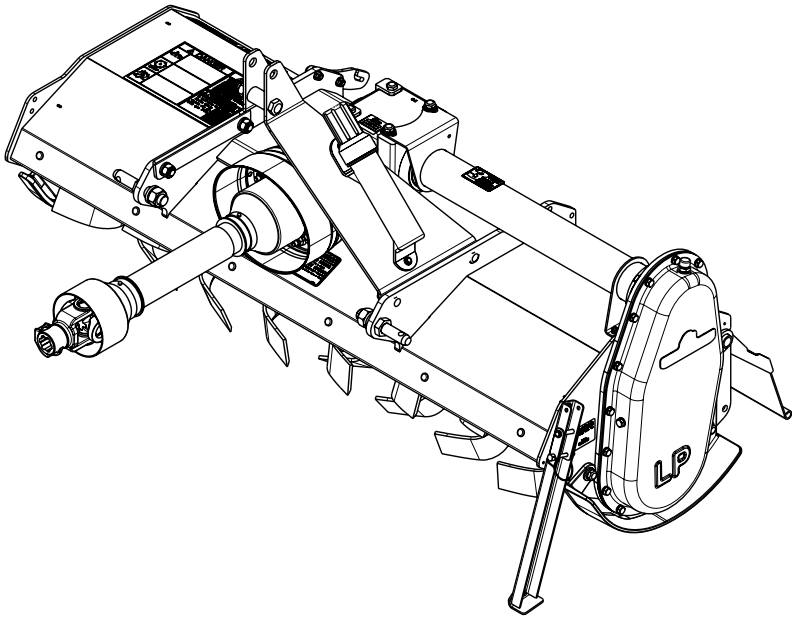
Table of Contents

Rotary Tillers

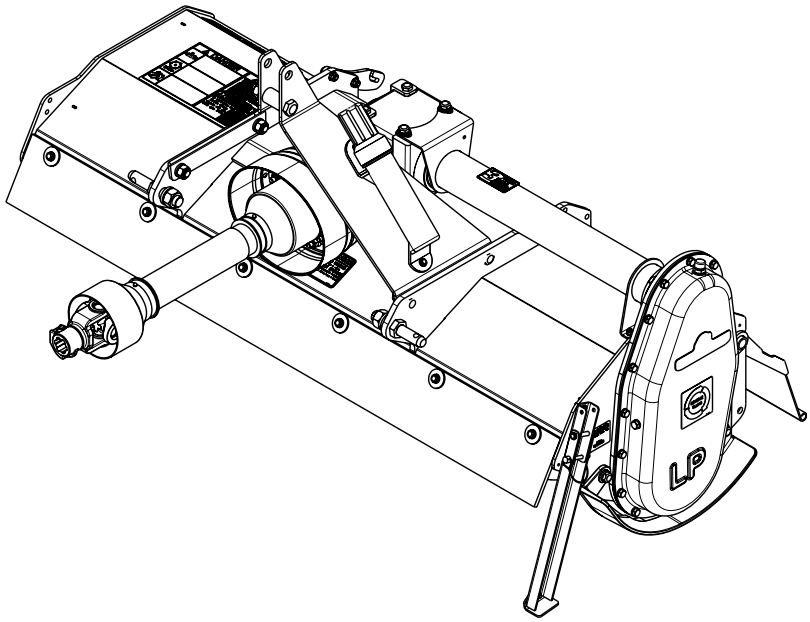
RGR12 & RGA12 Series

RGR1250, RGR1258, RGR1266, RGR1274, & RGR1282
RGA1250, RGA1258, RGA1266, RGA1274, & RGA1282



RGA12 Series Rotary Tillers

70271



RGR12 Series Rotary Tillers

70272

311-948M
Operator's Manual

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

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

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

Printed 6/12/24

Machine Identification

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

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

Model Number	
Serial Number	
Machine Height	
Machine Length	
Machine Width	
Machine Weight	
Delivery Date	
First Operation	
Accessories	

Dealer Contact Information

Name: _____

Street: _____

City/State: _____

Telephone: _____

Email: _____

California Proposition 65

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

Printed in the United States of America.

See previous page for Table of Contents.

Parts Manual Locator

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

RGR12 Series **RGA12 Series**

Dealer Locator

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

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

Safety at All Times

Careful operation is your best assurance against an accident.

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

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

Look for the Safety Alert Symbol

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

Be Aware of Signal Words

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

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

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

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

Be Aware of Special Notices

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

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

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

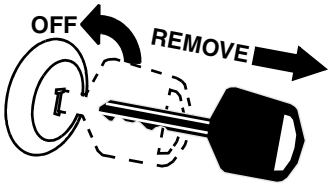
Safety Precautions for Children

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

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

Tractor Shutdown & Storage

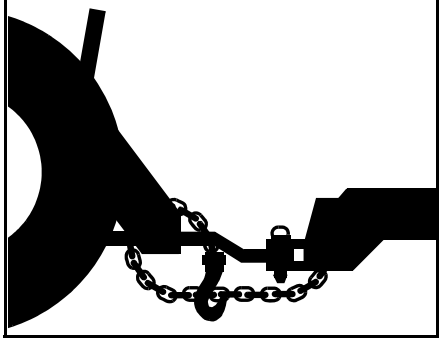
- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake.
- ▲ Turn off engine and remove ignition key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic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



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

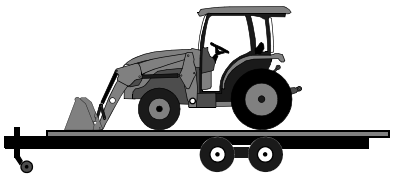
Use A Safety Chain

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



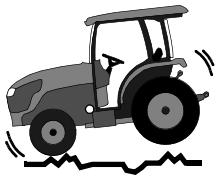
Towing Safely

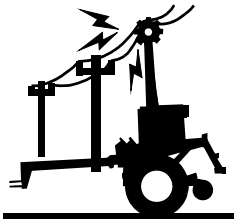
- ▲ Comply with federal, state, and local laws.
- ▲ Use towing vehicle and trailer of adequate size and capacity. Secure equipment towed on a trailer with chocks, tie downs, and chains.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.
- ▲ Sudden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



Transport Safely

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





Tire Safety

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

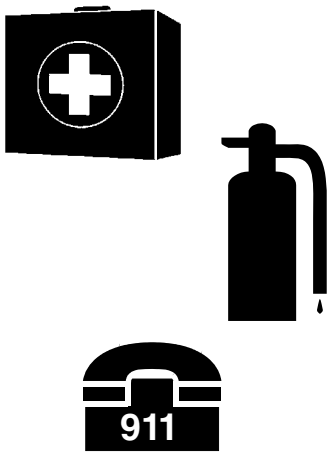
Practice Safe Maintenance

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

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

Prepare for Emergencies

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



Wear Personal Protective Equipment (PPE)

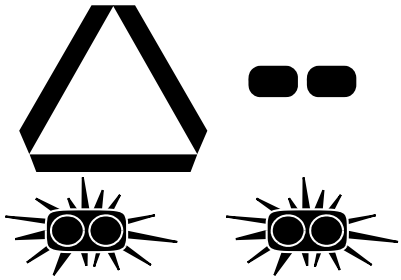
- ▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs.
- ▲ Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment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

Avoid High Pressure Fluids

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

Use Safety Lights and Devices

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

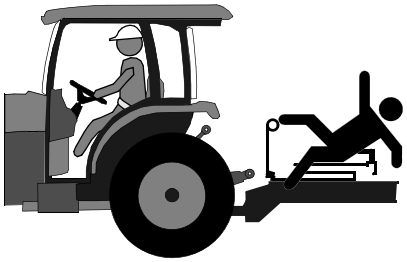


Use Seat Belt and ROPS

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

Keep Riders Off Machinery

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

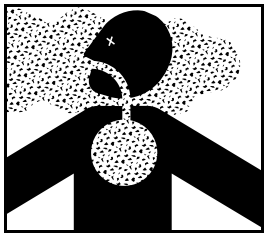


Listed below are common practices that may or may not be applicable to the products described in this manual.

Avoid Crystalline Silica (Quartz) Dust

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

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



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

Handle Chemicals Properly

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

Dig Safe - Avoid Underground Utilities

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

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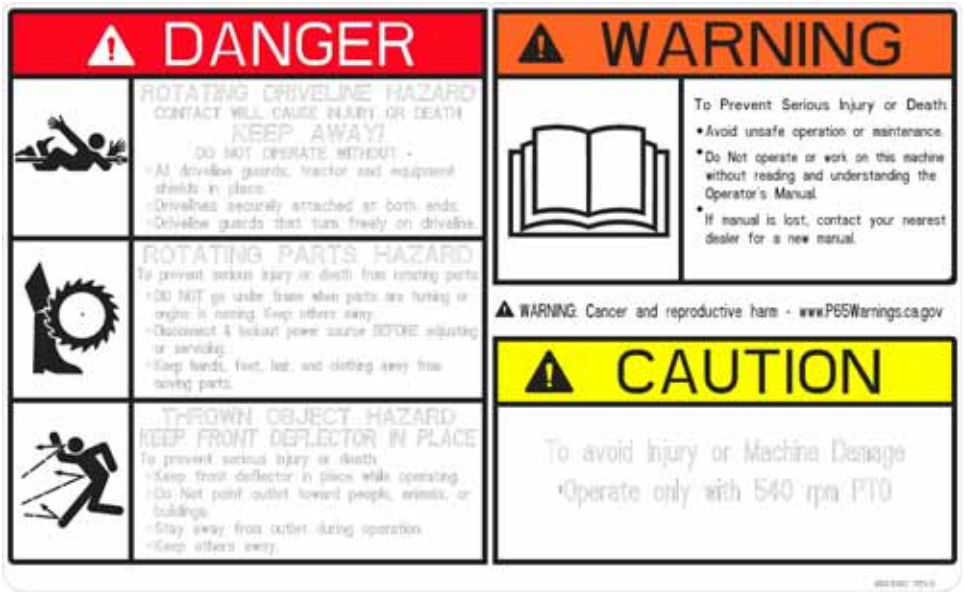
Safety Labels

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

1. *Keep all safety labels clean and legible.*
2. *Refer to this section for proper label placement. Replace all damaged or missing labels. Order new labels from your nearest Land Pride dealer. To find your nearest dealer, visit our dealer locator at www.landpride.com.*
3. *Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request.*
4. *Refer to this section for proper label placement. To install new labels:*
   a. *Clean surface area where label is to be placed.*
   b. *Spray soapy water onto the cleaned area.*
   c. *Peel backing from label and press label firmly onto the surface.*
   d. *Squeeze out air bubbles with edge of a credit card or with a similar type of straight edge.*



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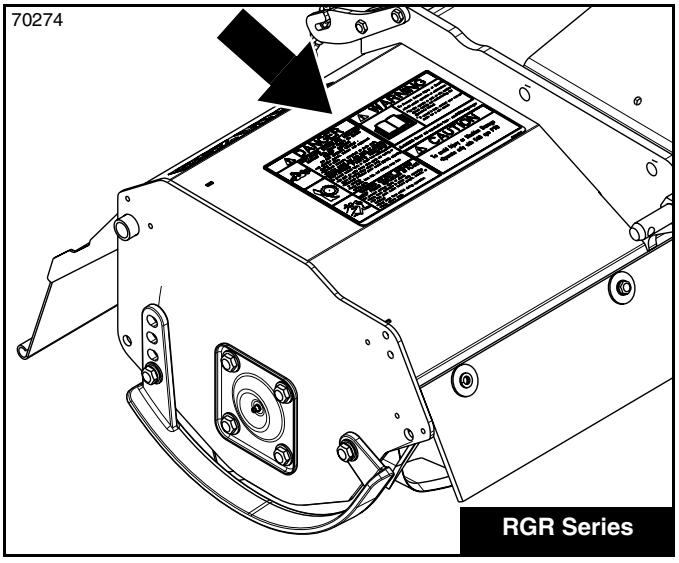
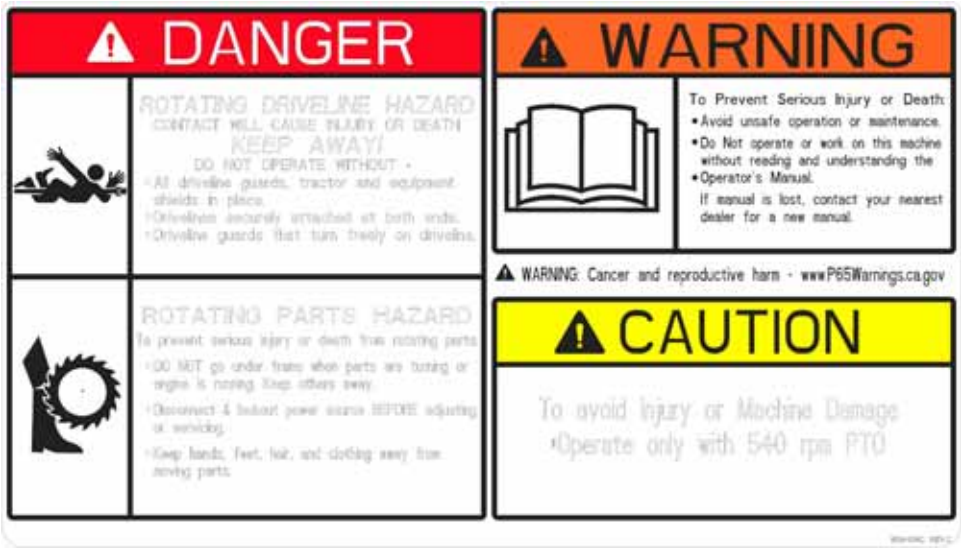


858-518C

Danger/Warning/Caution Combo: List of Safety Hazards

1 Place: On the RGR Series only

39237

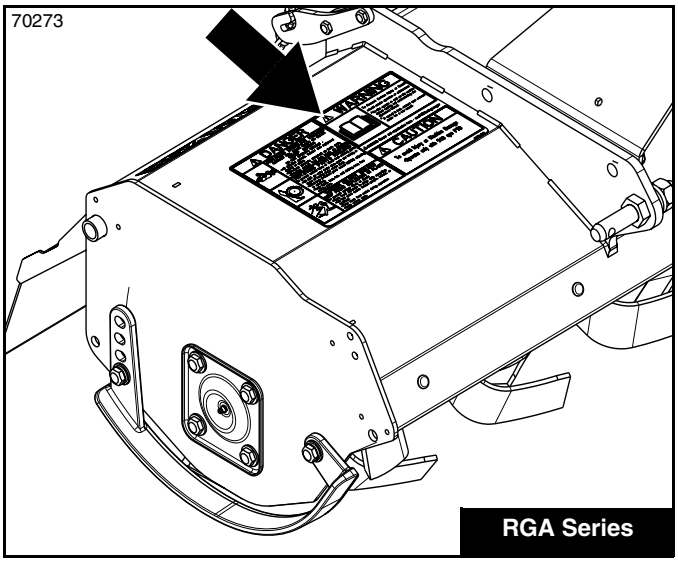


858-519C

Danger/Warning/Caution Combo: List of Safety Hazards

1 Place: On the RGA Series only

70273



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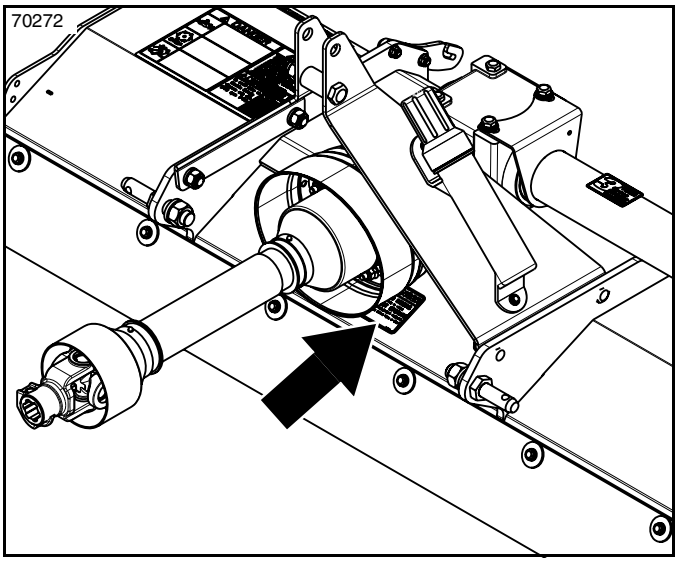
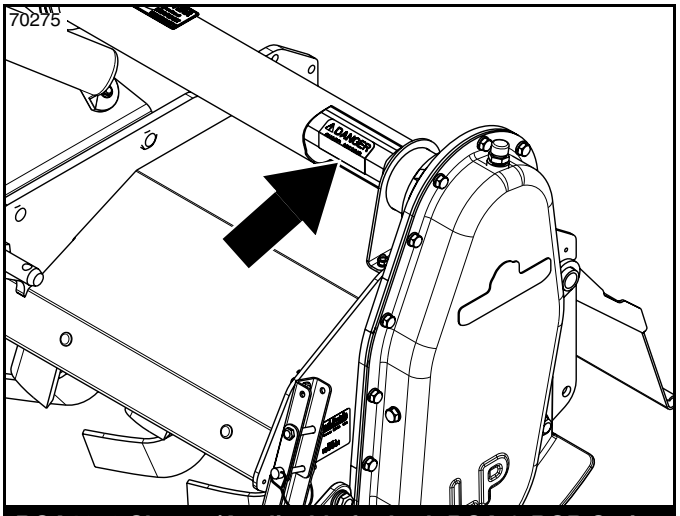


70358

818-543C

Danger: Guard Missing Hazard - Do not Operate

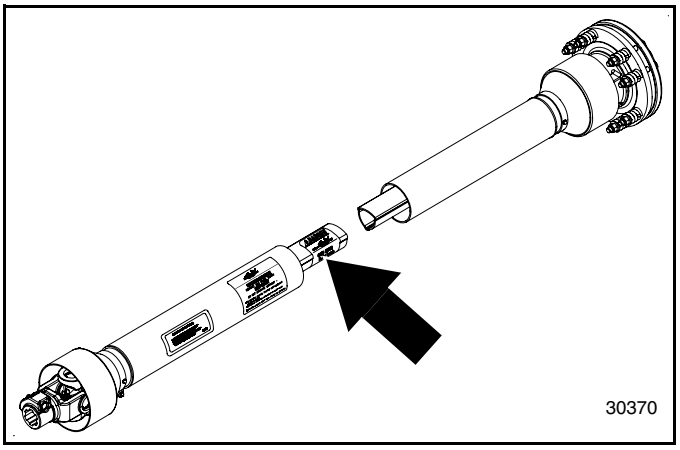
1 Place: On the RGR & RGA Series



RGA1258 Shown (Applicable for both RGA & RGR Series

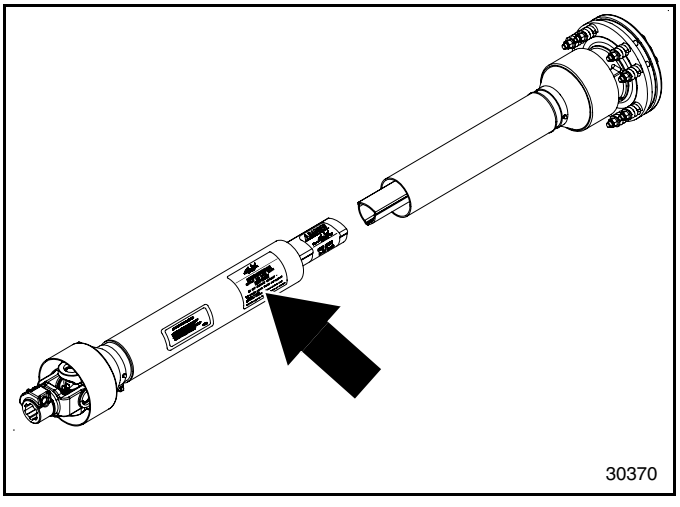
70358

818-543C
Danger: Guard Missing Hazard - Do not Operate
1 Place: On the RGR & RGA Series



70374

818-540C
Danger: Guard Missing - DO NOT Operate
1Place: On the RGR & RGA inner driveline profile



70375

818-552C
Danger: Rotating Driveline - Keep Away
1 Place: On the RGR & RGA outer driveline profile

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

Application

The RGR12 and RGA12 Series Rotary Tillers are designed and built by Land Pride to till soil for seedbed and planting preparation with uses in both rural and non-rural applications such as gardening and landscaping. They are designed for 18-60 horsepower (13-45 kW) tractors with Category I 3-point hitch mounting, 540 rpm power take-off speed and are Quick Hitch compatible.

The reverse rotation tillers (RGR Series) tend to achieve greater depth penetration resulting in moving and pulverizing more soil. Also, they bury more of the residue in the soil.

See **"Specifications & Capacities"** on page 32 and **"Features & Benefits"** on page 34 for additional information.

Using This Manual

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

Terminology

"Right" or "Left" as used in this manual is determined by the direction the operator faces while sitting in the operator's seat looking forward unless otherwise stated.

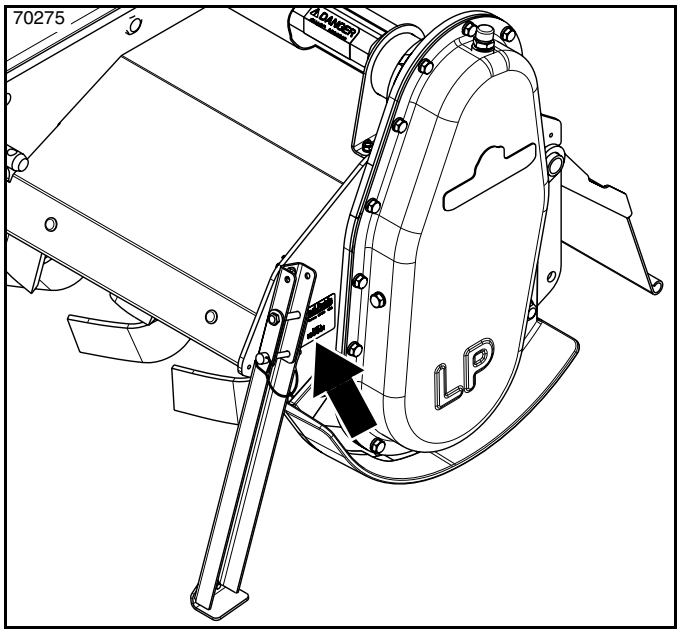
Owner Assistance

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

The parts on your Rotary Tiller 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 this implement.

Serial Number

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



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new Rotary Tiller. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

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

Land Pride Service Department
1525 East North Street

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

E-mail address
lpservicedept@landpride.com

Tractor Requirements

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

Hitch Category . . . . . 3-Point Cat. I
Power Take-Off Speed . . . . . 540 rpm
Horsepower Requirements:
RGR/RGA1250 . . . . . 18-60 hp (13-45 kW)
RGR/RGA1258 . . . . . 23-60 hp (17-45 kW)
RGR/RGA1266 . . . . . 23-60 hp (17-45 kW)
RGR/RGA1274 . . . . . 30-60 hp (22-45 kW)
RGR/RGA1282 . . . . . 35-60 hp (26-45 kW)

Refer to lightweight tractor warning Alert on this page.

Dealer Preparations

⚠ WARNING

To avoid serious injury or death:

An unsupported parked tiller can tip over easily. Always use its park stand and when needed, non-concrete support blocks to keep the tiller from tipping onto a person.

This unit is shipped almost completely assembled. Carefully follow instructions for final assembly.

Having all the needed parts and equipment readily at hand will speed up your assembly task and will make the job as safe as possible. Before attempting assembly, go through the **"Pre-Assembly Checklist"** below.

Pre-Assembly Checklist

✔	Check	Page
☐	Have a forklift or hoist with properly sized chains and safety stands capable of lifting and supporting the equipment on hand.	
☐	Have a minimum of 2 people on hand while assembling.	
☐	Make sure all major components and loose parts are shipped with the machine. Refer to this manual if unsure.	
☐	Make sure working parts move freely, bolts are tight and cotter pins are spread. Refer to this Operator's Manual.	
☐	Double check to make sure all fasteners and pins are installed correctly. Use the Parts Manual if unsure. **NOTE:** Small hardware shipped loose from the factory is contained in a bag. Larger parts are attached to the shipping crate. All factory assembled hardware should be installed in their correct location. Remember their location if removed. Keep removed parts separated.	
☐	Make sure all safety labels are correctly located and legible. Replace if damaged.	Page 6
☐	Make sure all grease fittings are in place and lubricated. Refer Lubrication Points.	Page 29
☐	Check fluid level in the gearbox and chain cases. Refer Lubrication Points.	Page 30 Page 31

⚠ WARNING

To avoid serious injury or death:

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

Torque Requirements

Check to make sure all nuts are tightened. Refer to **"Torque Values Chart"** on page 36 to determine correct torque values for common bolts. See **"Additional Torque Values"** at bottom of chart for exceptions to standard torque values.

Park Stand Set-up

Refer to Figure 1-1 on page 11:

⚠ WARNING

To avoid serious injury or death:

The tiller is shipped rear heavy and will tip over backwards until after it is fully assembled. Always use park stand to prevent forward tipping and support blocks to prevent rear tipping during dealer set-up.

1. The park stand (#24) is shipped from the factory attached to the side panel and rotated up.
2. Rotate park stand (#24) down and secured with wire retainer hooked over the end of retaining pin (#23). Refer to **"Park Stand Operation"** on page 20.
3. Support back of tiller with blocks to avoid rear tipping.

Cone Shield Adjustment

Refer to Figure 1-1 on page 11:

1. If cone shield (#10) is shipped loose, attach it to the gearbox with M8 x 1.25 x 20 GR8 metric bolts (#13), lock washers (#12), and flat washers (#11).
2. The cone shield (#10) may require adjustment to keep the driveline clutch from rubbing the shield.
   a. Slide clutch end of the driveline onto the gearbox input shaft. Refer to steps 1-3 under **"Driveline Assembly"** on page 13.
   b. Check clearance between clutch and cone (#10). If there is interference, remove driveline and adjust shield as follows:
   c. Loosen M8 x 1.25 x 20 GR8 metric bolts (#13).
   d. Adjust shield up or down as needed and tighten.
   e. Repeat steps a to d until clutch does not interfere with the cone shield.
3. Tighten metric bolts (#13) to the correct torque.

Upper Hitch Plate Assembly

Refer to Figure 1-1:

1. Attach upper, left-hand hitch plate (#2) to the mainframe with 5/8"-11 x 1 1/2" GR5 bolts (#7), lock washers (#8), and hex nuts (#9). **Do not tighten** hardware at this time.
2. Repeat step 1 above to attach upper right-hand hitch plate (#4) to the main frame.
3. Attach 1 1/4" OD spacer (#3) between upper 3-point hitch plates (#2 & #4) with 3/4"-10 x 3 3/4" GR5 bolt (#1).
4. Apply removable thread lock to the threads of upper center 3-point bolt (#1). Secure bolt (#1) with lock washer (#5) and hex nut (#6).
5. Tighten all hex nuts (#6 & #9) to the correct torque.

Manual Storage Tube Assembly

Refer to Figure 1-1:

1. Attach manual storage tube (#16) to hitch plate (#2) with 1/4"-20 x 1 1/4" GR5 bolts (#14), flat washers (#15 & #17), and nylock hex nuts (#18) as shown.
2. Tighten nylock nuts (#18) to the correct torque.

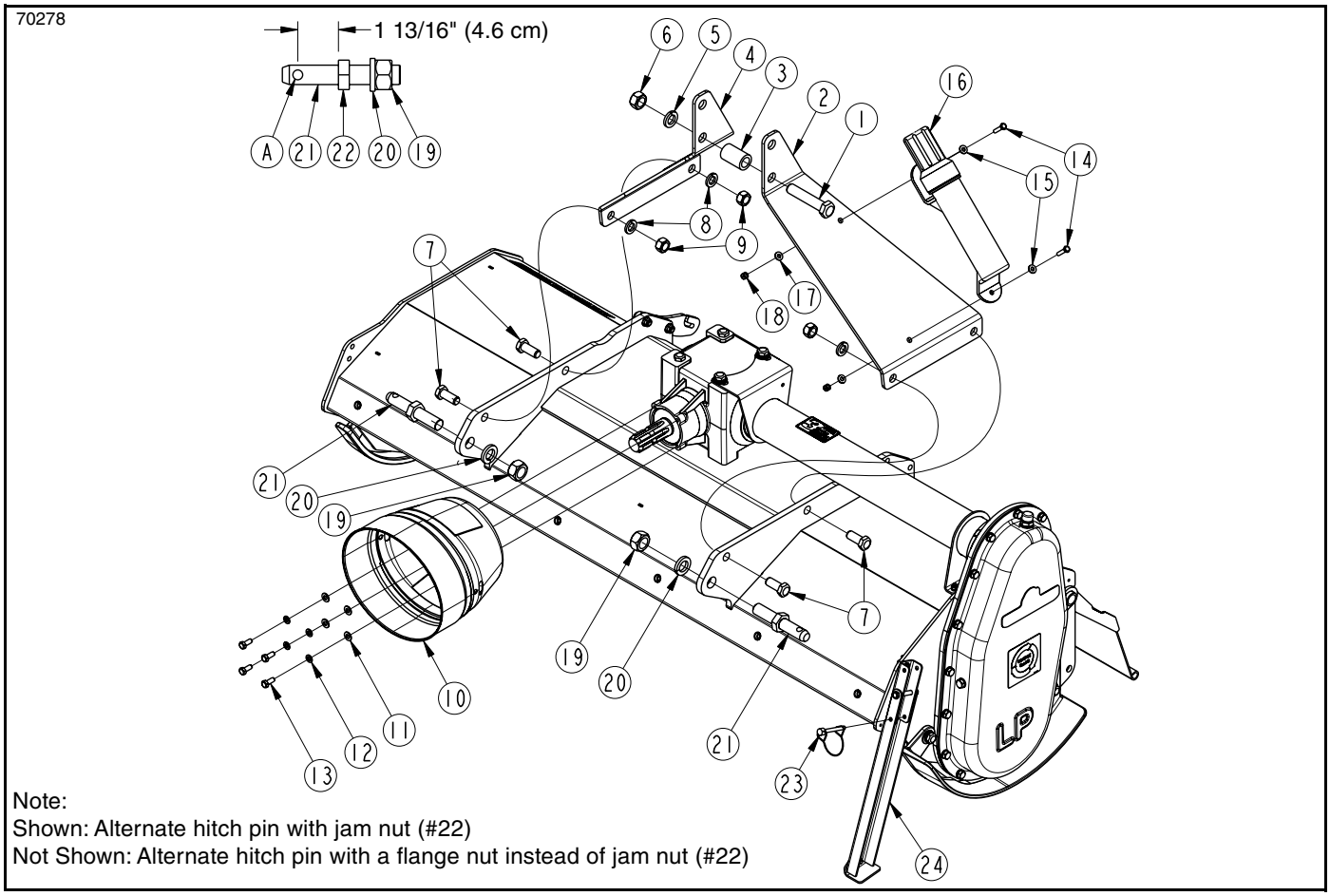
Lower 3-Point Hitch Pin Assembly

Refer to Figure 1-1:

1. Applying removable thread lock to the threads of lower hitch pins (#21) when assembling nut or nuts.

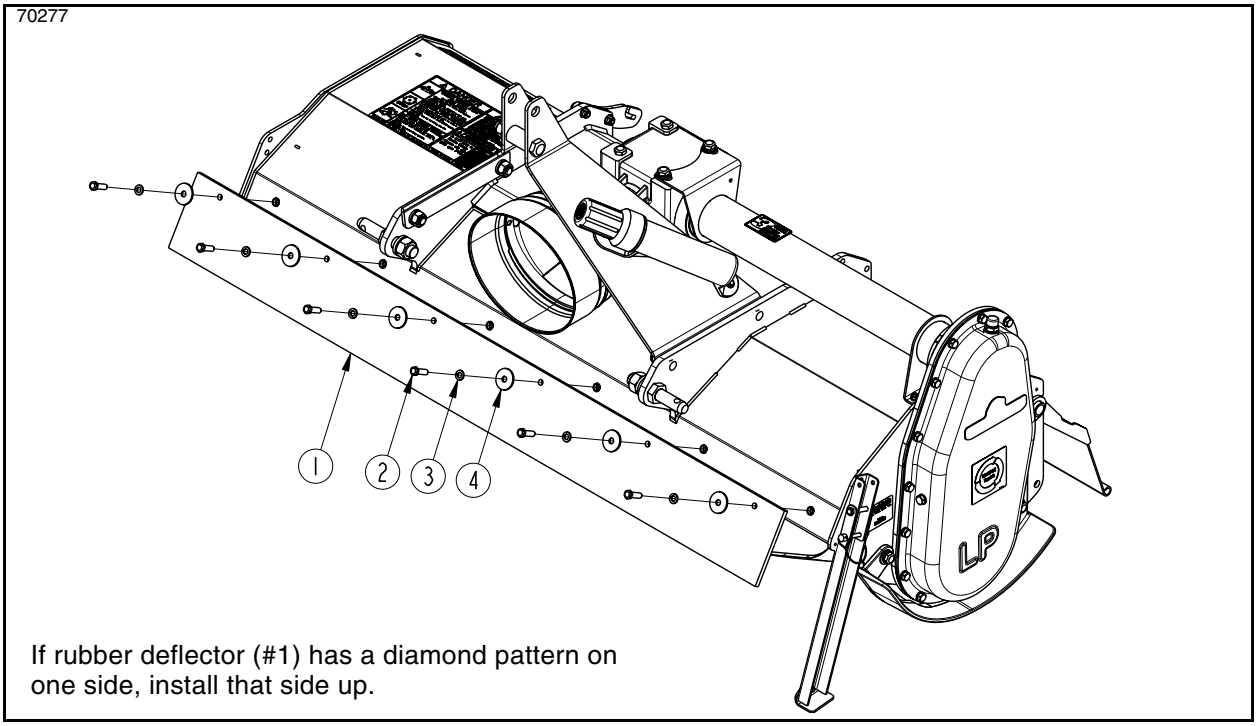
NOTE: Hitch pin can be furnished with jam nut #22 or with a flange instead of jam nut (#22).

2. If hitch pin (#21) is supplied with jam nut (#22), then adjust face of jam nut to be 1 13/16" (3 cm) away from center of linchpin hole (A) as shown in Figure 1-1. No adjustment required if hitch pin is supplied with a flange.
3. Attach lower hitch pins (#21) to the mainframe as shown with lock washers (#20) and hex nuts (#19).
4. On the left-hand side, insert a drive punch into linchpin hole (A) and rotate hitch pin (#21) until linchpin hole is vertical.
5. Tighten 7/8"-14 hex nut (#12) to the correct torque for GR5 bolts.
6. Repeat step 4-5 for the right-hand hitch pin (#21).



Note:
Shown: Alternate hitch pin with jam nut (#22)
Not Shown: Alternate hitch pin with a flange nut instead of jam nut (#22)

Rotary Tiller Assembly and Set-up
Figure 1-1



RGR Front Deflector Assembly
Figure 1-2

RGR12 Series Front Deflector

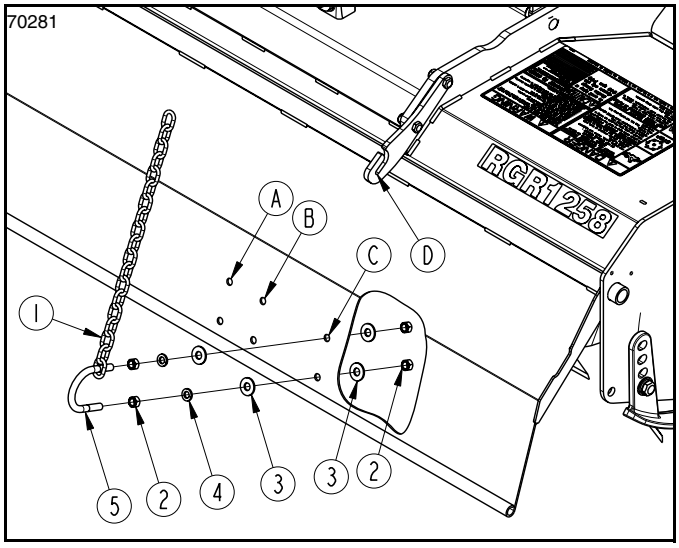
Refer to Figure 1-2:

> **NOTE:** RGA12 Series tillers discharge out the rear and therefore, do not require a front deflector.

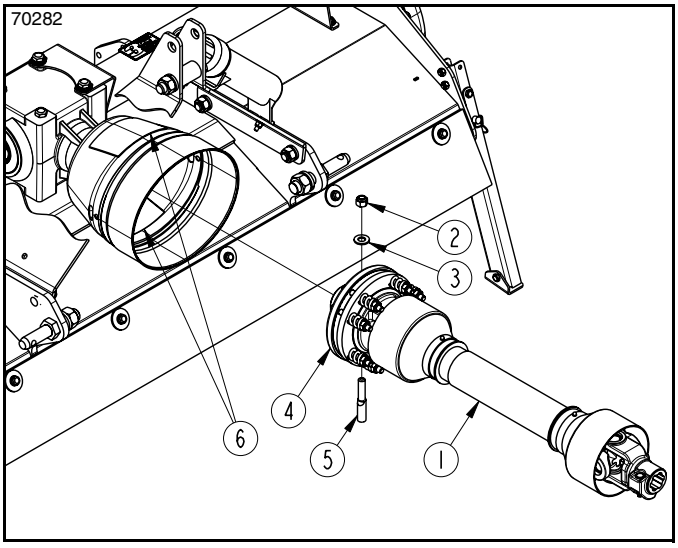
1. Skip to **"Rear Deflector Chain"** below if your tiller is the RGA12 Series.

> **NOTE:** If rubber deflector (#1) has a diamond pattern on one side, install that side up. Smooth side down will help keep dirt from collecting on the underside of the deflector.

2. Attach rubber deflector (#1) to tiller frame with 3/8"-16 x 1 1/4" GR5 hex bolts (#2), lock washers (#3), and 1 1/2" fender washers (#4).
3. Tighten hex bolts (#2) to the correct torque.



Rear Deflector Chain Assembly
Figure 1-3



Driveline Assembly
Figure 1-4

Rear Deflector Chain

Refer to Figure 1-3:

1. The deflector chain (#1) is shipped from the factory assembled to the tail gate. If chain is shipped loose, see **"Chain Assembly Instructions"** below.
2. Hook free end of deflector chain (#1) in chain hook "D". Refer to **"Rear Deflector Adjustment"** on page 23 for additional instructions.

Chain Assembly Instructions

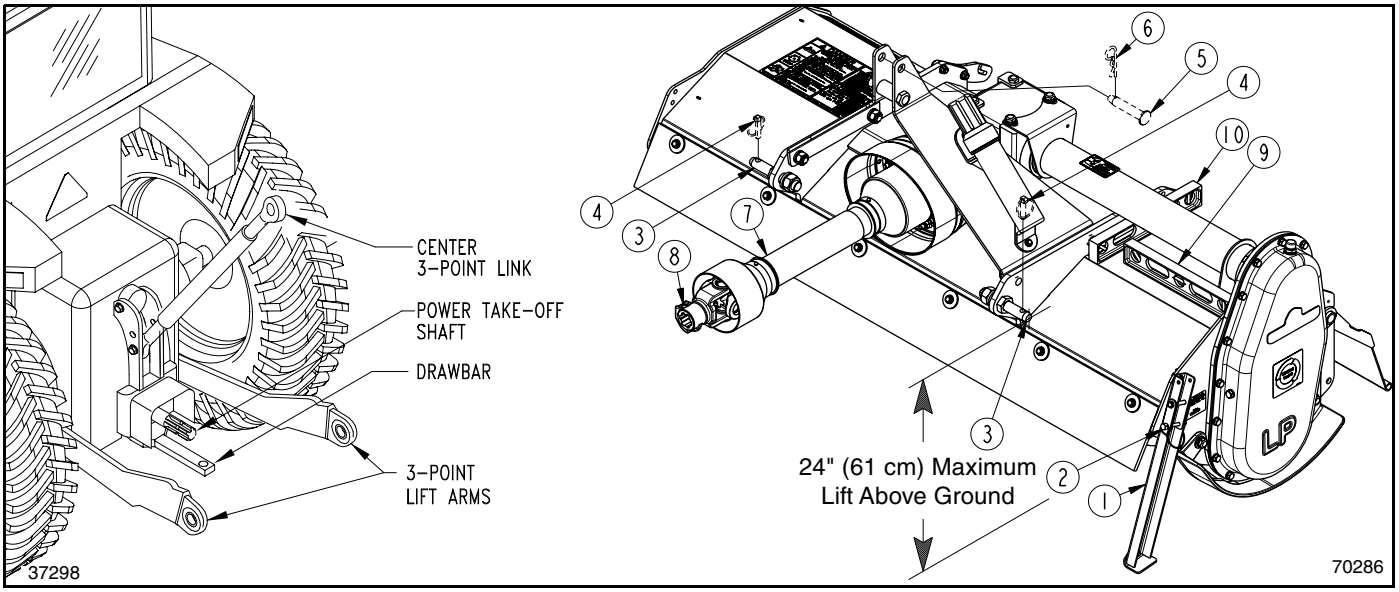
1. Insert one end of 3/8" u-bolt (#5) through an end loop on deflector chain (#1).
2. Screw one hex nut (#2) on each leg of u-bolt (#5) until 3/4" (19 mm) thread length is visible between the nuts and the end of u-bolt legs.
3. Add one lock washer (#4) and one flat washer (#3) to the each leg of u-bolt (#5) as shown.
4. Insert u-bolt (#5) through the pair of mounting holes A, B, or C that comes the closest to aligning with chain hook D.
5. Install one flat washer (#3) over each leg of u-bolt (#5) and secure all components to the rear deflector with hex nuts (#2).
6. Tighten hex nuts (#2) to the correct torque.
7. Hook free end of deflector chain (#1) in chain hook "D". Refer to **"Rear Deflector Adjustment"** on page 23 for additional instructions.

Driveline Assembly

Refer to Figure 1-4:

The driveline is coupled to the gearbox input shaft with a conical-dog pin (#5). A slip clutch (#4) is provided for protection from shock loads.

1. Unsnap and open cone doors (#6).
2. Remove existing nut (#2), flat washer (#3), and conical-dog pin (#5) from slip-clutch (#4).
3. Slide splined end of slip clutch (#4) onto gearbox input shaft. Make certain that the slip-clutch yoke is fully onto the shaft splines.
4. Check clearance between driveline slip clutch (#4) and cone shield doors (#6). If there is interference, refer to **"Cone Shield Adjustment"** on page 10.
5. Attach slip-clutch yoke to gearbox input shaft as shown with removed conical-dog pin (#5), flat washer (#3), and nut (#2). Tighten nut (#2) to 25-30 ft-lb (34-41 Nm) torque.
6. Push/pull on slip-clutch yoke to ensure it is securely fastened to the gearbox input shaft.
7. Close cone doors (#6) and snap in place.
8. Continue with **"Hook-Up Rotary Tiller"** on page 14 or **"Driveline Hook-Up"** on page 15.



Hook-Up Rotary Tiller (RGR Series Shown)
Figure 1-5

Hook-Up Rotary Tiller

DANGER

To avoid serious injury or death:

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

WARNING

To avoid serious injury or death:

- *Do not raise center of lower 3-point hitch pins more than 24" (61 cm) above ground with power take-off engaged. Do not engage power take-off if hitch pins are too high. A rotating driveline must not exceeds an angle of 25 degrees up or down. If it does, it can break and throw off projectiles.*
- *An unsupported parked tiller can tip over easily. Always use its park stand and when needed, non-concrete support blocks to keep the tiller from tipping onto a person.*
- *Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.*

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.

IMPORTANT: To prevent damaging the park stand, always store the stand in its transport position before moving the tiller.

NOTE: Land Pride's Quick Hitch can be attached to the tractor to provide quick and easy 3-point hook-up and detachment. An additional driveline may be required if a Quick Hitch is used. See your nearest Land Pride dealer to purchase a Quick Hitch.

3-Point Hook-Up

Refer to Figure 1-5:

1. Make sure you have read and follow all Safety Alerts and notes in boxes listed under **"Hook-Up Rotary Tiller"** on this page before continuing.
2. The tiller is equipped with a Cat. I hitch. Make sure your tractor's hitch is compatible with the tiller's hitch.
3. Ensure lower 3-point lift arms are blocked to prevent excessive side-to-side movement.
4. Move or remove tractor drawbar to prevent interference with tiller driveline. See tractor Operator's Manual for instructions.

NOTE: Linchpins (#4), hitch pin (#5), and hairpin cotter (#6) are customer supplied.

5. If installed, remove customer supplied linchpins (#4), hairpin cotter (#6), and hitch pin (#5).
6. Slowly back tractor to tiller while using tractor's 3-point control lever to align holes in lower 3-point lift arms with hitch pins (#3).
7. Shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
8. Attach lower 3-point lift arms to hitch pins (#3) and secure with customer supplied linchpins (#4).
9. Attach tractor's top center 3-point link to tiller hitch plates with customer supplied hitch pin (#5) and hairpin cotter (#6).
10. With gear selector in park or park brake set, start tractor and raise tiller off the ground several inches.
11. Without lowering the tiller, shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.

12. Place park stand (#1) into transport position. Refer to **"Park Stand Operation"** on page 20.
13. Adjust one of the two tractor's lower 3-point lift arms up or down to level tiller from left to right. A level (#9) placed on the tiller as shown can be used to check for levelness left to right.
14. Adjust tractor's top center link to level tiller from front to back. A level (#10) placed on the tiller as shown can be used to check for levelness front to back.
15. Start tractor and raise tiller fully up. Measure vertical distance from center of 3-point hitch pins (#3) to the ground. If distance exceeds 24" (61 cm), adjust tractor's 3-point lift height limiter to set maximum hitch pin lift height at 24" (61 cm). If the lever does not have a lift height limiter, make a mark with tape or other means to indicate maximum lift height.

Driveline Hook-Up

Refer to Figure 1-5 on page 14:

DANGER

To avoid serious injury or death:

- *Do not engage power take-off while connecting or disconnecting the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.*
- *All guards and shields must be installed and in good working condition while operating the implement.*
- *Do not use a power take-off adapter. The adapter will increase strain on the tractor's power take-off shaft causing possible damage to shaft and driveline. It will also defeat the purpose of the tractor's power take-off shield.*

WARNING

To avoid serious injury or death:

- *Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.*
- *Check driveline when lowering tiller into the ground 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 damage to the driveline.*

IMPORTANT: Check driveline collapsible and maximum length before completing **"Driveline Hook-Up"** instructions. Structural damage to the tractor and tiller can occur if these checks are not made. Refer to **"Check Driveline Collapsible Length"** on page 16 and **"Driveline Maximum Allowable Length"** on page 17.

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 **"Driveline Protection"** on page 26.

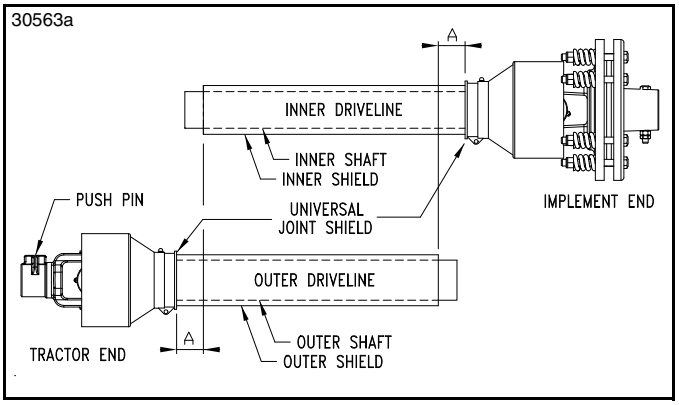
IMPORTANT: An additional driveline may be required if implement is attached to more than one tractor or if a Quick Hitch is used.

IMPORTANT: The 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.

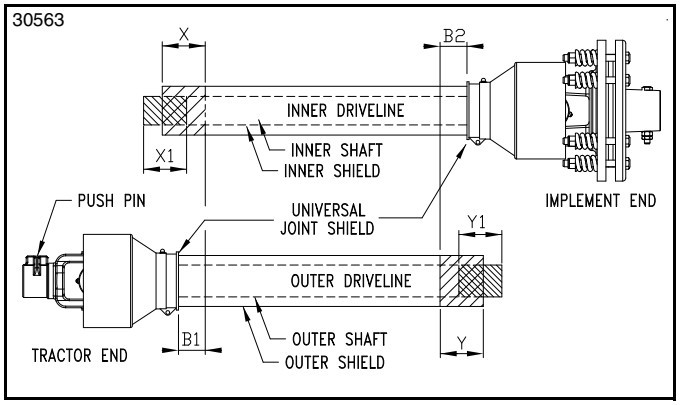
IMPORTANT: The drivelines must be lubricated before putting them into service. Refer to **"Lubrication Points"** on page 29.

The tiller driveline (#7) fastens to the tractor power take-off shaft with a push-pin coupler (#8).

1. If driveline collapsible length has not been checked, go to **"Check Driveline Collapsible Length"** on page 16. Otherwise, continue with step 2 below.
2. Park tractor and tiller on a level surface.
3. Shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
4. If tractor drawbar interferes with the driveline during hook-up, disconnect driveline and move drawbar forward, to the side, or remove.
5. Push in on driveline yoke pin (#8) and push yoke onto the tractor power take-off shaft. Release push pin and continue to push driveline yoke forward until push pin pops out and yoke collar locks in place.
6. Pull on driveline yoke at the tractor to make sure it is secured to the tractor power take-off shaft.
7. Continue with **"Check Driveline Interference"** on page 17.



Driveline Shortening
Figure 1-6



Driveline Shortening
Figure 1-7

Check Driveline Collapsible Length

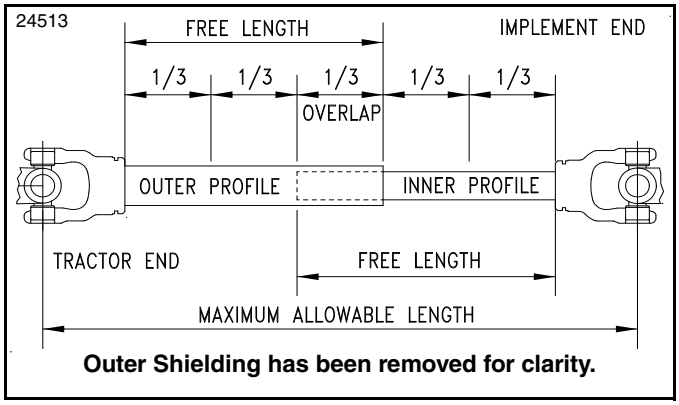
Refer to Figure 1-6:

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.

1. With the driveline attached only to the implement, remove outer driveline (tractor end) from inner driveline to separate the two profiles.
2. Park tractor and implement on a level surface.
3. Raise implement until the gearbox input shaft is level and in-line with the tractor's power take-off shaft.
4. Securely block implement at this height to keep it from lowering.
5. With the implement resting on the support blocks, shut tractor down according to **"Tractor Shutdown Procedure"** on page 19.
6. Attach outer driveline to the tractor's power take-off shaft. Refer to steps 4-6 under **"Driveline Hook-Up"** on page 15.
7. Hold inner and outer drivelines parallel to each other as shown and measure distance "A".
   - If "A" is less than 1" (2.5 cm), continue with step 8.
   - If "A" is greater than or equal to 1" (2.5 cm), skip to **"Driveline Maximum Allowable Length"** on page 17.

Refer to Figure 1-7:

8. Shorten driveline as follows:
   a. Measure 1" (2.5 cm) (**"B1"** dimension) back from outer driveline shield and make a mark at this location on the inner driveline shield.
   b. Measure 1" (2.5 cm) (**"B2"** dimension) back from the inner driveline shield and make a mark at this location on the outer driveline shield.
9. Remove outer driveline from the tractor power take-off shaft and inner driveline from the implement's gearbox shaft.
10. 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).
11. 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).
12. Remove all burrs and cuttings.
13. Continue with **"Driveline Maximum Allowable Length"** on page 17.



Driveline Maximum Allowable Length
Figure 1-8

Driveline Maximum Allowable Length

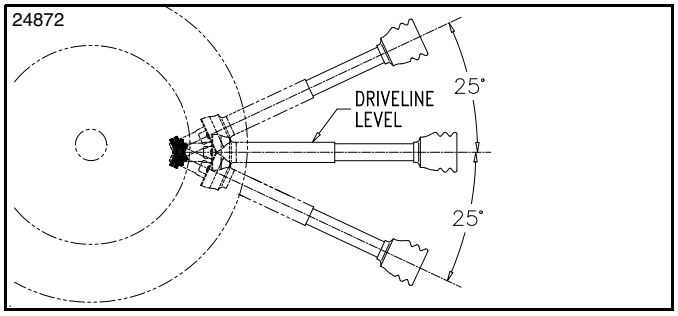
Refer to Figure 1-8:

The driveline maximum allowable length must, when fully extended, have 1/3 overlap of the profile tubes with both inner and outer profile tubes being of equal length as shown. Check maximum allowable length as follows:

1. Make sure **"Check Driveline Collapsible Length"** on page 16 has been completed before continuing with instructions below.
2. If attached, unhook the driveline from the tractor and implement.
3. If assembled, pull outer and inner drivelines profiles apart.
4. Measure and record "Free Length" of inner and outer profiles as shown in Figure 1-8.

IMPORTANT: The driveline must be lubricated before putting it into service.

5. Apply multi-purpose grease to the inside of the outer shaft and reassemble the driveline.
6. Lubricate driveline u-joints, bearings, and profiles. Refer to **"Lubrication Points"** on page 29.
7. Assemble driveline halves together until profile tubes have exactly 1/3 profile overlap as shown.
8. Measure driveline "Maximum Allowable Length" and record that length here _____.
9. Start tractor, raise implement slightly, and drive forward enough to clear support blocks.
10. Lower implement to ground and shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
11. Attach driveline to the implement. Refer to **"Driveline Assembly"** on page 13.
12. Continue with **"Driveline Hook-Up"** on page 15.



Maximum Driveline Movement During Operation
Figure 1-9

Check Driveline Interference

Refer to Figure 1-9:

⚠ WARNING

To avoid serious injury or death:

- *Do not raise center of lower 3-point hitch pins more than 24" (61 cm) above ground with power take-off engaged. Do not engage power take-off if hitch pins are too high. A rotating driveline must not exceeds an angle of 25 degrees up or down. If it does, it can break and throw off projectiles.*
- *A rotating driveline must not exceed an angle of 25 degrees up or down, and never engage a driveline while at an angle exceeding 25 degrees up or down. The driveline can break and send flying projectiles.*

1. Start tractor, raise implement fully up, and back implement over the support blocks used to **"Check Driveline Collapsible Length"** on this page,
2. Without changing 3-point lift height, shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
3. Check to make sure driveline does not exceed any of the limits listed below:
   - Driveline does not exceed maximum allowable length recorded in step 8 under **"Driveline Maximum Allowable Length"** on page 17.
   - Center of lower 3-point hitch pins do not exceed 24" (61 cm) above ground level.
   - Driveline angle does not exceed 25° above horizontal or 25° below horizontal.
4. If any limit was exceeded, adjust tractor 3-point lift limiter to the height that will keep the driveline within the recommended limit listed above. If left lever does not have a lift height limiter, make a mark with tape or other means to indicate maximum lift height.
5. If needed, repeat steps 1-4 until all limits mentioned in step 3 are maintained.
6. Start tractor, raise implement slightly, and drive forward enough to clear support blocks.
7. Lower implement to ground and shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.

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 Tiller. Therefore, it is absolutely essential that no one operates the Rotary Tiller unless they have read, fully understood, and are totally familiar with the Operator's Manual. Make sure the operator has paid particular attention to:

- **Important Safety Information**, page 1
- **Section 1: Assembly and Set-up,** page 10
- **Section 2: Operating**, page 18
- **Section 3: Adjustments**, page 23
- **Section 4: Maintenance and Lubrication**, page 25

Inspections

Perform the following inspections before using your Rotary tiller with tiller attached to a tractor, power take-off disengaged and completely stopped.

Operating Checklist

✔	Check	Ref.
	Inspect tractor safety equipment to make sure it is in good working condition.	Tractor Manual
	Check all guards and shields to make certain they are in good working condition, in place, and secured.	
	Carefully raise and lower implement to ensure drawbar, tires, etc. do not contact tiller frame or driveline.	
	Check driveline. Make sure it is secured at both ends. Refer to "Driveline Hook-Up".	15
	Check tiller depth setting. Refer to "Skid Shoe Adjustment".	23
	Check for worn, bent, broken, loose, and/or missing tines. Refer to "Tine Replacement".	25
	Check driveline slip clutch to make sure disks will slip. Refer to "Driveline Protection".	26
	Grease driveline shaft and all other grease fittings. Refer to "Lubrication Points".	29
	Check oil level in gearbox. Make sure all plugs have been replaced when completed. Refer to "Gearbox Lubrication".	31
	Check oil level in gear case. Make sure all plugs have been replaced when completed. Refer to "Gear Case Lubrication".	30
	Check tiller initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	36

Safety Information

DANGER

To avoid serious injury or death:

- *Do not engage power take-off while connecting or disconnecting the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.*
- *Keep away from rotating hex drive shaft located between gearbox and drive end of tiller. A person can become entangled in the shaft.*
- *Keep front rubber dirt deflector on reverse tine tillers in place while operating the unit. Objects in a reverse tine tiller can be thrown forward toward the operator.*
- *Keep yourself and all others away from rotating tines and drive train. Always disengage power take-off and lockout power source before making adjustments or servicing the tiller. A person's body, hair, or clothing can become entangled in rotating components.*
- *Make all 3-point hydraulic adjustments from the tractor seat. Never make hydraulic adjustments while standing behind the tractor.*
- *Tractor power take-off shaft shield, driveline shields, and gearbox shaft shields must be installed and in good working condition to avoid driveline entanglement and projectiles flying off of the driveline.*
- *Tine impact on objects can throw projectiles resulting in bodily injury or death. Do not point discharge toward people, animals, or buildings and keep people and animals away from tiller during operation.*
- *Do not use a power take-off adapter. The adapter will increase strain on the tractor's power take-off shaft causing possible damage to shaft and driveline. It will also defeat the purpose of the tractor's power take-off shield.*
- *Make certain driveline yokes are securely fastened at each end. A loose yoke can work free allowing the driveline to rotate uncontrollably.*

⚠ WARNING

To avoid serious injury or death:

- *Allow only persons to operate this implement who have fully read and comprehended this manual, and who are properly trained in the safe operation of this implement.*
- *Never carry riders on the implement or tractor. Riders can obstruct the operator's view, interfere with controls, be pinched by moving components, become entangled in rotating components, struck by objects, thrown about, fall off and be run over, etc.*
- *Do not till across steep inclines that are subject to rollover. The action of the tines being forced down into the ground can cause the tractor to roll-over resulting in serious injury or death. Consult your tractor's manual for acceptable inclines the tractor is capable of traveling across.*
- *Check driveline when lowering tiller into the ground 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 damage to the driveline.*
- *Always follow "Tractor Shutdown Procedure" provided in this manual before dismounting the tractor.*
- *Always disengage power take-off immediately after lifting tiller above ground level. Never operate tiller in the raised position. The tiller can discharge objects at high speeds resulting in injury or death.*
- *Be careful when working areas where obstructions can be hidden. Always mark potential hazards with a visible flag. Travel slowly through high risk areas and be prepared to stop immediately should implement make contact with a solid object.*
- *Do not use implement as a man lift or work platform. It is not properly designed or guarded for this use.*
- *Perform scheduled maintenance. Check for loose hardware, missing parts, broken parts, structural cracks, and excessive wear. Make repairs before putting the implement back into service.*
- *Do not use implement to lift objects; to pull objects such as fence posts, stumps, etc; or to push objects. The unit is not designed or guarded for these uses.*
- *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.*
- *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.*
- *Do not use implement for a purpose other than the work it is designed to do as defined in this manual.*
- *Do not operate a broken or bent driveline. Such a driveline will break apart while rotating at high speeds. Always remove the implement from use until the damaged driveline can be repaired or replaced.*
- *Avoid exposure to dust containing crystalline silica particles. This dust can cause serious injury to the lungs (silicosis). Because crystalline silica is a basic component of sand and granite, many activities at construction sites produce dust containing crystalline silica. Trenching, sawing, and boring of material containing crystalline silica can produce dust containing crystalline silica.*
- *Never make contact with underground utilities such as electrical power lines, gas lines, phone lines, etc. They can cause serious injury or death from electrocution, explosion, or fire. Always call 811 (USA) or local utility companies before digging so that they can mark the location of underground services in the area. For contact information, see Dig Safe in the "Important Safety Information" starting on page 1.*
- *Some tractors are equipped with two power take-off speeds. Be certain your tractor's power take-off shaft is set-up to operate at 540 rpm. Do not exceed 540 rpm power take-off speed. Excessive speed can damage drive/driven components and increase the risk of a thrown object hazard.*

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

IMPORTANT: To prevent damaging the park stand, always store the stand in its transport position before moving the tiller.

Tractor Shutdown Procedure

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

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

Park Stand Operation

Always rotate park stand (#1) up and secure it in the up position before operating or transporting with the tiller attached to the tractor. Always rotate park stand down and secure it in the down position before unhooking the tiller from the tractor.

Set Park Stand For Transport

IMPORTANT: To prevent damaging the park stand, always store the stand in its transport position before moving the tiller.

Always adjust park stand up before traveling with tiller hitched to a tractor.

Refer to Figure 2-2:

1. Raise tiller up until park stand (#1) is slightly above the ground.
2. Shut tractor down without lowering the tiller before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
3. Remove wire retaining pin (#2).

Refer to Figure 2-1:

4. Rotate park stand (#1) up as shown.
5. Reinsert wire retaining pin (#2) in upper holes.
6. Make sure wire retainer is caught over end of pin (#2).

Set Park Stand For Storage

WARNING

To avoid serious injury or death:

An unsupported parked tiller can tip over easily. Always use its park stand and when needed, non-concrete support blocks to keep the tiller from tipping onto a person.

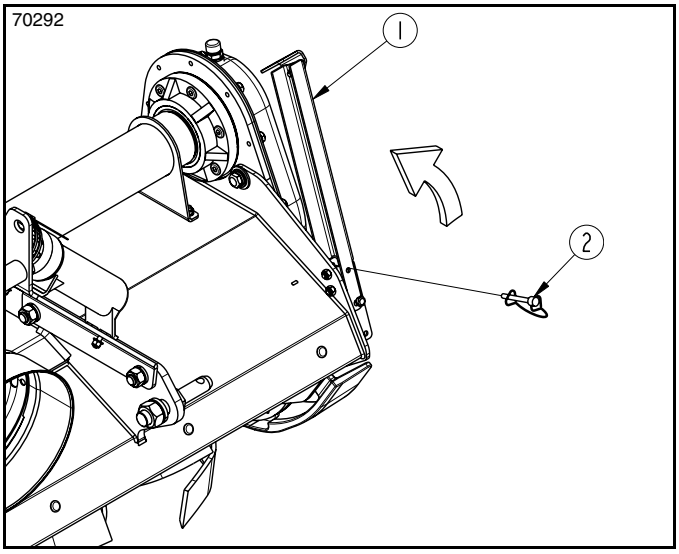
Always rotate park stand down before unhooking the tiller from the tractor.

Refer to Figure 2-1:

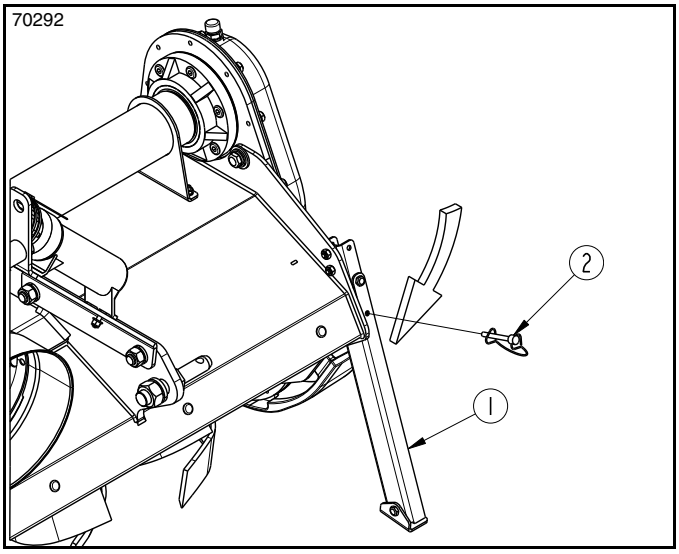
1. Lower tiller until tines are a slightly above ground.
2. Shut tractor down without lowering the tiller before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 19.
3. Remove wire retaining pin (#2).

Refer to Figure 2-2:

4. Rotate park stand (#1) down.
5. Reinsert wire retaining pin (#2) in lower holes as shown.
6. Make sure wire retainer is caught over end of pin (#2).
7. Return to the tractor and lower tiller until it is resting fully on the ground.



Park Stand in Transport Position
Figure 2-1



Park Stand in Storage Position
Figure 2-2

Transport Rotary Tiller

DANGER

To avoid serious injury or death:

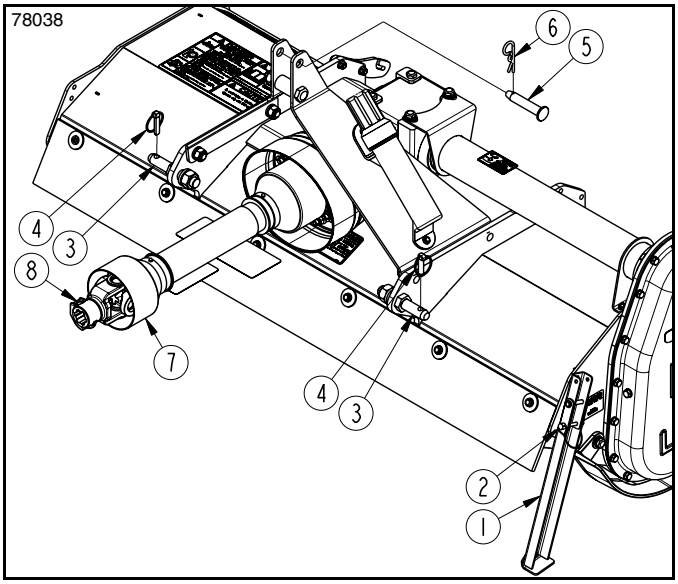
- *Always disengage power take-off before lifting the implement. Never operate implement in the raised position. Objects can be thrown at high speeds toward people or animals*

WARNING

To avoid serious injury or death:

- *When traveling on public roadways, travel in such a way that faster moving vehicles may pass safely. Use hazard lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.*
- *Select a safe ground speed that will allow adequate control of steering and stopping. Never exceed 20 mph (32 km/h) with attached equipment. Rough terrain requires a slower speed.*
- *Reduce ground speed when turning and leave enough clearance to avoid making contact with obstacles such as buildings, trees, fences, etc.*

1. Raise tiller slightly off the ground. Without changing the tiller height, shut tractor down according to **"Tractor Shutdown Procedure"** on page 19.
2. Set park stand for transporting. For detailed instructions, refer to **"Park Stand Operation"** on page 20.
3. When raising the tiller for transport, make sure the driveline does not make contact with the tractor or tiller. Adjust tractor's 3-point lift height limiter to set the maximum lift height of the lower hitch pins at 24" (61 cm) above ground. If the lift mechanism does not have a lift height limiter, make a mark with tape or other means to indicate maximum lift height.
4. Be sure to reduce tractor ground speed when turning. Leave enough clearance so that the tiller does not come in contact other obstacles such as buildings, trees, or fences.
5. Select a safe ground travel speed when transporting from one area to another. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
6. When traveling over rough or hilly terrain, shift tractor to a lower gear.



Unhook Rotary Tiller (RGR Series Shown)
Figure 2-3

Unhook Rotary Tiller

Refer to Figure 2-3:

WARNING

To avoid serious injury or death:

An unsupported parked tiller can tip over easily. Always use its park stand and when needed, non-concrete support blocks to keep the tiller from tipping onto a person.

The following steps should be taken when preparing to store the tiller or to unhitch it from the tractor.

1. See **"Long-Term Storage"** on page 28 when parking tiller for long periods.
2. Set park stand for storage. Refer to **"Park Stand Operation"** on page 20 for detailed instructions.
3. Shut tractor and tiller down properly. Refer to **"Tractor Shutdown Procedure"** on page 19.
4. Push down on push pin (#8) and hold while pulling driveline (#7) from the tractor's power take-off shaft.
5. Remove upper 3-point hitch pin keeper (#6) and hitch pin (#5) from the tiller's upper center hitch.
6. Remove linchpins (#4) and slide lower 3-point arms off of the tiller's lower 3-point hitch pins (#3).
7. Start tractor and drive tractor forward several feet.
8. Shutdown tractor according to **"Tractor Shutdown Procedure"** on page 19 before dismounting.
9. Reinstall linchpins (#4), hitch pin (#5) and hitch pin keeper (#6) in the tiller hitch for safe keeping.
10. Collapse driveline by pushing driveline toward the tiller. Store tractor end of driveline off the ground.
11. Check tiller for stability by physically pushing and pulling on the unit to see if it will move. Block tiller as needed to prevent movement.

General Operating Notes

Make the following inspection before operating the tiller:

1. Check oil level in gearbox and gear case. Refer to **"Lubrication Points"** on page 29.
2. Check to make sure all plugs have been replaced properly in the gearbox and gear case.
3. Be sure all tiller tines, bolts, and nuts are tight.
4. Be certain all guards, shields, and dirt deflectors are in place and secure.
5. Grease driveline shaft and all other grease fittings. Refer to **"Lubrication Points"** on page 29.
6. Clear area to be tilled of rocks, branches, and other foreign objects.
7. Tall grass and weeds should be mowed before tilling.
8. Do not engage power take-off at full throttle. Once engaged, increase throttle to 540 power take-off speed. Tiller tines will till better at 540 power take-off speed than at reduced throttle.
9. Tilling should not be done in wet conditions as soil will stick to tines.
10. At first begin tilling at a slow forward speed and shift up as ground conditions warrant.
11. Operate tiller with deck level to the ground.
12. After tilling the first 50 feet (15 m), stop and check to see that the tiller is adjusted properly.

IMPORTANT: Turning or backing up with rotary tines in the ground will damage the tiller.

13. Do not make turns or attempt to back up while tiller is in the ground. See important note above.
14. Do not engage power take-off with implement in the fully raised position.
15. Periodically check for foreign objects wrapped around the rotor shaft:
    - Remove objects after disengaging power take-off, lowering tiller fully down, turning off tractor engine, and removing ignition key.
    - If tiller needs to be raised to remove objects, support tiller with blocks before working around the tiller to remove the objects.

General Operating Instructions

Before using your Land Pride RGR12 or RGA12 Series Rotary Tiller, you should have completely read this Operator's Manual, properly attached the tiller to the tractor, cut the driveline to proper length, run-in the clutch, and gone through the Operating Checklist. If you have missed any of these steps, please complete them before proceeding.

Now that you have properly prepared yourself and your tiller, it's time to do some tilling. Carefully drive the tractor to the site where you intend to till. **You should have already cleared this site of any large limbs, rocks, trash, metal or other debris**. Lower the tiller half way to the ground and reduce your tractor engine speed to about one quarter throttle. Engage the power take-off and gradually increase the engine speed until you reach full power take-off speed of 540 rpm. Lower the tiller to the ground and simultaneously commence forward travel of approximately 2 mph (3.2 km/h). Do not make turns or attempt to back up while tiller is in the ground. See important note below.

IMPORTANT: Turning or backing up with rotary tines in the ground will damage the tiller.

Travel about 50 feet (15 m) and then stop to check your results. When stopping, remember to stop tractor, lift tiller slightly out of the ground, reduce engine speed, disengage power take-off, set park brake, shut off tractor, and remove the key. If you are tilling too shallow or too deep, adjust the skid shoes accordingly. If the soil texture is too coarse, lower the rear deflector and reduce your ground speed. If the soil texture is too fine, you will need to raise your rear deflector and increase your ground speed. For any other problem conditions that may arise, refer to the **"Troubleshooting Chart"** on page 35**.**

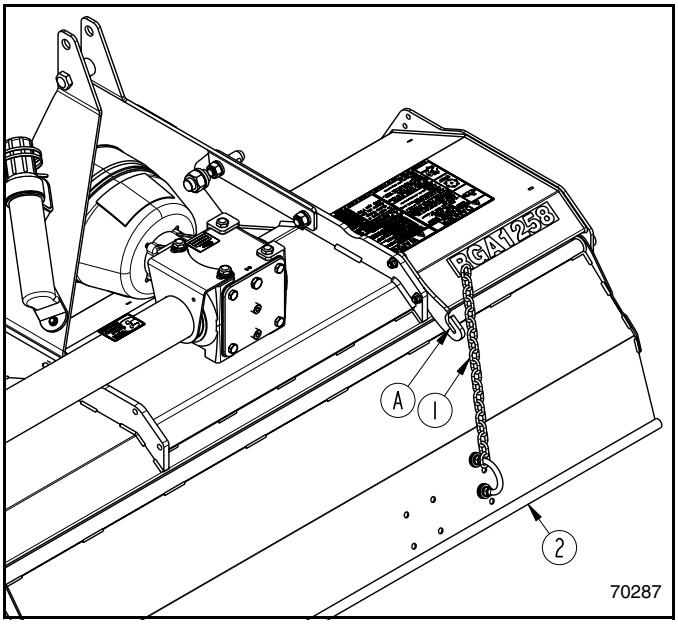
When you are done tilling for the day, make sure you use proper tractor shutdown procedures before you get off of the tractor. If you are detaching your tiller, make sure you park it on a dry and level surface leaving it clean and ready for the next use. When you put your tiller up for the season, make sure you refer to the **"Long-Term Storage"** on page 28.

With a little practice and a few adjustments, you will soon be achieving the results you want with your Land Pride Rotary Tiller. See **"Section 5: Specifications & Capacities"** on page 32 and/or **"Section 6: Features & Benefits"** on page 34 for additional information and performance enhancing options.

Rear Deflector Adjustment

Refer to Figure 3-1:

Rear deflector (#2) can be adjusted closer to the ground to produce a fine soil texture or raised to produce a coarse soil texture. Adjust rear deflector up or down by repositioning chain (#1) in slot "A".



Rear Deflector Adjustment
Figure 3-1

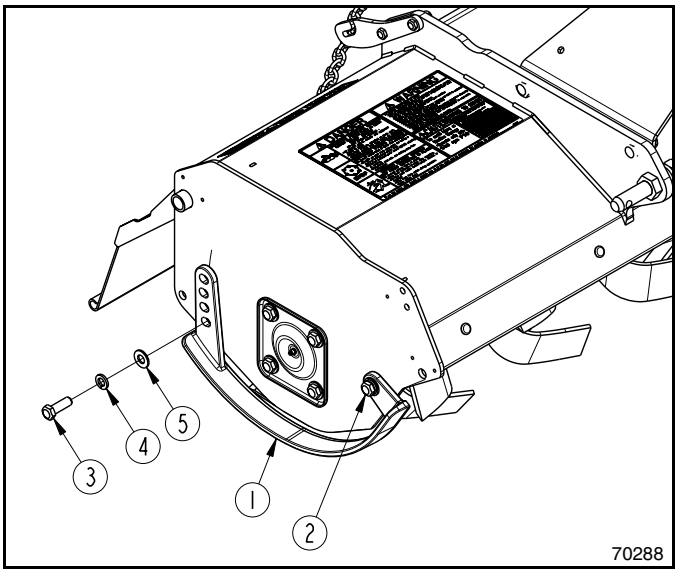
Skid Shoe Adjustment

Refer to Figure 3-2:

The skid shoes can be adjusted to the desired tilling depth by raising or lowering them:

NOTE: Tilling depth is the vertical distance from bottom of skid shoes to bottom of lowest tine. Make certain both skid shoes are adjusted the same.

1. Raise tiller off the ground high enough to place support blocks under the tines.
2. Without lowering the tiller, shut tractor down before dismounting using **"Tractor Shutdown Procedure"** on page 19.
3. Place support blocks under the tiller **(not under the skid shoes).**
4. Start tractor and lower tiller onto the support blocks.
5. Shut tractor down before dismounting using **"Tractor Shutdown Procedure"** on page 19.
6. The park stand should be in transport position. If it is not, move it to transport position now. Refer to **"Park Stand Operation"** on page 20.
7. Make certain the tiller is securely resting on the supports before working on or around the tiller.
8. At the front of the right-hand skid shoe, loosen pivot bolt (#2).
9. Remove adjusting bolt (#3), lock washer (#4), and flat washer (#5) at the rear of the skid shoe.
10. Adjust skid shoe (#1) to the desired tilling depth.
11. Install removed flat washer (#5), lock washer (#4), and adjusting bolt (#3). Tighten 1/2"-13 GR5 hex head bolts (#2 & #3) to the correct torque.
12. Repeat steps 8-11 on the left-hand side of the tiller.



Skid Shoe Adjustment
Figure 3-2

Park Stand Adjustment

Refer to Figure 3-3:

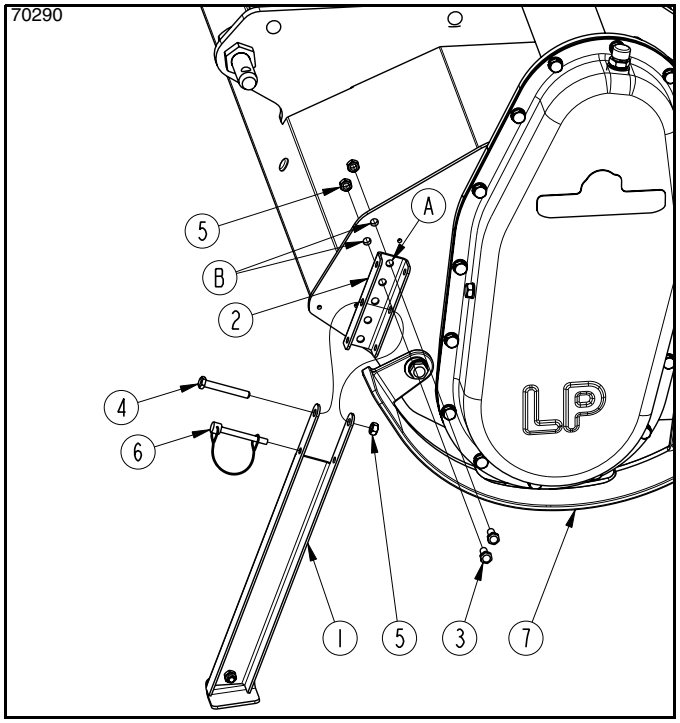
WARNING

To avoid serious injury or death:

An unsupported parked tiller can tip over easily. Always use its park stand and when needed, non-concrete support blocks to keep the tiller from tipping onto a person.

The park stand mount (#2) should be adjusted up or down if tiller weight is not resting on park stand (#1) while unhooked from a tractor.

1. Hook-up tiller to a tractor. Refer to **"Hook-Up Rotary Tiller"** on page 14.
2. Lower tiller until skid shoes (#7) are resting on support blocks. Park stand (#1) should be off the ground by several inches.
3. Shut tractor down before dismounting using **"Tractor Shutdown Procedure"** on page 19.
4. Remove wire retaining pin (#6), bolt (#4), and locknut (#5).
5. Remove bolts (#3) and locknuts (#5). Adjust park stand mount (#2) up or down to realign 2 of 5 holes "A" with mounting holes "B" in tiller side panel.
6. Attach stand base (#2) to tiller side panel as shown with 5/16"-18 x 3/4" GR5 hex head bolts (#3) and hex locknuts (#5). Tighten locknut to the correct torque.
7. Attach stand (#1) to center holes in park stand mount (#2) with 5/16"-18 x 2 1/4" GR5 bolt (#4) and locknut (#5). Draw locknut snug and then back off 1/8 of a turn.
8. Secure park stand in the rotated down position with wire retaining pin (#6). Make sure wire retainer is hooked over the end of the pin.



Park Stand Adjustment
Figure 3-3

Maintenance

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

Check all hardware after several hours of operation and regularly 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 the hydraulics is off.

WARNING

To avoid serious injury or death:

- *Allow only persons to perform maintenance on this implement who have been properly trained in its safe operation.*
- *Make sure controls are all in the neutral position or park before starting the power machine.*
- *Always shut tractor down using "Tractor Shutdown Procedure" provided in this manual before servicing, adjusting, cleaning, or maintaining this implement.*
- *An unsupported parked tiller can tip over easily. Always use tiller park stand and when needed, non-concrete support blocks to prevent the tiller from tipping onto a person when disconnected from the 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.*
- *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.*

Tine Replacement

Refer to Figure 4-1 for RGR12 Series Tillers and Figure 4-2 for RGA12 Series Tillers:

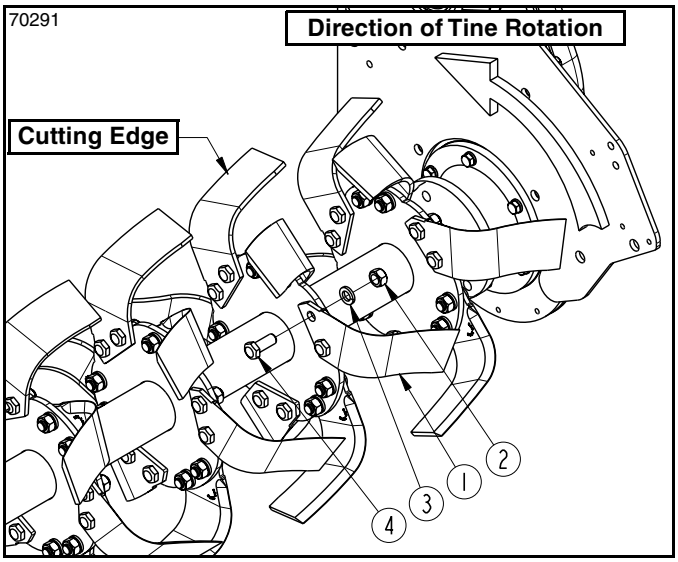
WARNING

To avoid serious injury or death:

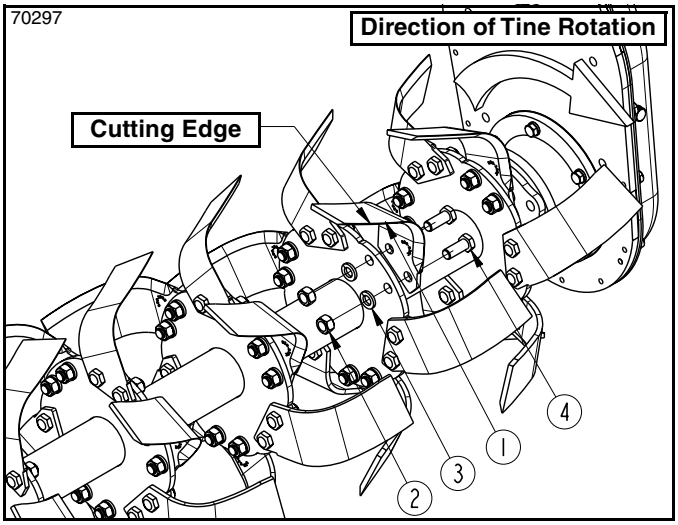
Used tines can be very sharp. Always wear gloves when handling tines to protect against cuts.

IMPORTANT: When ordering tines, be sure to order only genuine OEM tines and to order both right- and left-hand tines. Always install tines with cutting edge facing the direction of rotation.

IMPORTANT: Remove and install one tine at a time to ensure they are oriented correctly when installed.



RGR12 Series Tine Replacement
Figure 4-1



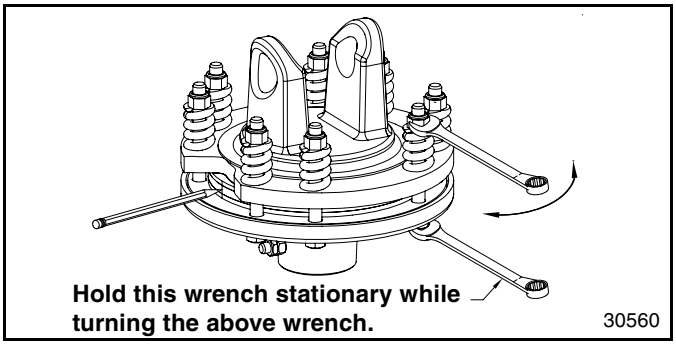
RGA12 Series Tine Replacement
Figure 4-2

1. Remove the two nuts (#2), lock washers (#3), and bolts (#4) from tine (#1) to be replaced and then remove the tine.
2. Attach new tine (#1) to the mounting flange making sure its cutting edge crosses over the mounting flange and leads in rotation.
3. Reinstall removed hardware and tighten the two nuts to the correct torque for a 1/2"-13 GR5 bolt. Refer to **"Torque Values Chart for Common Bolt Sizes"** on page 36.
4. Repeat steps 1 to 3 until all tines have been replaced.

Driveline Protection

Tiller drive components are protected from shock loads with a two plate friction clutch.

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



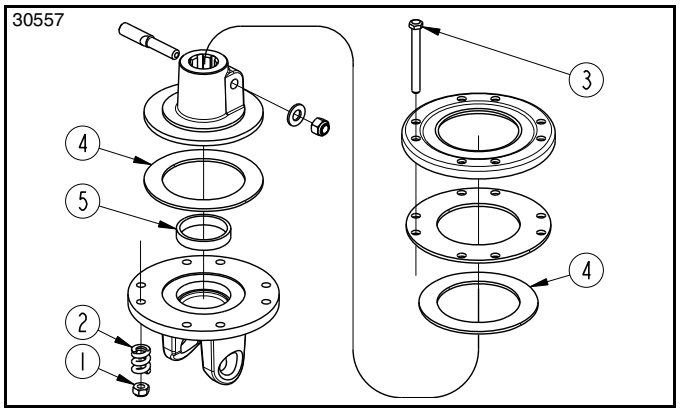
Clutch Run-In
Figure 4-3

Clutch Run-In

Refer to Figure 4-3:

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

1. Using a pencil or other marker scribe a line across the exposed edges of the clutch plates and friction disks.
2. Carefully loosen each of the 8 spring retainer nuts by exactly 2 revolutions. It will be necessary to hold the hex end of the retainer bolt in order to count the exact number of revolutions.
3. Start tractor and engage driveline for 2-3 seconds to permit slippage of clutch plate and disk surfaces. Disengage driveline and re-engage a second time for 2-3 seconds.
4. Shut tractor down before dismounting using **“Tractor Shutdown Procedure”** on page 19.
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 clutch plates from the friction disks. See **“Clutch Disassembly”** instructions below.
6. Tighten each of the 8 spring retainer nuts on the clutch housing exactly 2 revolutions to restore clutch to its original setting pressure.
7. The clutch should be checked during the first hour of operation and periodically each week. An additional set of scribe marks can be added to check for slippage. See **“Clutch Assembly”** to adjust for proper spring length.



Clutch Disassembly/Assembly
Figure 4-4

Clutch Disassembly

Refer to Figure 4-4:

If the clutch run-in procedure, (See **“Clutch Run-In”** on page 26), indicated that one or more of the friction disks did not slip, the clutch must be disassembled to separate the friction discs.

IMPORTANT: Be sure to measure and record spring length ("A”) of each spring on the clutch before disassembling the clutch.

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

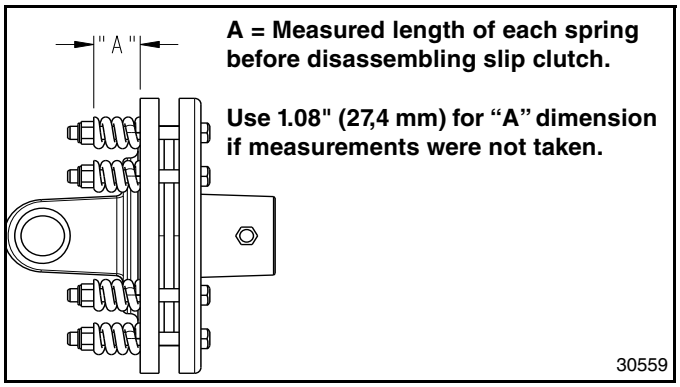
Inspection

Inspect all parts for excessive wear and condition. Clean all parts that do not require replacement.The original friction disk thickness is 1/8" (3 mm) and should be replaced if the thickness falls below 3/32" (2.4 mm). If the clutch has 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.

Clutch Assembly

Refer to Figure 4-4:

Reassemble each friction disk (#4) next to the metal clutch plate it was separated from. Make certain bushing (#5) is replaced in the same location as when removed. Install bolts (#3) through end plates and intermediate plates as shown. Place springs (#2) over each bolt and secure with nuts (#1).



Clutch Spring Length
Figure 4-5

Refer to Figure 4-5:

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

Long-Term Storage

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

DANGER

To avoid serious injury or death:

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

1. Clean off any dirt and grease that may have accumulated on the tiller and moving parts. Scrape off compacted dirt from bottom of tiller and then wash surface thoroughly with a garden hose. A coating of oil may also be applied to the areas where paint has been worn off from use to minimize oxidation.
2. Check tines and tine bolts for wear. Replace if necessary. Refer to **"Tine Replacement"** on page 25.
3. Inspect tiller for loose, damaged or worn parts and adjust or replace as needed.
4. Repaint parts where paint is worn or scratched to prevent rust. Ask your Land Pride dealer for aerosol touch-up paint. They are also available in touch-up bottles with brush, quarts, and gallon sizes by adding TU, QT, or GL to the end of the aerosol part number.

Land Pride Touch-up Paint

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

5. A coating of oil may be applied to worn surfaces in lieu of painting to minimize oxidation.
6. Replace all damaged or missing decals.
7. Lubricate as noted in **"Lubrication Points"** starting on page 29.
8. Store tiller on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer tiller life.
9. Follow all **"Unhook Rotary Tiller"** instructions on page 21 when disconnecting tractor from tiller.

Ordering Replacement Parts

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

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

82 . . . . . Orange **85. . . . . Black**

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

Lubrication Points

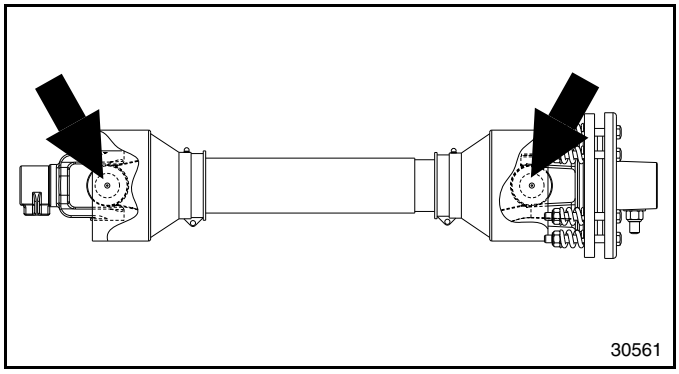
Lubrication Legend

Multi-purpose spray lube

Multi-purpose grease lube

Multi-purpose oil lube

50 Hrs — Intervals in hours at which lubrication is required

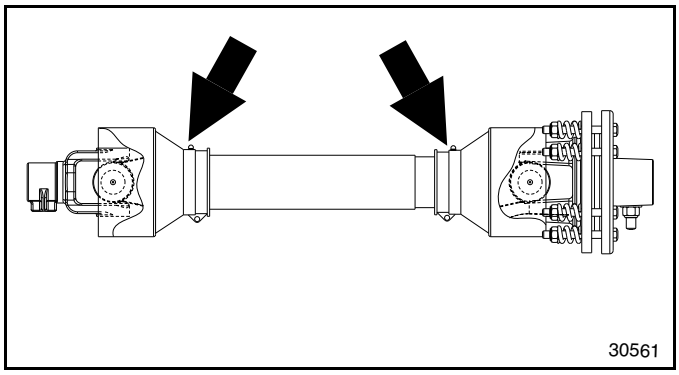


8 Hours

Driveline U-Joint

Type of Lubrication: Grease

Quantity = 2-3 pumps

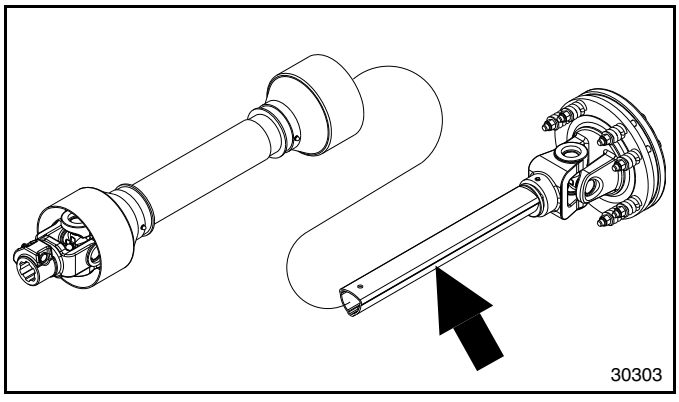


8 Hours

Driveline Shield Bearings

Type of Lubrication: Grease

Quantity = 4-6 pumps



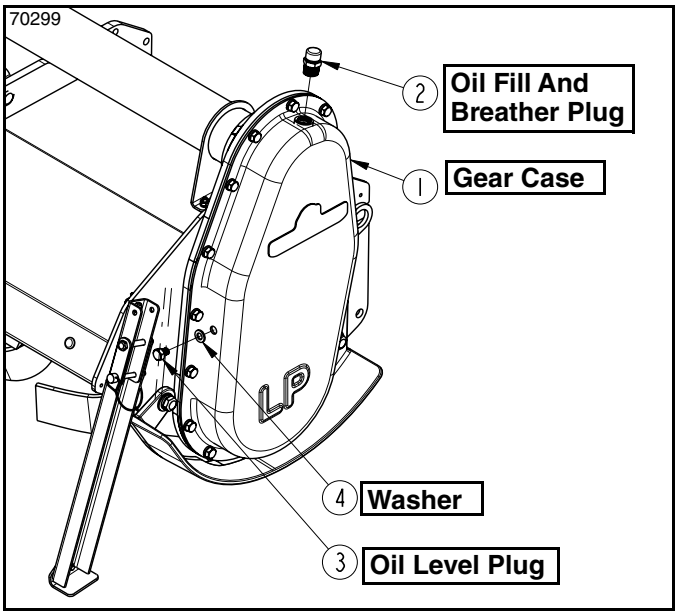
20 Hours

Driveline profile

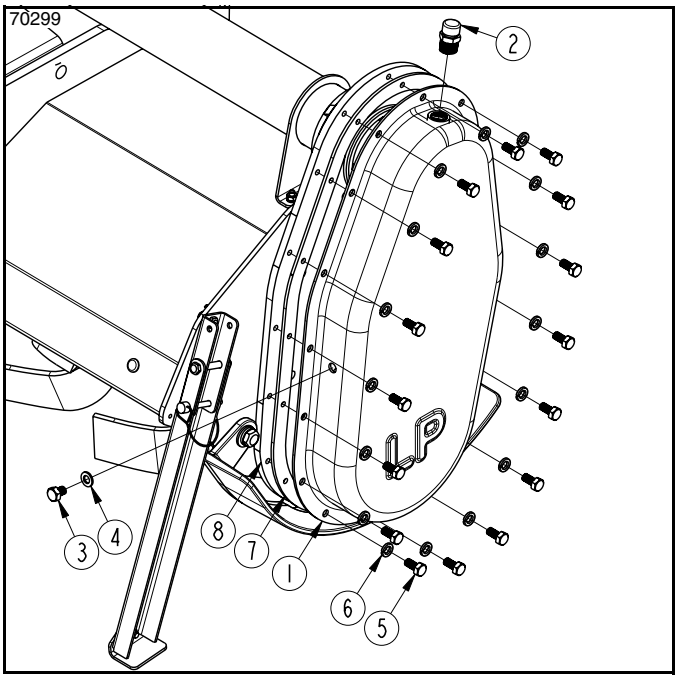
Disconnect driveline profile from the tractor and slide apart. Clean and coat the inner profile of the driveline with a light film of grease and then reassemble.

Type of grease = Multi-Purpose

Quantity = Coat Generously



Gear Case Oil Level
Figure 4-6



Gear Case Oil Change
Figure 4-7

Gear Case

IMPORTANT: Tiller should be level when checking oil level in the gear case.

Type of Lubrication: SAE 80-90W EP Oil

Quantity = Gear oil will run out of oil level plug hole when full.

Check Gear Case Oil Level

Refer to Figure 4-6:

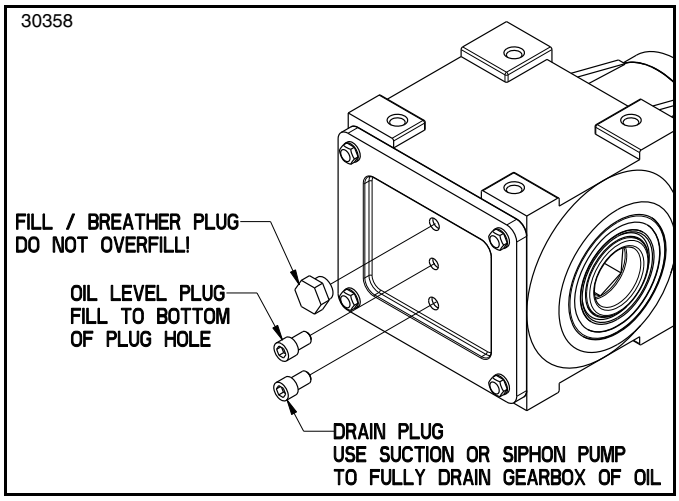
1. Check oil level at the beginning of the season and as needed thereafter by removing oil level plug (#3) with washer (#4). Oil should reach bottom of plug hole.
2. If low on oil, remove fill plug (#2) and add recommended oil as needed to reach bottom of oil level plug hole.
3. Replace washer (#4) with level plug (#3) and tighten.
4. Replace oil fill plug (#2) and tighten.

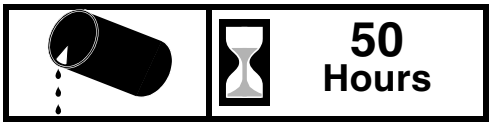
Change Gear Case Oil

Refer to Figure 4-7:

Change gear case oil every 100 hrs of operation or when oil becomes dirty, whichever comes first.

1. Park tiller on a level, solid surface. Shut tractor down before dismounting using **"Tractor Shutdown Procedure"** on page 19.
2. Remove bolts (#5), lock washers (#6), and gear case cover (#1). Drain oil into a container that is appropriate for collecting oil. Deliver waste oil to an approved collection facility.
3. Remove gasket from cover (#1) and/or cover mounting surface (#8).
4. Make sure gasket contact surfaces (#1 & #8) are clean. Install new gasket (#7) (part # H-CD244), existing cover (#1), lock washers (#6), and bolts (#5).
5. Tighten bolts (#5) as needed to make a tight seal.
6. Remove oil level plug (#3) with washer (#4) and oil fill plug (#2).
7. Add 6 pints of recommended oil through the fill plug hole until oil begins to flow out of the oil level plug hole.
8. Replace washer (#4) with oil level plug (#3) and tighten.
9. Replace oil fill plug (#2) and tighten.





Gearbox

IMPORTANT: Tiller should be level when checking oil level in the gearbox.

Type of Lubrication: SAE 80-90W EP Oil

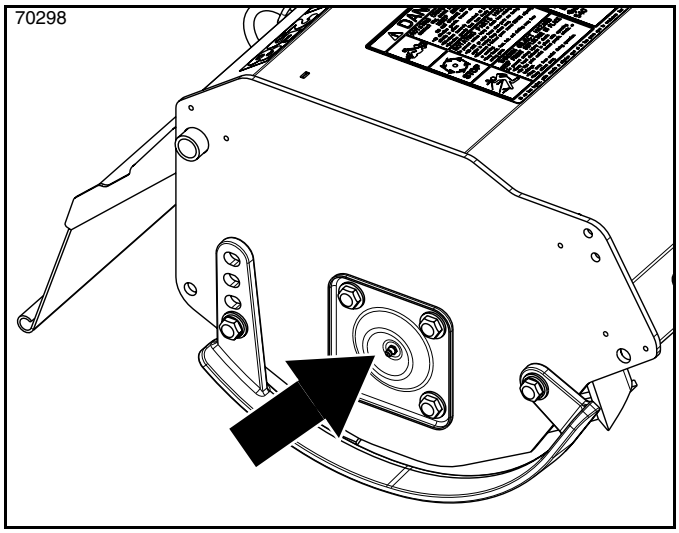
Quantity = Fill until oil begins to flow out of oil level plug hole.

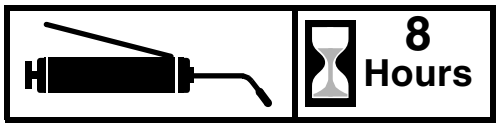
Check Oil Level

1. Check oil every 50 hours of operation by removing center level plug at the rear of the gearbox. Oil should come to bottom of center plug hole.
2. If low, add recommended gear oil through fill plug hole until oil begins to flow out of oil level plug hole. DO NOT OVERFILL!
3. Tighten all plugs when done.

Change Gearbox Oil

1. Change gearbox oil every 100 hrs of operation or when oil becomes dirty, whichever comes first.
2. Drain oil into a container that is appropriate for collecting oil. Remove drain plug and fill plug.
3. Use a suction or siphon pump to fully drain gearbox of oil.
4. Deliver waste oil to an approved collection facility.
5. Replace drain plug and remove oil level plug.
6. Add 2 pints of recommended gear oil through fill plug hole until oil begins to flow out of oil level plug hole. DO NOT OVERFILL!
7. Tighten all plugs when done.





Bearing On Right End Of Rotor Shaft

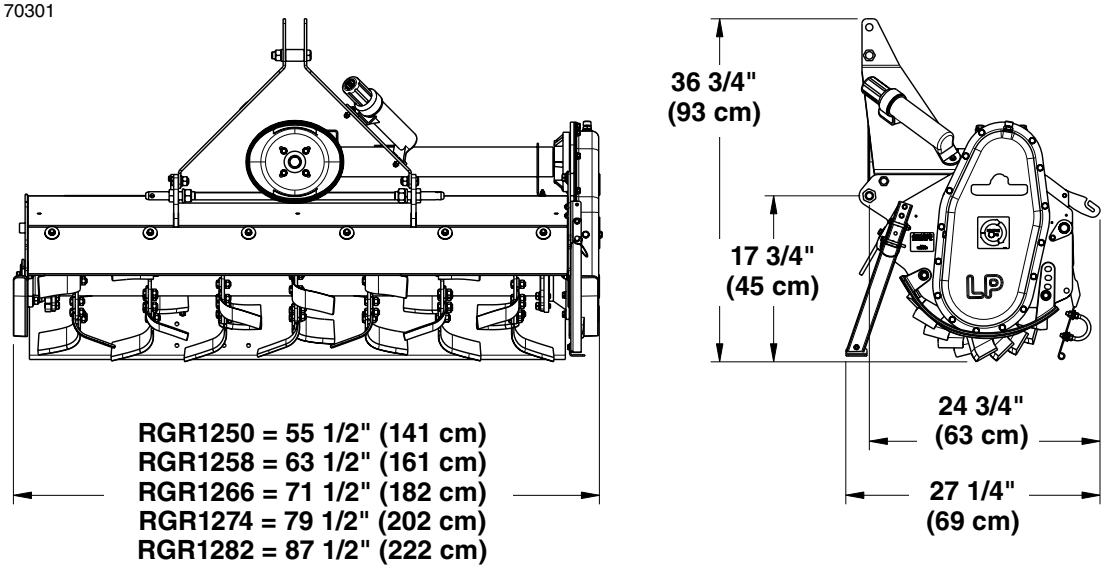
Type of Lubrication: Multi-Purpose

Quantity = As Required

RGR12 Series Rotary Tiller

Specifications & Capacities					
Model Number	**RGR1250**	**RGR1258**	**RGR1266**	**RGR1274**	**RGR1282**
Recommended tractor Power Take-Off horsepower	18-60 hp (18-45 kW)	23-60 hp (17-45 kW)		30-60 hp (22-45 kW)	35-60 hp (26-45 kW)
Weight	497 lbs (225 kg)	530 lbs (240 kg)	567 lbs 257 kg)	601 lbs (273 kg)	653 lbs (296 kg)
Working depth	7 inches (18 mm)				
Working width	50" (127 cm)	58" (147 cm)	66" (168 cm)	74" (188 cm)	82" (208 cm)
Overall width	55 1/2" (141 cm)	63 1/2" (161 cm)	71 1/2" (182 cm)	79 1/2" (202 cm)	87 1/2" (222 cm)
3-Point hitch type	Category I, 3-point plate steel A-frame, Fits Land Pride Quick Hitch				
Driveline	Category 4 with Slip Clutch				
Optional BX driveline	Category 4 with Slip Clutch, Not recommended with Quick Hitch				Not available
Number of flanges on rotor	6	7	8	9	10
Number of tines per flange					
Tine construction	Alloy steel heat-treated “C” shaped blades				
Rotor rotation	Reverse rotation				
Rotor swing diameter	17" (43 cm)				
Rotor shaft speed	211 rpm at 540 rpm power take-off				
Rotor bearing mount	Machined cast iron with ball bearings				
Skid shoes	Adjustable				
Park stand	Adjustable				
Rear deflector	Adjustable				
Front deflector	Rubber				
Gearbox construction	60 hp (45 kW) input at 540 rpm 1.92:1 ratio, Cast iron housing with ASAE 1 3/8" - 6 spline shaft, tapered roller bearings, bevel gears, drain plug, level plug & fill plug				
Gearbox lubrication	2 Pints (.95 L) of SAE 80-90W EP oil				
Drive end construction	Spur gears enclosed in an oil bath with oil level plug or sight glass and oil fill/breather plug				
Gear case lubrication	6 Pints (2.84 L) of SAE 80-90W EP oil				
Spur gears	Case hardened teeth				

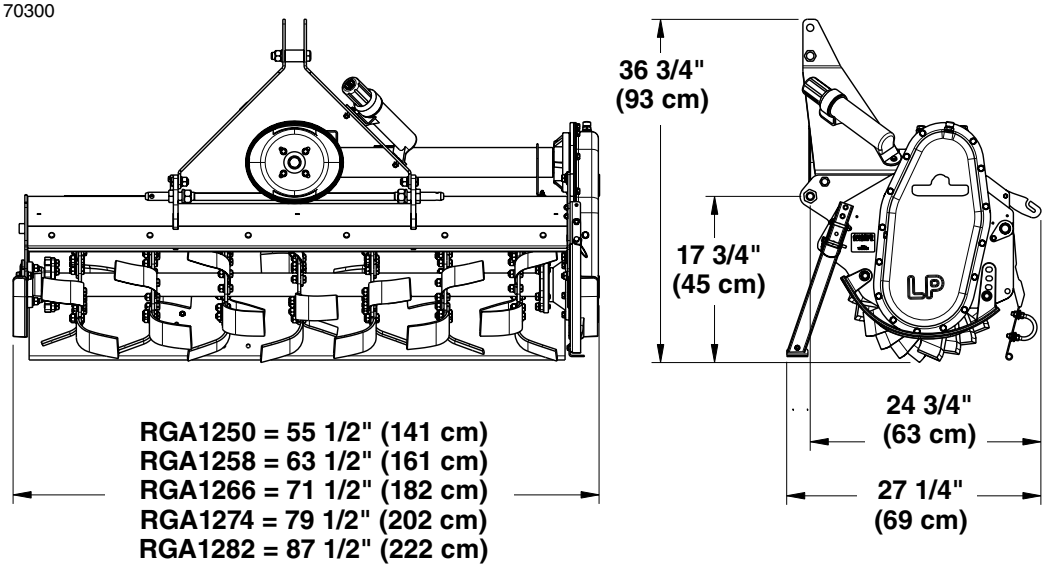
70301



RGA12 Series Rotary Tiller

Specifications & Capacities					
Model	**RGA1250**	**RGA1258**	**RGA1266**	**RGA1274**	**RGA1282**
Recommended tractor Power Take-Off horsepower	18-60 hp (18-45 kW)	23-60 hp (17-45 kW)		30-60 hp (22-45 kW)	35-60 hp (26-45 kW)
Weight	493 lbs (224 kg)	526 lbs (239 kg)	562 lbs (255 kg)	596 lbs (270 kg)	647 lbs (294 kg)
Working depth	7 inches (18 mm)				
Working width	50" (127 cm)	58" (147 cm)	66" (168 cm)	74" (188 cm)	82" (208 cm)
Overall width	55 1/8" (140 cm)	63 1/8" (160 cm)	71 1/8" (181 cm)	79 1/8" (201 cm)	87 1/8" (221 cm)
3-Point hitch type	Category I, 3-point plate steel A-frame, Fits Land Pride Quick Hitch				
Driveline	Category 4 with Slip Clutch				
Optional BX driveline	Category 4 with Slip Clutch, Not recommended with Quick Hitch				Not available
Number of flanges on rotor	6	7	8	9	10
Number of tines per flange	6				
Tine construction	Alloy steel heat-treated “C” shaped blades				
Rotor rotation	Forward rotation				
Rotor swing diameter	17" (43 cm)				
Rotor shaft speed	211 rpm at 540 rpm power take-off				
Rotor bearing mount	Machined cast iron with ball bearings				
Skid shoes	Adjustable				
Park stand	Adjustable				
Rear deflector	Adjustable				
Front deflector	None (Not required with RGA forward rotation)				
Gearbox construction	60 hp (45 kW) input at 540rpm 1.92:1 ratio, Cast iron housing with ASAE 1 3/8" - 6 spline shaft, tapered roller bearings, bevel gears, drain plug, level plug & fill plug				
Gearbox lubrication	2 Pints (.95 L) of SAE 80-90W EP oil				
Drive end construction	Spur gears enclosed in an oil bath with oil level plug or sight glass and oil fill/breather plug				
Gear case lubrication	6 Pints (2.84 L) of SAE 80-90W EP oil				
Spur gears	Case hardened teeth				

70300



RGR12 & RGA12 Series

Features	Benefits
American made	American made means better quality & parts availability. Most tillers are imported.
Tractor horsepower range **1250** **1258 & 1266** **1274** **1282**	 18-60 hp (13-45 kW) 23-60 hp (17-45 kW) 30-60 hp (22-45 kW) 35-60 hp (26-45 kW)
Reverse tilling action (RGR only)	Reverse action 'sucks' tiller into ground, does not walk on top of hard ground like forward rotation tillers can.
3 Year limited gearbox warranty	3 Years on housings, seals, bearings. Shows our confidence in the product.
Working widths **50", 58", 66", 74", & 82"** **(127, 147, 168, 188, & 208 cm)**	A wide range of widths are available to meet specific customer needs.
7" (18 cm) Tilling depth	For deep soil penetration.
Formed plate steel upper hitch	Plate steel is stronger than flat bar type hitch.
Fits Land Pride Quick Hitch	Allows for quick and easy one person hook-up.
Park stand	Allows for easy hook-up and storage.
Adjustable skid shoes	Control depth with seven adjustments.
Formed and reinforced rear deflector	Keeps dirt in and leaves a level finish. Forming gives deflector additional strength. Adjustable deflector allows for various finish results.
Front deflector (RGR only)	Front deflector is flexible to take the beating from rocks or debris.
Bolt in rotor	Rotor removes and replaces easier for servicing.
17" (43 cm) Rotor swing diameter	For deep tilling and turns the soil over faster.
Six "C" shaped, heat-treated tines per flange	"C" Shaped tines require less horsepower to move through the ground. Six tines per flange make for a better seedbed in less time than four tines.
Double lip seal on rotor bearing	Double lip seal helps keep the dirt out and the grease in.
Fully shielded slip-clutch driveline	Protects gearbox and rotor shaft upon hitting obstructions. Slip-clutch saves having to replace shear-pins.
Gear drive enclosed in oil bath	Gear drive requires less maintenance than roller chain drive. Oil bath keeps wear to a minimum.
Stamped gear case cover	Stamped forming gives the chain cover strength.
Optional BX driveline	This driveline will fit B and BX Kubota tractors without cutting it to fit. Not quick hitch adaptable for B & BX Kubota tractors.

Troubleshooting Chart

Problem	Cause	Solution
Implement makes intermittent clicking noise	Tines are loose. Gearbox has tooth damaged. Gear drive has tooth damaged.	Tighten tines. Replace damaged gearbox. Replace damaged gear.
Driveline vibrates	Universal joint is worn. Excessive trash is wrapped on rotor. Implement is lifted too high.	Replace universal joint. Remove trash. Lower implement & readjust tractor lift stop.
Gearbox noise is noticeable and constant	May be normal on new implement. Low oil level. Worn gears.	Allow time for break-in. Add oil to the gearbox. Replace gears in the gearbox.
Oil leaking from gearbox	Seals and/or gaskets are damaged. Gearbox is overfilled.	Replace seals or gaskets in the gearbox. Drain oil to proper level.
Oil leaking from gear case	Seals and/or gaskets are damaged. Gear case is overfilled.	Replace seals or gaskets in the gear case. Drain oil to proper level.
Gear case noise is noticeable and constant	May be normal on new implement. Low oil level. Worn gears.	Allow time for break-in. Add oil to the gear case. Replace gears in the gear case.
Rotor will not turn	power take-off is not engaged. Gear drive has one or more damaged teeth. Friction clutch is slipping.	Engage power take-off. Repair damaged gear(s). Reduce tiller load or replace/service clutch.
Tillage depth insufficient	Tiller is carried by tractor. Tractor has insufficient power. Skid shoes need adjusting. Tines are worn or bent. Tines are incorrectly installed. Obstacles are entangled in tines and/or rotor.	Lower tractor 3-point arms. Increase power take-off speed to 540 rpm. Adjust skid shoes. Replace tines. Check tine placement. Clear rotor and/or tines of obstacles.
Soil texture too coarse	Leveling door is too high. power take-off speed is too slow. Ground speed is too fast.	Lower leveling door. Increase power take-off speed to 540 rpm. Decrease ground speed.
Soil texture too fine	Leveling door is too low. Ground speed is too slow.	Raise leveling door. Increase ground speed.
Implement skips or leaves crop residue	Tines are badly worn. Friction clutch is slipping. Ground speed is too fast for conditions.	Replace worn tines. Reduce load or replace/service clutch. Reduce ground speed.
Tines operating behind tractor tires show increased wear	Tractor tires can compact soil causing tines that operate in the compacted soil to have increased wear.	Considered as normal wear. Replace worn tines.
Tines balling up with soil	Tines are worn or bent. Tines are incorrectly installed. Rear deflector is too low. Tractor speed is too fast. Soil is too wet.	Replace tines. Install tines correctly. Raise rear deflector. Decrease tractor speed. Wait until soil dries.
Tiller bumping on ground	Obstacles are entangled in tines and/or rotor. Tines are not installed correctly. Tines are worn or bent.	Clear rotor and/or tines. Install tines correctly. Replace tines.
Tiller shaking	Ground is compacted and/or dry.	Irrigate soil and resume tilling.

Torque Values Chart for Common Bolt Sizes

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

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

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

[2] N· m = newton-meters

[3] ft-lb= foot pounds

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

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

Additional Torque Values

Driveline conical dog pin	25-30 ft-lbs (34- 41 Nm)
6 Gear case mounting bolts, 1/2"-20 x 1" GR5	85 ft-lbs (115 Nm) Maximum (Do not exceed)

Warranty

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

Overall Unit and Driveline: One year Parts and Labor

Gearbox: 3 Years Parts and Labor

Spur Gears: 3 Years Parts and Labor

Tines and Driveline Friction Discs: Considered wear items

Rental or Commercial Use: 90 days on overall unit, driveline & gearbox

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

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

Claims under this Warranty 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 _____ **Serial Number** _____

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