	30.7	32.6	34.1
Lovegrass Weeping (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.2	0.7	0.8	1.0	1.2	1.2	1.5	1.6	1.8	2.0	2.1	2.3	2.4	2.6	2.8	3.0	3.1	3.3	3.4
Orchard Grass (Kilograms per Hectare)																					
	0.0	0.0	0.0	0.2	0.8	1.1	1.7	1.9	2.5	3.0	3.5	4.0	4.4	4.9	5.4	5.9	6.3	6.8	7.1	7.6	7.8
Orchard Grass (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8
Red Clover (Kilograms per Hectare)																					
	0.0	0.2	2.5	4.6	6.8	9.0	11.1	13.6	15.7	17.9	20.1	22.3	24.4	26.6	29.0	31.2	33.4	35.5	37.7	39.9	42.4
Red Clover (Kilograms per 1000 Square Meters)																					
	0.0	0.0	0.2	0.5	0.7	0.9	1.1	1.4	1.6	1.8	2.0	2.2	2.4	2.7	2.9	3.1	3.3	3.6	3.8	4.0	4.2

IMPORTANT: Do Not operate seed rate adjustment lever at -0- cup setting. Seed cup damage may occur.

NOTE: Overseeders with gauge wheels are based on having 18 x 8.50 x 8 turf tires with 20 psi.

Section 4: Maintenance & Lubrication

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:

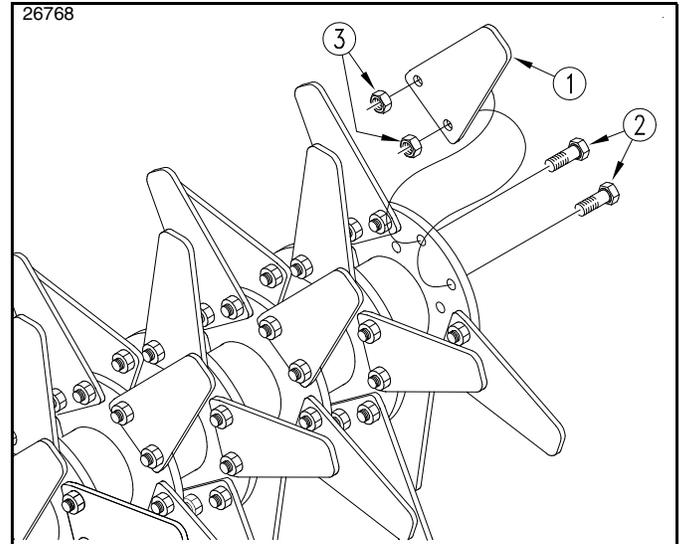
Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to the hydraulics is off.

WARNING

To avoid serious injury or death:

- Make sure controls are all in the neutral position or park before starting the power machine.
- Always shut tractor down using “Tractor Shutdown Procedure” provided in this manual before servicing, adjusting, cleaning, or maintaining this implement.
- Allow only persons to perform maintenance on this implement who have been properly trained in its safe operation.
- Before any lubrication or maintenance are performed, lower implement to ground, shut engine off, and remove ignition key. Do not attempt to lubricate or perform maintenance with implement or power machine running.
- Perform scheduled maintenance. Check for loose hardware, missing parts, broken parts, structural cracks, and excessive wear. Make repairs before putting the implement back into service.
- 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.

1. After using your Overseeder for several hours, check all bolts to be sure they are tight.
2. Lubricate areas noted in the “**Lubrication**” section.
3. Adjust idlers to remove excess slack from chains. Clean and use chain lube on all roller chains as needed.
4. Feed cup drive sprocket should be oiled in its square bore. Move feed cup adjustment lever away from sprocket as far as possible in order to get oil back into square.
5. Always maintain proper air pressure in turf tires.
6. Replace any worn, damaged, or illegible safety labels by obtaining new labels from your Land Pride dealer.



Individual Knife Replacement
Figure 4-1

Individual Knife Replacement

The following instructions are for replacing only a few bent and/or broken knives on the rotor without removing the rotor from the Overseeder frame. It is best to remove the rotor from the frame if replacing all knives. See “**Rotor Maintenance**” on this page to replace all knives.

Refer to Figure 4-1:

1. Remove two cap screws (#2) and locknuts (#3) from knife (#1) to be replaced.
2. Remove damaged knife and install new knife (#1) on same side of attaching flange as the damaged knife was using new 7/16” locknuts (#3), Land Pride Part No. 803-108C. Torque nuts to 68 ft-lbs.

Section 4: Maintenance & Lubrication

Rotor Maintenance

It is best to remove the rotor knife assembly when replacing the complete set of knives, right-hand bearing, and/or bearing seal. Knives are worn out when they can not be set to penetrate the soil to your desired depth.

1. Attach chain, cable, or lifting strap to the two Overseeder sling brackets. Use an overhead hoist for rotor removal and installation.
2. Remove chain guard from right-hand side of your Overseeder.

3. Remove drive chain as follows:

**Overseeder With Gauge Wheel Drive
Refer to Figure 4-2:**

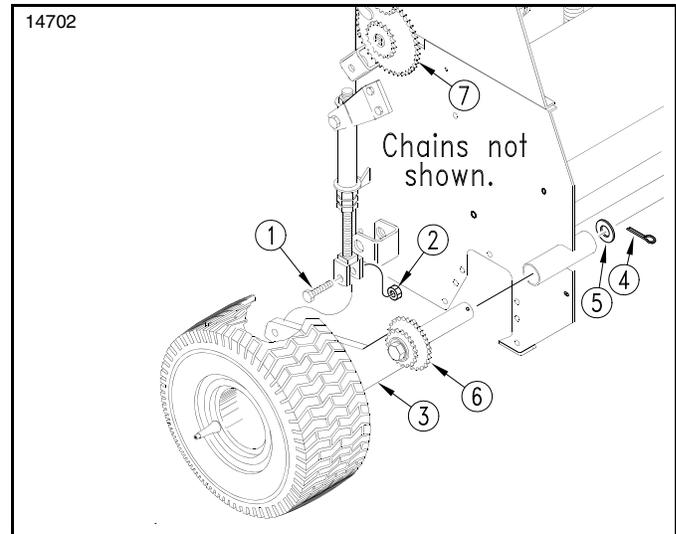
- a. Remove chain from gauge wheel sprocket (#6) to seed cup sprocket (#7).
- b. Remove 5/8" x 2 1/2" long bolt (#1) and nut (#2).

**Overseeder With Rear Roller Drive
Refer to "Figure 4-3" on page 50**

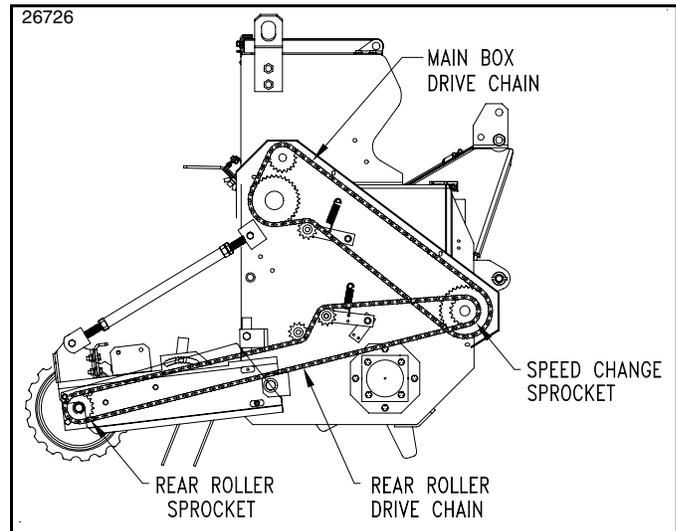
- a. Remove rear roller drive chain from speed change sprocket to rear roller sprocket.

Refer to Figure 4-4:

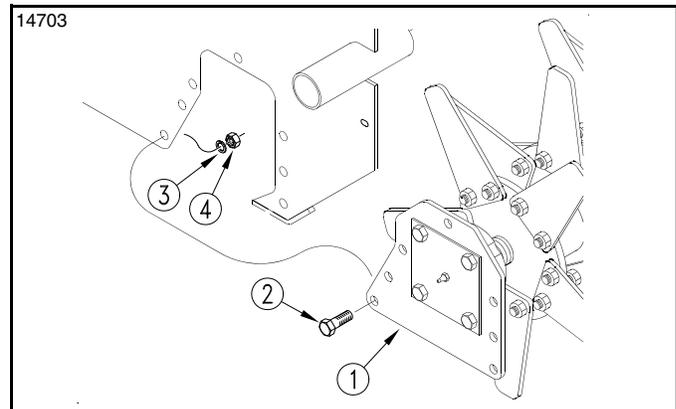
4. Remove right-hand side or rotor from the Overseeder by removing 1/2" x 1 1/4" bolts (#2), lock washer (#3), hex nut (#4), and right-hand bearing mount plate (#1) from the Overseeder main frame.



**Gauge Wheel Disconnect
Figure 4-2**



**Rear Roller Drive Disconnect
Figure 4-3**



**Right-hand Rotor Disassembly
Figure 4-4**

Section 4: Maintenance & Lubrication

Refer to Figure 4-5:

5. Disconnect left-hand side of rotor from rotor drive hub (#1) by removing 7/16" x 1" long bolts (#3) and 7/16" lock washers (#2).

Refer to Figure 4-6:

6. Remove bearing mount plate (#1) from bearing housing assembly (#4). Take care not to damage gaskets (#2) on either side of the right-hand bearing mount plate.
7. Remove snap ring (#3) and bearing (#4) from the rotor shaft.
8. Loosen two set screws (#5) in seal guard hub (#6) and slide hub off the rotor shaft.
9. Clamp rotor shaft on one of the knife mounting flanges and, using a spanner wrench, unscrew (left-hand threads) non-drive rotor flange (#7).

NOTE: The threads on the non-drive rotor flange are left-handed threads.

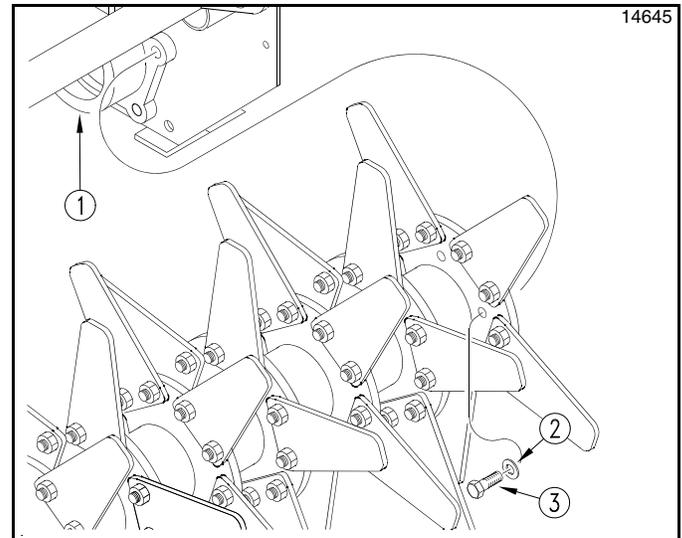
10. Slide knife mounting flanges (#8) and spacers (#9) off rotor shaft.
11. Replace knives (#12) as needed using new 7/16" locknuts, Land Pride part no. 803-108C. Torque nuts to 68 ft-lbs.

NOTE: The spiral arrangement of knives needs to be reassembled in the same manner.

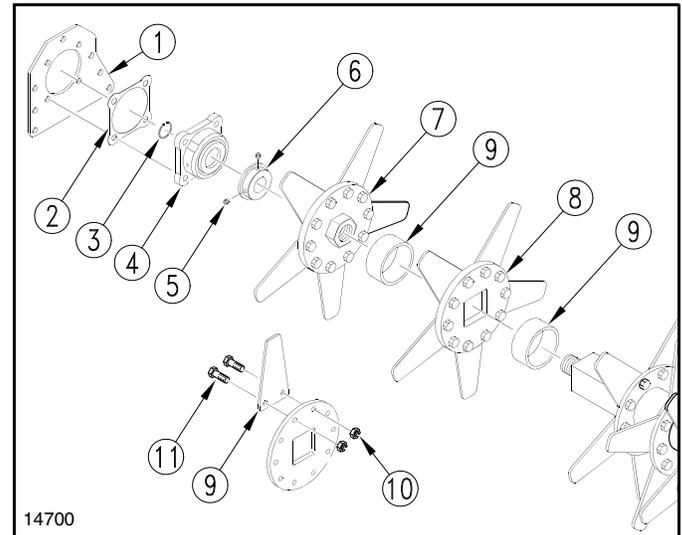
12. Inspect bearing (#4) and bearing seal for wear and replace if necessary.
13. Reassemble spacers and knife mounting flanges in the same spiral pattern as they were before disassembly.

NOTE: The knives (#12) should all be on the right side of the mounting flanges as viewed from the rear of the Overseeder.

14. Reassemble non-drive rotor flange (#7). Using a spanner wrench, torque rotor flange to 985 ft-lbs. Remember: These are left-hand threads.
15. Slide seal guard hub (#6) onto the rotor shaft and leave set screws (#5) loose.
16. Apply a coat of grease to the seal and press bearing housing assembly (#4) onto the rotor shaft, taking care not to damage the seal. Reinstall snap ring (#3).
17. Install rotor to the Overseeder by reversing steps 2 through 4.
18. Adjust seal guard hub (#6) against the bearing seal and tighten 1/4"-28 set screws (#5).

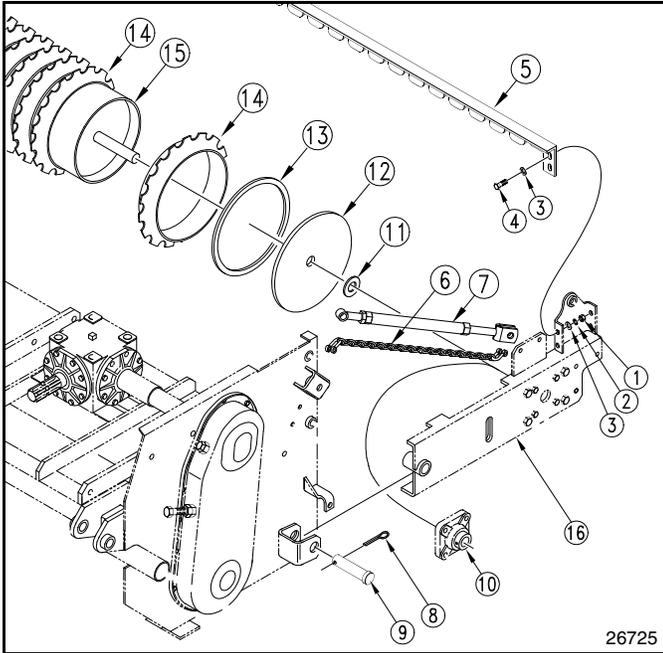


Left-hand Rotor Disassembly
Figure 4-5



Rotor Bearing and Knife Removal
Figure 4-6

Section 4: Maintenance & Lubrication



Rear Roller and Spacer Assembly (Left Side)
Figure 4-7

Rear Roller Maintenance

Refer to Figure 4-7:

Rear roller wheels (#14) should rotate freely over wheel mounting tube (#15) and have a small amount of lateral movement between the two end plates (#12). This loose fit allows for the rollers to turn independently from each other which keeps debris from locking them up and allows the seeder to turn corners without pushing dirt in front of the rollers.

Rear Roller Inspection

Inspect roller wheels daily to make sure they are turning and not pushing dirt. You should be able to hold one roller still while rotating the roller next to it with your hand. If this cannot be done, then the rollers should be cleaned of debris that has impacted between them.

Over time, the roller wheels will wear against each other and become loose moving back and forth laterally on the mounting tube. Spacers, 1/4" (6 mm) in width, should be added on the left end to take up excessive slack and to extend the life of the roller wheels and mounting tube. Also, the roller wheels should be inspected for breakage. Broken rollers should be replaced as soon as possible.

Inspect roller wheels for wear by sliding all rear roller wheels (#14) and end spacers (#13) to the right and then measure the gap on the left end. If gap between last end spacer (#13) and end cap (#12) is 3/8" (10 mm) or greater, then an additional 1/4" (6 mm) spacer or spacers should be added to the mounting tube. Never add too many spacers. Too many spacers will force the roller wheels tight against one another and won't allow them to turn independently.

Rear Roller Disassembly

Disassemble rear roller mounting tube from Overseeder as follows:

NOTE: During disassembly, set aside all loose components and hardware in an orderly fashion and in a safe location for relocating and reassembling.

1. Lower Overseeder and rear roller to ground, shut tractor off, set park brakes, and remove switch key.
2. Disconnect packer chain (#6) or turnbuckle (#7) from the left-hand rear roller arm (#16).
3. Remove 3/8" bolts (#4) and scraper bar (#5) from left and right rear roller arms (#16).
4. Remove 3/16" cotter pin (#8) and clevis pin (#9). Lower front of left rear roller arm (#16) to the ground.
5. Loosen set screw in eccentric locking collar of bearing (#10) and then rotate eccentric locking collar counterclockwise. This should free the shaft from the bearing.
6. Remove rear roller arm (#16) with attached bearing (#10) from rear roller mounting tube (#15).
7. Remove flat washer (#11) and end cap (#12).

Rear Roller Assembly

1. Replace roller wheels (#14) and/or add 1/4" (6 mm) spacer rings (#13) as needed on the left side of the seeder:

Roller Wheels

- a. Remove roller wheels (#14) from mounting tube (#15) until you reach the broken roller.
- b. Replace broken roller with new roller and reinstall removed roller wheels.

Spacer Rings

- a. Add spacer rings on the end of the mounting tube until gap measured in paragraph of "Rear Roller Inspection" is almost but not quite filled.
2. Replace end cap (#12) and flat washer (#11) on shaft of mounting tube (#15).
 3. Insert shaft of mounting tube (#15) fully into bearing (#10). Turn bearing eccentric locking collar clockwise and then tighten set screw in locking collar.
 4. Reattach rear roller arm (#16) to seeder panel with 1" clevis pin (#9) and 3/16" cotter pin (#8). Be sure to bend one leg of cotter pin to secure it in place.
 5. Insert stop pin (#7) in seeder bracket and secure with hairpin cotter (#6).
 6. Reattach scraper bar (#5) to left and right rear roller arms (#16) with 3/8"-16 x 1 1/4 GR5 hex head cap screws (#4), flat washers (#3), lock washers (#2), and hex nuts (#1).
 7. Reattach packer chain (#6) or turnbuckle (#7) to rear roller arm (#16) with remaining hardware.

Section 4: Maintenance & Lubrication

Driveline Protection

Before each use, check that all driveline shields and drivelines are in place, undamaged and in working order. Replace shields and drivelines as needed. Order only genuine Land Pride parts from your local Land Pride dealer.

DANGER

To prevent 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.

WARNING

To prevent serious injury or death:

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.

Drivelines With Slip Clutches

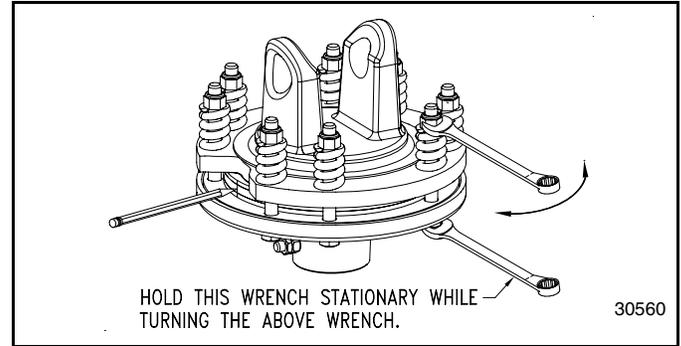
Drive components are protected from shock loads by a friction slip clutch. The clutch must be capable of slippage during operation to protect the gearbox, driveline, and other drivetrain parts.

WARNING

To avoid serious injury or death:

- Always follow “Tractor Shutdown Procedure” provided in this manual before dismounting the tractor.
- A slip clutch that has been in use or has slipped for as little as only two or three seconds during run-in may be too hot to touch. Allow a hot clutch to cool before working on it.

IMPORTANT: Prior to initial operation and after 10 days of inactivity, slip friction disks to remove oxidation and moisture. Moisture allows disks to slip easily. Oxidation can prevent disk from slipping causing driveline damage. This damage is NOT covered under the warranty.



Clutch Run-In
Figure 4-8

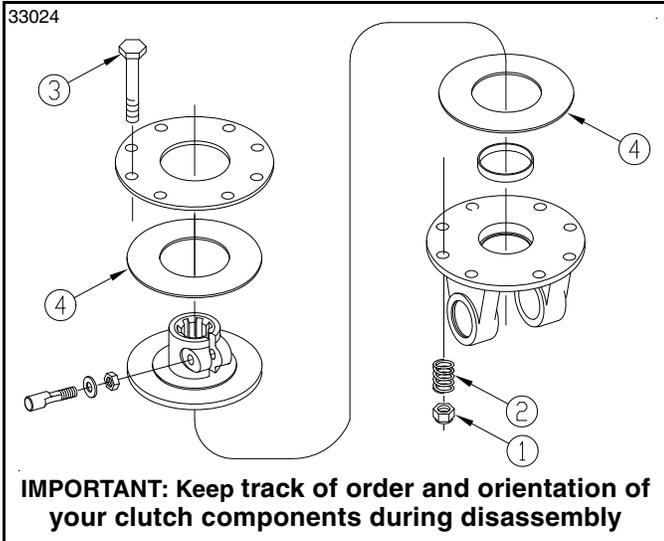
Clutch Run-In

Refer to Figure 4-8:

Friction clutches should be “run-in” prior to initial operation and after long periods of inactivity. To prevent driveline and gearbox damage, repeat clutch “run-in” at the beginning of each season and when moisture and/or condensation seizes the inner friction plates.

1. Using a pencil or other marker scribe a line across the exposed edges of the clutch plates and friction disks.
2. Carefully loosen each of the 8 spring retainer nuts by exactly 2 revolutions. It will be necessary to hold the hex end of the retainer bolt in order to count the exact number of revolutions.
3. Start the tractor and engage the driveline drive for 2-3 seconds to permit slippage of the clutch surfaces. Disengage the driveline, then re-engage a second time for 2-3 seconds. Disengage driveline, shut off tractor, and remove key. Wait for all components to stop before dismounting from tractor.
4. Inspect the clutch and ensure that the scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disk and plate are still aligned. A clutch that has not slipped must be disassembled to separate the friction disk plates. See “**Clutch Disassembly**” to disassemble clutch.
5. Tighten each of the 8 spring retainer nuts on the clutch housing exactly 2 revolutions to restore the clutch to the original setting pressure.
6. The clutch should be checked during the first hour of operation and periodically each week. An additional set of scribe marks can be added to check for slippage. See “**Clutch Assembly**” to adjust for proper spring length.

Section 4: Maintenance & Lubrication



Clutch Disassembly (826-668C only)
Figure 4-9

Clutch Disassembly

If the clutch run-in procedure, (See “Clutch Run-In” on page 53), indicated that one or more of the friction disks did not slip, the clutch must be disassembled to separate the friction discs.

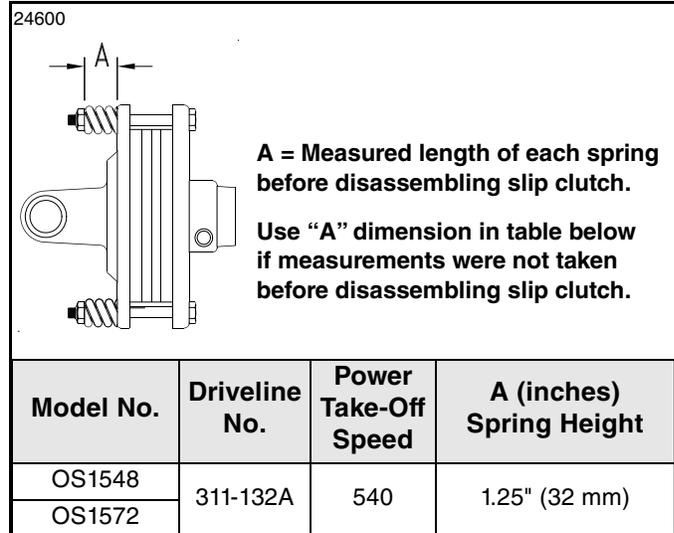
IMPORTANT: Refer to Figure 4-10. Be Sure to measure and record length (“A”) of each spring before disassembling the clutch.

Refer to Figure 4-9:

See **IMPORTANT NOTE** above before disassembling clutch. After measuring and recording each spring length, remove spring retainer nuts (#1), springs (#2), and bolts (#3). Each friction disc (#4) must then be separated from the metal surface adjacent to it.

Inspection

Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement. The original friction disc thickness is 1/8" (3.2mm) and should be replaced if thickness falls below 3/64" (1.1mm). If clutches have been slipped to the point of “smoking”, the friction discs may be damaged and should be replaced. Heat build-up may also affect the yoke joints.



Clutch Adjustment
Figure 4-10

Clutch Assembly

Refer to Figure 4-9:

Reassemble each friction disk (#4) next to the metal plate it was separated from. Make certain all bushing are replaced in the same location as when removed. Install bolts (#3) through end plates and intermediate plates as shown. Place springs (#2) over the bolts and secure with nuts (#1).

Refer to Figure 4-10:

Progressively tighten each spring retainer bolt until correct spring height (“A” dimension) is reached.



Section 4: Maintenance & Lubrication

Long-Term Storage

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

1. Completely clean the seedbox of seed and other debris before storing.
2. Remove any dirt and grease that may have accumulated on the seeder and moving parts. Scrape off compacted dirt and then wash surface thoroughly with a garden hose. A coating of oil may also be applied to the lower area to minimize oxidation.
3. Lubricate and adjust all roller chains and fittings.
4. Drain and refill gear case and chaincase oil.
 - Drain oil in gear case by removing plug from the bottom side of the rotor housing.
 - Drain oil in chaincase by removing oil level plug and fill plug.
5. Feed cup drive sprocket hub should be oiled in its square bore. Squirt oil on to the square feed cup shaft and move feed cup adjustment lever back and forth to get oil back into the square bore. This is most important before putting the Overseeder in storage.
6. Check knives for wear and replace if necessary.
7. Inspect Overseeder for loose, damaged, or worn parts and adjust or replace as needed.
8. Repaint parts where paint is worn or scratched to prevent rust. Ask your Land Pride dealer for aerosol touch-up paint. Paint is also available in touch-up bottles with brush, quarts, and gallon sizes by adding TU, QT, or GL to the end of the aerosol part number.

Land Pride Touch-up Paint	
Part No.	Part Description
821-011C	PAINT LP BEIGE SPRAY CAN
821-066C	PAINT ORANGE SPRAY CAN
821-070C	PAINT GP GLOSS BLACK SPRAY CAN

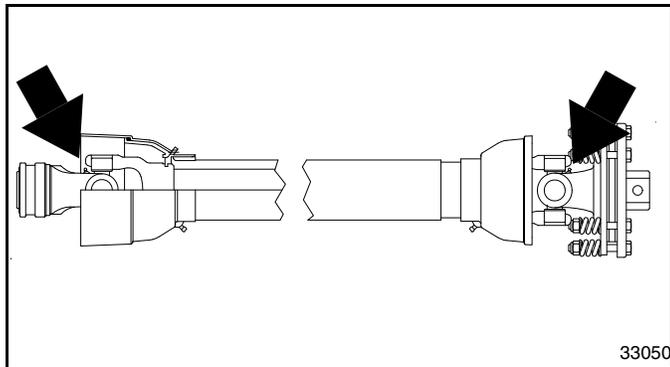
9. Replace all damaged or missing decals.
10. Lubricate as noted in “**Lubrication Points**” starting on page 56.
11. Store Overseeder and its attachments inside if possible to extend the Overseeder’s life.
12. When in storage, lower Overseeder with rollers on a board or hard surface and adjust park stand to properly support the seeder.



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



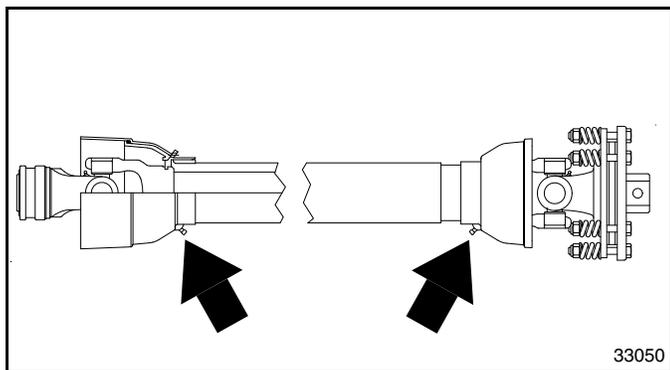
10 Hours

Driveline U-Joints

Add grease to the driveline u-joint every 8 hours of operation.

Type of grease = Multi-Purpose

Quantity = Coat Generously



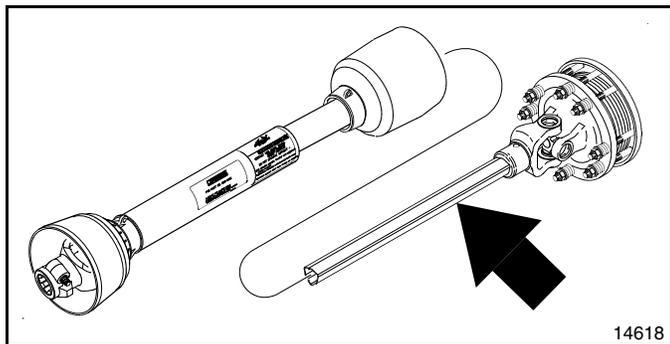
10 Hours

Driveline Shield Bearings

Add grease to the driveline shields every 8 hours of operation.

Type of Lubrication: Multi-Purpose

Quantity = 6 pumps



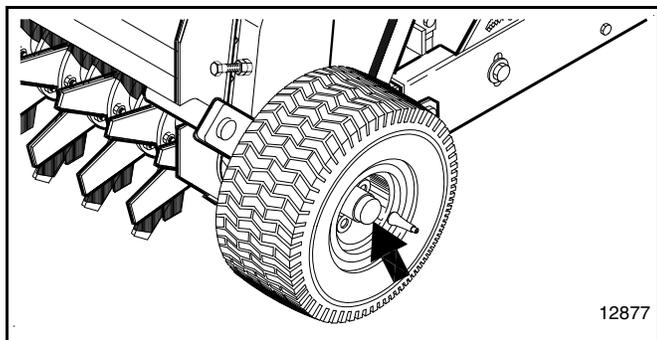
20 Hours

Driveline Profiles

Disconnect driveline from the tractor and slide apart. Clean and coat the inner tube of the driveline with a light film of grease and then reassemble.

Type of grease = Multi-Purpose

Quantity = Coat Generously



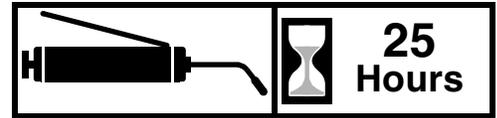
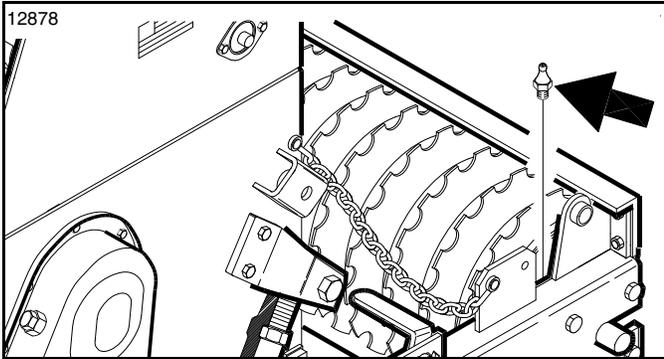
Seasonally

Wheel Bearings

Repack wheel bearings

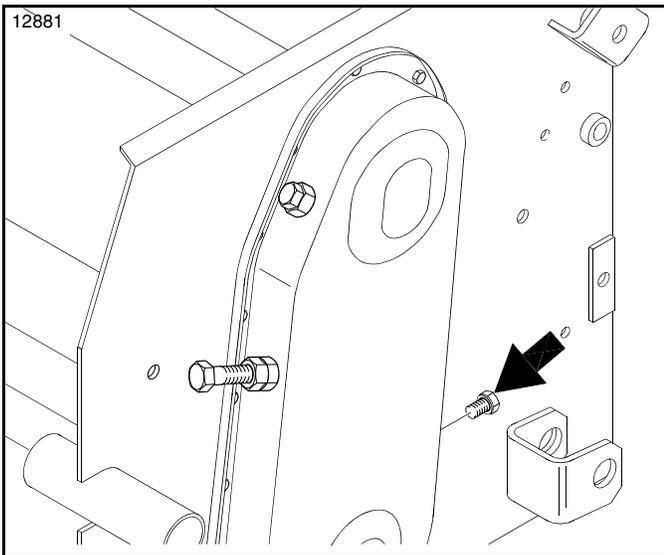
Type of Lubricant: Wheel Bearing Grease

Section 4: Maintenance & Lubrication



Rear Roller Bearings

Type of Lubricant: Multi-purpose Grease



Chaincase

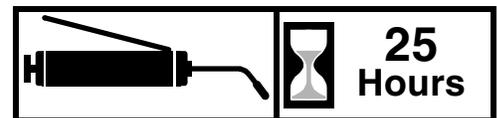
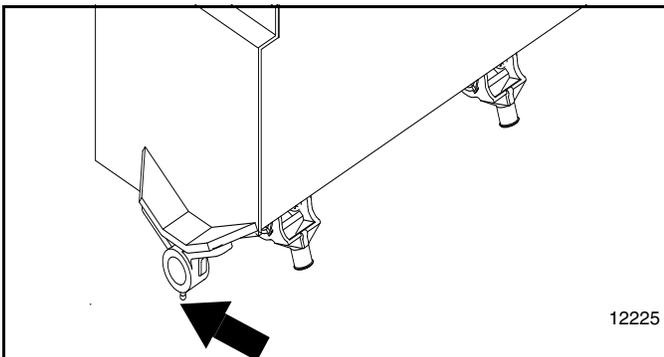
IMPORTANT: Check lubricant level in the chaincase after the machine has run long enough to heat the lubricant to a fluid state. Level the machine and remove lower level plug. Heated lubricant should reach the bottom of the plug hole. If needed, add recommended lubricant through the level hole or fill hole. Tighten all removed plugs when done.

Type of Lubrication:

Shell Gadus S2 V220 00 flowable grease or equivalent Land Pride #821-086C, 32oz. (.95 L) bottle

Quantity when empty: 32 oz (0.95 L)

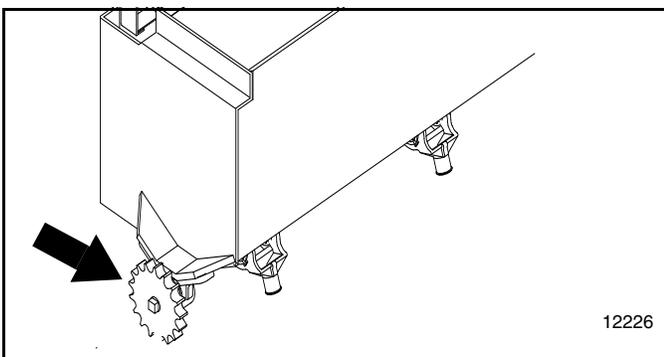
Quantity when low: Flowable grease should reach bottom of level plug hole when in the liquid state.



Drive Sprocket Hanger Bearing

(Small Seeds Attachment)

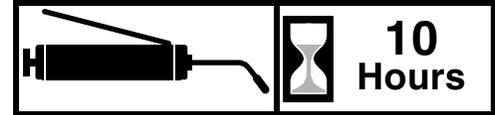
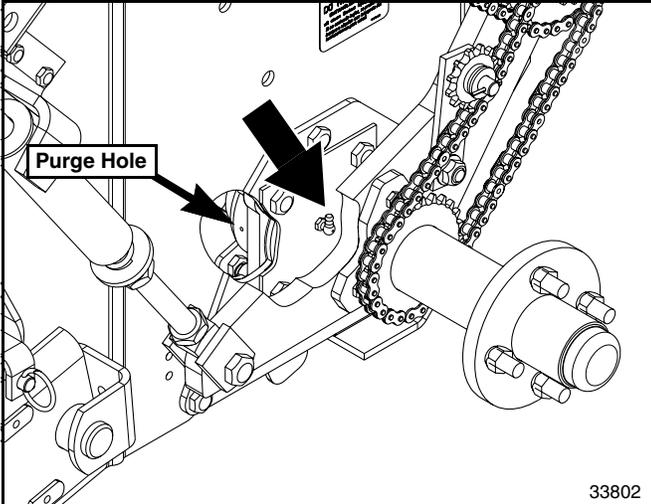
Type of Lubricant: Multi-purpose Grease



Feed Cup Drive Sprocket

(Small Seeds Attachment)

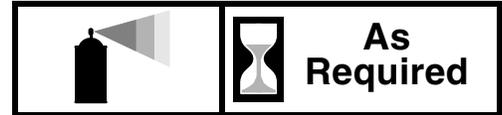
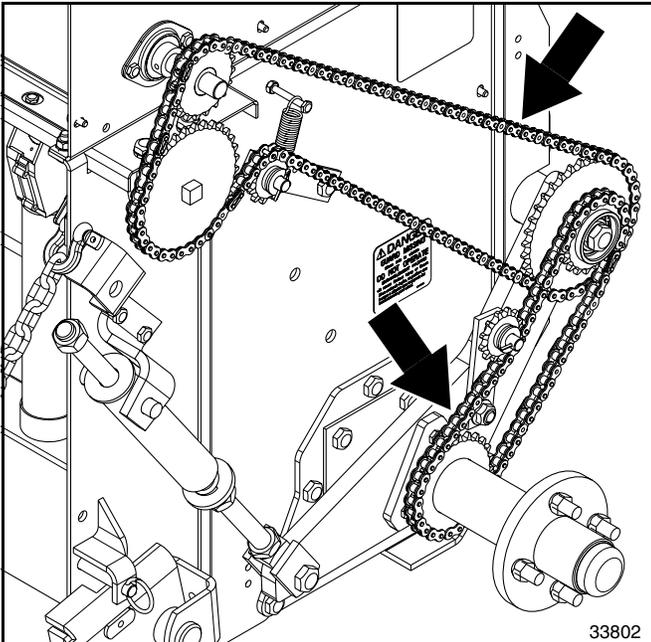
Type of Lubricant: Oil



Right-hand Rotor Bearing

(Main Seedbox)

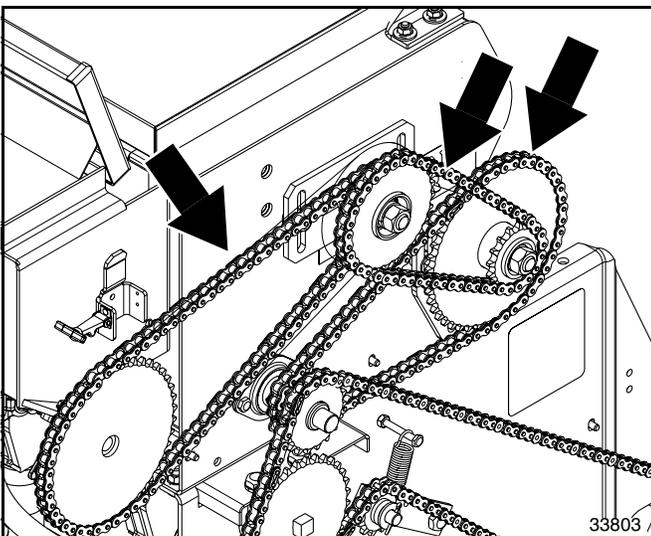
Type of Lubricant: Multi-purpose Grease
Add grease until grease purges from purge hole



Feed Cup and Agitator Drive Chains

(Main Seedbox - 2 chains)

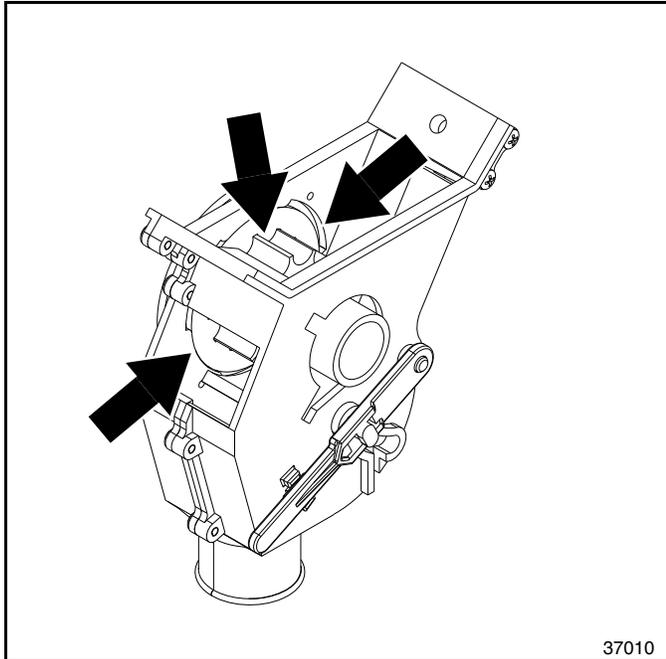
Type of Lubricant: Chain Lubricant
Do not overlubricate



Small Seeds Drive Chains

(Small Seeds Attachment - 3 chains)

Type of Lubricant: Chain Lubricant
Do not overlubricate



Graphite Powder	 As Needed
------------------------	--

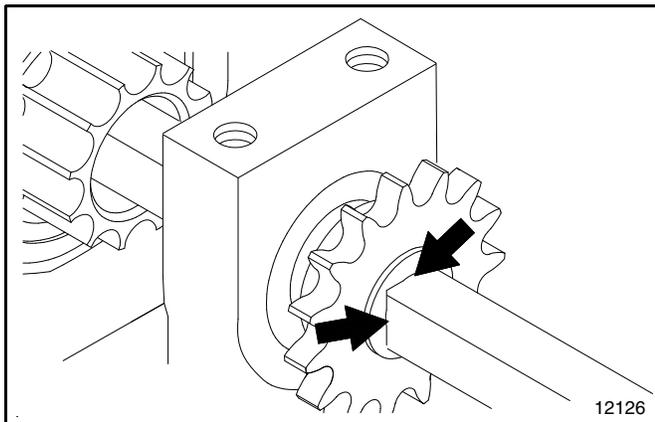
Seed Cup Sprockets and Nylon Washers

IMPORTANT: DO NOT use petroleum lubricant on plastic seed cups. Petroleum will absorb into the plastic and swell plastic components.

NOTE: Cleaning seed cups seasonally is often all that is required to keep seed cups working properly. Remove seed from seedbox and seed cups. Rinse each seed cup thoroughly with water spray from a garden hose. Allow seed cups to air dry completely before putting seeder back into service.

Type of Lubrication: Graphite Powder
Land Pride # 821-042C (1 lb. Container)

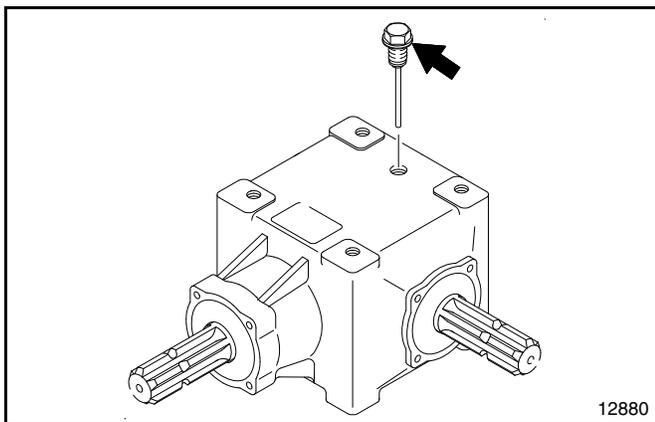
Quantity = Mix as needed, 1 teaspoon of powdered graphite for every bushel of seed in the seedbox.



	 50 Hours
--	--

Feed Cup Drive Sprocket

Type of Lubricant: Oil



	 As Required
---	--

Gearbox

Type of Lubricant: Gear Lube 80-90 EP
Fill to full mark on dip stick

Section 5: Options & Accessories

Slit Seeder Attachment

Refer to Figure 5-1:

The slit seeder attachment provides for improved seed burial by diverting seed directly to the slits cut by the Overseeder knives.

The Slit Seeder option may be ordered with your Overseeder, or installed at a later time by you or your dealer. Use the following list to obtain the correct Slit Seeder Attachment for your Overseeder.

- 308-152A OS1572 - 2" (5.1 cm) Slit Seeder Spacing
- 308-155A OS1572 - 3" (7.6 cm) Slit Seeder Spacing
- 308-160A OS1548 - 2" (5.1 cm) Slit Seeder Spacing
- 308-163A OS1548 - 3" (7.6 cm) Slit Seeder Spacing

For additional information refer to:

- "Slit Seeder Attachment (Optional)" on page 39.

Rear Tine Attachment

Refer to Figure 5-2:

The rear tine attachment bolts to the rear arms with only two bolts. It is a full width two-row spring tooth harrow designed to help move seed into the soil. The tine attachment can be set at different angles and depths.

The Rear Tine option may be ordered with your Overseeder or installed at a later time by you or your dealer.

- 308-316A 48" Overseeder
- 308-317A 72" Overseeder

For additional information refer to:

- "Tine Attachment (Optional)" on page 38.

Agitation Extension Kit (Accessory)

Refer to Figure 5-3:

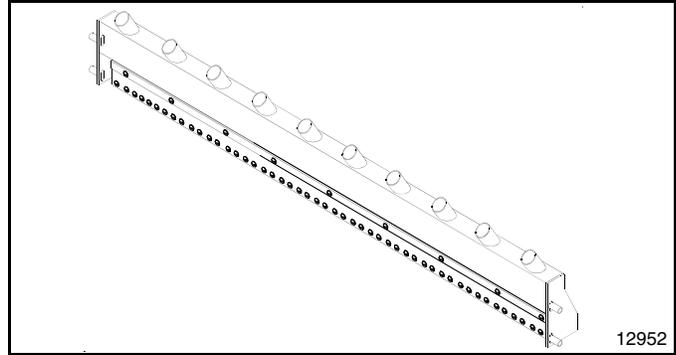
Extended agitator paddles can be added to your existing paddles in the main seedbox to help break-up bridging of light fluffy seed across the seedbox discharge opening. See your nearest Land Pride dealer to order the correct kit for your seeder.

- 313-503A Agitator Extension Kit, 48" Box Width
- 313-505A Agitator Extension Kit, 72" Box Width

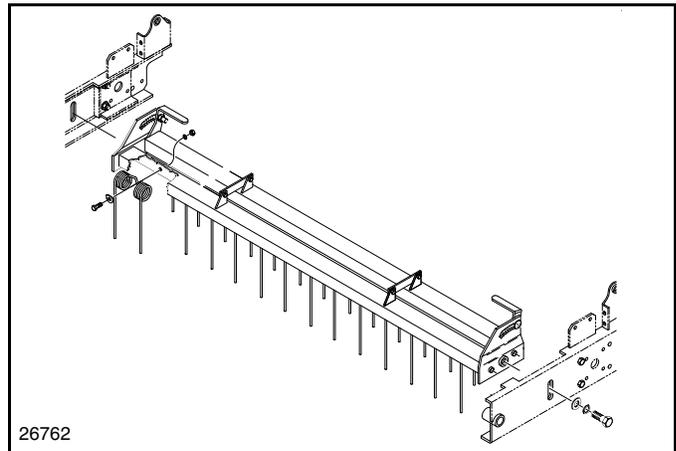
Refer to Figure 5-4:

Install extended agitator paddles to existing paddles in the main seedbox as follows:

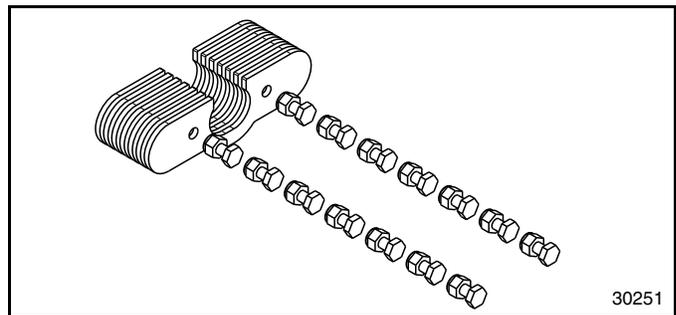
1. Attach extension paddles (#2) to existing paddles as shown with 1/4"-20 x 5/8" GR5 cap screws (#3) and hex nylock nuts (#4).
2. Tighten all nylock nuts to the correct torque.



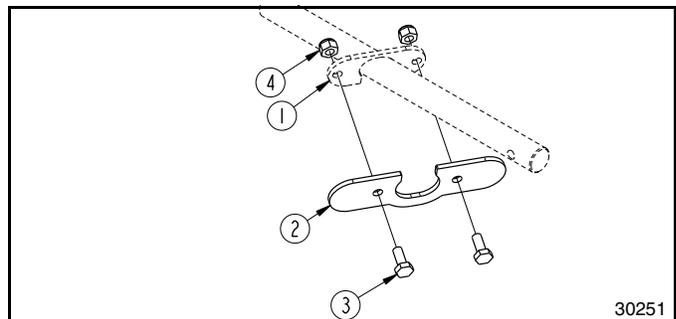
Slit Seeder Attachment
Figure 5-1



Rear Tine Attachment
Figure 5-2



Agitator Extension Kit
Figure 5-3



Assembly of Agitator Extension Paddles
Figure 5-4

Section 5: Options & Accessories

Small Seeds Attachment

Refer to Figure 5-5:

The Land Pride Small Seeds Attachment is an option made available to fit any Land Pride 48" or 72" Overseeder.

The small seeds attachment is designed to meter various small seeds. It features a 0.23 bushel/foot profile which gives the OS1548 Small Seeds Attachment a 0.95 bushel capacity and the OS1572 Small Seeds Attachment a 1.36 bushel capacity. The Small Seeds option may be ordered with your Overseeder, or installed at a later time by you or your dealer. Use the following list to obtain the correct Small Seeds Attachment for your Overseeder.

Land Pride Part No.	Overseeder Size	Overseeder Drive System
308-372A	48"	Gauge Wheel Drive
308-374A	48"	Rear Roller Drive
308-377A	72"	Gauge Wheel Drive
308-379A	72"	Rear Roller Drive

For additional information refer to:

- "Section 3 Adjustments", on page 28.
- "Section 4 Lubrication", on page 56.
- "Section 8 Troubleshooting", on page 65.

Front Roller Attachment

Refer to Figure 5-6:

The front roller attachment is a full width anti-scalping roller with a floating top link giving your Overseeder better ground following capability. The front roller can set the cutting depth of the knives when used in conjunction with a rear roller drive seeder. The Front Roller option may be ordered with your Overseeder, or installed later by you or your dealer.

- 308-258A 48" Overseeder
- 308-259A 72" Overseeder

For additional information refer to:

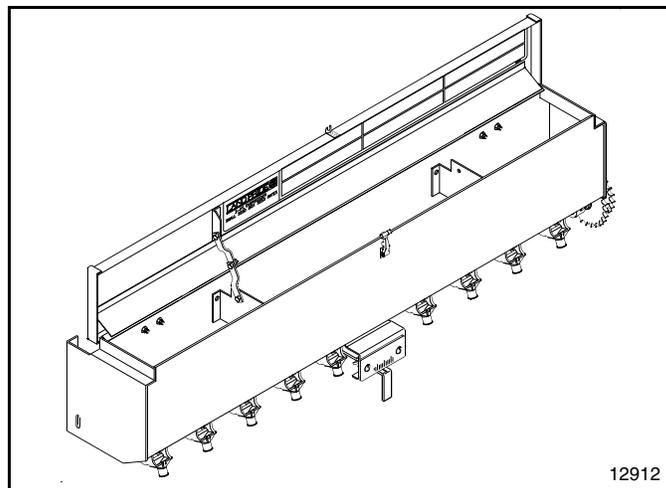
- "Rear Roller Drive With Front Roller" on page 37.

Slow Moving Vehicle Sign

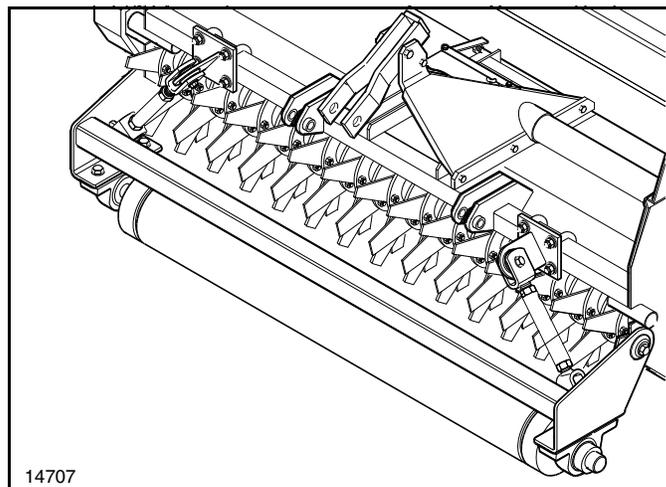
Refer to Figure 5-7:

Land Pride offers as an accessory the slow moving vehicle sign with attached mounting blade (#1) should your tractor not be equipped with a removable slow moving vehicle sign or should your slow moving vehicle sign not fit Land Pride's slow moving vehicle mounting socket (#4). Also, mounting components (#2, #3, & #4) can be purchased from your nearest Land Pride dealer should you want to mount this slow moving vehicle sign on another piece of equipment.

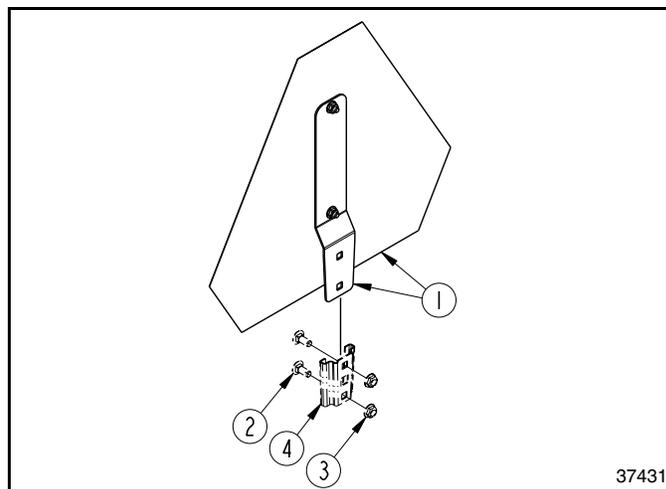
Item	Part No.	Description
1	316-362S	SMV Sign
2	802-092C	RHSNB 5/16-18X3/4 GR5
3	803-177C	NUT HEX FLG TP LK 5/16-18ZNYCR
4	890-401C	SMV MOUNTING SOCKET



Small Seeds Attachment
Figure 5-5



Front Roller Attachment
Figure 5-6



Slow Moving Vehicle Sign
Figure 5-7

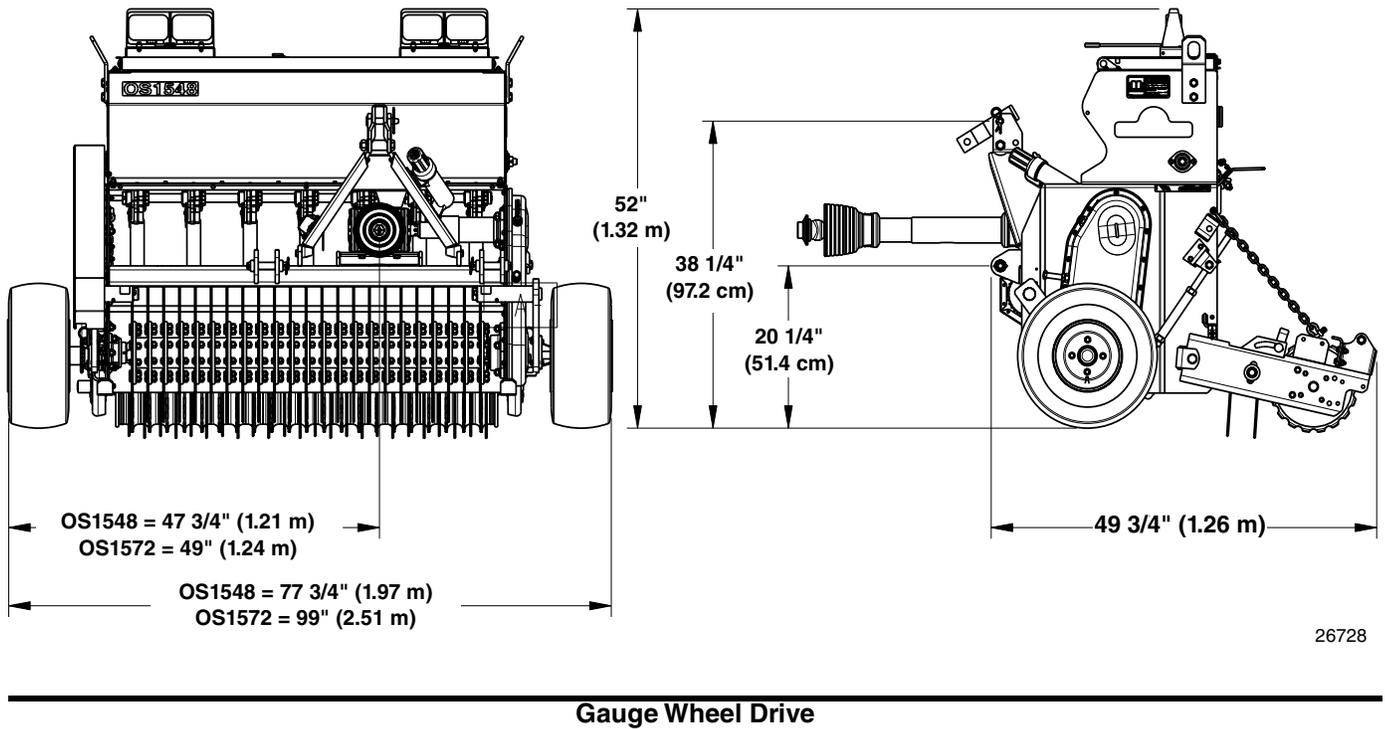
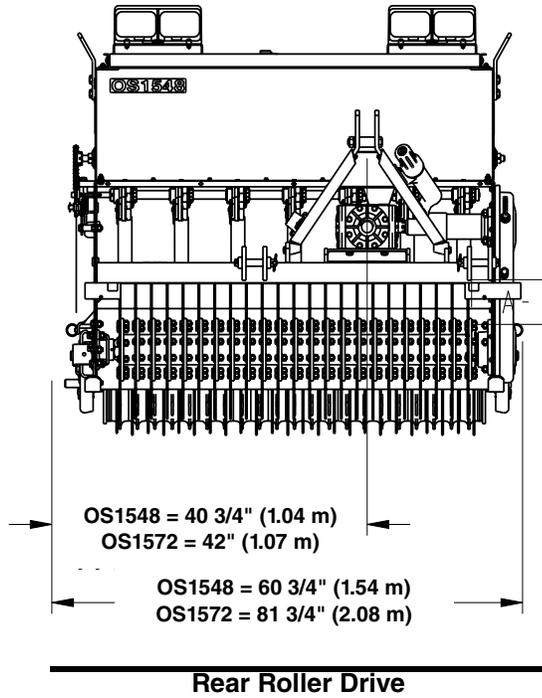
Table of Contents

Section 6: Specifications & Capacities



OS1548 & OS1572 Series

Description	Specifications & Capacities	
Model Numbers	OS1548	OS1572
Overall width	Gauge wheel drive: 77 3/4" (1.97 m) Rear roller drive: 60 1/2" (1.54 m)	Gauge wheel drive: 99" (2.51 m) Rear roller drive: 81 1/2" (2.07 m)
Seeding width	51" (1.30 m)	72" (1.83 m)
Box length	48" (1.22 m)	72" (1.83 m)
Empty weight	2" (5.1 cm) Spacing 2" (5.1 cm) Spacing 3" (7.6 cm) Spacing	Wheel drive: 1290 lbs (585.1 kg) Roller drive: 1250 lbs (567.0 kg) Roller drive: 1220 lbs (553.4 kg)
Signal lights	LED	
7 Pin connector	SAE J560 pin configuration	
Maximum horsepower	60 hp (44.7 kw)	
Driveline	540 rpm; Heavy duty construction with slip clutch protection and fully shielded	
Gearbox	540 rpm input; Constructed of cast iron housing w/steel gears.	
Gearbox oil	Gear lube 80-90 EP	
Roller chain, (knife drive)	#80 Roller chain; adjustable	#100 Roller chain; adjustable
Chaincase, (knife drive)	Fully enclosed oil bath style chaincase with drain plug and vent plug.	
Chaincase	Shell Gadus S2 V2200 00 flowable grease or equivalent 32 oz (0.95 L)	
Lubrication type		
Lubrication capacity		
Rotor diameter	18" (45.7 cm)	
Rotor speed	400 rpm	
Knife tip speed	2000 fpm (10.2 mps)	
Knife depth	0"-1 1/2" (0-3.8 cm)	
Knife spacing	2" or 3" (5.1 cm or 7.6 cm)	
Number of knives - 5 per flange	115 knives on 2" (5.1 cm) spacing 80 knives on 3" (7.6 cm) spacing	170 knives on 2" (5.1 cm) spacing 115 knives on 3" (7.6 cm) spacing
Knife construction	Straight knives: 3/16" (5 mm) thick high carbon, heat treated steel. Curved knives: 5/32" (4 mm) thick high carbon, heat treated steel.	
Seedbox construction	Water tight box with wind guarded seed splash lid.	
Seedbox capacity	4 bushels (141.0 L) with paddle agitator	6 Bushels (211.4 L) with paddle agitator
Productive (3 1/2 mph) (5.6 kph)	1.5 acres (0.6 hectares)/hr. (broadcast)	2 acres (0.8 hectares)/hr. (broadcast)
Number of seed cups	7	10
Seed cup metering construction	Powder metal flutes with individual clean-out handles.	
Seed cup drive	Gauge wheel drive: Right-hand driven with adjustable spring loaded down float. Rear roller drive: Rear roller driven to eliminate gauge wheels.	
Seed cup agitation	Chain driven paddle type agitators above seed cups.	
Seed settings	Wide range of calibration settings per acre (hectare) or per 1000 sq. ft. (1000 sq. m)	
Gauge wheel tires	18 x 8.50 x 8 (45.7 cm x 21.6 cm x 20.3 cm) turf tires at 20 psi (137.9 kPa)	
Number of packer wheels	22	31
Packer wheel construction	Notched 12" (30.5 cm) dia. cast iron rollers with corrugated scraper.	
Hitch	Category I: with 10" (25.4 cm) offset	Category I: centered
	Fits Land Pride Quick Hitch.	
Optional Add-on Equipment		
Small seedsbox	Bushel capacity (.95 bu.)(33.5 L) with: <ul style="list-style-type: none"> • Gauge wheel drive seed cups • Rear roller drive seed cups 	Bushel capacity (1.36 bu)(47.9 L) with: <ul style="list-style-type: none"> • Gauge wheel drive seed cups • Rear roller drive seed cups
Slit seeder attachment	2" or 3" (5.1 cm or 7.6 cm) Spacing; directs seed into the slits cut by the knives.	
Tines	Double torsion, height and angle adjustable; individual replacement.	
Front roller	Full width, anti-scalping, depth control, with floating top link.	





OS15 Series

Features	Benefits
LED Signal lights	LED lights are bright, long lasting, and resistant to vibration, unlike incandescent counterparts.
2" or 3" (5.4 or 7.6 cm) Spacing	Knife spacing for different geographic soil types, conditions and moisture.
Seed to soil contact	Knives create a slit, the seed is precisely placed in the slit and the roller incorporates seed to soil contact (for better seed germination).
Easy seed cup and seedbox emptying	Flute is designed to allow easy clean out of material in seedbox and seed flutes.
Seedbox agitator	Eliminates seed bridging.
Seed cups with powder metal flutes	Superior metering accuracy by each flute. Powder metal dissipates heat to keep cups running cool.
Gauge wheel or rear roller seed cup drive	Gauge wheels keeps knives in ground more consistently in undulating terrain. Rear roller drive allows for closer seeding to obstructions.
Water tight seedbox	Keeps water out and seeds in.
Wind guarded seed drop	Seed rate is consistent across width of the machine and is not hampered by windy conditions.
Straight Knives	More aggressive, picks up thatch.
Curved Knives	Less aggressive and less disturbance of thatch layer.
Small seeds box	Simultaneously seeds second type of seed.
Slit seeder attachment	Guides seed directly into slit. Good for overseeding expensive grasses to ensure good seed to soil contact.
Front roller (Option)	Used to set seeding depth with units equipped with rear roller drive. Precise depth control.
Working widths	48", 72"
Horsepower rating	25-60 hp
Offset hitch – 48" unit	Offset by 10" to cover right tire track.
Fits Land Pride Quick Hitch	Aids in one person hook-up.
Machine weights	48" - 1260 lbs; 72" - 1605 lbs.
0"-1 1/2" (0-13 mm) Depth adjustment	Adjust depth for different seed types, soil conditions, and moisture.
High carbon heat-treated knives	Last longer in sandy soils.
High tensile roller chain	Provides a smooth and quiet drive.
1 Bushel per foot seedbox	Fill less often with a large box.
Seed splash guard	Seedbox lid has a guard to prevent seed from being spilled between lid and box.
Heavy-duty lid	Lid won't buckle or slam shut in high winds.
Lift hooks	Allow for easy loading and unloading from trailers
Packer wheel scraper	Prevents soil buildup on packer wheels in moist conditions.
Covered drive chains	Drive chains are covered for safety, as well as keeping tree branches away to eliminate chain jumping.
Warranty	5 Years on gearbox. One year parts and labor.



Troubleshooting Chart

Problem	Solution
Machine makes intermittent clicking noise	Tighten Knives
	Replace damaged gear in gearbox
	Replace damaged chain link
Power take-off vibrates	Replace worn universal joint
	Remove trash from rotor
	Lower machine and readjust tractor lift stop
Gearbox noise is noticeable and constant	Allow time for break-in
	Add oil
	Replace worn gears
Oil leaking from gearbox	Replace damaged seals or gaskets
	If overfilled, drain to proper level
Rotor will not turn	Engage power take-off
	Repair broken drive chain
	Reduce load to Overseeder
Cutting depth insufficient	Lower tractor 3-point arms
	Increase tractor rpm
	Adjust gauge wheels
	Replace worn or bent knives
	Clear obstacles entangled in knives and/or rotor
Machine skips	Replace worn knives
	Reduce load
	Reduce ground speed
Knives balling up with soil	Replace worn or bent knives
	Decrease tractor speed
Overseeder bumping on the ground	Clear obstacles entangled in knives and/or rotor
Uneven seed spacing or uneven stand	Check tire pressure. Proper inflation is listed in the “ Tire Inflation Chart ”, Section 9, page 66
	Check for plugging in feed cups
	Check to see if seed tubes are plugged
	Reduce ground speed
	Check all drive chains, sprockets, keys, and pins
Actual seeding rate is different than desired	Seed treatment will affect seeding rate if the chemicals build up in seed cup. Unless cleaned regularly, this build-up can cause breakage of the seed cup shaft.
	See “ Adjustments ”, Section 3, starting on page 28, for instructions on calculating seed rate.



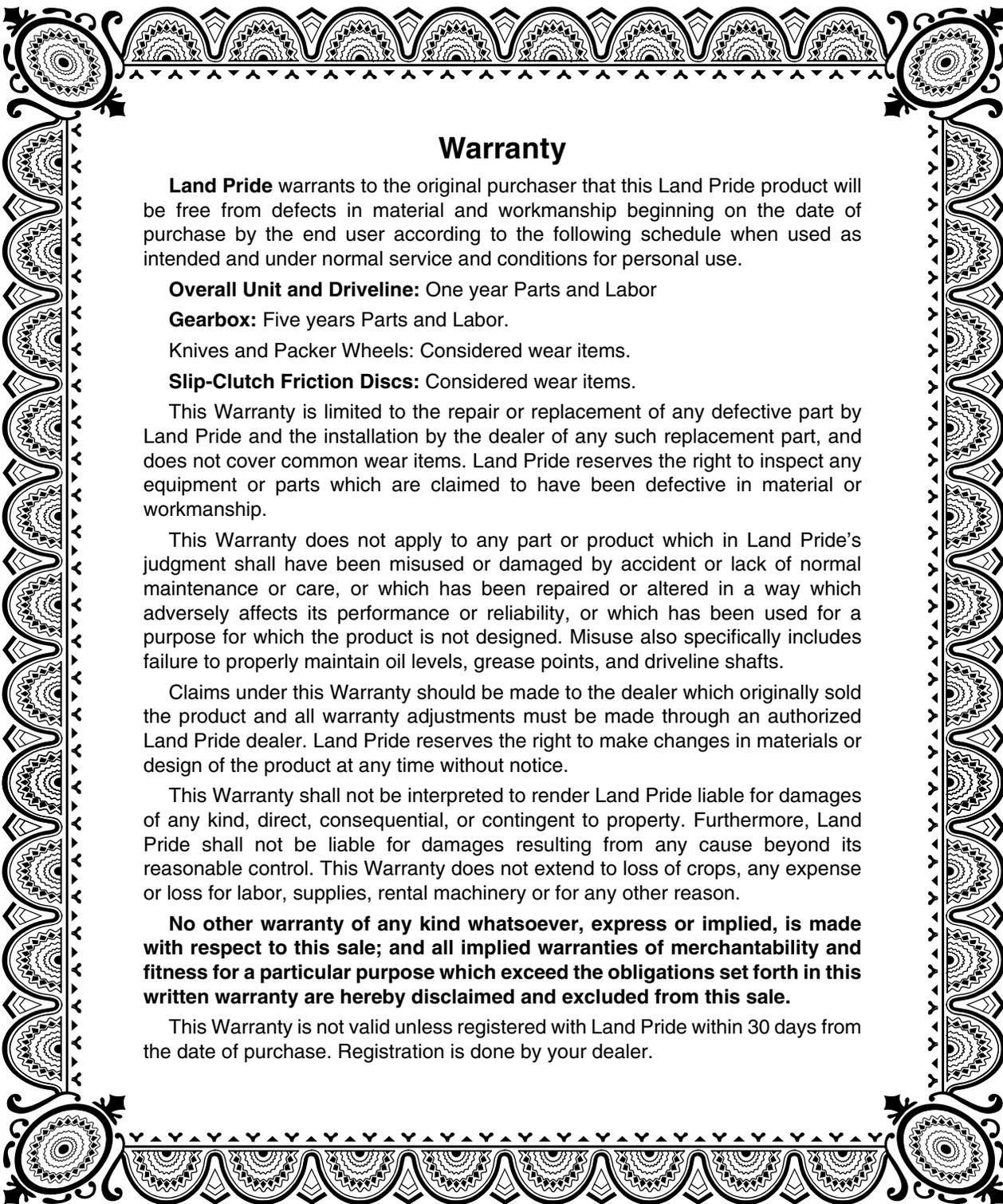
Torque Values Chart for Common Bolt Sizes													
Bolt Size (inches)	Bolt Head Identification						Bolt Size (Metric)	Bolt Head Identification					
	Grade 2		Grade 5		Grade 8			Class 5.8		Class 8.8		Class 10.9	
in-tpi ¹	N · m ²	ft-lb ³	N · m	ft-lb	N · m	ft-lb	mm x pitch ⁴	N · m	ft-lb	N · m	ft-lb	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							
1-3/8" - 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							

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

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)

Additional Torque Values	
Non Driven Rotor End Flange	985 ft-lbs. (Use a spanner wrench to loosen)
7/16" Knife Mounting Bolts & Locknuts	68 ft-lbs

Tire Inflation Chart	
Tire Size	Inflation PSI
8 1/2" x 18"	20 psi



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 and Driveline: One year Parts and Labor

Gearbox: Five years Parts and Labor.

Knives and Packer Wheels: Considered wear items.

Slip-Clutch Friction Discs: Considered wear items.

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 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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