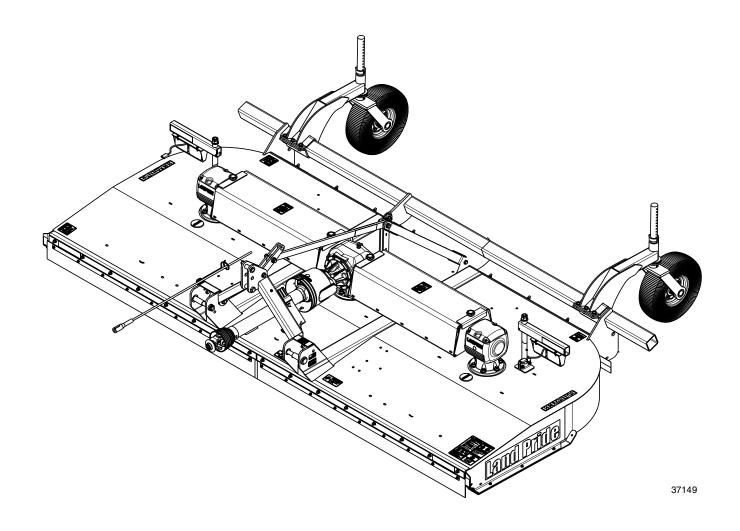
# **Rotary Cutter**

# **RCFM4014**



# 326-730M 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	

#### **Dealer Contact Information**

Name:		
Street:		
City/State:		
Telephone:		
Email:		

A

## 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.



## Safety at All Times

Careful operation is you 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:

#### **A** DANGER

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

### **A** WARNING

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

#### **A**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**

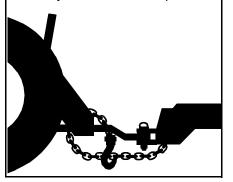
- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic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





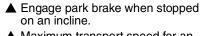
#### **Use A Safety Chain**

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



### Transport Safely

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



- 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.

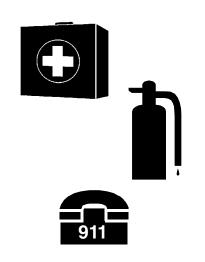






### **Prepare for Emergencies**

- ▲ 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.

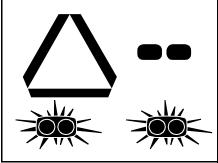


# Avoid High Pressure Fluids

- ▲ 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.

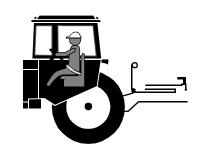
## Use Safety Lights and Devices

- ▲ 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.

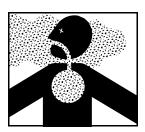




# Avoid crystalline Silica (quartz) Dust

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.



**4** 7/27/20

# Important Safety Information



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7/27/20 5

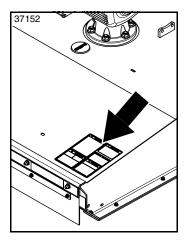


## Safety Labels

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

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

- specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.
- 4. Refer to this section for proper label placement. To install new labels:
  - a. Clean the area where the label is to be placed.
  - b. Spray soapy water on the surface where the label is to be placed.
  - c. Peel backing from label. Press firmly onto the surface.
  - d. Squeeze out air bubbles with the edge of a credit card or with a similar type straight edge.



#### 818-830C

Danger/Warning/Notice: Safety Combo (1 - Place)

# **A WARNING**

#### To Prevent Serious Injury or Death:

- Read and understand Operator's Manual before using. Review annually.
- · Do not permit riders on tractor or mower.
- Operate only with guards installed and in good condition.
- Keep away from moving parts.
- Operate only with tractor equipped with ROPS and seatbelts.
- · Before mowing, clear debris from mowing area.
- Do not operate in the raised position.
- Stop engine, set brake and wait for all moving parts to stop before dismounting.
- Support mower securely before working beneath unit.
- Transport with clean reflectors, SMV and working lights as required by federal, state, and local laws
- Do not allow children to operate mower.

# **A DANGER**

KEEP HANDS AND FEET AWAY





## NOTICE TO OWNER

An OPERATOR'S MANUAL was attached to this implement during final inspection at the factory.

If it was not attached at the time of purchase please, contact your selling dealer at once.

- Read and understand manual BEFORE operating the implement.
- Pay attention to the safety messages

# A DANGER





# ROTATING BLADES - KEEP AWAY

To prevent serious injury or death when engine is running and blades are rotating:

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

# **A DANGER**



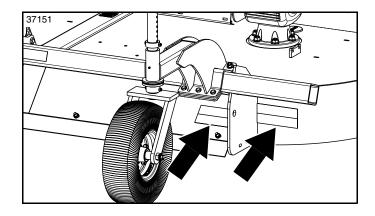
#### THROWN OBJECT HAZARD

To Prevent Serious Injury or Death:

- Do not operate unless all guards are installed and in good condition.
- Stop blade rotation if bystanders come within several hundred feet.

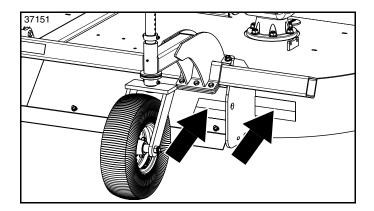
818-830C REV





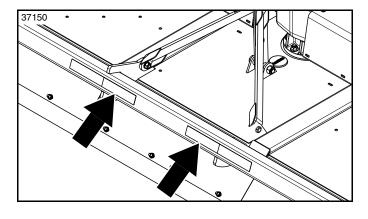
## 838-603C

2" x 9" (5 cm x 23 cm) Orange Reflector (2 places)



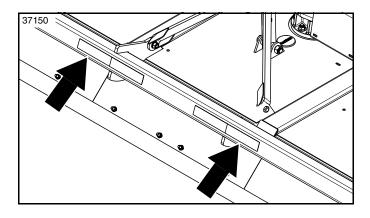
## 838-614C

2" x 9" (5 cm x 23 cm) Red Reflector (4 places)



## 838-603C

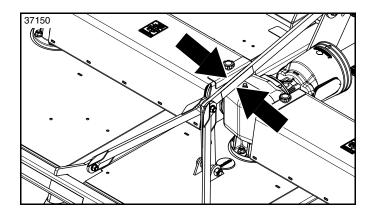
2" x 9" (5 cm x 23 cm) Orange Reflector (2 places)



## 838-614C

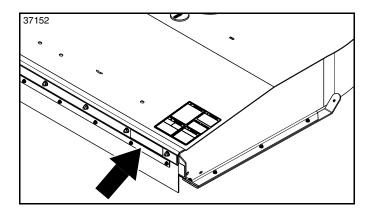
2" x 9" (5 cm x 23 cm) Red Reflector (2 places)





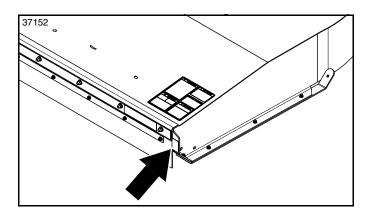
## 838-615C

2" x 9" (5 cm x 23 cm) Amber Reflector (2 places)



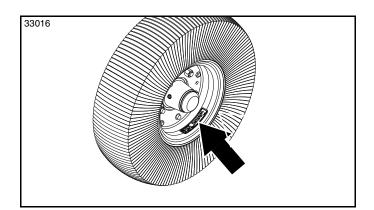
## 838-615C

2" x 9" (5 cm x 23 cm) Amber Reflector (2 places)



## 818-229C

1 3/4" x 2 3/4" (4.4 cm x 7 cm) Amber Reflector (2 places)

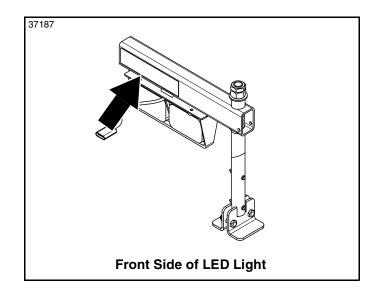




## 818-681C

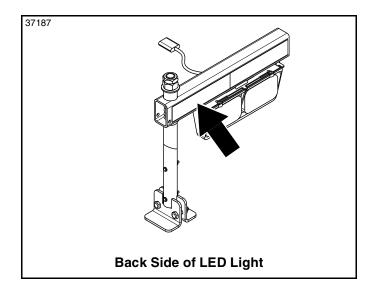
Notice: 20 MPH Max Travel Speed (On all tires)





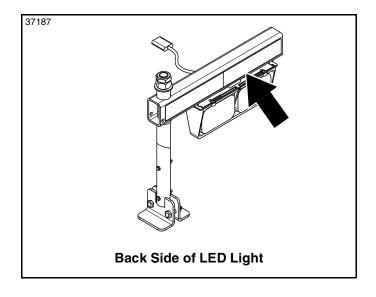
838-615C

2" x 9" (5 cm x 23 cm) Amber Reflector (2 places)



## 838-603C

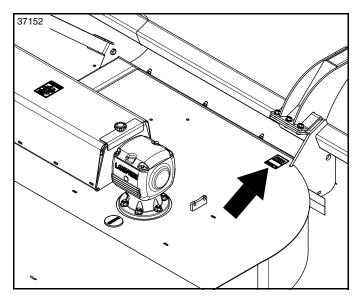
2" x 9" (5 cm x 23 cm) Orange Reflector (2 places)



## 838-614C

 $2" \times 9" (5 \text{ cm } \times 23 \text{ cm}) \text{ Red Reflector } (2 \text{ places})$ 

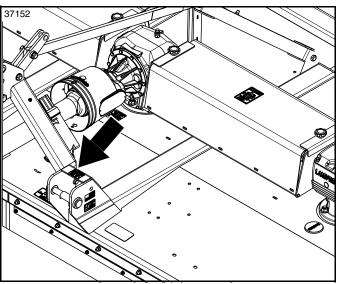






## 818-556C

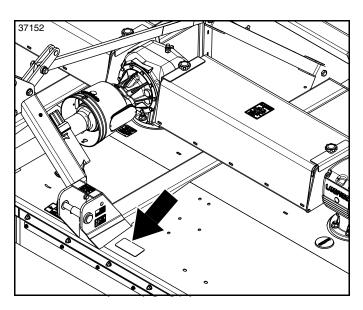
Danger: Thrown Object (1 - Place)





## 818-240C

Caution: 1000 rpm Only (1 - Place)

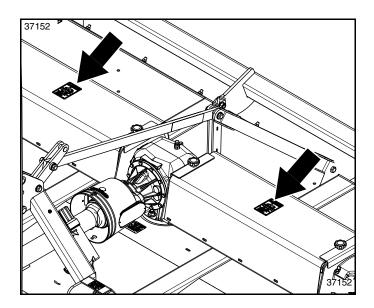




### 818-714C

Danger: Crushing Hazard (1 - Place)

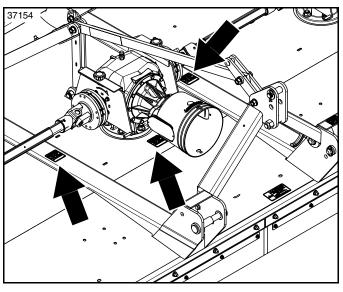






818-552C

Danger: Rotating Driveline (2 - Places)

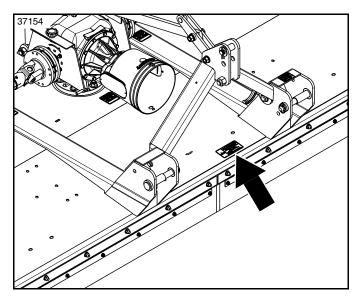




## 818-543C

Danger: Guard Missing:

Beneath gearbox input shaft shields (3 - Places)

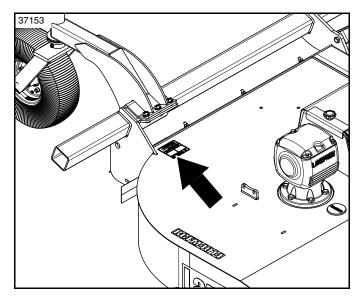




#### 818-142C

Danger: Rotating Driveline (1 - Place)

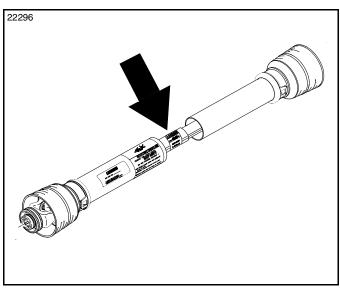






### 818-564C

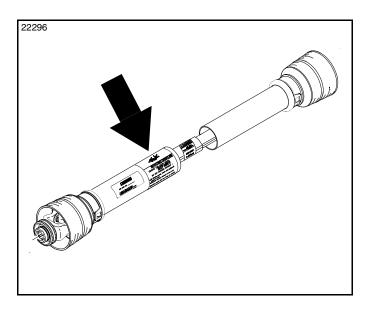
Danger: Rotating Blades (1 - Place)





### 818-540C

Danger: Guard Missing Do Not Operate (1 - Place)





818-552C

Danger: Rotating Driveline (1 - Place)



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

## **Application**

The heavy duty RCFM4014 Rotary Cutters are designed and built by Land Pride to provide excellent cutting performance on gently sloping or slightly contoured right-of-ways, pastures, set-aside-acres, or row crop fields. Its 14 ft (4.27 m) cutting width, 2"-12" (5 cm-30.5 cm) cutting height, and ability to cut weeds and brush up to 3" (7.6 cm) in diameter make it well suited for these applications.

The RCFM4014 cutter is designed for attaching to a minimum 80 hp tractor with a Cat. Il & Ill 3-point hitch and 1000 rpm power take-off shaft. The drivelines and gearboxes are protected with a slip clutch on the main driveline and spring-loaded torque dampener on the outboard drivelines. Safety guards around the cutter are offered in rubber or chain on the front and metal band, rubber or chain on the back.

This cutter can be purchased with an option to include cutting blades bolted to a dish pan for cutting grass, weeds, and brush or with blade bar and shredder kit option for shredding all widths of row crops into small pieces. Fixed blades can also be added to the blade bar and shredder kit option for shredding row crops in 30" (76 cm) row widths or 38"-40" (96.5 cm-102 cm) row widths to reduce stalks into even smaller pieces.

See "Specifications & Capacities" on page 48 and "Features & Benefits" on page 50 for additional information and performance enhancing options.

# **Using This Manual**

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

#### Terminology

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

#### **Definitions**

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

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

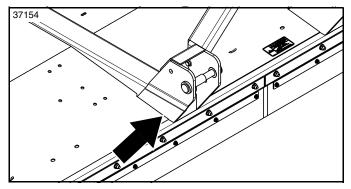
#### **Owner Assistance**

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



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:

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

#### **Land Pride Service Department**

1525 East North Street P.O. Box 5060 Salina, Ks. 67402-5060

E-mail address lpservicedept@landpride.com



## Tractor Requirements

Tractor horsepower, hitch category, and weight must be capable of controlling the cutter under all conditions. Tractors outside these requirements must not be used.

Horsepower rating Minimum 80 hp (60 kW)
Hitch category Cat. II or III
Rear power take-off Speed
Power take-off Shaft type:
Optional 1 3/8"-21 Spline
Optional 1 3/4"-20 Spline
Electrical Outlet (See Figure 1-15 on page 22) 7 pin
Tractor weight 12,000 lbs (5443 kgs) Minimum
The lower 3-point arms of the 3-point hitch must be
stabilized to prevent side-to-side movement. Most



# WARNING

To avoid serious injury or death:

• Do not use a tractor that is too small. Small tractors can be pushed around and flipped over by the weight of the attached implement.

tractors have sway blocks or adjustable chains for this

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 52 to determine correct torque values for common bolts. See "Additional Torque Values" at bottom of chart for exceptions to standard torque values.

# **Dealer Preparations**



# WARNING

To avoid serious injury or death:

Always secure cutter with an overhead crane, fork lift, or other suitable lifting device before removing hardware bags, shipping components, bands, lag screws, or hitch pins. The cutter can suddenly fall.

Read and understand this Operator's Manual. An understanding of how this cutter works will aid in its assembly and setup.

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

# **Gearbox Vented Dipsticks**

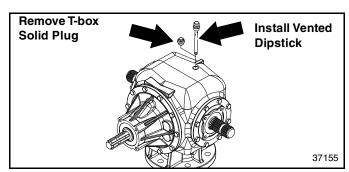
**IMPORTANT:** Gearboxes are shipped with solid oil plugs to prevent oil loss during shipping. The solid plug on top of the gearbox must be replaced with a vented dipstick before operating the implement.

## **Pre-Assembly Checklist**

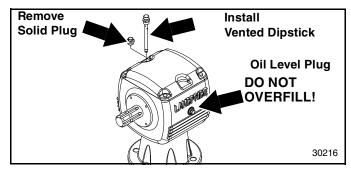
<b>'</b>	Check	Ref.	
	Have a minimum of two people available during assembly.		
	Have a fork lift or loader along with chains and safety stands that are sized for the job ready for the assembly task.		
	Location of fasteners and pins.  NOTE: All hardware from the factory has been installed in the location where it will be used. If a part is temporarily removed for assembly reasons, remember where it goes. Keep parts separated.	Operator's and Parts Manual	
	Be sure parts get used in the correct location. Double check to lessen the chance of using a bolt incorrectly that may be needed later.	Operator's and Parts Manual	
	Make sure safety labels are correctly located and legible. Replace if damaged.	Page 6	
	Make sure all grease fittings are in place and lubricated.	Page 45	
	Make sure red, amber, and orange reflectors are correctly located and visible when cutter is in the transport position.	Page 6	
	Tighten wheel bolts to specified torque.	Page 52	

#### Refer to Figure 1-1 & Figure 1-2:

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



Splitter/Center Spindle Gearbox Figure 1-1



**Outside Spindle Gearboxes** Figure 1-2



## **Intermediate Driveline Rotation**

Refer to Figure 1-3:

**IMPORTANT:** The spring loaded flex couplers (#2) are directional rotation and must be attached to the T-box with arrows (#1) on end of clutches pointing in the direction the intermediate drivelines will rotate. If installed with indicator arrow rotating backwards, the drivelines and/or gearboxes can become damaged.

- Intermediate drivelines rotate counterclockwise when viewing the T-box from the left side as shown. Always verify intermediate drivelines are installed correctly during assembly and set-up.
- 2. Switch drivelines if arrows (#1) on both drivelines indicate the clutches rotate clockwise.
- 3. If only one arrow (#1) indicates the clutch rotates clockwise, replace that driveline with a new driveline.

## **3-Point Hitch Assembly**

**NOTE:** Do not tighten hardware until assembly is complete. See "**Torque Values Chart**" on page 52.

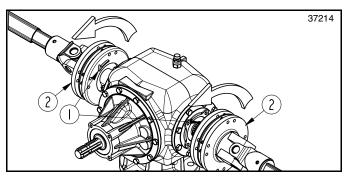
#### Refer to Figure 1-4:

- 1. Cut bands securing A-frame hitch (#1 & #2) and rear floating top link (#3) together.
- 2. Attach floating top link (#3) to A-frames (#1 & #2) with 3/4"-10 x 4" GR5 cap screw (#4), flat washers (#6), 1" OD x 3 3/32" long bushing (#7), and locknut (#5) as shown.
- 3. Attach driveline hook (#10) to A-frame (#1) using 5/16"-18 x 1 1/4" bolt (#11) and locknut (#12).
- 4. Tighten locknut (#5) to the correct torque.
- 5. Remove shipping bolts and nuts (not shown) in hitch pins (#8).
- 6. Insert hitch pins (#8) into clevis holes as shown and secure with linchpins (#9).

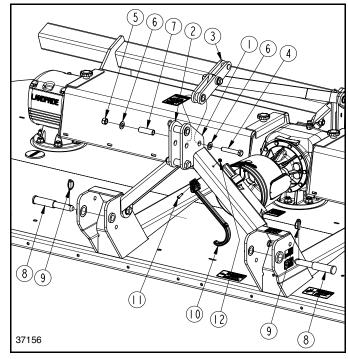
# **Gearbox Input Shaft Shield**

#### Refer to Figure 1-5:

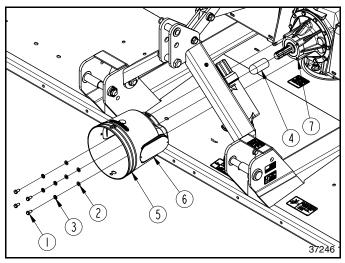
- 1. If installing driveline, remove shaft protector (#4) from input shaft of gearbox (#7). Do not remove if driveline will be installed at a later date.
- 2. Unsnap one end of shield access doors (#6) and rotate doors open.
- 3. Attach shaft shield (#5) to gearbox (#7) with W10-1.5 x 20 GR8.8 bolts (#1), lock washers (#3), and flat washers (#2).
- 4. Tighten bolts (#1) to the correct torque.
- If installing driveline, skip to "Driveline Assembly" on page 16.
- 6. If not installing driveline, rotate shield access doors (#6) closed and snap in place.



Intermediate Driveline Rotation Figure 1-3

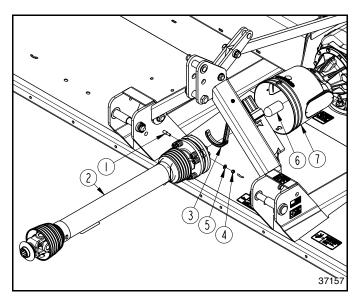


3-Point Hitch Assembly Figure 1-4



T-Box Input Shaft Shield Figure 1-5





Driveline Installation Figure 1-6

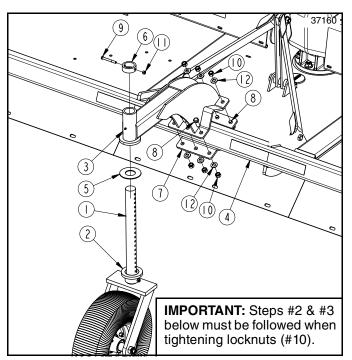
# **Driveline Assembly**

Refer to Figure 1-6:

**IMPORTANT:** The drivelines must be lubricated before putting them into service. Refer to "Lubrication Points" on page 45.

**NOTE:** If preferred, the front guards may be assembled first. See "**Front Safety Guards**" on page 23 for detailed instructions.

- 1. If not already done, remove shaft protector (#6) from gearbox input shaft and discard.
- 2. If not already done, unsnap one end of gearbox shield access doors (#7) and rotate doors open.
- 3. Remove existing nut (#4), flat washer (#5), and conical dog pin (#1) from slip-clutch end of driveline (#2).
- Slide u-joint on slip-clutch end of driveline (#2) onto gearbox input shaft. Make certain the slip-clutch is fully onto the shaft splines.
- 5. Attach slip-clutch end of driveline to gearbox input shaft with removed conical dog pin (#1), flat washer (#5), and nut (#4). Tighten conical dog pin (#1) to 45-50 ft-lb torque.
- Push/pull on driveline yoke to ensure it is securely fastened to the gearbox shaft.
- 7. Rotate driveline support (#3) down and place driveline (#2) in driveline support (#3).
- 8. Rotate gearbox shield access doors (#7) closed and snap in place.



Installation of Center Tailwheel Figure 1-7

# **Center Tailwheel Assembly**

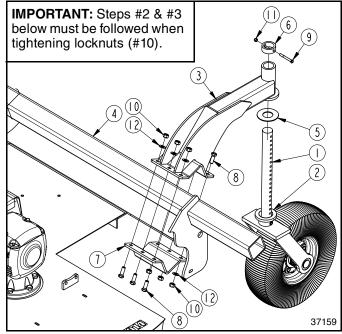
Refer to Figure 1-7:

Depending on which option was purchased, the cutter will be set-up with two or three tailwheels. If there are three tailwheels, the third tailwheel is installed in the middle of toolbar (#4). If only two tailwheels are provided, skip to "End Tailwheels for 30" Rows" on this page or "End Tailwheels for 38" & 40" Rows" on page 17

**IMPORTANT:** Discard hardware mounting tailwheel to shipping crate. Use bolts, flat washers, and locknuts in bolt bag to mount tailwheel to cutter axle.

- Attach trailing arm (#3) to rear tool bar (#4) with tube clamp (#7), 5/8"-11 x 2" GR5 bolts (#8), flat washers (#12), and hex locknuts (#10). Make sure trailing arm is centered on the rear tool bar and draw all six nuts up snug. Do not tighten nuts until step #2.
- Tighten the center two hex locknuts (#10) and then the four corner locknuts (#10) in a crisscross pattern.
- 3. Repeat step 2 making sure all six nuts are tightened to the correct torque.
- 4. Install large washer (#5) over tailwheel spindle (#1).
- Insert tailwheel spindle (#1) into trailing arm (#3).
   Push tailwheel up until adjusting collar (#2) is against the trailing arm (#3).
- 6. Lower top collar (#6) over tailwheel spindle (#1) until against trailing arm (#3).
- 7. Secure top collar (#6) with 3/8"-16 x 3 1/4" GR8 bolt (#9) and nylock nut (#11). Tighten nylock nut to the correct torque.





Installation of End Tailwheels for 30" (76 cm) Rows Figure 1-8

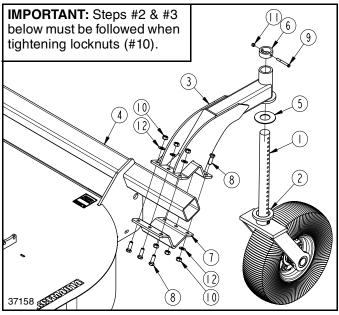
# End Tailwheels for 30" Rows

#### Refer to Figure 1-8:

When setting cutter up for 30" (76 cm) rows, the center of the end tailwheels should be mounted 23 1/2" (60 cm) from each end of tool bar (#4) or 60" (1.52 m) left and right of center.

**IMPORTANT:** Discard hardware mounting tailwheel to shipping crate. Use bolts, flat washers, and locknuts in bolt bag to mount tailwheel to cutter axle.

- Attach center of trailing arm (#3) 23 1/2" (60 cm) from left end of rear tool bar (#4) with tube clamp (#7), 5/8"-11 x 2" GR5 bolts (#8), flat washers (#10), and hex locknuts (#10). Make sure center of trailing arm is 23 1/2" (60 cm) from end of rear tool bar and draw all six nuts up snug. Do not tighten nuts until step #2.
- 2. Tighten the center two locknuts (#9) and then the four corner locknuts (#10) in a crisscross pattern.
- 3. Repeat step 2 making sure all six nuts are tightened to the correct torque.
- 4. Install tailwheel washer (#5) over tailwheel spindle (#1).
- 5. Insert tailwheel spindle (#1) into trailing arm (#3). Push tailwheel up until adjusting collar (#2) is against the trailing arm (#3).
- 6. Lower top collar (#6) over tailwheel spindle (#1) until against the trailing arm (#3).
- 7. Secure top collar (#6) with 3/8"-16 x 3 1/4" GR8 bolt (#11) and nylock nut (#9). Tighten nylock nut to the correct torque.
- 8. Repeat steps 1-7 for the right-hand side.



Installation of End Tailwheels for 38" (96.5 cm) & 40" (102 cm) Rows Figure 1-9

# End Tailwheels for 38" & 40" Rows Refer to Figure 1-9:

When setting the cutter up, the center of the tailwheels should be mounted 7 1/2" (19 cm) from each end of tool bar (#4) for 38" (96.5 cm) rows and 3 1/2" (9 mm) from each end of the toolbar for 40" (102 cm) rows. Another way to measure it is, 76" (1.93 m) left and right of center for 38" (96.5 cm) rows and 80" (2.03 m) left and right of center for 40" (102 cm) rows.

**IMPORTANT:** Discard hardware mounting tailwheel to shipping crate. Use bolts, flat washers, and locknuts in bolt bag to mount tailwheel to cutter axle.

- Attach center of trailing arm (#3) 7 1/2" (19 cm) for 38" (96.5 cm) row spacing or 3 1/2" (9 mm) for 40" (102 cm) row spacing from left end of rear tool bar (#4) with tube clamp (#7), 5/8"-11 x 2" GR5 bolts (#8), flat washers (#12), and hex locknuts (#10). Make sure center of trailing arm is 7 1/2" (19 cm) or 3 1/2" (9 cm) from end of rear tool bar and draw all six nuts up snug. Do not tighten nuts until after step #2 below.
- 2. Tighten the center two locknuts (#10) and then the four corner locknuts (#10) in a crisscross pattern.
- 3. Repeat step 2 making sure all six nuts are tightened to the correct torque.
- 4. Install tailwheel washer (#5) over spindle (#1).
- Insert tailwheel spindle (#1) into trailing arm (#3).
   Push tailwheel up until adjusting collar (#2) is against trailing arm (#3).
- 6. Lower top collar (#6) over tailwheel spindle (#1) until against trailing arm (#3).



- 7. Secure top collar (#6) with 3/8"-16 x 3 1/4" GR8 bolt (#11) and nylock nut (#9). Tighten nylock nut to the correct torque.
- 8. Repeat steps 1-7 for the right-hand side.

#### **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.

- 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.
- 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.
- Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.

## 3-Point Hook-Up

Refer to Figure 1-10 on page 19:



## **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.
- 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.



# WARNING

To avoid serious injury or death:

Always shut tractor down using "Tractor Shutdown Procedure" provided in this manual before allowing anyone including the operator to hook-up and unhook implement.

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

 Make sure you have read and follow all Safety Alerts and Important Notes listed under "3-Point Hook-Up" on this page before continuing.

- The cutter is equipped with a Cat. II and III hitch. Make sure your tractor's hitch is compatible with the cutter's hitch.
- 3. Remove lower linchpins (#8) and hitch pins (#2). Remove upper hairpin cotter (#7), flat washer (#6), hitch tube (#4), and hitch pin (#9).
- 4. Slowly back tractor to cutter while using tractor's 3-point control lever to align lower 3-point arm hitch holes with clevis hitch pin holes.
- Shut tractor down properly. Refer to "Tractor Shutdown Procedure" on this page.
- Attach lower 3-point arms to clevises with hitch pins (#2). Secure hitch pins with linchpins (#8).
- The upper center 3-point link can be attached to the cutter in one of two locations depending on which hitch category the tractor has.
  - a. Connect Cat. Il center 3-point link to the middle hitch holes in upper hitch plates with clevis pin (#9), flat washer (#6), and hairpin cotter (#7). Hitch tube (#4) is not used and should be stored with cutter for safe keeping.
  - b. Connect Cat. III center 3-point link to the upper hitch holes in upper hitch plates with clevis pin (#9), hitch tube (#4), flat washer (#6), and hairpin cotter (#7).

# **Driveline Hook-up**

Refer to Figure 1-10:

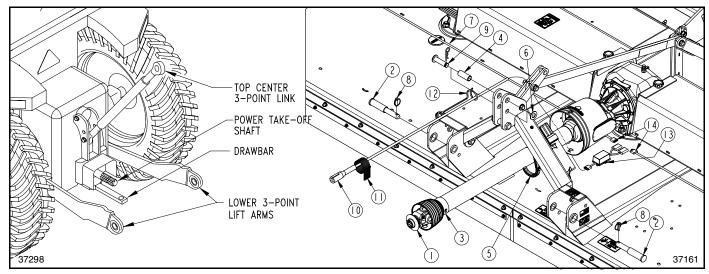


# **DANGER**

To avoid serious injury or death:

- Tractor power take-off shaft shield, driveline shields, and gearbox shaft shields must be installed and in good working condition to avoid driveline entanglement and projectiles flying off of the driveline.
- Do not engage power take-off while 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.





3-Point Hook-up Figure 1-10



## **WARNING**

To avoid serious injury or death:

- Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.
- Check driveline when lowering implement to make sure it does not interfere with the tractor drawbar at maximum depth. If needed, shut tractor off and move or remove drawbar to prevent driveline damage.
- Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off is set-up to operate at the implement's rated power take-off speed or equipment breakage may result. RCFM4014 models are rated for 1000 rpm.

**IMPORTANT:** The drivelines must be lubricated before putting them into service. Refer to "Lubrication Points" on page 45.

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

**IMPORTANT:** Drivelines with friction clutches must go through a "run-in" prior to initial use and after long periods of inactivity. For detailed instructions, see "**Main Driveline Slip Clutch**" on page 42.

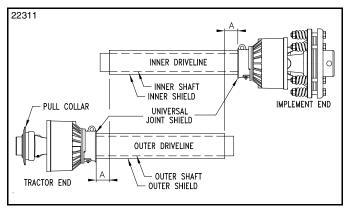
**IMPORTANT:** Check driveline minimum collapsible length before completing "**Driveline Hook-up**". Structural damage to the tractor and cutter can occur if this check is not made. Refer to "**Check Driveline Collapsible Length**" on page 20.

**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.

The cutter driveline (#3) fastens to the tractor power takeoff shaft with pull collar coupler (#1).

- If driveline collapsible length has not been checked, go to "Check Driveline Collapsible Length" on page 20. Otherwise, continue with step 2 below.
- 2. Park tractor and cutter on a level surface.
- 3. Shut tractor down before dismounting. Refer to "Tractor Shutdown Procedure" on page 18.
- 4. If tractor drawbar interferes with the driveline during hook-up, disconnect driveline and move drawbar forward, to the side, or remove.
- Remove driveline (#3) from driveline support (#5).
   Driveline support is spring loaded and will rotate up against the A-frame.
- 6. Pull back on driveline pull collar (#1) and push yoke onto the tractor power take-off shaft. Release pull collar and continue to push driveline yoke forward until pull collar pops out and locks in place.
- 7. Pull on driveline yoke at the tractor and implement end to make sure it is secured to the tractor power take-off shaft and implement gearbox shaft.
- 8. The tractor's lower 3-point arms should be adjusted for lateral float. Please consult your tractor's manual.
- Continue with "Check Driveline Interference" on page 21.





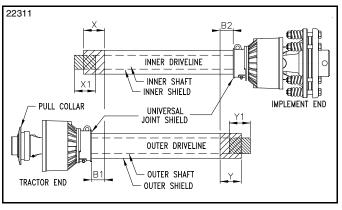
Driveline Shortening Figure 1-11

## **Check Driveline Collapsible Length**

Refer to Figure 1-11:

**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.

- With driveline attached only to the cutter, remove outer driveline (tractor end) from inner driveline to separate the two profiles.
- 2. Park tractor and cutter on a level surface.
- 3. Raise cutter until gearbox input shaft is level with tractor power take-off shaft. Securely block cutter at this height to keep unit from lowering.
- Shut tractor down without removing support blocks. Refer to "Tractor Shutdown Procedure" on page 18.
- Attach outer driveline to the tractor's power take-off shaft. Refer to "Driveline Hook-up" on page 18, steps 5-7.
- Hold inner and outer drivelines parallel to each other. If dimension "A" is greater than or equal to 1" (2.5 cm), then skip to "Check Driveline Interference" on page 21. Otherwise continue with step 7.
- If dimension "A" is less than 1" (2.5 cm), shorten driveline as follows:



Driveline Shortening Figure 1-12

#### Refer to Figure 1-12:

- a. Measure 1" (2.5 cm) ("**B1**" dimension) back from outer driveline shield and make a mark at this location on the inner driveline shield.
- Measure 1" (2.5 cm) ("B2" dimension) back from the inner driveline shield and make a mark at this location on the outer driveline shield.
- Remove outer driveline from the tractor power takeoff shaft and inner driveline from the cutter gearbox shaft.
- 9. Cut off non-yoke end of inner driveline as follows:
  - a. Measure from end of inner shield to scribed mark ("X" dimension) and record.
  - b. Cut off inner shield at the mark. Cut same amount off the inner shaft ("X1" dimension).
- 10. Cut off non-yoke end of outer driveline as follows:
  - a. Measure from end of outer shield to scribed mark ("Y" dimension) and record.
  - b. Cut off outer shield at the mark. Cut same amount off the outer shaft ("Y1" dimension).
- 11. Remove all burrs and cuttings.
- 12. Continue with "Check Driveline Interference" on page 21.



# **Check Driveline Interference**

Refer to Figure 1-13 on page 21:

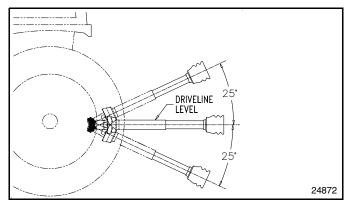


# **WARNING**

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.

- 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.
- Slowly and carefully lower and raise the cutter to ensure drawbar, tires, and other equipment on the tractor do not contact the cutter frame. If there is an interference:
  - a. Back cutter over the support blocks and lower it onto the blocks.
  - b. Shut tractor down before dismounting. Refer to "Tractor Shutdown Procedure" on page 18
  - c. Move or remove drawbar if it interferes with the cutter and make any other necessary corrections.
  - d. Repeat steps 1-2 to verify the cutter does not interfere with the tractor.
- 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".
- Check to make sure the driveline angle does not exceed 25 degrees above horizontal as shown in Figure 1-13.
- 6. If driveline angle exceeds 25 degrees:
  - Adjust tractor 3-point lift limiter to the height that will keep the driveline within the recommended lift angle.
  - b. If the 3-point left lever does not have a lift height limiter, make a mark with tape or other means to indicate maximum lift height.
- 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".



Maximum Driveline Movement During Operation Figure 1-13



## **Hook-up LED Lights**

#### Refer to Figure 1-14:

The lead wiring harness (#10) is equipped with a 7-way round pin connector for connecting to the tractor's 7-pin electrical outlet shown in Figure 1-15.

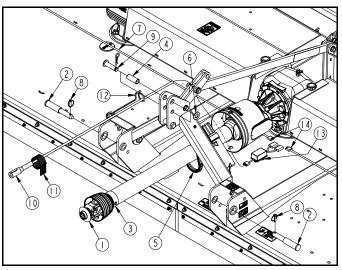
- 1. Route lead wire harness (#10) through spring hose loops (#12).
- 2. Connect lead wire harness (#10) to the tractor's 7-way round pin receiver shown in Figure 1-15.
- It is best to have a second person verify the lights are operating. Start tractor and operate lights as follows:
  - a. Turn on head lights to verify red lights illuminate.
  - b. Turn on flasher lights to verify amber lights are blinking on and off.

#### Refer to Figure 1-1:

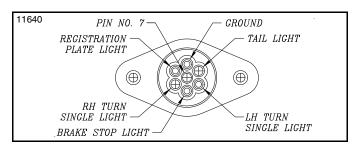
- 4. If the lights did not operate properly, recheck hook-up of the enhance module (#9) and wire harnesses (#8 & #10) as outlined below. Make any necessary changes and repeat step 3 above.
  - a. Reference wire harness (#8) leading to the LED lights on the right-hand side of the cutter. Make sure connector (#8R), labeled "ENHANCER", is connected to the Red wire connector (#9R) on enhancer module (#9).
  - a. Reference wire harness (#8) leading to the LED lights on the left-hand side of the cutter. Make sure connector (#8L), labeled "ENHANCER", is connected to the Yellow wire connector (#9L) on enhancer module (#9).
  - b. Make sure lead wire harness (#13) is connected to connector (#9C) on enhancer module (#9).
  - c. **Refer to Figure 1-14:** Ensure that the 7-pin plug on the end of wire harness (#10) is properly seated in the tractor's 7-pin electrical outlet shown in Figure 1-15.
- 5. Check routing of wire harness (#8) to make sure they are not pinched and will not become pinched.

#### Refer to Figure 1-14:

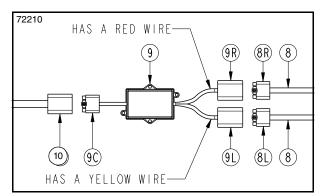
- 6. Check routing of lead wire harness (#10) to make sure it pass through spring hose loop (#12).
- 7. Secure wire harness in place with cable ties (#11).



Hook-up LED Lights Figure 1-14

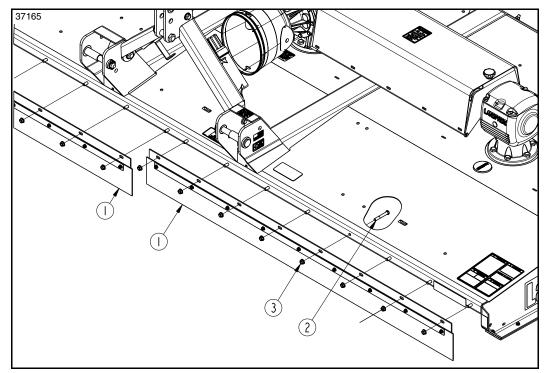


Tractor 7-Pin Electrical Outlet Figure 1-15



Enhance Module Wire Connections Figure 1-1





**Front Rubber Guards** Figure 2-1

# **Front Safety Guards**



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.

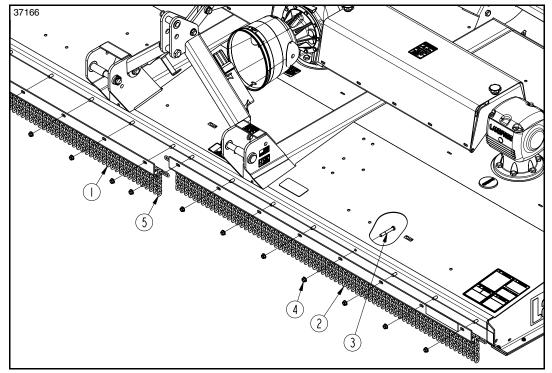
NOTE: Do not tighten hardware until assemblies are complete. Refer to "Torque Values Chart" on page 52 for torque instructions.

#### Front Rubber Guards

#### Refer to Figure 2-1:

- Attach front rubber guards (#1) to the deck front with 1/2" -13 x 3 1/2" GR5 bolts (#2) and whiz nuts (#3).
- 2. Tighten hex whiz nuts (#3) to the correct torque.





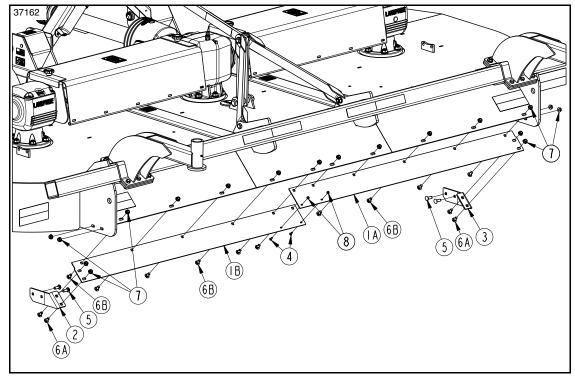
Front Chain Guard Figure 2-2

#### **Front Chain Guards**

#### Refer to Figure 2-2:

- 1. Locate chain guard (#1). It will have an extra chain strand (#5) hanging down on both ends. Attach chain guard (#1) to the right-hand side of the deck with 1/2" -13 x 3 1/2" bolts (#3) and hex whiz nuts (#4). Do not tighten hex whiz nuts at this time.
- 2. Attach chain guard (#2) to the left-hand side of the deck with remaining 1/2" -13 x 3 1/2" long carriage bolts (#3) and hex whiz nuts (#4).
- 3. Tighten hex whiz nuts (#4) to the correct torque.





Rear Metal Guard Figure 2-3

# **Rear 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. Double row chain guards should be used when cutting along roadways and in areas where people may be present. Stop blade rotation if bystanders are in or around the area. It is recommended that a safety shield be placed between the operator and cutter on an open air tractor.



## 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.

**NOTE:** Do not tighten hardware until assemblies are complete. Refer to "**Torque Values Chart**" on page 52 for torque instructions.

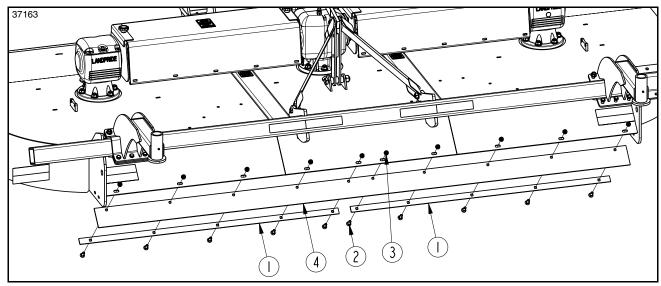
#### **Rear Metal Guards**

#### Refer to Figure 2-3:

 Attach left-hand bracket (#2) to the notched end of metal guard (#1B) as shown with 1/2"-13 x 1" GR5 carriage bolts (#6A) and hex whiz nuts (#7). Do not tighten hex whiz nuts at this time.

- 2. Attach right-hand bracket (#3) to the notched end of metal guard (#1A) as shown with 1/2"-13 x 1" GR5 carriage bolts (#6A) and hex whiz nuts (#7). Do not tighten hex whiz nuts at this time.
- 3. Attach right-hand metal guard (#1A) to the right-hand side of the deck with 1/2"-13 x 1" GR5 carriage bolts (#6B) and hex whiz nuts (#7). Do not tighten hex whiz nuts at this time.
- Attach right-hand bracket (#3) to the right-hand side of the deck with 1/2"-13 x 1 1/2" GR5 carriage bolts (#5) and hex whiz nuts (#7). Do not tighten hex whiz nuts at this time.
- Attach left-hand metal guard (#1B) to the left-hand side of the deck with 1/2"-13 x 1" GR5 carriage bolts (#6B) and hex whiz nuts (#7). Do not tighten hex whiz nuts at this time.
- Attach left-hand bracket (#2) to the left-hand side of the deck with 1/2"-13 x 1 1/2" GR5 carriage bolts (#5) and hex whiz nuts (#7). Do not tighten hex whiz nuts at this time.
- Attach right and left-hand metal guards together with two 1/4"-20 x 3/4" GR5 carriage bolts (#4) and hex flange nuts (#8)
- 8. Tighten hex whiz nuts (#7) and hex flange nuts (#8) to the correct torque.



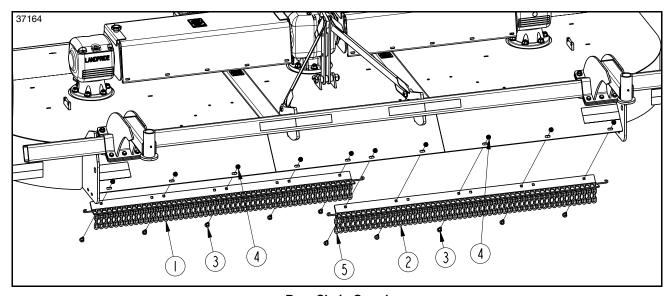


Rear Rubber Guard Figure 2-4

#### **Rear Rubber Guards**

### Refer to Figure 2-4:

- 1. Attach rear rubber guard (#4) and rear guard straps (#1) to the deck rear with 1/2" -13 x 1 1/2" long carriage bolts (#2), and hex whiz nuts (#3) as shown.
- 2. Tighten hex whiz nuts (#3) to the correct torque.



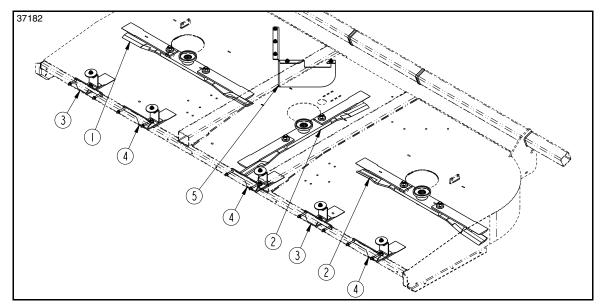
Rear Chain Guard Figure 2-5

#### **Rear Chain Guards**

#### Refer to Figure 2-5:

- 1. Locate chain guard (#1). It does not have the extra chain strand (#5) on one end as shown with chain guard (#2).
- 2. Attach left-hand chain guard (#1) to the left side of the deck rear with 1/2" -13 x 1 1/4" carriage bolts (#3), and hex whiz nuts (#4).
- 3. Attach right-hand chain guard (#2) to the right side of the deck rear with 1/2" -13 x 1 1/4" carriage bolts (#3), and hex whiz nuts (#4).
- 4. Tighten hex whiz nuts (#4) to the correct torque.





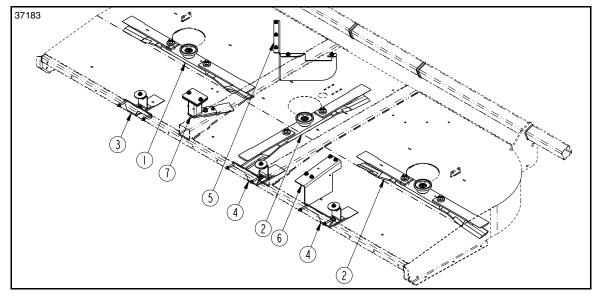
Shredder Kit with Fixed Blades (Designed for 30" (76 cm) Row Spacing)
Figure 2-6

## Shredder/Fixed Blades, 30" Rows

Refer to Figure 2-6:

1000 rpm SHREDDER KIT 30" ROW...... Part No. 326-704A

The double stacked shredder blades (#1 & #2) with stationary knives (#3 & #4) and rear baffle (#5) are designed for shredding row crops planted on 30" (76 cm) spacing into small pieces. Baffles help maintain shredded material in each section of the cutter for a consistent discharge at the rear.



Shredder Kit with Fixed Blades (Designed for 38" (97 cm) & 40" (102 cm) Row Spacing) Figure 2-7

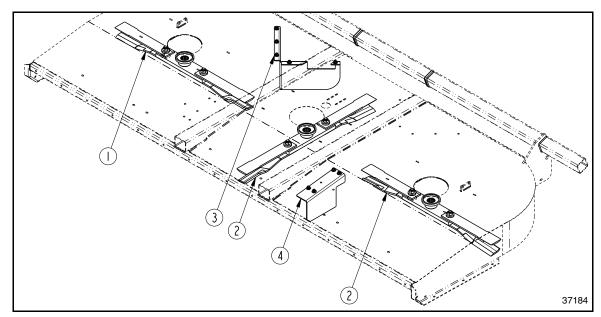
# Shredder/Fixed Blades, 38"-40" Rows

Refer to Figure 2-7:

1000 rpm SHREDDER KIT 38" & 40" ROW ...... Part No. 326-715A

The double stacked shredder blades (#1 & #2) with stationary knives (#3, #4, & #7) and baffles (#5 & #6) are designed for shredding row crops planted on 38" (97 cm) and 40" (102 cm) spacing into small pieces. Baffles help maintain shredded material in each section of the cutter for a consistent discharge at the rear.



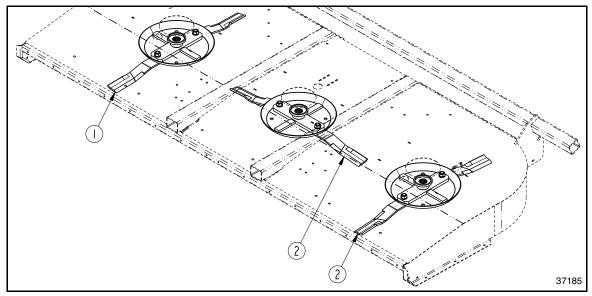


Shredder Kit without Fixed Blades Figure 2-8

#### **Shredder without Fixed Blades**

#### Refer to Figure 2-8:

The double stacked shredder blades (#1 & #2) with baffles (#3 &#4) are designed for shredding row crops planted on any spacing into small pieces. Baffles help maintain shredded material in each section of the cutter for a consistent discharge at the rear.



Medium Lift Rotary Cutter Blades With Dishpans Figure 2-9

### **Dish Pans With Cutter Blades**

#### Refer to Figure 2-9:

1000 rpm DISH PANS W/ CUTTER BLADES . . . . . . . . . . Part No. 326-7675A

The blade carrier assemblies (#1 & #2) are designed for cutting grass, weeds, and brush up to 3" (7.6 cm) in diameter. The dish pans protect the blade spindle by lifting the cutter over solid objects.



# **Deck Height & Level Adjustments**



# **A** DANGER

To avoid serious injury or death:

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



# WARNING

To avoid serious injury or death:

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

There are four primary adjustments that should be made prior to actual field operation:

- "Level Deck Left to Right" on page 29
- "Adjust Deck Cutting Height" on page 30
- "Adjust Tailwheel Height" on page 30
- Adjust Tractor Center 3-Point Link on page 31

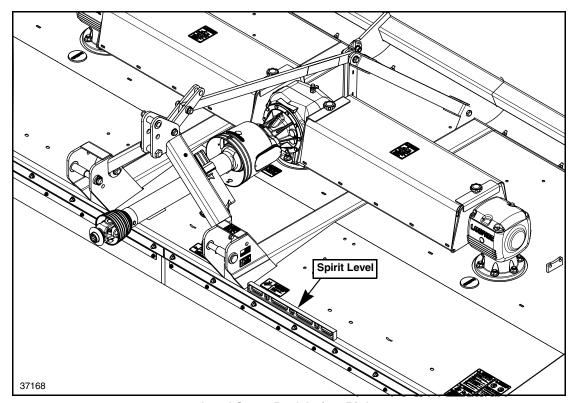
Proper adjustment of each of these items will provide higher efficiency, improved cutting performance and longer blade life.

### Level Deck Left to Right

#### Refer to Figure 3-1:

The Rotary Cutter must operate level from side to side at all times. Make certain tailwheels are adjusted to identical heights before adjusting lower 3-point lift arms. See "Adjust Tailwheel Height" on page 30.

- Locate tractor and cutter on a flat level surface.
- Use tractor's hydraulic 3-point control lever to lower cutter until tailwheels make contact with ground.
- 3. Follow "Tractor Shutdown Procedure" on page 18 before dismounting from tractor.
- Place a spirit level or other suitable leveling device across the front of the deck.
- Adjust either one or both of the tractor's lower 3-point lift arms up or down to level the deck from left to right. Some tractors have only a single adjustable lift arm.



Level Cutter Deck Left to Right Figure 3-1



### Adjust Deck Cutting Height



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.

#### Refer to Figure 3-2:

- 1. Follow "**Tractor Shutdown Procedure**" on page 18 when dismounting from tractor.
- With gloves on, carefully rotate blade tips on one side of the cutter to the position shown.
- 3. Measure distance from cutting tip of front blade to ground surface. This distance is the cutting height.
- 4. Restart tractor to use tractor's 3-point hydraulic control lever to raise or lower 3-point lift arms until the front blade tip is at the desired cutting height.
- 5. The top center 3-point link should be loose when deck rear is supported by the tailwheel. If not, shut tractor down and lengthen center 3-point link until loose. Final adjustment will be made later.
- With tractor shut down, measure distance from cutting tip of rear blade to ground. This distance should be slightly higher than the front blade but not more than 1" (2.5 cm) higher.

- 7. If rear blade is lower than the front blade or is more than 1" higher than the front blade, then the tailwheel heights must be adjusted. If needed, see "Adjust Tailwheel Height" on page 30.
- 8. Repeat steps 2-7 until tailwheel and 3-point arms are adjusted to the desired cutting height.
- 9. Set tractor's 3-point hydraulic control stop once the tailwheel and 3-point arms are adjusted properly.

# Adjust Tailwheel Height Refer to Figure 3-2:

**NOTE:** The unit cuts most efficiently if front of cutter is slightly lower than back of cutter.

With Rotary Cutter lowered to approximate cutting height, measure distance from end of front blade cutting tip to ground and from end of rear blade cutting tip to ground. The tailwheel must be adjusted up or down if the rear blade tip is one of the following:

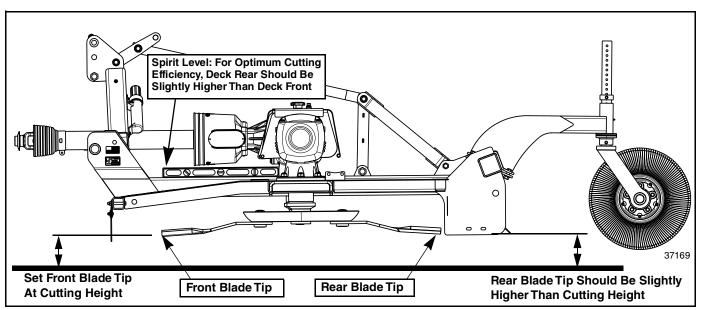
- Same distance off the ground as the front blade.
- Lower than the front blade.
- More than 1" higher off the ground than the front blade.

Adjust tailwheel to lower the cutter or raise the cutter as follows:

# **Lower Deck Cutting Height**

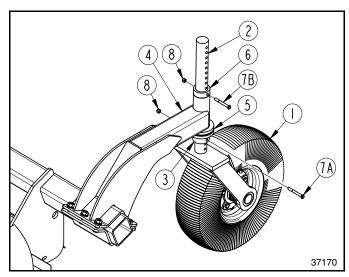
#### Refer to Figure 3-3 on page 31:

- 1. Raise cutter up until tailwheels are a little higher than the distance the tailwheels are to be lowered.
- 2. Follow "Tractor Shutdown Procedure" on page 18 before dismounting tractor.



Adjust Deck & Tailwheel Height Figure 3-2



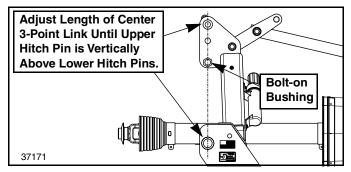


#### Adjust Tailwheel Height Figure 3-3

- Place supports under the cutter deck and without starting the tractor, lower cutter onto the supports before making any other adjustments to the tailwheels.
- 4. Remove nylock nut (#8) and hex head bolt (#7A) in left-hand tailwheel (#1).
- 5. Slide adjusting collar (#3) and tailwheel washer (#5) down to the preferred hole in yoke spindle (#6).
- 6. Insert 3/8"-16 x 3 1/4" hex head bolt GR8 (#7A) through adjusting collar (#3) and yoke spindle (#2). Secure bolt with nylock nut (#8). Tighten nylock nut to the correct torque.
- 7. Repeat steps 1-6 for the remaining tailwheels making sure adjusting collar (#3) is pinned to the same hole in all yoke spindles (#2).
- 8. Return to tractor to raise cutter up high enough to be able to remove support blocks from under the deck.
- Follow "Tractor Shutdown Procedure" on page 18 before dismounting tractor to remove support blocks.
- 10. Remove support blocks from under the cutter deck.
- 11. Without starting the tractor, lower cutter until rear of unit is supported by tailwheels (#1).
- 12. Remove nylock nut (#8) and bolt (#7B) on the left tailwheel.
- 13. Slide top collar (#6) down against trailing arm (#4). Secure top collar to that hole with 3/8"-16 x 3 1/4" hex head bolt GR8 (#7B) and nylock nut (#8). Tighten nylock nut to the correct torque.
- 14. Repeat step 13 above for remaining tailwheels.
- Recheck cutting height. If required, repeat instructions for "Adjust Deck Cutting Height" on page 30 and instructions for "Adjust Tailwheel Height" on page 30.
- 16. Set tractor's 3-Point hydraulic control stop once the tailwheel and 3-Point arms are adjusted properly.

# Raise Deck Cutting Height Refer to Figure 3-3:

- 1. With cutter sitting on the ground, remove nylock nut (#8) and bolt (#7B) on the left tailwheel.
- 2. Raise top collar (#6) up to the preferred hole in yoke spindle (#6). Secure top collar to that hole with 3/8"-16 x 3 1/4" hex head bolt GR8 (#7B) and nylock nut (#8). Tighten nylock nut to the correct torque.
- 3. Repeat steps 1 & 2 above for the remaining tailwheels making sure to pin top collar (#6) to the same hole in the remaining yoke spindles (#2).
- 4. Return to the tractor and raise cutter up until tailwheels (#1) are carried by the top collars.
- 5. With gear selector in park or park brake set; turn off engine, remove switch key, and dismount tractor.
- Place supports under the cutter deck. Start tractor and lower cutter onto the supports before making any other adjustments to the tailwheels.
- 7. Remove nylock nut (#8) and hex head bolt (#7A).
- 8. Slide adjusting collar (#3) and tailwheel washer (#5) up against trailing arm (#4).
- 9. Insert 3/8"-16 x 3 1/4" hex head bolt GR8 (#7A) through adjusting collar (#3) and yoke spindle (#2). Secure bolt with nylock nut (#8). Tighten nylock nut to the correct torque.
- 10. Repeat step 9 above for remaining tailwheels.
- Recheck cutting height. If required, repeat instructions for "Adjust Deck Cutting Height" on page 30 and instructions for "Adjust Tailwheel Height" on page 30.
- 12. Set tractor's 3-Point hydraulic control stop once the tailwheel and 3-Point arms are adjusted properly.



Adjust Tractor Center 3-Point Link Figure 3-4

# Adjust Tractor Center 3-Point Link Refer to Figure 3-4:

- 1. Lower cutter deck to the preset cutting height.
- 2. Without changing the deck height, shut tractor down using "Tractor Shutdown Procedure" on page 18.
- Adjust length of tractor's top center 3-point link until upper hitch pin is vertically above lower hitch pins.

RCFM4014 Rotary Cutter 326-730M

4. Lock center 3-point link in this position.



## **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. 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, pages 1
- Section 1: Assembly & Set-Up, page 14
- Section 3: Adjustments, page 29
- Section 4: Operating Instructions, page 32
- Section 5: Maintenance & Lubrication, page 39

Perform the following inspections before using your Rotary Cutter.

## **Operating Checklist**

~	Check	Page
	Read and follow all safety information carefully. Refer to "Important Safety Information".	1
	Make sure all guards and shields are in place. Refer to "Important Safety Information".	1
	Make sure there are no hydraulic leaks. Refer to "Avoid High Pressure Fluids Hazard".	3
	Read and follow hook-up & preparation. Refer to "Section 1: Assembly & Set-Up".	14
	Read and make all required adjustments. Refer to "Section 3: Adjustments".	29
	Read and follow all operating procedures. Refer to "Section 4: Operating Instructions".	32
	Read and follow all maintenance instructions. Refer to "Section 5: Maintenance & Lubrication".	39
	Read and follow all lubrication Instructions. Refer to "Lubrication Points".	45
	Check cutter initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	52
	Make sure all gearboxes are properly lubricated. Refer to Gearbox lubrication.	46

# **Safety Information**



# 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.
- Always disengage power take-off, shut tractor down, and wait for cutter blades to spool down to a stop before allowing anyone to clean, service, preform maintenance, or be near the cutter. Refer to tractor shutdown procedures provided in this manual.
- 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.
- Always disconnect driveline from the tractor before servicing the drivetrain and components powered by the drivetrain. A person can become entangled in the drivetrain if the tractor is started and the power take-off is engaged.
- This cutter is equipped with free-swinging cutting blades to reduce shock loads. However, it is best to avoid striking solid objects for your safety and to protect the cutter from damage.
- 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.
- All guards and shields must be installed and in good working condition while operating the implement.
- 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.
- 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 cutter as a fan. Cutting blades are not properly designed or guarded for this use.
- Always disengage power take-off before lifting implement up, and never operate implement in the raised position.
   Objects can be thrown at high speeds toward people or animals
- 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.
- 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.
- 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.



# A

# **WARNING**

To avoid serious injury or death:

- Never carry riders on the implement or power machine. Riders can obstruct the operator's view, interfere with controls, be pinched by moving components, become entangled in rotating components, struck by objects, thrown about, fall off and be run over, etc.
- 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 use a tractor that is too small or too large. Small tractors can be pushed around and flipped over. Large tractors can damage the attached implement. See "Tractor Requirements" at the front of Section 1: Assembly & Set-up.
- Cutter blades can continue to rotate while decelerating after power take-off is disengaged. Remain on the tractor seat until rotating parts come to a complete stop.
- Operate only power machines equipped with a certified Roll-Over Protective Structure (ROPS) and seat belt. Keep folding ROPS in the "locked up" position when appropriate. If ROPS is in the locked up position, fasten seat belt snugly and securely to help protect against serious injury or death from falling and machine overturn.
- Do not operate a cutter with a hitch or hitch pin that is excessively worn, bent, broken, or has structural cracks. The hitch and/or hitch pin can break apart separating cutter from tractor.
- 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.
- Wait for blades to come to a complete stop before accessing blade bolts through blade bolt access hole.
- Do not use implement to tow other equipment unless it is designed with a tow hitch. Doing so can result in loss of control and damage the equipment.
- Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.
- 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.
- 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.
- Do not use implement to lift objects; to pull objects such as fence posts, stumps, etc; or to push objects. The unit is not designed or guarded for these uses.
- Do not use implement as a man lift or work platform. It is not properly designed or guarded for this use.

- 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.
- Do not operate a broken or bent driveline. Such a driveline will break apart while rotating at high speeds and can cause serious injury or death. Always remove the implement from use until the damaged driveline can be repaired or replaced.
- Some tractors are equipped with two power take-off speeds.
   Be certain your tractor's power take-off shaft is set-up to operate at 1000 rpm. Do not exceed 1000 rpm power take-off speed or equipment breakage may result.
- Some tractors are able to over speed their rated power take-off speed of 540 rpm or 1000 rpm. Only operate at the cutter's designed speed of 540 rpm or 1000 rpm. Excessive speed can damage drive components, cutter blades, and/or increase the risk of thrown object hazard.



## **Tractor & Cutter Inspection**

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

- 1. Follow "Tractor Shutdown Procedure" on page 18.
- Inspect tractor safety equipment to make sure it is installed and in good working condition.
- 3. Inspect cutter safety equipment to make sure it is installed and in good working condition.
- 4. Check driveline to make certain it is securely connected to the tractor power take-off shaft and cutter gearbox shaft.
- Make certain all guards are in good working condition and in place.
- Carefully raise and lower implement to ensure drawbar, tires, and other equipment on the tractor do not contact cutter frame or driveline.
- Check electrical wires to ensure they will not get pinched or come in contact with rotating drivelines.
- With cutter resting on solid supports, power take-off disengaged, and blade rotation completely stopped:
  - Check for and remove foreign objects wrapped around the blade spindles.
  - Check for nicked, bent, broken, and worn cutting blades. Replace or sharpen blades as required.
     Refer to "Cutter Blades" on page 40.

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



# 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.
- Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off shaft is set-up to operate at 1000 rpm. Do not exceed 1000 rpm power takeoff speed or equipment breakage may result.
- Start tractor and raise cutter up enough to remove solid supports from under the deck.
- 10. Lower cutter down until 2 to 3 inches off the ground.
- Set throttle to idle or slightly above idle, and slowly engage power take-off. Initial start-up vibration is normal and should stop after a few revolutions. Stop power take-off rotation immediately if vibration continues.
- 12. Once cutter is running smoothly, slowly increase tractor power take-off speed to 1000 rpm. Stop power take-off immediately if vibration begins to occur.
- 13. Investigate cause of vibration and make repairs before putting the cutter back into service.

## **Transporting**



## **WARNING**

To avoid serious injury or death:

- When traveling on roadways, travel in such a way that other vehicles may pass you safely. Always use LED lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.
- Reduce ground speed when turning and leave enough clearance to avoid making contact with obstacles such as buildings, trees, fences, etc. Making contact can result in equipment damage and cause 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.
- Always disengage power take-off and wait for driveline to stop rotating before raising implement to transport position.
- Transport only with a tractor of sufficient size and horsepower for handling the attached implement.
- 2. Make sure driveline does not contact tractor or cutter when raising cutter to transport position.
- 3. Select a safe ground speed to transport. Never transport above 20 MPH.
- 4. Reduce tractor ground speed when turning and leave enough turning clearance so cutter does not contact obstacles such as buildings, trees or fences.
- 5. Shift tractor to a lower gear when traveling over rough or hilly terrain.
- When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely. Use LED flashing lights on the cutter to make yourself more visible.

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## **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 below will help eliminate blade lock up.

## **Blade Engagement**

- Increase throttle speed just enough to get the blades rotating without stalling tractor while slowly engaging power take-off. Use tractor's power take-off soft start option if available.
- 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, remove switch key, and wait for blades to come to a complete stop.
- Check cutting 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**

- Slowly decrease throttle speed until engine idle speed is reached and then disengage power take-off.
- If dismounting tractor, be sure to follow "Tractor Shutdown Procedure" on page 18.

# **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.



## WARNING

To avoid serious injury or death:

Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off shaft is set-up to operate at 1000 rpm. Do not exceed 1000 rpm power take-off speed or equipment breakage may result.

**IMPORTANT:** Avoid striking solid objects with the cutter and cutting blades. Hitting such objects can damage the deck, cutting blades, blade spindles, gearboxes, and drivelines.

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

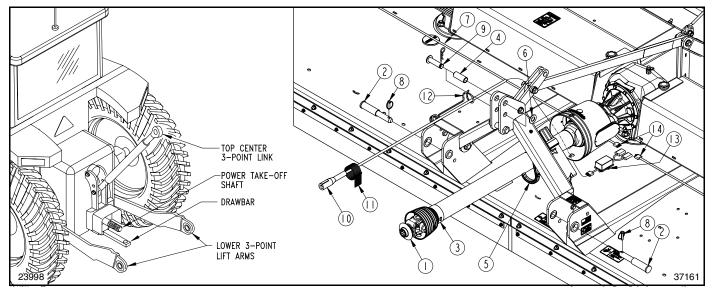
**IMPORTANT:** Cutting should **not be** done in wet conditions. Wet material will build up on the deck underside creating need for additional horsepower, high wear, and poor discharge.

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

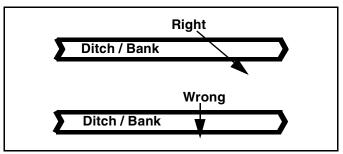
**NOTE:** Frequently inspect cutter for loose bolts and nuts. Tighten all loose hardware as indicated in the "**Torque Values Chart**" on page 52.

- Thoroughly inspect area to be cut for debris and unforeseen objects. Remove all potential hazards and mark any that cannot be removed.
- 2. Follow "Blade Engagement" instructions on this page to start cutter blades turning.
- Optimum ground speed depends on density of material, tractor horsepower, and terrain. Always operate tractor at the cutter's full-rated power take-off speed in a gear range (2 to 5 mph) that allows the cutter to make smooth cuts without lugging tractor down.
- 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 cutter fully raised.
- Periodically shut tractor and cutter down to check for foreign objects wrapped around the blade spindles. Block cutter deck up before removing objects. Refer to "Tractor Shutdown Procedure" on page 18
- Frequently inspect cutter for loose bolts and nuts.
   Tighten all loose bolts and nuts as indicated in the "Torque Values Chart" on page 52.
- 8. See "General Operating Instructions" on page 37.





Unhook Cutter Figure 4-2



Crossing Steep Ditches and Banks Figure 4-1

# Crossing Steep Ditches & Banks Refer to Figure 4-1:



# **WARNING**

To avoid serious injury or death:

Damage to the tractor's power take-off and/or driveline can cause driveline to come loose and cause bodily injury to the operator and others.

**IMPORTANT:** Always cross ditches and banks at a diagonal. Never cross straight across and never back into a ditch or bank.

Cutting over ditches and backing up hills can tilt the cutter's back side up excessively resulting in bottoming out the driveline. Bottoming out is when the driveline shaft has shortened to the point it is pressing against the gearbox and tractor power take-off shafts. Once a driveline has bottomed out, it can not be shortened anymore without causing serious damage to the tractor power take-off components, cutter gearbox and driveline.

# **Unhook Rotary Cutter**

Refer to Figure 4-2:



# **WARNING**

To avoid serious injury or death:

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

- 1. See "Long-Term Storage" on page 44 when parking cutter for long periods.
- 2. Shut tractor and cutter down properly. Refer to "Tractor Shutdown Procedure" on page 18.
- Pull back on driveline pull collar (#1) and hold while pulling driveline yoke from tractor power take-off shaft.
- 4. Remove top center hitch pin keeper (#7) and hitch pin (#9). If provided, place center 3-point link in tractor's holding clip.
- 5. Remove linchpins (#8) and hitch pins (#2) from lower 3-point lift arms.
- Drive tractor forward several feet. Place gear selector in park or set park brake, shut tractor engine off, remove switch key, and dismount tractor.
- 7. Reinstall hitch pins, linchpins, and hair pin cotters in cutter hitch for safe keeping.
- 8. Collapse driveline (#3) by pushing tractor end of driveline towards the cutter.
- 9. Rotate driveline storage hook (#5) down and place driveline (#3) in storage hook.



## **General Operating Instructions**

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

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

Make sure the tractor's park brake is engaged, power take-off is disengaged, and cutter is resting on the ground. Start tractor and then back tractor throttle off until engine is at low idle. With tractor's rear hydraulic lift control lever, raise cutter to transport position making sure that the power take-off shaft is not in a bind and does not come in contact with cutter frame. Lower cutter to ground and, with tractor still at low idle, engage power take-off. If at this point everything is running smoothly, increase engine rpm until the tractor's engine reaches full power take-off operating speed. The RCFM4014 operates at 1000 rpm power take-off speed. Slowly raise cutter to transport height to make sure driveline does not bind or chatter. Then return engine to low idle, disengage power take-off, and position 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 move to the cutting site to begin cutting. It is important that you inspect the area where you will be cutting and clear it of hazards and foreign objects before you start cutting. Never assume the area is clear. Cut only in areas you are familiar with and are free of foreign 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 any necessary repairs to the cutter before resuming operation. Remove or clearly mark the struck object to prevent hitting it again. It really pays to inspect a new area and to develop a safe plan before cutting.

Normal mowing speed will be between 2-5 mph, and you will need to maintain power take-off speed to produce a clean cut so make a tractor gear and range selection that will maintain this combination. Generally the quality of cut will be better at lower ground speeds; and cutting denser ground cover will create the need to slow down. In certain conditions tractor tires will roll grasses down resulting in an uneven cutting height when the grass fails to rebound before being cut. When this happens you may need to reverse the cutting direction and double cut to achieve the desired finish. You will want to avoid very low cutting heights especially on extremely uneven terrain. Always cut downward on slopes and avoid crossing the

face of steep slopes. Avoid sharp drops and cross diagonally through dips to prevent hanging tractor and cutter up. Slow down when turning and avoid sharp turns if at all possible. Remember to look back often.

Now that you're prepared and well briefed you may begin cutting by:

- Reducing tractor's engine rpm and lower cutter to the preferred cutting height.
- Engage power take-off and then raise engine rpm to the appropriate power take-off speed. Begin cutting.

When it is difficult to make a wide turn and you need to reverse direction, the 3-point hitch models can be lifted into transport position to make a tight turn. 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.

When you are done mowing, need to take a break, or just need to make a few adjustments to the cutter, remember to always reduce tractor's engine rpm, disengage power take-off, stop on level ground, place tractor in park or set park brake, turn off engine, remove switch key, and stay on the tractor until the cutter blades have come to a complete dead stop.

See "Specifications & Capacities" on page 48 and "Features & Benefits" on page 50 for additional information and performance enhancing options.

# **Table of Contents**

# Section 4: Operating Instructions



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## **Maintenance**

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

The parts on your Rotary Cutter have been specially designed and should only be replaced with genuine Land Pride parts. Do not alter the cutter in a way which will adversely affect its performance.

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



# **DANGER**

To avoid serious injury or death:

- Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to hydraulics is off.
- Always disengage power take-off, shut tractor down, and wait for cutter blades to spool down to a stop before allowing anyone to clean, service, preform maintenance, or be near the cutter. Refer to tractor shutdown procedures provided in this manual.



## WARNING

To avoid serious injury or death:

- Perform scheduled maintenance. Check for loose hardware, missing parts, broken parts, structural cracks, and excessive wear. Make repairs before putting the implement back into service.
- Always shut tractor down using "Tractor Shutdown Procedure" provided in this manual before servicing, adjusting, cleaning, or maintaining this implement.
- 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.

## **Skid Shoes**

Refer to Figure 5-1:



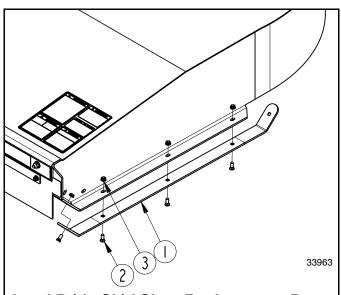
## **WARNING**

To avoid serious injury or death:

Excessive wear on skid shoes can damage side panels, cause inadequate operation of cutter, and create a safety hazard. Always replace skid shoes at the first sign of wearing thin.

A skid shoe is mounted to each side of the cutter. Check both skid shoes for wear and replace if needed. Order only genuine Land Pride parts from your local Land Pride dealer.

- 1. Remove 3/8" hex whiz nuts (#3), 3/8" plow bolts (#2) and skid shoe (#1) as shown.
- 2. Plow bolts should be checked for wear and replaced if necessary.
- Reverse skid shoe and reattach or attach new skid shoe (#1) to cutter with 3/8" plow bolts (#2) and secure with 3/8" hex whiz nuts (#3). Torque whiz nuts to 31 ft. lbs.
- 4. Repeat on opposite side.



# **Land Pride Skid Shoe Replacement Parts**

# Part No. Part Description

327-304D SKID SHOE

2 802-603C PLOW 3/8" - 16 x 1" GR5

8 803-198C NUT HEX WHIZ 3/8-16 PLT

Skid Shoe Replacement Figure 5-1



## **Cutter Blades**

# A

# **DANGER**

To avoid serious injury or death:

- Always disconnect driveline from the tractor before servicing the drivetrain and components powered by the drivetrain. A person can become entangled in the drivetrain if the tractor is started and the power take-off is engaged.
- Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to hydraulics is off.



# **WARNING**

To avoid serious injury or death:

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

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

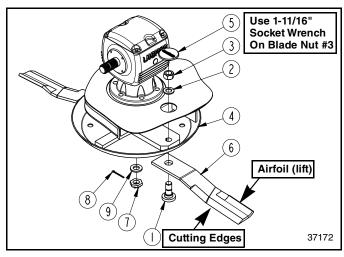
#### **Blade Removal**

Always inspect blades before each use. Make certain they are properly installed and in good working condition. Replace any blade that is damaged, worn, bent, or excessively nicked. Small nicks can be ground out.

#### **Cutter Blade Removal**

#### Refer to Figure 5-2:

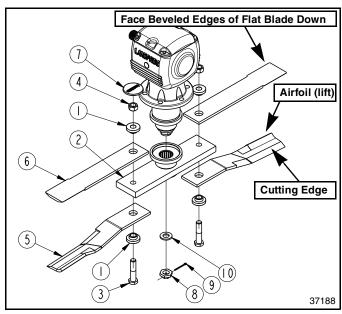
- 1. Shut tractor and cutter down properly. Refer to "Tractor Shutdown Procedure" on page 18.
- Disconnect main driveline from tractor power take-off and secure cutter deck in the up position with solid supports before servicing underside of cutter.
- 3. Remove access cover (#5).
- 4. Rotate blade bolt (#1) until aligned with access hole.
- Unscrew locknut (#3) to remove cutting blade (#6).
   Blade bolt (#1) is keyed and will not turn freely.
- 6. Go to "Blade Sharpening" on page 41.



Cutter Blade Removal (Clockwise Rotation Shown) Figure 5-2

# Shredder Blade Removal (Optional) Refer to Figure 5-3:

- Shut tractor and cutter down properly. Refer to "Tractor Shutdown Procedure" on page 18.
- 2. Disconnect main driveline from tractor power take-off and secure cutter deck in the up position with solid supports before servicing underside of cutter.
- 3. Remove access cover (#7).
- 4. Rotate blade bolt (#3) until aligned with access hole.
- 5. Remove locknut (#4), blade bushings (#1), and cutting blades (#5 & #6).
- 6. Go to "Blade Sharpening" on page 41.



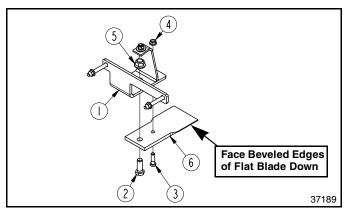
Shredder Blade Removal (Clockwise Rotation Shown)
Figure 5-3



## **Fixed Blade Removal (Optional)**

## Refer to Figure 5-4:

- 1. Shut tractor and cutter down properly. Refer to "Tractor Shutdown Procedure" on page 18.
- 2. Disconnect main driveline from tractor power take-off and secure cutter deck in the up position with solid supports before servicing underside of cutter.
- 3. Remove hex whiz nut (#4) and bolt (#3).
- 4. Remove hex flange top locknut (#5), bolt (#2), and fixed blade (#6).
- 5. Go to "Blade Sharpening" on page 41.



Fixed Blade Components (Front Mount (#1) Shown)
Figure 5-4

## **Blade Sharpening**

Blades should be sharpened at the same angle as the original cutting edge. Paired blades must be replaced or re-ground at the same time to maintain proper balance. Take the following precautions when sharpening blades:

- Do not remove more material than necessary.
- 2. Do not heat and/or pound out a cutting edge.
- 3. Do not grind blades to a razor edge. Leave a blunt cutting edge approximately 1/16" (2 mm) thick.
- 4. Always grind cutting edge so end of blade remains square to cutting edge and not rounded.
- 5. Do not sharpen back side of blade.
- Both blades should weigh the same after sharpening with not more than 1 1/2 oz. difference.

#### **Blade Installation**

Refer to Figure 5-5:

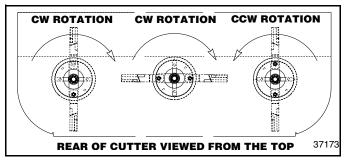


## **WARNING**

To avoid serious injury or death:

- A locknut that has been removed can lose its thread locking properties. Reusing a used locknut can result in a thrown blade. Always use a new locknut when installing blades.
- Cutter blades must be 90 deg. to each other to be in time or blades will contact each other when hitting solid objects such as tree stumps, rocks and earth.

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



Blade Position and Direction of Rotation Figure 5-5

**IMPORTANT:** Make certain when installing cutter blades that they are rotated 90 degrees to the adjacent blades as shown in Figure 5-5.

**IMPORTANT:** To ensure correct blade placement, carefully check cutting edges of blades in relation to blade rotation shown in Figure 5-5. Cutting edge must lead in rotation and airfoil (lift) must be oriented towards the top of the deck.

# Cutter Blade & Dish Pan Installation Refer to Figure 5-2 on page 40:

- Be sure to read Important Notes under "Blade Installation" on this page before installing blades.
- 2. Insert blade bolt (#1) through blade (#6), dish pan (#4), and flat washer (#2). Secure blade with a **new 1 1/8"-12 hex top locknut (#3)**. Torque hex top locknut to 450 ft-lbs (610 Nm).
- 3. If replacing dishpan (#4), castle nut (#7) on gearbox output shaft should be torqued to 550 ft-lbs (746 Nm) minimum and secured with cotter pin (#8) with both legs bent opposite directions around the nut.
- 4. Replace access rubber plug (#5) and reconnect main driveline to tractor power take-off shaft.

# Shredder Blade & Blade Bar Installation Refer to Figure 5-3 on page 40:

- Be sure to read instructions under "Blade Installation" on this page before installing blades.
- 2. Insert bolt (#3) through blade bushing (#1), cutter blade (#5), blade bar (#2), flat cutter blade (#6), and blade bushing (#1).
- 3. Secure blade with a **new 1"-8 hex top locknut (#4)** and torque to 450 ft-lbs (610 Nm).
- 4. If installing blade bar (#2), torque castle nut (#8) on gearbox output shaft to 550 ft-lbs (746 Nm) minimum and secure by bending both legs of cotter pin (#9) opposite directions around the castle nut.



## **Fixed Blade Installation**

## Refer to Figure 5-4 on page 41:

- Attach flat cutter blade (#6) with beveled edge facing away from blade mount (#1) with 3/4"-10 x 2" GR5 bolt (#2), new hex flange top locknut (#5), 1/2"-10 x 2" GR5 bolt (#3), and whiz nut (#4).
- 2. Tighten nuts to the correct torque.

# **Main Driveline Slip Clutch**



## WARNING

To avoid serious injury or death:

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

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

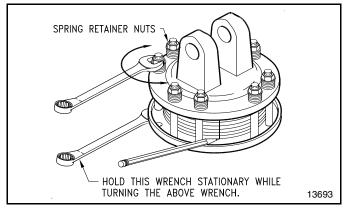
Friction clutches must be capable of slippage during operation to protect gearboxes, drivelines, and other drive train parts. Friction clutches should be "run-in" prior to initial operation and after periods of inactivity to remove any oxidation from the friction surfaces. Repeat "run-in" at the beginning of each season and when moisture seizes the inner friction plates.

## Clutch Run-In

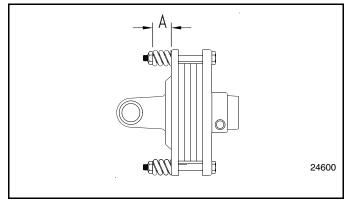
## Refer to Figure 5-6:

- Using a pencil or other marker, scribe a line across the exposed edges of the clutch plates and friction disks.
- Carefully loosen each of the 8 spring retainer nuts by exactly 2 revolutions. It will be necessary to hold hex end of retainer bolt in order to count the exact number of revolutions.
- 3. Make sure the area is clear of all bystanders and the implement is safe to operate.
- 4. Start tractor and engage power take-off drive for 2-3 seconds to permit slippage of the clutch surfaces. Disengage power take-off, then re-engage a second time for 2-3 seconds. Disengage power take-off, shut off tractor, and remove key. Wait for all components to stop before dismounting from tractor.
- 5. Inspect clutch and ensure that the scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disk and plate are still aligned. A clutch that has not slipped must be disassembled to separate the friction disk plates. See "Clutch Disassembly, Inspection & Assembly" below.

- 6. Tighten each of the 8 spring retainer nuts on the clutch housing exactly 2 revolutions to restore clutch to original setting pressure.
- 7. Allow clutch to cool to ambient temperature before operating again. Clutch is now ready for use.
- The clutch should be checked during the first hour of cutting and periodically each week. An additional set of scribe marks can be added to check for slippage. See Figure 5-7 to adjust spring length.



Type A Clutch Run-In Figure 5-6



Driveline No.	Driveline Location	Power Take-Off Speed	Cat No.	A (inches) Spring Height
326-728A	Main	1000	5	1.11 to 1.12"
326-729A	Main	1000	5	1.11 to 1.12"

Clutch Adjustment Figure 5-7

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# Clutch Disassembly, Inspection & Assembly Refer to Figure 5-8:

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

## Disassembly

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

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

## Inspection

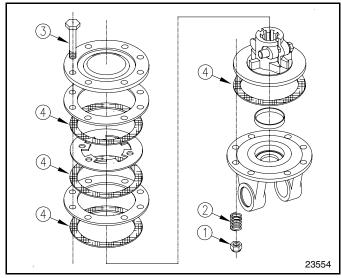
Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement. The original friction disk thickness is 1/8" (3.2mm) and should be replaced if thickness falls below 3/64" (1.1mm). If clutches have been slipped to the point of "smoking", the friction disks may be damaged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

## **Assembly**

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

#### Refer to Figure 5-7 on page 42:

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



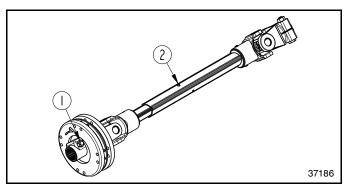
Clutch Disassembly/Assembly Figure 5-8

## **Intermediate Drivelines**

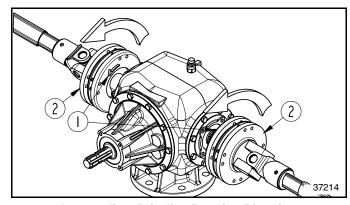
Refer to Figure 5-9:

**IMPORTANT:** Shaft clamping cotter bolt (#1) must be tightened after first 8 hours of use and thereafter every 40 hours. Tighten nut to 100 ft-lbs or 136 Nm.

Driveline telescoping tubes must be greased every 40 hours through grease zerk (#2). Refer to "Intermediate Driveline Profile" on page 47 for detailed instructions. Excessive end thrust due to lack of grease will shear clamping cotter bolt (#1).



Intermediate Driveline Maintenance
Figure 5-9



Intermediate Driveline Rotation Direction Figure 5-10

# Intermediate Driveline Rotations Refer to Figure 5-10:

**IMPORTANT:** The spring loaded flex couplers (#2) are directional rotation and must be attached to the T-box with arrows (#1) on end of clutches pointing in the direction the intermediate drivelines will rotate. If installed with indicator arrow rotating backwards, the drivelines and/or gearboxes can become damaged.

Intermediate drivelines rotate counterclockwise when viewing the T-box from the left side. Always verify intermediate drivelines are installed correctly when assembling them to the T-box.



## 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.



# **WARNING**

To avoid serious injury or death:

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

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

- 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. Replace if needed. See "Cutter Blades" on page 40.
- Inspect for loose, damaged or worn parts. Adjust or replace parts as needed.
- 4. Repaint parts where paint is worn or scratched to prevent rust. Ask your Land Pride dealer for aerosol touch-up paint. Paint is also available in touch-up bottles with brush, quarts, and gallon sizes by adding TU, QT, or GL to the end of the aerosol part number.

# Land Pride Aerosol Touch-up Paint Part No. Part Description 821-011C PAINT LP BEIGE SPRAY CAN 821-054C PAINT MEDIUM RED SPRAY CAN 821-058C PAINT GREEN SPRAY CAN 821-066C PAINT ORANGE SPRAY CAN 821-070C PAINT GP GLOSS BLACK SPRAY CAN

- 5. Replace all damaged or missing decals.
- Lubricate as required. Refer to "Lubrication Points" on page 45.
- Store unit on a level, clean, dry surface. Inside storage will reduce maintenance and extend its life.
- 8. Follow all unhooking instructions on page 36 when disconnecting tractor from cutter.

## **Order Replacement Parts**

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

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

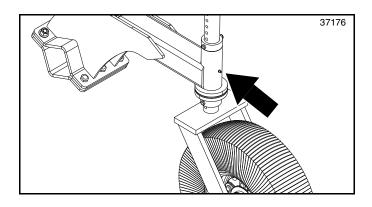
81 Green	83 Red
82 Orange	85 Black

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



## **Lubrication Points**



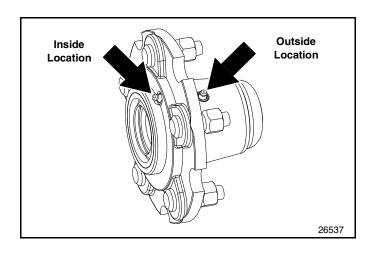




## **Tailwheel Spindle Tubes**

Type of Lubrication: Multi-Purpose Grease

Quantity = 6 pumps



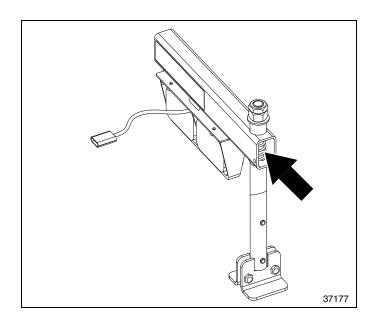


## **Tailwheel Hubs**

1 - Zerk per wheel (Zerk can be on either side as shown)

Type of Lubrication: Multi-Purpose Grease

Quantity = 2 pumps



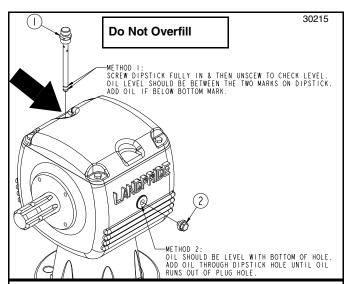


# **Pivot Shaft for Optional Warning Lights**

Type of Lubrication: Spray Lubricant

Quantity = As needed





**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.



## Gearbox

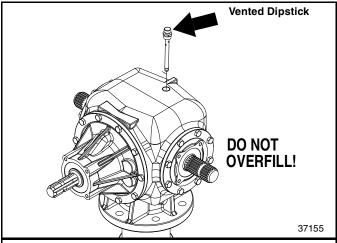
**NOTE:** Do not overfill! Cutter should be level when checking oil. Oil expands when hot, therefore, always check oil level when cold.

**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.



## **T-Gearbox**

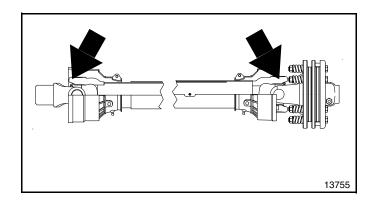
Unscrew top vented dipstick. Wipe oil from dipstick and screw dipstick in without tightening. Unscrew dipstick and check oil on dipstick. If below bottom level mark, add recommended gear lube through dipstick hole until oil reaches top mark on dipstick. Reinstall vented dipstick and tighten.

**NOTE:** Do not overfill! Cutter should be level when checking oil.

Type of Lubrication: 80-90W EP Oil

Quantity = Fill until oil reaches top mark on dipstick.



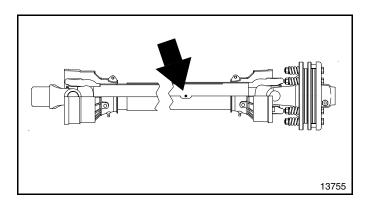




## **Main Driveline U-Joints**

Type of Lubrication: Multi-Purpose Grease

Quantity = 6 pumps

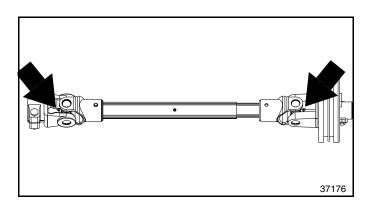




## **Main Driveline Profile**

Type of Lubrication: Multi-Purpose Grease

Quantity = 6 pumps

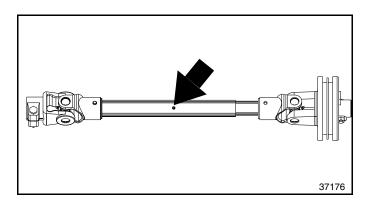




## **Intermediate Driveline U-Joints**

Type of Lubrication: Multi-Purpose Grease

Quantity = 6 pumps





## **Intermediate Driveline Profile**

Type of Lubrication: Multi-Purpose Grease

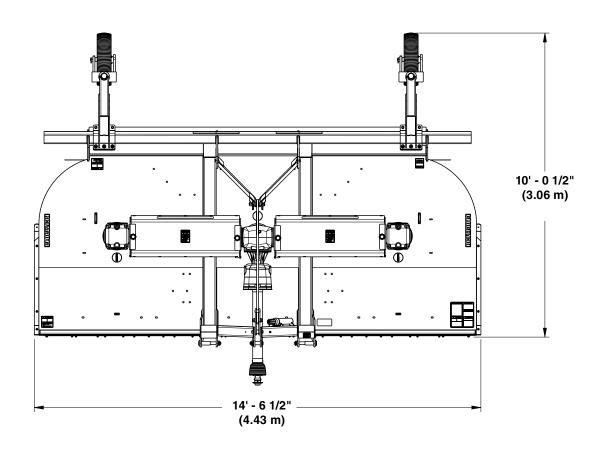
Quantity = 6 pumps

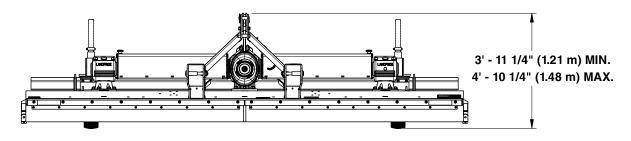


## **RCFM4014 Models**

List	Specifications & Capacities		
Weight With dish pan option, front rubber guard, & rear metal guard	3,350 lbs (1520 kg)		
Hitch	3-Point category 2 & 3		
Cutting width	14' - 0" (4.27 m)		
Overall width	14' - 6 1/2" (4.43 m)		
Overall length	10' - 0 1/2" (3.06 m)		
Deck height	12" (30 cm)		
Cutting height	2"-12" (5-30 cm)		
Cutting capacity	3" (7.6 cm)		
Tractor horsepower rating	80 hp (60 kW) minimum		
Gearbox rating horsepower	T-box - 250 hp (186 kW), outboard 210 hp (157 (kW)		
Gearbox	1000 rpm power take-off driven gearbox with cast iron housing and beveled gears		
Gearbox input/output shaft size	Input shaft = 1 3/4" - 20 spline Output shaft = 1 3/4" dia.		
Gearbox lubrication	80-90W EP Gear Lube		
Gearbox oil capacity End boxes T-box	10 Pints (4.73 L) 14.16 Pints (6.7 L)		
Deck material thickness	10 Gauge (3.4 mm)		
Deck side skirt thickness	1/4" (6 mm)		
Skid shoes	Replaceable and reversible		
Tailwheels	6" x 9" x 21" Laminated caster		
Wheel bearings	Tapered roller bearing in cast iron hub		
Intermediate driveline	Cat 4 with spring loaded torque dampener		
Blade bolts	Keyed with harden flat washer and locknut		
Blade tip speed At center T-box At outboard gearboxes	15,000 FPM 15,000 FPM		
Driveline protection Main Intermediate	1000 rpm - 4 plate slip clutch, Cat. 5 Spring-loaded flex coupler		
	Options		
Blade options Dish pan Shredder kit for: 30" (76 cm) rows 38" & 40" (96.5 & 102 cm) rows any row width	1/2" x 4" (13 mm x 10 cm) Heat treated free-swinging suction blades with 3/16" (5 mm) round stump jumper and 1" x 5" (2.5 cm x 12.7 cm) Blade bar.  Double stacked shredder blades with baffles and fixed knives.  Double stacked shredder blades with baffles but without fixed knives.		
Main driveline options 1 3/8" Connection to power take-off 1 3/4" Connection to power take-off	1000 rpm 5 x 39.7 x 1 3/8" spline connection, Cat. 5 1000 rpm 5 x 39.7 x 1.75" spline connection, Cat. 5		
Front guard options	Optional: Rubber deflector or single chain guard		
Rear guard options	Optional: Metal guard, rubber deflector, or single chain guard.		
Tailwheel options	Optional: 2 tailwheels or 3 tailwheels		
Breakaway light kit	6 pin hook-up connector, amber lights facing forward, amber & red light facing rearward Lights are mounted on a spring-loaded, self-return, pivoting breakaway mount.		







37178



## **RCFM4014 Model**

Features	Benefits		
Surpassed rugged industry standards	All Land Pride Cutters have been designed and tested and meet rigorous voluntary testin procedures.		
High gearbox horsepower rating	Gearboxes are built rugged. See Specifications for actual Gearbox horsepower ratings.		
5 Yr. limited gearbox warranty	Shows our confidence in the gearbox integrity.		
3 Gearboxes	Allows equal torque to be spread to left and right gearbox.		
Splined blade hubs	Splined blade hub offers tight non-slipping attachment to gearbox output shafts.		
High blade tip speed	Means cleaner cutting. See Specifications for actual blade tip speeds.		
Spring loaded torque dampeners between center and outboard gearboxes	Protects the driveline and gearboxes from hard objects in the blade path and resets to prevent blades from hitting.		
Slip-clutch protection on main driveline	Slip-clutch is more convenient than shear-bolt, protects gearbox against sudden impact.		
Cat. 2 and Cat. 3 hitch	Fits a wide range of tractors.		
10 Gauge (deck, fully welded	Fully welded deck adds rigidity.		
1/4" (6 mm) Thick sidewalls	Protects sidewalls from thrown objects.		
Round back design	Allows for cleaner and efficient discharge of material, helps eliminate damage to rear corners by not sticking out.		
Full length skids with reversible & replaceable shoes	Adds reinforcement to side panels. Reversible and replaceable skid shoes allow for change before wearing through to weld-on piece.		
Laminated tires	Laminated tires can handle almost any condition and don't go flat.		
Dishpan option	Stump jumper aids in sliding over obstructions, which helps protect gearbox output shaft. Heavy-duty blade bar adds support to stump jumper as well as gearbox output shaft.		
Heat-treated blades 1/2" x 4" (13 mm x 10.2 cm)	Heat-treated blades last longer than non-heat-treated blades		
3" (7.6 cm) Diameter cutting capacity	Aids in cutting brush.		
Shredder kit options	Good for Shredding row crops into small pieces. All kits include baffles to help maintain shredded material in each section of the cutter for a consistent rear discharge.		
Without fixed blades	Good for any row width.		
With fixed blades	Good for 30" (0.76 m), 38" (0.97 m), and 40" (1.02 M) row spacings. Includes fixed blades to reduce stalks into smaller pieces.		
Front rubber or chain guard options and rear metal band, rubber, or chain guard options	Reduces flying debris.		
Three tailwheel option	Third tailwheel helps protect against scalping the ground on uneven terrain.		



# **RCFM4014 Troubleshooting Chart**

Problem	Cause	Solution
Oil seal leaking	Gearbox overfilled	Drain to bottom of side plug hole
	Seals damaged	Replace seals
	Grass or wire wrapped on shaft in seal area	Check seal areas daily
Driveline yoke or cross failing	Shock load	Avoid hitting solid objects
	Needs lubrication	Lubricate every 8 hours
Driveline clutch is slipping	Scalping the ground	Raise cutting height
	Cutting too fast	Reduce travel speed
	power take-off being engaged too fast at high engine rpm	Slowly engage power take-off at low engine rpm
	Cutting over solid objects	Avoid solid objects
Bent Driveline (NOTE: driveline should	Contacting frame	Reduce lift height in transport position
be repaired or replaced if bent)	Contacting drawbar	Reposition drawbar
	Bottoming out	Shorten driveline
Driveline	Shock load	Avoid hitting solid objects
telescoping tube failing		
Driveline telescoping tube wearing	Needs lubrication	Lubricate every 40 hours See "Intermediate Driveline Profile" on page 47
Shaft clamping cotter bolt on intermediate driveline is not tight	Not maintaining intermediate driveline	Re-tighten shaft clamping cotter bolt every 40 hours. See "Intermediate Drivelines" on page 43
Shaft clamping cotter bolt is shearing	Not greasing telescoping tubes	Grease telescoping tubes every 40 hours. See "Intermediate Drivelines" on page 43
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 "Service Cutting Blades" on page 40.
	Improper deck attitude	Lower front of deck, see page 30.
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 blades in sets
	Blade will not swing	Remove and inspect blade
	Blades have unequal weight	Replace both blades



Bolt Size (inches)				
Bolt Size (inches)   Grade 2   Grade 5   Grade 8     Grade 8	Bolt Head Identification			
Bolt Size (inches)   Grade 2   Grade 5   Grade 8     Grade 8	\			
(inches)         Grade 2         Grade 5         Grade 8         (Metric)         Class 5.8         Class 8.8         Class 7.8           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	/			
1/4" - 20       7.4       5.6       11       8       16       12         1/4" - 28       8.5       6       13       10       18       14         5/16" - 18       15       11       24       17       33       25         5/16" - 24       17       13       26       19       37       27         3/8" - 16       27       20       42       31       59       44         3/8" - 24       31       22       47       35       67       49         7/16" - 14       43       32       67       49       95       70         7/16" - 20       49       36       75       55       105       78         1/2" - 13       66       49       105       76       145       105         1/2" - 20       75       55       115       85       165       120         9/16" - 12       95       70       150       110       210       155         9/16" - 18       105       79       165       120       235       170	0.9			
1/4" - 20       7.4       5.6       11       8       16       12         1/4" - 28       8.5       6       13       10       18       14         5/16" - 18       15       11       24       17       33       25         5/16" - 24       17       13       26       19       37       27         3/8" - 16       27       20       42       31       59       44         3/8" - 24       31       22       47       35       67       49         7/16" - 14       43       32       67       49       95       70         7/16" - 20       49       36       75       55       105       78         1/2" - 13       66       49       105       76       145       105         1/2" - 20       75       55       115       85       165       120         9/16" - 12       95       70       150       110       210       155         9/16" - 18       105       79       165       120       235       170	ft-lb			
5/16" - 18         15         11         24         17         33         25           5/16" - 24         17         13         26         19         37         27           3/8" - 16         27         20         42         31         59         44           3/8" - 24         31         22         47         35         67         49           7/16" - 14         43         32         67         49         95         70           7/16" - 20         49         36         75         55         105         78           1/2" - 13         66         49         105         76         145         105           1/2" - 20         75         55         115         85         165         120           9/16" - 12         95         70         150         110         210         155           9/16" - 18         105         79         165         120         235         170         M16 X 2         145         105         225         165         315	7			
5/16" - 24         17         13         26         19         37         27           3/8" - 16         27         20         42         31         59         44           3/8" - 24         31         22         47         35         67         49           7/16" - 14         43         32         67         49         95         70           7/16" - 20         49         36         75         55         105         78           1/2" - 13         66         49         105         76         145         105           1/2" - 20         75         55         115         85         165         120           9/16" - 12         95         70         150         110         210         155           9/16" - 18         105         79         165         120         235         170	11			
3/8" - 16         27         20         42         31         59         44           3/8" - 24         31         22         47         35         67         49           7/16" - 14         43         32         67         49         95         70           7/16" - 20         49         36         75         55         105         78           1/2" - 13         66         49         105         76         145         105           1/2" - 20         75         55         115         85         165         120           9/16" - 12         95         70         150         110         210         155           9/16" - 18         105         79         165         120         235         170    M10 X 1.5  33  24  52  39  72  M10 X 1.5  58  42  91  67  125  M12 X 1.5  60  44  95  70  130  M12 X 1  90  66  105  77  145  M14 X 2  92  68  145  105  205  M14 X 1.5  99  73  155  115  215  M16 X 2  145  105  225  165  315	27			
3/8" - 24         31         22         47         35         67         49           7/16" - 14         43         32         67         49         95         70           7/16" - 20         49         36         75         55         105         78           1/2" - 13         66         49         105         76         145         105           1/2" - 20         75         55         115         85         165         120           9/16" - 12         95         70         150         110         210         155           9/16" - 18         105         79         165         120         235         170    M10 X 0.75  39  29  61  45  85  M12 X 1.75  58  42  91  67  125  M12 X 1.5  60  44  95  70  130  M12 X 1  90  66  105  77  145  M14 X 2  92  68  145  105  200  M14 X 1.5  99  73  155  115  215  M16 X 2  145  105  225  165  315	29			
7/16" - 14         43         32         67         49         95         70         M12 X 1.75         58         42         91         67         125           7/16" - 20         49         36         75         55         105         78         M12 X 1.5         60         44         95         70         130           1/2" - 13         66         49         105         76         145         105         M12 X 1         90         66         105         77         145           1/2" - 20         75         55         115         85         165         120         M14 X 2         92         68         145         105         200           9/16" - 12         95         70         150         110         210         155         M14 X 1.5         99         73         155         115         215           9/16" - 18         105         79         165         120         235         170         M16 X 2         145         105         225         165         315	53			
7/16" - 20         49         36         75         55         105         78         M12 X 1.5         60         44         95         70         130           1/2" - 13         66         49         105         76         145         105         M12 X 1         90         66         105         77         145           1/2" - 20         75         55         115         85         165         120         M14 X 2         92         68         145         105         200           9/16" - 12         95         70         150         110         210         155         M14 X 1.5         99         73         155         115         215           9/16" - 18         105         79         165         120         235         170         M16 X 2         145         105         225         165         315	62			
1/2" - 13     66     49     105     76     145     105       1/2" - 20     75     55     115     85     165     120       9/16" - 12     95     70     150     110     210     155       9/16" - 18     105     79     165     120     235     170       M14 X 2     92     68     145     105     200       M14 X 1.5     99     73     155     115     215       M16 X 2     145     105     225     165     315	93			
1/2" - 20     75     55     115     85     165     120       9/16" - 12     95     70     150     110     210     155       9/16" - 18     105     79     165     120     235     170     M14 X 2     92     68     145     105     200       M14 X 1.5     99     73     155     115     215       M16 X 2     145     105     225     165     315	97			
9/16" - 12         95         70         150         110         210         155         M14 X 1.5         99         73         155         115         215           9/16" - 18         105         79         165         120         235         170         M16 X 2         145         105         225         165         315	105			
9/16" - 18         105         79         165         120         235         170         M16 X 2         145         105         225         165         315	150			
	160			
5/8" - 11 130 07 205 150 285 210 M16 V 15 155 115 240 190 225	230			
3/0 - 11	245			
5/8" - 18         150         110         230         170         325         240         M18 X 2.5         195         145         310         230         405	300			
<b>3/4" - 10</b> 235 170 360 265 510 375 <b>M18 X 1.5</b> 220 165 350 260 485	355			
<b>3/4" - 16</b> 260 190 405 295 570 420 <b>M20 X 2.5</b> 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			
<b>1" - 8</b> 340 250 875 645 1230 910 <b>M24 X 2</b> 525 390 830 610 1150	845			
<b>1" - 12</b> 370 275 955 705 1350 995 <b>M30 X 3.5</b> 960 705 1510 1120 2100	1550			
<b>1-1/8" - 7</b> 480 355 1080 795 1750 1290 <b>M30 X 2</b> 1060 785 1680 1240 2320	1710			
<b>1-1/8" - 12</b> 540 395 1210 890 1960 1440 <b>M36 X 3.5</b> 1730 1270 2650 1950 3660	2700			
<b>1-1/4" - 7</b> 680 500 1520 1120 2460 1820 <b>M36 X 2</b> 1880 1380 2960 2190 4100	3220			
<b>1-1/4" - 12</b> 750 555 1680 1240 2730 2010 1 in-tpi = nominal thread diameter in inches-threads per in	nch			
<b>1-3/8" - 6</b> 890 655 1990 1470 3230 2380 2380 2380 12 N⋅ m = newton-meters	<sup>2</sup> N⋅ m = newton-meters			
<b>1-3/8" - 12</b> 1010 745 2270 1670 3680 2710 3 ft-lb= foot pounds				
<b>1-1/2" - 6</b> 1180 870 2640 1950 4290 3160 4 mm x pitch = nominal thread diameter in millimeters x the	read			
<b>1-1/2" - 12</b> 1330 980 2970 2190 4820 3560 pitch				
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.				
Additional Torque Values				
Flex Coupler Cotter Bolt 100 ft-lbs (136 NM)				
Blade Bolt Locknut, 1 1/8-12 450 ft-lbs (610 Nm)	,			
Blade Carrier Hub Nut 550 ft-lbs (746 Nm) minimum	50 ft-lbs (746 Nm) minimum			
Wheel Lug Nuts 85 ft-lbs (115 Nm)				





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

Overall Unit and Drivelines: One year Parts and Labor

**Gearbox**: Five years on Parts and Labor. **Hydraulic Cylinder**: One year Parts and Labor

Hoses and seals are considered wear items

Blades, Tires, and Driveline Friction Discs: Considered wear items.

This Warranty is limited to the repair or replacement of any defective part by Land Pride and the installation by the dealer of any such replacement part, and does not cover common wear items. Land Pride reserves the right to inspect any equipment or parts which are claimed to have been defective in material or workmanship.

This Warranty does not apply to any part or product which in Land Pride's judgment shall have been misused or damaged by accident or lack of normal maintenance or care, or which has been repaired or altered in a way which adversely affects its performance or reliability, or which has been used for a purpose for which the product is not designed. Misuse also specifically includes failure to properly maintain oil levels, grease points, and driveline shafts.

Claims under this Warranty should be made to the dealer which originally sold the product and all warranty adjustments must be made through an authorized Land Pride dealer. Land Pride reserves the right to make changes in materials or design of the product at any time without notice.

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

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

This Warranty is not valid unless 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 RCFM4014

Serial Number \_\_\_\_\_



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