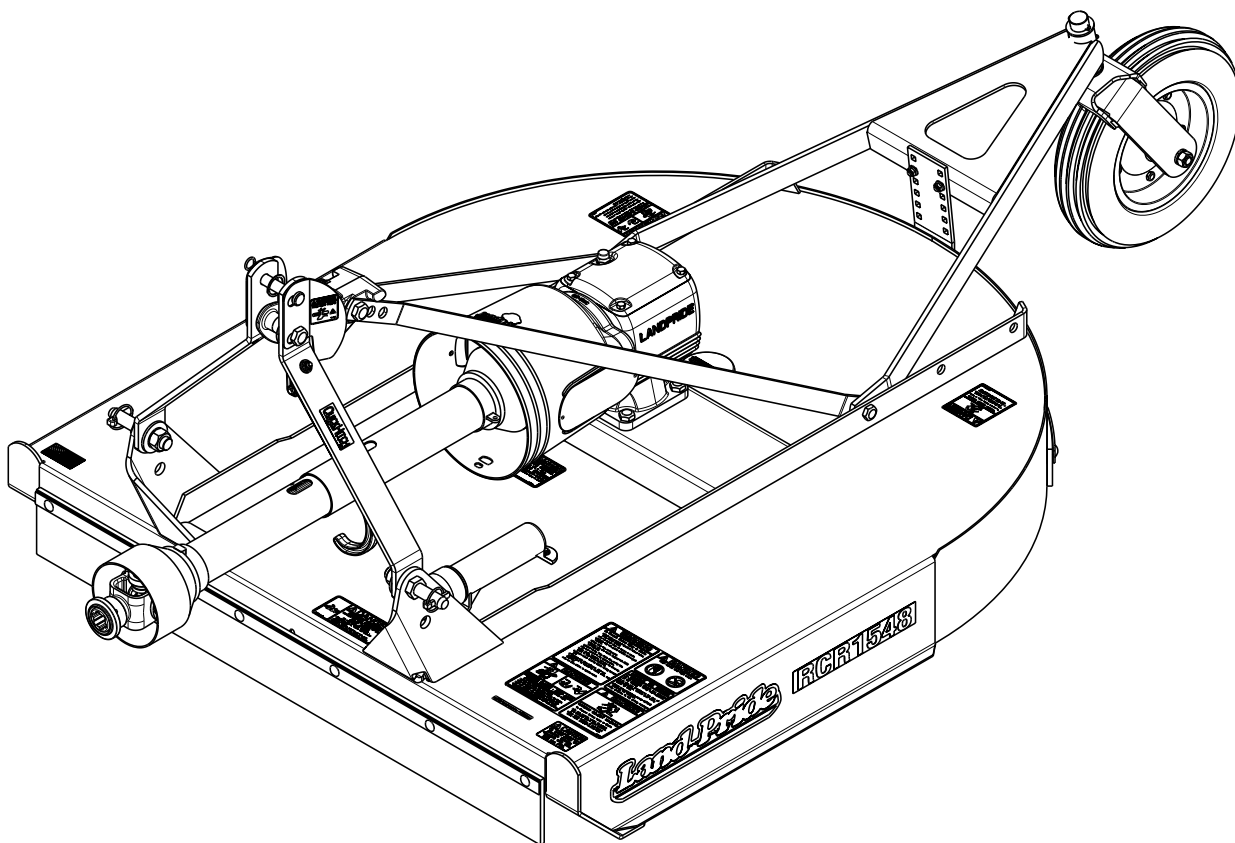


Rotary Cutters

RCR1548



26578

312-556M Operator's Manual



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

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

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



Machine Identification

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

If you, or the dealer, have added Options not originally ordered with the machine, or removed Options that were originally ordered, the weights and measurements are no longer accurate for your machine. Update the record by adding the machine weight and measurements provided in the Specifications & Capacities Section of this manual with the Option(s) weight and measurements.

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

Dealer Contact Information


Name: _____

Street: _____

City/State: _____

Telephone: _____

Email: _____

	California Proposition 65 WARNING: Cancer and reproductive harm - www.P65Warnings.ca.gov
---	--

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Printed in the United States of America.

See previous page for Table of Contents.



Parts Manual QR Locator

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



Dealer QR Locator

The QR code 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.

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



Look For The Safety Alert Symbol

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

Be Aware of Signal Words

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

DANGER

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

WARNING

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

CAUTION

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

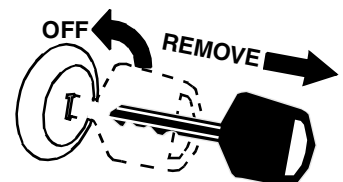
Safety Precautions for Children

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

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

Tractor Shutdown & Storage

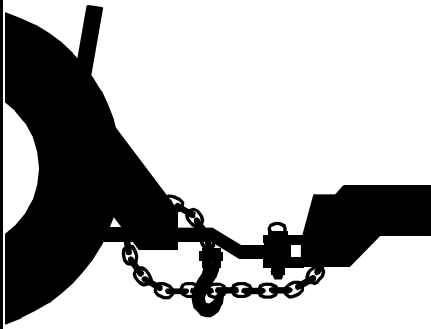
- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic lines.
- ▲ Wait for all components to stop before leaving operator's seat.
- ▲ Use steps, grab-handles and skid-resistant surfaces when getting on and off the tractor.
- ▲ Detach and store implement in an area where children normally do not play. Secure implement using blocks and supports.



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

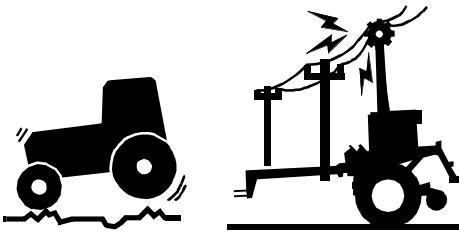
Use A Safety Chain

- ▲ 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 tow the implement.



Transport Safely

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



- ▲ Engage park brake when stopped on an incline.
- ▲ Maximum transport speed for an attached equipment is 20 mph. **DO NOT EXCEED.** Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- ▲ As a guideline, use the following maximum speed weight ratios for attached equipment:

20 mph when weight of attached equipment is less than or equal to the weight of machine towing the equipment.

10 mph when weight of attached equipment exceeds weight of machine towing equipment but not more than double the weight.

- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.



Tire Safety

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



Practice Safe Maintenance

- ▲ Understand procedure before doing work. Refer to the Operator's Manual for additional information.
- ▲ Work on a level surface in a clean dry area that is well-lit.
- ▲ Lower implement to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- ▲ Do not work under any 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.

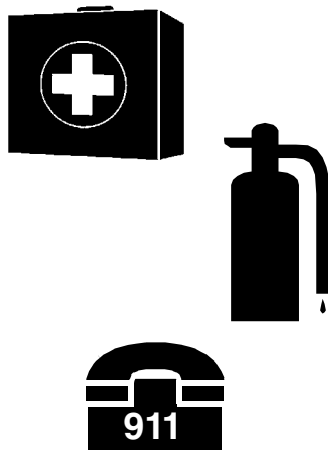
- ▲ Disconnect battery ground cable (-) before servicing or adjusting electrical systems or before welding on implement.
- ▲ Inspect all parts. Make certain parts are in good condition & installed properly.
- ▲ Replace parts on this implement with genuine Land Pride parts only. Do not alter this implement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



These 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 phone.



Wear Protective Equipment

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



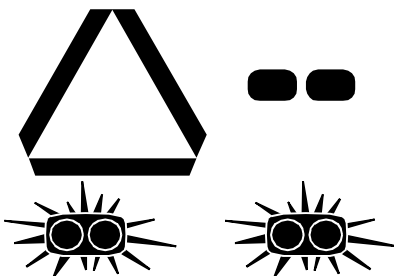
Avoid High Pressure Fluids

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- ▲ Relieve all residual pressure before disconnecting hydraulic lines or performing work on the hydraulic system.
- ▲ Make sure all hydraulic fluid connections are properly tightened/torqued and all hydraulic hoses and lines are in good condition before applying pressure to the system.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ **DO NOT DELAY.** If an accident occurs, see a doctor familiar with this type of injury immediately. Any fluid injected into the skin or eyes must be treated within a few hours or gangrene may result.



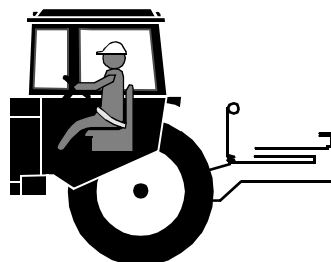
Use Safety Lights and Devices

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



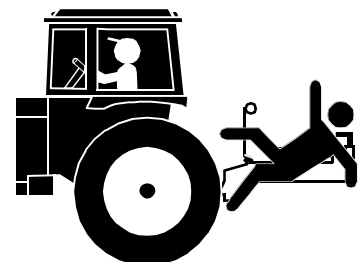
Use Seat Belt and ROPS

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



Keep Riders Off Machinery

- ▲ Never carry riders or use tractor to lift or transport individuals.
- ▲ There is not a safe place for a person to ride.
- ▲ 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.

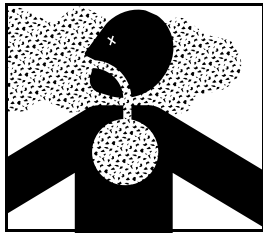


These are common practices that may or may not be applicable to the products described in this manual.

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 is 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 equipment. Read and follow their directions.

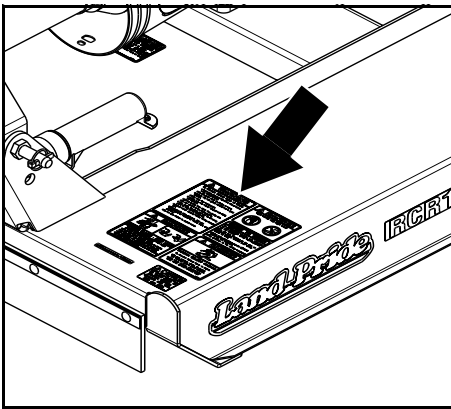
1. Keep all safety labels clean and legible.
2. Refer to this section for proper label placement. Replace all damaged or missing labels. Order new labels from your nearest Land Pride dealer. To find your nearest dealer, visit our dealer locator at www.landpride.com.
3. Some new equipment installed during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



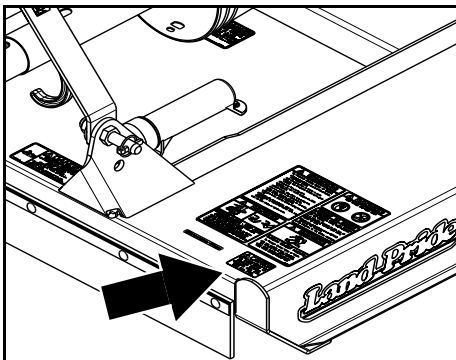
844-190C

Safety Combo (2-Places)

Located on the right and left wing

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

⚠ WARNING: Cancer and reproductive harm - www.P65Warnings.ca.gov



WARNING

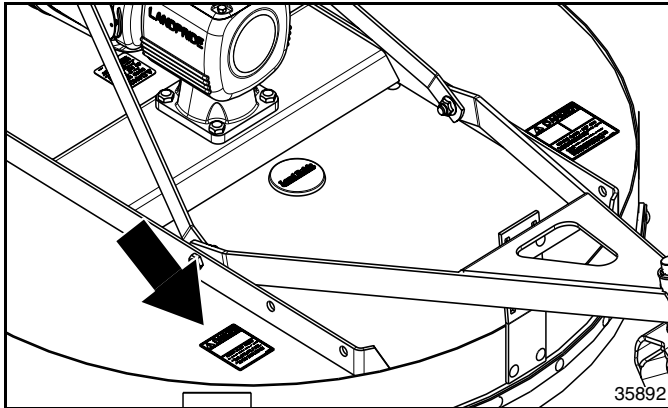
To avoid injury or implement damage:

- Operate only with 540 rpm PTO

818-130C REV. C

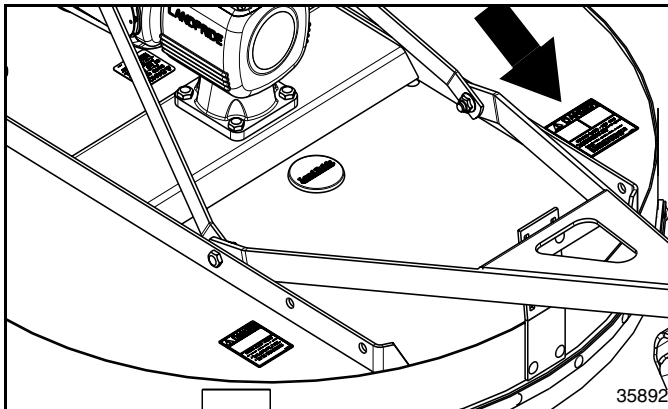
818-130C

Warning: 540 rpm



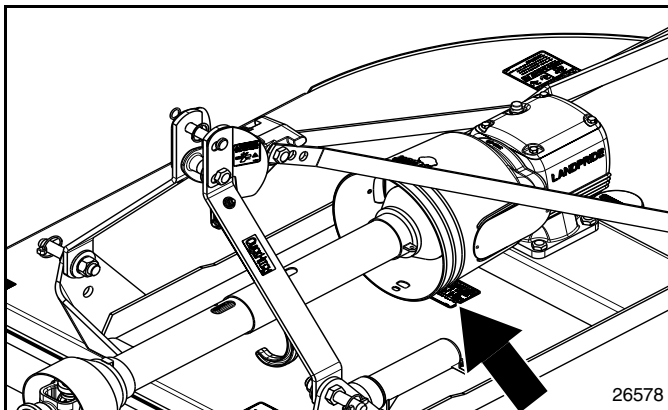
818-556C

Danger:
Thrown Object



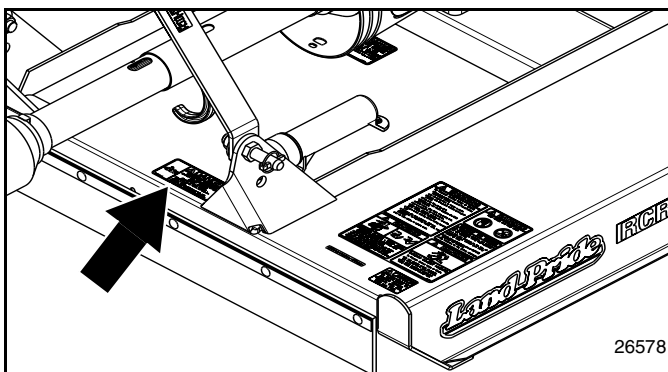
818-555C

Danger:
Rotating Blades



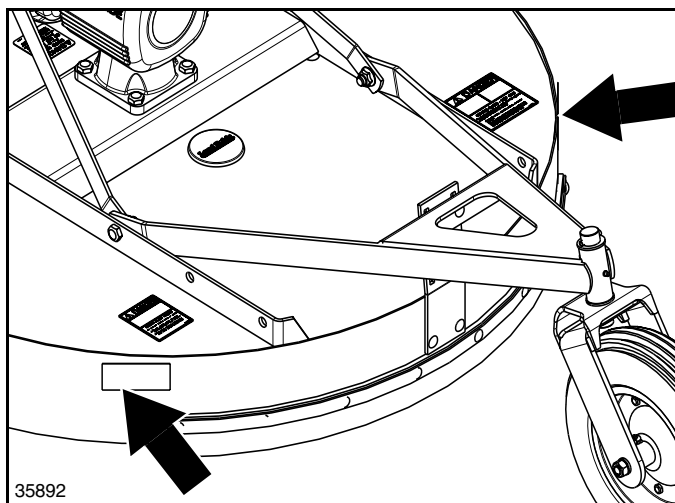
818-543C

Danger:
Guard Missing



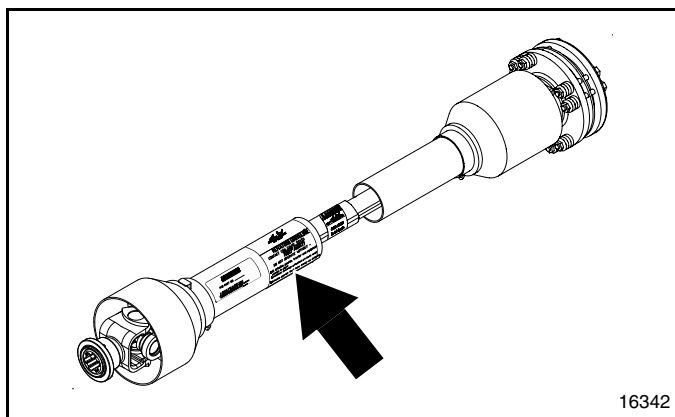
818-142C

Danger: Rotating Driveline



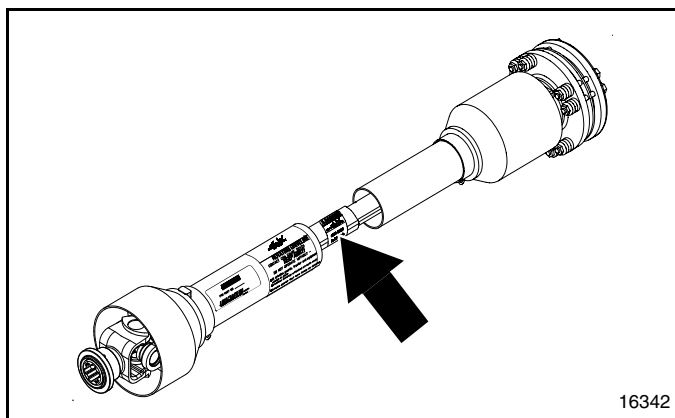
858-095C

2" x 4 1/2" Red Reflector (2 places)



818-552C

Danger: Rotating Driveline



818-540C

Danger: Guard Missing

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 machine.

Application

Land Pride's RCR1548 Rotary Cutter is ideal for clearing grass, weeds, and light brush. These cutters offer fast, clean, dependable mowing, and have been extensively tested to ensure operating safety. High blade tip speeds assure a clean cut in a variety of field conditions. The standard stump jumper slides over stumps, rocks, and debris and safety guards keep you up and running.

See "**Specifications & Capacities**" on page 30 and "**Features & Benefits**" on page 32 for additional information and performance enhancing options.

Using This Manual

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

Terminology

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

Definitions

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

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

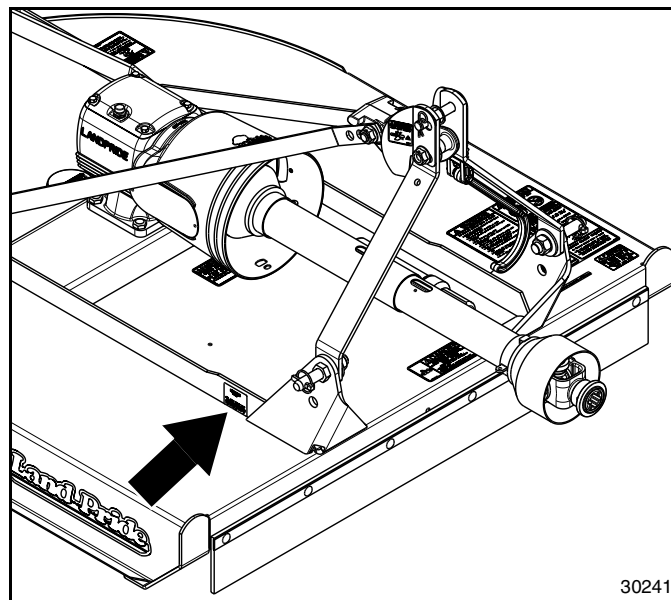
Owner Assistance

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

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

Serial Number

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



**Serial Number Plate Location
Figure 1**

Further Assistance

Your dealer wants you to be satisfied with your new 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 question/problem, and request assistance.
3. For further assistance write to:

**Land Pride Service Department
1525 East North Street**

P.O. Box 5060
Salina, Ks. 67402-5060

E-mail address
lp servicedept@landpride.com

Tractor Requirements

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

Horsepower rating	20-60 hp (15-45 kW)
Rear power take-off shaft	1 3/8"-6 Spline
Rear power take-off speed	540 rpm
Hitch type	3-Point Cat. I or Cat I limited
Hydraulic outlets	Not required
Tractor weight	See important note below

WARNING

To avoid serious injury or death:

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

Torque Requirements

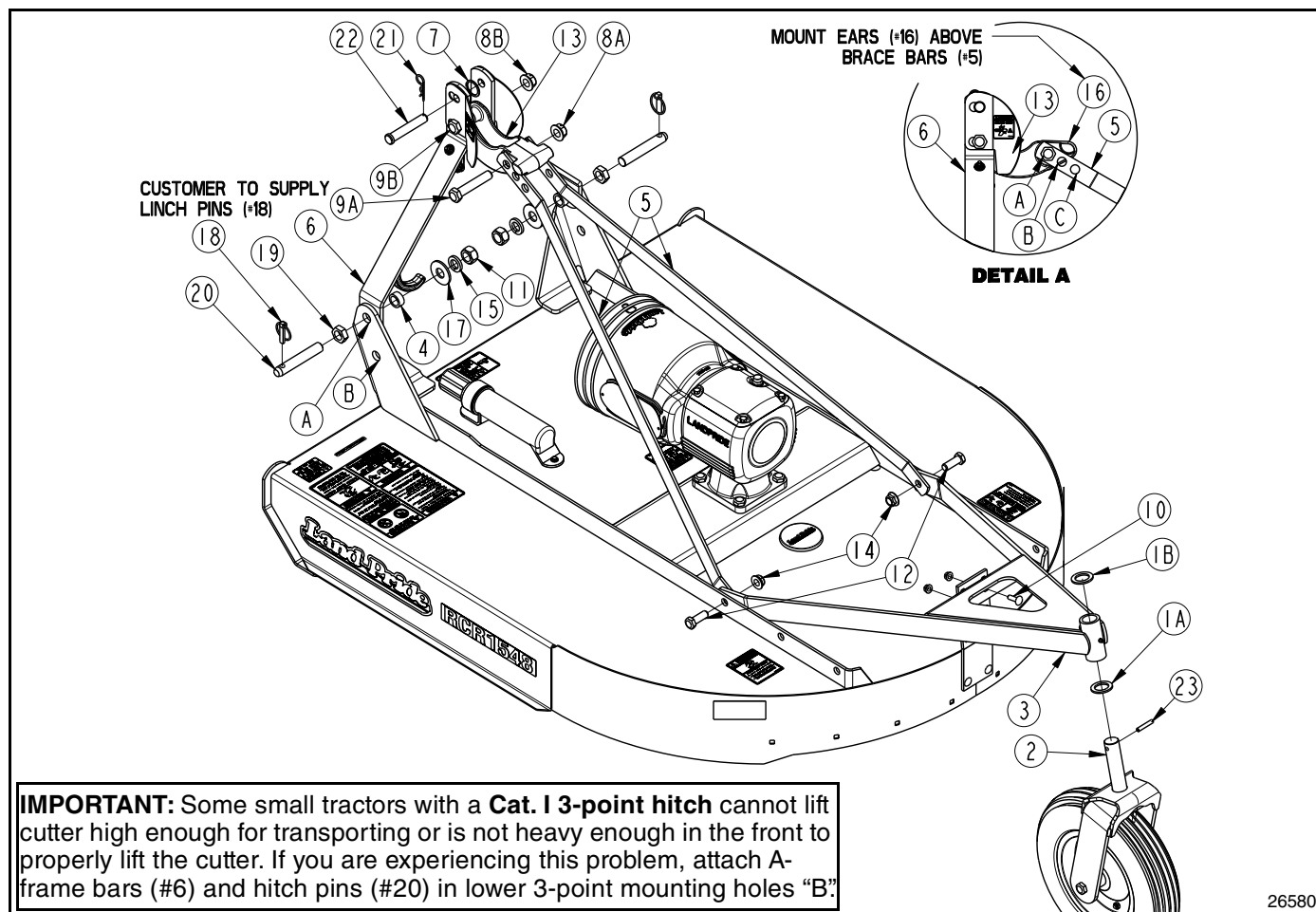
Refer to "Torque Values Chart" on page 34 to determine correct torque values for common bolts. See "Additional Torque Values" at bottom of chart for exceptions to standard torque values.

Dealer Assembly

NOTE: Do not tighten hardware to the correct torque until assembly is complete.

Refer to Figure 1-1:

1. Remove linchpins (#18) and hitch pins (#20) from shipping crate. Discard small linchpins (#18) as they are for shipping purposes only. Keep jam nuts (#19), flat washers (#17), and lock washers (#15).
2. Bushings (#4) are zip tied to top hitch (#13).
3. Hex nuts (#11) and snap ring (#7) are shipped stored on clevis pin (#22). Remove hairpin cotter (#21), clevis pin (#22), nuts (#11), and snap ring (#2).
4. Reattach clevis pin (#22) to A-frames (#6) with hairpin cotter (#21). Keep nuts (#11) and snap ring (#7) for hitch pin and driveline assemblies.



Dealer Assembly
Figure 1-1

IMPORTANT: Length of lower hitch pins can be adjusted with jam nut (#19) to operator preference. Make certain there are two or more threads showing beyond hex nuts (#11) after they are torqued tight.

5. Screw jam nuts (#19) onto hitch pins (#20) until 2" of threads are visible between jam nut and end of pin.
6. Attach hitch pins (#20) and A-frames (#6) as follows:
 - a. If attaching cutter to a 3-point **Cat. I hitch**, install hitch pins (#20) and A-frames (#6) to upper hitch pins holes "A" with bushings (#4), flat washers (#17), lock washers (#15), and hex nuts (#11).
 - b. See Important Note in Figure 1-1 on page 10: If tractor is too small to lift cutter high enough for transporting, install hitch pins (#20) and A-frames (#6) in lower hitch pin holes "B" with bushings (#4), flat washers (#17), lock washers (#15), and hex nuts (#11).
 - c. Tighten hex nuts (#11) to the correct torque.
7. Insert properly sized linchpins (#18) in hitch pins (#20). (Customer to supply proper sized linchpins.)
8. Remove hex flange lock nuts (#14) from bolts (#12). Do not remove bolts.
9. Attach rear braces (#5) inside of tailwheel main frame (#3) with 5/8"-11 x 1 3/4" GR5 bolts (#12) and secure with hex flange lock nuts (#14). Draw lock nuts (#14) up snug and then back off 1/4 turn.

IMPORTANT: Floating top hitch (#13) must be able to pivot on bolt (#9B). If it does not, hex flange locknut (#8B) is too tight and should be loosened.

10. Manually rotate floating hop hitch (#13) on bolt (#9B). If it will not rotate, loosen hex flange locknut (#8B) just enough to allow it to rotate.

IMPORTANT: See Detail A in Figure 1-1 on page 10: Floating top hitch (#13) must be installed with ears (#16) above rear brace bars (#5).

11. Rotate A-frame/floating top hitch (#6 & #13) up and rotate left rear brace (#5) up as follows:
 - a. If attaching cutter to a 3-point Cat. I hitch, align holes A in rear braces (#5) with hole in floating top hitch (#13).
 - b. If tractor is too small to lift cutter high enough for transporting, align hole B in rear braces (#5) with hole in floating top hitch (#13).
12. Insert 3/4"-10 x 4" GR5 bolt (#9) into the left rear brace (#5), floating top hitch (#13), and right rear brace (#5).
13. Secure bolt (#9A) with hex flange locknut (#8A). Draw locknut up snug and then back off 1/4 turn.
14. Install machine washer (#1A) on tailwheel spindle (#2).

NOTE: Bolts (#10) may need to be removed or the rear of the cutter may need to be raised before tail wheel spindle (#2) can be inserted into tail wheel A-frame (#3).

15. Insert tailwheel spindle (#2) in tailwheel A-frame (#3).
16. Install washer (#1B) on tailwheel spindle (#2).
17. Insert roll pin (#23) on spindle (#2) above washer (#1B).

NOTE: After assembly of hitch and tailwheel, push on top of A-frame assembly (#6). It should rotate backward and floating top link (#13) should rotate upward. If they are too stiff to rotate, loosen nuts (#12 & #14) until they will rotate freely.

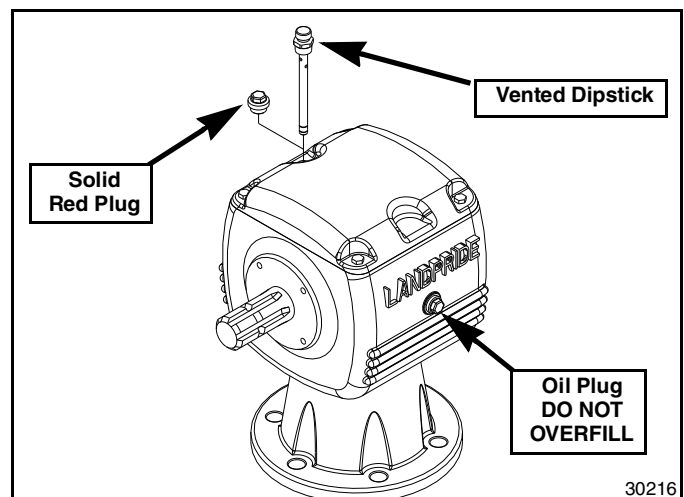


Figure 1-2

Gearbox Vent Plug

Refer to Figure 1-2:

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 for the gearbox is included in a bag with the manual. See your nearest Land Pride Dealer if dipstick is missing. Remove temporary red plug from top of gearbox and replace with supplied vented dipstick.

Driveline Installation

DANGER

To avoid serious injury or death:

- Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.
- All guards and shields must be installed and in good working condition while operating the implement.
- Do not use a power take-off adapter with a quick hitch. 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

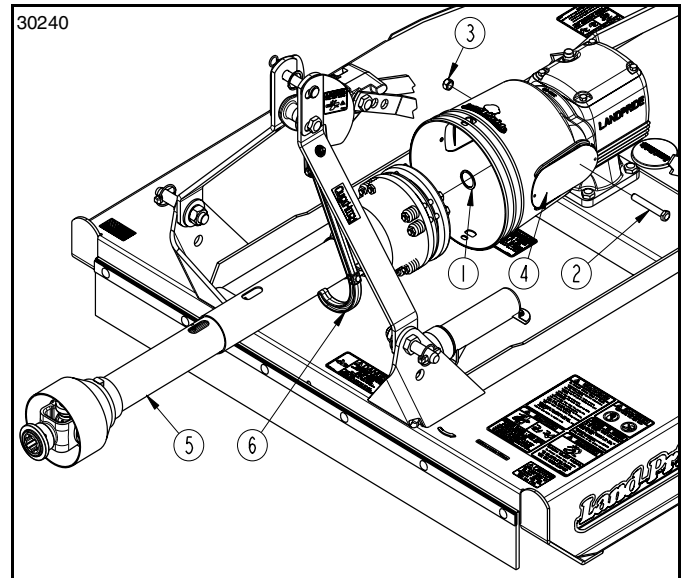
To avoid serious injury or death:

- 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.
- Select a safe ground speed when transporting. Never travel at a speed which does not allow adequate control of steering and stopping, and never exceed 20 mph (32.2 km/h) with attached equipment. Rough terrain requires a slower speed.

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

IMPORTANT: The driveline must be lubricated before putting it into service. Refer to "**Lubrication Points**" on page 28.

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.



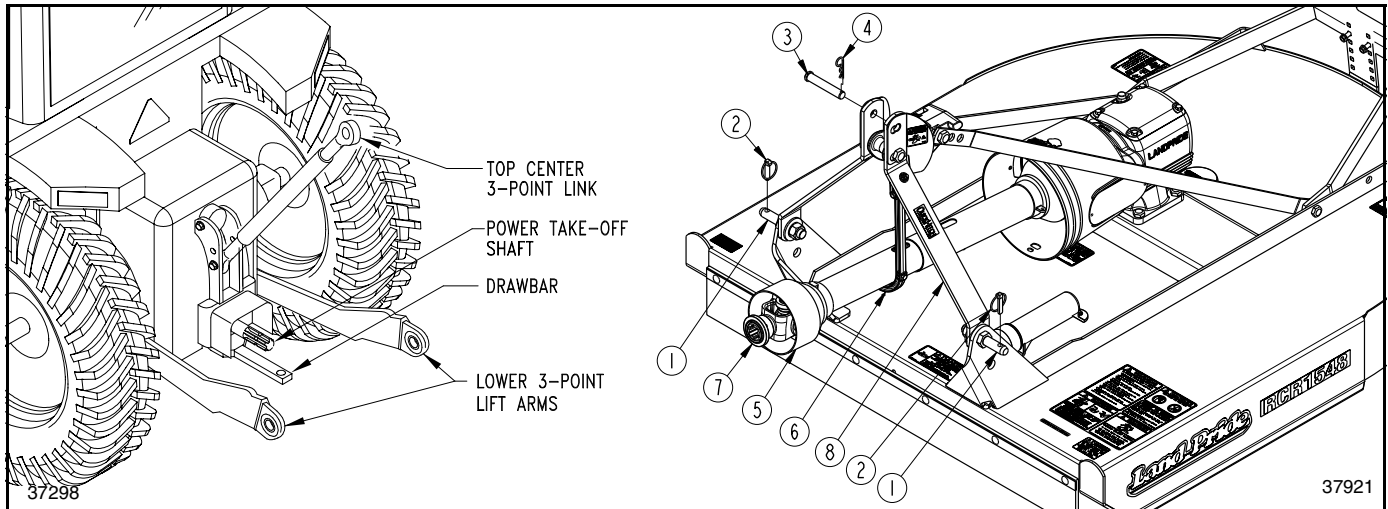
Driveline Installation
Figure 1-3

Refer to Figure 1-3:

1. Unsnap both access covers (#4) by placing a standard screwdriver in one of the slots at the back of each cover to pry them open. Rotate covers down.
2. Remove bolt (#2) from end of driveline (#5).
3. Slide driveline (#5) onto gearbox input shaft until holes in driveline yoke aligns with hole in gearbox input shaft.
4. Insert bolt (#2) through driveline yoke and gearbox input shaft.
5. Secure bolt with removed nut (#3). Tighten hex nut to the correct torque.
6. Skip to step #8 if installing a slip clutch driveline.

NOTE: Snap ring (#1) is for extra security should driveline shear bolt (#2) break. Do not use snap ring with a slip clutch driveline.

7. If driveline (#5) has a shear bolt instead of a slip clutch, install snap ring (#1) onto the gearbox input shaft groove. Discard snap ring if driveline has a slip clutch.
8. Rotate access covers (#4) up and snap shut.
9. Raise driveline (#5) up and rotate driveline hook (#6) down.
10. Lower driveline (#5) until resting in driveline hook (#6).
11. Continue with "**3-Point Hook-Up**" on page 13.



Tractor Hook-Up
Figure 1-4

3-Point Hook-Up

Refer to Figure 1-4:



DANGER

To avoid serious injury or death:

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



WARNING

To avoid serious injury or death:

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

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.

A 3-point Category I or Category I limited hitch is required. The lower 3-point arms of the 3-point hitch must be stabilized to prevent side-to-side movement. Most tractors have sway blocks or adjustable chains for this purpose.

1. Locate implement on a flat level surface.
2. Slowly back tractor up to the implement while using the tractor's 3-point hydraulic control to align lower 3-point arm holes with hitch cutter hitch pins (#1).
3. Engage tractor park brake, shut tractor engine off, and remove key before dismounting from tractor.
4. Slide lower 3-point lift arms onto cutter hitch pins (#1). Install linchpins (#2) through hitch pin holes to lock lower 3-point arms into position. Linchpins are supplied by customer.

5. Connect top center 3-point link to upper hitch pin holes with factory supplied 3/4" clevis pin (#3). Secure clevis pin with hairpin cotter (#4).
6. Ensure tractor lower hitch arms are blocked to prevent excessive side movement.
7. Manually adjust one of the two lower lift arms up or down to level the Rotary implement from left to right.
8. Manually adjust the length of the top-link to level the implement from front to rear. Final deck leveling adjustments will be made later.
9. The tractor's lower 3-point lift arms should be adjusted for lateral float. Please consult your tractor's manual for adjusting instructions.

Driveline Hook-Up

Refer to Figure 1-4:



DANGER

To avoid serious injury or death:

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

WARNING

To avoid serious injury or death:

- Always follow “Tractor Shutdown Procedure” provided in this manual before dismantling 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.

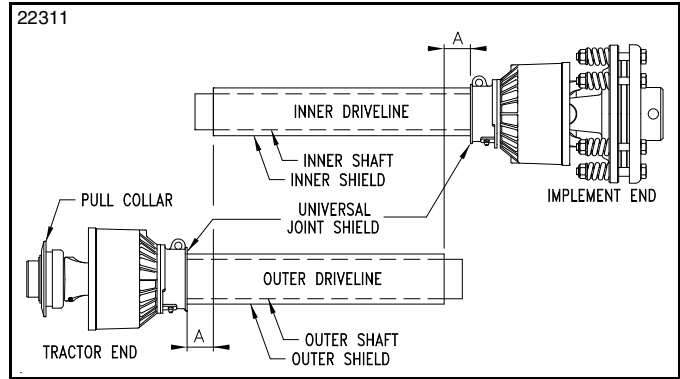
IMPORTANT: An additional driveline may be required if implement is attached to more than one tractor or if a Quick Hitch is used.

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 26.

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 this page.

Refer to Figure 1-4 on page 13:

1. If driveline collapsible length has not been checked, go to “Check Driveline Collapsible Length” on this page. Otherwise, continue with step 2 below.
2. Park tractor and implement on a level surface.
3. Shut tractor down before dismantling. Refer to “Tractor Shutdown Procedure” on page 20.
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 (#5) from driveline support (#6). Driveline support is spring loaded and will rotate up against A-frame (#8).
6. Collapse driveline (#5) by pushing tractor end of driveline toward the cutter 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 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 15.



Driveline Shortening

Figure 1-5

Check Driveline Collapsible Length

Refer to Figure 1-5:

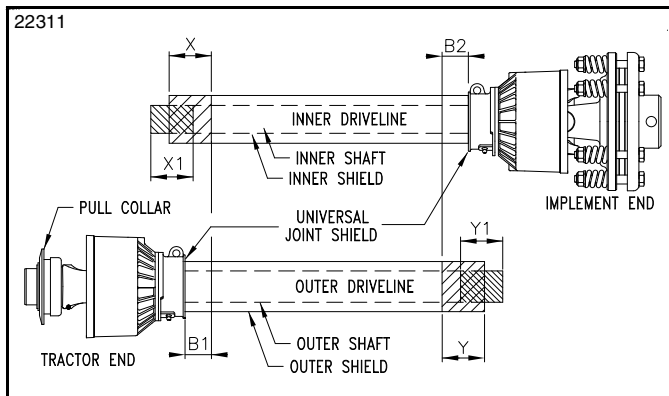
IMPORTANT: A driveline that is too long can bottom out causing structural damage to the tractor and implement. Always check driveline minimum length during initial setup, when connecting to a different tractor, and when alternating between using a quick hitch and a standard 3-point hitch. More than one 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 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 20.
5. Attach outer driveline to the tractor’s power take-off shaft. Refer to steps 5-6 under “Driveline Hook-Up” on page 13.
6. Hold inner and outer drivelines parallel to each other. If dimension “A” is greater than or equal to 1”, then skip to “Reassemble Driveline” on page 15. Otherwise continue with step 7.

Refer to Figure 1-6 on page 15:

7. If dimension “A” was less than 1”, shorten driveline as follows:
 - a. Measure 1” (“B1” dimension) back from outer driveline shield and make a mark at this location on the inner driveline shield.
 - b. Measure 1” (“B2” dimension) back from the inner driveline shield and make a mark at this location on the outer driveline shield.



Driveline Shortening
Figure 1-6

8. Remove outer driveline from the tractor power take-off shaft and inner driveline from the implement's gearbox shaft.
9. Cut off non-yoke end of inner driveline as follows:
 - a. Measure from end of inner shield to scribed mark ("X" dimension) and record.
 - b. Cut off inner shield at the mark. Cut same amount off the inner shaft ("X1" dimension).
10. Cut off non-yoke end of outer driveline as follows:
 - a. Measure from end of outer shield to scribed mark ("Y" dimension) and record.
 - b. Cut off outer shield at the mark. Cut same amount off the outer shaft ("Y1" dimension).
11. Remove all burrs and cuttings.
12. Continue with "**Reassemble Driveline**" below.

Reassemble Driveline

Refer to Figure 1-6:

1. Apply multi-purpose grease to the inside of the outer shaft and reassemble the driveline.
2. Reattach driveline to tractor power take-off shaft and gearbox shaft. Refer to "**Driveline Installation**" on page 12 and "**Driveline Hook-Up**" on page 13.
3. Continue with "**Check Driveline Interference**" below.

Check Driveline Interference

Refer to Figure 1-7:

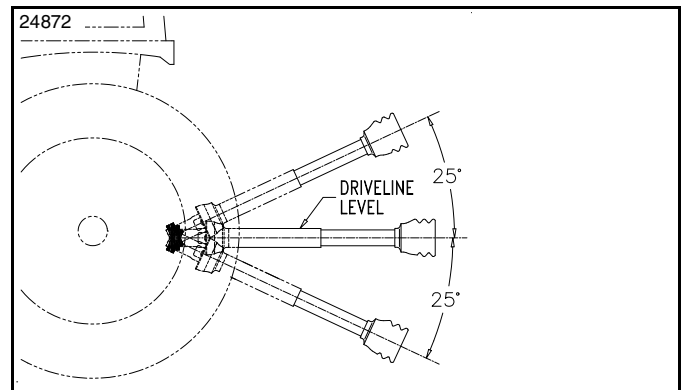


WARNING

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 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.



Maximum Driveline Movement During Operation
Figure 1-7

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 20
 - 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**" on page 20.
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 lift 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 ground and shut tractor down using "**Tractor Shutdown Procedure**" on page 20.

Safety Guards

DANGER

To avoid serious injury or death:

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

WARNING

To avoid serious injury or death:

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

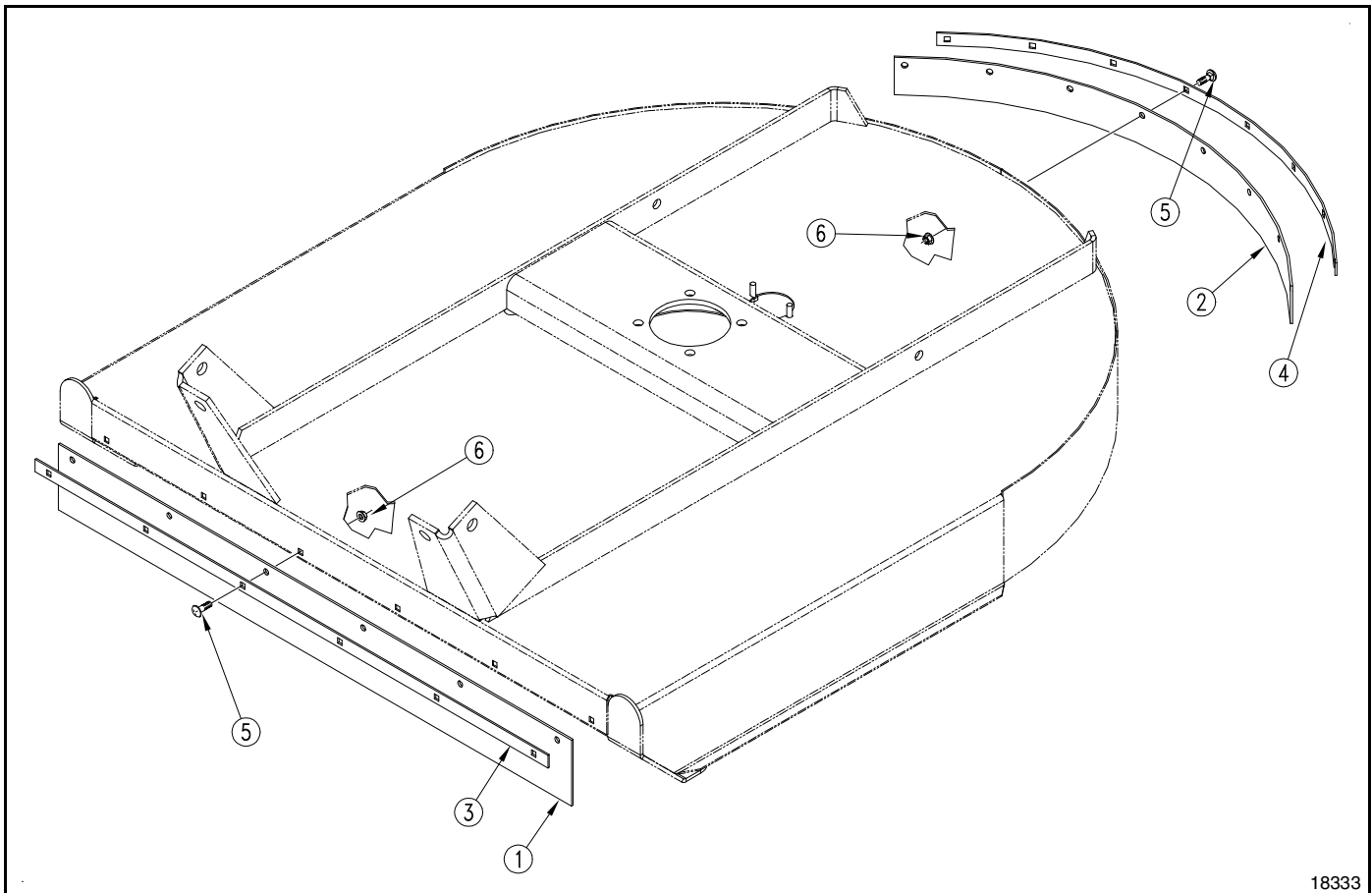
Front Rubber Guard

Refer to Figure 2-1:

1. Install front rubber guard (#1) and front strap (#3) with 3/8" x 1" long carriage bolts (#5) and 3/8" flange nuts (#6).
2. Tighten all nuts and bolts to proper torque.

Rear Rubber Guard

1. Install rear rubber guard (#2) and rear strap (#4) with 3/8" x 1" long carriage bolts (#5) and 3/8" flange nuts (#6).
2. Tighten all nuts and bolts to proper torque.



Rubber Guards
Figure 2-1

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
- Set tractor's 3-Point hydraulic control stop at this height.
- 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
- Spirit or carpenter's level
- Open end or hex end wrench or socket set
- Protective gloves

WARNING

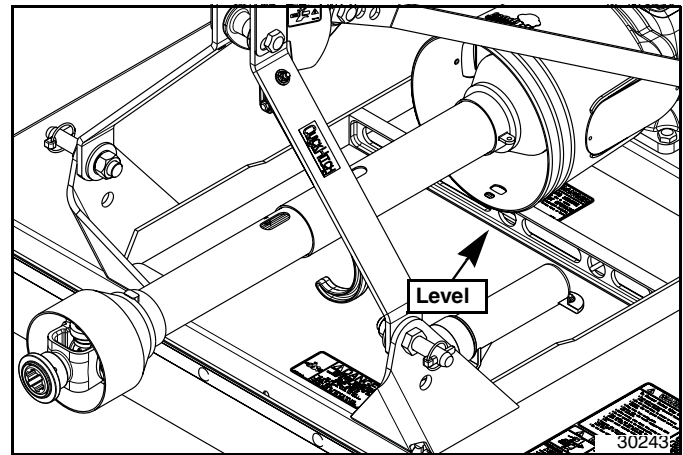
To avoid serious injury or death:

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

Deck Leveling From Left to Right

Refer to Figure 3-1:

1. Locate tractor and Rotary Cutter on a flat, level surface.
2. Use tractor's hydraulic 3-Point control to lower cutter until the tailwheel makes contact with the ground surface.
3. Place a spirit level or other suitable leveling device on the front of the cutter deck as shown in Figure 3-1. Manually adjust either one or both of the tractor's lower 3-Point arm height adjustments to level the deck from left to right. Some tractors have only a single adjusting crank.



Deck Leveling
Figure 3-1

Deck Leveling From Front to Rear

Refer to Figure 3-2:

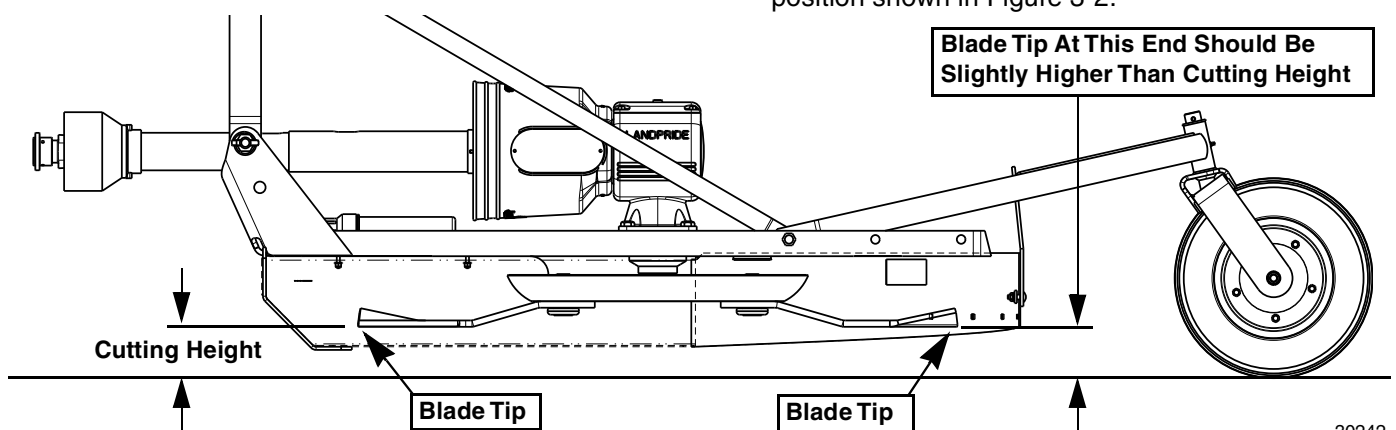
WARNING

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 lower than rear blade tip by approximately 1". The cutter is subject to continuous material flow under the deck if the rear blade is at the same height or lower than the front blade causing horsepower loss, grass clumps, blade wear, and frequent blade sharpening.

1. Using tractor's 3-Point hydraulic control, raise or lower the 3-Point arms until the front of the deck is slightly lower than the rear of the deck.
2. The top center link should be loose when deck rear is supported by the tailwheel. If not, lengthen center link until loose. Final adjustment will be made later.
3. With gloves on, carefully rotate each blade tip to the position shown in Figure 3-2.



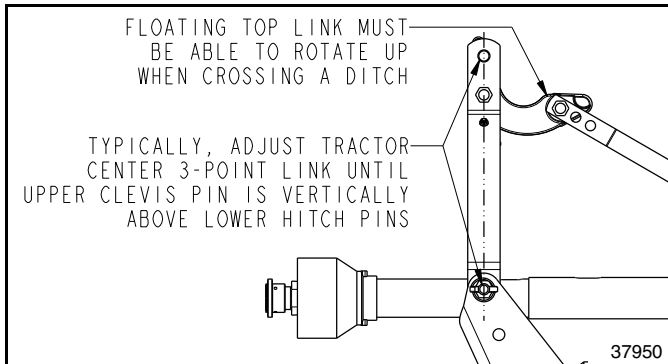
Cutting Height
Figure 3-2

4. Measure distance from cutting tip of blade to ground surface. This distance is the cutting height.
5. If desired cutting height cannot be obtained by adjusting the lower 3-Point arms, then readjust tailwheel height. See **“Tailwheel Height Adjustment”** on this page.
6. Repeat steps 1 to 5 until desired cutting height is achieved.
7. Set tractor’s 3-Point hydraulic control stop at this height.

Tractor Center 3-Point Adjustment

Refer to Figure 3-3:

1. Lower cutter deck to the nominal cutting height.



**Deck Leveling
Figure 3-3**

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

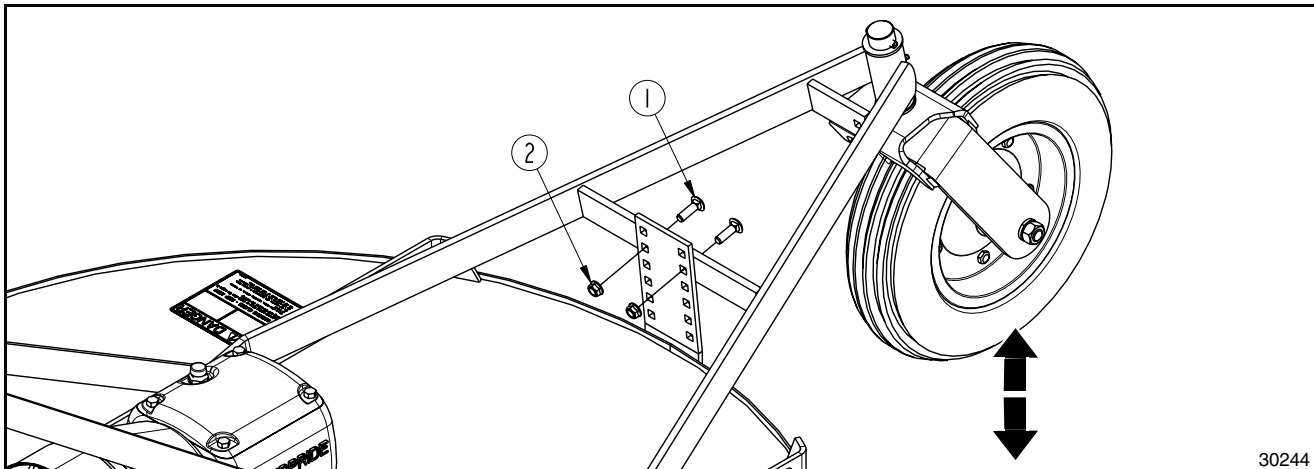
2. Typically the tractor center 3-point link is adjusted so that the upper 3-point clevis pin is straight above the lower 3-point hitch pins. This arrangement allows for optimum ground contour following performance.
3. Lock tractor center link in this position once correct length is achieved. Adjustment on center 3-point link can be made depending on customer’s preference.

Tailwheel Height Adjustment

Refer to Figure 3-4:

If deck slope is slightly lower at the front than at the back and cutting height is not at the desired height, then the tailwheel must be adjusted up or down as follows:

1. Use tractor’s 3-Point hydraulic control to lift cutter until the tailwheel clears the ground.
2. Remove 3/8" carriage bolt (#1) and 3/8" flange nut (#2).
3. Adjust tailwheel as follows:
 - To lower cutting height, adjust tailwheel up.
 - To increase cutting height, adjust tailwheel down.
4. With tailwheel adjusted to the correct height, replace 3/8" x 1" long carriage bolt (#1) and 3/8" flange nut (#2). Tighten flange nut to the correct torque.
5. Readjust tractor’s lower 3-Point arm height as needed. See section titled **“Deck Leveling From Front to Rear”** on page 17.



**Tailwheel Height Adjustment
Figure 3-4**

Section 4: Operating Instructions

Operating Checklist

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transport, storage, and maintenance of the Rotary Cutter. Therefore, it is absolutely essential that no one operates the cutter unless they are age 16 or older and have read, fully understood, and are totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, page 1
- **Section 1: Assembly and Set-Up**, page 10
- **Section 3: Adjustments**, page 17
- **Section 4: Operating Instructions**, page 19
- **Section 5: Maintenance & Lubrication**, page 24

Perform the following inspections before using your Rotary Cutter.

Operating Checklist

✓	Check	Page
	Make sure all guards and shields are in place. Refer to "Important Safety Information".	1
	Read and follow hook-up & preparation instructions. Refer to "Section 1: Assembly and Set-Up".	10
	Read and make all required adjustments. Refer to "Section 3: Adjustments".	17
	Lubricate cutter and driveline as needed. Refer to "Lubrication Points".	28
	Make sure all gearboxes are properly lubricated and that all oil plugs have been replaced properly. Refer to Gearbox	28
	Check cutter initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	34

Safety Information

DANGER

To avoid serious injury or death:

- 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 engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.
- 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.

- 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 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.
- Always disconnect driveline from power take-off shaft before servicing underside of cutter. The tractor can be started with power take-off engaged.
- Do not use cutter as a fan. Cutting blades are not properly designed or guarded for this use.

WARNING

To avoid serious injury or death:

- 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.
- Allow only persons to operate this implement who have fully read and comprehended this manual, who have been properly trained in the safe operation of this implement, and who are age 16 or older. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.
- Do not operate and/or travel across inclines where tractor and/or implement can rollover. Consult your tractor's manual for acceptable inclines the tractor is capable of traveling across.
- Select a safe ground speed when transporting. Never travel at a speed which does not allow adequate control of steering and stopping, and never exceed 20 mph (32.2 km/h) with attached equipment. Rough terrain requires a slower speed.
- Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.
- Do not operate a broken or bent driveline. Such a driveline will break apart while rotating at high speeds and can cause serious injury or death. Always remove the implement from use until the damaged driveline can be repaired or replaced.
- Perform scheduled maintenance. Check for loose hardware, missing parts, broken parts, structural cracks, and excessive wear. Make repairs before putting the implement back into service.
- Always 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 projectiles.

Section 4: Operating Instructions

- Do not use implement to lift objects; to pull objects such as fence posts, stumps, etc; or to push objects. The unit is not designed or guarded for these uses.
- Do not 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.
- Buildup of debris around moving components and gearboxes is a fire hazard. Keep rotating parts and gearboxes free from debris to avoid serious injury and property damage.
- Improper oil level can cause bearing failure and be a fire hazard. Maintain proper gearbox oil level to avoid serious injury and property damage.

Tractor Shutdown Procedure

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

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

Inspection of Tractor & Cutter

Make inspections with cutter attached to a tractor, power take-off disengaged, and all components 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. Make certain it is secured 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 24.
9. Remove solid supports from under the deck.
10. Verify cutter is set at the correct height. See **"Deck Leveling & Height Adjustments"** on page 17.

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.
 - Select a safe ground speed when transporting. Never travel at a speed which does not allow adequate control of steering and stopping, and never exceed 20 mph (32.2 km/h) with attached equipment. Rough terrain requires a slower speed.
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 the cutter is running smoothly, 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:

- Select a safe ground speed when transporting. Never travel at a speed which does not allow adequate control of steering and stopping, and never exceed 20 mph (32.2 km/h) with attached equipment. Rough terrain requires a slower speed.
 - When traveling on roadways, travel in such a way that other vehicles may pass you safely. Always use LED lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.
 - Always disengage power take-off and wait for driveline to stop rotating before raising implement to transport position.
1. Make sure driveline does not contact tractor or cutter when raising cutter to 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 21 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. 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 27 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 34.

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 34.
8. For additional information, see **“General Operating Instructions”** on this page.

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 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 travelling 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.

Section 4: Operating Instructions

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 mowing by doing the following:

- Reducing tractor's engine rpm.
- Make sure cutter is on the ground in cutting position and then engage power take-off.
- Raise engine rpm to the appropriate 540 power take-off speed and begin cutting.

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 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 power take-off.
- Stop on level ground, set park brake, turn off engine, and remove switch key.
- Stay on the tractor until the cutter blades have come to a complete dead stop.

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

WARNING

To avoid serious injury or death:

- Do not operate cutter with blades that are out-of-balance, bent, excessively worn, excessively nicked, or with blade bolts that are excessively worn. Such blades can break loose at high speeds.
- 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 new Land Pride 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 to avoid serious injury and property damage.
- Improper oil level can cause bearing failure and be a fire hazard. Maintain proper gearbox oil level to avoid serious injury and property damage.

Cutter Blade Maintenance

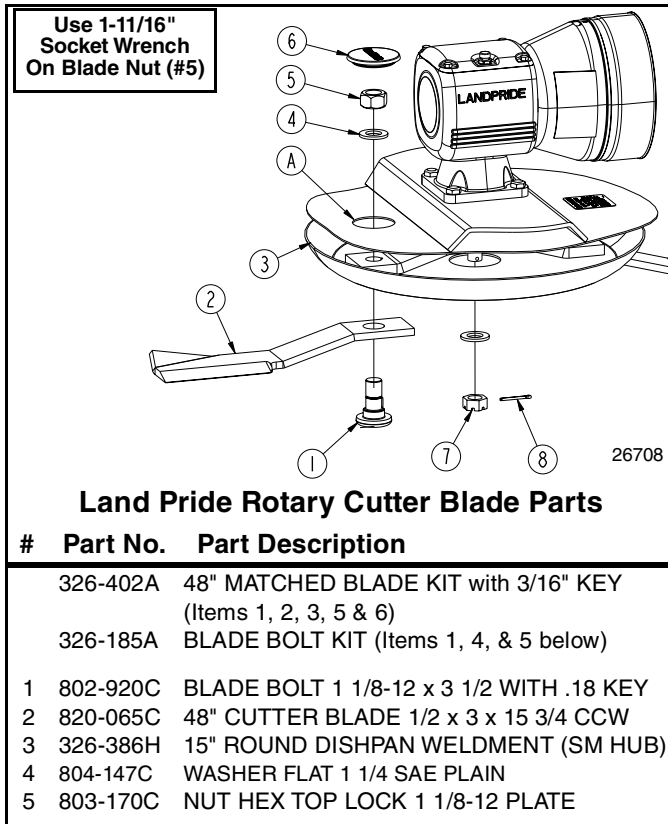
IMPORTANT: Replace cutting blades in pairs with genuine Land Pride blades only. Replacing single blades can result in an out-of-balance condition that will contribute to premature bearing wear/breakage and/or structural cracks in gearbox and/or deck.

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

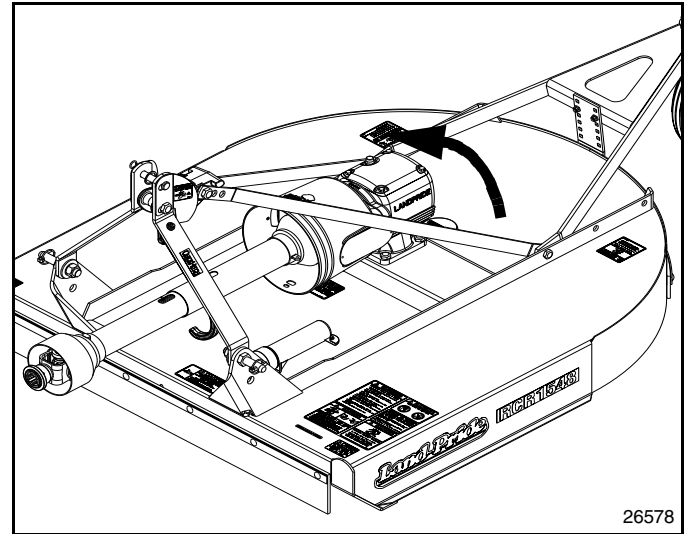
1. Place tractor gear selector in park and/or set brakes, shut engine off and remove ignition key.
2. Disconnect main driveline from the tractor and secure cutter deck in the up position with solid supports before servicing underside of cutter.
3. Inspect cutting blades. Make certain they are properly installed and are in good working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Small nicks can be ground out when sharpened.

Refer to Figure 4-1 on page 25:

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



Cutter Blade Assembly
Figure 4-1



Counterclockwise Blade Rotation
Figure 4-2

Refer to Figure 4-2:

- 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.

Refer to Figure 4-1:

! WARNING

To avoid serious injury or death:

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

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

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

Slip-Clutch Protected Drivelines

WARNING

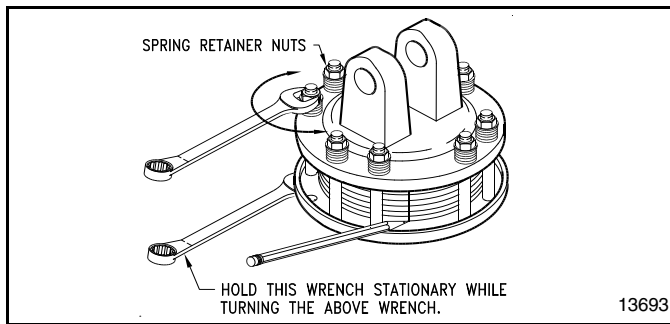
To avoid serious injury or death:

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

Cutter drive components are protected from shock loads by either a two plate friction clutch or a shear bolt. The shearbolt is designed to shear off when the blade impacts objects that the cutter is not designed to cut through. Avoid shear bolt failure by engaging the power take-off slowly at low engine rpm. See your Land Pride Dealer when replacing shear bolts.

Shear Bolt, Nut & Jam Nut Part Numbers

Part No.	Part Description
802-264C	HHCS 1/2-13X3 1/2 GR2
803-020C	NUT HEX 1/2-13 PLT
803-036C	NUT HEX JAM 1/2-13 PLT



Clutch Run-In
Figure 4-3

Clutch Run-In

The clutch must be capable of slippage during operation to protect gearbox, driveline and other drive train parts. Friction clutches should be "Run-in" prior to initial operation and after long periods of inactivity. To protect driveline and gearbox, repeat "Run-In" instructions at the beginning of each season and when moisture and/or condensation seizes the inner friction plates.

Refer to Figure 4-3:

1. Using a pencil or other marker scribe a line across the exposed edges of the clutch plates and friction discs.
2. Carefully loosen each of the 8 spring retainer nuts by exactly 2 revolutions. It will be necessary to hold the hex end of the retainer bolt in order to count the exact number of revolutions.
3. Start the tractor and engage the driveline drive for 2-3 seconds to permit slippage of the clutch surfaces. Disengage the driveline, then re-engage a second time for 2-3 seconds. Disengage driveline, shut off tractor, and remove key. Wait for all components to stop before dismantling from tractor.
4. Inspect the clutch and ensure that the scribed

markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disc and plate are still aligned.

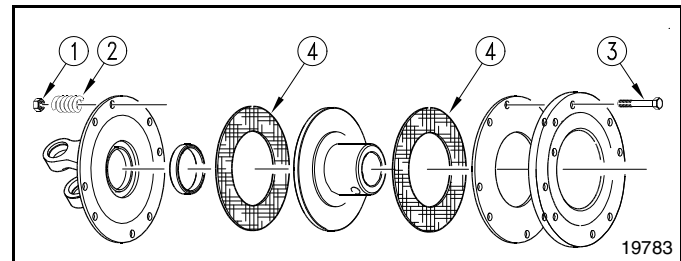
IMPORTANT: If clutch run-in procedure indicated that one or more friction disks did not slip, the clutch must be disassembled to separate the friction discs.

5. Tighten each of the 8 spring retainer nuts on the clutch housing exactly 2 revolutions to restore the clutch to the original setting pressure.
6. The clutch should be checked during the first hour of operation and periodically each week. An additional set of scribe marks can be added to check for slippage. See "Clutch Assembly" to adjust for proper spring length.

Clutch Disassembly

Refer to Figure 4-4:

To disassemble the clutch, first remove 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. Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement.



Clutch Disassembly
Figure 4-4

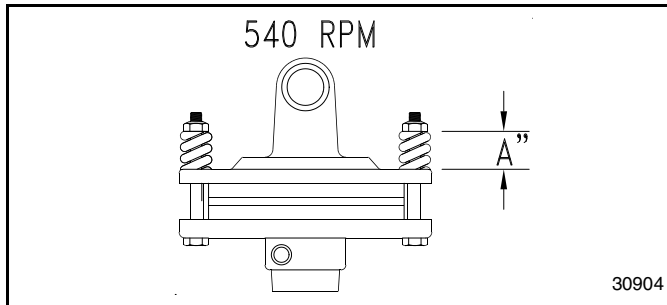
Inspection

Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement. The original friction disc thickness is 1/8" and should be replaced if the thickness falls below 3/32". If the clutches have been slipped to the point of "smoking", the friction discs may be damaged and should be replaced. Heat build-up may also affect the yoke joints.

Clutch Assembly

Refer to Figure 4-4:

Reassemble each friction disc (#4) next to the metal plate it was separated from. Make certain the bushing is positioned as shown. 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 4-5

Refer to Figure 4-5:

Progressively tighten each spring retainer nut until correct spring length "A" is reached.

- A = 1.26"

Long-Term Storage

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



DANGER

To avoid serious injury or death:

- Always disconnect driveline from power take-off shaft before servicing drivetrain and cutter blades. The power take-off can be engaged if 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 hydraulics is off.
1. Clean off any dirt and grease that may have accumulated on the cutter and moving parts. Scrape off compacted dirt from the bottom of deck and then wash surface thoroughly with a garden hose. A coating of oil may also be applied to the lower deck area to minimize oxidation.
 2. Check blades and blade bolts for wear and replace if necessary. See "**Cutter Blade Maintenance**" on page 24.
 3. Inspect for loose, damaged, or worn parts and adjust or replace as needed.

4. Repaint parts where paint is worn or scratched to prevent rust. Ask your Land Pride dealer for aerosol touch-up paint. They are also available in touch-up bottles with brush, quarts, and gallon sizes by adding TU, QT, or GL to the end of the aerosol part number

Land Pride Touch-up Paint

Part No.	Part Description
821-011C	PAINT LP BEIGE SPRAY CAN
821-066C	PAINT ORANGE SPRAY CAN
821-070C	PAINT GP GLOSS BLACK SPRAY CAN

5. Replace all damaged or missing decals.
6. Lubricate as noted in "**Lubrication Points**" starting on page 28.
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 21 when disconnecting tractor from cutter.

Ordering Replacement Parts

Land Pride offers equipment in factory standard Beige with black highlights. This implement is also available in Orange.

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

82 Orange 85 Black

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

Lubrication Points

Lubrication Legend



Multi-purpose
spray lube



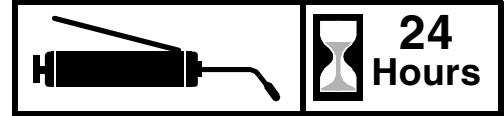
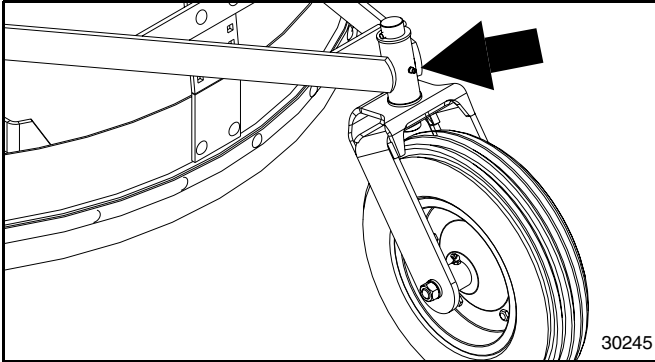
Multi-purpose
grease lube



Multi-purpose
oil lube



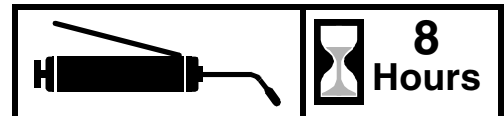
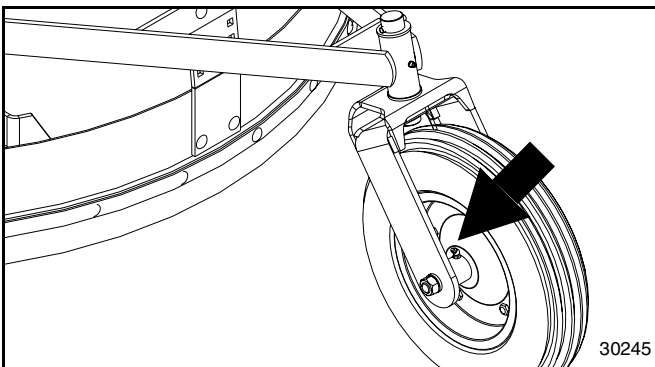
Intervals in hours at which
lubrication is required



Gauge Wheel Spindle Tube

Type of Lubrication: Grease

Quantity = 6 pumps

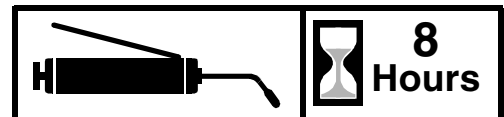
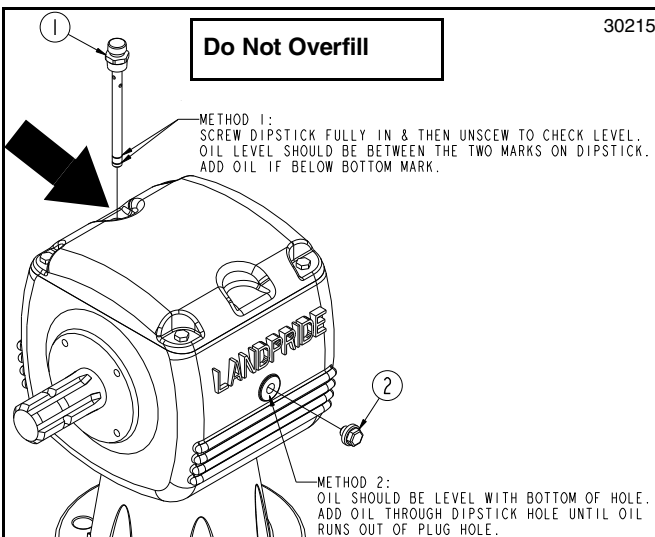


Gauge Wheel Hub

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: Multipurpose Grease

Quantity = Until grease purges from the relief hole



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.

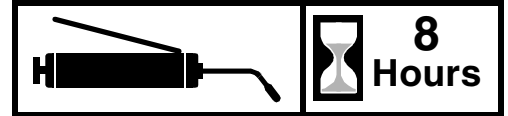
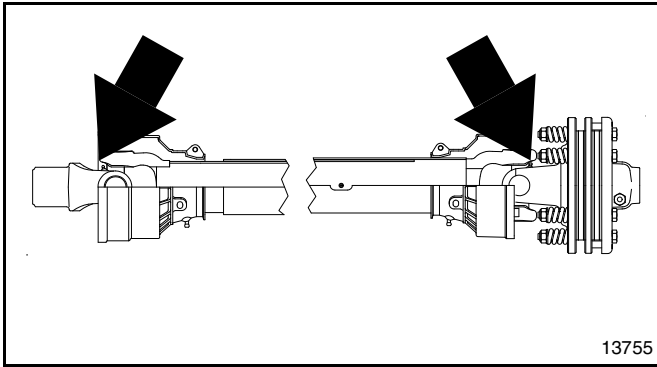
Method 2: Remove side oil plug (#2). If oil is below bottom of plug hole, add recommended gear lube through top dipstick hole until oil flows out of side plug hole. Reinstall and tighten side oil plug (#2) and vented dipstick (#1).

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.

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.

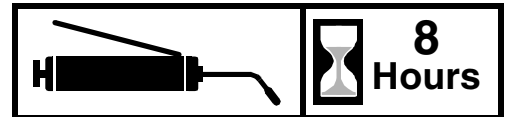
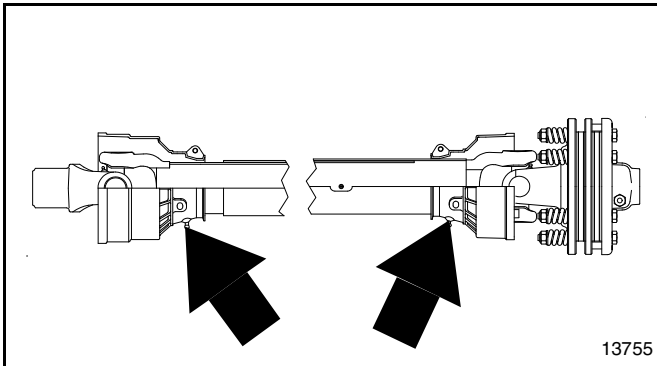
NOTE: Use a suction or siphon pump to drain gearboxes of oil when there is not an oil drain plug.



Driveline U-Joints

Type of Lubrication: Grease

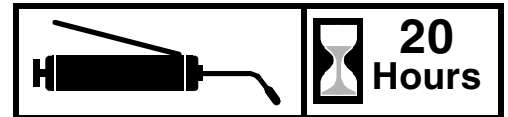
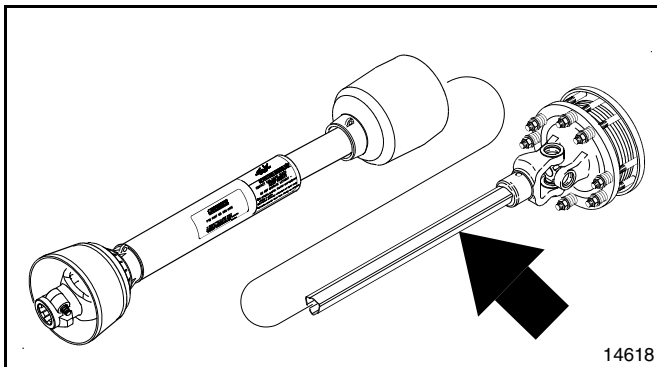
Quantity = 6 pumps



Driveline Shield Bearings

Type of Lubrication: Grease

Quantity = 6 pumps

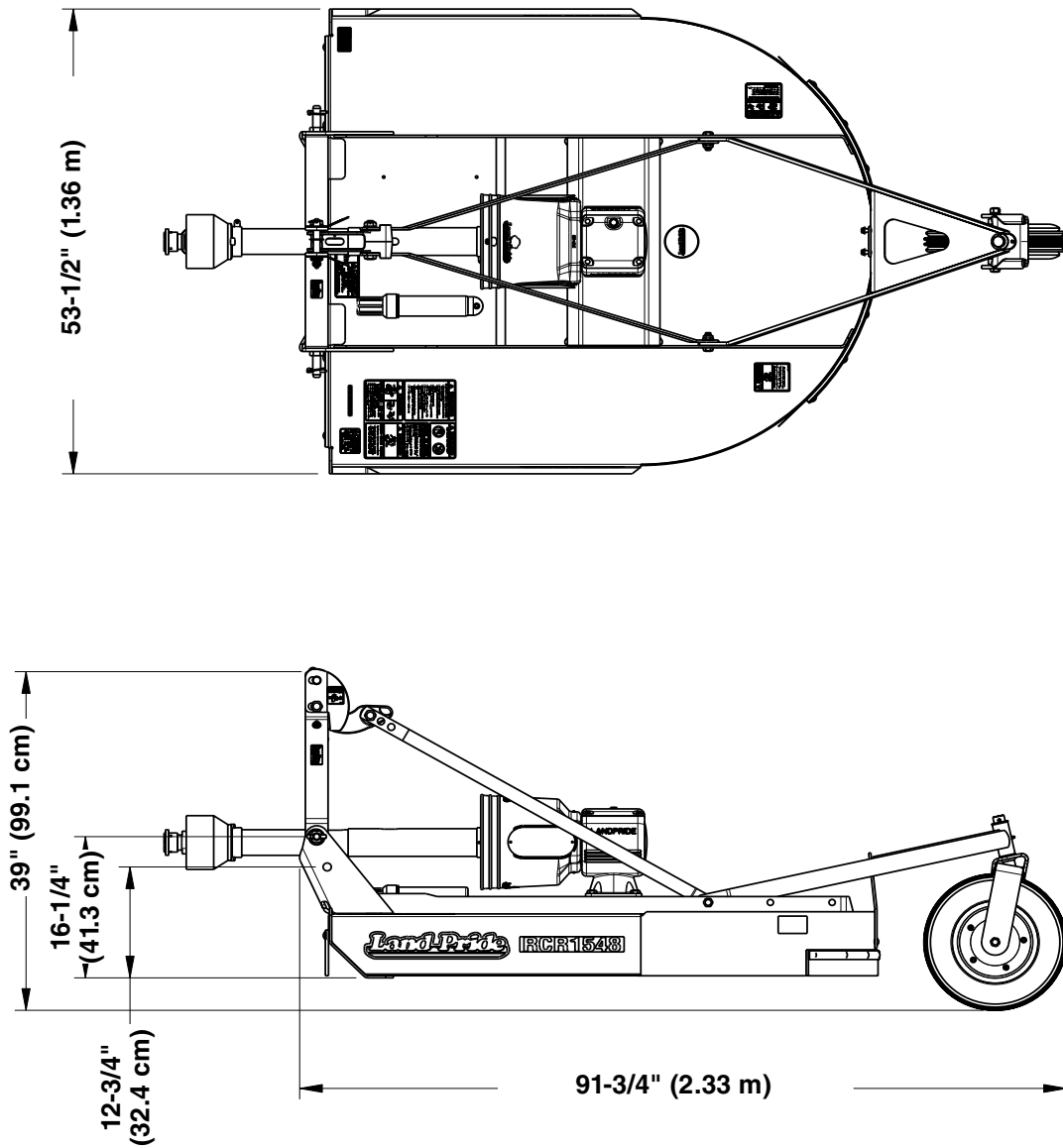


Driveline Profiles

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

RCR1548 Rotary Cutters

Specifications & Capacities	
Implement weight (with front guard)	424 lbs (192.3 kg)
Hitch	Category 1 & Category 1 limited, Quick Hitch ready
Cutting width	47 1/2" (1.21 m)
Overall width	53 1/2" (1.36 m)
Overall length (including tailwheel)	91 3/4" (2.33 m)
Deck height (Bottom of deck to bottom of skid shoe)	7 1/4" (18.4 cm)
Cutting height	1 3/4" - 11 1/2" (4.4 cm - 29.2 cm)
Cutting capacity	2" (5.1 cm) (Grass, weeds & light brush)
Recommended tractor hp	20-60 hp (15-45 kw)
Power take-off speed	540 rpm
Gearbox hp rating	65 hp (48.5 kw)
Gearbox with speed up beveled gears	540 input rpm gearbox 1:1.93 Cast iron housing
Gearbox oil capacity & lubrication	4.5 Pints (2.13 L) of gear lube 80-90w EP
Deck construction	One piece reinforced deck
Deck material thickness	12 Gauge (2.7 mm)
Skids shoes	1/4" X 2" (6 mm x 5.1 cm) Weld-on
Stump jumper	Round pan 10 ga. x 24" (61.0 cm)
Blades (2)	1/2" x 3" (1.3 cm x 7.6 cm) Heat treated alloy steel Free-swinging blades
Blade bolts	Keyed with harden flat washer and locknut
Blade tip speed	13,090 fpm (66.5 mps)
Driveline	ASAE Category 3
Driveline protection	Standard 1/2" (13 mm) center shearbolt protection Optional - Center bolt 2 plate slip clutch
Tailwheel	4" x 16" Solid rubber tire
Safety guards (Optional)	Rubber (front and rear)









30246

RCR1548 Rotary Cutter

Features	Benefits
Surpassed rugged industry standards	All Land Pride cutters have been designed and tested and meet rigorous voluntary testing procedures specified by ANSI.
5 Year gearbox warranty	Shows our confidence in the gearbox integrity.
Cat. 3 driveline with shear- bolt	Shear bolt offers maximum driveline protection.
Cat. 3 driveline with 2-plate slip-clutch	Slip-clutch driveline offers convenience for continual work.
Floating top link	Provides for easy hook-up. Permits deck to follow the terrain for an even cut. Two hole position to allow greater lift leverage for smaller tractors.
Fully welded deck	Robotic welded. Adds additional strength.
Round back design	Helps discharge grass better than enclosed or partially enclosed cutters.
Cutting height	1" - 9" cutting height for wide range of cutting conditions.
Full length skid shoes	Provides sidewall reinforcement and full protection to bottom of sidewall.
1/2" x 3" 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	Allows cutter to slide over obstructions protecting the gearbox output shaft.
High blade tip speed	13,090 fpm (66.5 mps) Ensures clean cut.
Laminated tailwheel	Laminated material is long lasting in rough conditions.
Solid rubber tailwheel	Can't go flat.
Heavy-duty spindle on the tailwheel	Tailwheel take a beating, 1 1/4" spindle gives the strength to protect tailwheel assembly.
Guarding	Protect against flying debris. Customer can choose to include rubber on the front and rear.
Driveline holder	Keeps driveline up out of dirt. Easier hook up of driveline.

Troubleshooting Chart

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
	PTO being engaged too fast at high engine rpm	Slowly engage PTO 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
Driveline telescoping tube failing	Shock load	Avoid hitting solid objects
Driveline telescoping tube wearing	Needs lubrication	Lubricate every 20 hours
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 hitting each other	Blade carriers need to be timed
Blades coming loose	Blades not tightened properly	Tighten blade hardware (refer to "Cutter Blade Maintenance" on page 24
	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						Bolt Size (Metric)	Bolt Head Identification					
	 Grade 2	 Grade 5	 Grade 8					 Class 5.8	 Class 8.8	 Class 10.9			
in-tpi ¹	N · m ²	ft-lb ³	N · m	ft-lb	N · m	ft-lb	mm x pitch ⁴	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1-1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1-1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1-1/4" - 12	750	555	1680	1240	2730	2010	<div>¹ in-tpi = nominal thread diameter in inches-threads per inch</div> <div>² N · m = newton-meters</div> <div>³ ft-lb= foot pounds</div> <div>⁴ mm x pitch = nominal thread diameter in millimeters x thread pitch</div>						
1-3/8" - 6	890	655	1990	1470	3230	2380							
1-3/8" - 12	1010	745	2270	1670	3680	2710							
1-1/2" - 6	1180	870	2640	1950	4290	3160							
1-1/2" - 12	1330	980	2970	2190	4820	3560							
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.													
Additional Torque Values													
Blade Bolt Locknut						450 ft-lbs							
Blade Carrier Hub Nut						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: One year Parts and Labor

Gearbox:(S/N 379869+) 5 years on Parts & 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.

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 _____



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