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Rotary Tillers
RTR0542 & RTR0550

311-464M
Operator’s Manual

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

Cover photo may show optional equipment not supplied with standard unit.
For an Operator’s Manual and Decal Kit in French Language, please see your Land Pride dealer.
Machine Identification
Record your machine details in the log below. If you replace this manual, be sure to transfer this information to the new manual.

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

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Dealer Contact Information
Name: __________________________
Street: __________________________
City/State: __________________________
Telephone: __________________________
Email: __________________________

California Proposition 65
WARNING: Cancer and reproductive harm - www.P65Warnings.ca.gov
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Printed in the United States of America.
See previous page for Table of contents.

**Parts Manual QR Locator**

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

**Dealer QR Locator**

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

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

Safety at All Times
Careful operation is your best assurance against an accident.
All operators, no matter how much experience they may have, should carefully read this manual and other related manuals, or have the manuals read to them, before operating the power machine and this implement.

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

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

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

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

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

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

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

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

Tractor Shutdown & Storage
▲ If engaged, disengage power take-off.
▲ Park on solid, level ground and lower implement to ground or onto support blocks.
▲ Put tractor in park or set park brake, turn off engine, and remove switch key to prevent unauthorized starting.
▲ Relieve all hydraulic pressure to auxiliary hydraulic lines.
▲ Wait for all components to stop before leaving operator’s seat.
▲ Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.
▲ Detach and store implement in an area where children normally do not play. Secure implement using blocks and supports.
Listed below are common practices that may or may not be applicable to the products described in this manual.

**Tire Safety**
- Tire changing can be dangerous and must be performed by trained personnel using the correct tools and equipment.
- 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.

**Transport Safely**
- Comply with federal, state, and local laws.
- Use towing vehicle and trailer of adequate size and capacity. Secure equipment towed on a trailer with tie downs and chains.
- Sudden braking can cause a towed trailer to swerve and upset. Reduce speed if towed trailer is not equipped with brakes.
- Avoid contact with any overhead utility lines or electrically charged conductors.
- Always drive with load on end of loader arms low to the ground.
- Always drive straight up and down steep inclines with heavy end of a tractor with loader attachment on the “uphill” side.
- Engage park brake when stopped on an incline.
- Maximum transport speed for an attached equipment is 20 mph. DO NOT EXCEED. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrains require a slower speed.
- As a guideline, use the following maximum speed weight ratios for attached equipment:
  - 20 mph when weight of attached equipment is less than or equal to the weight of machine towing the equipment.
  - 10 mph when weight of attached equipment exceeds weight of machine towing equipment but not more than double the weight.
- IMPORTANT: Do not tow a load that is more than double the weight of the vehicle towing the load.

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

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

**Use Safety Lights and Devices**

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

**Avoid Underground Utilities**

- Dig Safe, Call 811 (USA).
  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.

**Wear Personal Protective Equipment (PPE)**

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

**Avoid High Pressure Fluids Hazard**

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

**Use Seat Belt and ROPS**

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

**Keep Riders Off Machinery**

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

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

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

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Reference RTR0542 & RTR0550 (Shown)

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DANGER

GUARD MISSING

When this is visible

DO NOT OPERATE

ENTANGLEMENT HAZARD

will cause Serious Injury or Death

818-543C

Guard missing - Do Not operate, entanglement hazard

23771

23760

818-552C

Rotating Driveline Hazard - Keep Away!

23760

818-540C

Guard missing - Do Not operate.
Introduction

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 RTR05 Series Reverse-Till Rotary Tillers are designed and built by Land Pride to till soil for seedbed or planting preparation. The RTR05 Series tillers are adapted for tractors with 540 rpm power take-off speed and Category I 3-Point hitch on tractors in the 17-26 hp range. The RTR05 Series are Quick Hitch adaptable.

Reverse rotation tillers tend to achieve greater depth penetration, moving, and pulverizing more soil in the process, while burying residue as opposed to leaving it on top. RTR05 Series Land Pride Tillers have applications in homeowner landscaping, smaller nurseries, gardens, smaller hobby farms, and medium duty residential use.

See “Specifications & Capacities” on page 24 and “Features & Benefits” on page 25 for additional information and performance enhancing options.

Using This Manual

• This Operator’s Manual is designed to help familiarize the operator with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.

• The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.

• To order a new Operator’s or Parts Manual, contact your authorized dealer. Manuals can also be downloaded, free-of-charge, from our website at www.landpride.com

Terminology

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

Definitions

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

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

Owner Assistance

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

The parts on your Rotary 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 the implement.

Serial Number

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

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. Discuss any problems you have with your attachment with your dealership service personnel so they can address the problem.

3. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem, and request assistance.

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1. Discuss any problems you have with your implement with your dealership service personnel so they can address the problem.

2. Discuss any problems you have with your attachment with your dealership service personnel so they can address the problem.

3. If you are still not satisfied, seek out the owner or general manager of the dealership, explain the problem, and request assistance.
Dealer Preparations

**WARNING**

To avoid serious injury or death:

An unsupported parked tiller can tip over. Always use park stand and/or support blocks to prevent it from tipping over onto a person.

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

Before attempting assembly check the following items. 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.

- Check for fasteners and pins that were shipped with the tiller. All hardware coming from the factory has been installed in the location where it will be used. If a part or fastener is temporarily removed for assembly reasons, remember where it goes. Keep the parts separated.
- Have a fork lift or loader along with chains and safety stands that are sized for the job ready for the assembly task.
- Have a minimum of 2 people on hand during assembly.

**Tractor Requirements**

Tractor horsepower should be within the range noted below. Tractors outside the horsepower range must not be used. The lower 3-Point arms must be stabilized to prevent side-to-side movement.

- Maximum Horsepower ............ 26 horsepower
- Required power take-off .......... 540 rpm
- Hitch Type. .......... 3 - Point Cat.1 or Cat. 1 Quick Hitch

**WARNING**

To avoid serious injury or death:

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

**Torque Requirements**

Check to see that all nuts are tightened. Refer to “Torque Values Chart” on page 27 to determine correct torque values for common bolts.

**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 Adjustment**
Refer to Figure 1-1:

**WARNING**

To avoid serious injury or death:

An unsupported parked tiller can tip over. Always use park stand and/or support blocks to prevent it from tipping over onto a person.

1. Adjust park stand (#1) to a height that will support the tiller level while resting on its skid shoes (#14).
2. Secure park stand in mounting bracket with 1/4" x 1 3/4" long wire lock pin (#10).

### 3-Point Hitch Assembly

Refer to Figure 1-1:

1. Attach 3-Point hitch Assembly (#2) to inside of hitch plates with four 1/2" -13 x 1 1/2" GR5 bolts (#3), 1/2" lock washers (#9), and 1/2" hex nuts (#5). Tighten hex nuts (#5) to the correct torque.
2. Tighten 3/4"-10 hex nut (#6) to the correct torque. Nut is installed on 3/4"-10 x 1 3/4" GR5 hex bolt.
3. Attach manual storage tube (#11) to hitch plate (#2) with 1/4"-20 x 1 1/4" GR5 cap screws (#4), flat washers (#8), and hex nylock nuts (#7) as shown. Tighten nylock nuts (#7) to the correct torque.
Driveline Installation
*Refer to Figure 1-2 & Figure 1-3:*

The tiller driveline is coupled to the tractor and implement shafts with either push pin couplers, pull collar couplers, or a combination of both and with either a shear bolt or slip clutch on the implement end.

*Refer to Figure 1-1 on page 8:

1. Remove gearbox shaft protector from end of gearbox shaft.
2. Push in on push pin and slide slip clutch or shear bolt yoke end of driveline (#12) over end of gearbox input shaft (#13).
3. Release push pin and continue to slide yoke end of driveline (#12) onto the gearbox input shaft until push pin pops out.
4. Move driveline yokes back and forth to ensure driveline end is secured to the gearbox input shaft.
5. Reattach slip clutch or shear bolt yoke end of driveline (#12) to the gearbox shaft if it is loose.

Deflector Chain
*Refer to Figure 1-4:

1. Remove hex locknuts (#3), flat washers (#7), lock washers (#6) and u-bolt (#5) from rear deflector (#1).
2. Remove hex nut (#4A) from u-bolt (#5).
3. Insert end link of deflector chain (#2) over u-bolt (#5) as shown.
4. Screw hex nut (#4A) on until even with hex nut (#4B).
5. Attach u-bolt (#5) to tailgate (#1) with lock washers (#6), flat washers (#7), and 3/8"-16 hex lock nuts (#3). Tighten locknuts to the correct torque.
6. Hook opposite end of deflector chain (#2) in slot (#1).
7. Refer to “Rear Deflector Adjustment” on page 18 for adjustment instructions.
Tractor Hook-Up
Refer to Figure 1-5:

**DANGER**
To avoid serious injury or death:
A crushing hazard exists while hooking-up and unhooking implement. Keep people and animals away while backing-up to implement or pulling away from 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:
- An unsupported parked tiller can tip over. Always use park stand and/or support blocks to prevent it from tipping over onto a person.
- Always shut tractor down using “Tractor Shutdown Procedure” provided in this manual before dismounting tractor.

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

1. Stabilize lower 3-Point arms to prevent side-to-side movement. See your tractor Operator’s Manual
2. Remove the two 5/16” linchpins (#1) and hitch pins (#2).
3. Slowly back the tractor up to tiller until the lower 3-Point arms are aligned with the hitch clevises on the tiller as shown.
4. Replace the lower hitch pins (#2) and secure with the two 5/16” linchpins (#1).
5. Attach the tractor’s top center link to the tiller’s 3/4” hitch holes using a 3/4” diameter hitch pin. Properly secure hitch pin with a linchpin.(Center hitch pin and linchpin are supplied by the customer).

3-Point Category I Quick Hitch
Follow all instructions and safety precautions provided in Land Pride’s QH15 Quick Hitch Operators Manual No. 320-003M. Also available free-of-charge from our website at www.landpride.com.

Park Stand Storage
Refer to Figure 1-6 on page 11:

**IMPORTANT:** To prevent park stand from being damaged, always store stand in the transport position before moving tractor with tiller attached.

1. Slowly raise tiller with tractor’s hydraulic 3-Point lift until tines are about 1-2” above the ground.
2. Remove wire retaining pin (#2) and parking stand (#1).
3. Invert park stand (#1) upside down and reinsert it in park stand mounting bracket (#3) as shown. Secure park stand with wire retaining pin (#2).
Park Stand in Transport Position

Figure 1-6

3-Point Hitch Checks

1. Ensure that the lower arms are blocked to prevent excessive side movement.
2. Slowly raise the tiller with the tractor’s hydraulic 3-Point lift until the tines are about 1-2” above the ground.
3. Adjust the tractor’s lower lift arms to level the tiller from left to right. Final leveling adjustments will be made in the Adjustment Section on page 18.
4. Adjust the top-link so that the tiller is approximately level from front to rear. Final leveling adjustments will be made in the Adjustment Section on page 18.
5. Slowly operate the tractor’s 3-Point hydraulic control up and down to check for clearance between the tires, frame, drawbar etc.

Driveline Hook-up

DANGER
To avoid serious injury or death:

- Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person’s body and/or clothing can become entangled in the driveline.
- 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 shut tractor down using “Tractor Shutdown Procedure” provided in this manual before dismounting tractor.

- Select a safe ground speed when transporting. Never travel at a speed which does not allow adequate control of steering and stopping, and never exceed 20 mph (32.2 km/h) with attached equipment. Rough terrain requires a slower speed.
- 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: The drivelines must be lubricated before putting them into service. Refer to “Lubrication Points” on page 22.

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 19

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

IMPORTANT: Check driveline minimum collapsible length before completing “Driveline Hook-up”. Structural damage to the tractor and tiller can occur if this check is not made. Refer to “Check Driveline Collapsible Length” on page 12.

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.

Refer to Figure 1-5 on page 10:
The tiller driveline (#3) fastens to the tractor power take-off shaft with pull collar coupler (#4).

1. If driveline collapsible length has not been checked, go to “Check Driveline Collapsible Length” on page 12. Otherwise, continue with step 2 below.
2. Park tractor and tiller on a level surface.
4. If tractor drawbar interferes with the driveline during hook-up, disconnect driveline and move drawbar forward, to the side, or remove.
5. Pull back on driveline pull collar (#4) and push yoke onto the tractor power take-off shaft. Release pull collar and continue to push driveline yoke forward until pull collar pops out and locks in place.
6. Pull on driveline yoke at the tractor end to make sure it is secured to the tractor power take-off shaft.
Check Driveline Collapsible Length
Refer to Figure 1-7:

**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 driveline attached only to the tiller, remove outer driveline (tractor end) from inner driveline to separate the two profiles.
2. Park tractor and tiller on a level surface.
3. Raise tiller until gearbox input shaft is level with tractor power take-off shaft. Securely block tiller at this height to keep unit from lowering.
5. Attach outer driveline to the tractor’s power take-off shaft. Refer to “Driveline Hook-up” on page 11, steps 4-6.
6. Hold inner and outer drivelines parallel to each other. If dimension “A” is greater than or equal to 1”, then skip to “Check Driveline Interference” on page 13. Otherwise continue with step 7.

7. If dimension “A” is less than 1”, shorten driveline as follows:

Refer to Figure 1-8:

- a. Measure 1” (“B1” dimension) back from outer driveline shield and make a mark at this location on the inner driveline shield.
- b. Measure 1” (“B2” dimension) back from the inner driveline shield and make a mark at this location on the outer driveline shield.

8. Remove outer driveline from the tractor power take-off shaft and inner driveline from the tiller gearbox shaft.

9. Cut off non-yoke end of inner driveline as follows:
- a. Measure from end of inner shield to scribed mark (“X” dimension) and record.
- b. Cut off inner shield at the mark. Cut same amount off the inner shaft (“X1” dimension).

10. Cut off non-yoke end of outer driveline as follows:
- a. Measure from end of outer shield to scribed mark (“Y” dimension) and record.
- b. Cut off outer shield at the mark. Cut same amount off the outer shaft (“Y1” dimension).

11. Remove all burrs and cuttings.
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 19" to 21" above ground with power take-off engaged. Do not engage power take-off if hitch pins are more than 21" above ground. If 3-point hitch pins are raised above 21" with power take-off engaged, the driveline can break and send 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 projectiles.

IMPORTANT: The tiller should be raised fully up only while loading and unloading from a transportation device such as a trailer.

1. Start tractor, raise implement fully up, and back implement over the support blocks used to “Check Driveline Collapsible Length” on page 12,
2. Without changing 3-point lift height, shut tractor down before dismounting. Refer to “Tractor Shutdown Procedure” on page 7.
3. Check to make sure driveline does not exceed any of the limits listed below:
   - Center of lower 3-point hitch pins do not exceed 21" 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 21" 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 7.
Operating Checklist

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

- Important Safety Information, page 1
- Section 1: Assembly & Set-Up, page 18
- Section 2: Operating, page 14
- Section 3: Adjustments, page 18
- Section 4: Maintenance & Lubrication, page 19

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

<table>
<thead>
<tr>
<th>Check</th>
<th>Ref.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inspect tractor safety equipment to make sure it is in good working condition.</td>
<td>Tractor Manual</td>
</tr>
<tr>
<td>Check all guards and shields to make certain they are in good working condition, in place and secured.</td>
<td></td>
</tr>
<tr>
<td>Carefully raise and lower implement to ensure drawbar, tires, etc. do not contact tiller frame or driveline.</td>
<td></td>
</tr>
<tr>
<td>Check driveline. Make sure it is secured at both ends. Refer to “Driveline Installation”.</td>
<td>Page 9</td>
</tr>
<tr>
<td>Check drive chain tension. Refer to “Drive Chain Tension Adjustment”.</td>
<td>Page 18</td>
</tr>
<tr>
<td>Check tiller depth setting. Refer to “Skid Shoe Adjustment”.</td>
<td>Page 18</td>
</tr>
<tr>
<td>Check driveline slip clutch to make sure disks will slip. Refer to “Driveline Protection”</td>
<td>Page 19</td>
</tr>
<tr>
<td>Check for worn, bent, broken, loose, and/or missing tines. Refer to “Tine Replacement”</td>
<td>Page 19</td>
</tr>
<tr>
<td>Check oil level in chaincase. Make sure all plugs have been replaced when completed. Refer to “Chaincase lubrication”</td>
<td>Page 22</td>
</tr>
<tr>
<td>Grease driveline shaft and all other grease fittings Refer to “Lubrication Points”.</td>
<td>Page 22</td>
</tr>
<tr>
<td>Check oil level in gearbox. Make sure all plugs have been replaced when completed. Refer to “Gearbox” lubrication.</td>
<td>Page 23</td>
</tr>
<tr>
<td>Check tiller initially and periodically for loose bolts and pins. Refer to “Torque Values Chart”.</td>
<td>Page 27</td>
</tr>
</tbody>
</table>

Safety Information

**DANGER**

To avoid serious injury or death:
- 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.
- Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.
- 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 causing serious bodily injury or death.
- 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 causing implement damage and bodily injury or death to anyone nearby.

**WARNING**

To avoid serious injury or death:
- Allow only persons to operate this implement who have fully read and comprehended this manual, who have been properly trained in the safe operation of this implement, and who are age 16 or older. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.
Never carry riders on the implement or tractor. Riders can obstruct the operator’s view, interfere with control of the equipment, be pinched by moving components, become entangled in rotating components, be struck by objects, be thrown or fall from the equipment, etc.

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.

Always shut tractor down using “Tractor Shutdown Procedure” provided in this manual before dismounting tractor.

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.

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 implement back into service. Serious breakdowns can result in injury or death.

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 operate a broken or bent driveline. Such a driveline will break apart while rotating at high speeds and can cause serious injury or death. Always remove the implement from use until the damaged driveline can be repaired or replaced.

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. If in doubt, call 811 (USA) 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.

CAUTION
To avoid minor or moderate injury:
Some tractors are equipped with two power take-off speeds. Be certain your tractor’s power take-off is set at the implement’s rated power take-off speed or equipment breakage may result. RC models are rated for 540 rpm and RCM models are rated for 1000 rpm.

IMPORTANT: 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 park stand from being damaged, always store stand in the transport position before moving tractor with tiller attached.

Transporting

WARNING
To avoid serious injury or death:

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

2. Remove park stand from its support tube, turn stand upside down and replace through top of support tube as shown in Figure 1-6 on page 11. Secure stand with wire retaining pin. Make certain wire retainer is caught over end of pin.

3. Be sure to reduce tractor ground speed when turning, and leave enough clearance so the tiller does not contact obstacles such as buildings, trees, or fences.

4. 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.

5. When traveling over rough or hilly terrain, shift tractor to a lower gear.
Unhook Rotary Tiller
The following steps should be done when preparing to store the tiller or unhitch it from the tractor.

**IMPORTANT:** It is important to adjust the skid shoes fully down as shown in Figure 2-1 to stabilize the tiller when parked. Always follow “Skid Shoe Adjustment” steps on page 18 when repositioning the skid shoes.

**Refer to Figure 2-1:**

1. Reposition the left-hand skid shoe (#1) by:
   a. Loosen 1/2" -13 nut (#5).
   b. Remove 1/2" nut (#3), 1/2" lock washer (#4), and 1/2"-13 x 1 1/4" GR5 hex head cap screw (#2).
   c. Pivot skid shoe down and replace hex head cap screw (#2) in the top hole as shown. Secure cap screw with nut (#3) and lockwasher (#4).
   d. Tighten nuts (#3 & #5) to the correct torque. Refer to Torque Values Chart in the “Appendix” section on page 27 for the proper torque.

2. Repeat step #1 for the right-hand skid shoe.

3. See Figure 1-1 on page 8. Remove park stand from the support bracket, turn it up-right, and replace it through the bottom of the support bracket.

4. Secure park stand with wire lock pin.

5. Park tiller on a level, solid surface.

6. Shut tractor engine off and engage parking brake.

7. Unhitch tiller from tractor.

**WARNING**

To avoid serious injury or death:

An unsupported parked tiller can tip over. Always use park stand and/or support blocks to prevent it from tipping over onto a person.

8. Check tiller for stability by physically applying pressure at the hitch plates to see if it will tip forward or backward. If the tiller moves in either direction, then block under the tiller as needed to prevent that movement.

9. See “Long-Term Storage” on page 21 for additional information on long term storage of your tiller.
General Operating Notes
Before beginning to till the following inspection should be performed:

1. Check oil level in gearbox and chaincase. Refer to “Lubrication Points” on page 22.
2. Check that all plugs have been replaced properly in the gearbox and chaincase.
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 22.
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 cut 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. Operated tiller with deck level to the ground.
12. Tiller should be operated with the tiller deck level to the ground.
13. Tiller tines will cut better when operating the tractor at full 540 rpm power take-off speed than at reduced throttle.
14. After tilling the first 50 feet, stop and check to see that the tiller is adjusted properly.
15. Do not make turns or attempt to back up while tiller is in the ground. See important note below.

General Operating Instructions
Before using your Land Pride RTR05 Series Reverse-Tine Rotary Tiller, you should have completely read the Operator’s Manual, properly attached the Tiller to the tractor, cut the driveline to proper length, run-in the clutch if your model is equipped with one, 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 cleaned this site of any large limbs, rocks, trash, metal, or extraneous debris. If you are in tall grass or weeds, we highly recommend you cut or mow before you till.

Line the tractor up just to the right of center on your tillage plot. You will be working from the center out and turning to the left to line up for your next pass. Lower the tiller half way to the ground and reduce your tractor engine speed to idle. 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 as ground conditions warrant. Do not make turns or attempt to back up while tiller is in the ground. See important note below.

Travel about 50 ft. and then stop to check your results. When stopping, remember to lift the tiller out of the ground, stop the tractor, reduce engine speed, disengage the power take-off, set the park brake, shut off the tractor, and remove the keys. If you are tilling too shallow or too deep, adjust the skid shoes accordingly. If the soil texture is too coarse, lower the leveling door and reduce your ground speed. If the soil texture is too fine, you will need to raise your leveling door and increase your ground speed. For any other problem conditions that may arise, you will want to refer to the Troubleshooting section on page 26.

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 Storage Directions on page 21.

With a little practice and a few adjustments, you will soon be achieving the results you want with your Land Pride 05 Series Reverse Tine Rotary Tiller. See “Features and Benefits” on page 25 or “Product Specifications” on page 24 for additional information and performance enhancing options.
3-Point Hitch Adjustment
1. Park tractor and tiller on a flat level surface.
2. Slowly raise the tiller with the tractor's hydraulic 3-Point lift until the tines are about 1-2" above the ground.
3. Ensure that the lower arms are blocked to prevent excessive side movement.
4. Place a spirit level on the top cover running from left to right and adjust one of the lower 3-Point arms up or down until the tiller is level from left to right.
5. Rotate the spirit level 90 degrees and adjust the tractor's top center link in or out until the tiller is level from front to back.
6. Slowly operate the tractor's 3-Point hydraulic control up and down to check for clearance between the tires, frame, drawbar etc.

Drive Chain Tension Adjustment
The tension on the drive chain is self adjusting and does not require any maintenance during the life of the chain.

Rear Deflector Adjustment
Refer to Figure 3-1:
The rear deflector (#1) can be adjusted closer to the ground to produce a fine soil texture or can be raised to produce a coarse soil texture. Adjust the chain length by repositioning the chain (#2) in slot ‘A’

Skid Shoe Adjustment
Refer to Figure 3-2:
The skid shoes can be adjusted to the desired tilling depth by raising or lowering them as follows:

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

1. Raise tiller off the ground. Place a support under the tiller times (not under the skid shoes) and lower the tiller onto the support. Make certain the tiller is secure when resting on the support before working on or around the tiller.
2. Always place tractor in park, set tractor brakes, shut tractor engine off and remove switch key before dismounting the tractor.
3. Loosen 1/2" -13 nut (#5).
4. Remove 1/2" nut (#3), 1/2" lock washer (#4), and 1/2"-13 x 1 1/4" GR5 hex head cap screw (#2).
5. Pivot skid shoe down or up to the desired height and replace hex head cap screw (#2). Secure cap screw with nut (#3) and lockwasher (#4).
6. Tighten nuts (#3 & #5) to the correct torque. Refer to Torque Values Chart in the “Appendix” section on page 27 for the proper torque.
Section 4: Maintenance & Lubrication

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.

⚠️ 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.
- Before any adjustments or maintenance is performed, lower implement to ground, shut engine off, and remove switch key. Do not attempt to make adjustments or perform maintenance with implement or power machine running.
- 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:

⚠️ 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.

1. Remove two 1/2"-20 x 1 1/4" GR5 hex head cap screws (#1), hex nuts (#2), and lock washers (#3). Remove tine (#4).
2. Attach each new tine to the flange making certain it is mounted so that the cutting edge crosses over the flange and leads in rotation as shown in Figure 4-1.
3. Replace cap screws and fasteners (#1, #2 & #3). Tighten nuts to proper torque. See The Torque Values Chart in the “Appendix” section on page 27.

Driveline Protection

⚠️ WARNING

To avoid serious injury or death:

Always shut tractor down using “Tractor Shutdown Procedure” provided in this manual before dismounting tractor.

Tiller drive components are protected from shock loads by either a two plate friction clutch or a shear bolt. Avoid shear bolt failure by engaging the power take-off slowly at low engine rpm. See your Land Pride dealer when replacing shear bolts. Torque shear bolt nuts to 8 ft. lbs.

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Description</th>
<th>Shear Bolt and locknut Part Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTR05</td>
<td>BOLT &amp; NUT M6X40 CL 8.8</td>
<td>RTR05</td>
</tr>
</tbody>
</table>
| 165.000.509 | (Torque nut to 8 ft. lbs.)          | Note: If M6 bolt shears excessively, a 1/4"-20 GR5 bolt & nut may be used. A 1/4"-20 GR8 bolt is not recommended as it may cause damage to profiles, tiller frame, and/or components.

Clutch Run-In

Friction clutches should be “run-in” prior to initial operation and after long periods of inactivity. To prevent driveline and gearbox damage, repeat “Run-In” instructions at the beginning of each season and when moisture and/or condensation seizes the inner friction plates.

Refer to Figure 4-2 on page 20:

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 the tractor and engage the driveline drive for 2-3 seconds to permit slippage of the clutch surfaces. Disengage the driveline, then re-engage a second time for 2-3 seconds. Disengage driveline, shut off tractor, and remove key. Wait for all components to stop before dismounting from tractor.

4. Inspect clutch to ensure scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disk and plate are still aligned. A clutch that has not slipped must be disassembled to separate the friction disk plates. See “Clutch Disassembly” to disassemble clutch.

5. Tighten each of the 8 spring retainer nuts on the clutch housing exactly 2 revolutions to restore the clutch to the original setting pressure.

6. The clutch should be checked during the first hour of tilling and periodically each week. An additional set of scribe marks can be added to check for slippage. See “Clutch Assembly” to adjust for proper spring length.

Clutch Disassembly

Refer to Figure 4-3:
Disassembly of the clutch is simply a matter of first removing the spring retainer nuts (#9a), springs (#2), and bolts (#9b) from the assembly. Each friction disk (#5) 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" and should be replaced if the thickness falls below 3/32". If the clutches have been slipped to the point of “smoking”, the friction disks may be damaged and should be replaced. Heat build-up may also affect the yoke joints.

Clutch Assembly

Refer to Figure 4-3:
Reassemble each friction disk (#5) next to the metal plate it was separated from. Make certain bushing #4 is positioned as shown. Install bolts (#9b) through the end plates and intermediate plates as shown. Place springs (#2) over the bolts and secure with nuts (#9a).

Refer to Figure 4-4:
Progressively tighten each spring retainer bolt until correct spring length “B” is reached.

- \( B = 1.335" \) to \( 1.345" \)
Section 4: Maintenance & Lubrication

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

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

1. Clean off any dirt and grease that may have accumulated on the Rotary Tiller. Scrape off compacted dirt and then wash surfaces thoroughly with a garden hose.
2. Check the tines for wear and replace if necessary. See Tine Replacement earlier in this section.
3. Inspect the tiller for loose, damaged, or worn parts and adjust or replace if needed.
4. Repaint parts where paint is worn or scratched to prevent rust. Ask your dealer for Aerosol Land Pride 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.
5. Replace all damaged or missing decals.
7. Drain and refill gearbox and chaincase oil. Be sure to replace all oil plugs.
   • Drain oil in gearbox by removing the bottom drain plug or right-hand cap. See “Gearbox” lubrication instructions on page 23.
   • Drain oil in chaincase by removing the bottom plug and tipping tiller backwards. See “Chaincase” lubrication instructions on page 22.
8. A coating of oil may be applied to worn surfaces in lieu of painting to minimize oxidation.
9. Store tiller on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer tiller life.
10. Follow all “Unhook Rotary Tiller” instructions on page 16 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.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No.</td>
<td>Part Description</td>
</tr>
<tr>
<td>821-011C</td>
<td>PAINT LP BEIGE SPRAY CAN</td>
</tr>
<tr>
<td>821-066C</td>
<td>PAINT ORANGE SPRAY CAN</td>
</tr>
<tr>
<td>821-070C</td>
<td>PAINT GP GLOSS BLACK SPRAY CAN</td>
</tr>
</tbody>
</table>

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Lubrication Points

<table>
<thead>
<tr>
<th>Lubrication Legend</th>
<th>Multi-purpose spray lube</th>
<th>Multi-purpose grease lube</th>
<th>Multi-purpose oil lube</th>
<th>50 Hrs</th>
<th>Intervals in hours at which lubrication is required</th>
</tr>
</thead>
</table>

### Driveline U-Joint
- Driveline U-joint with grease every 8 hours of operation
- Type of grease = Multi-Purpose
- Quantity = Coat Generously

![Driveline U-Joint Diagram](23760)

### Driveline Shaft
- Disconnect driveline shaft from the tractor and slide apart. Clean and coat the inner tube of the driveline shaft with a light film of grease and then reassemble.
- Type of grease = Multi-Purpose
- Quantity = Coat Generously

![Driveline Shaft Diagram](23759)

### Chaincase
- **IMPORTANT:** Tiller should be level when checking oil level in chaincase. Check oil level by removing lower level plug. Oil should reach bottom of plug hole. Remove fill plug and add recommended lubrication as needed. Tighten both plugs when done.
- Type = Recommended: Shell Alvania EP00 Oil
- Alternate: SAE 90 wt. oil
- Quantity = As required

![Chaincase Diagram](23771)
Section 4: Maintenance & Lubrication

Bearing On Right End Of Rotor Shaft

Type of Lubrication: Multi-Purpose

Quantity = As Required

Gearbox

Check oil every 50 hours of operation. Check oil level in gearbox by removing the center plug at the rear of the box. Oil should come to bottom of center plug.

Type of Lubrication: SAE 80-90W EP Oil
## RTR05 Series

### Specification & Capacities

<table>
<thead>
<tr>
<th>Model Number</th>
<th>RTR0542</th>
<th>RTR0550</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Recommended tractor power take-off horsepower</strong></td>
<td>Up to 26 hp (Subcompact Tractors)</td>
<td></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>268#</td>
<td>298#</td>
</tr>
<tr>
<td><strong>Tilling width</strong></td>
<td>42&quot;</td>
<td>50&quot;</td>
</tr>
<tr>
<td><strong>Overall width</strong></td>
<td>46 1/2&quot;</td>
<td>54 1/2&quot;</td>
</tr>
<tr>
<td><strong>Hitch type</strong></td>
<td>Category I</td>
<td>Fits Land Pride's Category I Quick Hitch</td>
</tr>
<tr>
<td><strong>Offset capabilities</strong></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>Number of flanges</strong></td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td><strong>Number of tines per flange</strong></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td><strong>Tine construction</strong></td>
<td>Alloy steel heat treated “C” shaped blades</td>
<td></td>
</tr>
<tr>
<td><strong>Skid shoes</strong></td>
<td>Adjustable</td>
<td></td>
</tr>
<tr>
<td><strong>Storage stands</strong></td>
<td>Adjustable</td>
<td></td>
</tr>
<tr>
<td><strong>Rear deflector</strong></td>
<td>Adjustable</td>
<td></td>
</tr>
<tr>
<td><strong>Driveline</strong></td>
<td>Category II</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off-Center Shear-bolt - standard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slip-Clutch - optional</td>
<td></td>
</tr>
<tr>
<td><strong>Gearbox</strong></td>
<td>26 hp input at 540rpm 1.46:1 ratio</td>
<td>Cast iron housing, straight bevel gears</td>
</tr>
<tr>
<td><strong>Gearbox lubrication &amp; oil capacity</strong></td>
<td>1 Pint of SAE 80-90W EP oil</td>
<td></td>
</tr>
<tr>
<td><strong>Drive chain</strong></td>
<td>#80 Roller chain - Fully enclosed in oil bath with drain &amp; fill plugs</td>
<td></td>
</tr>
<tr>
<td><strong>Drive chain lubrication</strong></td>
<td>Shell Gadus S2 V2200 00 flowable grease or equivalent</td>
<td>Land Pride Part #821-045C (32 oz. bottle)</td>
</tr>
<tr>
<td><strong>Sprockets</strong></td>
<td>Case hardened teeth, splined bores</td>
<td></td>
</tr>
<tr>
<td><strong>Rotor swing diameter</strong></td>
<td>13&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Rotor shaft speed</strong></td>
<td>230 rpm at 540 rpm power take-off speed</td>
<td></td>
</tr>
</tbody>
</table>
# RTR05 Series

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>American made</td>
<td>Many tillers are imported. American made means better parts availability.</td>
</tr>
<tr>
<td>Reverse tilling action</td>
<td>Reverse action ‘sucks’ tiller into ground, does not walk on top of hard ground like forward rotation tillers can.</td>
</tr>
<tr>
<td>Tractor horsepower range</td>
<td>17-26 hp</td>
</tr>
<tr>
<td>Gearbox warranty</td>
<td>2 Years on housing, seals, &amp; bearings. (Shows our confidence in the product.)</td>
</tr>
<tr>
<td>Working widths</td>
<td>42&quot; and 50&quot; to meet specific customer needs.</td>
</tr>
<tr>
<td>5&quot; Digging depth</td>
<td>For deep soil penetration.</td>
</tr>
<tr>
<td>Clevis lower hitch</td>
<td>Provides additional strength and easy one person hook-up.</td>
</tr>
<tr>
<td>Fits Land Pride Quick Hitch</td>
<td>Allows for quick and easy one person hook-up.</td>
</tr>
<tr>
<td>Adjustable park stand</td>
<td>Allows for easy hook-up and storage.</td>
</tr>
<tr>
<td>Adjustable skid shoes</td>
<td>Control depth with seven adjustments.</td>
</tr>
<tr>
<td>Formed rear deflector</td>
<td>Keeps dirt in and leaves a level finish. Forming gives deflector additional strength. Adjustable deflector allows for various finish results.</td>
</tr>
<tr>
<td>Front deflector</td>
<td>Front deflector is flexible to take the beating from rocks or debris.</td>
</tr>
<tr>
<td>4 “C” shaped heat-treated tines per flange</td>
<td>‘C’ Shaped tines require less horsepower to move through the ground.</td>
</tr>
<tr>
<td>Solid rotor shaft</td>
<td>1 3/4” Solid steel rotor shaft for strength.</td>
</tr>
<tr>
<td>13&quot; Rotor swing diameter</td>
<td>For deep tilling and turning the soil over faster.</td>
</tr>
<tr>
<td>Double lip seal on rotor bearing</td>
<td>Double lip seal helps keep the dirt out and the grease in.</td>
</tr>
<tr>
<td>Fully shielded shear pin or slip-clutch driveline</td>
<td>Protects the gearbox and rotor shaft upon hitting obstructions. Slip-clutch saves having to replace shear-pins.</td>
</tr>
<tr>
<td>#80 Drive chain enclosed in oil bath</td>
<td>Heavy drive chain stretches less, and oil bath keeps wear to a minimum.</td>
</tr>
<tr>
<td>Stamped chain cover</td>
<td>Stamped forming gives the chain cover strength.</td>
</tr>
</tbody>
</table>
## Table of Contents

### Section 7: Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Implement makes intermittent clicking noise</strong></td>
<td>Tines are loose.  &lt;br&gt; Gearbox has tooth damaged.  &lt;br&gt; Roller chain is damaged.</td>
<td>Tighten tines.  &lt;br&gt; Replace damaged gearbox.  &lt;br&gt; Replace damaged chain link.</td>
</tr>
<tr>
<td><strong>Driveline vibrates</strong></td>
<td>Universal joint is worn.  &lt;br&gt; Excessive trash is wrapped on rotor.  &lt;br&gt; Implement is lifted too high.</td>
<td>Replace universal joint.  &lt;br&gt; Remove trash.  &lt;br&gt; Lower implement &amp; readjust tractor lift stop.</td>
</tr>
<tr>
<td><strong>Gearbox noise is noticeable and constant</strong></td>
<td>May be normal on new implement.  &lt;br&gt; Low oil level.  &lt;br&gt; Worn gears.</td>
<td>Allow time for break-in.  &lt;br&gt; Add oil to the gearbox.  &lt;br&gt; Replace gears in the gearbox.</td>
</tr>
<tr>
<td><strong>Oil leaking from gearbox</strong></td>
<td>Seals and/or gaskets are damaged.  &lt;br&gt; Gearbox is overfilled.</td>
<td>Replace seals or gaskets in the gearbox.  &lt;br&gt; Drain oil to proper level.</td>
</tr>
<tr>
<td><strong>Rotor will not turn</strong></td>
<td>Power take-off is not engaged.  &lt;br&gt; Drive chain is broken.  &lt;br&gt; Driveline shearbolt is sheared.  &lt;br&gt; Friction clutch is slipping.</td>
<td>Engage power take-off.  &lt;br&gt; Repair drive chain.  &lt;br&gt; Replace shearbolt.  &lt;br&gt; Reduce load to tiller.</td>
</tr>
<tr>
<td><strong>Tillage depth insufficient</strong></td>
<td>Tiller is carried by tractor.  &lt;br&gt; Tractor has insufficient power.  &lt;br&gt; Skid Shoes need adjusting.  &lt;br&gt; Tines are worn or bent.  &lt;br&gt; Tines are incorrectly installed.  &lt;br&gt; Obstacles are entangled in tines and/or rotor.  &lt;br&gt; Lower hitch clevises are in the wrong position.</td>
<td>Lower tractor 3-Point arms.  &lt;br&gt; Increase tractor rpm.  &lt;br&gt; Adjust skid shoes.  &lt;br&gt; Replace tines.  &lt;br&gt; Check tine placement.  &lt;br&gt; Clear rotor and/or tines of obstacles.  &lt;br&gt; Relocate lower hitch clevises.</td>
</tr>
<tr>
<td><strong>Soil texture too coarse</strong></td>
<td>Leveling door is too high.  &lt;br&gt; Power take-off speed is too slow.  &lt;br&gt; Ground speed is too fast.</td>
<td>Lower leveling door.  &lt;br&gt; Increase power take-off speed.  &lt;br&gt; Decrease ground speed.</td>
</tr>
<tr>
<td><strong>Soil texture too fine</strong></td>
<td>Leveling door is too low.  &lt;br&gt; Ground speed is too slow.</td>
<td>Raise leveling door.  &lt;br&gt; Increase Ground Speed.</td>
</tr>
<tr>
<td><strong>Implement skips or leaves crop residue</strong></td>
<td>Tines are badly worn.  &lt;br&gt; Friction clutch is slipping.  &lt;br&gt; Ground speed is too fast for conditions.</td>
<td>Replace worn tines.  &lt;br&gt; Reduce load.  &lt;br&gt; Reduce ground speed.</td>
</tr>
<tr>
<td><strong>Tines operating behind tractor tires show increased wear</strong></td>
<td>Tractor tires can compact soil causing tines that operate in the compacted soil to have increased wear.</td>
<td>Considered as normal wear.  &lt;br&gt; Replace worn tines.</td>
</tr>
<tr>
<td><strong>Tines balling up with soil</strong></td>
<td>Tines are worn or bent.  &lt;br&gt; Tines are incorrectly installed.  &lt;br&gt; Rear deflector is too low.  &lt;br&gt; Tractor speed is too fast.  &lt;br&gt; Soil is too wet.</td>
<td>Replace tines.  &lt;br&gt; Install tines correctly.  &lt;br&gt; Raise rear deflector.  &lt;br&gt; Decrease tractor speed.  &lt;br&gt; Wait until soil dries.</td>
</tr>
<tr>
<td><strong>Tiller bumping on ground</strong></td>
<td>Obstacles are entangled in tines and/or rotor.  &lt;br&gt; Tines are not installed correctly.</td>
<td>Clear rotor and/or tines.  &lt;br&gt; Install tines correctly.</td>
</tr>
</tbody>
</table>
## Torque Values Chart for Common Bolt Sizes

<table>
<thead>
<tr>
<th>Bolt Size (inches)</th>
<th>Bolt Head Identification</th>
<th>Bolt Size (Metric)</th>
<th>Bolt Head Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Grade 2</td>
<td>Grade 5</td>
<td>Grade 8</td>
</tr>
<tr>
<td>1/4&quot; - 20</td>
<td>7.4</td>
<td>5.6</td>
<td>11</td>
</tr>
<tr>
<td>1/4&quot; - 28</td>
<td>8.5</td>
<td>6</td>
<td>13</td>
</tr>
<tr>
<td>5/16&quot; - 18</td>
<td>17</td>
<td>11</td>
<td>24</td>
</tr>
<tr>
<td>5/16&quot; - 24</td>
<td>17</td>
<td>13</td>
<td>26</td>
</tr>
<tr>
<td>3/8&quot; - 16</td>
<td>27</td>
<td>20</td>
<td>42</td>
</tr>
<tr>
<td>3/8&quot; - 24</td>
<td>31</td>
<td>22</td>
<td>47</td>
</tr>
<tr>
<td>7/16&quot; - 14</td>
<td>43</td>
<td>32</td>
<td>67</td>
</tr>
<tr>
<td>7/16&quot; - 20</td>
<td>49</td>
<td>36</td>
<td>75</td>
</tr>
<tr>
<td>1/2&quot; - 13</td>
<td>66</td>
<td>49</td>
<td>105</td>
</tr>
<tr>
<td>1/2&quot; - 20</td>
<td>75</td>
<td>55</td>
<td>115</td>
</tr>
<tr>
<td>9/16&quot; - 12</td>
<td>95</td>
<td>70</td>
<td>150</td>
</tr>
<tr>
<td>9/16&quot; - 18</td>
<td>105</td>
<td>79</td>
<td>165</td>
</tr>
<tr>
<td>5/8&quot; - 11</td>
<td>130</td>
<td>97</td>
<td>205</td>
</tr>
<tr>
<td>5/8&quot; - 18</td>
<td>150</td>
<td>110</td>
<td>230</td>
</tr>
<tr>
<td>3/4&quot; - 10</td>
<td>235</td>
<td>170</td>
<td>360</td>
</tr>
<tr>
<td>3/4&quot; - 16</td>
<td>260</td>
<td>190</td>
<td>405</td>
</tr>
<tr>
<td>7/8&quot; - 9</td>
<td>225</td>
<td>165</td>
<td>585</td>
</tr>
<tr>
<td>7/8&quot; - 14</td>
<td>250</td>
<td>185</td>
<td>640</td>
</tr>
<tr>
<td>1&quot; - 8</td>
<td>340</td>
<td>250</td>
<td>875</td>
</tr>
<tr>
<td>1&quot; - 12</td>
<td>370</td>
<td>275</td>
<td>955</td>
</tr>
<tr>
<td>1-1/8&quot; - 7</td>
<td>480</td>
<td>355</td>
<td>1080</td>
</tr>
<tr>
<td>1-1/8&quot; - 12</td>
<td>540</td>
<td>395</td>
<td>1210</td>
</tr>
<tr>
<td>1-1/4&quot; - 7</td>
<td>680</td>
<td>500</td>
<td>1520</td>
</tr>
<tr>
<td>1-1/4&quot; - 12</td>
<td>750</td>
<td>555</td>
<td>1680</td>
</tr>
<tr>
<td>1-3/8&quot; - 6</td>
<td>890</td>
<td>655</td>
<td>1990</td>
</tr>
<tr>
<td>1-3/8&quot; - 12</td>
<td>1010</td>
<td>745</td>
<td>2270</td>
</tr>
<tr>
<td>1-1/2&quot; - 6</td>
<td>1180</td>
<td>870</td>
<td>2640</td>
</tr>
<tr>
<td>1-1/2&quot; - 12</td>
<td>1330</td>
<td>980</td>
<td>2970</td>
</tr>
</tbody>
</table>

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.

### Additional Torque Values

- **Lower flange bearing on drive end of rotor, 1/2" nuts:** 45-50 ft-lbs
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.

**Use:** Strictly for residential use only.

**Overall Unit and Driveline:** One year Parts and Labor

**Gearbox:** 2 years Parts and Labor

**Tines and Driveline Friction Discs:** Considered wear items

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

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

Claims under this Warranty 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 ____________________

11/13/18