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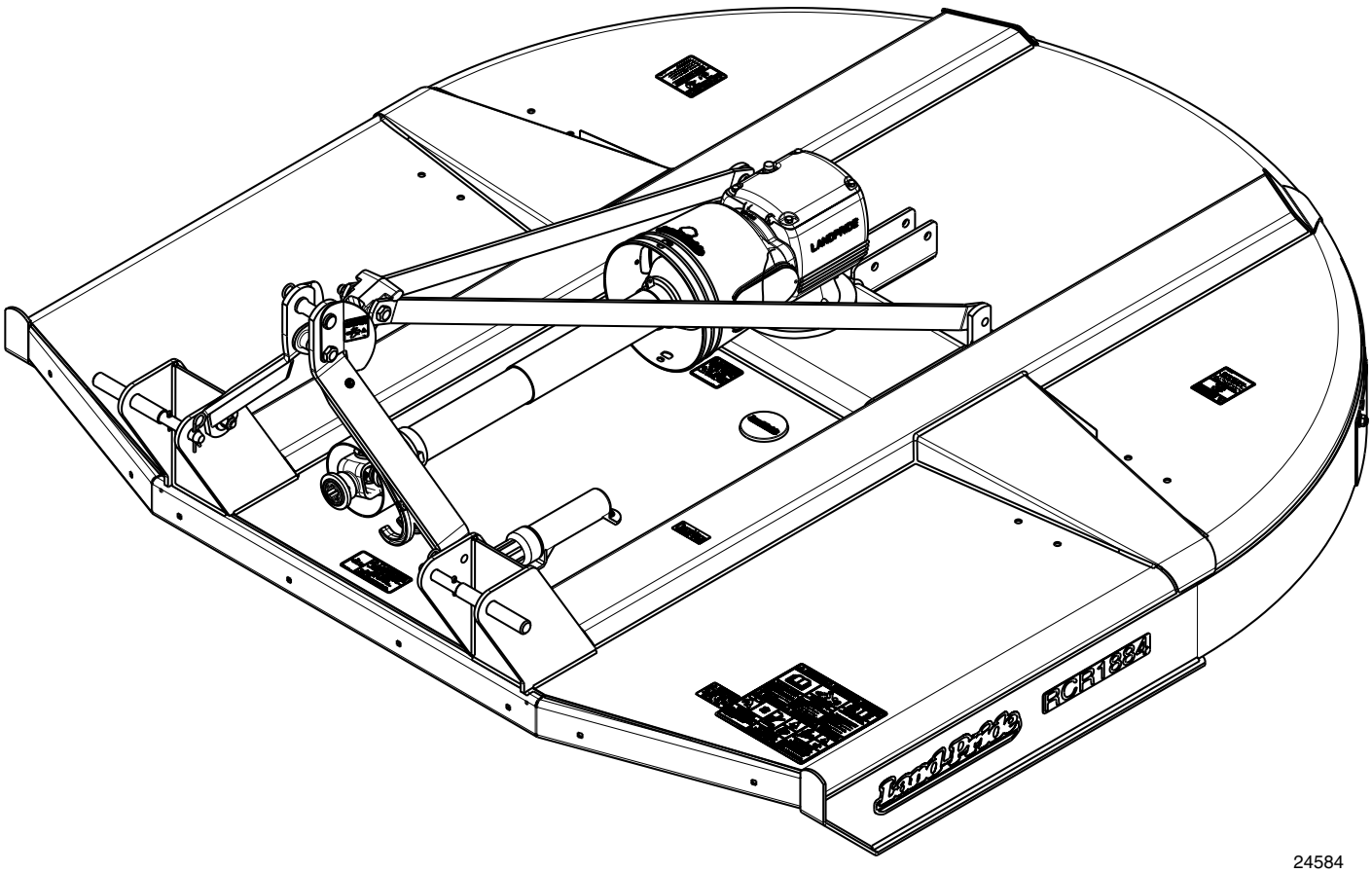
Rotary Cutter

RCR1884 Model



24584

312-880M
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.

Printed 9/21/23

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	

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.

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

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

Safety at All Times

Careful operation is your best assurance against an accident.

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

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

Look for the Safety Alert Symbol

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

Be Aware of Signal Words

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

DANGER: Indicates a hazardous situation that, if not avoided, will result in death or serious injury.

WARNING: Indicates a hazardous situation that, if not avoided, could result in death or serious injury.

CAUTION: Indicates a hazardous situation that, if not avoided, may result in minor or moderate injury.

Be Aware of Special Notices

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

IMPORTANT: Indicates that equipment or property damage could result if instructions are not followed.

NOTE: Indicates supplementary explanations that will be helpful when using the equipment.

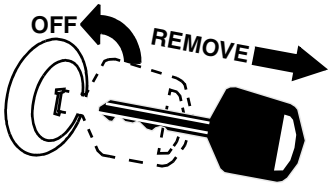
Safety Precautions for Children

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

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

Tractor Shutdown & Storage

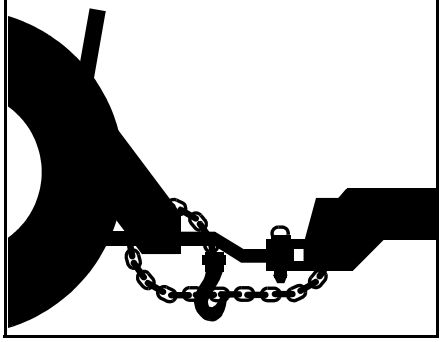
- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake.
- ▲ Turn off engine and remove ignition key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic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



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

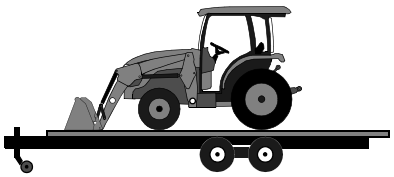
Use A Safety Chain

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



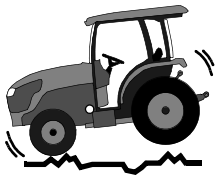
Towing Safely

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



Transport Safely

- ▲ Comply with federal, state, and local laws.
- ▲ Avoid contact with any overhead utility lines or electrically charged conductors.
- ▲ Engage park brake when stopped on an incline.
- ▲ Maximum transport speed for an implement is 20 mph (32 km/h). DO NOT EXCEED.
- ▲ Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed. Sudden braking can cause a towed load to swerve and upset.
- ▲ Do not tow an implement that, when fully loaded, weights more than 1.5 times the weigh of towing vehicle.



Tire Safety

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

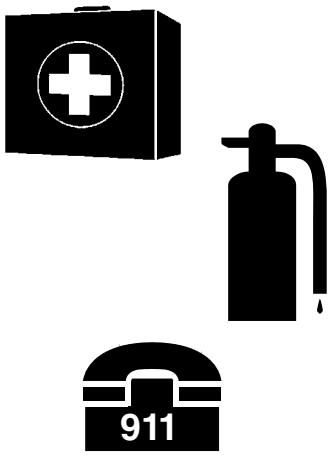
Practice Safe Maintenance

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

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

Prepare for Emergencies

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



Wear Personal Protective Equipment (PPE)

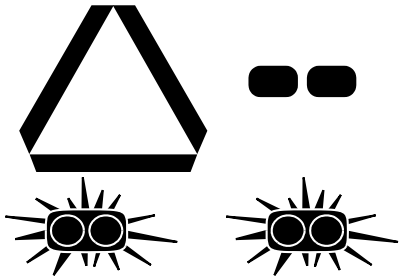
- ▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs.
- ▲ Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment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

Avoid High Pressure Fluids

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

Use Safety Lights and Devices

- ▲ A slow moving power machine can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads.
- ▲ For tractors and other agriculture equipment, a Slow Moving Vehicle (SMV) sign is required when traveling on public roads.

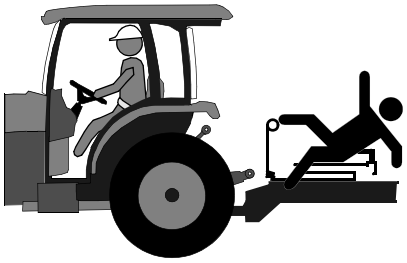


Use Seat Belt and ROPS

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

Keep Riders Off Machinery

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

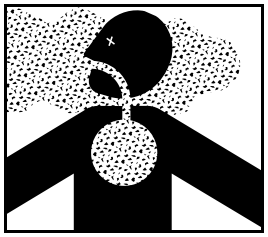


Listed below are common practices that may or may not be applicable to the products described in this manual.

Avoid Crystalline Silica (Quartz) Dust

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

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



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

Handle Chemicals Properly

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

Dig Safe - Avoid Underground Utilities

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

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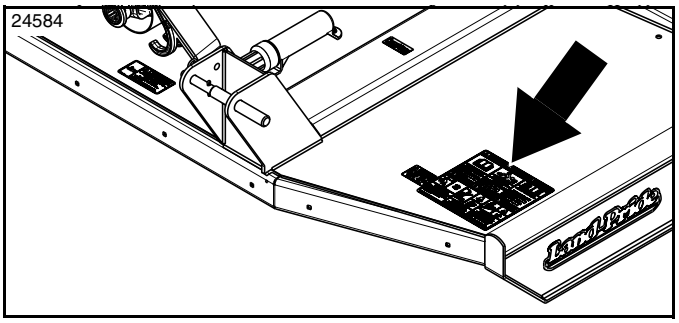
Safety Labels

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.*

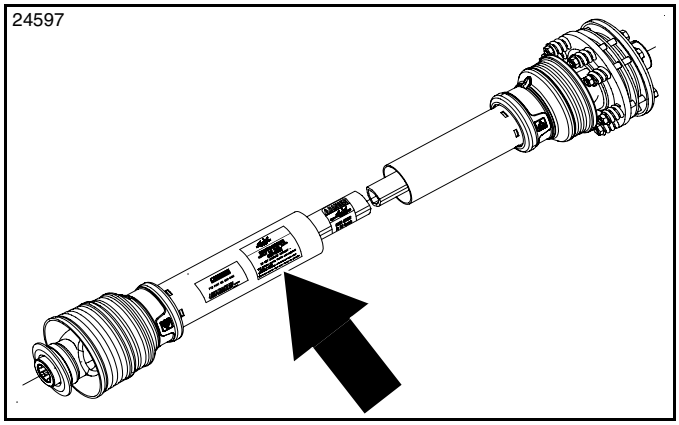
70376



844-190C

Danger/Warning Safety Combo: List of Safety Hazards

1 Place: At the front of the deck on the left side



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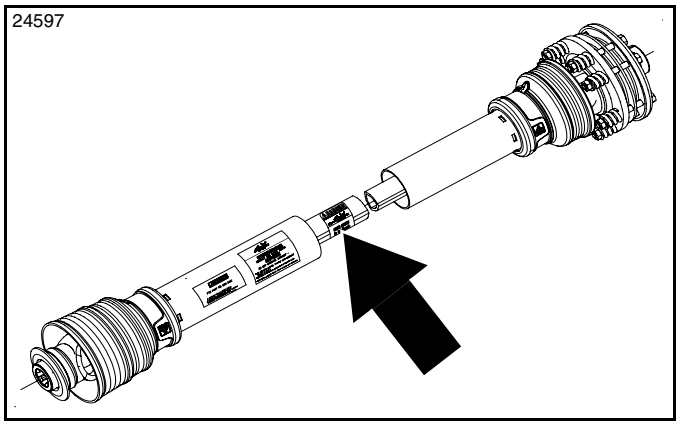
818-552C

Danger: Rotating Driveline - Keep Away

1 Place: On the driveline shieldp

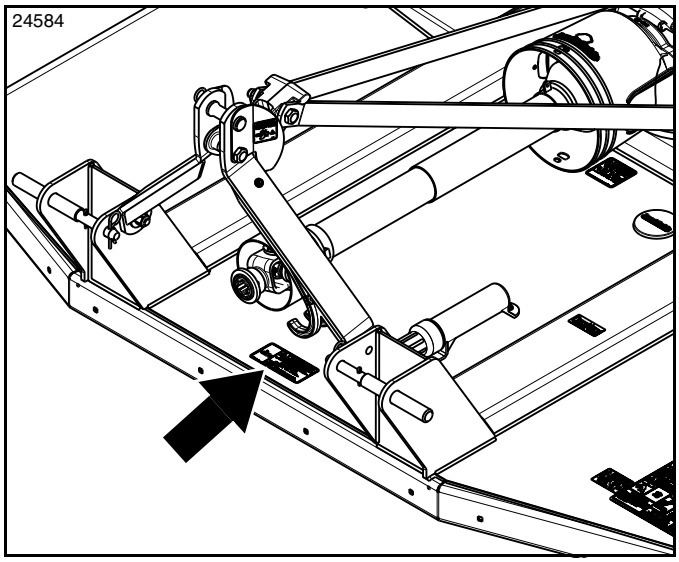


70374

818-540C

Danger: Guard Missing - DO NOT Operate

1 Place: On the driveline inner profile



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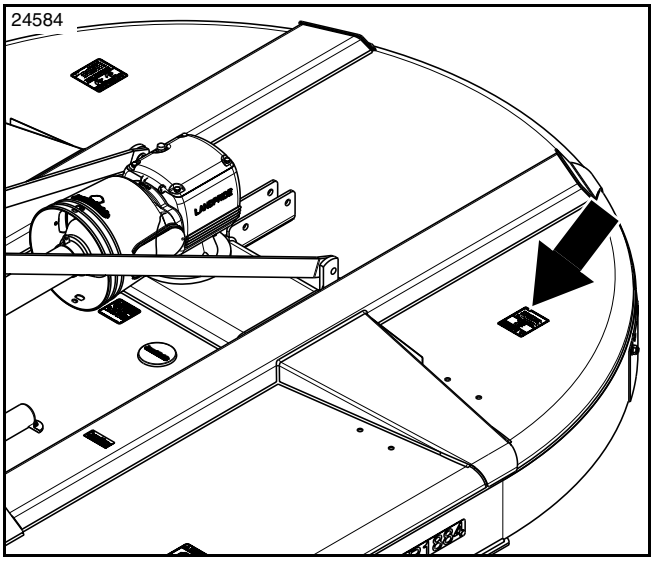
818-142C

Danger: Rotating Driveline Entanglement Hazard

1 Place: At the front of the deck



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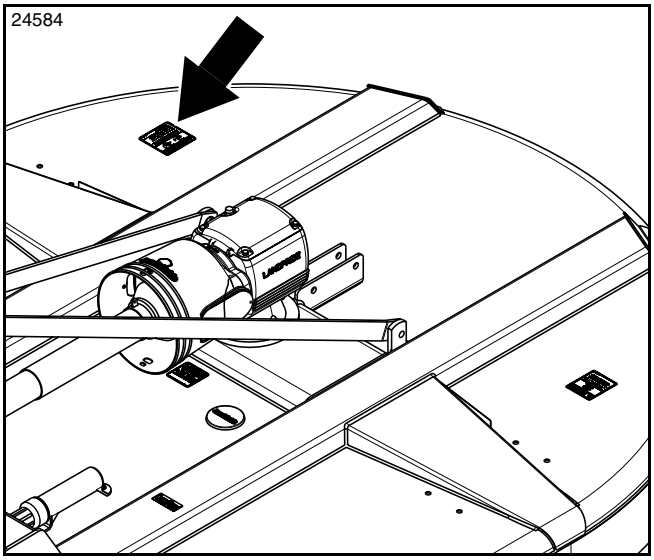
818-556C

Danger: Thrown Object Hazard

1 Place: At the back of the deck on the left side



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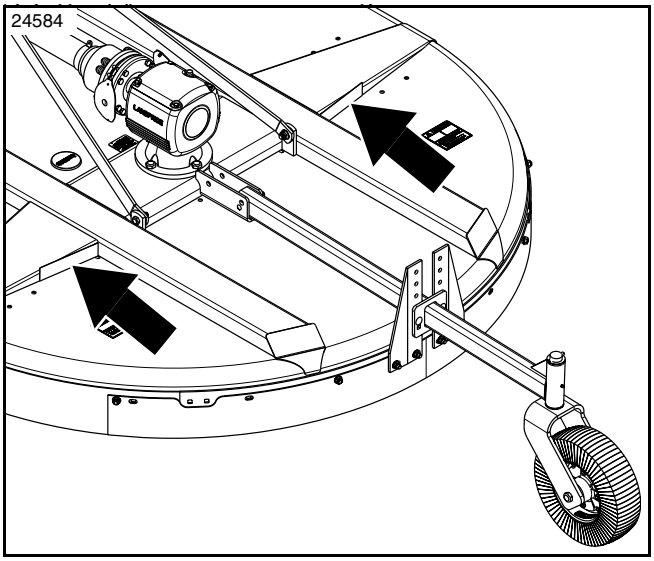
818-555C

Danger: Rotating Blade Hazard

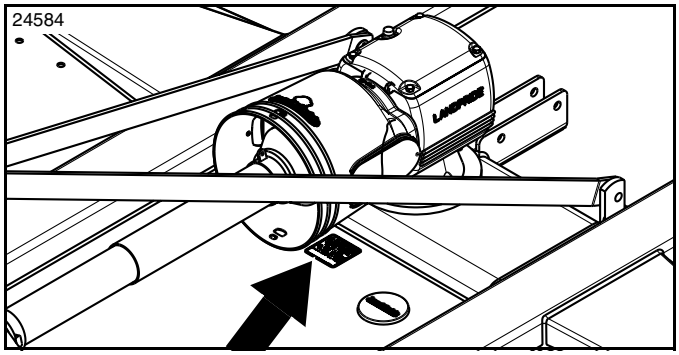
1 Place: At the back of the deck on the right side

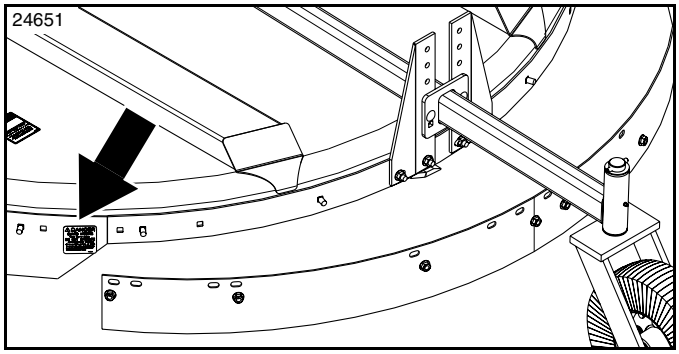


838-614C

Red Reflector: 2" x 9"

2 Places: Rear facing on the back side of the deck cross stiffeners



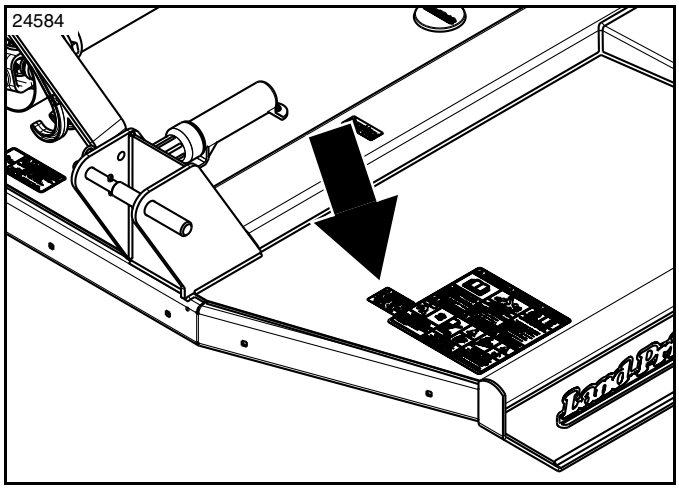


70358

818-543C

Danger: Guard Missing Hazard - Do not Operate

2 Places: Beneath the gearbox/driveline shield and Beneath the rear guard

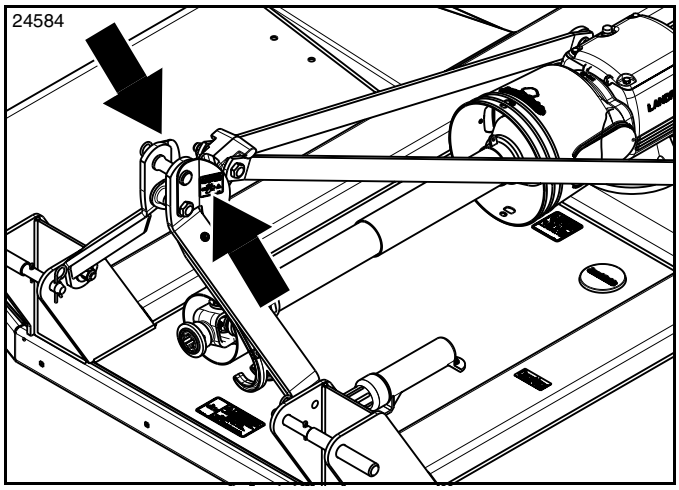


70382

818-130C

Warning: Operate with 540 rpm Power Take-off Speed

1 Place: Front left corner of deck



70247

858-148C

Warning: Pinch Point Hazard2

2 Places: Located on both sides of the floating hitch

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

Land Pride's RCR1884 Model Rotary Cutter is built and designed by Land Pride for cutting on gentle slopes or slightly contoured right-of-ways, pastures, around the farm or around town. The 84" cutting width is compatible with maneuverable 45 to 90 horsepower tractors with 540 rpm power take-off speed. The cutter has a Category I and Category II three-point hitch and is Quick-Hitch compatible. It is offered with a standard ASAE Category 4 driveline with slip-clutch protection and a single or dual rear laminated tailwheel.

The RCR1884 cutter cuts through grass, weeds, and light brush up to 2" in diameter with a cutting height range of 2" to 11". Cutting blade tip speed is 17,113 rpm. It includes a 10 ga. (.135" thick) oval pan stump jumper and welded on full length skid shoes. A rear metal band shield is standard equipment. Optional shields are front rubber guard, front chain guard, and rear chain guard.

See **"Specifications & Capacities"** on page 37 and **"Features & Benefits"** on page 39 for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual, contact your authorized dealer. Manuals can also be downloaded, free-of-charge, from our website at www.landpride.com

Terminology

"Right" or "Left" as used in this manual is determined by facing 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.

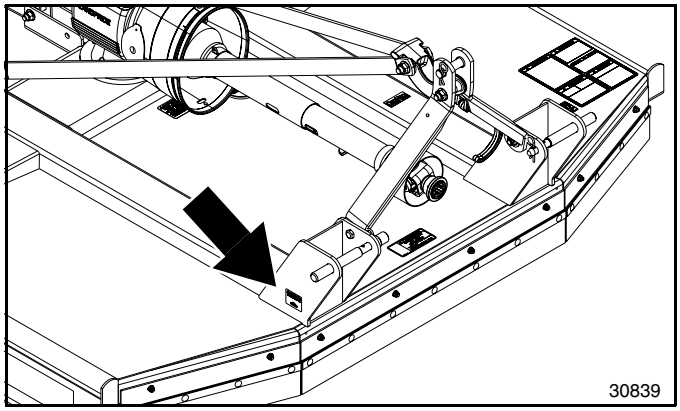
Owner Assistance

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 Rotary 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/question, and request assistance.
3. For further assistance write to:

Land Pride
Service Department
P.O. Box 5060
Salina, KS 67402-5060

E-mail address
lpservicedept@landpride.com

Tractor Requirements

The RCR18 Series Rotary Cutters are designed for use with tractors that are equipped with:

- 45 to 90 horsepower
- Category I or II Quick-Hitch
- 540 rpm 1 3/8"-6 spline rear power take-off (power take-off)

WARNING

To avoid serious injury or death:

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

Torque Requirements

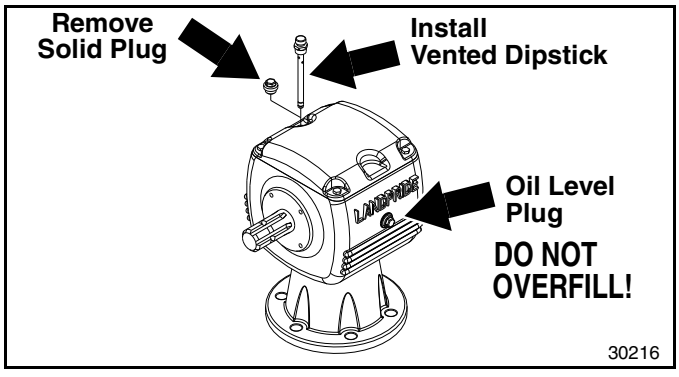
Refer to **"Torque Values Chart"** on page 41 to determine correct torque values for common bolts. See **"Additional Torque Values"** at bottom of chart for exceptions to standard torque values.

Gearbox Vented Dipstick

Refer to Figure 1-1:

IMPORTANT: Gearboxes are shipped with solid plugs in them to prevent oil loss during shipping and handling. The solid plug on top of the gearbox must be replaced with a vented dipstick before operating the implement.

A vented dipstick is shipped loose and packaged with the Operator's Manual. Remove temporary solid plug from top of gearbox and replace with vented dipstick. See your nearest Land Pride dealer if dipstick is missing.



Vent Plug Location
Figure 1-1

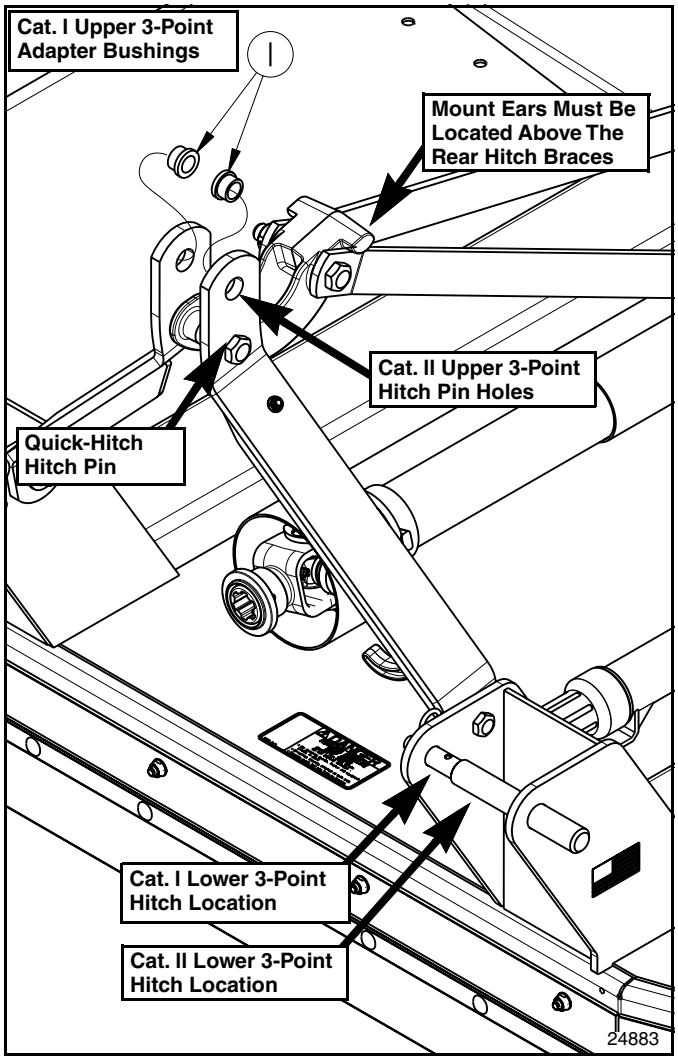
Category I Adapter Bushings

Refer to Figure 1-2:

Two adapter bushings (#1) (not included with the cutter) are required if attaching this cutter to a tractor with a Cat. I 3-point hitch. You can order the bushings from you nearest Land Pride dealer. Two are required when ordering.

Land Pride Cat. I Adapter Bushings

Part No.	Part Description
827-071C	BUSHING STEP 1.25OD x .765ID x .70 lg.



Category I Adapter Bushings
Figure 1-2

3-Point Hitch Assembly

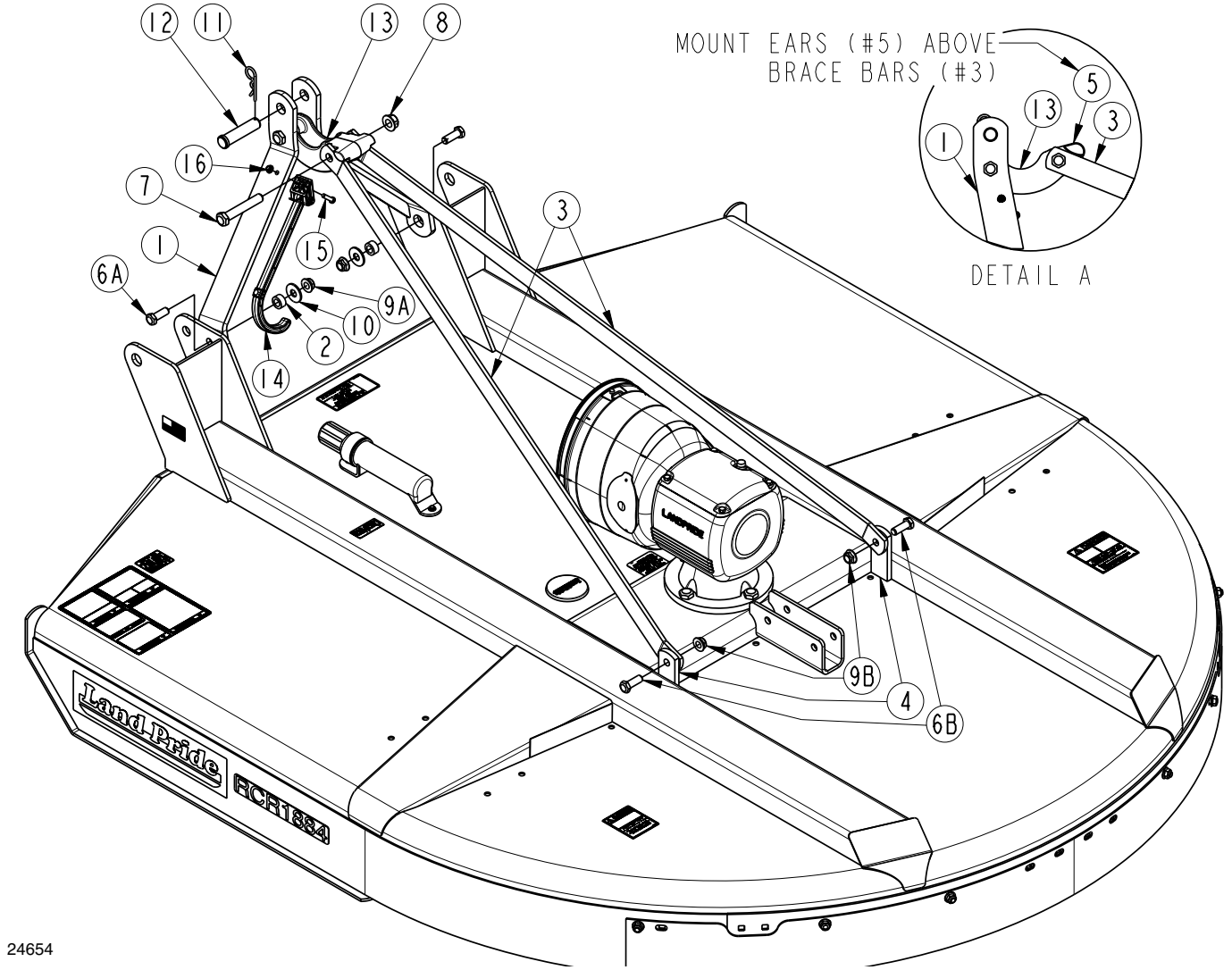
Refer to Figure 1-3:

1. Bushings (#2) are zip tied to top hitch (#13).
2. Remove hex flange lock nuts (#9A), flat washers (#10) and bolts (#6A).
3. Reattach A-frame brace bars (#1) with 5/8"-11 x 1 3/4" hex head bolts (#6A), bushings (#2), flat washers (#10), and hex flange lock nuts (#9A). Tighten lock nuts (#9A) to the correct torque.
4. Attach smaller hole of rear braces (#3) inside of deck lugs (#4) with 5/8"-11 x 1 3/4" GR5 bolts (#6B) and secure with hex flange lock nuts (#9B). Draw lock nuts (#9B) up snug and then back off 1/4 turn.

IMPORTANT: See Detail A in Figure 1-3 on page 12. Floating top hitch (#13) must be installed with ears (#5) above rear brace bars (#3).

5. Rotate A-frame/floating top hitch (#1 & #13) up and rotate left rear brace (#3) up until holes in rear braces (#3) align with hole in floating top hitch (#13).
6. Insert 3/4"-10 x 4 1/2" GR5 bolt (#7) into the left rear brace (#3), floating top hitch (#13), and right rear brace (#3).
7. Secure bolt with hex flange locknut (#8). Draw locknut (#8) up snug and then tighten to the correct torque.
8. Attach driveline hook (#14) to A-frame (#1) using 5/16"-18 x 1 1/4" bolt (#15) and locknut (#16).

NOTE: After assembly of hitch and tailwheel, push on top of A-frame assembly (#1). It should rotate backward and floating top link (#13) should rotate upward. If they are too stiff to rotate, loosen nut (#8) until it rotates freely.



3-Point Hitch Assembly
Figure 1-3

Driveline Installation

DANGER

To avoid serious injury or death:

- *Do not engage power take-off while connecting or disconnecting the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.*
- *All guards and shields must be installed and in good working condition while operating the implement.*
- *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 disengage power take-off, put tractor in park or set park brake, shut tractor engine off, remove ignition key, and wait for blades to come to a complete stop before dismounting tractor.

CAUTION

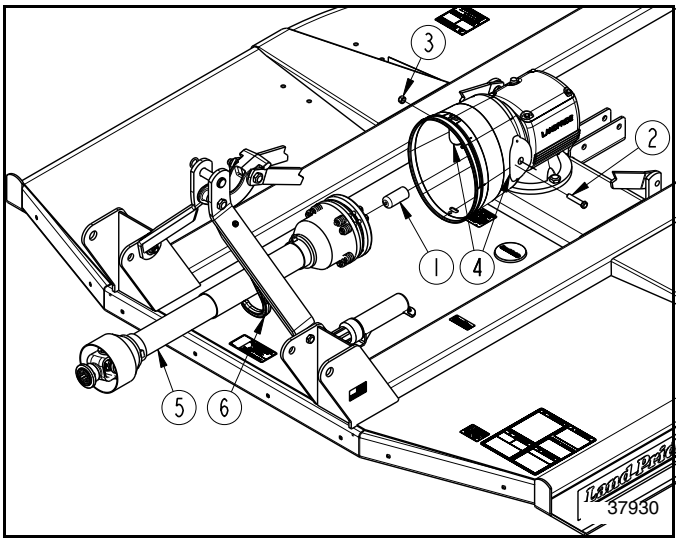
To avoid minor or moderate injury:

Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off shaft is set-up to operate the implement at its rated power take-off speed. Do not exceed implement's rated power take-off speed. Excessive speed can damage drive/driven components, and increase the risk of a thrown object hazard. RC models are rated for 540 rpm and RCM models are rated for 1000 rpm.

IMPORTANT: An additional driveline may be required if implement is attached to more than one tractor or if a Quick Hitch is used.

The driveline must be lubricated before putting it into service. Refer to **"Lubrication Points"** on page 35.

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



Driveline Installation
Figure 1-4

Refer to Figure 1-4:

1. Remove rubber protective sleeve (#1) from gearbox input shaft.
2. Unsnap one end of gearbox shield access doors (#4) and rotate doors open.
3. Remove bolt (#2) from end of driveline (#5).
4. Slide slip-clutch end of driveline (#5) onto gearbox input shaft until hole in yoke aligns with notch in shaft.
5. Insert clamp bolt (#2) through hole in yoke and secure bolt with nut (#3). Tighten nut to the correct torque.
6. Rotate access doors (#4) closed and snap in place.
7. Raise driveline (#5) up and rotate driveline hook (#6) down.
8. Lower driveline (#5) until resting in driveline hook (#6).
9. Continue with **"Tractor Hook-Up"** on page 14.

Tractor Hook-Up

Refer to Figure 1-5:

⚠ WARNING

To avoid serious injury or death:

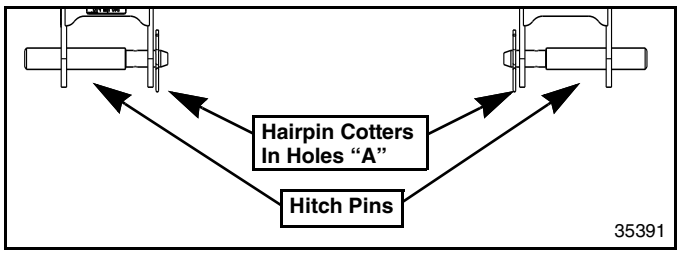
Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control. Consult your tractor Operator's Manual to determine weight requirements and maximum limitations.

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

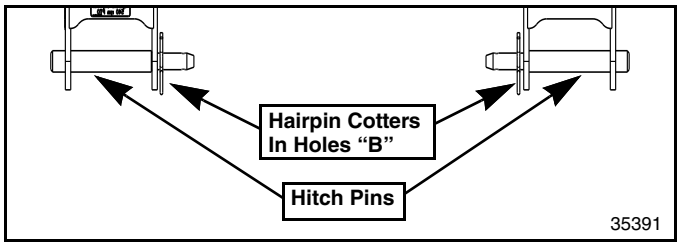
You will need to purchase two adapter bushings if attaching this cutter to a 3-point Category I hitch. See **"Category I Adapter Bushings"** on page 11 for additional information and bushing part number.

The tractor's lower 3-point arms must be stabilized to prevent side-to-side movement. Most tractors have sway blocks or adjustable chains for this purpose.

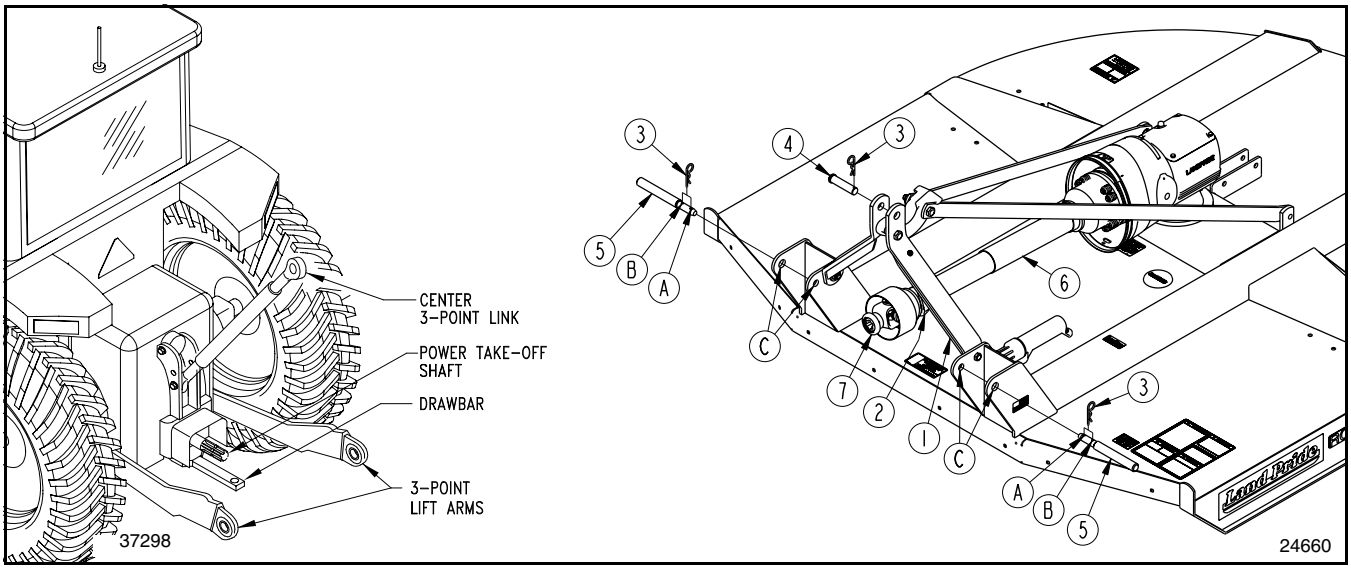
1. Slowly back tractor up to Rotary Cutter while using tractor's 3-point hydraulic control lever to align lower 3-point lift arms with hitch pin holes "C".
2. Engage tractor park brake, shut tractor engine off, and remove key before dismounting from tractor.
3. Attach lower arms to clevises with hitch pins (#5) and secure with hairpin cotters (#3) as follows:
   a. **Cat. I 3-Point Hitch:** Insert hairpin cotters in hole "A".
   b. **Cat. II 3-Point Hitch and Cat. I & II Quick Hitch:** Insert hairpin cotters in hole "B".
   c. See also Figure 1-6 and Figure 1-7 for illustration of hitch pin positions in clevis.
4. Connect top center 3-point link to upper hitch pin holes with clevis pin (#4). Secure clevis pin with hairpin cotter (#3).
5. Ensure tractor lower hitch arms are blocked to prevent excessive side movement.
6. The arm lift rods on your tractor's 3-point lift arms should be adjusted to allow for lateral float. Please consult your tractor's manual for adjusting instructions.



3-Point Hitch Pin Configuration For Cat. I Hitch
Figure 1-6



3-Point Hitch Pin Configuration For Cat. II Hitch And Quick Hitch Pin Configuration For Cat. I & II Hitches
Figure 1-7



3-Point Tractor Hook-Up
Figure 1-5

Driveline Hook-Up

Refer to Figure 1-5 on page 14:

⚠ DANGER

To avoid serious injury or death:

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

⚠ WARNING

To avoid serious injury or death:

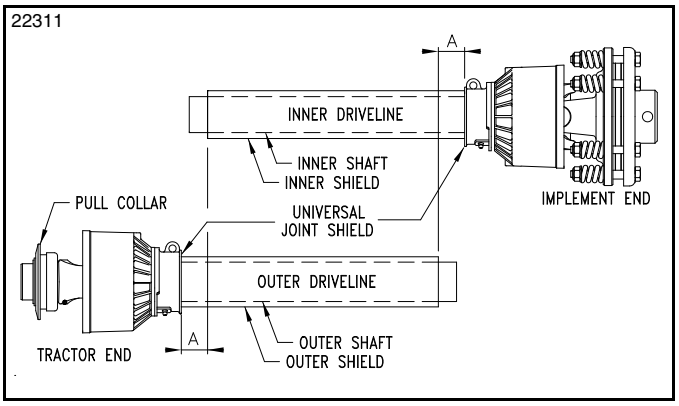
- *Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.*
- *Check driveline when lowering implement to make sure it does not interfere with the tractor drawbar at maximum depth. If needed, shut tractor off and move or remove drawbar to prevent driveline damage.*

IMPORTANT: An additional driveline may be required if implement is attached to more than one tractor or if a Quick Hitch is used.

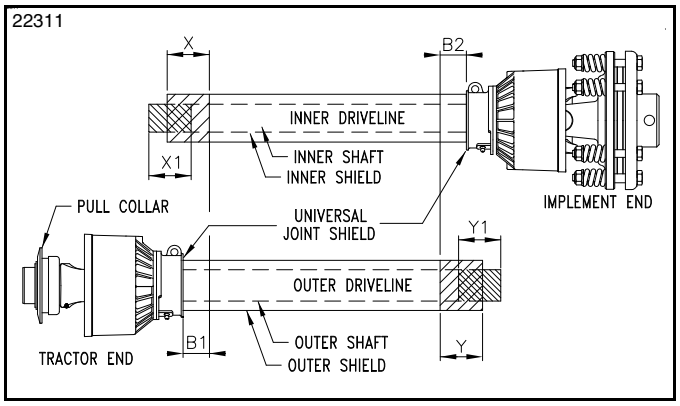
IMPORTANT: Drivelines with friction clutches must go through a "run-in" prior to initial use and after long periods of inactivity. For detailed instructions, see **"Slip-Clutch Protected Drivelines"** on page 33.

IMPORTANT: Check driveline minimum collapsible length before completing **"Driveline Hook-Up"**. Structural damage to the tractor and implement can occur if this check is not made. Refer to **"Check Driveline Collapsible Length"** on page 16.

1. If driveline collapsible length has not been checked, go to **"Check Driveline Collapsible Length"** on page 16. Otherwise, continue with step 2 below.
2. Park tractor and implement on a level surface.
3. Shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 25.
4. If tractor drawbar interferes with the driveline during hook-up, disconnect driveline and move drawbar forward, to the side, or remove.
5. Remove driveline (#6) from driveline support (#2). Driveline support is spring loaded and will rotate up against A-frame (#1).
6. Collapse driveline (#6) by pushing tractor end of driveline toward the implement's gearbox.
7. Pull back on driveline pull collar (#7) and push yoke onto the tractor power take-off shaft. Release pull collar and continue to push driveline yoke forward until pull collar pops out and locks in place.
8. Pull on driveline yokes at the tractor and implement end to make sure they are secured to the tractor power take-off shaft and implement's gearbox shaft.
9. The tractor's lower 3-point arms should be adjusted for lateral float. Please consult your tractor's manual.
10. Continue with **"Check Driveline Interference"** on page 17.



Check Driveline Minimum Length
Figure 1-8



Driveline Shortening
Figure 1-9

Check Driveline Collapsible Length

Refer to Figure 1-8:

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

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

1. With driveline attached only to the 3-point implement, remove outer driveline (tractor end) from inner driveline to separate the two profiles.
2. Park tractor and implement on a level surface.
3. Raise implement until gearbox input shaft is level with tractor power take-off shaft. Securely block implement at this height to keep unit from lowering.
4. Shut tractor down without removing support blocks. Refer to **"Tractor Shutdown Procedure"** on page 25.
5. Attach outer driveline to the tractor's power take-off shaft. Refer to steps 5-8 under **"Driveline Hook-Up"** on page 15.
6. Hold inner and outer drivelines parallel to each other. If dimension "A" is greater than or equal to 1" (2.5 cm), then skip to **"Check Driveline Interference"** on page 17. Otherwise continue with step 7.

Refer to Figure 1-9:

7. If dimension "A" was less than 1" (2.5 cm), shorten driveline as follows:
   a. Measure 1" (2.5 cm) (**"B1"** dimension) back from outer driveline shield and make a mark at this location on the inner driveline shield.
   b. Measure 1" (2.5 cm) (**"B2"** dimension) back from the inner driveline shield and make a mark at this location on the outer driveline shield.
8. Remove outer driveline from the tractor power take-off shaft and inner driveline from the implement's gearbox shaft.
9. Cut off non-yoke end of inner driveline as follows:
   a. Measure from end of inner shield to scribed mark (**"X"** dimension) and record.
   b. Cut off inner shield at the mark. Cut same amount off the inner shaft (**"X1"** dimension).
10. Cut off non-yoke end of outer driveline as follows:
    a. Measure from end of outer shield to scribed mark (**"Y"** dimension) and record.
    b. Cut off outer shield at the mark. Cut same amount off the outer shaft (**"Y1"** dimension).
11. Remove all burrs and cuttings.

Reassemble Driveline

1. Apply multi-purpose grease to the inside of the outer shaft and reassemble the driveline.
2. Reattach driveline to the tractor power take-off shaft and gearbox shaft. Refer to **"Driveline Installation"** on page 13 and **"Driveline Hook-Up"** on page 15.
3. Continue with **"Check Driveline Interference"** on page 17.

Check Driveline Interference

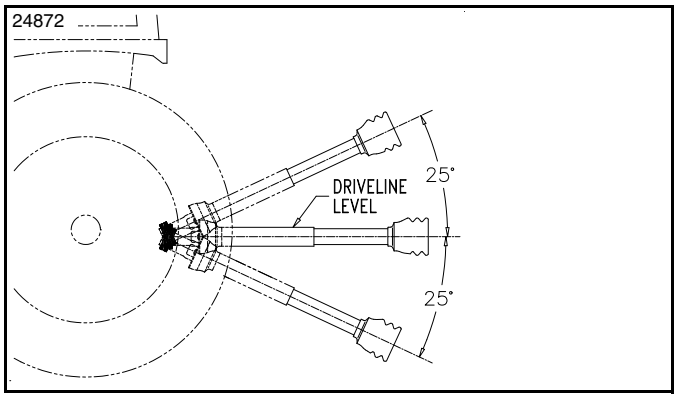
Refer to Figure 1-10:

WARNING

To avoid serious injury or death:

A rotating driveline must not exceed an angle of 25 degrees up or down, and never engage a driveline while at an angle exceeding 25 degrees up or down. The driveline can break and send flying projectiles.

1. Start tractor and raise implement slightly off the support blocks used to **"Check Driveline Collapsible Length"**. Drive forward until the implement is clear of the support blocks.
2. Slowly and carefully lower and raise the implement to ensure drawbar, tires, and other equipment on the tractor do not contact the implement's frame. If there is an interference:
   a. Back implement over the support blocks and lower it onto the blocks.
   b. Shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 25
   c. Move or remove drawbar if it interferes with the implement and make any other necessary corrections.
   d. Repeat steps 1-2 to verify the implement does not interfere with the tractor.
3. Start tractor, raise implement fully up. Back implement over the support blocks. Do not lower implement onto the support blocks.
4. Without changing the 3-point lift height, shut tractor down using **"Tractor Shutdown Procedure"**.
5. Check to make sure driveline does not exceed 25° above horizontal.
6. If driveline exceeds 25 degrees up:
   a. Adjust tractor 3-point lift limiter to the height that will keep the driveline within the recommended limits.
   b. If the 3-point left lever does not have a lift height limiter, make a mark with tape or other means to indicate maximum lift height.
7. Start tractor, raise implement slightly, and drive forward enough to clear the support blocks.
8. Lower implement to the ground and shut tractor down using **"Tractor Shutdown Procedure"**.



Maximum Allowable Driveline Movement
Figure 1-10

Single Tailwheel Assembly

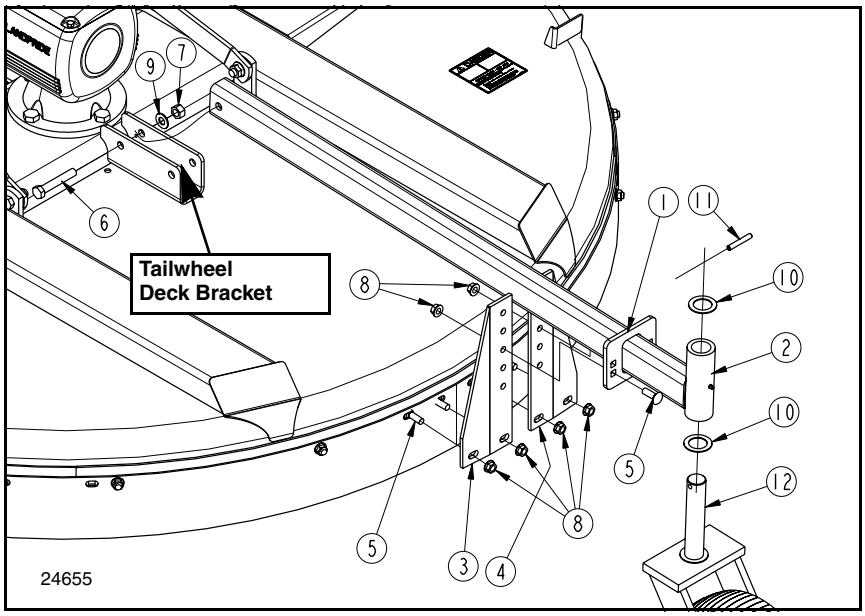
NOTE: Do not tighten hardware until assembly is complete. See **"Torque Values Chart"** on page 41 for correct torques.

Refer to Figure 1-11:

1. Slide adjustment plate (#1) onto tailwheel arm (#2).

IMPORTANT: The tailwheel arm must be located in the rear mounting holes of the deck channel when rear chain guards are included and front mounting holes when rear chain guards are not included.

2. Attach front end of tailwheel arm (#2) to tailwheel deck bracket with 5/8"-11 x 3 1/4" GR5 hex head bolt (#6), 5/8" flat washer (#9), and 5/8" locknut (#7).
3. Assemble tailwheel adjusting brackets (#3 & #4) to deck rear with four 1/2"-13 x 1 1/2" GR5 carriage bolts (#5) and 1/2" flange locknuts (#8).
4. Install shim washer (#10) onto yoke spindle (#12) and insert spindle into tailwheel arm (#2). Install 2nd shim washer (#10) onto yoke spindle and secure with roll pin (#11).
5. Assemble tailwheel adjusting plate (#1) to adjusting brackets (#3 & #4) with two 1/2" -13 x 1 1/2" GR5 hex head bolts (#5) and 1/2" flange locknuts (#8).
6. Refer to **"Single Tail Wheel Height Adjustment"** on page 23 for adjusting instructions.
7. Tighten all locknuts to correct torque.



Single Tailwheel Assembly
Figure 1-11

Dual Tailwheel Assembly

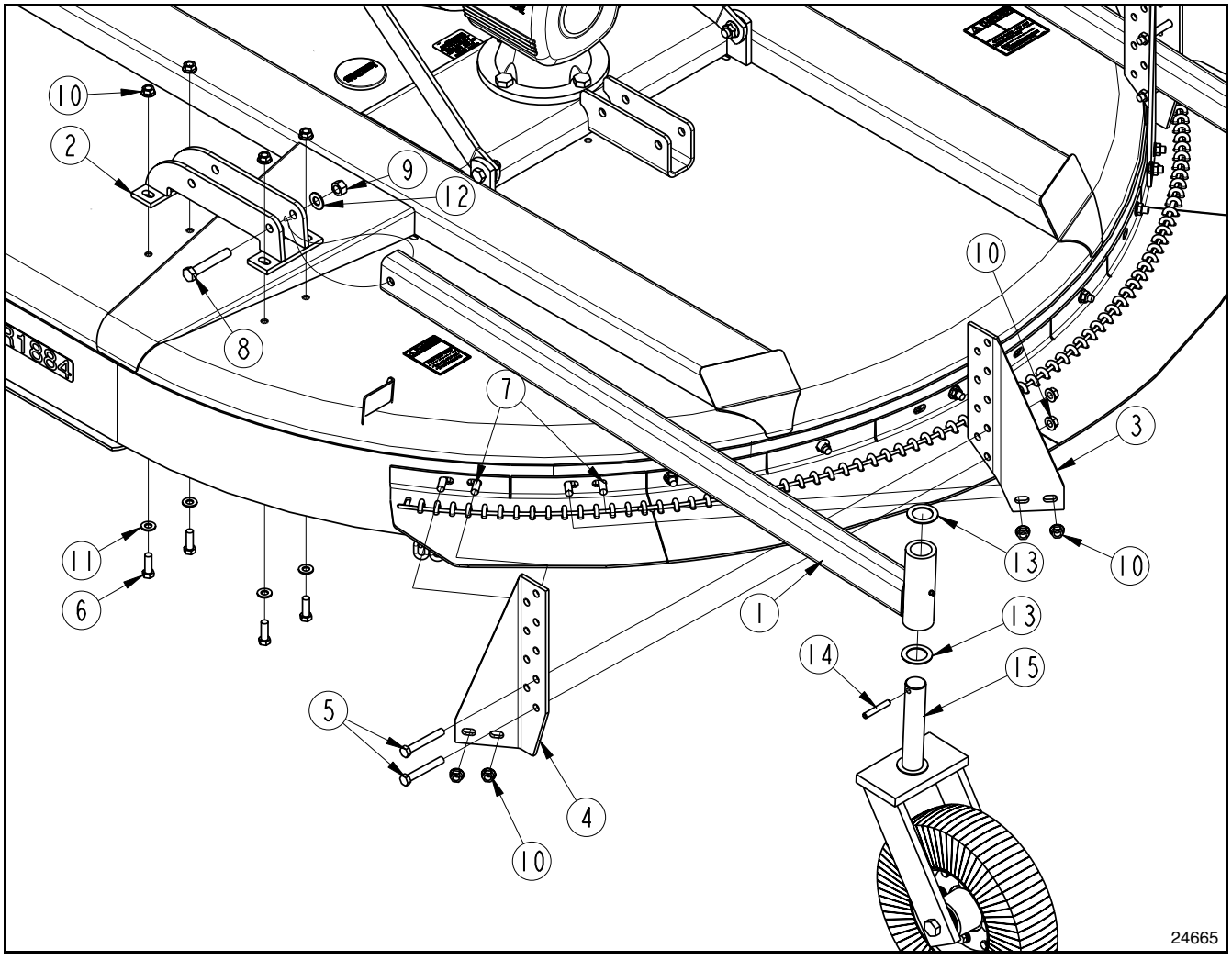
NOTE: Do not tighten hardware until assembly is complete. See **"Torque Values Chart"** on page 41 for correct torques.

Refer to Figure 1-12:

1. Attach tailwheel bracket (#2) to left side of cutter deck with four 1/2" -13 x 1 1/2" GR5 hex head bolts (#6), 1/2" flat washers (#11), and 1/2" flange lock nuts (#9).

IMPORTANT: The tailwheel arms must be located in the rear mounting holes of the deck channel when rear chain guards are included and front mounting holes when rear chain guards are not included.

2. Attach tailwheel arm (#1) to deck bracket (#2) with 5/8"-11 x 3 1/4" GR5 hex head bolt (#8), 5/8" flat washer (#12), and 5/8" locknut (#9).
3. Assemble tailwheel adjusting brackets (#3 & #4) to left side of deck using four 1/2"-13 x 1 1/2" GR5 carriage bolts (#7) and 1/2" flange lock nuts (#10).
4. Install shim washer (#13) onto yoke spindle (#15) and insert spindle into tailwheel arm (#1). Slide 2nd shim washer (#13) onto yoke spindle and secure with roll pin (#14).
5. Install two 1/2" -13 x 3 1/2" GR5 hex head bolts (#5) and hex flange lock nuts (#10) in adjusting brackets (#3 & #4) as shown.
6. Tighten all nuts to correct torque.
7. Repeat steps 1 through 6 for right side of cutter.
8. Refer to **"Dual Tail Wheel Height Adjustment"** on page 23 for adjusting instructions.



Dual Tailwheel Assembly
Figure 1-12

Front Guard Assembly

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

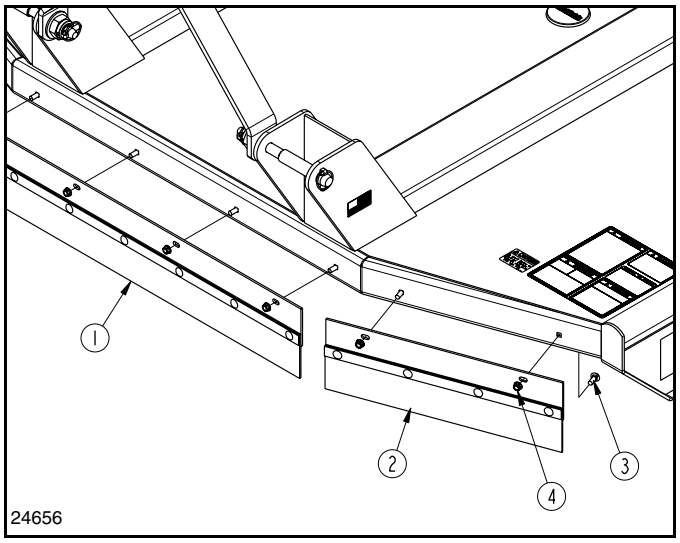
To avoid serious injury or death:

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.

Front Rubber Guard Installation

Refer to Figure 1-13:

1. Install center rubber guard (#5) with 3/8" x 1" long carriage bolts (#4). Secure with 3/8" flange nuts (#3).
2. Install left and right side rubber guards (#2) with 3/8" x 1" long carriage bolts (#4). Secure with 3/8" flange nuts (#3).
3. Tighten all 3/8" flange nuts (#2) to 31 ft-lbs. as indicated in the **"Torque Values Chart"** on page 41.

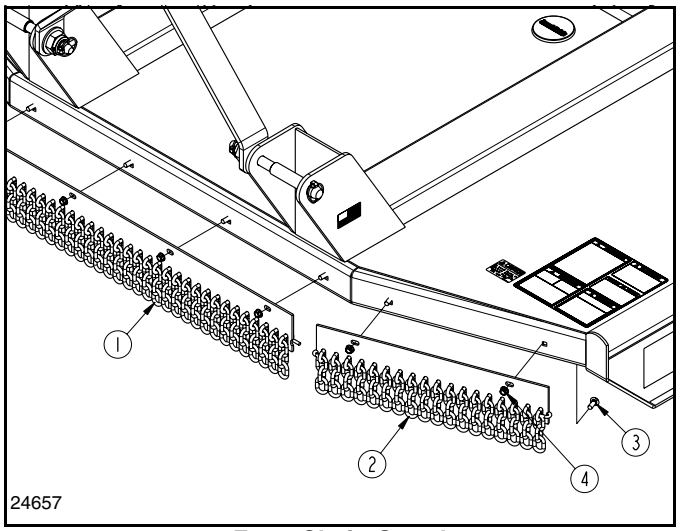


Front Rubber Guard
Figure 1-13

Front Chain Guard Installation (Optional)

Refer to Figure 1-14:

1. Install center chain guard (#1) with 3/8" x 1" long carriage bolts (#4). Secure with 3/8" flange nuts (#3).
2. Install left and right chain guards (#2) with 3/8" x 1" long carriage bolts (#4). Secure with 3/8" flange nuts (#3).
3. Tighten all 3/8" flange nuts (#2) to 31 ft-lbs. as indicated in the **"Torque Values Chart"** on page 41.



Front Chain Guard
Figure 1-14

Rear Guard Assembly

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.*
- *Do not remove rear guard unless it is replaced by an approved safety guard. Serious body injury or loss of life can result without an approved rear guard.*

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.

Rear Metal Deflector Assembly

The rear metal deflector is factory supplied and must be removed before the rear chain guard option can be installed.

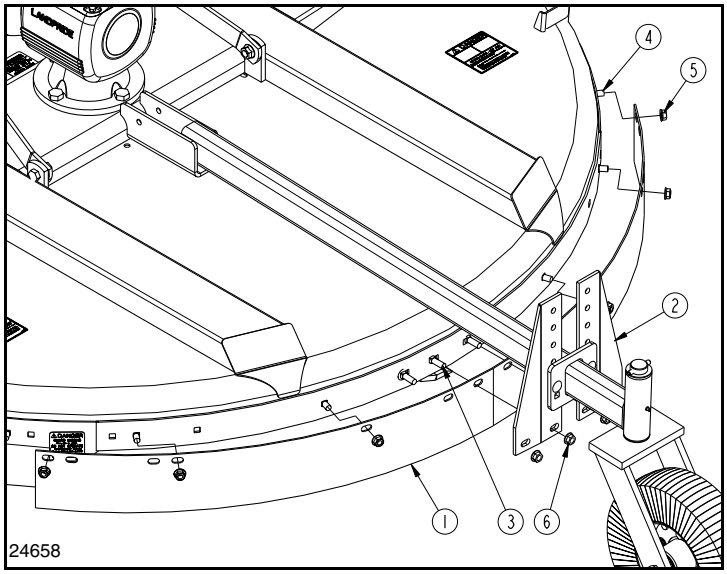
Refer to Figure 1-15:

1. Unscrew 1/2" whiz nuts (#5) and 1/2" hex flange lock nuts (#6). Remove rear metal deflector (#1) from deck rear.
2. Attach carriage bolts (#4) with whiz nuts (#6) to rear deflector for safe keeping. Keep 1/2" x 1 1/2" carriage bolts (#3) for reattaching tailwheel vertical support (#2) to deck during chain guard installation.
3. Store rear deflector for reuse if chain guard damaged or removed.

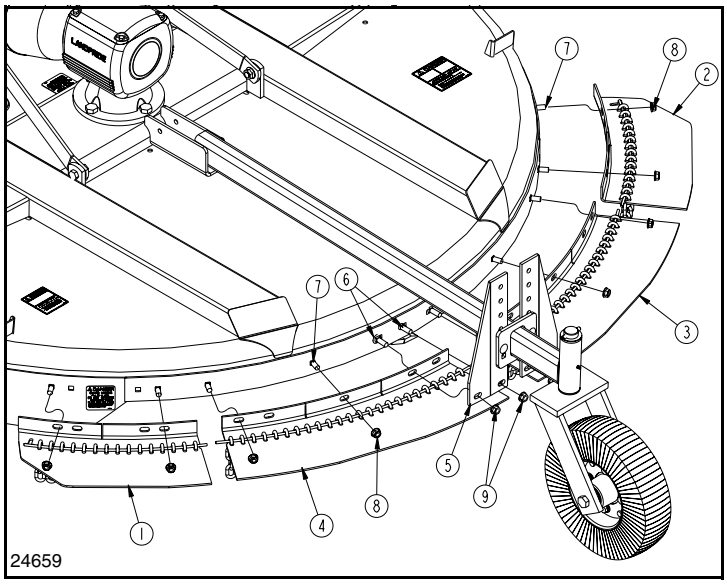
Rear Chain Guard Installation (Optional)

Refer to Figure 1-16:

4. Install center chain guards (#3 & #4) with four new 1/2"-13 x 1" GR5 (#7) carriage bolts (#7) as shown. Secure with 1/2" whiz nuts (#8). Do not tighten nuts.
5. Reattach tailwheel vertical support (#5) with four existing 1/2"-13 x 1 1/2" GR5 carriage bolts (#6). Secure with 1/2" hex flange locknuts (#9). Do not tighten nuts.
6. Install far left and right chain guards (#1 & #2) with four 1/2"-13 x 1 1/2" GR5 carriage bolts (#7) and 1/2" whiz nuts (#8) as shown.
7. Tighten all 1/2" nuts (#8 & #9) to 76 ft-lbs. as indicated in the **"Torque Values Chart"** on page 41.



Rear Metal Deflector
Figure 1-15



Rear Chain Guard
Figure 1-16

Deck Leveling & Height Adjustments

There are 4 primary adjustments that should be made prior to actual field operations:

- **Deck Leveling From Left to Right**
- **Deck Leveling From Front to Rear**
- **Center 3-Point Link Adjustment**
- **Tailwheel Height Adjustment**

Proper adjustment of each of these items will provide for higher efficiency, improved cutting performance, and longer blade life. The following tools will be needed:

- Pliable tape measure
- Carpenters level
- 3/4" Open end or hex end wrench or socket set
- Protective gloves

⚠ WARNING

To avoid serious injury or death:

Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.

Deck Leveling From Left to Right

Refer to Figure 2-1:

1. Locate tractor and Rotary Cutter on a flat, level surface.
2. Use tractor's hydraulic 3-point control to lower cutter until tailwheel contacts ground surface.
3. Place a Carpenters level or other suitable leveling device on the front of the cutter deck. Adjust either one or both of the tractors 3-point lower link height adjustments to level the deck from left to right. Some tractors have only a single adjusting crank.

Deck Leveling From Front to Rear

⚠ WARNING

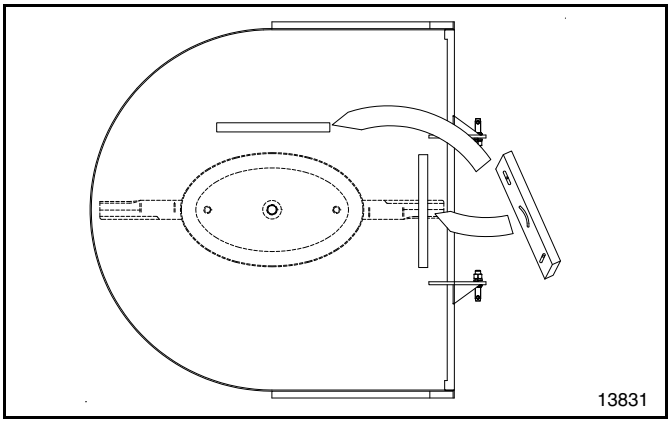
To avoid serious injury or death:

Avoid direct contact with cutter blades by wearing a pair of gloves. Cutter blades have sharp edges and burrs that can cause injuries.

IMPORTANT: The front blade tip should be slightly lower than the rear blade tip (about 1" or 2.5 cm lower). If not, the cutter is subject to continuous material flow under it's deck causing horsepower loss, grass clumps, blade wear, and frequent blade sharpening.

Refer to Figure 2-1:

1. Place a Carpenters level on one of the main deck channels. Using the tractor's 3-point hydraulic control lever, raise or lower the 3-point arms until the deck is slightly lower at the front (approximately 1" lower) than at the back.



Deck Leveling
Figure 2-1

2. The top center link should be loose when deck rear is supported by the tail wheel. If not, lengthen center link until loose. Final adjustment will be made later.

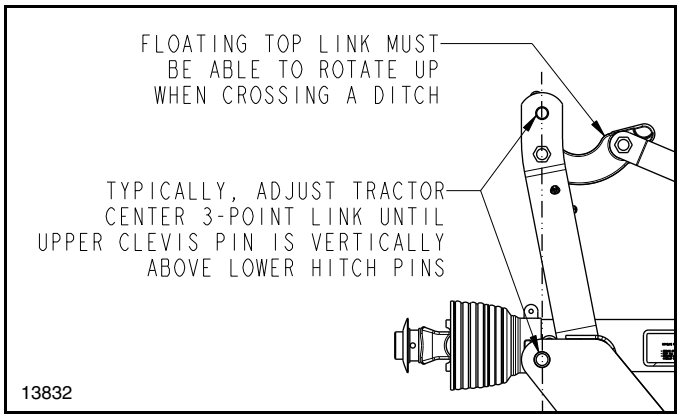
Refer to Figure 2-5 on page 23:

3. With gloves on, carefully rotate each blade to the position shown in Figure 2-5 on page 23.
4. At the front of the cutter, measure the distance from blade cutting tip to ground surface. This distance is known as the **"Nominal Cutting Height"**.
5. The tail wheel will need adjusting if nominal cutting height is not at the preferred cutting height. Adjust tailwheel per instructions on page 23.
6. Repeat steps 1 to 5 until preferred cutting height is achieved.
7. Set stop on tractor lift quadrant so cutter can be returned to the same height.

Center 3-Point Link Adjustment

Refer to Figure 2-2:

1. Lower cutter deck to the nominal cutting height.



Top Link Adjustment
Figure 2-2

2. Typically the center 3-point link is adjusted so that the upper 3-point clevis pin is straight above the lower 3-point hitch pins. This arrangement allows for optimum ground contour following performance.

NOTE: Customer may adjust center 3-point link to his or her preference. Lengthening center 3-point link allows more movement while going over raised surfaces. Shortening the link allows more movement while crossing over ditches. Also, shortening center link allows the cutter to be carried higher while traveling. Never lengthen center link to where the cutter is carried too low.

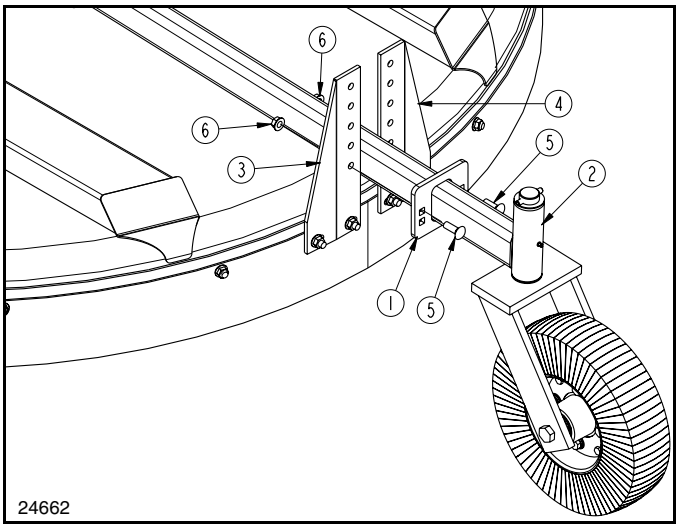
3. Lock center link in this position once correct length is achieved. Adjustment on center 3-point link can be made depending on customer's preference.

Single Tail Wheel Height Adjustment

Refer to Figure 2-3:

The single tailwheel must be adjusted if cutting height is too high or too low.

1. Use tractor's 3-point hydraulic control to lift the tailwheel off the ground.
2. Remove 1/2" -13 x 1 1/2" GR5 carriage head bolt (#5) and 1/2" hex flange locknut (#6).
3. Adjust tailwheel (#2) up or down to desired cutting height by repositioning adjusting plate (#1) and replace attaching hardware.



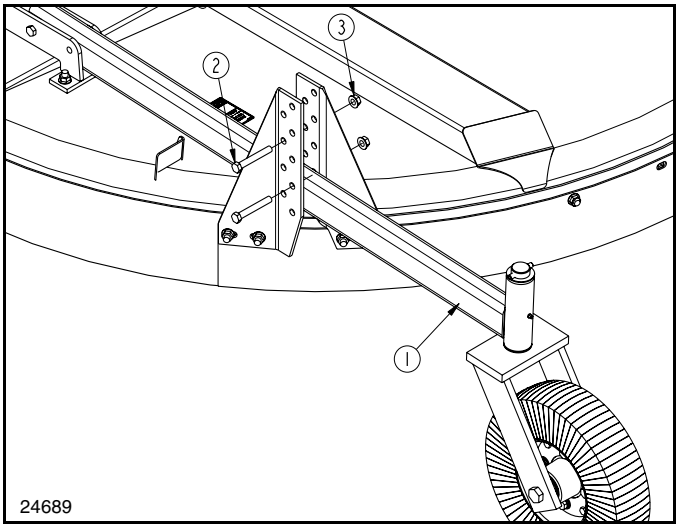
Single Tailwheel Height Adjustment
Figure 2-3

Dual Tail Wheel Height Adjustment

Refer to Figure 2-4:

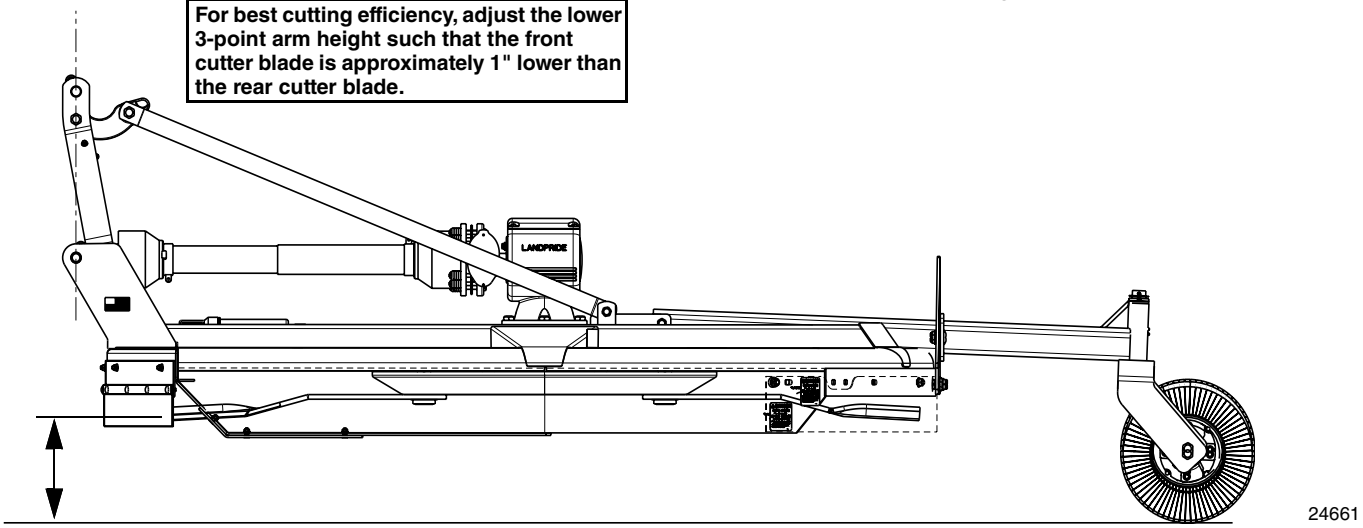
The dual tailwheels must be adjusted if cutting height is too high or too low.

1. Use tractor's 3-point hydraulic control to lift the tailwheels off the ground.
2. Remove 1/2" -13 x 3 1/2" GR5 bolts (#2).
3. Adjust tailwheel (#1) up or down to desired cutting height and reinsert 1/2" -13 x 3 1/2" GR5 bolts (#2).
4. Secure 1/2" bolts with 1/2" flange lock nuts (#3). Tighten lock nuts to correct torque.



Dual Tailwheel Height Adjustment
Figure 2-4

For best cutting efficiency, adjust the lower 3-point arm height such that the front cutter blade is approximately 1" lower than the rear cutter blade.



Nominal Cutting Height
Figure 2-5

Operating Checklist

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

- **Important Safety Information**, page 1
- **Section 1: Assembly & Set-Up,** page 11
- **Section 2: Adjustments**, page 22
- **Section 3: Operating Instructions**, page 24
- **Section 5: Maintenance & Lubrication**, page 31

Operating Checklist

✔	Check	Page
	Make sure all guards and shields are in place. Refer to "Important Safety Information."	1
	Follow hook-up and driveline installation instructions. Refer to "Tractor Hook-Up" & "Driveline Installation".	14 & 13
	Make all required adjustments. Refer to "Section 2: Adjustments".	22
	Preform all required maintenance. Refer to "Section 5: Maintenance & Lubrication".	31
	Lubricate cutter and driveline as needed. Refer to "Lubrication Points".	35
	Lubricate all gearboxes and replace oil plugs properly. Refer to "Gearbox".	35
	Check cutter initially and periodically for loose bolts and pins. Refer to "Torque Values Chart."	41

Safety Information

DANGER

To avoid serious injury or death:

- *Do not engage power take-off while connecting or disconnecting the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.*
- *All guards and shields must be installed and in good working condition while operating the implement.*
- *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 the driveline from the power take-off shaft before servicing underside of cutter. The tractor can be started with the power take-off engaged.*
- *Do not use cutter as a fan. Cutting blades are not properly designed or guarded for this use.*
- *Rotary Cutters have the ability to discharge objects at high speeds; therefore, the use of front & rear safety guards is mandatory with this cutter. Double row chain guards should be used when cutting along roadways and in areas where people may be present. 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.*
- *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.*
- *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:

- *Allow only persons to operate this implement who have fully read and comprehended this manual, and who have been properly trained in the safe operation of this implement. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.*
- *Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.*
- *Do not operate and/or travel across inclines where the tractor and/or implement can rollover. Consult your tractor's manual for acceptable inclines the tractor is capable of traveling across.*
- *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 disengage power take-off before lifting cutter fully up. Never operate cutter in the raised position. The cutter can discharge objects at high speeds.*
- *A rotating driveline must not exceed an angle of 25 degrees up or down, and never engage a driveline while at an angle exceeding 25 degrees up or down. The driveline can break and send flying projectiles.*
- *Do not use implement as a man lift or work platform. It is not properly designed or guarded for this use.*
- *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 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.*

- *Buildup of debris around moving components and gearboxes is a fire hazard. Keep rotating parts and gearboxes free from debris.*
- *Improper oil level can cause bearing failure and be a fire hazard. Maintain proper gearbox oil level.*
- *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. Always remove the implement from use until the damaged driveline can be repaired or replaced.*

CAUTION

To avoid minor or moderate injury:

Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off shaft is set-up to operate the implement at its rated power take-off speed. Do not exceed implement's rated power take-off speed. Excessive speed can damage drive/driven components and increase the risk of a thrown object hazard. See Specifications & Capacities for rated power take-off speed.

Tractor Shutdown Procedure

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

1. Reduce engine speed and disengage power take-off if engaged.
2. Park tractor and implement on level, solid ground.
3. Lower implement to ground or onto non-concrete support blocks.
4. Put tractor in park or set park brake, turn off engine, and remove ignition key to prevent unauthorized starting.
5. Relieve all hydraulic pressure to auxiliary hydraulic lines.
6. Wait for all components to come to a complete stop before leaving the operator's seat.
7. Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.

Inspection of Tractor & Cutter

Make the following inspections with cutter attached to a tractor, power take-off disengaged, and all moving components completely stopped:

1. Park tractor and cutter on a level surface.
2. Disengage power take-off, place gear selector in park, set park brake, shut tractor off, and remove switch key. Make sure cutter blades have come to a complete stop before dismounting from tractor.
3. Inspect tractor safety equipment to make sure it is installed and in good working condition.
4. Inspect cutter safety equipment to make sure it is installed and in good working condition.
5. Check driveline to make certain it is securely connected to the tractor power take-off shaft and cutter gearbox shaft.
6. Check driveline guards to make certain they are in good condition and in place.
7. Carefully raise and lower implement to ensure that the drawbar, tires, and other equipment on the tractor do not contact cutter frame or driveline.
8. 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 Blade Maintenance"** on page 32.
9. Remove solid supports from under the deck.
10. Verify cutter height is set correctly. See **"Deck Leveling & Height Adjustments"** on page 22.

The remaining inspections are made by engaging the power take-off to check for vibrations.

WARNING

To avoid serious injury or death:

Stop power take-off immediately if vibration continues after a few revolutions during start-up and anytime thereafter. Wait for all components to come to a complete stop before dismounting from tractor to check for probable causes. Make necessary repairs and adjustments before continuing.

CAUTION

To avoid minor or moderate injury:

Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off shaft is set-up to operate the implement at its rated power take-off speed. Do not exceed implement's rated power take-off speed. Excessive speed can damage drive/driven components, and increase the risk of a thrown object hazard. RC models are rated for 540 rpm and RCM models are rated for 1000 rpm.

11. Start tractor, set throttle to idle or slightly above idle, and slowly engage power take-off. Initial start-up vibration is normal and should stop after a few revolutions. Stop power take-off rotation immediately if vibration continues.
12. Once cutter is running smoothly, slowly increase tractor power take-off speed to 540 rpm. Stop power take-off rotation immediately if vibration occurs.
13. Investigate cause of vibration and make repairs before putting cutter back into service.

Transporting

⚠ WARNING

To avoid serious injury or death:

When traveling on public roads, use hazard lights, slow moving vehicle sign, clean reflectors, and other adequate devices to warn operators in other vehicles of your presence. If implement blocks visibility of slow moving vehicle sign, relocate sign so it is visible from the back at all times. Always comply with all federal, state, and local laws.

IMPORTANT: Always disengage power take-off and wait for the driveline to stop rotating before raising the implement to the transport position.

1. Make sure driveline does not contact tractor or cutter when raising cutter to the transport position.
2. Reduce tractor ground speed when turning and leave enough clearance so cutter does not contact obstacles such as buildings, trees, or fences.
3. Limit transport speed to 20 mph. Transport only with a farm tractor of sufficient size and horsepower.
4. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
5. Shift tractor to a lower gear when traveling over rough or hilly terrain.

Blade Engagement & Disengagement

Cutter blades can lock-up against each other during start-up and shut-down especially if the tractor's power take-off engagement is **"INSTANT ON"** and **"INSTANT OFF"**. Following Blade Engagement and Blade Disengagement instructions on page 26 will help eliminate blade lock up.

Blade Engagement

1. Increase throttle to a speed just enough to get the cutter started without stalling tractor while slowly engaging power take-off drivelines. Use tractor's power take-off soft start option if available.
2. 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.
3. Check blades for a lock-up situation. Block cutter deck up before working under the unit. Unlock blades, remove support blocks, and repeat **"Blade Engagement"** instructions.

Blade Disengagement

1. Slowly decrease throttle speed until engine idle speed is reached and then disengage power take-off.
2. Engage tractor park brake, shut tractor engine off and remove switch key. Stay on tractor until blades have come to a complete stop.

Unhook Rotary Cutter

Unhook Rotary Cutter from the tractor as follows:

1. See **"Long Term Storage"** on page 34 if cutter is to be stored for a long time.
2. Park on a level solid surface and lower deck to ground level or onto support blocks.
3. Engage tractor park brake, shut tractor engine off, and remove switch key. Stay on tractor until blades have come to a complete stop.
4. Disconnect driveline from tractor.
5. Unhook 3-point hitch from tractor and drive tractor forward several feet.
6. Reinstall hitch pins, linchpins, and hair pin cotters in cutter hitch for safe keeping.
7. Collapse driveline by pushing tractor end of driveline towards cutter gearbox.
8. Rotate driveline storage hook down and place driveline in storage hook.

Field Operation

⚠ 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.

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

IMPORTANT: Your cutter is equipped with free swinging cutting blades to reduce shock loads when striking obstacles. However, it is best to avoid striking obstacles to extend cutter and blade life.

NOTE: Do not cut in wet conditions. Wet material will build up on the deck underside creating poor discharge, high wear, and additional horsepower.

Periodically disengage power take-off, turn off tractor, remove key & check for objects wrapped around blade spindle. Block deck up before removing objects.

Frequently inspect cutter for loose bolts and nuts. Tighten all loose hardware as indicated in the **"Torque Values Chart"** on page 41.

1. Thoroughly inspect area to be cut for debris and unforeseen objects. Mark any potential hazards.
2. Follow **"Blade Engagement"** instructions on this page to start cutter blades turning.
3. Optimum ground speed depends on density of material being cut, horsepower rating of tractor, and

terrain. Always operate tractor at cutter's full rated power take-off speed in a gear range that allows the cutter to make a smooth cut without lugging tractor down, usually between 2 to 5 mph.

4. Stop traveling and disengage power take-off after the first 50 feet of cutting. Check cutter levelness and cutting height to make certain it is adjusted properly.
5. Do not engage power take-off with 3-point cutter fully raised.
6. Periodically disengage power take-off, shut down tractor, remove key, and check for foreign objects wrapped around the blade spindle. Block cutter deck up before removing objects.
7. Frequently inspect cutter for loose bolts and nuts. Tighten all loose bolts and nuts as indicated in the **"Torque Values Chart"** on page 41.
8. For additional information, see **"General Operating Instructions"** on page 27.

General Operating Instructions

It is important that you familiarized yourself with the Operator's Manual, completed Operators Checklist, properly attached cutter to your tractor, made leveling adjustments, and preset your cutting height before beginning a running operational safety check on your Land Pride 84" Rotary Cutter.

The running operational safety check may now be done. It is important that at any time during this safety check you detect a malfunction in either the cutter or tractor that you immediately shut the tractor off, remove its' key, and make necessary repairs and/or adjustments before continuing on.

Make sure before starting the tractor that the park brake is engaged, the power take-off is disengaged, and the cutter is resting on the ground. Start the tractor and set the engine throttle speed at a low idle. Raise the cutter with the tractor's rear hydraulic lift control lever to transport position making sure that the power take-off shaft does not bind and does not contact the cutter frame. Lower the cutter to the ground and at a low engine speed engage the power take-off. If everything is running smoothly at a low idle, slowly raise the cutter to transport height checking for bind or chatter in the driveline. Lower the cutter to the ground and increase the tractor's engine rpm until it reaches the cutter full power take-off operating speed of 540 rpm. If everything is still running smoothly, once more raise the cutter to transport height to check for driveline bind or chatter. Lower the cutter to the ground, return the engine to a low idle, and disengage the power take-off. Position the adjustable stops on the tractor's hydraulic lift lever so the cutter can be consistently returned to the same cutting and transport height.

You should now be ready to transport to your cutting site at a safe ground speed. On roadways transport in such a manner that faster moving vehicles can easily see you and pass you safely. Reduce your speed when traveling over rough and hilly terrain. Avoid quick or sharp steering corrections. Take extra care to ensure that the mower doesn't come into contact with obstacles such as trees, buildings, or fences. Use accessory lights and appropriate reflective devices to provide adequate warning to pedestrians and other vehicle operators when traveling on public roads and in the dark of night. Comply with all local, state, and federal laws.

It is important that you inspect the area where you will be cutting and clear it of safety hazards and foreign objects either before or after you arrive at the cutting site. Never assume the area is clear. Cut only in areas you are familiar with and are free of debris and unseen objects. Extremely tall grass should be cut twice to detect potential hazards. In the event you do strike an object stop the cutter and tractor immediately to inspect and make necessary repairs to the cutter before resuming operation. It really pays to inspect a new area and to develop a safe plan before cutting.

You will need to maintain 540 rpm power take-off speed and 2 to 5 mph ground speed to produce a clean cut. Make a tractor gear and range selection that will enable you to maintain these speed combinations. Generally the quality of cut is better at lower ground speeds. Dense ground cover will create the need to slow down even more. In certain conditions tractor tires will roll grass down resulting in an uneven cut when the grass fails to rebound. Should this happens you may try reversing the direction of cut and/or double cut to achieve the desired finish. 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. Remember to look back often.

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

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

Make wide turns when possible. Three-point hitch and optional Quick-Hitch models can be lifted into transport position to make tight turns and to reverse direction. 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 Rotary Cutter can do.

Whether 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 and disengage the power take-off
- Stop on level ground and set the park brake
- Turn off the engine, remove ignition key, and stay on the tractor until the cutter blades have come to a complete dead stop.

Front and Rear Safety Guard Options

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 two types of front guards to best suit your application. They are the rubber skirt guard and chain skirt guard. The rubber skirt guard is more economical and designed for light duty applications. The chain guard is designed to handle heavier applications where cutter blades make contact with solid dense objects that are capable of tearing through rubber skirts.

Front Rubber Guard

Refer to Figure 4-1:

Part Number & Description

312-866A Front Rubber Guard Assembly

See **"Front Rubber Guard Installation"** on page 20 for proper installation.

Front Chain Guard

Refer to Figure 4-2:

Part Number & Description

312-869A Front Chain Guard Assembly

See **"Section 1: Assembly & Set-Up"** on page 20 for installation.

Land Pride offers a rear chain safety guard designed to handle heavy applications where cutter blades make contact with solid dense objects.

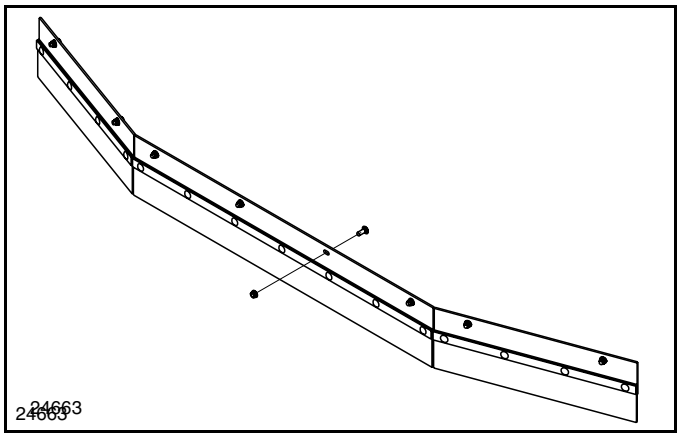
Rear Chain Guard

Refer to Figure 4-3:

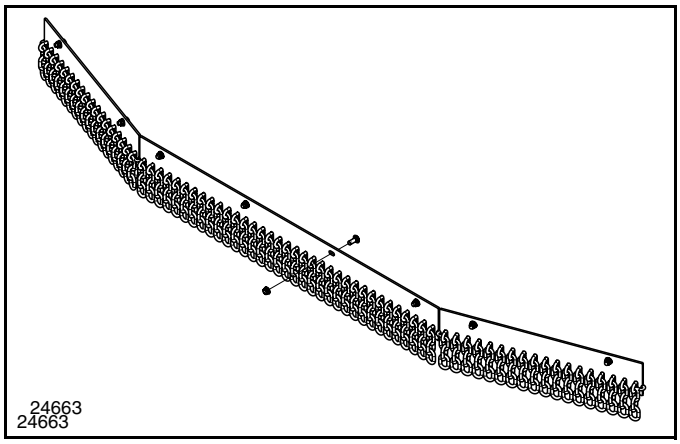
The rear chain safety guard is designed for heavy applications and open the rear to allow material to discharge better. See **"Section 1: Assembly & Set-Up"** on page 21 for installation.

Part Number & Description

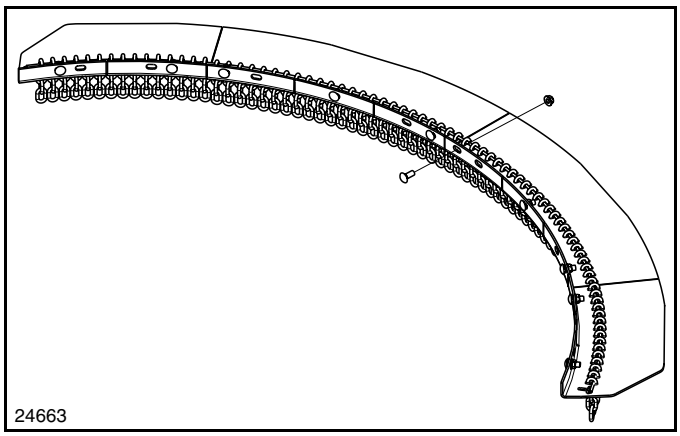
312-872A Rear Chain Guard Assembly



Front Rubber Guard
Figure 4-1



Front Chain Guard
Figure 4-2

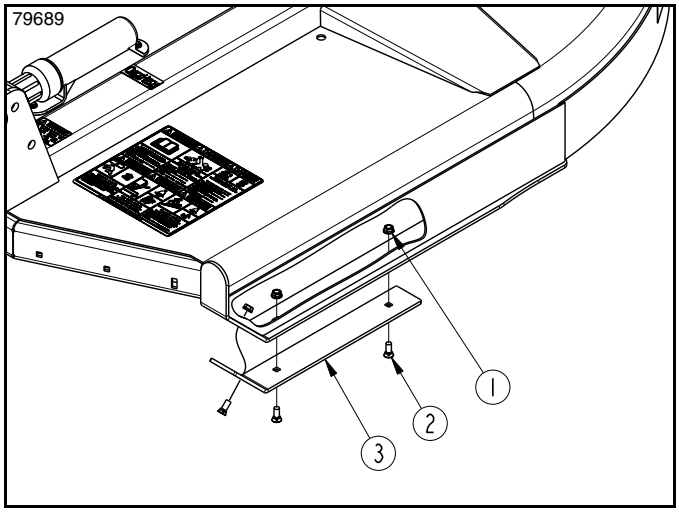


Rear Chain Guard
Figure 4-3

Accessories

Category I Center 3-Point Adapter Bushing

The RCR1884 Rotary Cutter will require two Adapter Bushings if attaching cutter to a tractor with a Cat.I 3-point hitch. See **"Category I Adapter Bushings"** on page 11 for additional information and bushing part number.



Skid Shoes (Accessory)
Figure 4-4

Replaceable Skid Shoes

Refer to Figure 4-4:

Part Number & Description

326-120A Skid Shoe Kit

(Includes 2 skid shoes & hardware)

1. Install skid shoe (#3) as shown with 3/8" plow bolts (#2) and secure with hex whiz nuts (#1).
2. Tighten hex whiz nuts (#1) to the correct torque.
3. Repeat steps 1-2 for opposite side.

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Maintenance

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

Check all bolts after using the unit for several hours to be sure they are tight. Replace any worn, damaged, or illegible safety labels by obtaining new labels from your Land Pride dealer.

DANGER

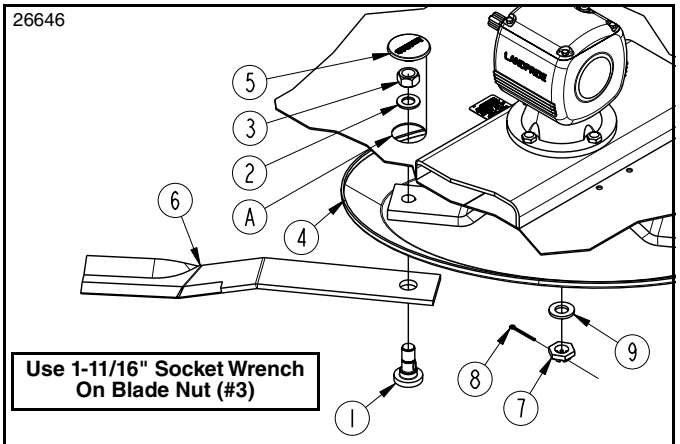
To avoid serious injury or death:

- *Always disconnect the driveline from the power take-off shaft before servicing underside of cutter. The tractor can be started with the power take-off 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 the hydraulics is off.*

WARNING

To avoid serious injury or death:

- *Make sure controls are all in the neutral position or park before starting the power machine.*
- *Do not operate cutter with blades that are out-of-balance, bent, excessively worn, excessively nicked, or with blade bolts that are excessively worn. Damaged components can break at high speeds and be ejected in a hazardous manner.*
- *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.*
- *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.*
- *Improper oil level can cause bearing failure and be a fire hazard. Maintain proper gearbox oil level.*



Land Pride Cutter Blade Parts

Item	Part No.	Part Description
	318-586A	BLADE BOLT KIT (Includes items 1, 2, & 3 below)
1	802-277C	BLADE BOLT 1 1/8-12 x 3 7/16 WITH KEY
2	804-147C	WASHER FLAT 1 HARD ASTMF436
3	803-170C	NUT HEX TOP LOCK 1 1/8-12 PLATE
4	312-388H	27 OVAL DISHPAN WELDMENT (OMNI)
5	840-273C	PLUG LP 3" ID RUBBER
6	820-138C	CUTTER BLADE 1/2 x 4 x 31 CCW

Cutter Blade Assembly
Figure 5-1

Cutter Blade Maintenance

Refer to Figure 5-1 on page 31:

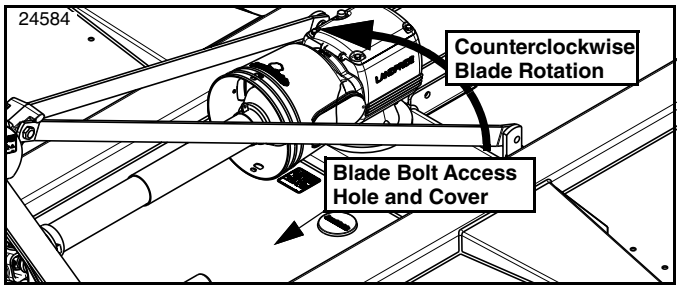
IMPORTANT: Only replace cutting blades in pairs with genuine OEM blades. Replacing single blades can result in an out-of-balance condition that will contribute to premature bearing wear/breakage and/or structural cracks in gearbox and/or deck.

Always inspect cutting blades before each use. Make sure they are properly installed and in working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Never try to straighten a bent blade!

1. Place tractor gear selector in park and/or set brakes, shut engine off and remove ignition key.
2. Disconnect main driveline from tractor power take-off and secure cutter deck in the up position with solid supports before servicing underside of cutter.
3. Inspect cutting blades. Make certain they are properly installed and are in good working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Small nicks can be ground out.
4. Remove access cover (#5) and rotate blade bolt (#1) until aligned with blade bolt access hole (A).
5. Unscrew locknut (#3) to remove cutting blade (#6). Blade bolt (#1) is keyed and will not turn freely.
6. Repeat steps 4 to 5 for the other blade.
7. 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. 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 5-2:

8. Carefully check cutting edges of blades in relation to blade carrier rotation to ensure correct blade placement. Blade rotation is counterclockwise with cutting edge leading. Airfoil (lift) must be oriented towards the top of the deck.



Counterclockwise Blade Rotation
Figure 5-2

Refer to Figure 5-1 on page 31:

IMPORTANT: Examine blade bolts, washers, and bushings for excessive wear and replace if worn.

IMPORTANT: 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.

9. Insert blade bolt (#1) through blade (#6), dish pan (#4), and flat washer (#2). Secure blade with a **new locknut (#3)** and torque to 450 ft-lb.
10. Repeat step 9 for the other blade.
11. Replace access cover (#5).
12. If replacing dishpan (#4), nut (#7) on gearbox output shaft should be torqued to 450 ft-lbs. minimum and cotter pin (#8) installed with both legs bent opposite directions around nut (#7).

Slip-Clutch Protected Drivelines

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.

Clutch Run-In

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 friction surfaces. To prevent driveline and gearbox damage, repeat "run-in" instructions at beginning of each season and when moisture and/or condensation seizes inner friction plates.

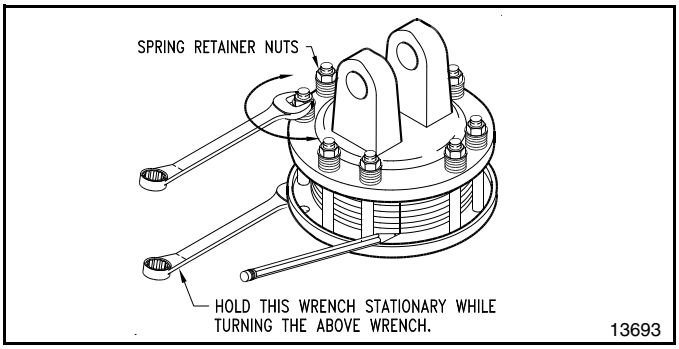
WARNING

To avoid serious injury or death:

Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.

Refer to Figure 5-3:

1. Using a pencil or other marker, scribe a line across the exposed edges of the clutch plates and friction discs.



Clutch
Figure 5-3

2. Carefully loosen each of the 8 spring retainer nuts on the clutch housing a total of EXACTLY 2 revolutions. It will be necessary to hold the hex end of the retainer bolt in order to count the exact number of revolutions.
3. Start tractor and engage driveline for 2-3 seconds to permit slippage of the clutch surfaces. Disengage the power take-off, then re-engage a second time for 2-3 seconds. Disengage the power take-off, shut off tractor, and remove key. Wait for all components to stop before dismounting from tractor.
4. Inspect clutch and ensure that scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disc and plate are still aligned.

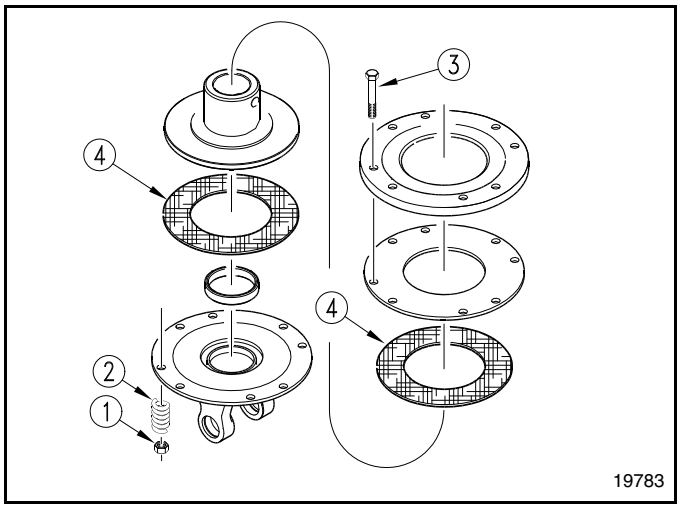
IMPORTANT: If clutch run-in procedure indicated that one or more friction disks did not slip, the clutch must be disassembled to separate the friction discs.

5. Tighten each spring retainer nut on the clutch housing exactly 2 revolutions to restore clutch to original setting pressure. See **"Clutch Assembly"** on page 34 for exact spring length.
6. 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

Refer to Figure 5-4:

Disassembly of the clutch is simply a matter of removing the spring retainer nuts (#1), springs (#2), and bolts (#3) from the assembly. Each friction disc (#4) must then be separated from the metal surface adjacent to it.



Clutch Disassembly
Figure 5-4

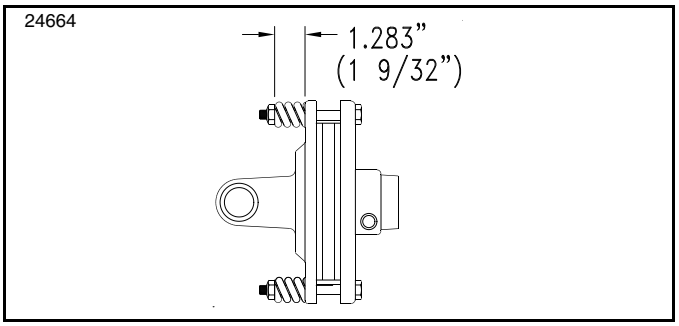
Clutch Inspection

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

Clutch Assembly

Refer to Figure 5-4:

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



Clutch Adjustment
Figure 5-5

Refer to Figure 5-5:

Install new friction discs if needed and reassemble all components in proper order. Progressively tighten each spring retainer nut until spring length is 1.283" (1 9/32").

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 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 the driveline from the power take-off shaft before servicing drivetrain and cutter blades. The power take-off can be engaged if the tractor is started.*
- *Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to the hydraulics is off.*

WARNING

To avoid serious injury or death:

Always store cutter with 3-point hitch pivoted back as far as possible. The floating 3-point hitch when not hooked to a tractor can fall backwards unexpectedly causing bodily injury.

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 Blade Maintenance”** on page 32.
3. Inspect cutter 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.

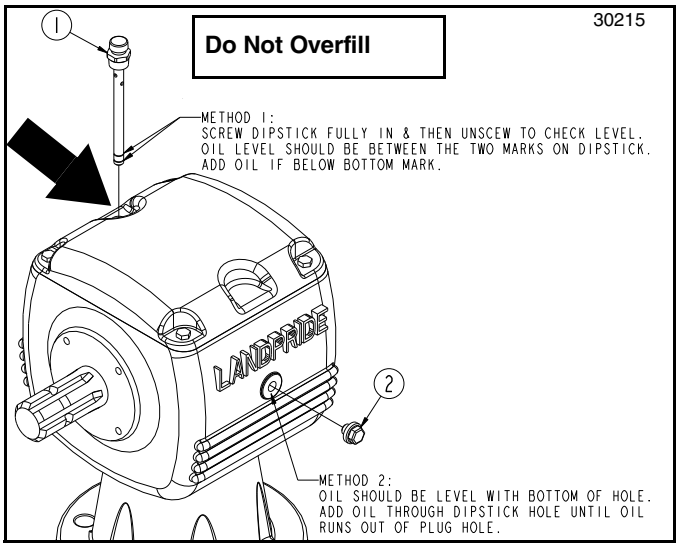
Land Pride Aerosol Touch-up Paint

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 decals.
6. Lubricate as noted in **“Lubrication Points”** starting on page 35.
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 26 when disconnecting tractor from cutter.

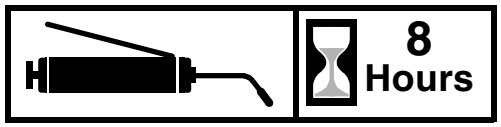
Lubrication Points

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



IMPORTANT: This implement is shipped with a vented dipstick packaged in the Operator's Manual bag and should have been installed in the gearbox by your dealer. Please consult your dealer if vented dipstick was not included.

NOTE: Use a suction or siphon pump to drain gearbox of oil when there is not an oil drain plug.



Gearbox

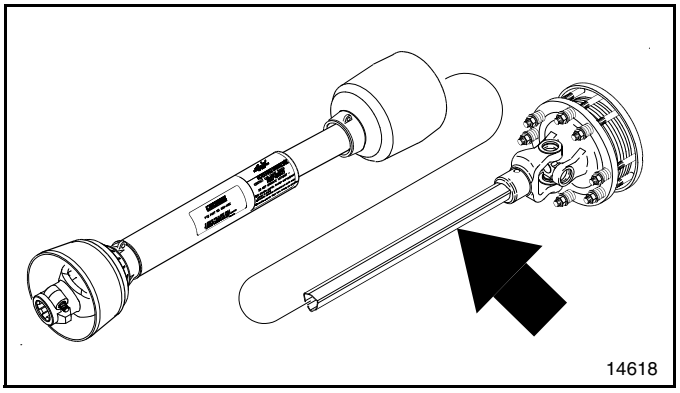
NOTE: Do not overfill! Cutter should be level when checking oil. Oil expands when hot, therefore, always check oil level when cold.

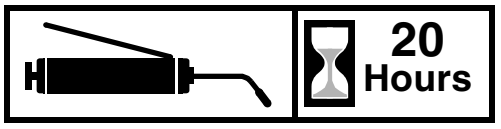
Method 1: Unscrew top vented dipstick (#1). Wipe oil from dipstick and screw dipstick in without tightening. Unscrew dipstick and check oil on dipstick. If below bottom level mark, add recommended gear lube through dipstick hole until oil reaches top mark on dipstick. Reinstall vented dipstick and tighten.

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.

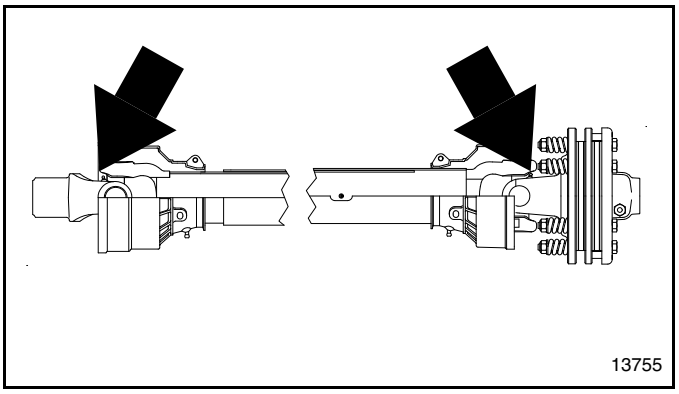


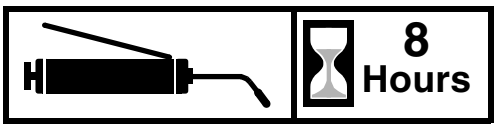


Driveline Profiles

Type of Lubrication: Multi-purpose Grease

Quantity = Clean & coat the inner tube of the driveline with a light film of grease and then reassemble.

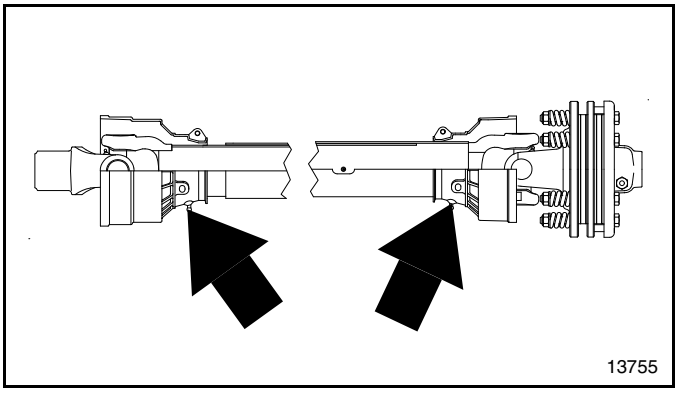


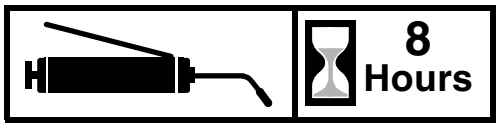


Driveline U-Joints

Type of Lubrication: Multi-purpose Grease

Quantity = 6 pumps

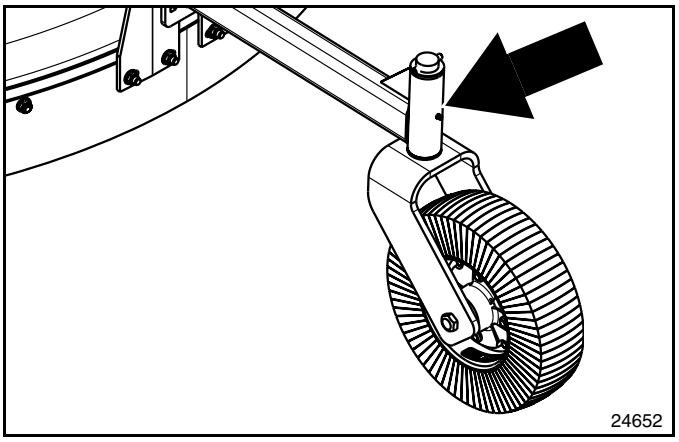


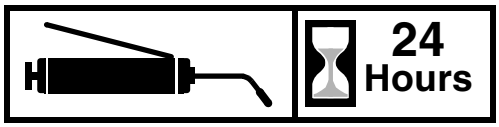


Driveline Shield Bearings

Type of Lubrication: Multi-purpose Grease

Quantity = 6 pumps

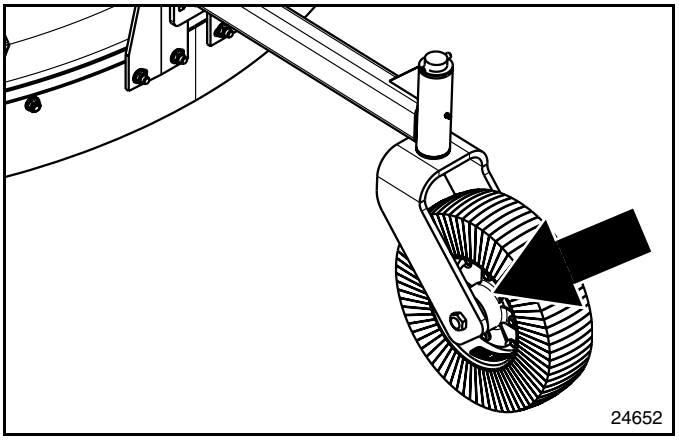


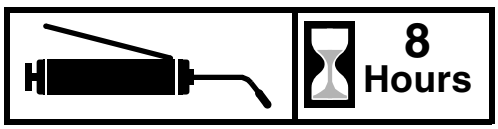


Gauge Wheel Spindle Tube

Type of Lubrication: Multi-purpose Grease

Quantity = 6 pumps





Gauge Wheel Hub

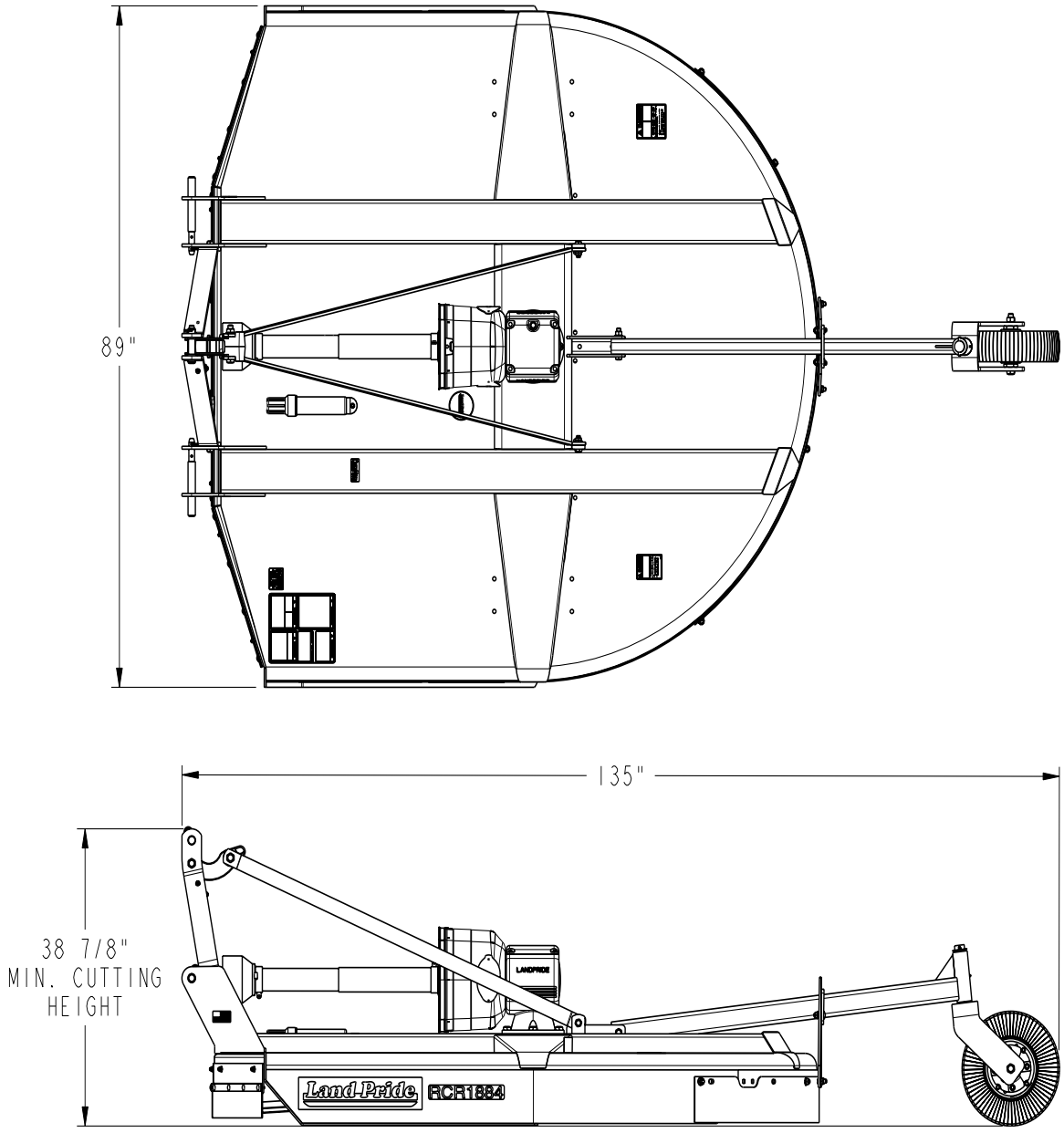
The gauge wheel hub is equipped with a relief hole located directly opposite the grease fitting. The relief hole releases pressure from inside the hub casting when it is greased. The hub should be greased until grease purges from the relief hole.

Type of Lubrication: Multi-purpose Grease

Quantity = Until grease purges from the relief hole

RCR1884 Model

Specifications & Capacities	
Machine Weight with Front Rubber Guard and Rear Metal Band)	851 lbs. without driveline
Hitch	Category I or Category II, Quick-Hitch Ready
Cutting Width	84"
Overall Width	89"
Overall Length with Tail Wheel	135 1/8"
Deck Height (Bottom of Deck to Bottom of Skid Shoe)	9 1/8"
Cutting Height	2" - 11"
Cutting Capacity	2" Diameter
Recommended Tractor Horsepower	45 - 90 horsepower
Power Take-Off Speed	540 rpm
Gearbox Horsepower Rating	90 horsepower
Gearbox	1:1.44 Speed-Up Beveled Gears with Cast Iron Housing
Gearbox Lubrication Capacity & Type	7 Pints of 80-90W EP Gear Lube
Gearbox Input/ Output Shaft Size	Input Shaft = 1 3/8" - 6 Spline Output Shaft = 2" Dia.
Deck Construction	All welded deck
Deck Material Thickness	10 Ga.
Skid Construction	Standard 1/4" x 2 1/2" welded on
Stump Jumper	Oval 10 ga. Pan
Blades (2)	1/2" x 4" Heat Treated Alloy Steel Free-Swinging High Lift - Low Friction
Blade Bolt	Keyed with harden flat washer and locknut
Blade Tip Speed	17,113 fpm
Driveline	ASAE Category 4
Driveline Protection	Slip Clutch
Tailwheel Mount Assembly	Welded arm and Caster Fork
Tailwheel	4" x 8" x 15" Laminated Tire
Front Guard	Optional: Rubber Guard or Chain Guard
Rear Guard	Standard: Metal Band Optional: Chain Guard



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RCR1884 Model

Features	Benefits
Surpassed rugged industry standards	All Land Pride Rotary Cutters have been designed and tested and meet rigorous voluntary testing procedures specified by ANSI.
90 Hp gearbox	A rugged heavy built gearbox capable of handling heavy cutting applications.
5 Year gearbox warranty	Shows our confidence in the gearbox integrity.
Cat. 4 driveline with 2-plate slip-clutch	Slip-clutch driveline offers convenience for continual work.
Cat I or Cat II Hitch Quick-Hitch Capability	Permits deck to follow the terrain for an even cut. Quick-Hitch provides for fast hook-up.
Lower clevis type 3-point hitch	Allows for ease of hook-up to tractor. Also adds additional strength allowing for an even pull from the tractor's lower arms, vs. pulling on a single pin design.
84" Cutting width	Wide cutting width, Reduces cutting time in the field.
Heavy 10 gauge deck construction	Can withstand more abuse than lighter gauge decks.
Box tubing deck supports	Makes for a stronger rigid deck.
Fully welded deck	Adds additional strength.
Extended cutter front	For increased material flow and added protection.
Round back design	Helps discharge grass better than enclosed or partially enclosed cutter.
9 1/2" Deck Height	Allows cutter to handle heavy cutting conditions.
2" to 11" Cutting height	Provides for a wide range of cutting conditions.
1/4" x 2 1/2" Full length skid shoes	Provides sidewall reinforcement and full protection to bottom of sidewall.
1/2" x 4" Heat-treated free swinging blades	Free swinging protects from obstructions. Heat-treated offers longer life.
Splined blade bar hub	Allows for tight positive fit of stump jumper and blade bar to gearbox output shaft.
10 Gauge stump jumper	Standard oval stump jumper slides over stumps, rocks, and debris.
High blade tip speed	Ensures clean cut. (17,113 FPM)
2" Cutting capacity	Can aid in cleaning brush
Available with single or dual tailwheels	Dual tailwheels offer greater stability in uneven terrain.
15" Laminated tailwheel	Laminated material is long lasting in rough conditions.
Heavy-duty spindle on tailwheel	Tailwheels take a beating, 1 1/4" spindle gives the strength to protect tailwheel assembly.
Guarding	Protect against flying debris. Customer must choose to include chain or rubber on the front and rear. Rear Metal Band standard.
Driveline Holder	Keeps driveline up out of dirt. Easier hook up of driveline.

Troubleshooting Table

Problem	Cause	Solution
Oil seal leaking	Gearbox overfilled	Drain to side plug hole
	Seals damaged	Replace seals
	Grass or wire wrapped on shaft in seal area	Check seal areas daily
Driveline yoke or cross failing	Shock load	Avoid hitting solid objects
	Needs lubrication	Lubricate every 8 hours
Driveline clutch is slipping	Scalping the ground	Raise cutting height
	Cutting too fast	Reduce travel speed
	power take-off being engaged too fast at high engine rpm	Slowly engage power take-off at low engine rpm
	Cutting over solid objects	Avoid solid objects
Bent Driveline (NOTE: driveline should be repaired or replaced if bent)	Contacting frame	Reduce lift height in transport position
	Contacting drawbar	Reposition drawbar
	Bottoming out	Shorten driveline
	Binding up	Not lubricating enough
Driveline telescoping tube failing	Shock load	Avoid hitting solid objects
Driveline telescoping tube wearing	Needs lubrication	Lubricate every 20 hours
Blades Lock-up	Tractor has instant on power take-off	Engage power take-off at low rpms and then slowly increase engine speed to full power take-off speed. See Blade Engagement on page 26.
	Tractor has Instant off power take-off	Decrease engine speed slowly to an idle and then disengage power take-off. See Blade Disengagement on page 26.
Blades wearing excessively	Cutting on sandy ground	Raise cutting height
	Contacting ground frequently	Raise cutting height
Blades breaking	Hitting solid objects	Avoid hitting solid objects
Blades coming loose	Blades not tightened properly	Tighten blade hardware (Refer to **"Cutter Blade Maintenance"** on page 32.)
	Improper deck attitude	Lower front of deck, see page 14
Blade carrier becomes loose	Running loose in the past	Replace gearbox output shaft and blade carrier
	Blade carrier hardware not tight enough	Tighten to specified torque
Blade bolt holes worn	Blade hardware running loose	Replace blades and blade bolts if worn
Blade carrier bent	Hitting solid objects	Avoid hitting solid objects and replace blade carrier
Excessive side skid wear	Cutting height not level	Adjust cutter height
	Soil abrasive	Adjust cutter height
	Cutting too low	Adjust cutter height
Tail wheel support failing	Lowering too fast	Adjust rate of drop
	Hitting objects when turning	Reduce speed on turns
Excessive vibration	Driveline bent	Replace driveline
	Blades loose	Tighten blade bolts
	Blade carrier bent	Replace blade carrier
	Blade broken	Replace blade
	Blade will not swing	Remove and inspect blade
	Blades have unequal weight	Replace both blades

Torque Values Chart for Common Bolt Sizes

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

Bolt Size (Metric)	Bolt Head Identification 5.8 Class 5.8		8.8 Class 8.8		10.9 Class 10.9	
mm x pitch [4]	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
M 5 X 0.8	4	3	6	5	9	7
M 6 X 1	7	5	11	8	15	11
M 8 X 1.25	17	12	26	19	36	27
M 8 X 1	18	13	28	21	39	29
M10 X 1.5	33	24	52	39	72	53
M10 X 0.75	39	29	61	45	85	62
M12 X 1.75	58	42	91	67	125	93
M12 X 1.5	60	44	95	70	130	97
M12 X 1	90	66	105	77	145	105
M14 X 2	92	68	145	105	200	150
M14 X 1.5	99	73	155	115	215	160
M16 X 2	145	105	225	165	315	230
M16 X 1.5	155	115	240	180	335	245
M18 X 2.5	195	145	310	230	405	300
M18 X 1.5	220	165	350	260	485	355
M20 X 2.5	280	205	440	325	610	450
M20 X 1.5	310	230	650	480	900	665
M24 X 3	480	355	760	560	1050	780
M24 X 2	525	390	830	610	1150	845
M30 X 3.5	960	705	1510	1120	2100	1550
M30 X 2	1060	785	1680	1240	2320	1710
M36 X 3.5	1730	1270	2650	1950	3660	2700
M36 X 2	1880	1380	2960	2190	4100	3220

[1] in-tpi = nominal thread diameter in inches-threads per inch

[2] N· m = newton-meters

[3] ft-lb= foot pounds

[4] mm x pitch = nominal thread diameter in millimeters x thread pitch

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

Additional Torque Values

Blade Bolt Locknut	450 ft-lbs
Blade Carrier Hub Nut	450 ft-lbs Minimum

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

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 such as blades, belts, tines, etc. 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 must be made to the dealer which originally sold the product and all warranty adjustments must be made through such dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

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

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

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

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

Model Number _____ **Serial Number** _____

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