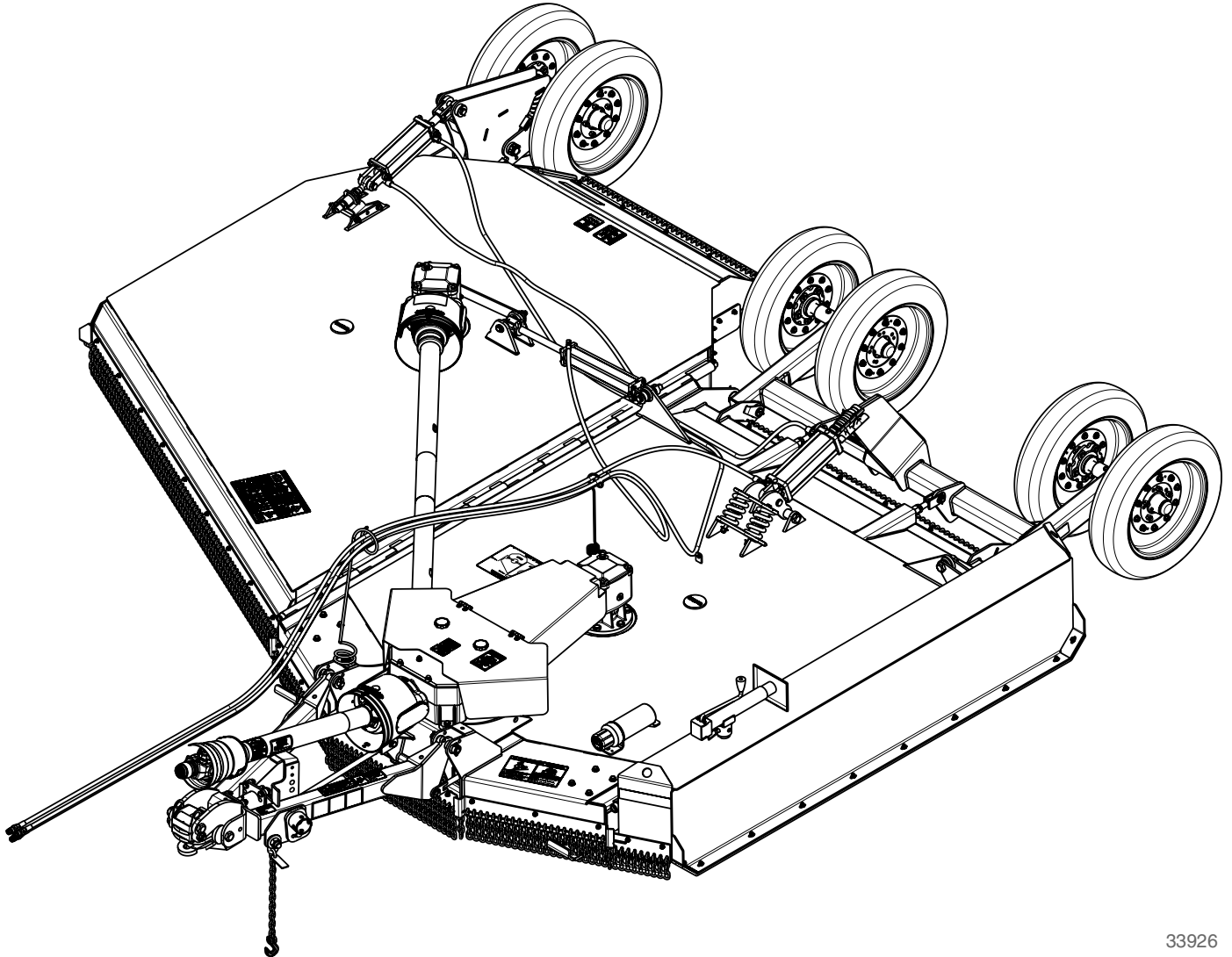


Rotary Cutters

RC3614 & RCM3614



33926

330-918M 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: Cancer and reproductive harm - www.P65Warnings.ca.gov



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Printed in the United States of America.



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See previous page for Table of contents.



Parts Manual QR Locator

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



Dealer QR Locator

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

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

Safety at All Times

Careful operation is your best assurance against an accident.

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

- ▲ Thoroughly read and understand the "Safety Label" section. Read all instructions noted on them.
- ▲ Do not operate the equipment while under the influence of drugs or alcohol as they impair the ability to safely and properly operate the equipment.
- ▲ The operator should be familiar with all functions of the tractor and attached implement, and be able to handle emergencies quickly.
- ▲ Make sure all guards and shields appropriate for the operation are in place and secured before operating the implement.
- ▲ Keep all bystanders away from equipment and work area.
- ▲ Start tractor from the driver's seat with hydraulic controls in neutral.
- ▲ Operate tractor and controls from the driver's seat only.
- ▲ Never dismount from a moving tractor or leave tractor unattended with engine running.
- ▲ Do not allow anyone to stand between tractor and implement while backing up to implement.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ While transporting and operating equipment, watch out for objects overhead and along side such as fences, trees, buildings, wires, etc.
- ▲ Do not turn tractor so tight as to cause hitched implement to ride up on the tractor's rear wheel.
- ▲ Store implement in an 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 involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control, and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.

Be Aware of Signal Words

A signal word designates a degree or level of hazard seriousness. The signal words 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.

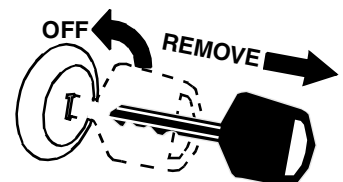
Safety Precautions for Children

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

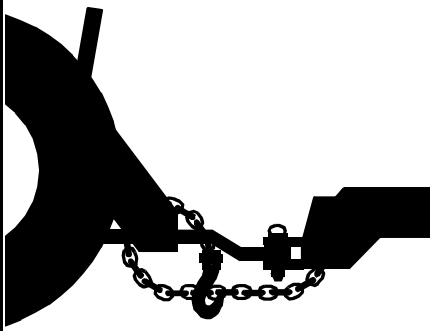
- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic 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.
- ▲ Detach and store implement in an area where children normally do not play. Secure implement using blocks and supports.



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

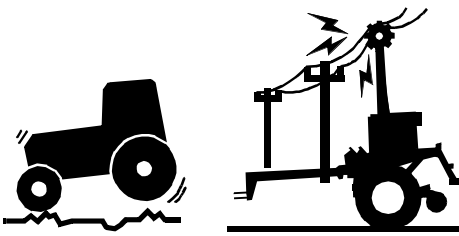
Use A Safety Chain

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



Transport Safely

- ▲ Comply with federal, state, and local laws.
- ▲ Use towing vehicle and trailer of adequate size and capacity. Secure equipment towed on a trailer with tie downs and chains.
- ▲ Sudden braking can cause a towed trailer to swerve and upset. Reduce speed if towed trailer is not equipped with brakes.
- ▲ Avoid contact with any over head utility lines or electrically charged conductors.
- ▲ Always drive with load on end of loader arms low to the ground.
- ▲ Always drive straight up and down steep inclines with heavy end of a tractor with loader attachment on the "uphill" side.



- ▲ Engage park brake when stopped on an incline.
- ▲ Maximum transport speed for an attached equipment is 20 mph. **DO NOT EXCEED.** Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- ▲ As a guideline, use the following maximum speed weight ratios for attached equipment:
 - 20 mph** when weight of attached equipment is less than or equal to the weight of machine towing the equipment.
 - 10 mph** when weight of attached equipment exceeds weight of machine towing equipment but not more than double the weight.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.



Tire Safety

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



Practice Safe Maintenance

- ▲ Understand procedure before doing work. Refer to the Operator's Manual for additional information.
- ▲ Work on a level surface in a clean dry area that is well-lit.
- ▲ Lower implement to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- ▲ Do not work under any hydraulic supported equipment. It can settle, suddenly leak down, or be lowered accidentally. If it is necessary to work under the equipment, securely support it with stands or suitable blocking beforehand.
- ▲ Use properly grounded electrical outlets and tools.
- ▲ Use correct tools and equipment for the job that are in good condition.
- ▲ Allow equipment to cool before working on it.

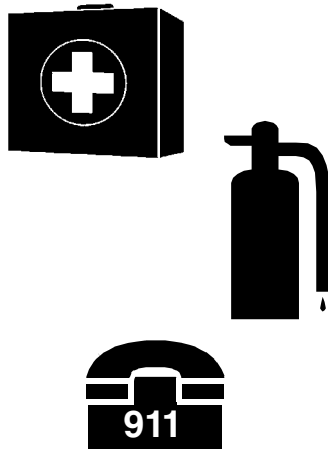
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Inspect all parts. Make certain parts are in good condition & installed properly.
- ▲ Replace parts on this implement with genuine Land Pride parts only. Do not alter this implement in a way which will adversely affect its performance.
- ▲ Do not grease or oil implement while it is in operation.
- ▲ Remove buildup of grease, oil, or debris.
- ▲ Always make sure any material and waste products from the repair and maintenance of the implement are properly collected and disposed.
- ▲ Remove all tools and unused parts from equipment before operation.
- ▲ Do not weld or torch on galvanized metal as it will release toxic fumes.



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

Prepare for Emergencies

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



Wear Personal Protective Equipment (PPE)

- ▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety glasses, hard hat, 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 equipment safely requires the operator's full attention. Avoid wearing headphones while operating equipment.



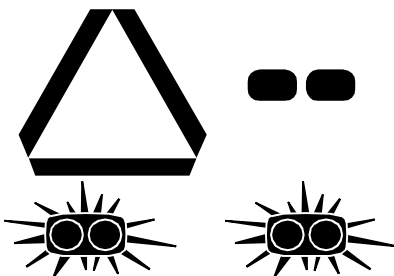
Avoid High Pressure Fluids

- ▲ Escaping fluid under pressure can penetrate the skin 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, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result.



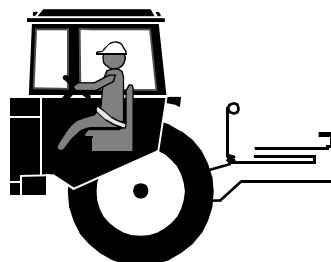
Use Safety Lights and Devices

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



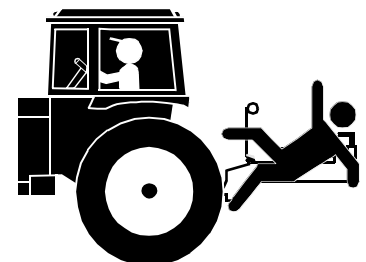
Use Seat Belt and ROPS

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



Keep Riders Off Machinery

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



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

Avoid crystalline Silica (quartz) Dust

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

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



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

Handle Chemicals Properly

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



Dig Safe - Avoid Underground Utilities

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





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Important Safety Information

Safety Labels

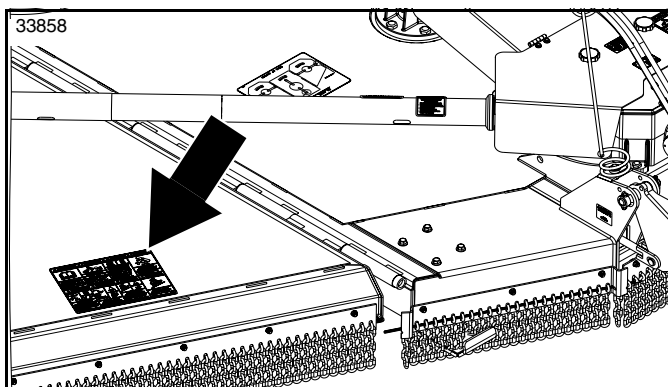
Your Rotary Cutter comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

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.

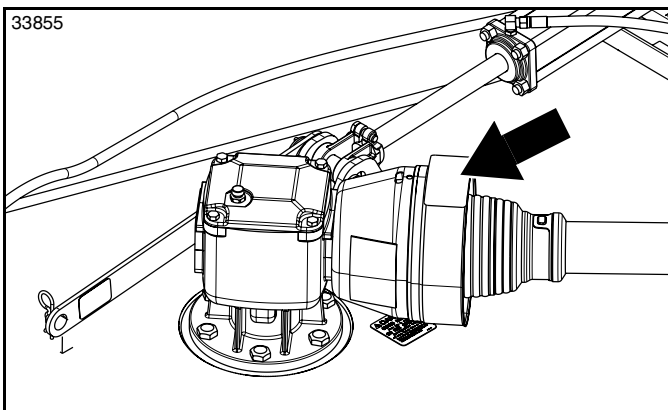
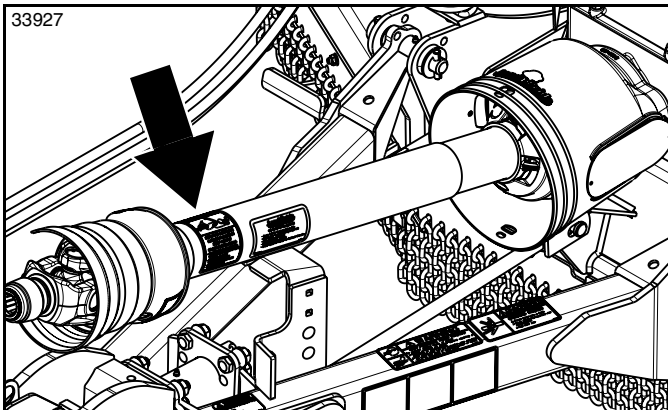
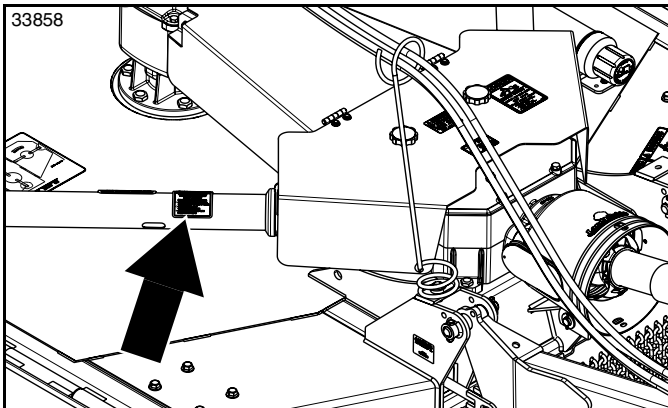
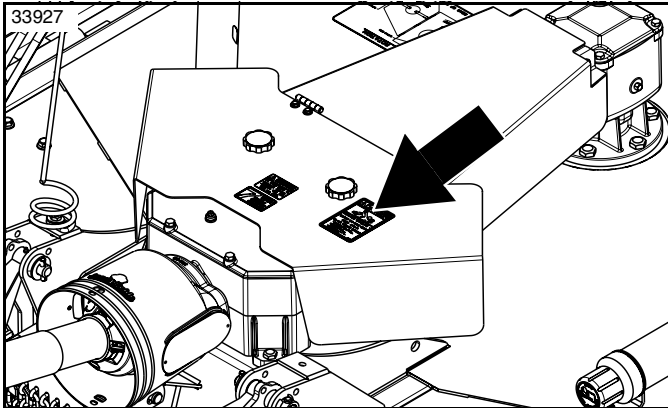
⚠ WARNING	⚠ DANGER	⚠ DANGER	⚠ DANGER
<p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> Do not operate or work on this machine without reading and understanding the Operator's Manual. Avoid unsafe operation or maintenance. Transport with clean reflectors, SMV, and lights as required by federal, state, and local laws. If manual is lost, contact your nearest dealer for a new manual. 	<p>ROTATING DRIVELINE CONTACT CAN CAUSE DEATH KEEP AWAY!</p> <p>DO NOT OPERATE WITHOUT:</p> <ul style="list-style-type: none"> All driveline guards, tractor and equipment shields in place. Drivelines securely attached at both ends. Driveline guards that turn freely on driveline. <p>DO NOT USE PTO ADAPTORS</p>	<p>THROWN OBJECT AND ROTATING BLADE HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> Do not operate unless all guards are installed and in good condition. Inspect and clear debris from mowing area prior to mowing. Do not operate with bystanders in or around mowing area. Do not place hands or feet under deck when operating or when engine is running. Do not operate with wings raised. Do not operate without wing(s) or weight box. 	<p>CRUSHING HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> Do not transport without transport locks securely engaged. Do not walk or work underneath raised wing unless it is securely locked. Stay clear of wings while they are being raised and lowered.
⚠ WARNING	⚠ WARNING	⚠ WARNING	⚠ WARNING
<p>CRUSHING HAZARD</p> <p>Before performing maintenance on machine and to prevent serious injury or death:</p> <ul style="list-style-type: none"> Read and understand operator's manual. Stop engine, set brake, and wait for all moving parts to stop before dismounting. Support mower securely and apply any supplied hydraulic cylinder locks before working beneath. 	<p>RUN OVER HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> Always use seat belt when operating. Never allow riders on tractor or machine. 	<p>ROLLOVER HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> Always use seat belt when operating. Only operate on tractors equipped with a rollover protective structure (ROPS). If equipped with foldable ROPS, only operate in the unfolded and locked position. Use caution when mowing along inclines. 	<p>ROLLOVER HAZARD</p> <p>To prevent serious injury or death:</p> <ul style="list-style-type: none"> Do not transport on an incline with wing(s) raised. Do not transport without wing or weight box.



858-949C

Safety Combo

1- Places: On the right wing



818-552C

Danger! Rotating Driveline - Keep Away

1-Place: Top of splitter shield

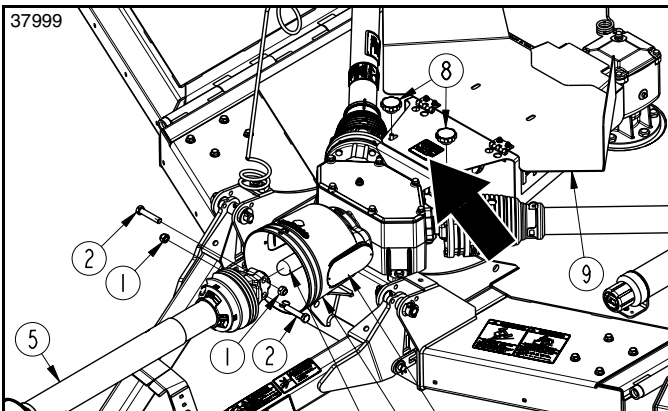
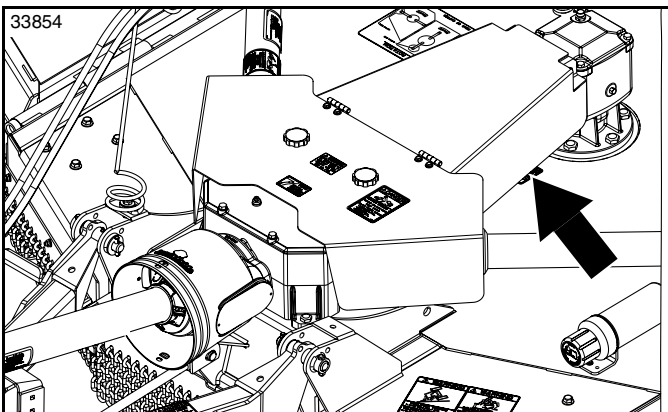
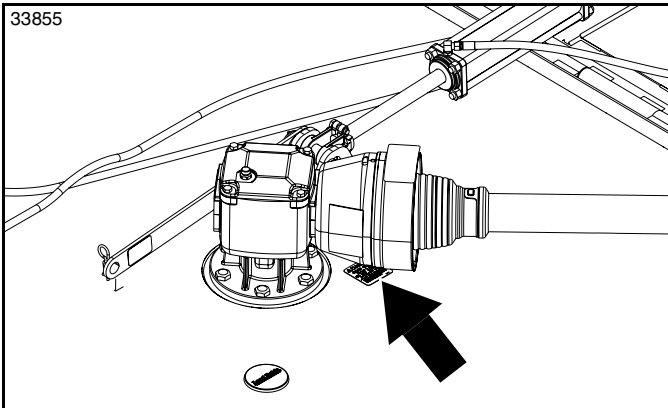
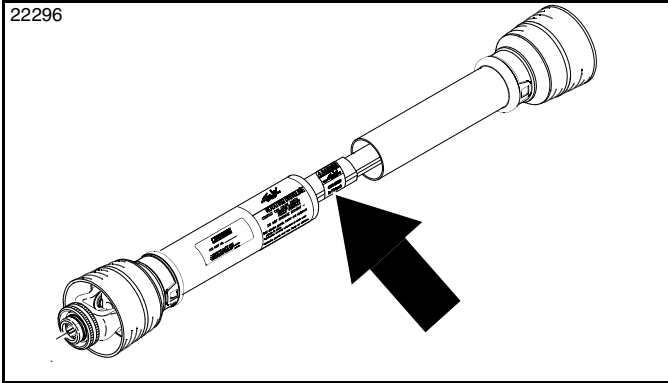
2-Places: Main Driveline and Wing Driveline



818-142C

Danger! Rotating Driveline - Keep Away
Top of Wing Gearbox Shield

Important Safety Information



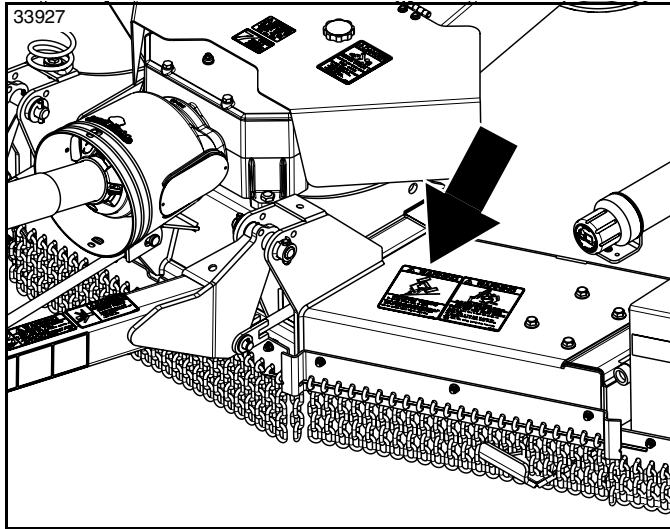
818-540C

Danger! Guard Missing - Do Not Operate
3-Places: All Drivelines



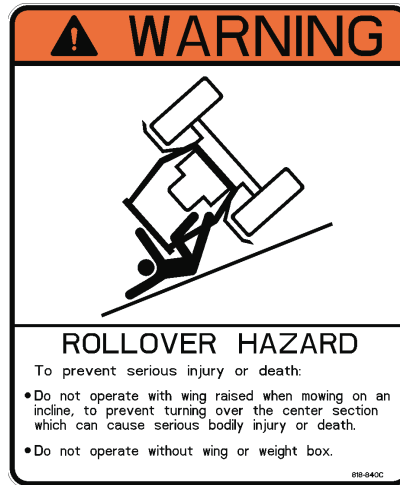
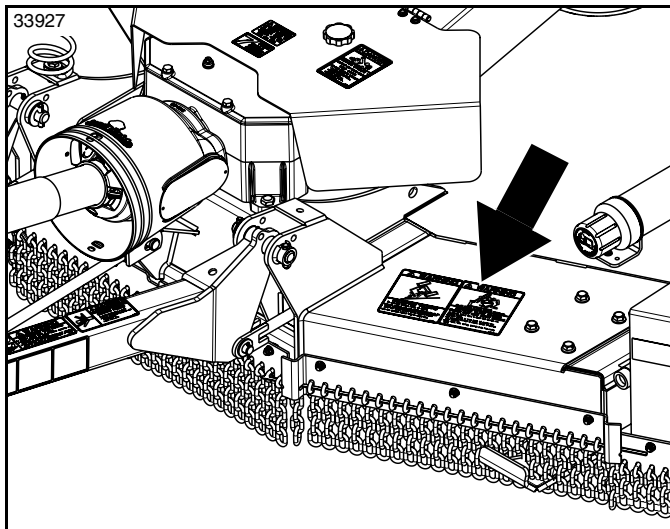
818-543C

Danger! Guard Missing - DO NOT Operate
3 - Places:
Beneath the 2 spindle gearbox shaft guards
Beneath hinged guard (#9)



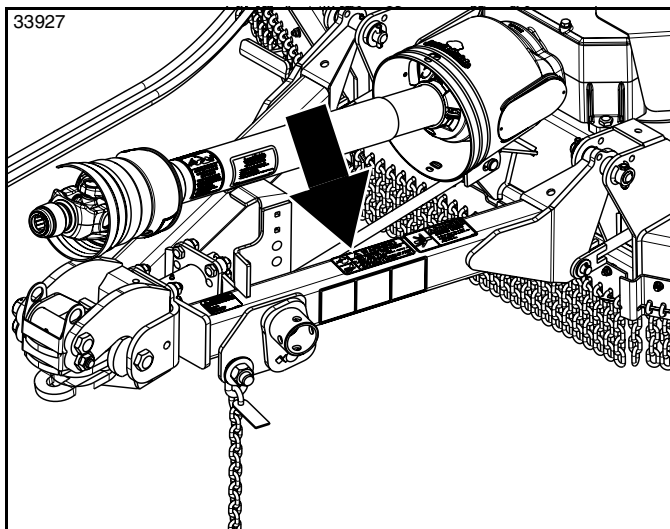
818-276C

Warning! Rotating Blade Hazard (Left side Only)



818-840C

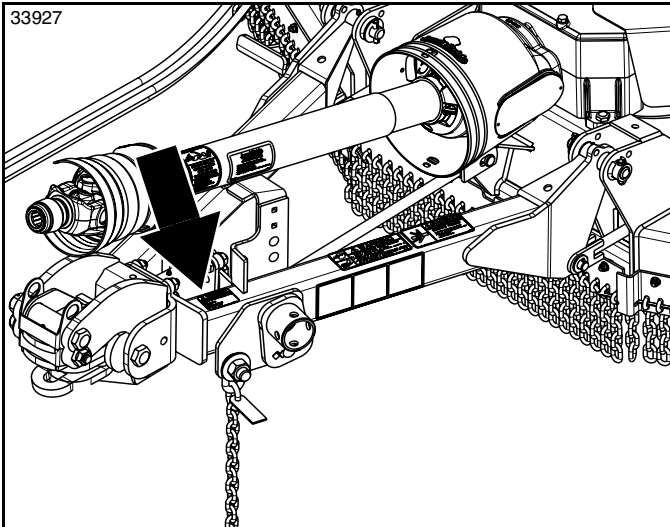
Warning! Rollover Hazard (Left side only)



838-094C

Warning! High Pressure
1 - Place: Top of A-frame hitch

Important Safety Information



WARNING

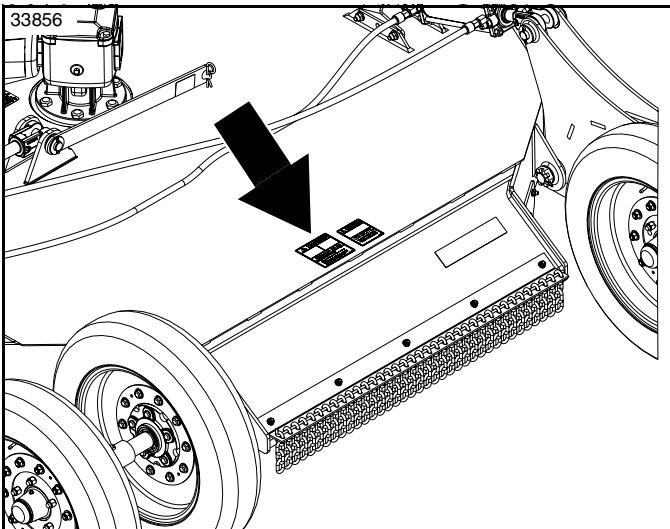
DO NOT EXCEED 20 MPH TRANSPORT SPEED TO PREVENT MACHINE DAMAGE LIMIT SPEED WHILE.

- TRANSPORTING
- TURNING
- IN WINDY CONDITIONS
- IN ROUGH TERRAIN

838-588C

838-588C

Warning! Folding Cutter Speed Warning
1 - Place: Top of A-frame hitch



DANGER

ROTATING BLADES HAZARD

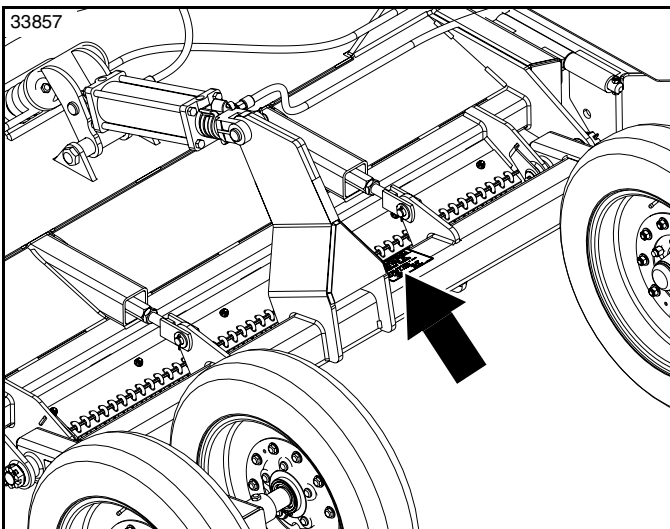
To prevent serious injury or death from rotating blade contact:

- Never allow riders, especially children, on tractor.
- Do not operate with bystanders in mowing area.
- Do not operate with deflectors/guards removed.
- Do not place hands or feet under deck when operating or when engine is running.

818-555C REV. B

818-555C

Danger! Rotating Blade
Top of Wing Deck Near the Back



WARNING

PINCH POINT OR CRUSHING HAZARD

To prevent serious injury or death from pinching or crushing:

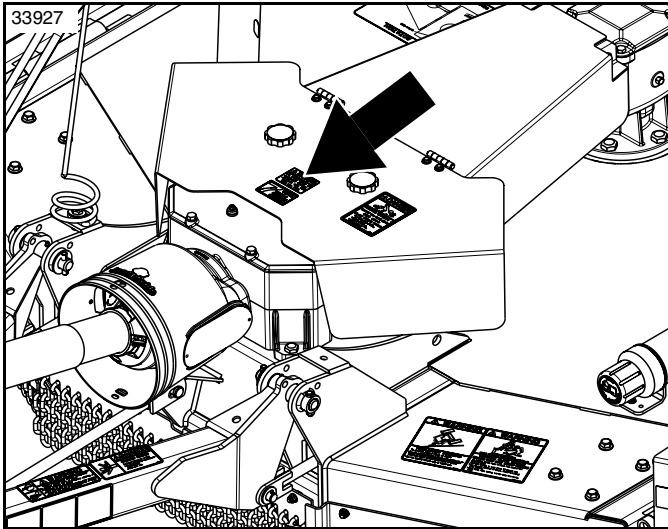
Stand clear from implement while

- Folding
- Raising
- Unfolding
- Lowering

818-045C Rev. 3

818-045C

Warning! Pinch Point or Crushing Hazard
Back of Center Axle

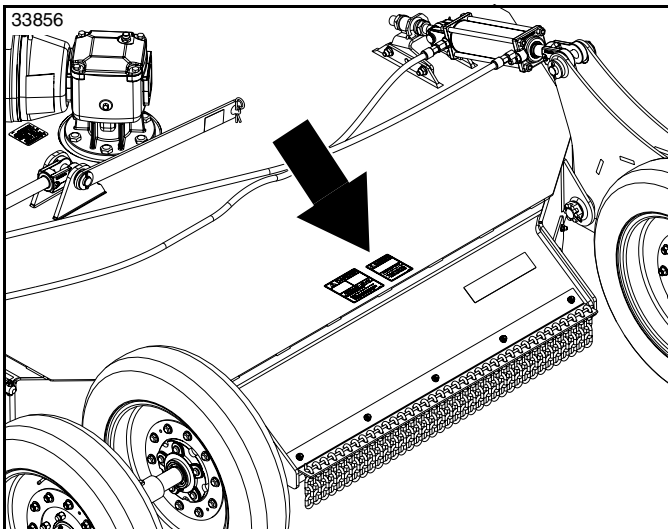


818-130C

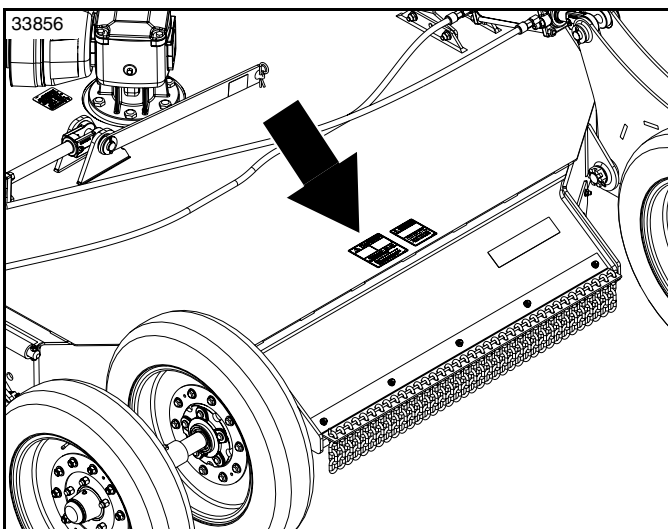
Warning! Use 540 rpm power take-off (RC3614 only)

818-240C

Warning! Use 1000 rpm power take-off (RCM3614 only)

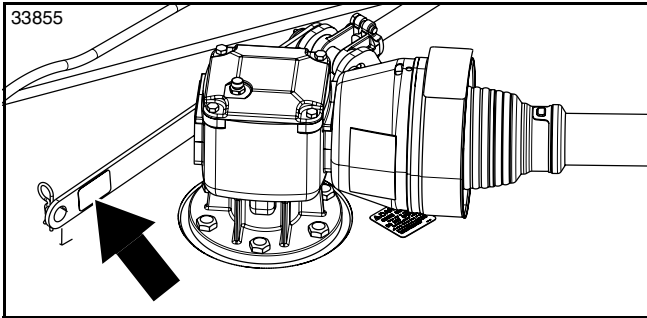


818-556C



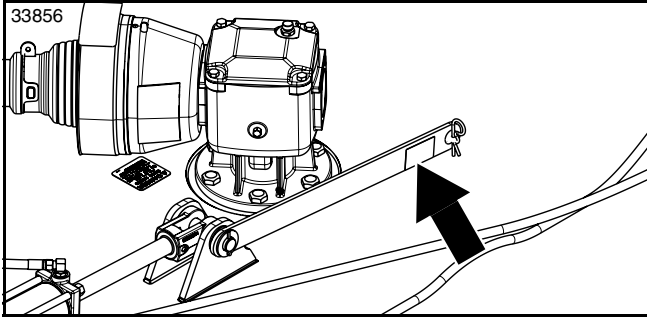
818-555C

Important Safety Information



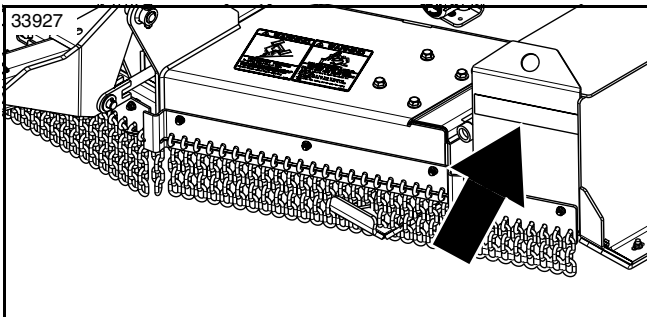
818-229C

Amber Reflector
Front Side of Transport Lock



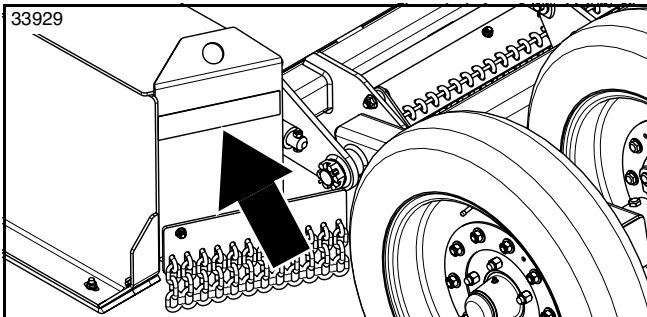
818-230C

Red Reflector
Back Side of Transport Lock



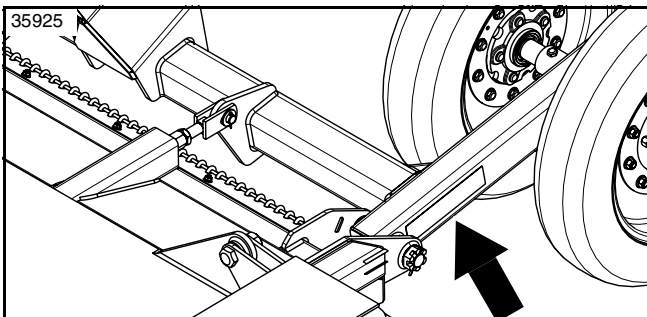
838-615C

Amber Reflector
Front Side of Weight Box



838-614C

Red Reflector
Back Side of Weight Box



838-615C

2" x 9" Amber Reflector
2 Places, left & right side of center axle (Left side shown)



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Introduction

Land Pride welcomes you to the growing family of new product owners. This Rotary Cutter 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 Rotary Cutter.

Application

The RC3614 and RCM3614 Series Rotary Cutters are designed and built by Land Pride to provide excellent cutting performance on gently sloping or slightly contoured right-of-ways, pastures, and set-aside-acres.

The 14' cutting width, 2" to 12" cutting height and ability to cut weeds and brush up to 2" in diameter make them well suited for these applications.

Both models offer pull-type, self-leveling clevis hitch, and Cat. 6 constant velocity main driveline for attachment to 70-160 hp tractors. The RC3614 attaches to tractors with 540 rpm power take-off speed and RCM3614 attaches to tractors with 1000 rpm power take-off speed. They also offer various hitch and tire options making them an excellent choice for agricultural, airport, and municipal mowing applications.

See “**Specifications & Capacities**” on page 55 and “**Features & Benefits**” on page 57 for additional information and performance enhancing options.

Using This Manual

- This Operator’s Manual is designed to help familiarize the operator 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.
- Store this manual in the dry storage tube located on the center deck.

Terminology

“Right” or “Left” as used in this manual is determined by facing forward in the direction the machine will operate while in use unless otherwise stated.

Definitions

IMPORTANT: A special point of information related to the following topic. Land Pride’s intention is this information must be read & noted before continuing.

NOTE: A special point of information that the operator should be aware of before continuing.

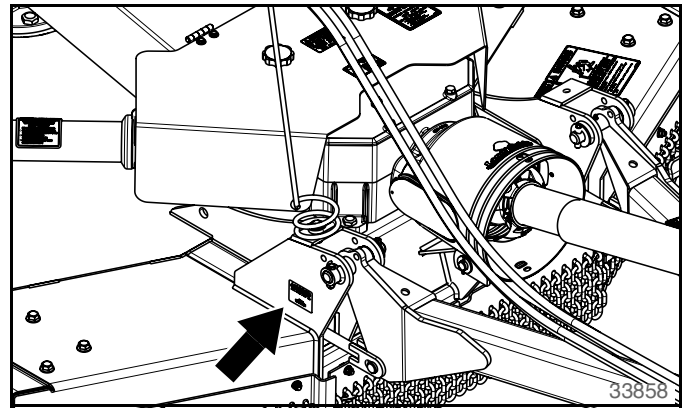
Owner Assistance

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 Rotary Cutter 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 cutter. 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 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
lp servicedept@landpride.com



Section 1: Assembly & Set-up

Tractor Requirements

Horsepower

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

- Horsepower rating 70-160 hp
- Hitch type (See Drawbar Set-up) Drawbar
- Rear power take-off speed:
 - RC3614 540 rpm
 - RCM3614 1000 rpm
- Hydraulic outlets (See Hydraulic Set-up)
 - Factory standard 2 Duplex outlets
- Electrical 7-pin outlet

Drawbar Set-up

Refer to Figure 1-1:

! DANGER

To avoid serious 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.

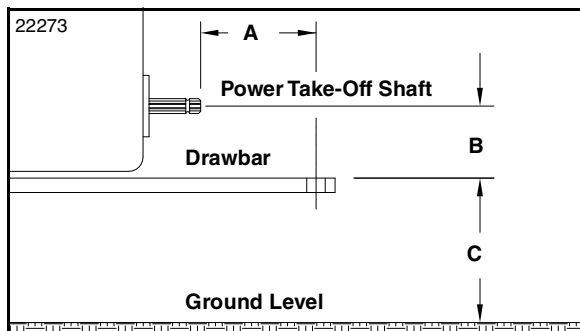
! WARNING

To avoid serious injury or death:

- Do not use a tractor that is too small or too large. Small tractors can be pushed around and flipped over. Large tractors can damage the attached implement.
- Power take-off and/or driveline damage may occur if distances "A" and "B" are not properly maintained.

Maintain proper distance, dimension "A," between center of drawbar hitch pin hole and end of tractor power take-off shaft.

- 540 rpm & 1 3/8" @ 1000 rpm power take-off speed:
 - "A" 14" - 16"
 - "B" 8" - 10"
 - "C" 18" to 22"



Power Take-Off to Drawbar Distance
Figure 1-1

Hydraulic Outlets

Two duplex outlets are required. One to raise and lower the cutter and one to fold the wing.

If your tractor is not equipped with two duplex outlets, an optional control valve kit is available from your local Land Pride dealer. Refer to "Selector Control Valve Kit" on page 40 for information about the hydraulic kit.

Torque Requirements

See "Torque Values Chart" on page 59 to determine correct torque values when tightening hardware. See "Additional Torque Values" at bottom of chart for exceptions to common torque values.

Before You Start

Read and understand the operator's manual for your cutter. An understanding of how it works will aid in the assembly and setup of your cutter.

It is best to go through the Assembly Checklist before assembling the cutter. Speed up your assembly task and make the job safer by having all needed parts and equipment readily at hand.

Assembly Checklist

	Check	Reference
<input type="checkbox"/>	Have a fork lift or loader with properly sized chains and safety stands capable of lifting and supporting the equipment on hand.	
<input type="checkbox"/>	Have a minimum of two people available during assembly.	
<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 parts, fasteners, and pins are installed in the correct location. Refer to the Parts Manual if unsure. By double checking, you will lessen the chance of using a bolt incorrectly that may be needed later. 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 Manual 330-918M Parts Manual 330-918P
<input type="checkbox"/>	Make sure working parts move freely, bolts are tight & 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 all safety labels are correctly located and legible. Replace if damaged.	Page 6
<input type="checkbox"/>	Make sure all red and amber reflectors are correctly located and visible when machine is in transport position.	Page 12
<input type="checkbox"/>	Make sure all tires are inflated to the specified psi air pressure and all wheel bolts and axle nuts are tightened to the specified torque.	Page 59

Section 1: Assembly & Set-up

Hitch Types

The cutter is factory supplied with the standard clevis hitch. Other optional hitches are available. They include Land Pride Performance Hitch, bar-tite hitch, ball hitch, and pintle hitch. See your nearest Land Pride dealer should you want to change your hitch set-up.

Standard Clevis Hitch

Refer to Figure 1-2:

A clevis leveling rod attached to the underside of the clevis keeps the clevis parallel with tractor drawbar at all cutting heights. Cutter rotation about the tractor drawbar is limited to slots located in the clevis' upper and lower plates and drawbar hole size.

Land Pride Performance Hitch (Optional)

Refer to Figure 1-3:

The LP Performance Hitch is a drawbar friendly, self-leveling hitch that pivots up and down and side-to-side. It is held upright with customer-supplied hitch pin to allow single-person hook-up.

Bar-Tite Hitch (Optional)

Refer to Figure 1-4:

The bar-tite hitch functions similar to LP Performance Hitch except it clamps directly to the drawbar. The bar-tite hitch is sandwiched between hardened steel plates to eliminate drawbar wear. It has a bushing in the tongue to extend hitch life. Bushing and hitch swivel are greasable.

Ball Hitch (Optional)

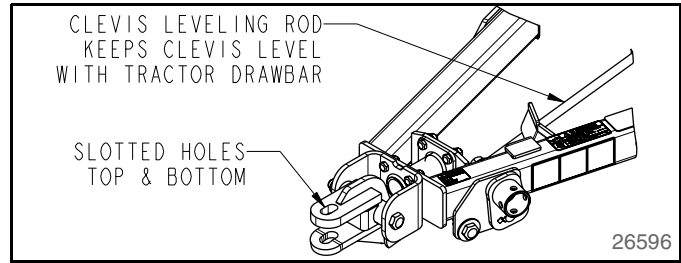
Refer to Figure 1-5:

Cutter rotation about the tractor drawbar is limited to swivel movement over the 2 5/16" tractor mounted ball.

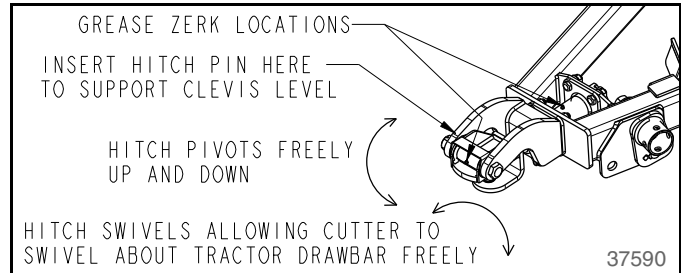
Pintle Hitch (Optional)

Refer to Figure 1-6:

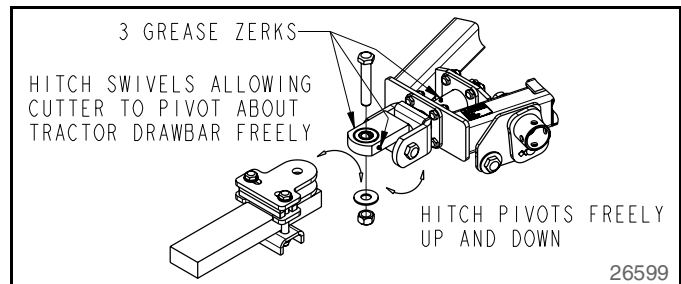
A leveling rod attached to the underside of the pintle hitch keeps the pintle parallel with the tractor drawbar at all cutting heights. Cutter rotation about the tractor drawbar is limited to movement about the pintle connection. The pintle hitch is ideal for a drawbar hammer strap.



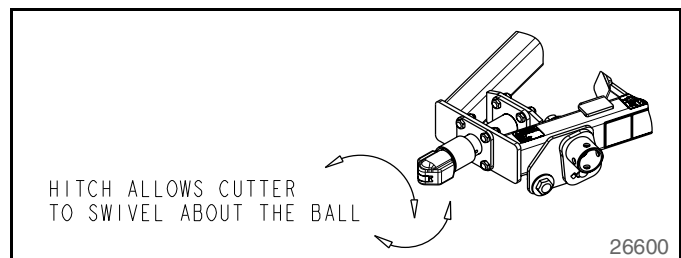
**Standard Clevis Hitch
Figure 1-2**



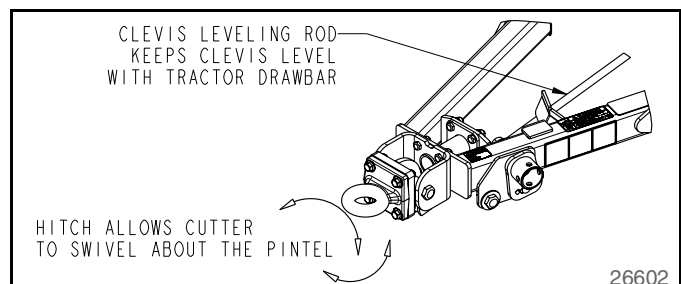
**LP Performance Hitch
Figure 1-3**



**Bar-Tite Hitch
Figure 1-4**



**Ball Hitch
Figure 1-5**



**Pintle Hitch
Figure 1-6**

Section 1: Assembly & Set-up

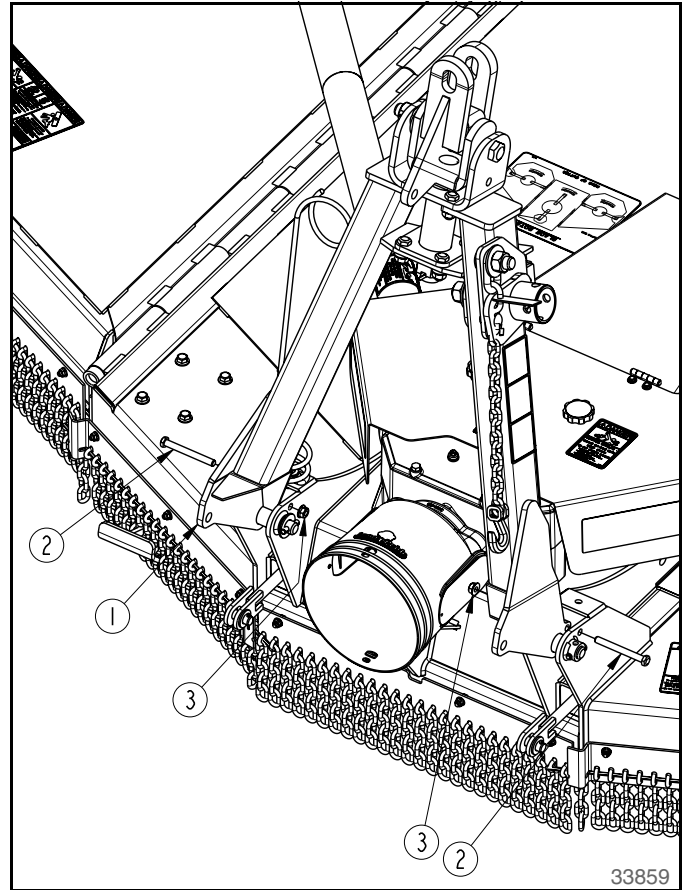
Hitch Assembly

Refer to Figure 1-7:

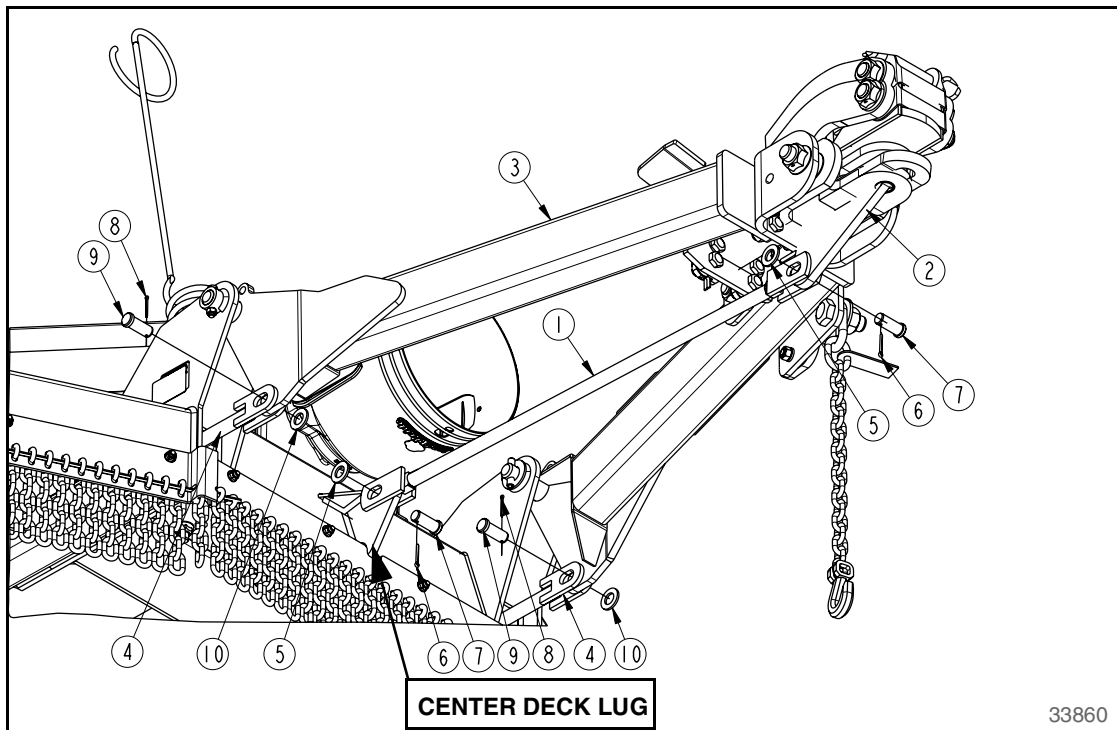
1. Remove and discard 1/2" hex whiz nuts (#3) and hex head bolts (#2).
2. Rotate hitch (#1) down into pulling position as shown in Figure 1-8.

Refer to Figure 1-8:

3. Instructions "a" & "b" below are for cutters equipped with standard clevis or pintle hitch. Skip to step 4 if assembling LP Performance, bar-tite, or ball hitch.
 - a. Attach clevis level rod (#1) to center deck lug and clevis hitch (#2) with clevis pins (#7), flat washers (#5), and cotter pins (#6).
 - b. Secure cotter pins (#6) by bending one or more legs of each cotter pin.
4. Attach hitch frame (#3) to leveling rods (#4) by inserting clevis pins (#9) into leveling rod clevises and hitch frame (#3) as shown. Secure clevis pins with flat washers (#10) and cotter pins (#8).
5. Leveling rod adjustment will be made later. See "Level Cutter Decks" on page 31 for detailed instructions.



Factory Shipped With Hitch Folded Up
Figure 1-7



Hitch Assembly
Figure 1-8

Section 1: Assembly & Set-up

Park Jack Assembly

Refer to Figure 1-9:

Attach park jack (#1) to hitch frame and secure with attached detent pin (#2). Adjust jack up or down until clevis hitch is at drawbar height.

Driveline Assembly

Refer to Figure 1-10:

WARNING

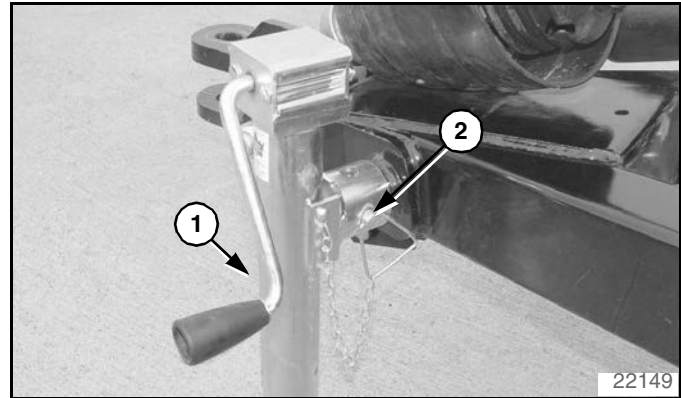
To avoid serious injury or death:

Make certain driveline yokes are securely fastened at each end. A loose yoke can work free allowing the driveline to rotate uncontrollably causing implement damage and bodily injury or death to anyone nearby.

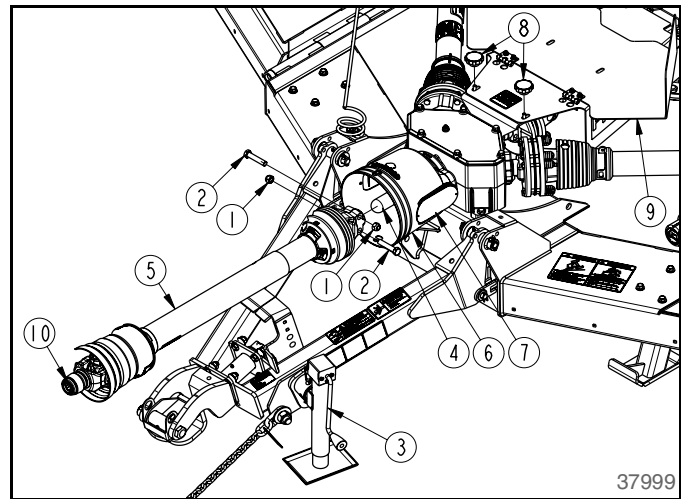
IMPORTANT: The driveline must be lubricated before putting it into service. Refer to “**Lubrication Points**” on page 49.

The main driveline may be either constant velocity type or conventional type. Pull-collar couplers and retaining bolts are used to connect the driveline to the tractor and implement gearbox, respectively.

1. Park tractor and cutter in a straight line on a level surface. Place gear selector in park, shut tractor engine off, set park brake, and remove switch key.
2. Verify “**Drawbar Set-up**” dimensions on page 15 are correct before installing driveline.
3. Remove hand knobs (#8).
4. Rotate front half of splitter guard (#9) open.
5. Unsnap doors (#7) on both sides of splitter guard (#6) and rotate doors down.
6. Remove and discard rubber shaft protector (#4) from splitter gearbox input shaft.
7. Remove locknuts (#1) and bolts (#2) from bolted coupler end of driveline (#5).
8. Slide bolted coupler end of driveline (#5) over splitter gearbox input shaft until bolt holes in coupler align with groove around input shaft.
9. Attach driveline (#5) to splitter gearbox input shaft with removed bolts (#2) and locknuts (#1). Tighten locknuts to the correct torque.
10. Pull on driveline yoke to ensure yoke is securely fastened to splitter gearbox shaft.
11. Rotate doors (#7) up and snap shut.
12. Collapse driveline (#5) by pushing tractor end of driveline toward splitter gearbox.
13. Rotate front half of splitter guard (#9) shut.
14. Secure splitter guard with hand knobs (#8). Hand tighten knobs.



Park Jack Assembly
Figure 1-9



Driveline Assembly
Figure 1-10

Section 1: Assembly & Set-up

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 switch key to prevent unauthorized starting.
5. Relieve all hydraulic pressure to auxiliary hydraulic lines.
6. Wait for all components to come to a complete stop before leaving the operator's seat.
7. Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.

Standard Clevis Hitch Hook-Up

DANGER

To avoid serious injury or death:

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

WARNING

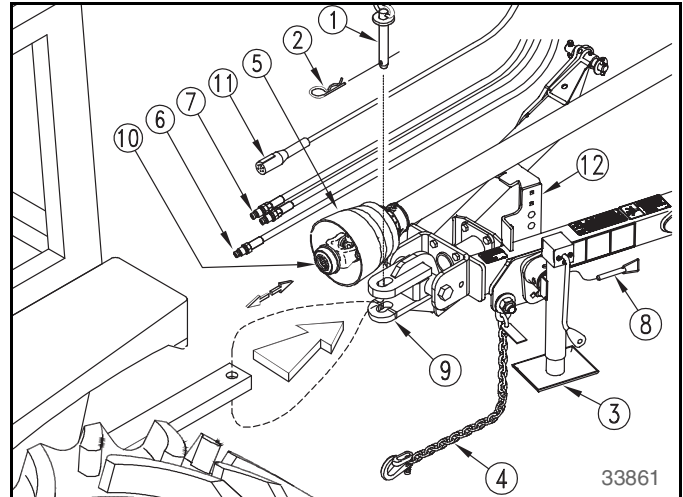
To avoid serious injury or death:

The ball detent pin must be fully inserted into the park jack with ball visible and popped out on the far side of the jack before working on or around an unhooked cutter.

Refer to Figure 1-11:

NOTE: Hitch pin (#1) and hairpin cotter (#2) are supplied by customer.

1. Make certain park jack (#3) is properly attached to cutter hitch and secured with ball detent pin (#8).
2. Store center 3-point link in the tractor's storage hook.
3. Start tractor, raise 3-point arms fully up, and carefully back tractor within close proximity of clevis (#9).
4. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 19.
5. Verify tractor drawbar is adjusted correctly. Refer to "**Drawbar Set-up**" dimensions on page 15.



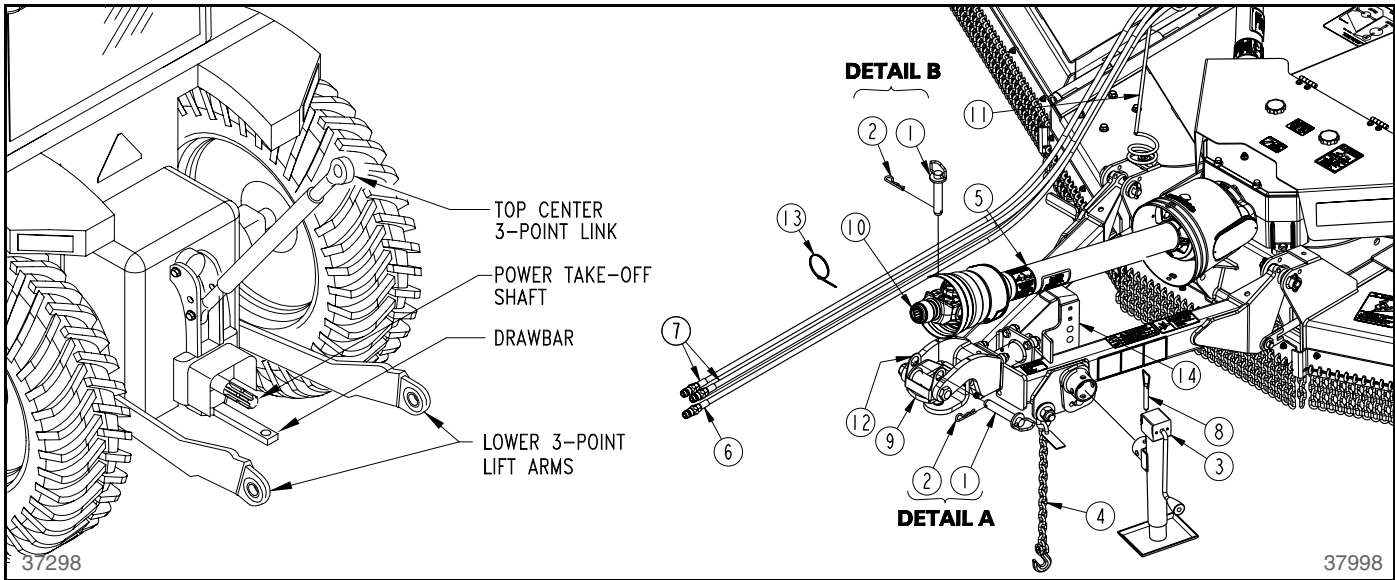
Standard Clevis Hitch Hook-up

Figure 1-11

6. Raise or lower park jack (#3) to align clevis (#9) with tractor drawbar. Drawbar should fit between lower and upper plates of clevis.
7. Restart tractor and continue to back tractor up to cutter hitch until hitch holes in tractor drawbar and hitch clevis (#9) are aligned.
8. Shut tractor down properly before dismounting.
9. Attach cutter to tractor drawbar with customer-supplied hitch pin (#1) and hairpin cotter (#2).
10. Lower park jack (#3) until cutter hitch weight is supported by tractor drawbar.

IMPORTANT: Before moving the cutter, relocate protect park jack by attaching it to the weight box. Make sure the jack is stored with its base level or lower than the head to prevent water and freeze damage.

11. Remove park jack (#3) from hitch and attach it to the weight box storage base with ball detent pin (#8). Make sure the base is level with or lower than the head. See cover picture for correct positioning.
12. Attach hitch safety chain (#4) to the tractor. Adjust chain length to remove all slack except what is necessary to permit turning. Lock chain hook securely to the safety chain.
13. Continue with "**Driveline Hook-up**" on page 22.



LP Performance Hitch Hook-up
Figure 1-12

LP Performance Hitch Hook-up

! DANGER

To avoid serious injury or death:

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

! WARNING

To avoid serious injury or death:

The ball detent pin must be fully inserted into the park jack with ball visible and popped out on the far side of the jack before working on or around an unhooked cutter.

Refer to Figure 1-12:

NOTE: Hitch pin (#1) and hairpin cotter (#2) are customer-supplied.

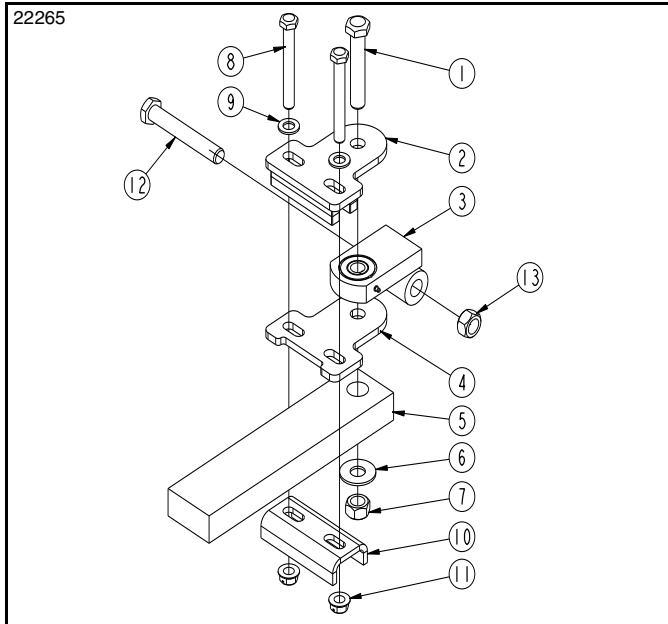
1. Make certain park jack (#3) is properly attached to cutter hitch and secured with ball detent pin (#8).
2. If clevis hitch (#9) is not already supported horizontal, rotate clevis horizontal and flip hitch holder (#12) up so that its holes are on top as shown.
3. Insert customer-supplied hitch pin (#1) through holes in hitch holder (#12) as shown in detail A. Secure with hairpin cotter (#2).
4. Store center 3-point link in its storage hook.
5. Start tractor, raise 3-point arms fully up, and carefully back tractor within close proximity of clevis (#9).
6. Shut tractor down properly before dismounting. Refer to “**Tractor Shutdown Procedure**” on page 19.

7. Verify tractor drawbar is adjusted correctly. Refer to “**Drawbar Set-up**” dimensions on page 15.
8. Raise or lower park jack (#3) to align clevis (#9) with tractor drawbar. Drawbar should fit between lower and upper plates of clevis.
9. Restart tractor and continue to back tractor up to cutter hitch until hitch holes in tractor drawbar and hitch clevis (#9) are aligned.
10. Shut tractor down properly before dismounting.
11. Remove bushings in clevis if customer supplied hitch pin diameter is larger than 1". See “**LP Performance Hitch Pin Diameter**” on page 31 for instructions.
12. Remove hairpin cotter (2) and hitch pin (#1) from hitch holder (#12) and rotate hitch holder down.
13. Attach cutter to tractor drawbar with hitch pin (#1) and hairpin cotter (#2) as shown in detail B.
14. Lower park jack (#3) until cutter hitch weight is supported by tractor drawbar.

IMPORTANT: Before moving the cutter, relocate protect park jack by attaching it to the weight box. Make sure the jack is stored with its base level or lower than the head to prevent water and freeze damage.

15. Remove park jack (#3) from hitch and attach it to the weight box storage base with ball detent pin (#8). Make sure base is level with or lower than the head. See cover picture for correct positioning.
16. Attach hitch safety chain (#4) to the tractor. Adjust chain length to remove all slack except what is necessary to permit turning. Lock chain hook securely to the safety chain.
17. Continue with “**Driveline Hook-up**” on page 22.

Section 1: Assembly & Set-up



Bar-Tite Hitch Assembly to Tractor Tongue
Figure 1-13

Bar-Tite Hitch Hook-up

Attach Bar-Tite Hitch to Tractor Drawbar

Refer to Figure 1-13:

1. Insert 1" x 5 1/2" hex bolt (#1) through hitch top plate (#2), hitch bushing (#3), hitch wear plate (#4), tractor drawbar (#5), and washer (#6) as shown. Secure with 1" locknut (#7). Tighten 1" locknut snugly to remove all play and then back nut one-quarter turn. **Do Not** torque 1" locknut.
2. Insert two 3/4" x 6" GR5 hex bolts (#8) through, 3/4" flat washers (#9), hitch top plate (#2), hitch wear plate (#4), and formed hitch support (#10) as shown. Secure with 3/4" locknuts (#11).
3. Tighten 3/4" locknuts to correct torque.
4. Remove 1" x 6 1/2" GR5 hex bolt (#12) and 1" locknut (#13) from hitch bushing (#3). Keep bolt and locknut for reuse.

Attach Bar-Tite Hitch to Rotary Cutter

DANGER

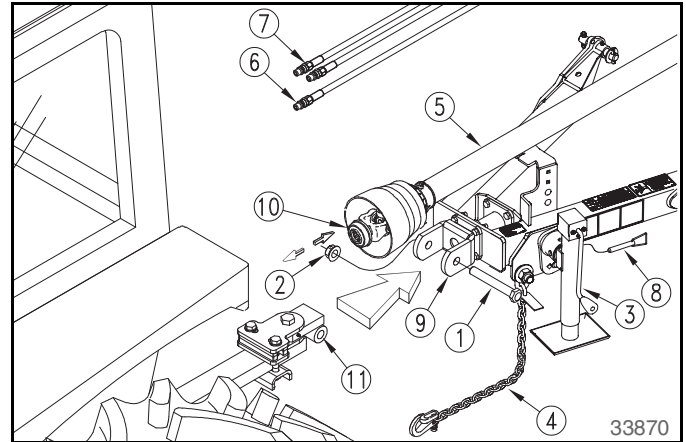
To avoid serious injury or death:

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

WARNING

To avoid serious injury or death:

The ball detent pin must be fully inserted into the park jack with ball visible and popped out on the far side of the jack before working on or around an unhooked cutter.



Bar-Tite Hitch Hook-up
Figure 1-14

Refer to Figure 1-14:

1. Make certain park jack (#3) is properly attached to cutter and secured with ball detent pin (#8).
2. Store center 3-point link in the tractor's storage hook.
3. Start tractor, raise 3-point arms fully up, and carefully back tractor within close proximity of clevis (#9).
4. Shut tractor down properly before dismounting. Refer to "**Tractor Shutdown Procedure**" on page 19.
5. Verify tractor drawbar is adjusted correctly. Refer to "**Drawbar Set-up**" dimensions on page 15.
6. Raise or lower park jack (#3) to align hitch (#11) with bolt hole in swivel clevis (#9).
7. Restart tractor and continue to back tractor up to cutter hitch until hole in hitch bushing (#11) aligns with holes in swivel clevis (#9).
8. Shut tractor down properly before dismounting.
9. Insert 1" x 6 1/2" GR5 hex bolt (#1) through swivel clevis (#9) and hitch bushing (#11). Secure hex bolt with locknut (#2). Tighten locknut snugly to remove all play. **Do Not** torque 1" locknut.
10. Lower park jack (#3) until cutter hitch weight is supported by tractor drawbar.

IMPORTANT: Before moving the cutter, relocate protect park jack by attaching it to the weight box. Make sure the jack is stored with its base level or lower than the head to prevent water and freeze damage.

11. Remove park jack (#3) from hitch frame and attach it to the weight box storage base with ball detent pin (#8). Make sure base is level with or lower than the head especially after the wing is folded up. See cover picture for correct positioning.
12. Attach hitch safety chain (#4) to tractor. Adjust chain length to remove all slack except what is necessary to permit turning. Securely lock chain hook to the safety chain.
13. Continue with "**Driveline Hook-up**" on page 22.

Section 1: Assembly & Set-up

Driveline Hook-up

⚠ DANGER

To avoid serious injury or death:

- Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.
- 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 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.

⚠ WARNING

To avoid serious injury or death:

- Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.
- Make certain driveline yokes are securely fastened at each end. A loose yoke can work free allowing the driveline to rotate uncontrollably causing implement damage and bodily injury or death to anyone nearby.
- Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off is set-up to operate at the implement's rated power take-off speed or equipment breakage may result. RC models are rated for 540 rpm and RCM models are rated for 1000 rpm.

Refer to Figure 1-15:

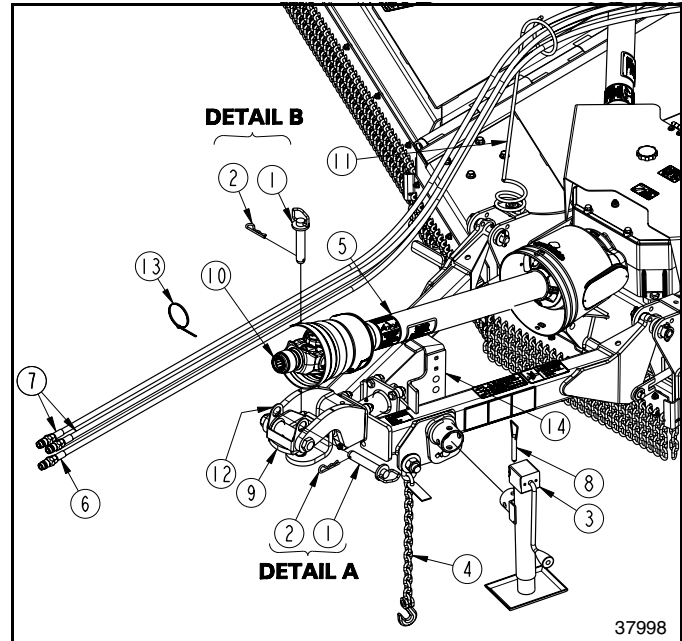
1. If needed, collapse driveline (#5) by pushing tractor end of driveline against splitter gearbox.
2. Pull back on yoke locking collar (#10) and slide yoke over the tractor power take-off shaft.
3. Release locking collar (#10) and continue to push outer yoke onto power take-off shaft until locking collar snaps in place.
4. Driveline (#5) should now be moved back and forth to ensure both ends are secured to the tractor and cutter. Reattach any end that is loose.

IMPORTANT: The shields on the constant velocity driveline with overrunning clutch must not rotate. To stop rotation, attach safety chains on the inner and outer driveline shields to the implement and tractor.

5. If main driveline is constant velocity with overrunning clutch, then attach safety chain on the inner shield to the cutter and safety chain on the outer shield to the tractor. Check safety chains to make sure they are attached to the inner and outer driveline shields.

IMPORTANT: Always rotate driveline hanger down after hook-up to prevent driveline damage.

6. Rotate driveline support (#14) down.
7. If attached to cutter hitch, remove park jack (#3) and stored on the weight box. For detailed instructions, refer to steps 10-11 on page 21.



Hydraulic Hook-up
Figure 1-15

Section 1: Assembly & Set-up

Driveline Hanger Adjustment

Refer to Figure 1-16:

1. Move tractor control lever to extend hydraulic lift cylinder (#5) until pressure against spacers (#1-4) has been eliminated.
2. Without relieving hydraulic pressure, shut tractor down before dismounting according to “Tractor Shutdown Procedure” on page 19.

WARNING

To prevent serious injury or death:

Stay clear from underneath the cutter and directly behind transport tires. The cutter could fall suddenly causing the decks to lower and tires to roll back.

3. Remove spacers (#1-4) from cylinder.
4. Start tractor and lower cutter until front skid shoes are resting on the ground or on solid, non-concrete support blocks.
5. Shut tractor down before dismounting according to “Tractor Shutdown Procedure” on page 19.
6. Add spacers (#1-4) as needed to support wheels at this position.

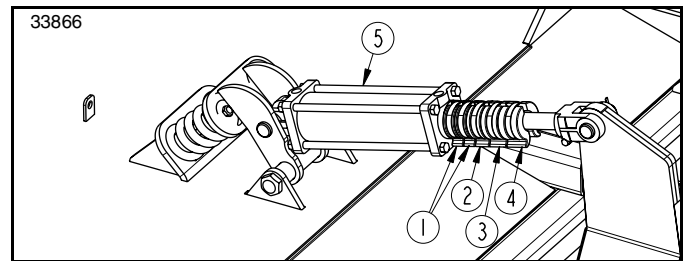
Refer to Figure 1-17:

NOTE: The driveline hanger must be able to rotate up and down with minimum clearance between the driveline and driveline hanger while the driveline is connected to the tractor’s power take-off shaft.

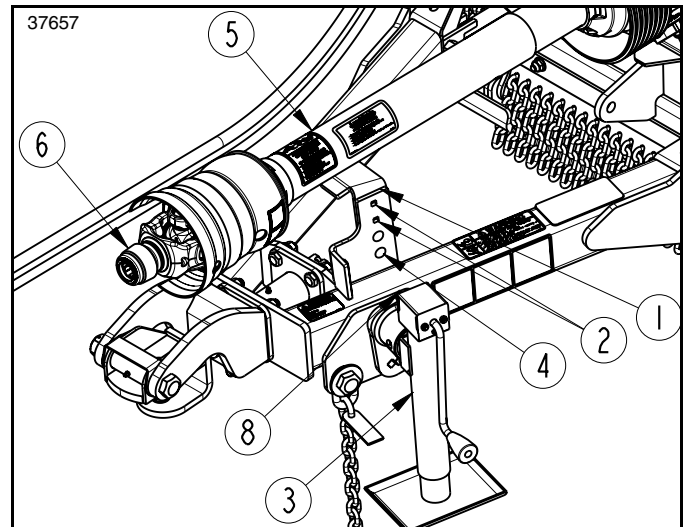
7. With driveline attached to the tractor, rotate driveline hanger (#1) up to check clearance between the driveline (#5) and driveline hanger (#1).
8. Loosen nuts securing carriage bolts (#4) and adjust driveline hanger (#1) up until there is a small gap between driveline (#5) and driveline hanger (#1).
9. If driveline hanger (#1) is adjusted fully up and needs to adjust higher, remove carriage bolts (#4) and reattach hanger to the upper two square holes (#2) with existing flat washers, lock washers, hex nuts, and carriage bolts (#4). Continue to adjust hanger to underside of driveline.
10. Draw nuts securing carriage bolts (#4) up snug and rotate driveline hanger (#1) down. If hanger makes contact with driveline (#5), readjust hanger down until it misses the driveline.
 - a. Tighten both nuts to the correct torque for a 3/8"-16 GR5 bolt.

IMPORTANT: Always rotate driveline hanger down before moving cutter to prevent damage to driveline.

11. When adjustments are complete, rotate driveline hanger (#1) down and away from driveline (#5).



Hydraulic Lift Cylinder and Spacers
Figure 1-16



Driveline Hanger (Shown rotated up)
Figure 1-17

Driveline Clearance Check

Check driveline for adequate clearance under all ranges of cutter height.

1. With driveline attached to the tractor, verify all spacers (#1-4) in Figure 1-16 are added as shown and driveline hanger (#1) in Figure 1-17.
2. Slowly raise and lower cutter to its upper and lower limits while observing clearances between the cutter hitch frame and driveline (#5) in Figure 1-17.

Adjust tractor drawbar height and/or length if driveline interferes. See Figure 1-1 on page 15 for correct drawbar dimensions.

Section 1: Assembly & Set-up

Hydraulic Hook-up

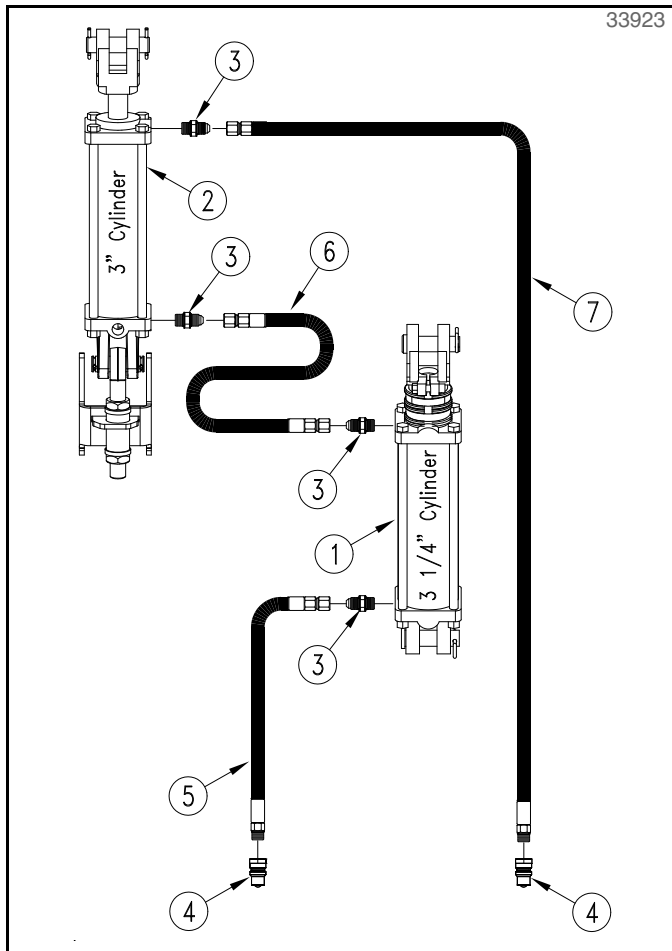
WARNING

To avoid serious injury or death:

Hydraulic fluid under high pressure can penetrate the skin and/or eyes causing a serious injury. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for leaks. A doctor familiar with this type of injury must treat the injury within a few hours or gangrene may result. **DO NOT DELAY.**

Refer to Figure 1-18:

1. Route wing folding cylinder hose (#6) through hose support loops and connect to a remote outlet with float option if available.
2. Route rephasing lift cylinder hoses (#7) through hose support loops and connect to a tractor duplex outlet.
3. Secure hydraulic hoses together with zip ties (#13) as needed to keep them from pinch areas caused by raising and lowering the deck, folding the wing, and making turns with the tractor.



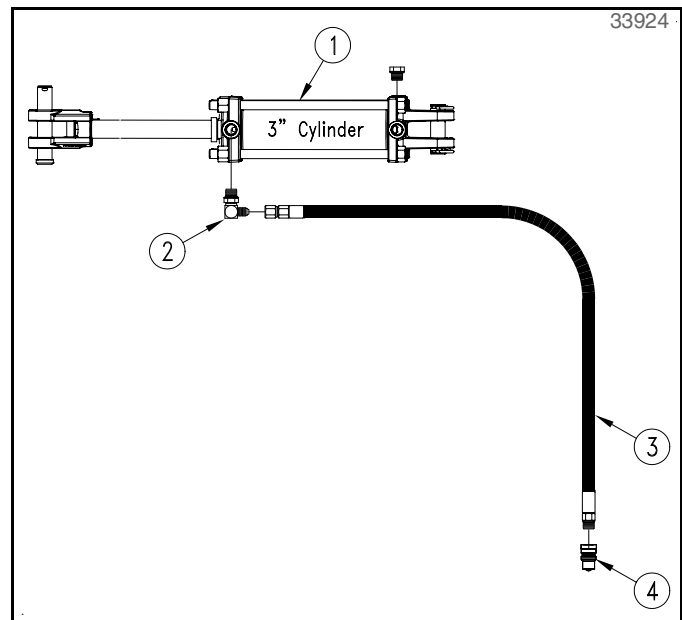
Rephasing Lift Cylinders and Plumbing
Figure 1-18

Rephasing Lift Cylinders & Plumbing

Refer to Figure 1-18:

The deck cutting height and transporting height are controlled by two rephasing cylinders (#1 & #2) which are plumbed together to operate in unison. The decks will not lift properly if rephasing cylinders are plumbed incorrectly. Use Figure 1-18 to verify plumbing.

1. Rephasing hydraulic cylinder 3 1/4" x 8" x 1 1/4" rod
2. Rephasing hydraulic cylinder 3" x 8" x 1 1/4" rod
3. Straight adapter 3/4 MORB x 3/4MJIC
4. Quick disconnect poppet type coupler, 3/4" FORB male
5. 3/8" Hydraulic hose, 288" long x 3/4" MORB x 3/4" FJIC
6. 3/8" Hydraulic hose, 114" long x 3/4" FJIC
7. 3/8" Hydraulic hose, 288" long x 3/4" MORB x 3/4" FJIC



Wing Folding Cylinder and Plumbing
Figure 1-19

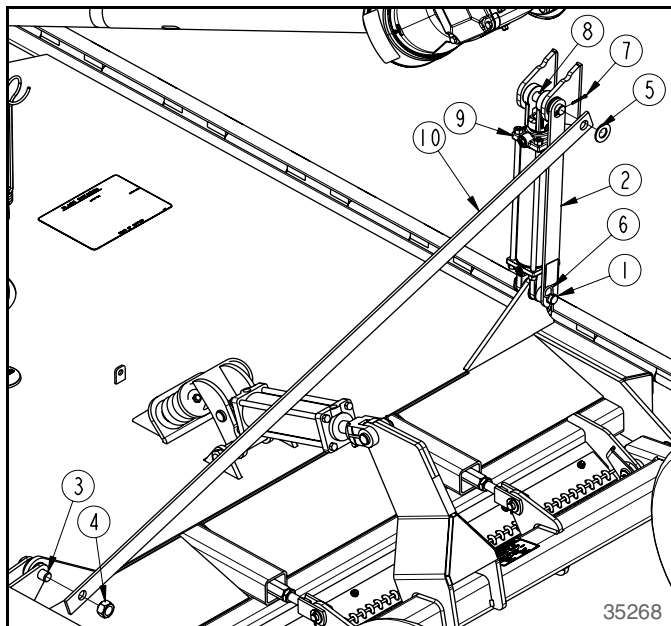
Wing Folding Cylinder & Plumbing

Refer to Figure 1-19:

The wing folding cylinder (#1) is single-acting and should be connected to an outlet with float option to allow the wing to flex up and down as it travels over uneven ground while cutting. Use Figure 1-19 to verify plumbing.

1. Hydraulic cylinder 3" x 12" x 1 1/4" rod
2. Orifice elbow, 1/16" x 9/16" MJIC x 9/16" MORB
3. 3/8" Hydraulic hose, 217" long x 3/4" MORB x 9/16" FJIC
4. Quick disconnect poppet type coupler, 3/4" FORB male

Section 1: Assembly & Set-up



Remove Shipping Bar With Transport Locks Set
Figure 1-20

Remove Shipping Crossbar

! WARNING

To avoid serious injury or death:

- Metal shipping bands are under tension. Always wear eye protection when cutting bands. Keep head, body, and body extremities away from the area where the band will recoil into when cut.
- Make sure transport lock is set before removing shipping bar. Stay clear of wing while removing shipping bar. Once shipping bar is removed, the wing will fall suddenly until caught by transport lock.

NOTE: A come-along may be needed to pull the wing in before shipping bar (#10) can be removed.

Refer to Figure 1-20:

1. Make sure cutter is parked on a level surface with room for the wing to unfold onto.
2. Idle engine, place gear selector in park, **fully retract wing folding cylinder (#9)**, shut tractor off, set park brake, and remove switch key.
3. Verify transport lock bar (#2) is rotated down and secured to cylinder pin (#1) with hairpin cotter (#6).
4. Cut and remove shipping bands securing the wing wheels.
5. Remove hex locknut (#4) and shipping bar (#10) from hex cap screw (#3).
6. Reinstall hex locknut (#4) to hex cap screw (#3) and tighten to the correct torque.
7. Remove cotter pin (#7), flat washer (#5), and shipping bar (#10) from cylinder pin (#8). **Do not remove cylinder pin (#8) or transport lock (#2).**

8. Replace flat washer (#5) and cotter pin (#7). Bend one or more legs of cotter pin to secure it in place.

Unfold Wing Deck

Refer to Figure 1-21:

! DANGER

To avoid serious injury or death:

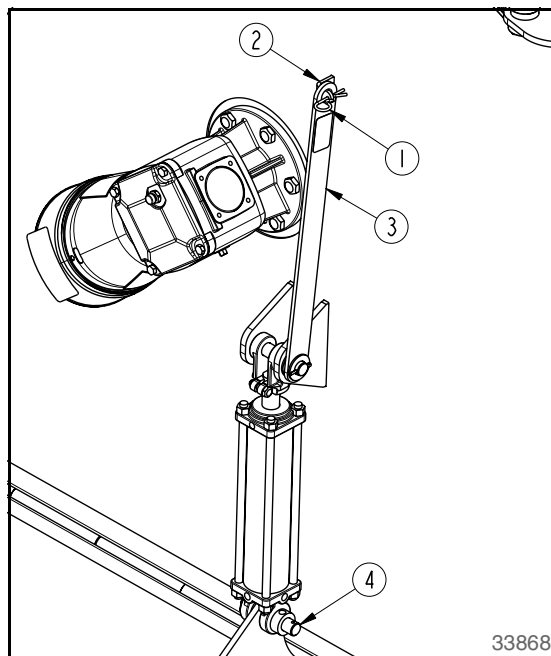
Keep everyone out of the area where the wing deck will unfold. The wing deck can fall suddenly.

! WARNING

To avoid serious injury or death:

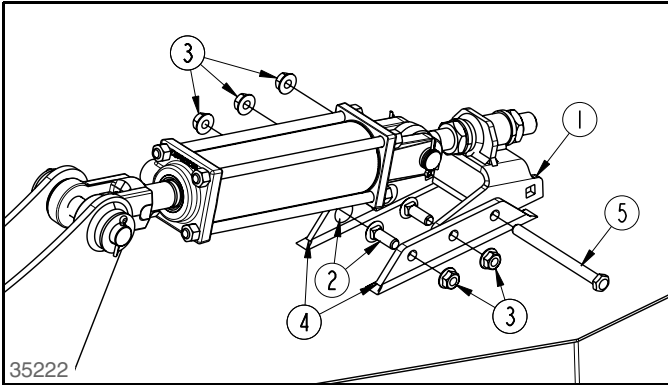
Watch hydraulic hoses as the wings lower to be sure they don't catch causing hoses to stretch and pull loose from the hydraulic cylinders.

1. Make sure cutter is parked on a level surface with room for the wing to unfold.
2. Idle engine, place gear selector in park, raise wing to its most upright position, shut tractor engine off, set park brake, and remove switch key.
3. Rotate transport lock bar (#3) up to storage bracket (#2). Secure with existing hairpin (#1).
4. Start tractor and lower wing down until resting on the ground.
5. Set tractor control lever for wing cylinders in float position.
6. Cycle folding cylinder back and forth several times to purge cylinder and hydraulic hoses of air. For additional details, see "**Purge Hydraulic System**" on page 27.

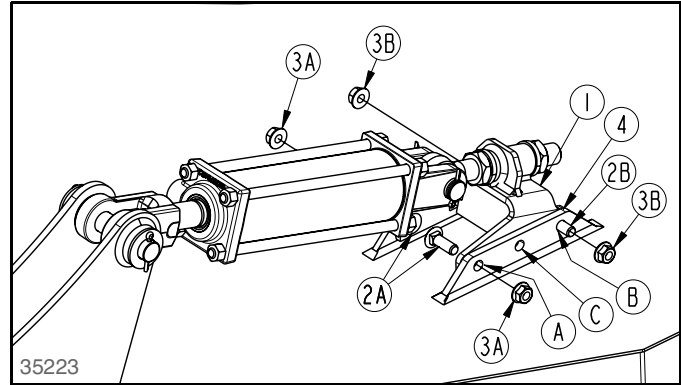


Transport Bar in Storage Position
Figure 1-21

Section 1: Assembly & Set-up



Wing Set-up for Shipping
Figure 1-22



Wing Set-up for Field Use
Figure 1-23

Relocate Wing Lift Cylinder Mount

Refer to Figure 1-22:

The rephasing lift cylinder is shipped from the factory moved forward 2 1/2". Mounting bracket (#1) must be relocated 2 1/2" rearward as follows:

1. With wing unfolded, lower cutter down until wing is resting on its skid shoe and transport wheel(s). If needed, place a support block under the wing skid shoe to ensure wing is resting on its skid shoe and transport wheel(s).
2. Shut tractor down properly before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
3. Move tractor hydraulic deck lift control lever back and forth several times to relieve all hydraulic pressure in the deck lift hydraulic system.
4. Remove all five whiz nuts (#3), cap screw (#5) and carriage bolts (#2). Keep carriage bolts (#2) and four hex whiz nuts (#3) for reuse. Discard cap screw (#5) and one hex whiz nut (#3).
5. Remove mounting bracket (#1) from between mounting ears (#4). If bracket will not remove easily, use hydraulics to extend and retract lift cylinders several times until mounting bracket is free.
6. Using tractor control lever, fold wing deck up high enough to place a support block under its skid shoe. Use a 4" support block if cutter is equipped with 21" laminated tires and a 6" support block if cutter is equipped with 29" aircraft tires.
7. Unfold wing deck until its skid shoe is resting on the 4" or 6" support block.
8. Continue on next page.

Refer to Figure 1-23:

9. Extend or retract hydraulic lift cylinder on the wing until rear holes "A" in mounting bracket (#1) are slight back of holes "A" in mounting ears (#4).
10. Shut tractor down properly before dismounting.
11. Attach a hoist or jack under the right-hand wing wheel axle and raise wheels up until carriage bolts (#2A) can be inserted. If needed, use a drift punch to align rear holes "A".
12. Insert rear carriage bolts (#2A) as shown and install hex whiz nuts (#3A). Draw nuts up snug, do not tighten at this time.
13. Use a drift punch in holes "C" to align front holes "B".
14. Insert front carriage bolts (#2B) in holes "B" as shown and install hex whiz nuts (#3B).
15. Tighten hex whiz nuts (#3A & #3B) to the correct torque.
16. Remove hoist or jack from under the transport wheels.
17. Raise wing up enough to remove support block from under its skid shoe.
18. Remove support block and return wing to its unfolded position.

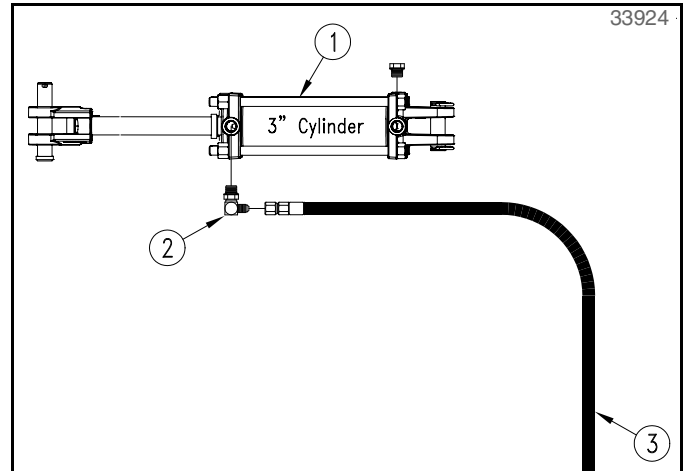
Section 1: Assembly & Set-up

Driveline Clearance Check

Check driveline for adequate clearance under all ranges of cutter height.

NOTE: The lift cylinders should raise the cutter up while pushing the control lever forward and lower while pulling the lever back. Switch connections at the duplex outlet if lift control lever works opposite.

1. With driveline attached to the tractor, slowly raise and lower cutter to its upper and lower limits while observing clearances between hitch and driveline.
2. Adjust tractor drawbar height and length if driveline interferes. See “**Drawbar Set-up**” on page 15 for correct placement of tractor drawbar.
3. Cycle hydraulic lift system several times to purge hydraulic lift system of trapped air. See “**Purge Hydraulic System**” on this page.



Wing Folding Cylinder
Figure 1-24

Purge Hydraulic System

DANGER

To avoid serious injury or death:

Never remove or install a folding wing cylinder with cylinder rod retracted and wing folded-up. The wing is unstable without its folding cylinder and can suddenly fall. Also, air trapped in a new or repaired cylinder will drop the wing suddenly when lowering the wing. Either situation can render the cutter inoperable and cause serious bodily injury or death.

WARNING

To avoid serious injury or death:

Be sure center and wing decks are lowered to the ground and all hydraulic pressure is relieved before disconnecting any hydraulic lines or fittings to purge the hydraulic system.

Be sure tractor reservoir is filled properly before operating hydraulic cylinders. If tractor reservoir is low on hydraulic fluid, there is a chance of drawing air into the system causing jerky or uneven cylinder movements. The wing deck lift cylinder may be purged as follows:

1. With wing deck lowered to the ground, shut tractor off and move hydraulic control lever for the wing back and forth to relieve all hydraulic pressure.
2. Loosen hydraulic hose (#3) slightly at wing cylinder elbow (#2) to allow air and fluid to escape.
3. Restart tractor and slowly activate tractor control lever to retract wing cylinder and to purge trapped air.
4. Once air is purged from the hydraulic system for the wing cylinders, tighten hydraulic hose fittings at elbow (#2)

Section 1: Assembly & Set-up

Hook-up LED Lights

Refer to Figure 1-25:

The lead wiring harness (#13) is equipped with a 7-pin plug for connecting to the tractor's 7-pin electrical outlet shown in Figure 1-26.

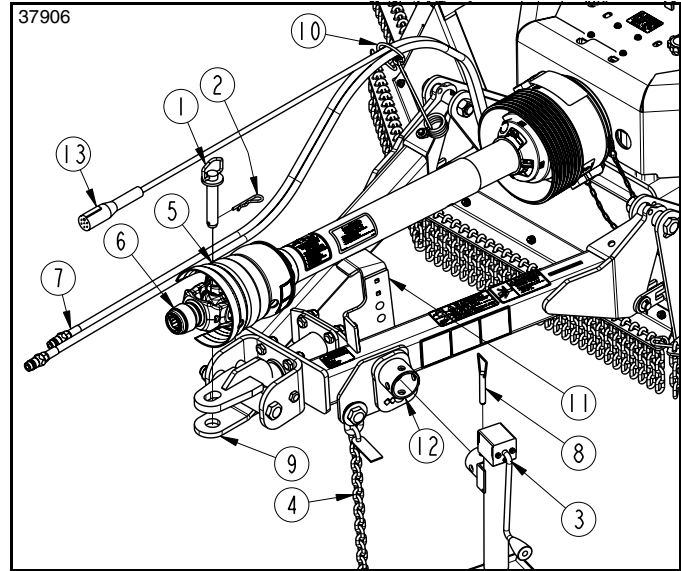
1. Route lead wire harness (#13) through the front and rear spring hose loops (#2).
2. Connect plug on lead wire harness (#13) to the tractor's 7-pin electrical outlet.
3. It is best to have a second person to verify the lights are operating. Start tractor and operate lights as follows:
 - a. Turn on headlights to verify red lights illuminate.
 - b. Turn on flasher lights to verify amber lights are blinking on and off.

Refer to Figure 1-27:

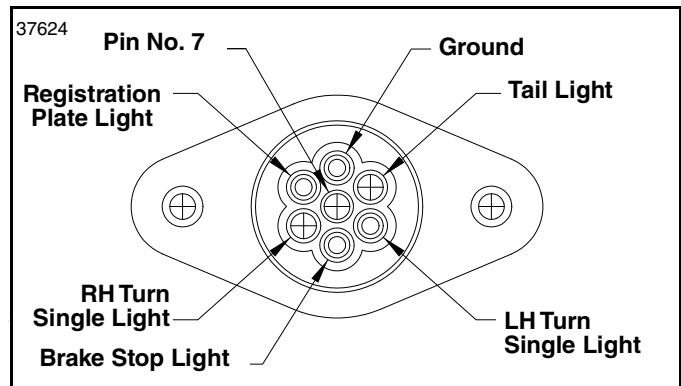
4. If the lights did not operate properly, recheck hook-up of the enhance module (#9) and wire harnesses (#8 & #13) as outlined below. Make any necessary changes and repeat step 3 above.
 - a. Reference wire harness (#8) leading to the LED lights on the right-hand side of the cutter. Make sure connector (#8R), labeled "ENHANCER", is connected to the Red wire connector (#9R) on enhance module (#9).
 - a. Reference wire harness (#8) leading to the LED lights on the left-hand side of the cutter. Make sure connector (#8L), labeled "ENHANCER", is connected to the Yellow wire connector (#9L) on enhance module (#9).
 - b. Make sure lead wire harness (#13) is connected to connector (#9C) on enhance module (#9).
 - c. **Refer to Figure 1-25:** Ensure that the 7-pin plug on the end of the 15' lead wire harness (#13) is properly seated in the tractor's 7-pin electrical outlet shown in Figure 1-26.
5. Check routing of wire harness (#8) to make sure they will not be pinched as the arms fold and unfold and while raising and lowering the cutter height.

Refer to Figure 1-25:

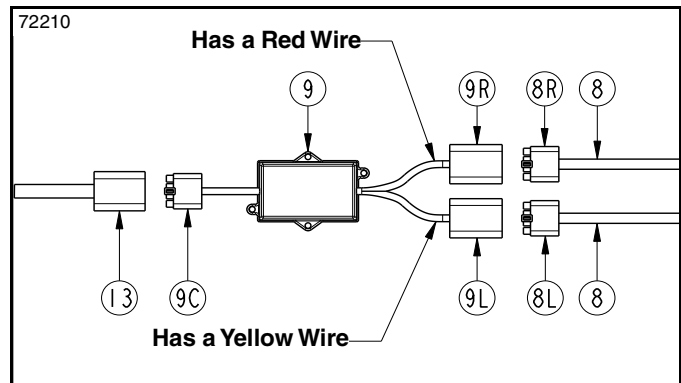
6. Check routing of lead wire harness (#13) to make sure it pass through the spring hose loop (#2).
7. Secure harness in place with spiral hose wrap (#3). If needed, add any cable ties to complete the process.



**LED Hookup (Standard Clevis Hitch Shown)
Figure 1-25**



**Tractor 7-Pin Electrical Outlet
Figure 1-26**



**Enhance Module Wire Connections
Figure 1-27**

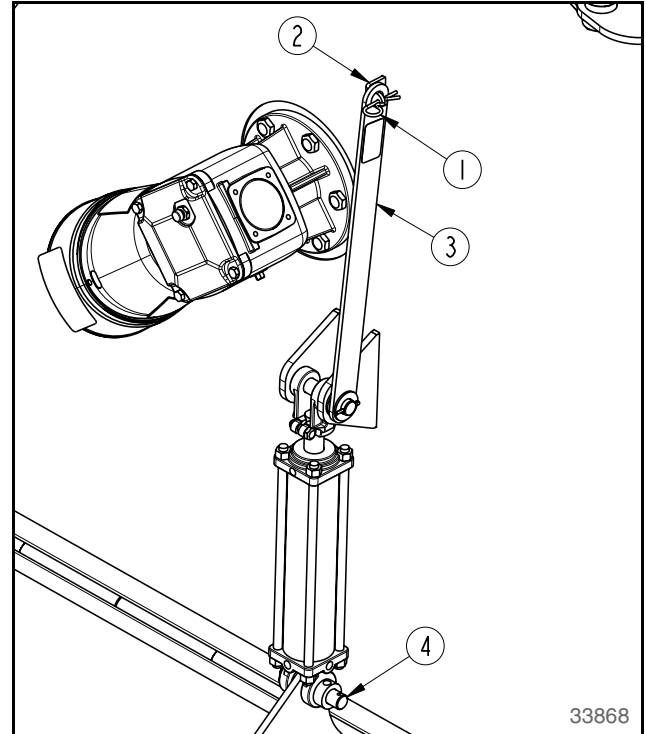
Section 1: Assembly & Set-up

Unhook Rotary Cutter

1. See “**Long-Term Storage**” on page 48 if parking the cutter for long periods and end of season.
2. Idle tractor engine, disengage power take-off, park cutter on a level, hard surface. Place tractor gear selector in park or set park brake.
3. Park cutter on a level, hard surface. Place tractor gear selector in park or set park brake.

Refer to Figure 1-28:

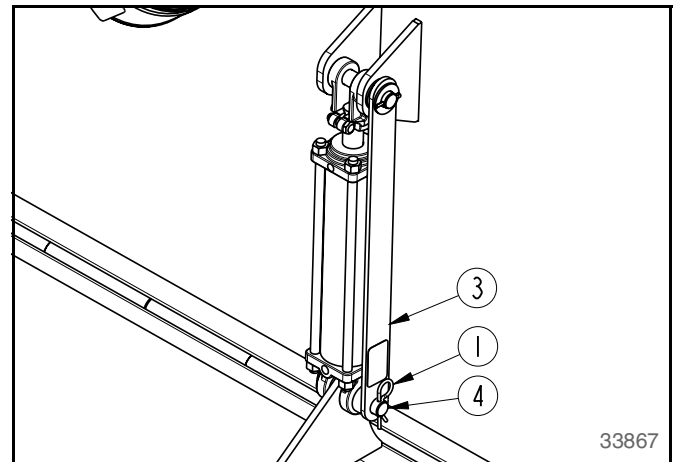
4. Wait for blades to come to a complete stop and then fold the wing up to transport position.
5. Shut tractor engine off and remove switch key before dismounting from tractor.
6. Remove hairpin cotter (#1) from storage tab (#2).



Transport Bar, Storage Position
Figure 1-28

Refer to Figure 1-29:

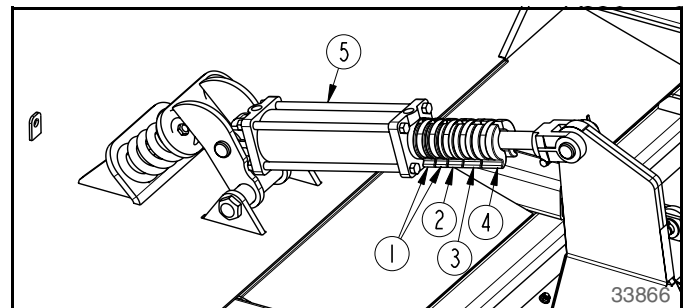
7. Swing transport lock bar (#3) down and place over lock pins (#4). Secure with hairpin cotters (#1).



Transport Bar, Locked Position
Figure 1-29

Refer to Figure 1-30:

8. Spread stroke control spacers (#1, #2, #3 & #4) apart at the break line and remove all of them from hydraulic cylinder (#5).
9. Start tractor and lower cutter until front skids are resting on the ground or on support blocks.
10. Without changing deck lift height, shut tractor down properly before dismounting. Refer to “**Tractor Shutdown Procedure**” on page 19.
11. Replace stroke control spacers (#1, #2, #3 & #4) as needed to support wheels at this position.
12. Move center deck and wing cylinder lift levers back and forth to release all hydraulic pressure at the couplers.

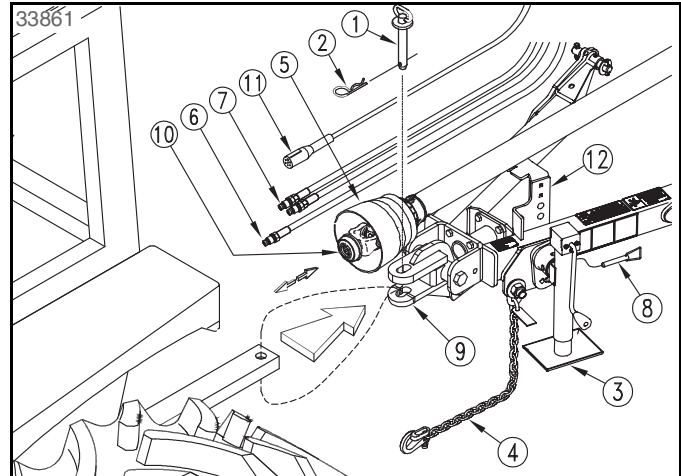


Lift Cylinder & Stroke Control Spacers
Figure 1-30

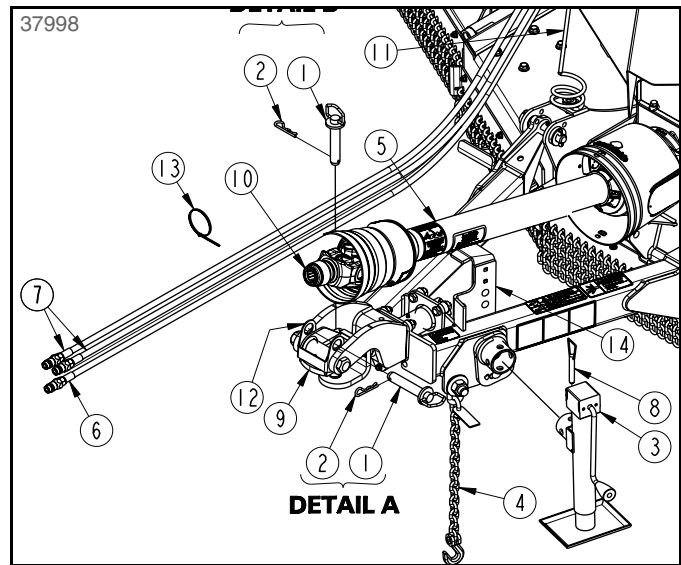
Section 1: Assembly & Set-up

Refer to Figure 1-31:

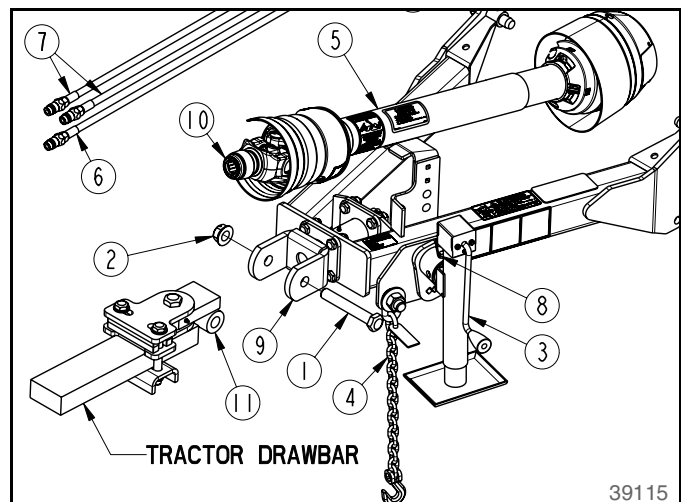
13. Remove park jack (#3) from the weight box storage base and install on cutter hitch. Secure park jack in place with ball detent pin (#8).
14. Unhook hydraulic hoses (#6 & #7) from tractor duplex outlet. Insert couplers through spring hose loop to keep couplers out of the dirt.
15. Unhook hitch safety chain (#4) from tractor.
16. Rotate driveline support (#12) up to position shown.
17. Pull back on locking collar (#10) and pull driveline (#5) from the tractor.
18. Collapse driveline (#5) by pushing tractor end of driveline toward the splitter gearbox.
19. Adjust park jack (#3) to raise cutter up until all load is removed from tractor drawbar.
20. Remove connecting hitch pin or bolt as follows:
 - a. **For Standard Clevis Hitch, See Figure 1-31:**
Remove hairpin cotter (#2) and hitch pin (#1).
 - a. **For LP Performance Hitch, See Detail B in Figure 1-32:**
Remove hairpin cotter (#2) and hitch pin (#1).
 - b. **For Bar-Tite Hitch, See Figure 1-33:**
Remove locknut (#2) and bolt (#1).
21. Restart tractor and drive tractor slowly forward several feet.
22. Shut tractor down properly before dismounting.
23. Lower park jack (#3) until cutter is resting on its front skid shoes.
24. Replace connecting pin/bolt (#1) as follows:
 - a. **For Standard Clevis Hitch, See Figure 1-31:**
If unhooking standard clevis, replace connecting pin (#1) in clevis (#9).
 - b. **For LP Performance Hitch, See Detail A in Figure 1-32:**
Rotate clevis (#9) horizontal and flip hitch holder (#12) up so that its holes are on top as shown. Insert customer-supplied hitch pin (#1) through holes in hitch holder (#12). Secure with hairpin cotter (#2).
 - c. **For Bar-Tite Hitch, See Figure 1-33:**
If unhooking bar-tite hitch, remove hitch (#11) from tractor drawbar and reattach it to the hitch (#9) with removed bolt (#1) and locknut (#2). Screw locknut on 4 or 5 full turns. Do not torque nut tight.



Tractor Unhooking from Standard Clevis Hitch
Figure 1-31



Unhook Tractor From LP Performance Hitch
Figure 1-32



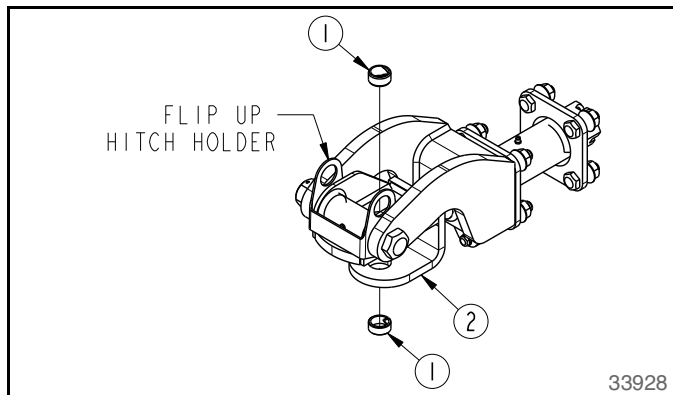
Unhook Tractor From Bar-Tite Hitch
Figure 1-33

Section 2: Adjustments

LP Performance Hitch Pin Diameter

Refer to Figure 2-1:

The LP Performance Hitch is designed to receive 1" diameter hitch pins. To convert the hitch to receive 1 1/4" diameter hitch pins, knock out upper and lower bushings (#1) in clevis (#2).



LP Performance Hitch Hole Diameter
Figure 2-1

NOTE: Unscrewing coupler nuts (#6) will lengthen leveling rods and lower front of cutter. Tightening coupler nuts (#6) will shorten leveling rods and raise front of cutter.

If continuous hinges are too high at the front:

- a. Loosen jam nuts (#5).
- b. Unscrew coupler nuts (#6) an equal amount to lower front of cutter until both hinges are inclined from front to back by 1" with the front being closer to the ground than the back.

If continuous hinges are too low at the front:

- a. Loosen jam nuts (#5) several turns.
- b. Tighten coupler nuts (#6) an equal amount to raise front of cutter until both hinges are inclined from front to back by 1" with the front being closer to the ground than the back.

7. Be sure leveling rods have equal amounts of tension and then tighten jam nuts (#5) against couplers (#6).

Level Cutter Decks

Make adjustments with cutter hooked to the tractor operating it or to one with the same drawbar height.

Level Center Deck

Refer to Figure 2-2:

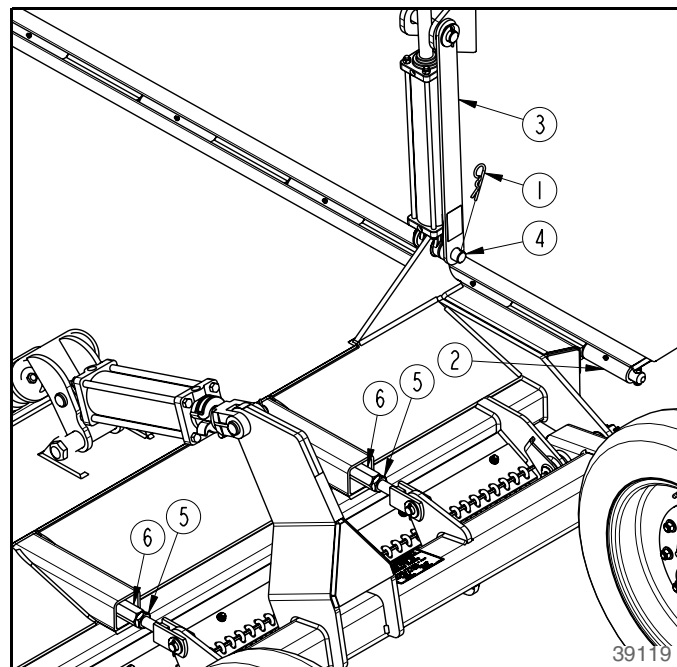
1. Attach cutter to tractor and park on level ground.
2. Raise the wing up and lock into position with transport lock (#3) and hairpin cotter (#1) as shown. See "Transport Lock" on page 36 for detailed instructions.

Refer to Figure 2-3:

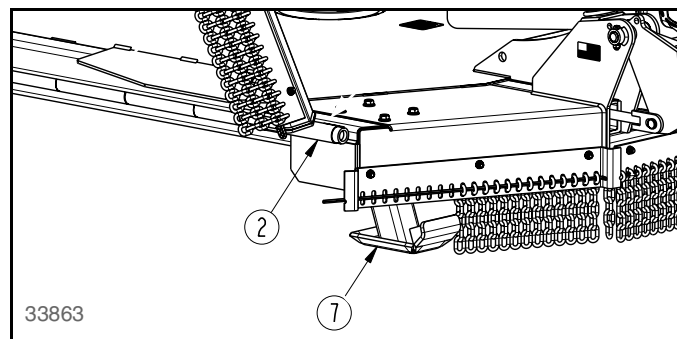
3. With tractor hydraulics, adjust center deck until front skids (#7) are 2 to 3 inches above ground.
4. Without changing deck height, shut tractor down properly before dismounting. Refer to "Tractor Shutdown Procedure" on page 19.
5. On both sides of the center deck are continuous hinges (#2). Measure the height they are off the ground as follows:
 - a. Refer to Figure 2-2: At back of cutter, measure distance from bottom of right hinge (#2) to ground and from bottom of left hinge to ground. These two measurements should be equal.
 - b. Refer to Figure 2-3: At front of cutter, measure distance from bottom of right hinge (#2) to ground and from bottom of left hinge to ground. These two measurements should be 1" less than the rear measurements taken in step a.

Refer to Figure 2-2:

6. Adjust length of leveling rods at coupler nuts (#6) if continuous hinges are not 1" lower at the front:



Center Deck Leveling Rods
Figure 2-2



Front Skid Shoe Position
Figure 2-3

Section 2: Adjustments

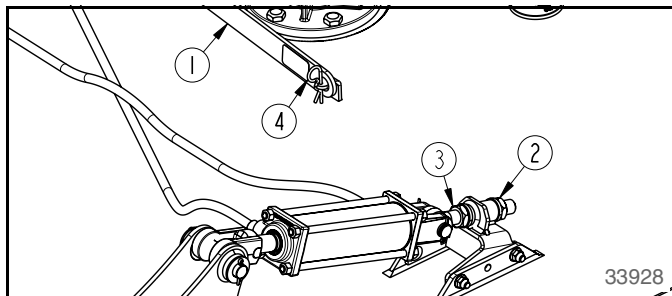
Level Wing Deck

Refer to Figure 2-4:

The wing section will need adjusting if its top is not level with top of center deck when wing is unfolded.

IMPORTANT: Make sure wing lift cylinder mount has been relocated for field use. See “Relocate Wing Lift Cylinder Mount” on page 26.

1. With tractor hydraulics, raise wing fully up, remove transport lock (#1) from transport position to field position as shown. Be sure to secure transport lock with hairpin cotter (#4). See “Transport Lock” on page 36 for detailed instructions.
2. Lower wing to ground position and pull cutter straight forward six to ten feet to allow outer wing wheels to properly align themselves.
3. With tractor hydraulics, fully extend all three rephasing cylinders and then lower cutter to approximate cutting height.
4. Check wing top to see if it is level with top of center deck. If outer edge of wing is higher or lower than the center deck, then the wing should be leveled as follows:
 - a. **If the outer wing edge is higher** than the center deck, loosen adjusting nut (#3) to lower the outer wing edge until wing is level. Tighten adjusting nut (#2) to the correct torque when level.
 - b. **If the outer wing edge is lower** than the center deck, loosen adjusting nut (#2) several turns and tighten adjusting nut (#3) until wing is level. Tighten adjusting nut (#2) to the correct torque when level.



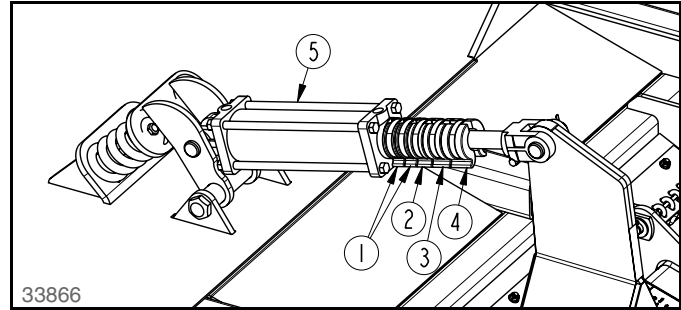
Level Wing Deck
Figure 2-4

Adjust Deck Cutting Height

NOTE: Make all cutting height adjustments in the field using height of cut grass/material as a guide. Do not measure blade height above ground as the non-operating blade height will be different than the operating blade height.

Refer to Figure 2-5:

1. At the cutting site, unfold wing and raise center deck fully up with lift cylinder (#5). See instructions for “Unfold Wing Deck” on page 25.



Set Deck Height
Figure 2-5

2. Place tractor gear selector in park, set park brake, shut off tractor, and remove key before dismounting from tractor.
3. Remove all stroke control spacers (#1-#4) from center hydraulic cylinder (#5) by spreading them apart at the break line. Store spacers in a location they can be retrieved.
4. Start tractor and engage blades. See instructions for “Engage Blades” on page 38.
5. Using tractor control lever, adjust cutter to the desired cutting height and then travel forward for approximately 20 to 50 feet.
6. Stop tractor, disengage power take-off, place tractor gear selector in park, set park brake, shut off tractor, remove key, and wait for blades to come to a complete stop before dismounting from tractor.
7. Measure height of cut grass/material. This distance is the cutting height. If this height is acceptable, continue with step 8. If this height is unacceptable, repeat steps 4-7 until desired cutting height is achieved.
8. Select required size and number of stroke control spacers (#1-#4) that will fit on the center hydraulic cylinder rod. The following spacers are available.
 - (#1): Two 1" spacers
 - (#2): One 1 1/4" spacer
 - (#3): One 1 1/2" spacer
 - (#4): One 1 3/4" spacer
9. Return to the tractor and raise Rotary Cutter up again. With tractor shut off and switch key removed, install selected stroke control spacers on the center hydraulic cylinder rod. Do not install spacers on the wing rephasing cylinder.
10. Return to tractor and lower cutter against stroke control spacers. Recheck cutting height in steps 4-7. If needed, adjust size and quantity of stroke control spacers until desired cutting height is achieved. Removing spacers lowers the cutting height and adding spacers raises the cutting height.
11. Keep remaining spacers with tractor for field adjustments.



Section 3: Operating Instructions

Startup 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 Rotary Cutter. It is absolutely essential that no one operates the cutter unless they are age 16 or older and have read, fully understood, and are totally familiar with the Operator’s Manual. Make sure the operator has paid particular attention to:

Important Safety Information, page 1

- **Section 1: Assembly & Set-up**, page 15
- **Section 2: Adjustments**, page 31
- **Section 3: Operating Instructions**, page 33
- **Section 4: Options & Accessories**, page 40
- **Section 5: Maintenance & Lubrication**, page 41

Perform the following inspections before using your Rotary Cutter.

Operating Checklist

✓	Check	Page
	Make sure all guards are in place and in good working condition. Refer to “Important Safety Information”.	1
	Follow hook-up & driveline instructions. Refer to “Section 1: Assembly & Set-up”.	15
	Make all required adjustments. Refer to “Section 2: Adjustments”.	31
	Perform all required maintenance. Refer to “Section 5: Maintenance & Lubrication”.	41
	Lubricate cutter and drivelines as needed. Refer to “Lubrication Points”.	49
	Lubricate all gearboxes and replace oil plugs properly. Refer to Gearbox lubrication.	51
	Check cutter initially and periodically for loose bolts and pins. Refer to “Torque Values Chart”.	59

Safety Information



To avoid serious injury or death:

- Do not walk, stand, or allow anyone else in the area where a raised wing will fall unless the wing is securely locked in the raised position with its transport lock.
- Rotary Cutters have the ability to discharge objects at high speeds; therefore, the use of front & rear safety guards is mandatory with this cutter. Stop blade rotation if bystanders are in or around the area. It is recommended that a safety shield be placed between the operator and cutter on an open air tractor.
- 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.

- Always disconnect driveline from the tractor before servicing the drivetrain and components powered by the drivetrain. A person can become entangled in the drivetrain if the tractor is started and the power take-off is engaged.
- 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 hydraulics is off.
- Do not raise wing with power take-off engaged or drivelines rotating. Objects can be thrown by rotating blades. Always keep people away from a cutter that is operating.
- Do not use cutter as a fan. Cutting blades are not properly designed or guarded for this use.
- Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person’s body and/or clothing can become entangled in the driveline.
- Never place hands or feet under the deck or attempt to make adjustments to the cutter with power take-off engaged. Cutter blades rotating at high speeds cannot be seen and are located close to the deck sides. Body extremities will be cut off instantly.
- Keep everyone away from the cutter when folding or unfolding the wings or when raising or lowering the cutter. The cutter can pinch or crush a person when performing these operations.
- This cutter is equipped with free-swinging cutting blades to reduce shock loads. However, it is best to avoid striking solid objects for your safety and to protect the cutter from damage.
- Clear area to be cut of debris and other unforeseen removable objects before cutting. Mark non-removable hazards such as tree stumps, post stubs, protruding objects, rocks, drop-offs, holes, etc. with a visible flag.
- 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.
- The cutter must be operated with wing and weight box attached. Removing one will increase risk of rollover. Removing one or both will expose the blades. Rotating blades will cut body extremities and throw objects.



To avoid serious injury or death:

- Allow only persons to operate this implement who have fully read and comprehended this manual, who have been properly trained in the safe operation of this implement, and who are age 16 or older. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.

Section 3: Operating Instructions

- Do not operate and/or travel across inclines where tractor and/or implement can rollover. Consult your tractor's manual for acceptable inclines the tractor is capable of traveling across.
- Do not raise the wing off the ground when traveling across an incline. The weight of the wing will increase the risk of a rollover.
- Never carry riders on the implement or tractor. Riders can obstruct the operator's view, interfere with controls, be pinched by moving components, become entangled in rotating components, struck by objects, thrown about, fall off and be run over, etc.
- Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.
- 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.
- Watch while making tight turns to ensure that the rear tractor tires and lower 3-point arms do not make contact with cutter hitch, driveline or deck. Keep lower 3-point arms raised at all times when hitched to a pull-type cutter.
- Wait for blades to come to a complete stop before accessing blade bolts through blade bolt access hole.
- Do not use implement to lift objects; to pull objects such as fence posts, stumps, etc; or to push objects. The unit is not designed or guarded for these uses.
- Do not use implement to tow other equipment unless it is designed with a tow hitch. Doing so can result in loss of control and damage the equipment.
- 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 operate a cutter with a hitch or hitch pin that is excessively worn, bent, broken, or has structural cracks. The hitch and/or hitch pin can break apart separating cutter from tractor.
- Avoid catching hydraulic hoses on brush, posts, tree limbs, and other protrusions that could damage and/or break them.
- Buildup of debris around moving components and gearboxes is a fire hazard. Keep rotating parts and gearboxes free from debris to avoid serious injury and property damage.
- Improper oil level can cause bearing failure and be a fire hazard. Maintain proper gearbox oil level to avoid serious injury and property damage.
- Do not exceed rated cutting capacity of your cutter. See specifications & capacities for specified cutting capacity. Exceeding rated cutting capacity can damage drive components, cutter blades, and deck components.

- Do not operate a broken or bent driveline. Such a driveline will break apart while rotating at high speeds and can cause serious injury or death. 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 is set-up to operate at the implement's rated power take-off speed or equipment breakage may result. RC models are rated for 540 rpm and RCM models are rated for 1000 rpm.

IMPORTANT: Maintain correct power take-off speed. Loss of power take-off speed will allow blades to swing back and result in ragged, uneven cutting.

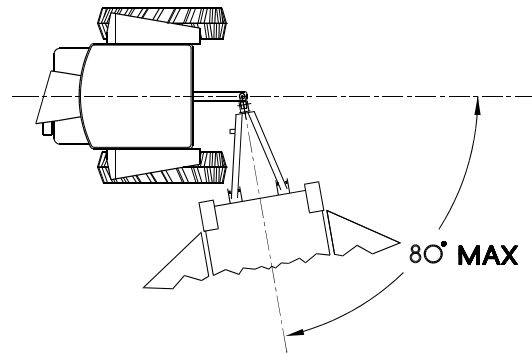
IMPORTANT: If wing driveline profile is bent or twisted, disconnect that driveline from the wing gearbox before folding the wing up. This will protect both the wing and divider gearboxes. Repair driveline before putting cutter back into service.

Avoid Extreme Turning Angles

Refer to Figure 3-1:

Plan your field cutting to minimize number of turns, especially extreme turning angles. Avoid tractor-to-cutter turning angles that exceeds driveline maximum turning angle. If the turn cannot be avoided, disengage tractor power take-off and wait for the driveline to stop rotating before making the turn.

- **Constant Velocity Driveline:**
Maximum turning angle = 80°.



20795

Constant Velocity (CV) Driveline
Figure 3-1

Section 3: Operating Instructions

Tractor & Cutter Inspection

Make the following inspections with cutter attached to a tractor parked on a level surface, power take-off disengaged, and cutter blades stopped.

1. Inspect tractor safety equipment to make sure it is in good working condition.
2. Inspect cutter safety equipment to make sure it is installed and in good working condition.
3. Check driveline to make certain it is securely connected to the power take-off shaft and cutter gearbox shaft. Also, make certain that the guards are in good working condition and in place.
4. Remove 3-point lower arms or secure them in the raised position so they do not interfere with driveline, hoses, or hitch.
5. Check all hoses and wires to be sure that they will not pinch or come in contact with the folding wing and rotating drivelines.
6. Start tractor and carefully raise and lower implement to ensure tractor drawbar, tires, and other equipment on the tractor do not contact cutter or driveline.
7. Raise center deck fully up.
8. Without lowering cutter, shut tractor down properly before dismounting. Refer to “**Tractor Shutdown Procedure**” on page 19.
9. Place sturdy support blocks or jack stands under the four center deck corners.
10. Start tractor and lower center deck down onto the supports.
11. Shut tractor down properly before dismounting.
12. With cutter resting on solid supports, power take-off disengaged, and blade rotation completely stopped:
 - Check for and remove foreign objects wrapped around blade spindles.
 - Check for nicked, bent, broken, and worn cutting blades. Replace or sharpen blades as required. Refer to “**Cutter Blades**” on page 43.
13. Inspect hydraulic hoses for wear, damage and hydraulic leaks. See “**Avoid High Pressure Fluids Hazard**” on page 3. Replace damaged and worn hoses with genuine Land Pride parts.
14. Make repairs to cutter and tractor before continuing with “**Blade Operation Inspection**”.

Blade Operation Inspection

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.

WARNING

To avoid serious injury or death:

- Stop power take-off immediately if vibration continues after a few revolutions during start-up and anytime vibration occurs thereafter.
- 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 is set-up to operate at the implement’s rated power take-off speed or equipment breakage may result. RC models are rated for 540 rpm and RCM models are rated for 1000 rpm.

IMPORTANT: Read all “**Safety Information**” starting on page 33 before operating the cutter.

1. Make sure cutter blades are not locked against each other. See “**Field Set-up**” on page 37.
2. Remove deck supports and set transport locks for field operations. See “**Transport Lock**” on page 36.
3. Lower cutter until blades are about 2" off the ground.
4. Start tractor and set throttle speed just above idle. If available, use tractor’s power take-off soft start option. Slowly engage power take-off to get blades rotating. (See “**Engage Blades**” on page 38.)
5. Initial start-up vibration is normal and should stop after a few revolutions. Stop power take-off rotation immediately if vibration continues.
6. Once cutter is running smoothly, increase throttle to full 540 or 1000 rpm speed. If at full speed cutter vibrates excessively for 3 seconds, then immediately disengage power take-off, shut tractor down, and remove switch key.
7. Block center deck up before working under cutter.
8. Check blades for a locked-up situation. Unlock blades if locked-up.
9. Check for other probable causes such as broken or bent blades, loose blades, loose gearbox mounting bolts, bent driveline, etc.
10. Take proper precautions to make necessary repairs and adjustments.
11. Repeat steps 1-10 to make certain vibration is corrected before putting cutter back into service.

Section 3: Operating Instructions

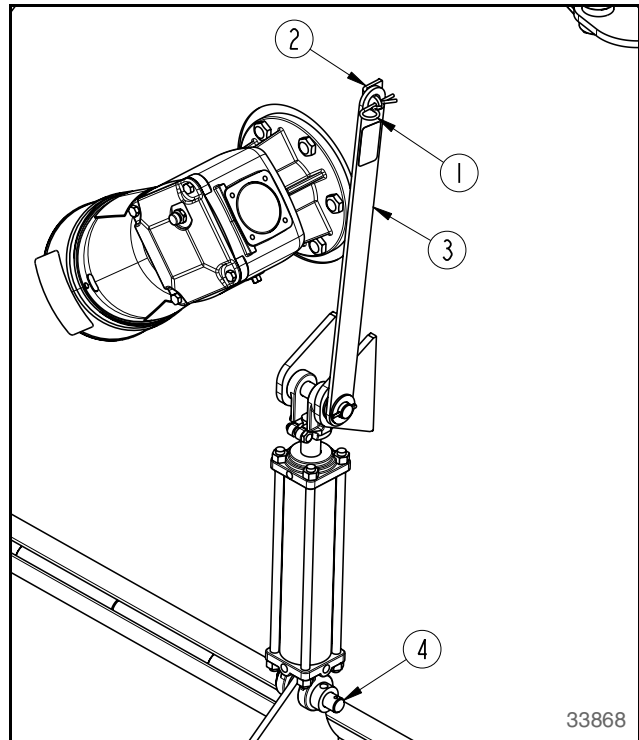
Transport Lock

IMPORTANT: Always disengage tractor's power take-off & wait for blades to come to a complete stop before raising the wing to transport position. Wing driveline, gearbox, and splitter gearbox can be damaged if driveline is turning.

NOTE: The wing is controlled with a hydraulic folding cylinder. Be certain that the wing hydraulic hose is properly attached to the tractor and is full of oil before proceeding.

The cutter wing will need to be raised and locked before transporting on a roadway, through narrow openings, and when servicing underside of deck.

1. Disengage power take-off and wait for cutter blades to come to a complete stop before raising the wing.
2. Rotate cutter wing fully up with hydraulics.
3. Shut tractor down properly before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
4. **See Figure 3-2:** Remove hairpin cotter (#1) from storage bracket (#2).
5. **See Figure 3-3:** Rotate transport lock bar (#3) to cylinder pin (#4). Secure bar with hairpin cotter (#1).



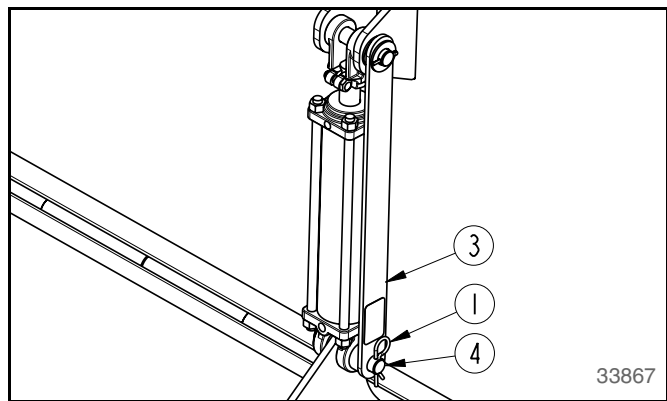
Transport Bar, Storage Position
Figure 3-2

Transporting

WARNING

To avoid serious injury or death:

- Always raise wing and set transport lock before transporting from one work site to another and before traveling on public roadways. The wing can fall if not secured with the transport lock..
 - When traveling on roadways, travel in such a way that other vehicles may pass you safely. Always use LED lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.
 - Select a safe ground speed when transporting. Never travel at a speed which does not allow adequate control of steering and stopping, and never exceed 20 mph (32.2 km/h) with attached equipment. Rough terrain requires a slower speed.
 - Watch while making tight turns to ensure that the rear tractor tires and lower 3-point arms do not make contact with cutter hitch, driveline or deck. Keep lower 3-point arms raised at all times when hitched to a pull-type cutter.
1. Select a safe ground speed when transporting from one area to another. Maximum transport speed for the Rotary Cutter is 20 mph. **DO NOT EXCEED.**
 2. Be sure to reduce tractor ground speed when turning and leave enough clearance so the cutter does not contact obstacles such as buildings, trees or fences.
 3. Always raise wing and set transport lock before traveling on public roadways.



Transport Bar, Locked Position
Figure 3-3

4. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely. Use LED flashing lights on the cutter to make yourself more visible.
5. Shift tractor to a lower gear when traveling over rough or hilly terrain.

Road Side Cutting

Land Pride recommends the Rotary Cutter be equipped with chain guards to stop flying objects when cutting road sides. Refer to **"Safety Guards"** on page 40.

Use the LED flashing lights on the cutter to make yourself more visible when cutting road sides.

Section 3: Operating Instructions

Field Set-up

⚠ DANGER

To avoid serious injury or death:

Clear area to be cut of debris and other unforeseen removable objects before cutting. Mark non-removable hazards such as tree stumps, post stubs, protruding objects, rocks, drop-offs, holes, etc. with a visible flag.

⚠ WARNING

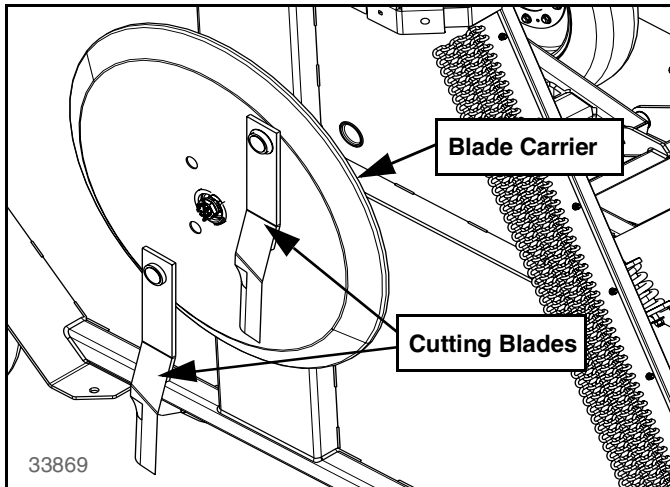
To avoid serious injury or death:

The following operational procedures should be carried out by the tractor operator. Other persons should not be in the area. All cutter operations including field set-up should be stopped when other persons are in the vicinity.

IMPORTANT: Cutting should **not** be done in wet conditions. Wet material will build up on the deck underside creating need for additional horsepower, high wear, and poor discharge.

Field Inspection

Thoroughly inspect area to be cut for debris and unforeseen objects. Remove all potential hazards and mark any that cannot be removed.



Wing Deck Blade Positioning
Figure 3-4

Unfold Wing and Set Deck Cutting Height

Refer to Figure 3-4:

IMPORTANT: Cutting blades may become locked together (overlapped) when the wing is raised for transport. Operating cutter in this condition will result in severe deck vibration. Inspect wing for locked blades prior to power-on operation.

1. Inspect blade carriers for locked blades prior to lowering the wing. Separate locked blades.
2. Start tractor and raise wing up to release any tension on the transport lock bar (#3).

3. Without lowering the cutter, shut tractor down before dismounting. Refer to “**Tractor Shutdown Procedure**” on page 19.

Refer to Figure 3-3 on page 36:

4. Remove hairpin cotter (#1) and transport lock bar from cylinder pin (#4).

Refer to Figure 3-2 on page 36:

5. Rotate end of transport lock bar (#3) up to storage tab (#2). Secure transport lock bar with hairpin cotter (#1).
6. Start tractor and lower the wing down.
7. Adjust cutter to field cutting height. See instructions for “**Adjust Deck Cutting Height**” on page 32.

Set Wing Folding Lever In Float Position

IMPORTANT: When cutting, the wing folding lever should be in float position to avoid damage to the wing hydraulic cylinder and axle while cutting on uneven terrain.

Use the float position of your tractor’s hydraulic system to provide automatic floating of the wing for varying terrain conditions. This will ensure that the wing gauge wheels are in continuous contact with the ground at all times.

Rephasing Out Of Phase Lift Cylinders

The rephasing lift cylinders will not function properly if they are out of phase. This will be noticeable when one deck is higher or lower than the other deck. Retracting one lift cylinder, more than the other, can cause this situation.

Some tractors with pressure detents will not allow the hydraulic systems to rephase automatically. To manually rephase lift cylinders, raise cutter completely up and hold the tractor hydraulic lever on a few more seconds to give the cylinders time to rephase. Do this each time you raise the cutter and when the decks are uneven.

Momentarily reversing the hydraulic lever immediately after rephasing the lift cylinders allows the cylinders to retract about 1/2" and will help maintain a level cutter during transport.

Select Gear Range

Optimum ground speed depends on density of material being cut, horsepower rating of tractor, and (in some cases) terrain. Always operate tractor at the cutter’s full-rated power take-off speed in a gear range that allows the cutter to make a smooth cut without lugging the tractor down, usually between 2 to 5 mph. Loss of power take-off speed will allow the blades to hinge back and result in ragged, uneven cutting.



Section 3: Operating Instructions

Engage Blades

IMPORTANT: Cutter blades can lock-up against each other during start-up and shut-down, especially if tractor's power take-off engagement is "INSTANT ON" and/or "INSTANT OFF". Follow Blade Engagement and Blade Disengagement instructions to help eliminate blade lock up.

1. Select a gear range that will allow the cutter to make a smooth cut without lugging the tractor down. See "**Select Gear Range**" above for detailed instructions.
2. With wing lowered, increase throttle to a speed just enough to get the cutter started without stalling tractor while slowly engaging power take-off. Use tractor's power take-off soft start option if available.
3. Visually ensure that all power shafts are rotating and that the cutter is not vibrating excessively after ramping up to power take-off speed for at least 3 seconds. If excessive vibration continues after 3 seconds at full power take-off speed, disengage power take-off immediately, shut down tractor and remove switch key. Wait for blades to come to a complete stop before dismounting tractor.
4. Investigate cause if cutter was shut down due to excessive vibration. See "**Blade Operation Inspection**" on page 35 for detailed instructions.
5. If cutter was not shut down, commence forward cutting operation at full power take-off operating speed. Make a new gear selection if tractor is lugging down or if cutter is making a rough cut.
6. Periodically, shut tractor down properly and dismount to do an inspection. Refer to "**Tractor Shutdown Procedure**" on page 19 for proper shut down procedure.
7. Dismount tractor and check for objects wrapped around blade spindles. Block deck up before removing objects.
8. Frequently inspect cutter for loose bolts and nuts. Tighten all loose hardware as indicated in the "**Torque Values Chart**" on page 59.

Disengage Blades

1. Slowly decrease throttle speed until engine idle speed is reached.
2. Disengage power take-off.
3. Place tractor in park or set park brake, shut tractor engine off, remove switch key, and wait for blades to stop before dismounting from tractor.



Section 3: Operating Instructions

General Operating Instructions

Now that you have familiarized yourself with the Operator's Manual, completed the Operator's Checklist, properly attached your cutter to your tractor, made the right leveling adjustments, and preset your cutting height, you're almost ready to begin using your Land Pride 14' Smooth Top Rotary Cutter.

It's now time to do a running operational safety check. If at any time during this safety check you detect a malfunction in either the cutter or tractor, shut the tractor off immediately, remove the key, and make necessary repairs or adjustments before continuing.

Make sure the tractor's park brake is engaged, tractor's power take-off is disengaged, and the cutter is resting on the ground with the wing down. Start tractor and back throttle off until the engine is at a low idle. With tractor's rear hydraulic lift control lever, raise the cutter to transport position making sure that the power take-off shaft is not in a bind and does not come in contact with the cutter frame. Lower unit to cutting position and with the tractor still at a low idle, engage power take-off. If everything is running smoothly at this point, increase engine rpm until the tractor's engine reaches full power take-off operating speed which will be either 540 or 1000 rpm. Slowly raise the cutter to transport height to make sure the driveline does not bind or chatter. Then return the engine to low idle, disengage power take-off, and position the adjustable cylinder stops on the cutter's hydraulic lift cylinder so the cutter can be consistently returned to the same cutting and transport height. Watch while making a tight turn to ensure that the rear tractor tires do not contact the deck or hitch. Also, be sure tractor 3-point arms are raised and will not contact main driveline.

You should now be ready to move to the cutting site. Never assume an area is clear. Cut only in areas you are familiar with, have inspected, and know to be free of debris and unseen objects. Cut extremely tall grass twice to detect potential hazards. In the event you do strike an object, stop the tractor and cutter immediately to inspect cutter and make any necessary repairs before resuming operation. It pays to inspect a new area and to develop a plan before you cut.

To produce a clean cut, normal mowing speed will be between 2-5 mph at full power take-off speed. Therefore, make a tractor gear and range selection that will maintain this combination. Generally the quality of cut will be better at lower ground speeds and cutting denser ground cover may create the need to slow down. You will want to avoid very low cutting heights especially on extremely uneven terrain. Always cut downward on slopes and avoid crossing the face of steep slopes. Avoid sharp drops and cross diagonally through dips to prevent hanging up the tractor and cutter. Slow down in turns and avoid sharp turns if at all possible. Remember to look back often.

Now that you're prepared and well briefed you may begin cutting. Begin cutting by doing the following:

- Reduce tractor's engine rpm.
- Make sure cutter wing is on the ground and in cutting position.
- Engage power take-off, raise engine rpm to the appropriate power take-off speed, and begin mowing.

Operators of models with a conventional main driveline must plan ahead and choose a cutting pattern that allows for wider turns. Try increasing or decreasing ground speed to determine the effect on quality of cut. With a little practice you will be pleased with what you and your Land Pride 14' Smooth Top Cutter can do.

When you are done mowing, need to take a break, or just need to make a few adjustments to the cutter, remember to always do the following:

- Reduce tractor's engine rpm, disengage power take-off, and stop on level ground.
- Set the park brake, turn off engine, and remove switch key.
- Stay on the tractor until cutter blades have come to a complete stop.

Section 4: Options & Accessories

Safety Guards

DANGER

To avoid serious injury or death:

Rotary Cutters have the ability to discharge objects at high speeds; therefore, the use of front & rear safety guards is mandatory with this cutter. Stop blade rotation if bystanders are in or around the area. It is recommended that a safety shield be placed between the operator and cutter on an open air tractor.

WARNING

To avoid serious injury or death:

Keep all safety guards in place. Rotary Cutters have the ability to discharge objects at high speeds. Use extreme caution when cutting in areas where people may be present. It is best to operate the cutter when no one is nearby. Stop blade rotation if someone is in or around the area.

Land Pride offers three types of safety guards to best suit your application: rubber skirt guards, single row chain guards, and double row chain guards.

Land Pride offers two types of safety guards to best suit your application: single row chainguards and double row chainguards.

- Single row chain guards are constructed with a single row of hanging chain links.
- Double row chain guards are constructed with two staggered rows of hanging chain links. The second row provides an additional barrier for stopping thrown objects.

Single Row Chain Guards

- 330-892A Front Single Row Chain guards
- 330-902A Rear Single Row Chain guards

Double Row Chain Guards

- 330-893A Front Double Row Chain guards
- 330-903A Rear Double Row Chain guards

Tire & Axle Arrangements

Land Pride offers three different tires and two axle arrangements to best suit your application:

- Laminated tires: They are constructed of laminated layers of solid rubber that will never go flat.
- Used Aircraft tires: They are available in foam filled and air filled. Both are built tough to withstand the rugged use a cutter receives and to provide a smoother ride when transporting from field to field. Foam filled won't go flat.
- 5 - Wheel arrangement: Four on transport axle and one on the wing axle. Available with laminate tires or aircraft tires.
- 6 - Wheel arrangement: Four on transport axle and two on the wing axle. Available with laminate tires or aircraft tires.

Hitches

The cutter is factory supplied with the standard clevis hitch. Other optional hitches are available. See "Hitch Types" on page 16 for complete description of optional hitches.

- 330-225A Standard Clevis Hitch
- 330-333A Bar-Tite Hitch (Optional)
- 330-335A Ball Hitch (Optional)
- 330-334A Pintle Hitch (Optional)
- 334-045A LP Performance Hitch (Optional)

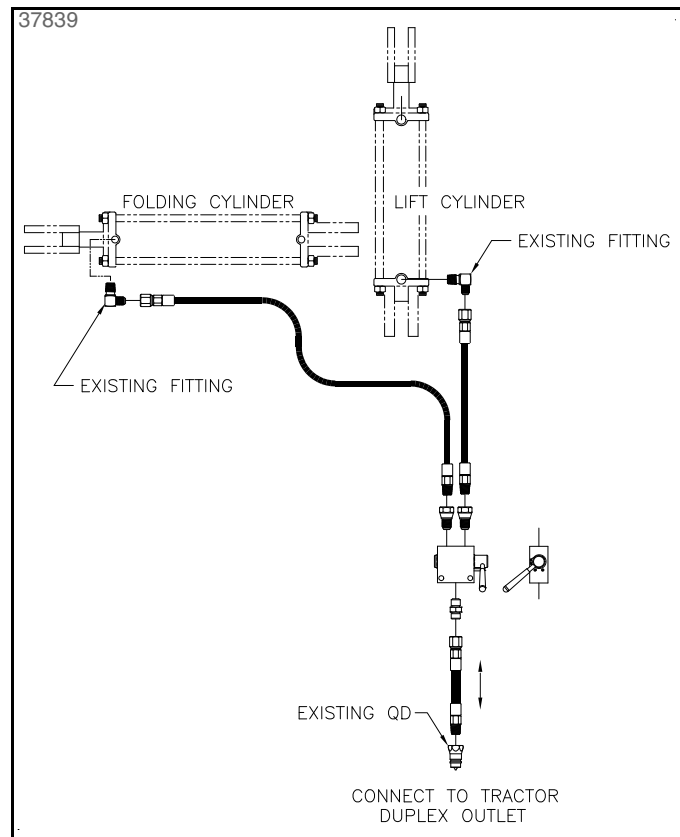
Selector Control Valve Kit

- 312-316A 2-Way Selector Control Valve Kit

Some tractors do not have enough duplex outlets to handle the equipment connected to the tractor. Land Pride offers the following kit for adding duplex outlets.

Refer to Figure 4-1:

This kit is for tractors needing an additional duplex outlet. It converts the tractor's duplex outlets into two d11 duplex outlets with a control valve. A selector switch on the control valve selects which cylinder is operational with the tractor hydraulic control lever.



Selector Control Valve Kit
Figure 4-1

Section 5: Maintenance & Lubrication

General Maintenance Information

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.

Check all bolts and pins after using the cutter for several hours and on a regular basis thereafter to ensure they are tight and secured. Replace worn, damaged or illegible safety labels by obtaining new labels from your Land Pride dealer.

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 hydraulics is off.

WARNING

To avoid serious injury or death:

- *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.*
- *Always follow “Tractor Shutdown Procedure” provided in this manual before dismounting the tractor.*
- *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.*
- *Buildup of debris around moving components and gearboxes is a fire hazard. Keep rotating parts and gearboxes free from debris to avoid serious injury and property damage.*
- *Improper oil level can cause bearing failure and be a fire hazard. Maintain proper gearbox oil level to avoid serious injury and property damage.*

Hydraulic System

One of the most important things you can do to prevent hydraulic system problems is ensure that your tractor's reservoir remains free of dirt and contamination.

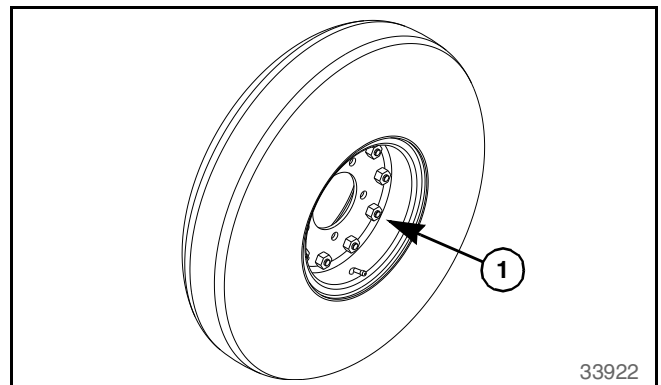
Use a clean cloth to wipe hose ends before attaching them to your tractor. Replace your tractor's hydraulic filter element at the prescribed intervals. These simple maintenances will go a long way to prevent occurrence of control valve and hydraulic cylinder problems.

Tires

WARNING

To avoid serious injury or death:

- *Tire changing can be dangerous and should be performed by trained personnel using correct tools and equipment. When removing and installing wheels, use wheel handling equipment adequate for the weight involved.*
- *Always release all air pressure in air-filled airplane tires before removing hardware bolting the split rims together. Not doing so can cause the split rims to blow apart instantly and could result in serious injury or death.*
- *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. Do not over inflate tires.*
- *Do not weld on or heat a rim. Air pressure inside the tire can increase enough to cause an explosion. High heat can weaken and/or warp the rim, damage the tire, and destroy foam filling inside a tire.*



Air Filled Airplane Tires with split Rims
Figure 5-1

1. Check tires for low air pressure, missing nuts, missing lug bolts, wear, separated rubber, and bent, broken, or cracked wheel rims.
2. Inflate air filled tires to the proper pressure. Refer to “Tire Inflation Chart” on page 59.

Refer to Figure 5-1:

3. Replace wheel rims and tires as needed with genuine Land Pride parts. Do not loosen split rim hardware (#1) until all air pressure in the tire has been removed.

Section 5: Maintenance & Lubrication

Skid Shoes

WARNING

To avoid serious injury or death:

Excessive wear on skid shoes may cause inadequate operation of cutter and create a safety hazard.

There are two skid shoes mounted on the wing deck, one on the weight box, and two on the center deck. Check all skid shoes for wear and replace if necessary. Order only genuine Land Pride parts from your local Land Pride dealer.

Wing Skid Shoes

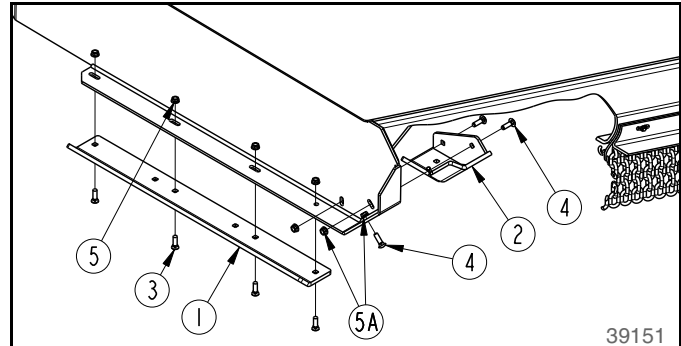
Refer to Figure 5-2:

1. Remove 3/8" whiz nuts (#5A), carriage bolts (#4), and hardened skid shoe (#2) from the wing deck.
2. Remove 3/8" whiz nuts (#5), plow bolts (#3), and wing skid shoe (#1) from the wing deck.
3. Discard worn skid shoe.
4. Inspect plow bolts for wear and replaced if needed.
5. Attach new hardened skid shoe (#2) to cutter side panel with removed 3/8"-16 x 1 1/4" GR5 carriage bolts (#4) and whiz nuts (#5A). Do not torque nuts tight at this time.
6. Attach new skid shoe (#1) to cutter side panel with new/existing 3/8" -16 x 1 1/4" GR5 plow bolts (#3) and hex whiz nuts (#5).
7. Tighten whiz nuts (#5 & #5A) to the correct torque.

Weight Box Skid Shoe

Refer to Figure 5-3:

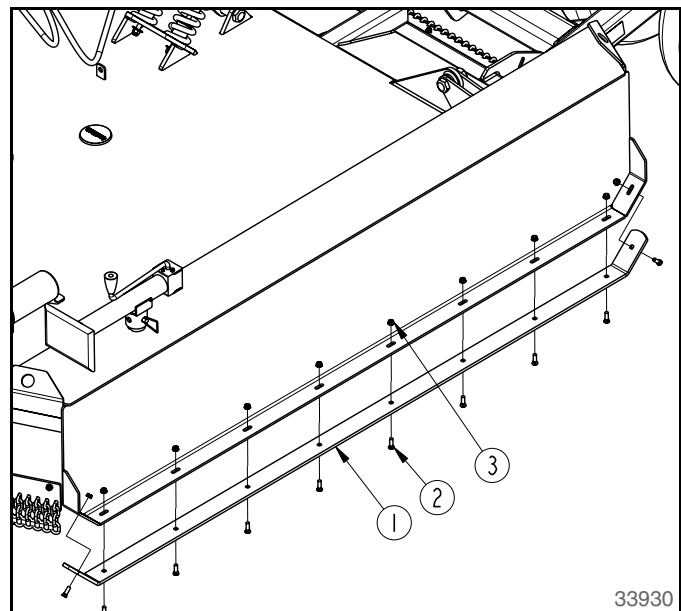
1. Remove 3/8" hex whiz nuts (#3), plow bolts (#2) and weight box skid shoe (#1) as shown.
2. Plow bolts (#2) should be checked for wear and replaced if necessary.
3. Reverse existing skid shoe and reattach or attach new skid shoe (#1) to cutter with 3/8"-16 x 1 1/4" GR5 plow bolts (#2) and secure with hex whiz nuts (#3). Tighten whiz nuts to the correct torque.



39151

#	Part No.	Description
1	330-835D	WING SKID SHOE
2	331-120H	HARDENED WING SKID SHOE
3	802-466C	PLOW 3/8-16X1 1/4 GR5
4	802-155C	RHSNB 3/8-16X1 1/4 GR5
5	803-198C	NUT HEX WHIZ 3/8-16 PLT

**Wing Skid Shoe
Figure 5-2**

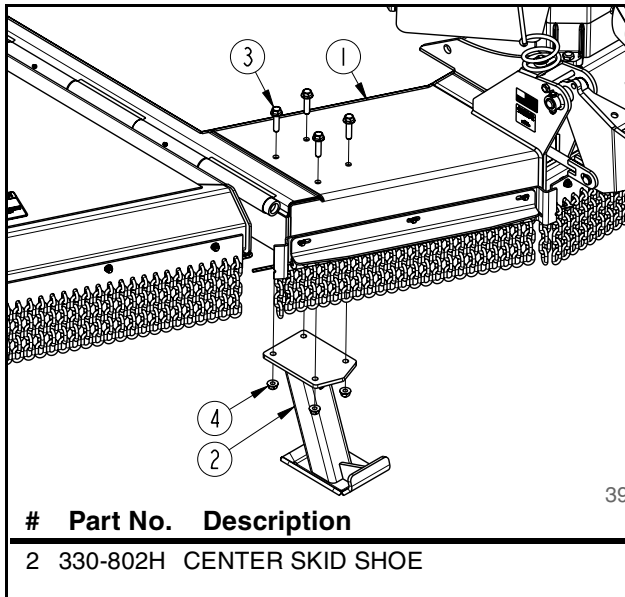


33930

#	Part No.	Description
1	330-460D	WEIGHT BOX SKID SHOE
2	802-466C	PLOW BOLT, 3/8" - 16 x 1 1/4" GR5

**Weight Box Skid Shoe
Figure 5-3**

Section 5: Maintenance & Lubrication



Center Skid Shoe
Figure 5-4

Center Skid Shoes

Refer to Figure 5-4:

Replace center skid shoes as follows:

1. Remove 1/2" hex whiz nuts (#4), 1/2" hex bolts (#3), and center skid shoes (#2) from center deck (#1).
2. Attach new skid shoes (#2) to cutter with existing 1/2"-13 x 2" GR5 hex bolts (#3) and secure with 1/2" hex whiz nuts (#4). Tighten whiz nuts to the correct torque.

Cutter Blades

! DANGER

To avoid serious injury or death:

- Always disconnect driveline from the tractor and secure implement in the up position with solid, non-concrete supports before servicing the underside. A person can become entangled in the drivetrain if the tractor is started and power take-off is engaged or crushed by an unsupported implement.
- 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 hydraulics is off.

! WARNING

To avoid serious injury or death:

- Do not operate cutter with blades that are out-of-balance, bent, excessively worn, excessively nicked, or with blade bolts that are excessively worn. Such blades can break loose at high speeds.
- Wait for blades to come to a complete stop before accessing blade bolts through blade bolt access hole.
- Wear eye protection and gloves while inspecting, removing, sharpening, and replacing a blade.
- Do not attempt to straighten a bent blade or weld on a blade. Do not attempt to modify a blade such as hard surfacing, heat treating, cold treating, or by any other method. Always replace blades with genuine OEM blades to assure safety.

IMPORTANT: Cutting blades must be replaced in mating pairs. Not replacing both blades will result in an out-of-balance condition that will contribute to premature bearing breakdown on the spindle hub and create structural cracks in the cutter housing.

Always inspect cutting blades before each use. Make certain they are properly installed and in good working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Never try to straighten a bent blade! Small nicks can be ground out when sharpening.

Remove cutting blades and sharpen or replace as follows:

1. Park on a level, solid surface. Place tractor in park or set park brake. Unfolded the wing deck until it is resting on the ground. Fully extend deck lift cylinder to lift center and wing decks up.
2. With wing unfolded and deck lift cylinder fully extended, shut tractor down. Refer to “**Tractor Shutdown Procedure**” on page 19.
3. Place solid support blocks under the decks.
4. Start tractor and retract deck lift cylinder until the center and wing decks are resting securely on the support blocks.
5. Shut tractor down before dismounting. Refer to “**Tractor Shutdown Procedure**” on page 19.
6. Disconnect main driveline from the tractor’s power take-off shaft.

Section 5: Maintenance & Lubrication

Refer to Figure 5-5:

7. Remove rubber plug (#5) above cutter blade (#6). Rotate blade bolt (#1) until in alignment with access hole (A).
8. Unscrew locknut (#3) to remove cutting blade (#6). Blade bolt (#1) is keyed and will not turn freely.
9. Both blades should be sharpened at the same angle as the original cutting edge and must be replaced or re-ground at the same time to maintain proper balance in the cutting unit. The following precautions should be taken when sharpening blades:
 - a. Do not remove more material than necessary.
 - b. Do not heat and pound out a cutting edge.
 - c. Do not grind blades to a razor edge. Leave a blunt cutting edge approximately 1/16" thick.
 - d. Always grind cutting edge so end of blade remains square to cutting edge and not rounded.
 - e. Do not sharpen back side of blade.
 - f. Both blades should weigh the same with not more than 1 1/2 oz. difference. Unbalanced blades will cause excessive vibration which can damage gearbox bearings and create structural cracks.

Refer to Figure 5-6:

10. Carefully check cutting edges of blades in relation to blade carrier rotation to ensure correct blade placement. Cutter blades must be installed with cutting edge leading in rotation.

Refer to Figure 5-5:

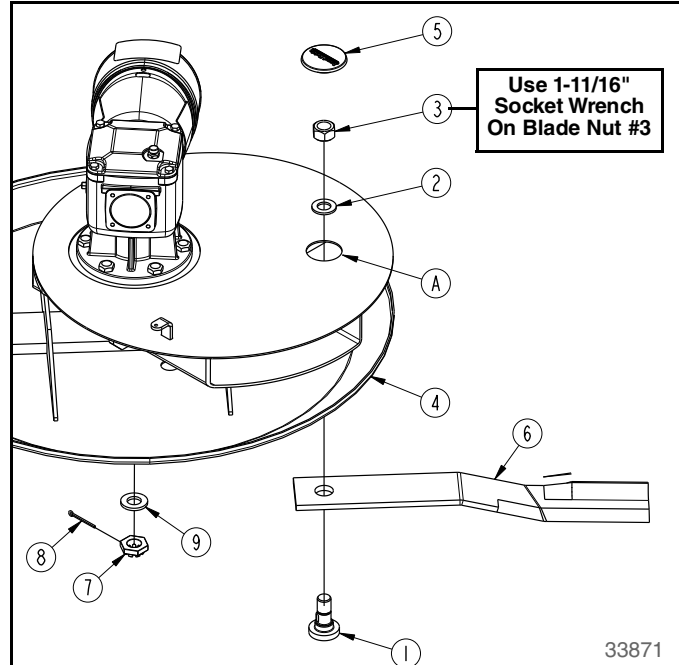
! WARNING

To avoid serious injury or death:

A locknut that has been removed can lose its thread locking properties. Reusing a used locknut can result in a thrown blade. Always use a new locknut when installing blades.

IMPORTANT: Examine blade bolts and their flat washers for excessive wear and replace if worn.

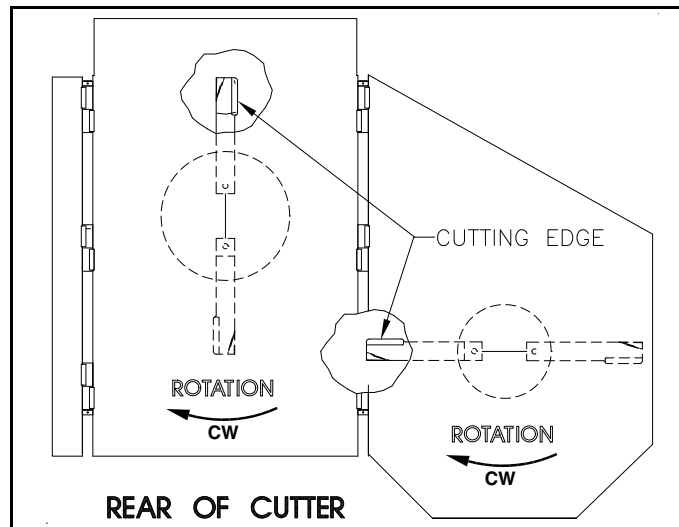
11. Insert blade bolt (#1) through blade (#6), dishpan (#4), and flat washer (#2). Secure blade with a **new locknut (#3)** and torque to 450 ft-lbs.
12. If replacing dishpan (#4), nut (#7) on gearbox output shaft should be torqued to 550 ft-lbs. minimum and secured with cotter pin (#8) with both legs bent opposite directions around the nut.
13. Replace rubber plug (#5).
14. Reconnect main driveline to the tractor power take-off shaft and remove support blocks.



Land Pride Cutter Blade Parts

#	Part No.	Part Description
	318-586A	BLADE BOLT KIT (Item No's 1, 2, & 3)
1	802-277C	BLADE BOLT 1 1/8-12 x 3 7/16 WITH KEY
2	804-147C	WASHER FLAT 1 HARD ASTM F436
3	803-170C	NUT HEX TOP LOCK 1 1/8-12 PLATE
4	330-796H	BLADE CARRIER
5	840-273C	PLUG LP 3" ID RUBBER
6	820-249C	CUTTER BLADE, CW (Center Deck)
6	820-249C	CUTTER BLADE, CW (Right Wing)

**Cutter Blade Assembly
Figure 5-5**



**Direction of Blade Rotation
Figure 5-6**

Section 5: Maintenance & Lubrication

Drivelines With Slip Clutches

WARNING

To avoid serious injury or death:

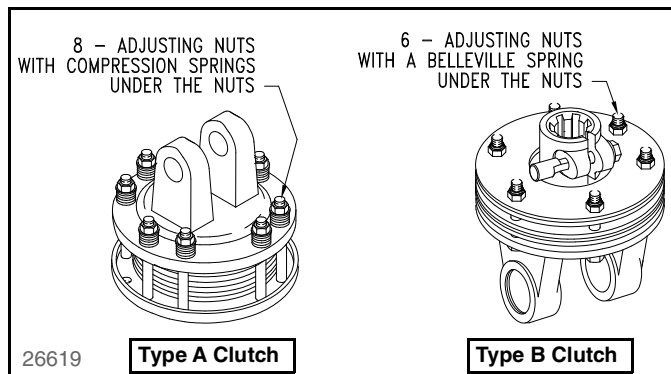
- Always follow “Tractor Shutdown Procedure” provided in this manual before dismounting the tractor.
- A slip clutch that has been in use or has slipped for as little as only two or three seconds during run-in may be too hot to touch. Allow a hot clutch to cool before working on it.

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.

Cutter 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 drive train parts.

Friction clutches should be “run-in” prior to initial operation and after long periods of inactivity to remove any oxidation that may have accumulated on the friction surfaces. Repeat “run-in” instructions at the beginning of each season and when moisture and/or condensation seizes the inner friction plates.

Refer to Figure 5-7 to determine which friction clutch your cutter has. Follow “run-In” instructions on the following pages for your specific clutch type.



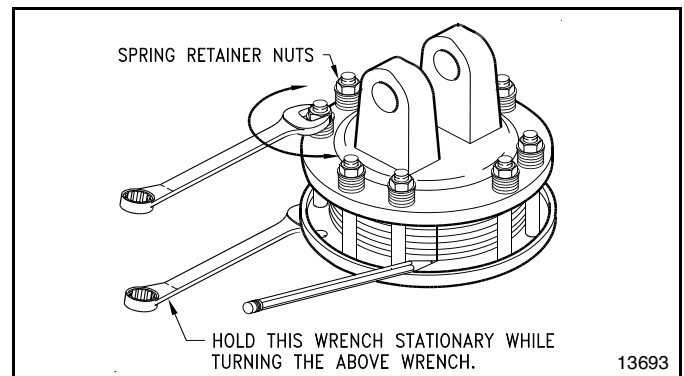
Clutch Types
Figure 5-7

Type A Clutches

Clutch Run-In

Refer to Figure 5-8:

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 hex end of retainer bolt in order to **count the exact number of revolutions**.



Type A Clutch Run-In
Figure 5-8

3. Make sure the area is clear of all bystanders and machine is safe to operate.
4. Start tractor and engage power take-off drive for 2-3 seconds to permit slippage of the clutch surfaces. Disengage power take-off, then re-engage a second time for 2-3 seconds. Disengage power take-off, shut off tractor, and remove key. Wait for all components to stop before dismounting from tractor.
5. Inspect 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, Inspection & Assembly” below.
6. Tighten the 8 spring retainer nuts exactly two revolutions to restore the clutch to its original pressure setting.
7. Allow clutch to cool to ambient temperature before operating again. Clutch is now ready for use.
8. The clutch should be checked during the first hour of cutting and periodically each week. An additional set of scribe marks can be added to check for slippage. See Figure 5-10 to adjust spring length.

Section 5: Maintenance & Lubrication

Clutch Disassembly, Inspection & Assembly

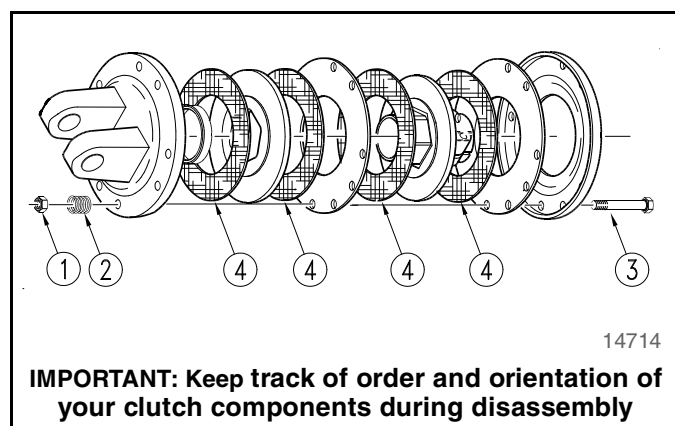
Refer to Figure 5-9:

If clutch run-in procedure above indicated that one or more friction disks did not slip, then the clutch must be disassembled to separate the friction disks.

Disassembly

IMPORTANT: Not all clutches are assembled the same with the same number of components. Be sure to keep track of order and orientation of your clutch components during disassembly.

1. Removing spring retainer nuts (#1), springs (#2), and bolts (#3).
2. Separate disk (#4) from metal surfaces adjacent to them.



IMPORTANT: Keep track of order and orientation of your clutch components during disassembly

Type A Clutch Assembly
Figure 5-9

Inspection

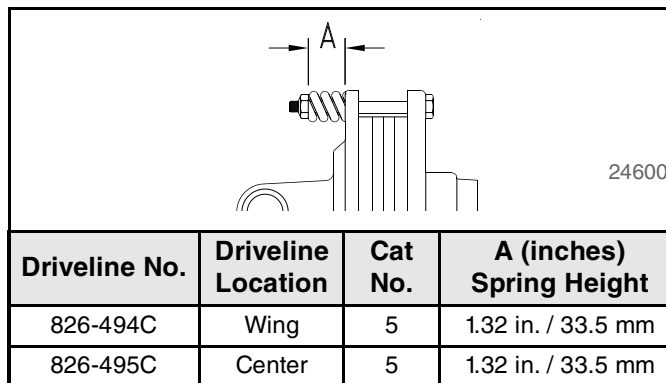
Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement. The original friction disk thickness is 1/8" (3.2mm) and should be replaced if thickness falls below 3/64" (1.1mm). If clutches have been slipped to the point of "smoking", the friction disks may be damaged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

Assembly

1. Reassemble each friction disk (#4) next to the metal plate it was separated from.
2. Install bolts (#3) through end plates and intermediate plates as shown.
3. Place springs (#2) over the bolts and secure with nuts (#1).

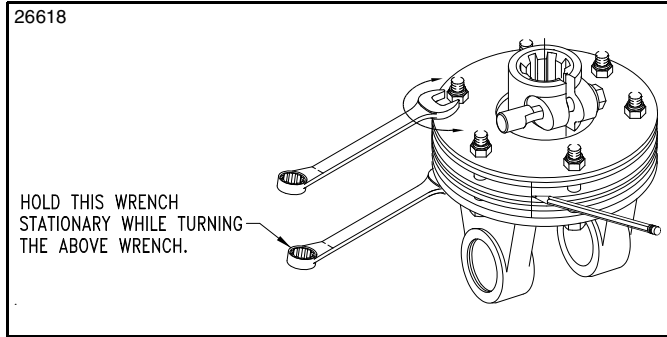
Refer to Figure 5-10:

4. Progressively tighten each spring retainer bolt until correct spring height "A" is reached.

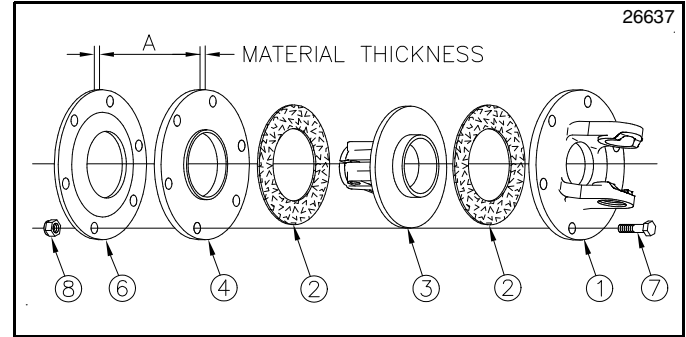


Type A Clutch Adjustment
Figure 5-10

Section 5: Maintenance & Lubrication



Type B Clutch Run-In
Figure 5-11



Type B Clutch (2-Plate Assembly)
Used With Drivelines 826-715 & 826-716C
Figure 5-12

Type B Clutches

Clutch Run-In

Refer to Figure 5-11:

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 6 nuts by exactly 1 revolution. It will be necessary to hold hex end of retainer bolt in order to **count exact number of revolutions**.
3. Make sure the area is clear of all bystanders and machine is safe to operate.
4. Start tractor and engage power take-off drive at idle for 2-3 seconds to permit slippage of friction plates. Disengage power take-off, shut off tractor, and remove key. Wait for all components to come to a complete stop before dismounting from tractor.
5. Inspect clutch to ensure that the scribed markings made on the clutch plates and friction disc have changed positions. If any two marks are still aligned, then the clutch did not slip as it should. Skip to step 8 if all clutch plates slipped.
6. If the friction clutch did not slip, loosen the nuts one more revolution. Make sure the nuts have full thread engagement on the bolt and then repeat steps 4 - 5.
7. A clutch that does not slip must be disassembled to separate the friction disk plates. See "**Clutch Disassembly, Inspection & Assembly**" below.
8. Tighten each of the nuts on the clutch back to their original location to restore clutch pressure.
9. Allow clutch to cool to ambient temperature before operating again. Clutch is now ready for use.
10. The clutch should be checked during the first hour of cutting and periodically each week. An additional set of scribe marks can be added to check for slippage.

Clutch Disassembly, Inspection & Assembly

Refer to Figure 5-12:

The clutch must be disassembled into its separate friction disks if clutch run-in procedure indicated that one or more friction disks did not slip. See disassembly instructions.

Disassembly

IMPORTANT: Do not remove nuts (#8) from bolts (#7) until after Belleville spring (#6) is relaxed and not pressing against any of the six nuts (#8).

1. Unscrew nuts (#8) equal amounts until all belleville spring tension is removed. Do not remove nuts until tension against all nuts has been removed.
2. Remove nuts (#8) and bolts (#7).
3. Separate all friction disks (#2) from plates (#4 & #5), hub (#3) and yoke flange (#1).

Inspection

Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement. The original friction disk 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 disks may be damaged and should be replaced. Heat build-up may also affect the yoke joints.

Assembly

1. Reassemble each friction disk (#2) next to the metal plate it was separated from.
2. Install bolts (#7) through end plates and intermediate plates as shown and secure with nuts (#8).

IMPORTANT: Measurement "A" is an approximate gap. Variations in spring force and friction materials may cause some differences in torque values. Tightening nuts (#8) 1/6 of a turn will compress belleville spring (#6) 0.25 mm (.010").

3. Tighten belleville spring (#6) until spring is tight against drive plate (#4) & then back nuts (#8) up 2 2/3 revolutions, "A" should = 4.0 mm (0.157").



Section 5: Maintenance & Lubrication

Long-Term Storage

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

DANGER

To avoid serious injury or death:

- Always disconnect driveline from the tractor and secure implement in the up position with solid, non-concrete supports before servicing the underside. A person can become entangled in the drivetrain if the tractor is started and power take-off is engaged or crushed by an unsupported implement.
 - 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 hydraulics is off.
1. Clean off any dirt and grease that may have accumulated on the cutter and moving parts. Scrape off compacted dirt from the bottom of deck and then wash surface thoroughly with a garden hose. A coating of oil may also be applied to the lower deck area to minimize oxidation.
 2. Check blades and blade bolts for wear and replace if necessary. See “**Cutter Blades**” on page 43.
 3. Inspect for loose, damaged, or worn parts and adjust or replace as needed.
 4. 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 Aerosol Touch-up Paint	
Part No.	Part Description
821-011C	PAINT LP BEIGE SPRAY CAN
821-054C	PAINT MEDIUM RED SPRAY CAN
821-058C	PAINT GREEN SPRAY CAN
821-066C	PAINT ORANGE SPRAY CAN
821-070C	PAINT GP GLOSS BLACK SPRAY CAN

5. Replace all damaged or missing guarding and decals.
6. Lubricate as noted in “**Lubrication Points**” starting on page 49.
7. Store cutter on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer cutter life.
8. Follow all unhooking instructions on page 29 when disconnecting tractor from cutter.

Ordering Replacement Parts

Land Pride offers equipment in factory standard Beige with black highlights. This implement may also be purchased in Orange, Green, or Red.

When ordering an optional color, the suffix number corresponding to the color must be added at the end of the part number. Parts ordered without the suffix number will be supplied in factory standard colors.

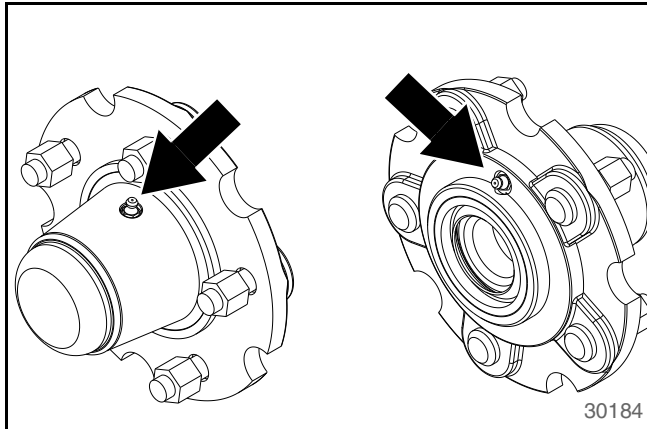
81 Green	83 Red
82 Orange	85 Black

For example, if you are ordering a replacement part with part number 555-555C and the existing part is orange, then add the suffix 82 to the end of the number to make the part number read 555-555C82.

Section 5: Maintenance & Lubrication

Lubrication Points

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



		50 Hours	Repack Annually
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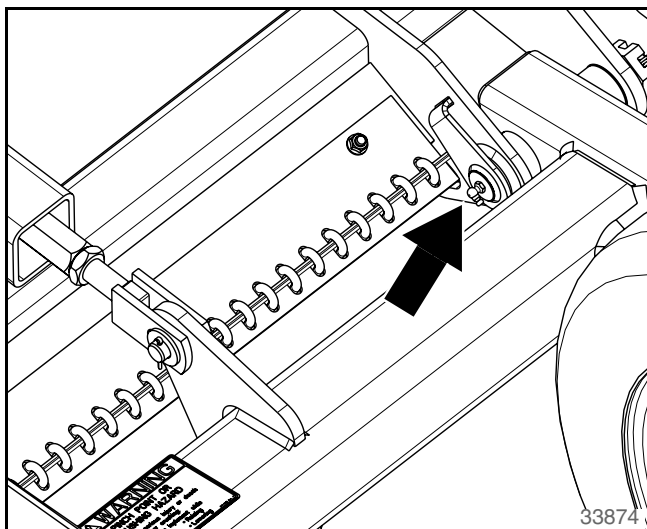
Axle Hub Bearing

Type of Lubrication: Multi-Purpose Grease

Grease wheel bearings every 50 hours.

1-zerk per wheel (zerk can be on either side as shown)
Quantity = 2 pumps

Repack wheel bearings annually



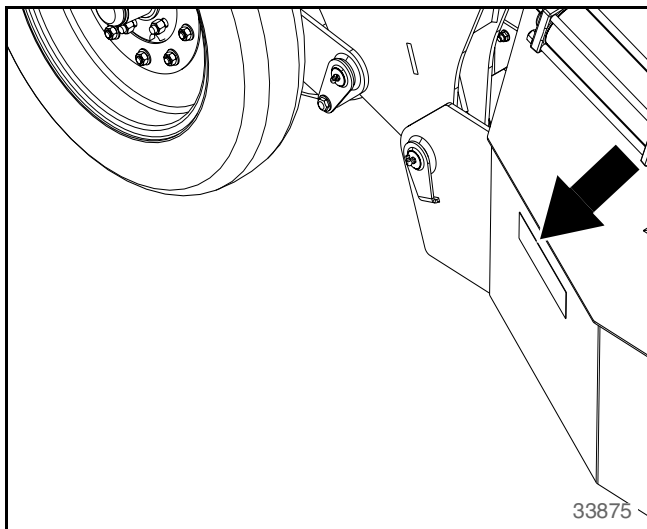
		50 Hours
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Center Axle Pivots

2 - zerks (left and right side of center axle)

Type of Lubrication: Multi-Purpose Grease

Quantity = As required



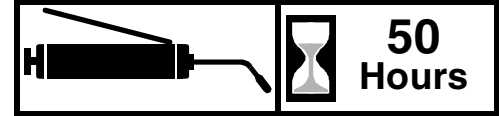
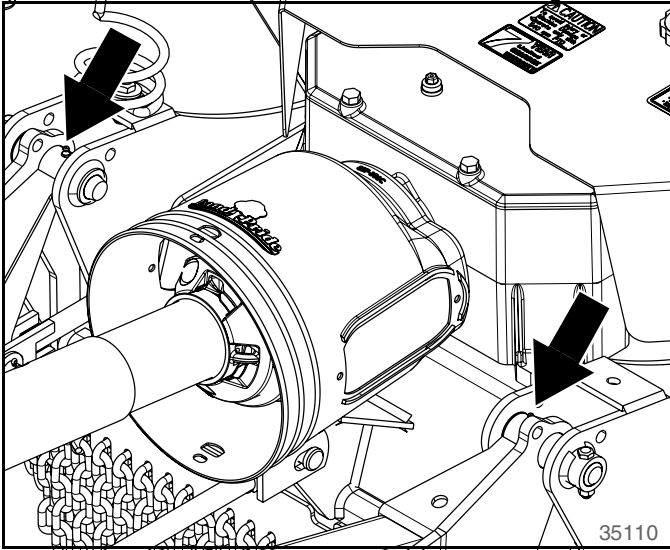
		50 Hours
--	--	-----------------

Wing Axle Pivot

1-zerk

Type of Lubrication: Multi-Purpose Grease

Quantity = As required

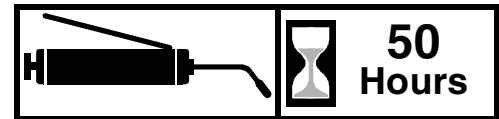
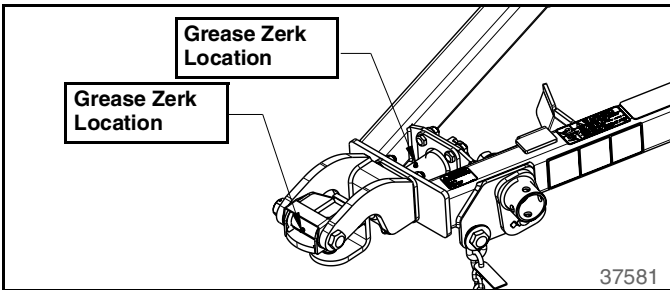


Hitch Frame

2- zerks

Type of Lubrication: Multi-Purpose Grease

Quantity = As required

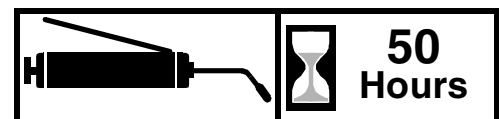
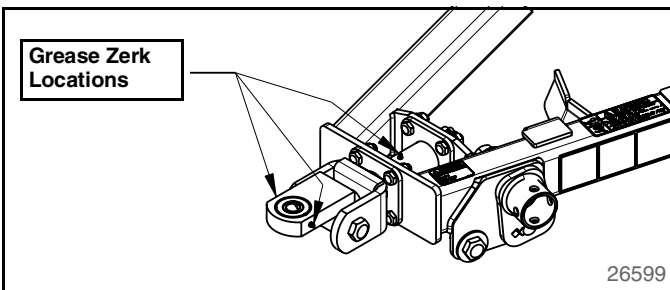


LP Performance Hitch (Optional)

2 - zerks

Type of Lubrication: Multi-purpose Grease

Quantity = As required

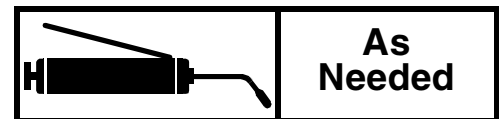
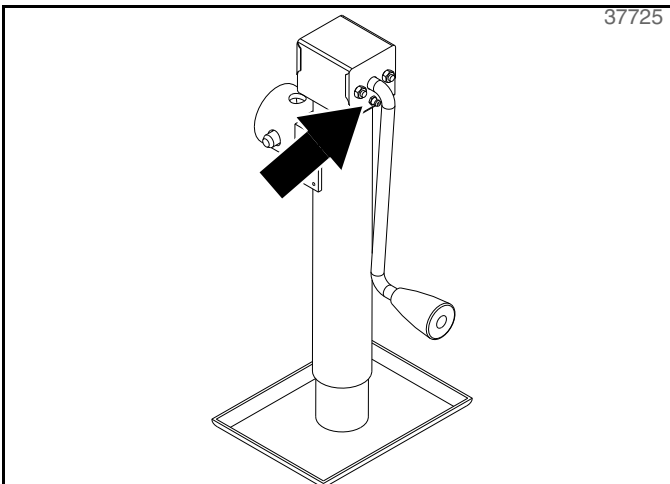


Bar-Tite Hitch (Optional)

3 - zerks

Type of Lubrication: Multi-purpose Grease

Quantity = As required



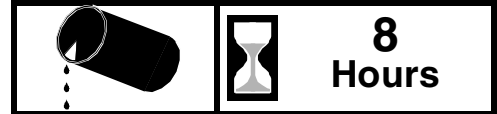
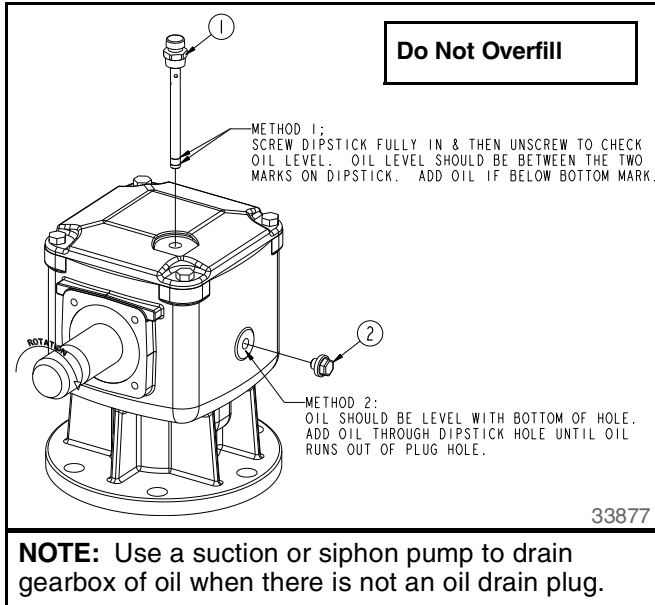
Park Jack

1 - zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required

Frequency = As needed and when unhooking for longterm storage.



Gearbox

IMPORTANT: Do not overfill gearbox with oil. Oil will expand when hot. Make sure implement is level and oil is cool before checking oil level.

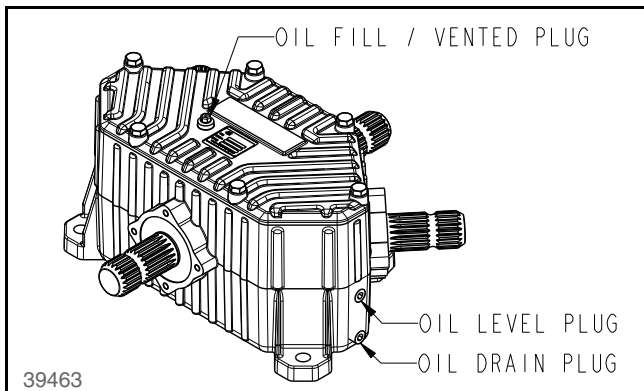
If oil has been removed from the gearbox, refill gearbox to plug level or full mark on the dipstick. Allow time for air to bleed up from the lower cavity, and then recheck.

Method 1: With a wrench, unscrew top vented dipstick (#1). Wipe oil from dipstick and screw dipstick in without tightening. Unscrew dipstick and check oil on dipstick. If below bottom level mark, add recommended gear lube through dipstick hole until oil reaches top mark on dipstick. Reinstall vented dipstick and tighten.

Method 2: Remove side oil plug (#2). If oil is below bottom of plug hole, add recommended gear lube through top dipstick hole until oil flows out of side plug hole. Reinstall and tighten side oil plug (#2) and vented dipstick (#1).

Type of Lubrication: 80-90W EP Gear Lube

Quantity = Fill until oil reaches top mark on dipstick or begins to flow out side plug hole in gearbox.



Divider Box

IMPORTANT: Do not overfill gearbox with oil. Oil will expand when hot. Make sure implement is level and oil is cool before checking oil level.

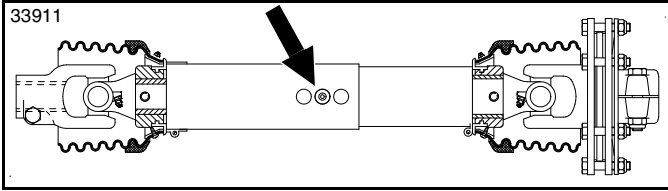
If oil has been removed from the gearbox, refill gearbox to plug level or full mark on the dipstick. Allow time for air to bleed up from the lower cavity, and then recheck.

Instructions: Remove oil level plug. If oil is below bottom of plug hole, add recommended gear lube through oil fill/vent plug hole until oil flows out of oil level plug hole. Reinstall and tighten oil level plug and oil fill/vent plug.

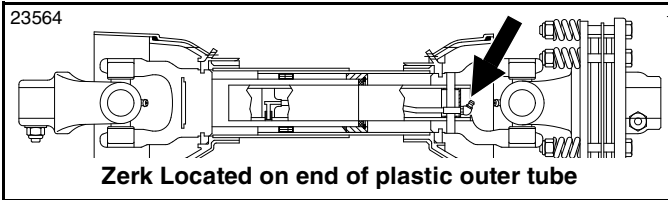
Type of Lubrication: 80-90W EP

Quantity = Fill until oil begins to flow out oil level plug hole in gearbox.

Section 5: Maintenance & Lubrication

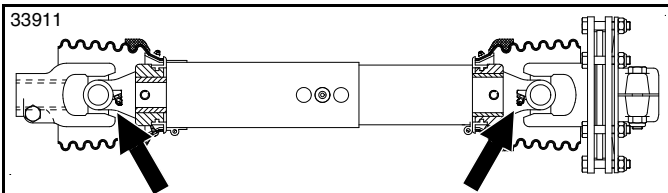


Drivelines with external profile grease point

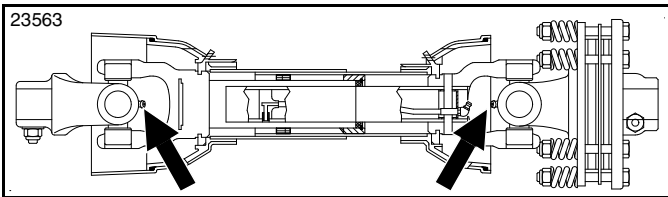


Zerk Located on end of plastic outer tube

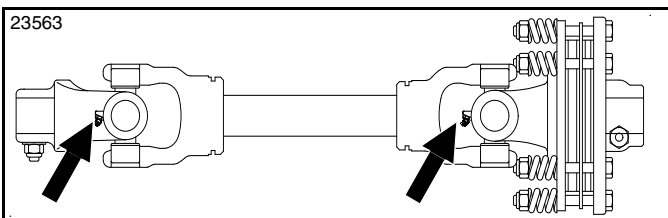
Drivelines with internal profile tube grease point



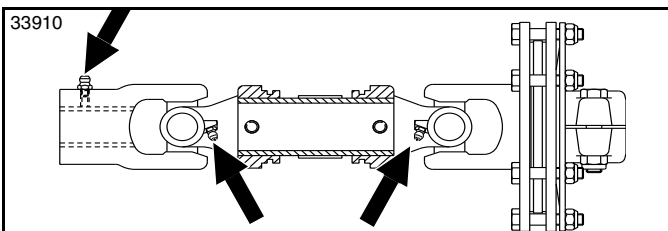
Drivelines with external profile grease point



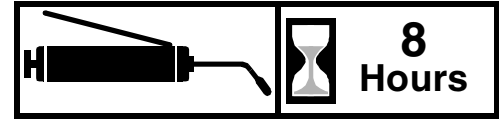
Drivelines with internal profile grease point



Driveline with clamp type u-joint on both ends



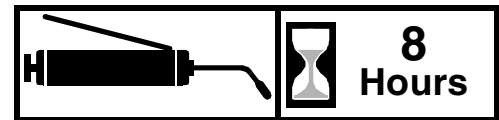
Driveline with clamp type u-joint on slip clutch end only



Wing Driveline Profile Tubes

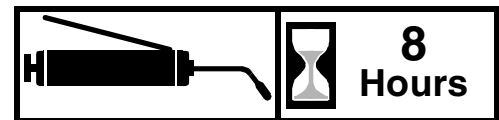
Type of Lubrication: Multi-purpose Grease

Quantity = Coat Generously



Wing Driveline Joints

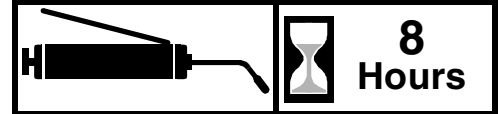
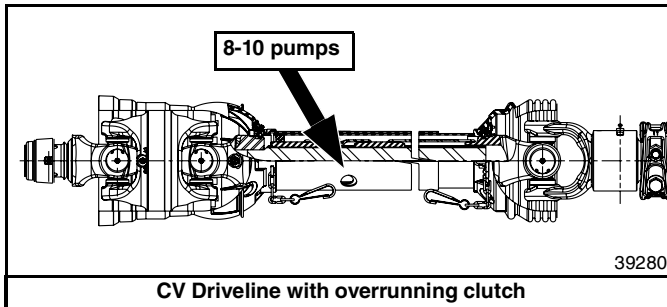
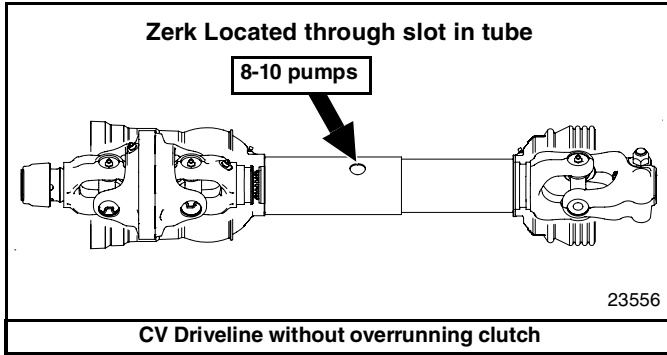
Type of Lubrication: Multi-purpose Grease



Intermediate Driveline Joints

Type of Lubrication: Multi-purpose Grease

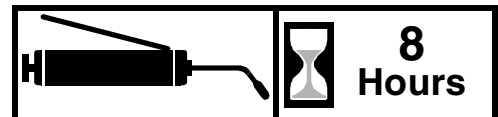
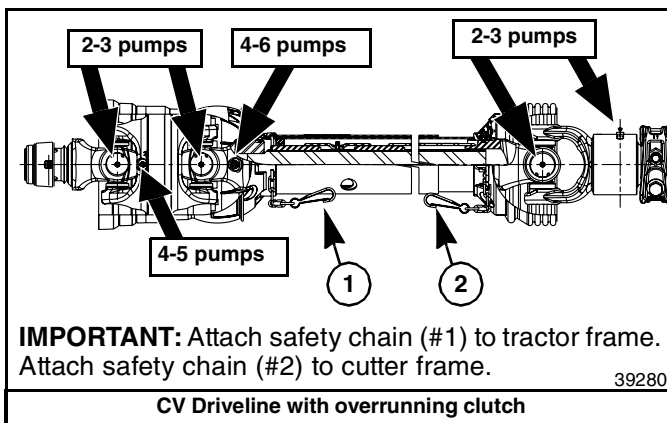
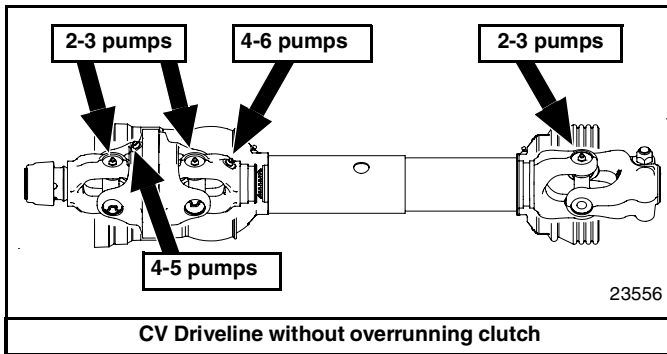
Section 5: Maintenance & Lubrication



**CV Main Driveline Profile Tubes
With External Grease Point**

CV = Constant Velocity
Type of Lubrication: Multi-purpose Grease
Quantity = 8-10 pumps

IMPORTANT: To extend the life of the constant velocity joint, extensive lubrication must be performed every 8 hours of operation.



CV Main Driveline Joints

CV = Constant Velocity
Type of Lubrication: Multi-purpose Grease

For instructions on how to access grease zerks shown in Figure 5-13, see “Accessing CV Driveline Joints” on page 54.

IMPORTANT: To extend the life of the constant velocity joint, extensive lubrication must be performed every 8 hours of operation.

- The constant velocity joint should be greased in a straight position forcing grease through the passages and into the cavity. After lubrication, grease should be visible around the ball joints.
- Grease fittings located on the u-joints should be lubricated every 8 hours of operation.

Figure 5-13

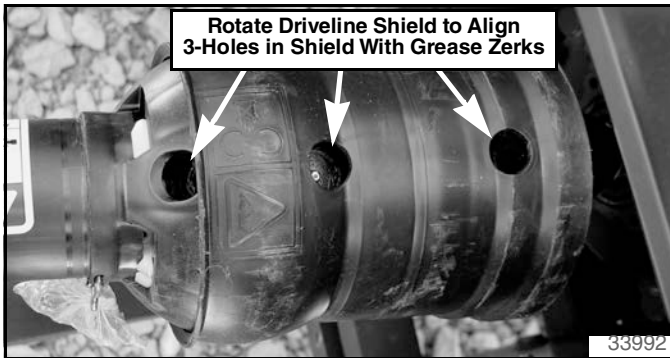
Accessing CV Driveline Joints

Refer to Figure 5-13 on page 53:

There are two ways the constant velocity driveline joints shown in Figure 5-13 can be accessed for lubrication. One is through holes in the driveline shield and the other is to slide the shields back to expose the grease zerks.

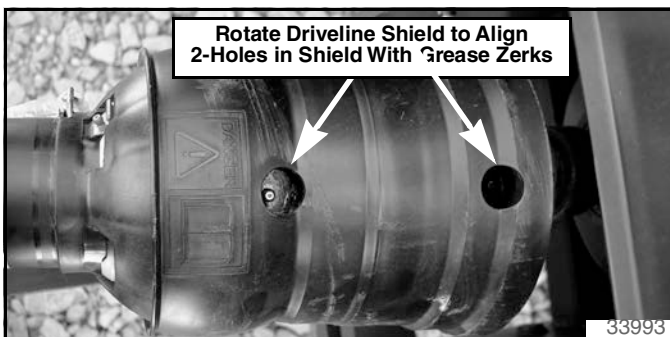
Lubrication Through Access Holes

1. Refer to Figure 5-14: Rotate driveline shield until holes in shield align with grease zerks in CV joint.
2. Apply proper amount and type of lubrication. Refer to “CV Main Driveline Joints” on page 53 for quantities and type of lubrication.



Lubrication Through Three Holes In Driveline Shield
Figure 5-14

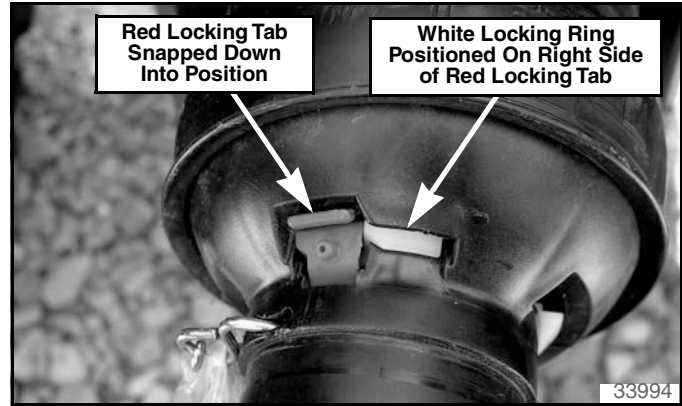
3. Refer to Figure 5-15: Rotate driveline shield 180° until holes on opposite side of shield aligns with remaining grease zerks in CV joint.
4. Repeat step 2 above on any grease zerks that were not greased in step 2.
5. Steps 1-2 can be repeated to lubricate universal joint on opposite end of driveline. (Opposite end of driveline has only one grease zerk.)



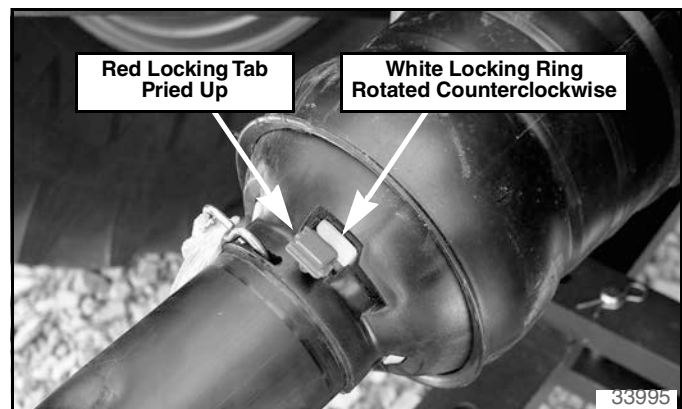
Lubrication Through Two Holes In Driveline Shield
Figure 5-15

Lubrication By Sliding Driveline Shields Back

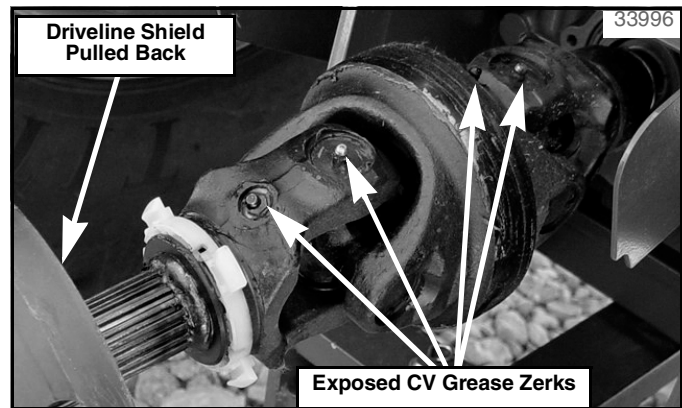
1. Refer to Figure 5-16: With a flat bladed screwdriver or similar tool, pry top of red locking tab up.
2. Refer to Figure 5-17: Rotate white locking ring fully counterclockwise to the position shown.
3. Refer to Figure 5-18: Pull back on driveline shielding until CV joint is exposed.



Locked Driveline Shield
Figure 5-16



Unlocked Driveline Shield
Figure 5-17



Slide Driveline Shield Back To Expose Grease Zerks
Figure 5-18

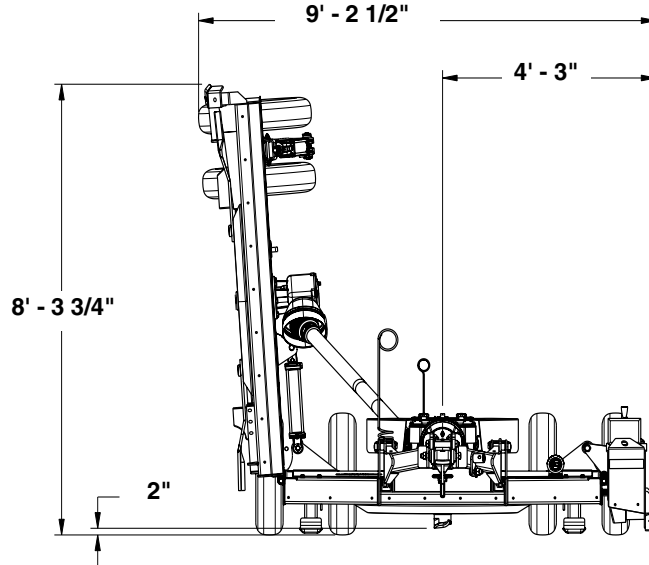
4. Apply proper amount and type of lubrication. Refer to “CV Main Driveline Joints” on page 53 for quantities and type of lubrication.
5. Slide driveline shield back to its operating position.
6. Refer to Figure 5-16: Rotate white locking ring clockwise and press locking tab down until it snaps in place as shown.
7. Steps 1-6 can be repeated to lubricate universal joint on opposite end of driveline.



RC3614 & RCM3614 Models

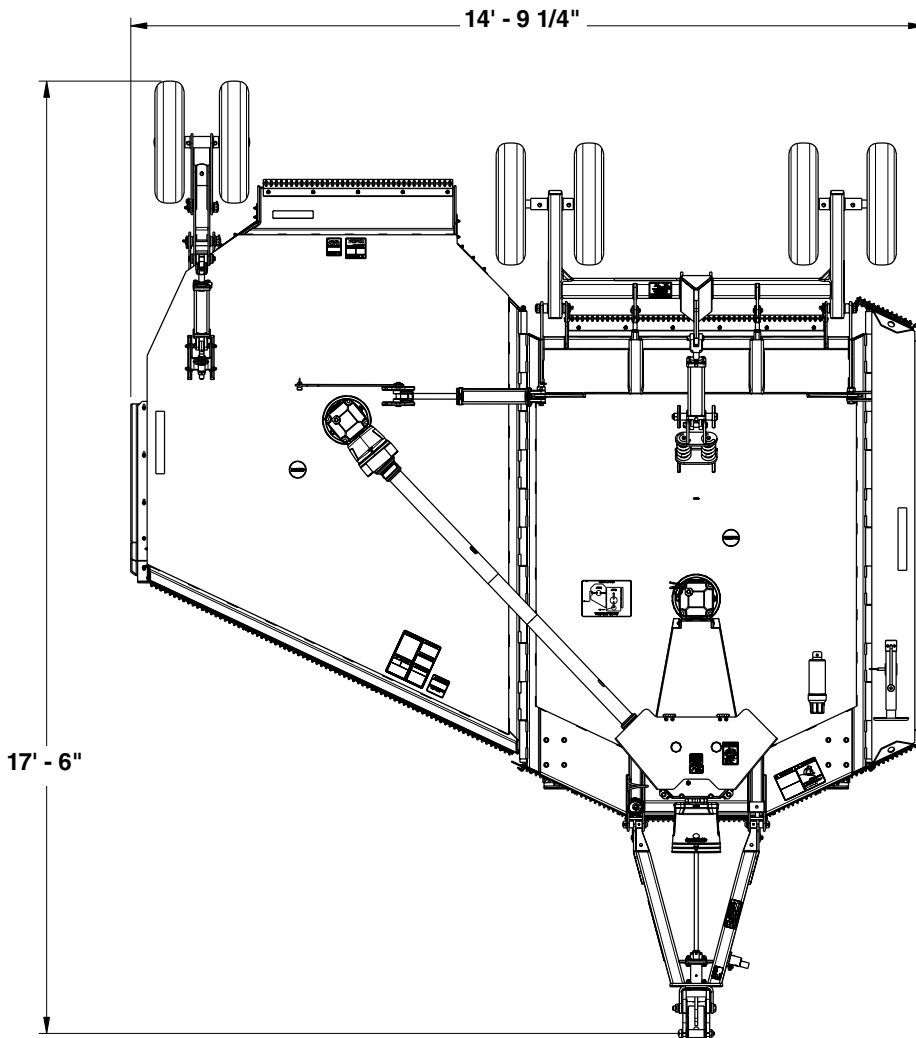
Specifications & Capacities	
Tractor horsepower	70 to 160 hp
Gearbox horsepower	250 hp Splitter 130 hp Center & Wing
Gearbox oil capacity	5.18 Pints: Divider Gearbox 6.76 Pints: Center deck, LH deck & RH deck spindle gearboxes
Gearbox lubrication	Gear Lube 80-90W EP
Cutting capacity	2"
Machine weight hitch weight total weight	Chain guards, 5 AC tires and standard clevis. 2,220 lbs. 5,620 lbs.
Blade tip speed	16,500 fpm
Hitch types	Optional Self-Leveling Clevis Hitch, LP Performance Hitch, Bar-Tite Hitch, Pintle Hitch, or Ball Hitch
Hitch jack	Standard (7,000 lbs.)
Signal Lights 7 Pin connector	LED SAE J5560 pin configuration
Cutting width Overall width Minimum transport width	13' - 6" 14' - 9 1/4" 9' - 2 1/2" (With cutting height at 2")
Overall length	17' - 6" (With cutting height at 2")
Deck height	13"
Cutting height*	2" to 12"
Lift hydraulics center deck right wing	3 1/4" x 8" Rephasing hydraulic cylinder with hoses, fittings & stroke control spacers. 3" x 8" Rephasing hydraulic cylinder with hoses & fittings.
Wing folding hydraulics	3" x 12" single-acting hydraulic cylinder complete with hose & fittings.
Wing flex	45° up, 20° down while cutting.
Deck material	1 - Piece, 10 gauge.
Side skirt material	1/4" plate.
Skid Shoes wing deck center deck weight box	Replaceable: 1 Standard straight skid shoe and 1 AR400 leading skid shoe Replaceable: 2 Skid shoes Reversible & replaceable: 1 Skid shoe
4 Blades (2 per carrier)	1/2" x 4" Heat Treated Free Swinging Alloy Steel with up lift.
Blade overlap	6"
Blade bolt	Keyed with hardened flat washer & locknut.
Stump jumper / blade holder	10 Gauge round dish shaped pan, reinforced with 1" x 4 1/2" blade mounting bar.
Deck ring	Optional 3/8" formed and welded.
Front & rear guards	Optional single chain or double chain.
Input driveline	ASAE Cat. 6 with constant velocity u-joint.
Intermediate & wing drivelines	Cat. 4 with slip-clutch or optional Cat. 5 with slip-clutch
Tire options	6" x 9 x 21" Laminated tires 27" x 7.75" Used aircraft tires with foam filling 29" x 9" Used aircraft tires without foam filling
Number of wheels	5 - Wheel option: 4 on transport axle and one on wing axle. 6 - Wheel option: 4 on transport axle and two on wing axle.
Standard transport axle	Spring-cushioned on center transport axle.
Axle fasteners	1 1/4" Greasable pins
Hubs	Cast iron five-bolt hubs with tapered roller bearings and 1 3/4" shafts.

* Maximum cut height is dependent on tire options selected.



33932

Overall Width With Lift & Folding Cylinders Fully Retracted



33931

Dimensions Shown Are With Lift Cylinders Fully Retracted.



RC3614 & RCM3614 Models

Features	Benefits
Surpassed rugged industry standards	All Land Pride Cutters have been designed and tested and meet rigorous voluntary testing procedures.
Factory assembled	Saves customer set-up time and money. Adjustments should always be made by dealer.
7 Year gearbox warranty*	Shows confidence in gearbox integrity.
250 hp divider gearbox 130 hp center & wing gearboxes	A rugged heavy-built gearboxes capable of handling heavy-cutting applications.
Gearbox Seal Protection	Gearbox bottom seal protection for longer bearing life.
2" Output gearbox shaft	Large output shaft handles shock loads better.
Input driveline: Cat. 6 CV	Holds up to shock loads and harsh mowing conditions. Constant velocity (CV) U-joint allows for 80 degree turns without doing damage to the driveline.
Easy Greasable drivelines	Drivelines have access holes for greasing the U-joints and to grease the inner profiles.
2 or 4 Plate slip-clutch	Protects drivelines and gearboxes by slipping clutches rather than twisting the driveline when impacts are encountered.
High blade tip speed	Allows clean cutting of material & even distribution. See Specifications for actual fpm.
6" Blade overlap	Eliminates skipping during turns.
Good cutting capacity	Can cut brushy areas with saplings up to 2".
13" Deck height	Handles heavy cutting, which reduces balling-up of cut material under the deck.
10 Ga. stump jumper backed with a 1" x 4 1/2" thick blade mounting bar	Heavy round stump jumper for protecting the gearbox seal and gearbox output shaft. Can hold up to tough conditions.
Spindle Nut Protected	Spindle nut and threads extending beyond the nut are guarded to protect against damage from hitting solid objects.
10 gauge smooth deck top	Reduces accumulation of debris and is easier and faster to clean.
1/4" side skirt	Reduces debris piercing possibilities.
Self-leveling hitch	Reduces drawbar wear by keeping hitch level while going through ditches.
Hinged wing section	Allows cutter to follow terrain. Ideal for rough ground where hillsides, ditches, and hollows can cause uneven cutting.
1" Solid hinge rod	Larger diameter hinge gives greater strength to cutter and hinge area.
Wing transport lock	Holds transport wing in the folded-up position in case of hydraulic pressure loss.
Enclosed front to rear dual leveling rods	Dual leveling rods enable the cutter to pull equally on the rear axle during travel over rough terrain. Many competitors only use one leveling rod.
5-Bolt hubs	5-Bolt hubs makes the wheel assembly more durable and longer lasting.
Drain holes in wheel rims	Allows water to drain from wheels mounted on the folded-up wing. Helps prevent paint deterioration and rusting to the wheel rims.
Spring-cushioned center axle	Protects unit from bumps and ground shock, cushions loads on drawbar.
Replaceable wheel spindles	Wheel spindles can be replaced when damaged without replacing the entire axle. Simply remove one bolt to replace damaged spindle.
Rephasing lift cylinders	Allows cutter to be leveled using hydraulic cylinders verse mechanical turnbuckles.
7/8" Leveling rods	Large diameter leveling rods provide superior supporting strength over rough terrain.
LP Performance Hitch option	Great for uneven terrain, reduces drawbar wear. Hitch pivots freely up and down and pivots about the tractor drawbar.
Bar-tite hitch option	Ideal for extreme conditions. Clamps tight to drawbar eliminating drawbar wear.
LED Signal lights	LED lights are bright, long lasting, and resistant to vibration, unlike incandescent counterparts.
Wheel options	Laminated tires: Eliminates flats. Air-filled tires: Give better cushion while transporting. Foam-filled tires: Give better cushion while transporting & can't go flat.
Deck rings (optional)	Keeps blades from damaging the deck.

* Years 6 & 7 Parts Only



Troubleshooting Chart

Problem	Cause	Solution
Oil seal leaking	Gearbox overfilled	Drain oil level with fill hole or to full mark on dipstick.
	Seals damaged	Replace seals.
	Grass or wire wrapped on shaft in seal area	Clean off wrapped material and check seal areas daily.
Driveline yoke or cross failing	Clutch is froze	Slip clutches per "Run-In" instructions under "Drivelines With Slip Clutches" on page 45.
	Shock load	Avoid hitting solid objects.
	Needs lubrication	Lubricate every 8 hours.
Slip Clutches slip even with a light load	Scalping the ground	Raise cutting height.
	Clutch is not properly adjusted	Adjust clutch per instructions under "Drivelines With Slip Clutches" on page 45.
	Clutch plates are worn out	Replace clutch plates.
	Foreign object caught between clutch plates	Remove foreign object.
Bent driveline shaft (Note: Shaft should be repaired or replaced if bent)	Contacting frame	Reduce lift height in transport position.
	Contacting drawbar	Reposition drawbar.
	Contacting 3-point arms	Raise or remove 3-point arms.
	Bottoming out	Shorten driveline shaft.
	Binding up	Not lubricating enough.
Driveline shaft telescoping tube failing	Shock load	Avoid hitting solid objects.
Driveline shaft telescoping tube wearing	Needs lubrication	Lubricate every 20 hours of operation.
Blades Lock Up	Blades locked together (overlapped)	Use pry bar or other tool to separate cutting blades before lowering the wing.
	Tractor has instant on power take-off	Engage power take-off at low rpm and then slowly increase engine speed to full power take-off speed. See Engage Blades on page 38.
	Tractor has Instant off power take-off	Decrease engine speed slowly to an idle and then disengage power take-off. See Disengage Blades on page 38.
Blades wearing excessively	Cutting on sandy ground	Raise cutting height.
	Contacting ground frequently	Raise cutting height.
	Not maintaining power take-off speed	Maintain power take-off speed by slowing down.
Blades coming loose	Blades not tightened properly	Tighten blade hardware, refer to Cutter Blades in the "Maintenance and Lubrication" section starting on page 43.
	Over speeding power take-off	Operate cutter at proper power take-off speed.
Blades breaking	Hitting solid objects	Avoid hitting solid objects.
Loose blade carrier	Blade carrier hardware not tight	Tighten shaft nut to specified torque.
	Running loose in the past	Replace gearbox bearings and / or shaft.
Blade carrier bent	Hitting solid objects	Avoid hitting solid objects.
Excessive side skid wear	Soil abrasive	Adjust cutter height.
	Cutting too low	Raise cutting height.
Excessive vibration	Hitting solid objects	Inspect area before cutting. Do not hit solid objects.
	Driveline bent	Replace driveline or distribution shaft.
	Blade carrier bent	Replace blade carrier.
	Blade broken	Replace blade.
	Blade will not swing	Inspect and unlock blades.
	High torque start-up or hitting solid objects.	Disassemble and inspect driveline for incorrectly located needles or damaged bearing cap.
	Blades have unequal weight	Replace each pair of blades on affected carrier.
Wing cylinder movement too slow	Orifice is plugged	Remove elbow fitting and unplug orifice.

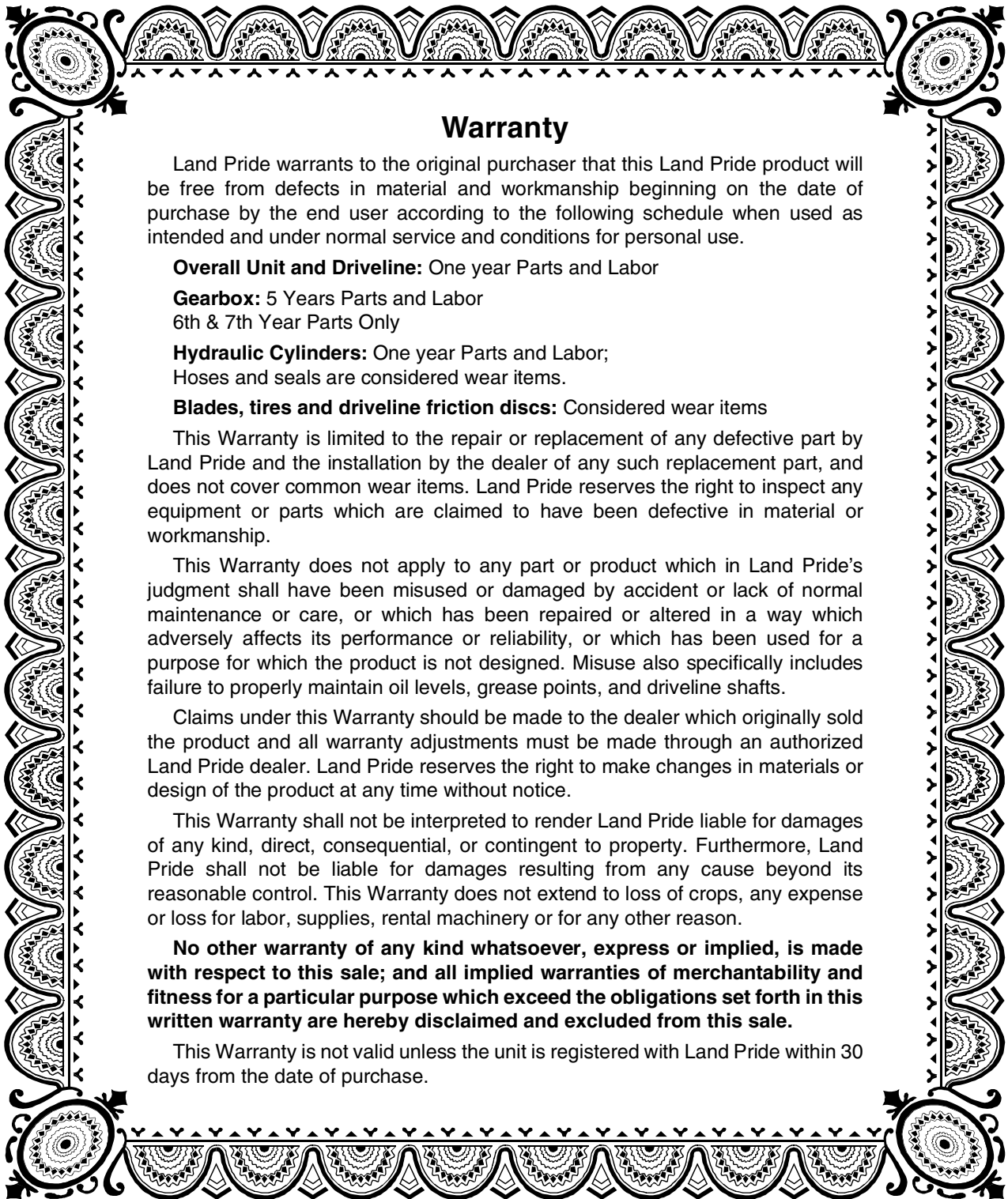
Table of Contents

Section 9: Torque & Tire Inflation Charts



Torque Values Chart for Common Bolt Sizes													
Bolt Size (inches)	Bolt Head Identification						Bolt Size (Metric)	Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8			 Class 5.8		 Class 8.8		 Class 10.9	
in-tpi ¹	N · m ²	ft-lb ³	N · m	ft-lb	N · m	ft-lb	mm x pitch ⁴	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1-1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1-1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1-1/4" - 12	750	555	1680	1240	2730	2010	¹ in-tpi = nominal thread diameter in inches-threads per inch ² N · m = newton-meters ³ ft-lb= foot pounds ⁴ mm x pitch = nominal thread diameter in millimeters x thread pitch						
1-3/8" - 6	890	655	1990	1470	3230	2380							
1-3/8" - 12	1010	745	2270	1670	3680	2710							
1-1/2" - 6	1180	870	2640	1950	4290	3160							
1-1/2" - 12	1330	980	2970	2190	4820	3560							
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.													
Additional Torque Values													
Blade Bolt Locknut							450 ft-lbs						
Blade Carrier Hub Nut							550 ft-lbs minimum						
Wheel Lug Nuts							85 ft-lbs						

Tire Inflation Chart	
Tire Size	Inflation PSI
29 x 9 - 15 x 16 ply	40



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: 5 Years Parts and Labor
6th & 7th Year Parts Only

Hydraulic Cylinders: One year Parts and Labor;
Hoses and seals are considered wear items.

Blades, tires and driveline 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 the unit is registered with Land Pride within 30 days from the date of purchase.

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** _____



Section 10: Warranty

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