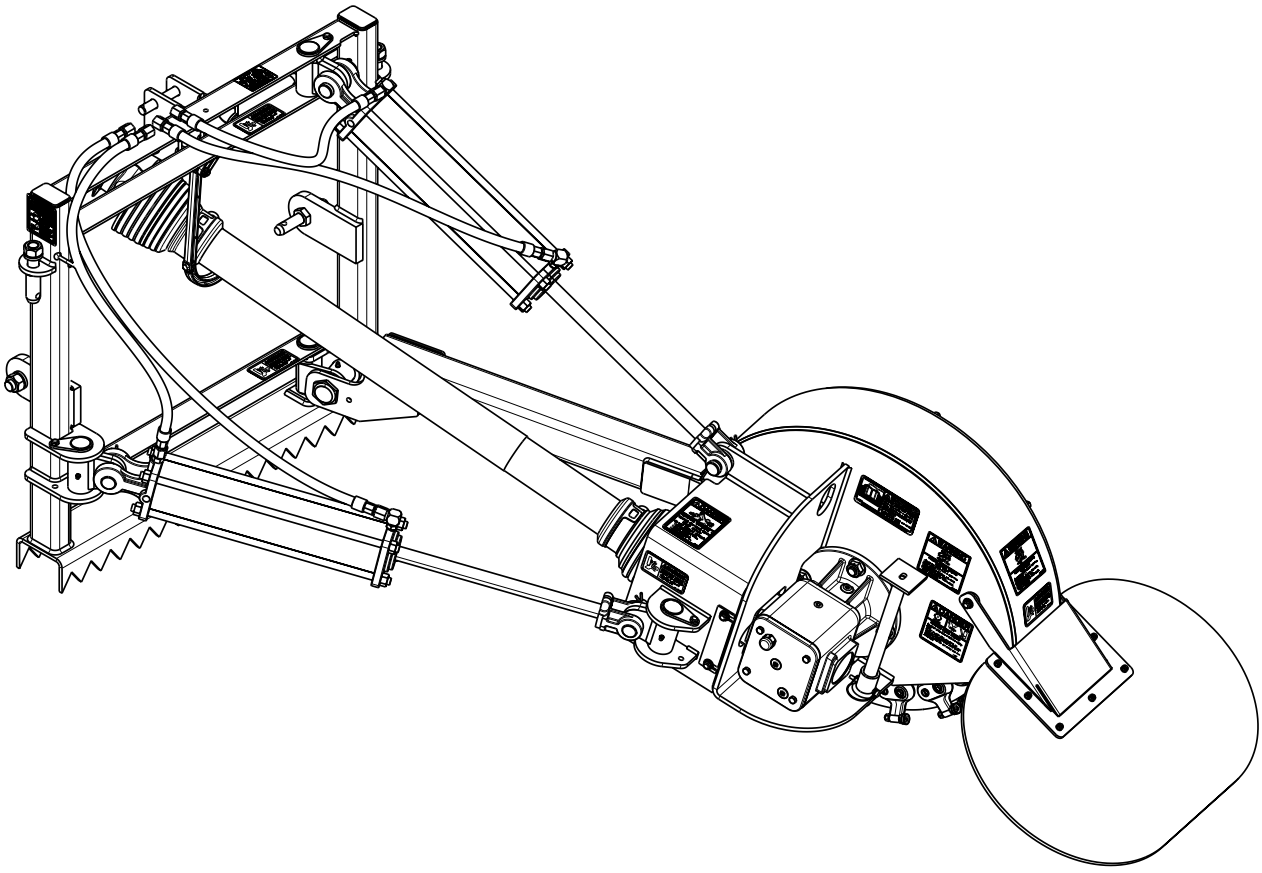
Table of Contents

Stump Grinder

GR1525

73159



328-167M
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 4/28/22

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 QR 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, open the App, point your phone on the QR code and take a picture.

Dealer QR Locator

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

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

Safety at All Times

Careful operation is your best assurance against an accident.

All operators, no matter how much experience they may have, should carefully read this manual and other related manuals, 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 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 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 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.

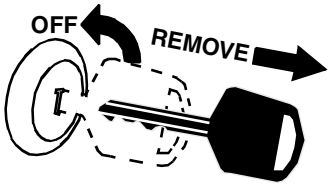
Safety Precautions for Children

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

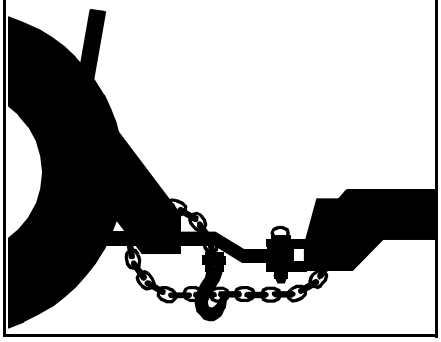
- ▲ If engaged, disengage power take-off.
- ▲ Park on solid, level ground and lower implement to ground or onto support blocks.
- ▲ Put tractor in park or set park brake.
- ▲ Turn off engine and remove ignition key to prevent unauthorized starting.
- ▲ Relieve all hydraulic pressure to auxiliary hydraulic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

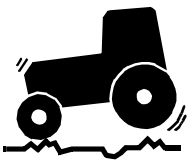


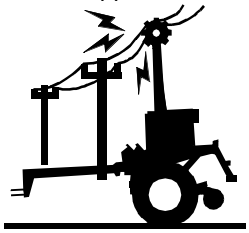
Transport Safely

- ▲ 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 unexpectedly. 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 skid steer on the “uphill” side.
- ▲ Engage park brake when stopped on an incline.
- ▲ Maximum transport speed for an attached equipment 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.
- ▲ As a guideline, use the following maximum speed weight ratios for attached equipment:

  20 mph (32 km/h) when weight of attached equipment is less than or equal to the weight of machine towing the equipment.

  10 mph (16 km/h) when weight of attached equipment exceeds weight of machine towing equipment but not more than double the weight.
- ▲ **IMPORTANT:** Do not tow a load that is more than double the weight of the vehicle towing the load.





Tire Safety

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

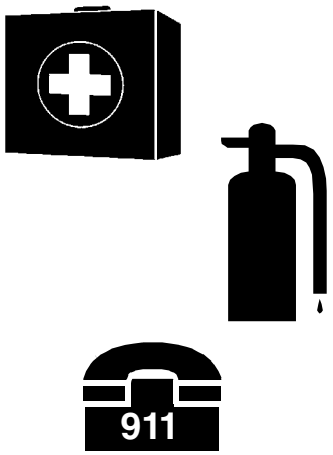
Practice Safe Maintenance

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

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)

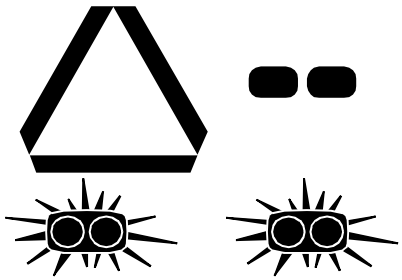
- ▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs.
- ▲ Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment 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.

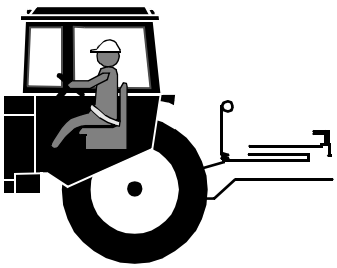
Use Safety Lights and Devices

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



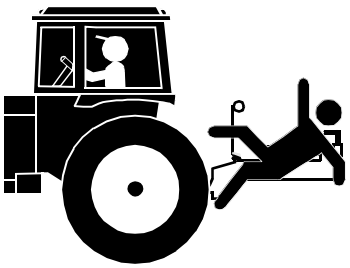
Use Seat Belt and ROPS

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



Keep Riders Off Machinery

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

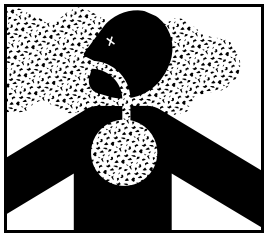


Listed below are common practices that may or may not be applicable to the products described in this manual.

Avoid crystalline Silica (quartz) Dust

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

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



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

Handle Chemicals Properly

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

Dig Safe - Avoid Underground Utilities

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

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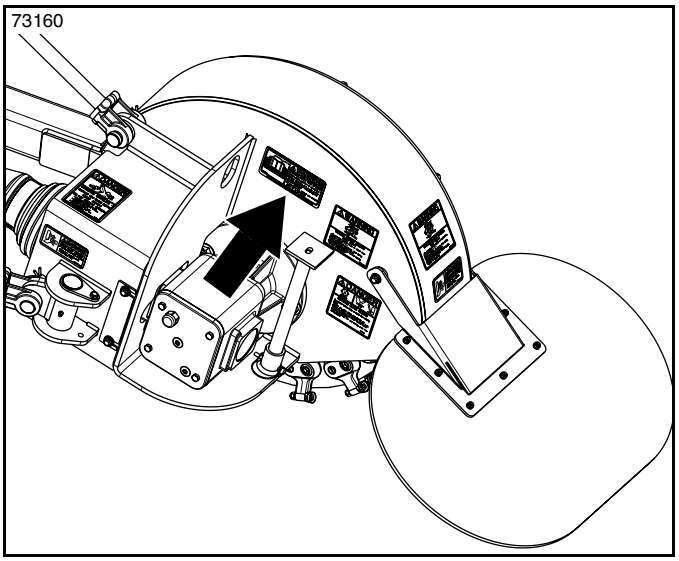
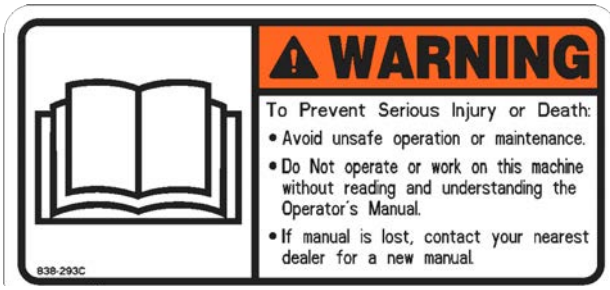
Safety Labels

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

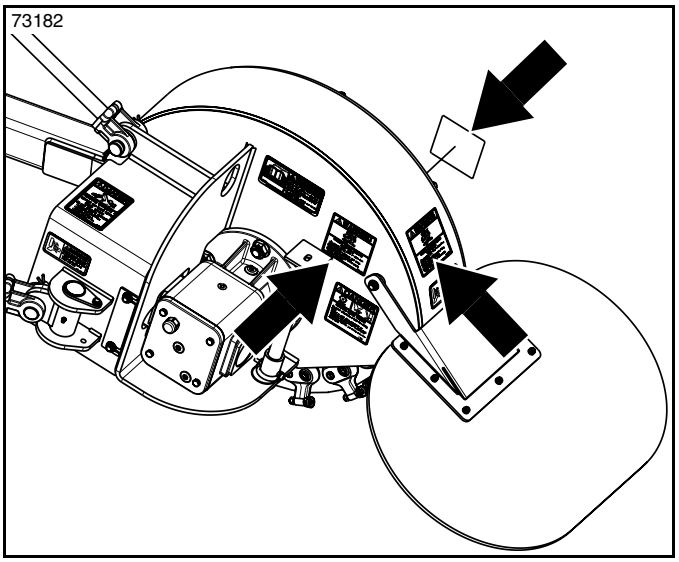
1. *Keep all safety labels clean and legible.*
2. *Refer to this section for proper label placement. Replace all damaged or missing labels. Order new labels from your nearest Land Pride dealer. To find your nearest dealer, visit our dealer locator at www.landpride.com.*
3. *Some new equipment installed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



70243

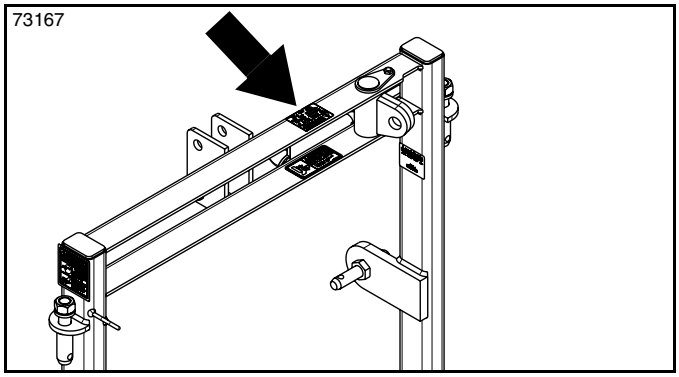


838-293C
Warning: Read Operator's Manual
1 Place



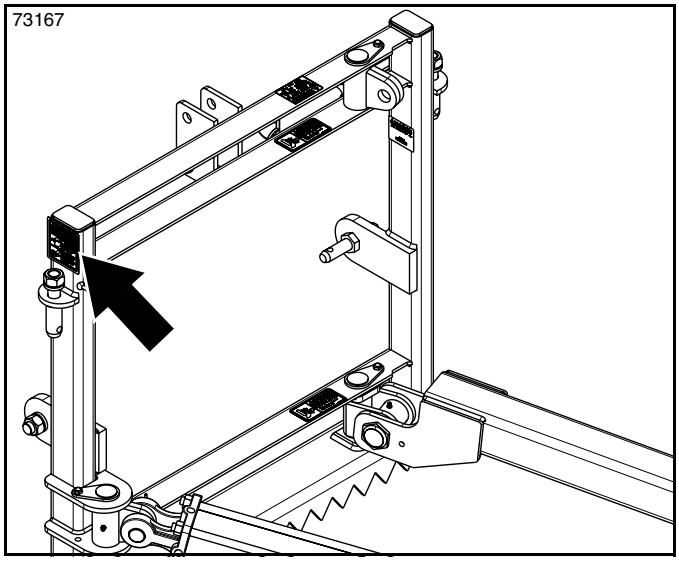
72926

838-107C
Warning: Thrown Object Hazard
3 Places



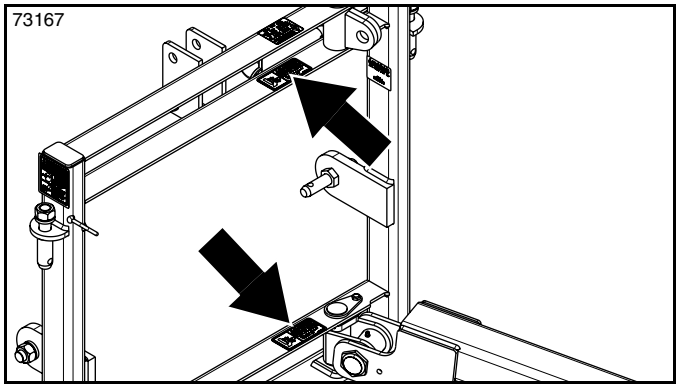
70382

818-130C
Warning:
Operate only with 540 rpm Power Take-off Speed
1 Place



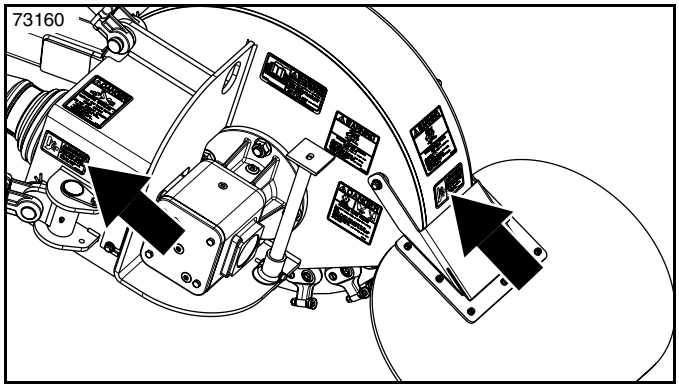
70641

848-747C
Warning: High Pressure Fluid Hazard
1 Place

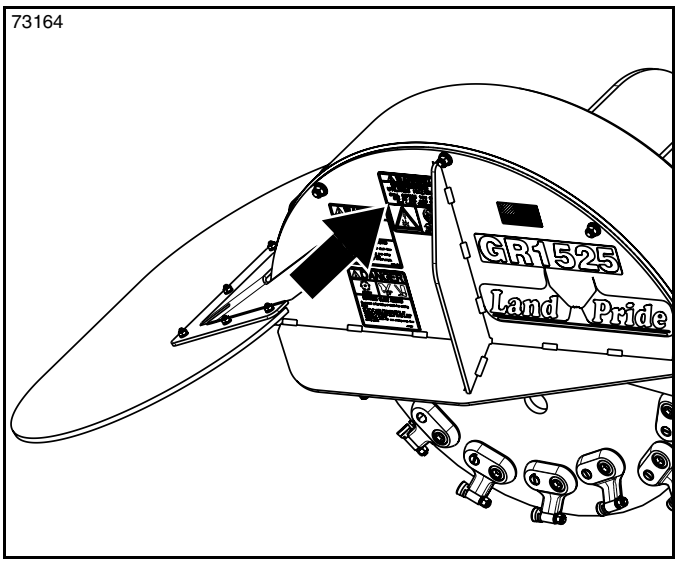


70575

818-798C
Warning: Pinch Point Hazard
4 Places



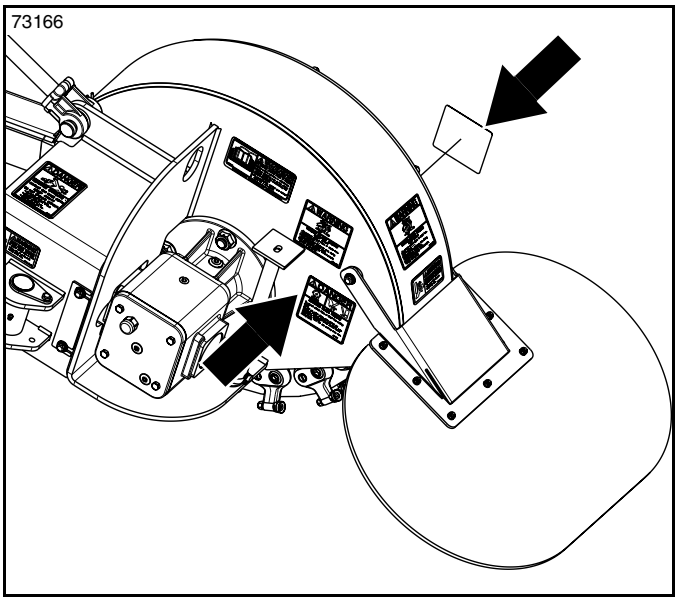
73164



70743

858-237C
Warning: Underground Utilities Hazard
1 Place

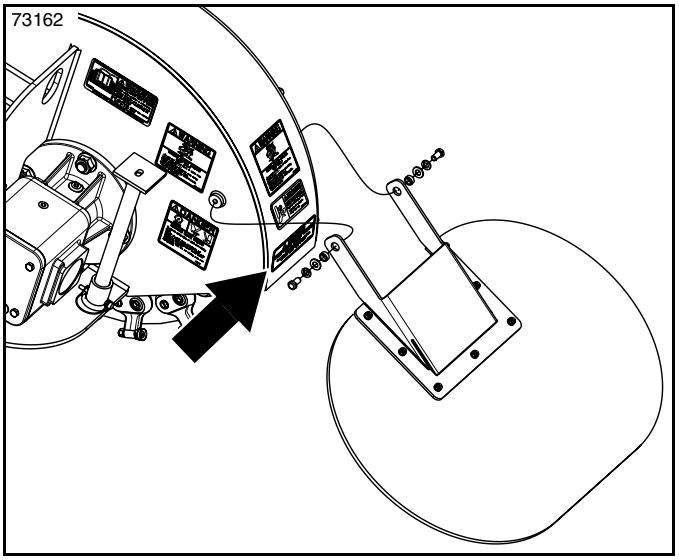
73166



73186

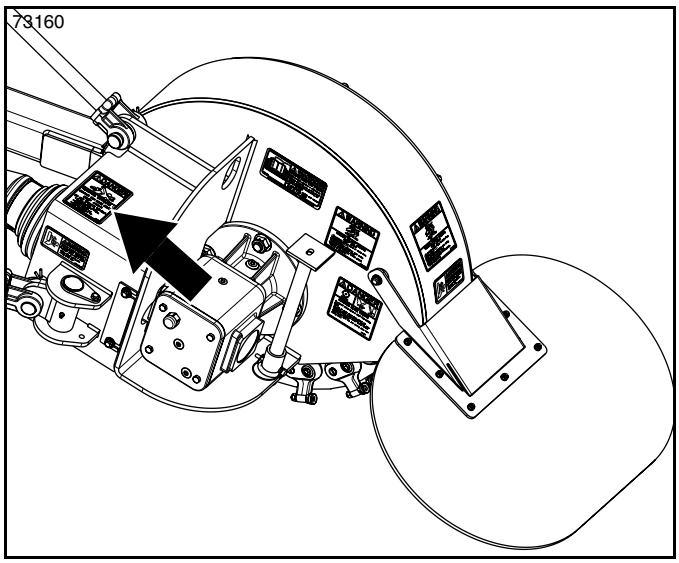
838-295C
Danger: Rotating Blade Hazard
2 Places

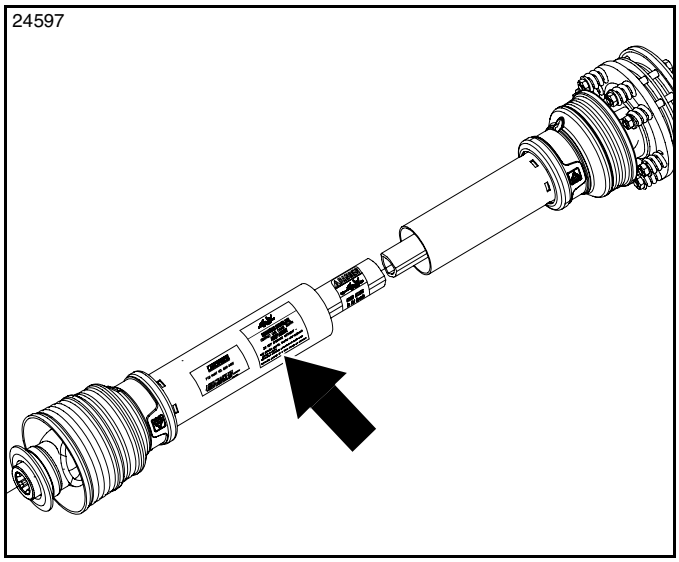
73162

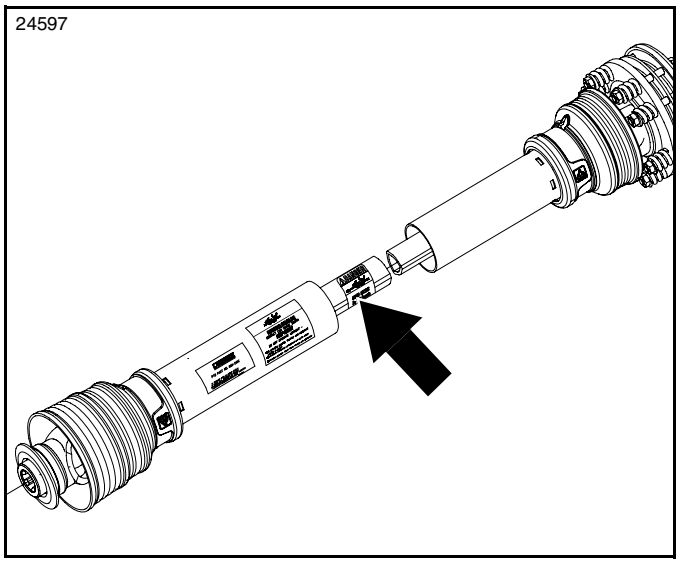


70252

848-088C
Danger: Guard Missing Hazard, Do Not Operate
1 Place







70375

818-552C
Danger: Rotating Driveline - Keep Away
2 Places

70374

818-540C
Danger: Guard Missing Hazard - DO NOT Operate
1Place: On the driveline outer profile

Land Pride welcomes you to the growing family of new product owners. This Stump Grinder 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 product.

Application

The Land Pride GR1525 Stump Grinder has uses and applications with contractors, landscapers, and forestry departments. The Stump Grinder turns large stumps into small chips.

It features durable carbide teeth mounted to a 1/2" (13 mm) thick cutting wheel that spins up to 1,100 rpm. Fully controllable from the operator station, this unit has a maximum cutting arc of 35 degrees and depth of 10" (25.4 cm) below ground.

See **"Specifications & Capacities"** on page 35 and **"Features & Benefits"** on page 36 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 the direction the operator faces while sitting looking forward in the operator's seat unless otherwise stated.

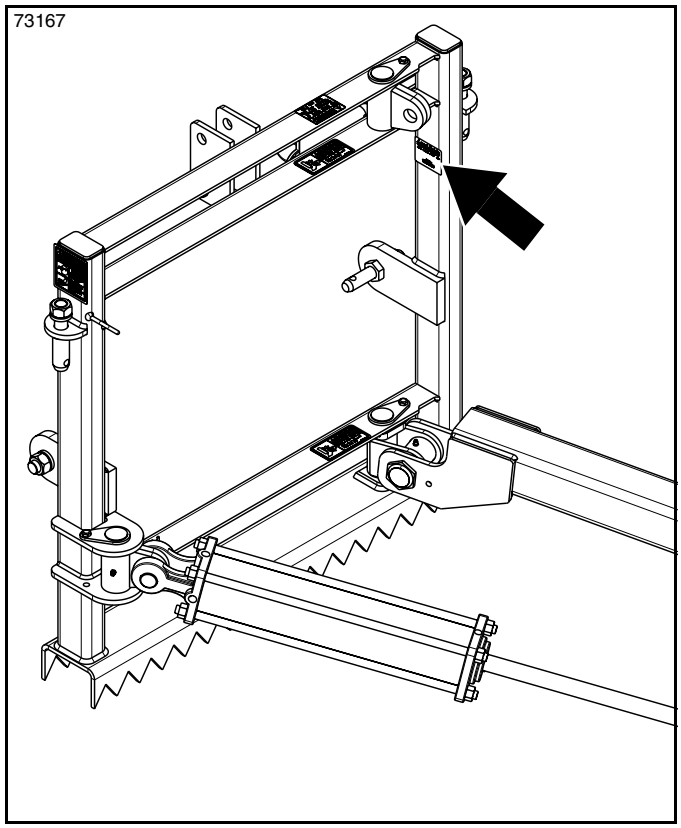
Owner Assistance

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

Serial Number

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



Serial Number Plate Location
Figure 1

Further Assistance

Your dealer wants you to be satisfied with your new Stump Grinder. 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 & Cat. II
PTO Speed . . . . . 540 rpm
Horsepower Requirements: . . . . 25-55 hp (19-41 kW)
Tractor Weight . . . . . See Warnings Below

WARNING

To avoid serious injury or death:

- *Lightweight tractors with rear attached implements may need weights added to the front to maintain steering control. Consult your tractor Operator's Manual to determine weight requirements and maximum limitations.*
- *Do not use a tractor that is too small. Small tractors can be pushed around and flipped over by the weight of the attached implement.*

Torque Requirements

Refer to **"Torque Values Chart"** on page 38 to determine correct torque values when tightening hardware.

Before You Start

WARNING

To avoid serious injury or death:

Allow only persons to operate this implement who have fully read and comprehended this manual, and who have been properly trained in the safe operation of this implement. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.

Make sure the intended power machine conforms to the requirements provided on this page. Read and understand the Operator's Manual for your Stump Grinder. An understanding of how this implement works will aid in its assembly and set-up.

Dealer Preparations

This Stump Grinder has been assembled at the factory. However, there are still some assembly requirements before the machine is ready for operation.

Some preparation will be necessary to attach the implement to the customer's tractor. Make sure the intended tractor conforms to **"Tractor Requirements"** on this page.

Go through the **"Pre-Assembly Checklist"** on this page. To speed up the assembly task and to make the job safer, have all needed parts and equipment readily at hand.

Pre-Assembly Checklist

✔	Check	Ref.
☐	Have a forklift or loader with properly sized chains and safety stands capable of lifting and supporting the equipment on hand.	
☐	Have a minimum of two people available during assembly.	
☐	Make sure all major components and loose parts are shipped with the machine.	Operator's Manual
☐	Double check to make sure all parts, fasteners and pins are installed in the correct location to lessen the chance of using a bolt incorrectly. Refer to the Parts Manual if unsure. **NOTE:** All assembled hardware from the factory has been installed in the correct location. Remember location of a part or fastener if removed. Keep parts separated.	Operator's Manual 328-167M Parts Manual 328-167P
☐	Make sure working parts move freely, bolts are tight & cotter pins are spread.	Operator's Manual
☐	SAE 90W Gear Lube must be added to the gearbox as indicated in the "Lubrication" section.	Page 33

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.

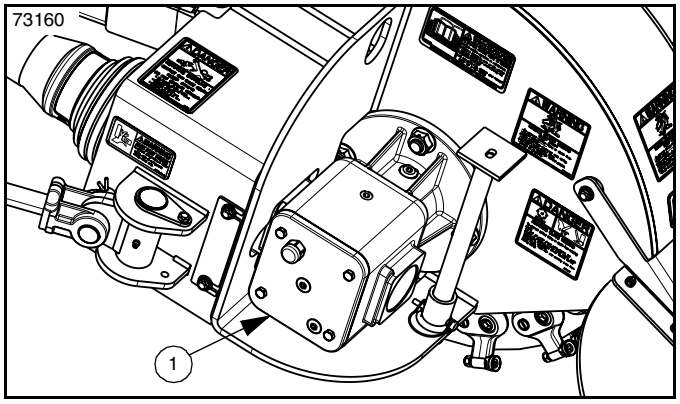
IMPORTANT: When shutting down, and if using a Single Remote Bundle, make sure the control switch is in the "SWING" position, or disconnect the wire harness from the solenoid valve to avoid draining the battery.

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. If wire harness is included, toggle its rocker switch to "SWING" position or disconnect the harness from the solenoid valve.
7. Wait for all components to come to a complete stop before leaving the operator's seat.
8. Use steps, grab-handles and anti-slip surfaces when stepping on and off the tractor.

Gearbox Lubrication

Refer to figure 1-1:

The stump grinder is shipped from the factory without gear lube in gearbox (#1) and must be filled with SAE90W gear lube before operating the unit. Refer to **"Gearbox Lubrication"** on page 33 for instructions.



Gearbox Lubrication
figure 1-1

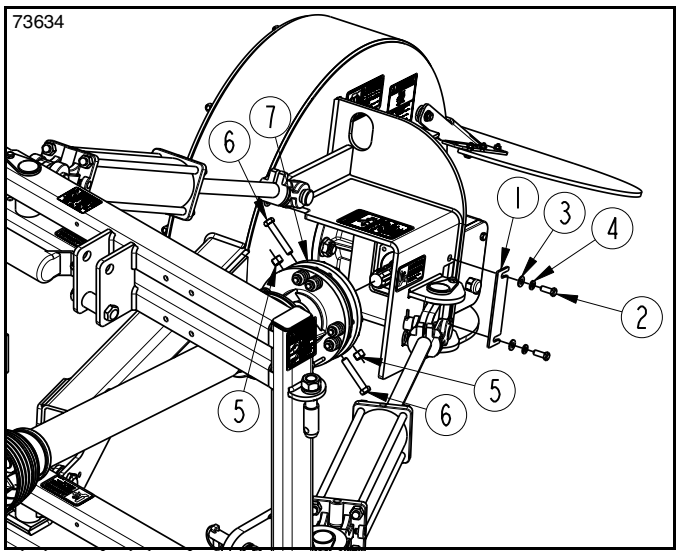
Driveline Installation

Refer to Figure 1-2:

The driveline is shipped unsecured to the gearbox input shaft. It must be secured to the gearbox input shaft with bolts(#6), and nuts (#5). A slip clutch (#7) is provided for protection from shock loads.

IMPORTANT: The driveline must be lubricated before putting it into service. Refer to **"Lubrication Points"** on page 33.

1. To install the driveline, remove 3/8" x 1" bolts (#2), lock washers (#4), flat washers (#3), and cover (#1).
2. Remove existing nuts (#5), and bolts (#6) from slip-clutch (#7).
3. Slide splined end of slip clutch (#7) onto the gearbox input shaft. Make certain that the slip-clutch yoke is fully onto the shaft splines.
4. Attach slip-clutch yoke to the gearbox input shaft with removed bolts (#6), and nuts (#5). Tighten nuts (#5) to the correct torque for a M12 bolt.
5. Push/pull on slip-clutch yoke to ensure it is securely fastened to the gearbox input shaft.
6. Return cover (#1) and secure in place with flat washers (#3), lock washers (#4), and 3/8"-16 GR5 bolts (#2). Tighten bolts to the correct torque.
7. Continue with **"Three Point Hook-up"** on page 16 or **"Driveline Hook-Up"** on page 17.



Driveline Assembly
Figure 1-2

Hydraulic Hose Installation

Two optional hydraulic remote bundles are available. One of the two must be purchased. The **"Single Remote Bundle"** is of used with tractors having one duplex outlet. The **"Dual Remote Bundle"** is used with tractors having more than one duplex outlet. See instructions for **"Single Remote Bundle"** below and **"Dual Remote Bundle"** on page 21.

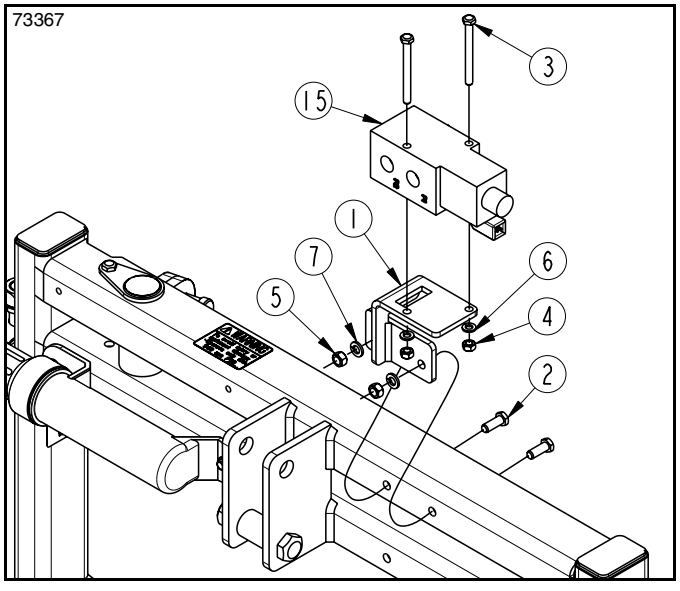
Single Remote Bundle

328-155A . . . . . Single Remote Bundle

Single Remote Valve Assembly

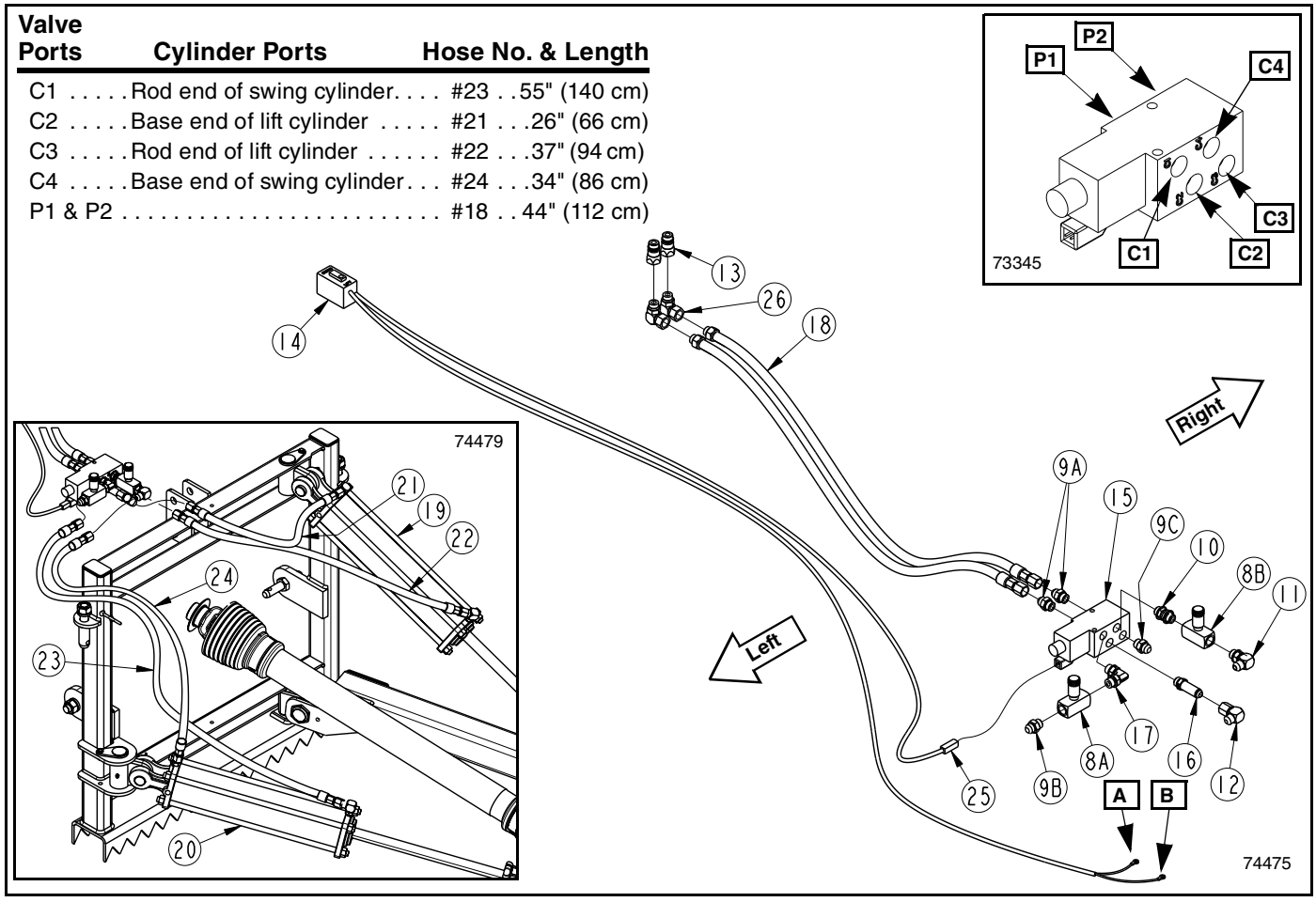
Refer to Figure 1-3:

1. Bolt solenoid valve (#15) to mount (#1) with 5/16" x 3 1/4" bolts (#3), lock washers (#6), and hex nuts (#4). Tighten nuts to the correct torque.
2. Attach valve mount (#1) to the hitch using 3/8" x 1" bolts (#2), lock washers (#7), and hex nuts (#5).



Single Remote Bundle Assembly
Figure 1-3

Valve Ports	Cylinder Ports	Hose No. & Length
C1	Rod end of swing cylinder	#23 . . 55" (140 cm)
C2	Base end of lift cylinder	#21 . . .26" (66 cm)
C3	Rod end of lift cylinder	#22 . . .37" (94 cm)
C4	Base end of swing cylinder	#24 . . .34" (86 cm)
P1 & P2		#18 . . 44" (112 cm)



Single Remote Bundle
Figure 1-4

Continuation of Single Remote Bundle

Refer to Figure 1-4:

3. Install o-ring end of 3/4" adapters (#9A) into “P1” and “P2” ports in valve (#15).
4. Connect hoses (#18) to adapters (#9A), then fasten elbow fittings (#26) to open ends of hoses (#18).
5. Secure male couplers (#13) to elbow fittings (#26).
6. Install 3/4" elbow (#17), needle valve (#8A), and o-ring end of adapter (#9B) to “C1” port. Attach hose (#23) from the rod end of swing cylinder (#20) to adapter (#9B).
7. Install 1 3/4" long adapter (#10), needle valve (#8B), and o-ring end of 3/4" elbow (#11) to “C4” port. Attach hose (#24) from base end of swing cylinder (#20) to elbow (#11).
8. Install o-ring end of adapter (#9C) to “C3” port. Attach hose (#22) from rod end of lift cylinder (#19) to adapter (#9C).
9. Install o-ring end of adapter (#16), and elbow (#12) to “C2” port. Attach hose (#21) from the base end of lift cylinder (#19) to elbow (#12).
10. Store control switch (#14) in a safe location until needed or attach connector (#25) to solenoid valve (#15) in location shown.

Dual Remote Bundle

328-151A . . . . . Tractor Dual Remote Bundle

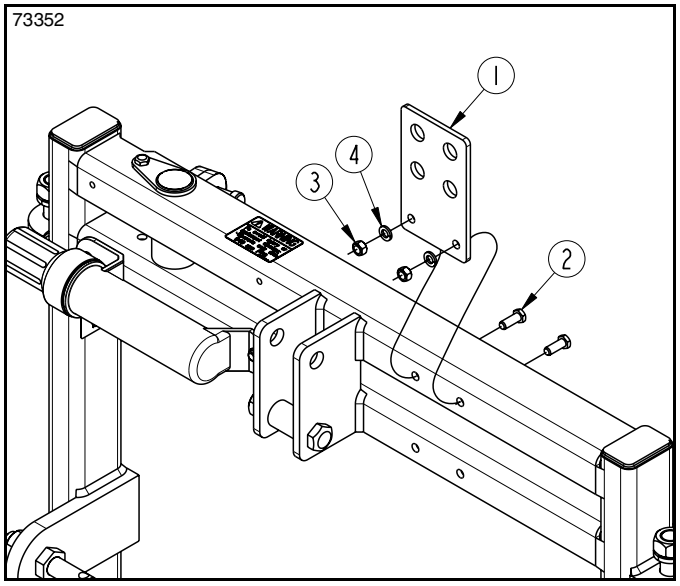
Bulk Head Mount Assembly

Refer to Figure 1-5:

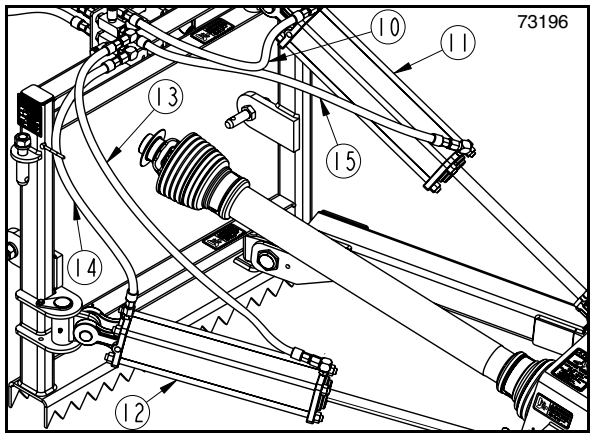
1. Attach bulk head mount (#1) to the hitch using 3/8" x 1" bolts (#2), lock washers (#4), and hex nuts (#3). Tighten nuts to the correct torque.

Refer to Figure 1-6:

2. Install 3/4" bulk head adapters (#8) with o-rings into left side holes of bulk head mount (#1) as shown.
3. Attach needle valves (#5), and o-ring end of elbows (#6) to the adapters (#8) as shown.
4. Connect hose (#13) from the rod end of swing cylinder (#12) to the top elbow (#6A).
5. Connect hose (#14) from the base end of the swing cylinder (#12) to the bottom elbow (#6B).
6. Install 3/4" bulk head adapters (#7A & #7B) into right side holes of bulk head mount (#1) as shown.
7. Connect hose (#10) from the base end of lift cylinder (#11) to the top adapter (#7A).
8. Connect hose (#15) from the rod end of lift cylinder (#11) to the bottom adapter (#7B) on mount (#1).
9. Attach hoses (#9), to other side of the adapters (#7A, #7B & #8).
10. Fasten male couplers (#16) to hoses (#9).



Tractor Dual Remote Bundle
Figure 1-5



Fitting	Cylinder Port	Hose No & Length
6A.	Rod end of swing cylinder. . . .	#13 . 55" (140 cm)
6B.	Base end of swing cylinder . . .	#14 . . 34" (86 cm)
7A.	Rod end of lift cylinder.	#15 . . 37" (94 cm)
7B.	Base end of lift cylinder.	#10 . . 26" (66 cm)
#7A, #7B, & #8		#9 . . .44" (112 cm)

Dual Remote Bundle
Figure 1-6

Hitch Pin Installation

Refer to Figure 1-7:

DANGER

To avoid serious injury or death:

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

WARNING

To avoid serious injury or death:

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.

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.

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.

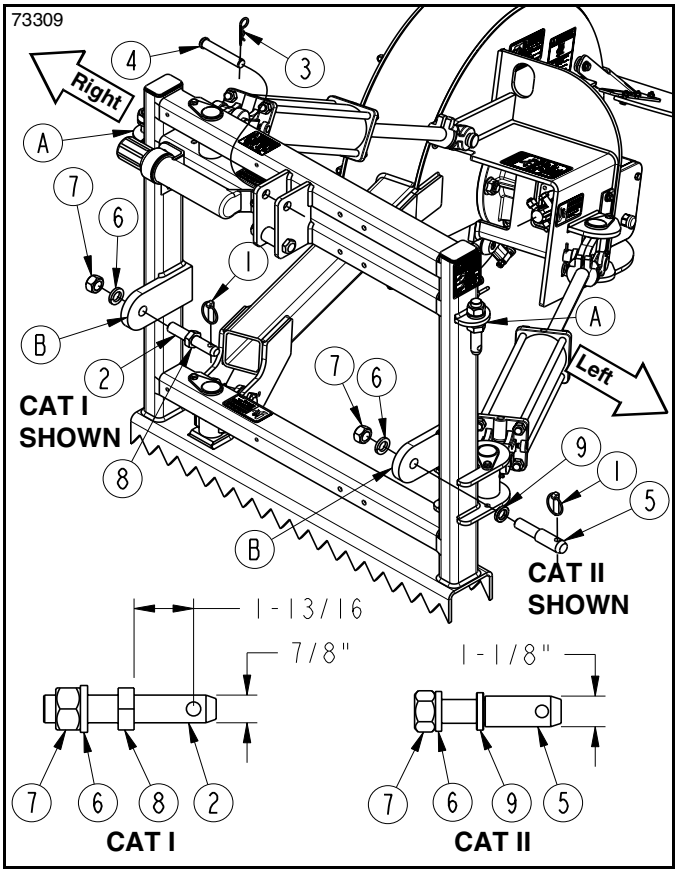
NOTE: Linchpins (#1), upper center hitch pin (#4), and hitch pin keeper (#3) are customer supplied.

NOTE: Cat. I hitch pins are mounted positioned inside of tabs (B). Cat II hitch pins are mounted positioned outside of tabs (B).

Category I Hitch Pin Set-up

Refer to Figure 1-7:

1. Remove Cat. II hitch pin (#5) from tabs (B).
2. Remove Cat. I hitch pins (#2) from storage tabs (A).
3. Adjust jam nuts (#8) on Cat. I hitch pins (#2) until center of linchpin holes are 1 13/16" (3 cm) from the face of the jam nuts.
4. Insert Cat. I hitch pin (#2) in tab (B) as shown on the right-hand side. Secure with lock washer (#6) and hex nut (#7).
5. Tighten hitch pin (#2) by inserting a drive punch in its linchpin hole and rotating the hitch pin until the linchpin hole is vertical.
6. Hold linchpin hole vertical and tighten 7/8-14 hex nut (#7) to the correct torque.
7. Repeat steps 4-6 for the other Cat. I hitch pin.
8. Store Cat. II hitch pins (#5) in tabs (A).

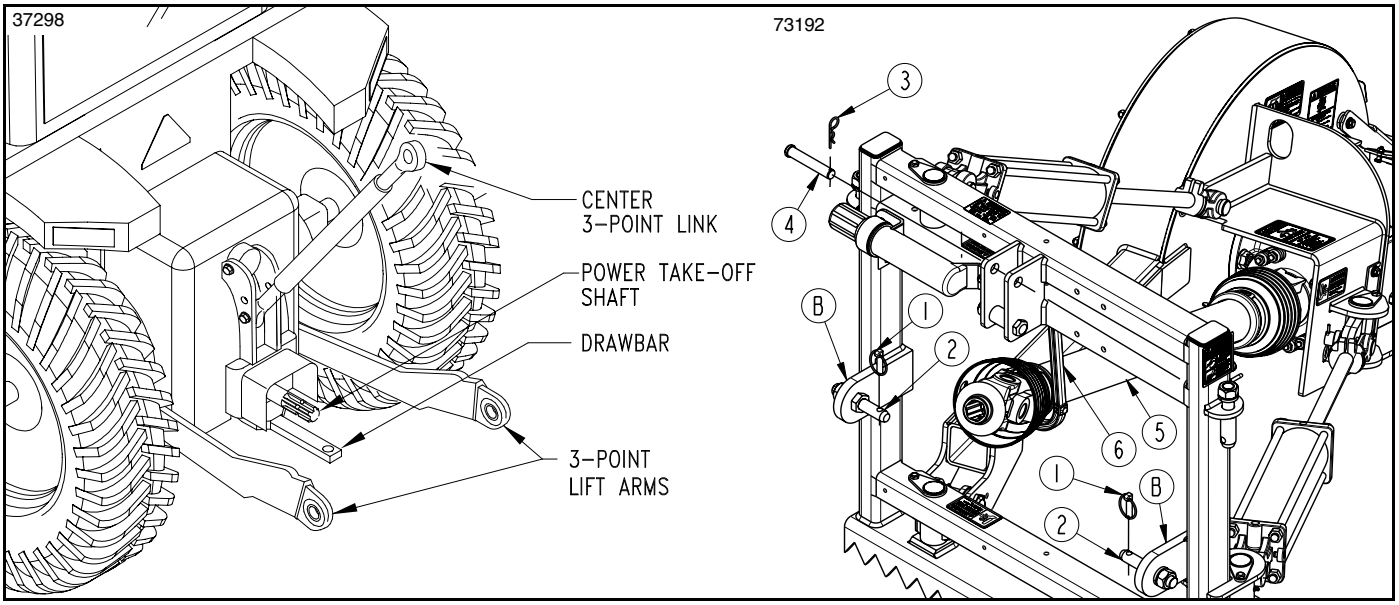


Cat I & Cat II Set-up
Figure 1-7

Category II Hitch Pin Set-up

Refer to Figure 1-7:

1. Remove Cat. I hitch pins (#2) from tabs (B).
2. Remove Cat. II hitch pins (#5) from storage tabs (A).
3. Install washers (#9) onto hitch pins (#5) and insert hitch pins in tabs (B) as shown on the left-hand side.
4. Secure Cat. II hitch pins (#5) with lock washers (#6) and nut (#7). Insert a drive punch in the linchpin hole. Rotate linchpin hole vertical and tighten nuts (#7) to the correct torque.
5. Store Cat. I hitch pins (#2) in tabs (A).



Tractor Hook-Up (Cat. I shown)
Figure 1-8

Three Point Hook-up

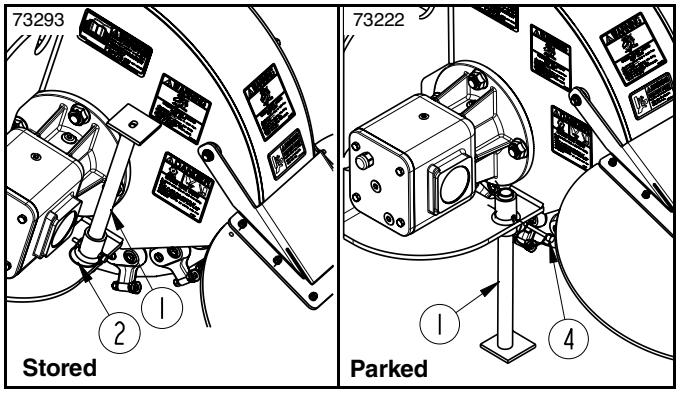
Refer to Figure 1-8:

> **NOTE:** Cat. I hitch pins shown. Cat II hitch pins are mounted positioned outside of tabs (B).

1. If hooking-up with a Quick Hitch, refer to the Quick Hitch Operator's Manual for detailed hook-up and operating instructions. Otherwise, continue with step 2 below.
2. Slowly back tractor up to the Stump Grinder while using the tractor's 3-point control lever to align holes in the tractor's lower 3-point lift arms with hitch pins (#2).
3. Shut tractor down according to **"Tractor Shutdown Procedure"** on page 11.
4. Attach lower 3-point lift arms to hitch pins (#2) and secure with customer supplied linchpins (#1).
5. Connect top center 3-point link to the upper hitch clevis with customer supplied hitch pin (#4). Secure hitch pin with customer supplied hitch pin keeper (#3).

Refer to Figure 1-9:

6. Start tractor and raise grinder until park stand (#1) is off the ground 4-5 inches (10-13 cm).
7. Without changing the 3-point lift height, shut tractor down according to **"Tractor Shutdown Procedure"** on page 11.
8. Remove wire retaining pin (#2) and park stand (#1) from its parked position. Flip park stand over and position as shown in the stored position.
9. Reinsert wire retaining pin (#2).
10. Hook wire retainer over end of pin to secure the park stand.



Parking Stand
Figure 1-9

11. Ensure lower 3-point lift arms are stabilized to prevent excessive side-to-side movement. Consult your tractor Operator's Manual for detailed instructions.
12. Adjust one of the lower 3-point arms up or down to level the mainframe. The mainframe will be level when both sides of the frame are equal distance from the ground.
13. Start the tractor and slowly operate tractor 3-point hydraulic control lever to slowly raise and lower the Stump Grinder while checking for clearance between tractor tires and drawbar. Move or remove drawbar if it interferes with any part of the Stump Grinder.
14. Lower 3-point until unit is resting on the ground.
15. Shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 11.
16. Lengthen or shorten the top center link to adjust the main frame vertical.

Driveline Hook-Up

Refer to* "Figure 1-8"** ***on page 16.

DANGER

To avoid serious injury or death:

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

WARNING

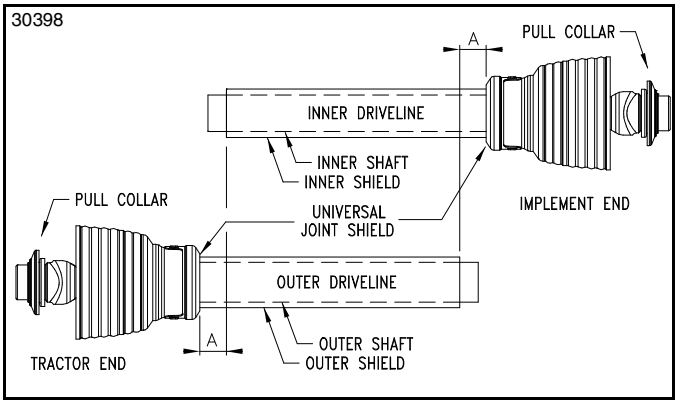
To avoid serious injury or death:

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

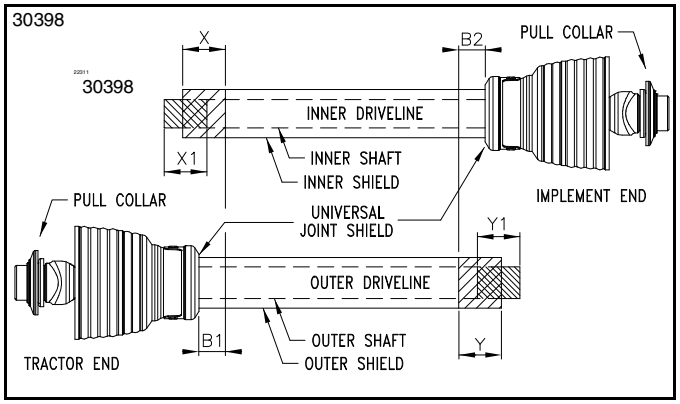
IMPORTANT: An additional driveline may be required if implement is attached to more than one tractor or if a Quick Hitch is used.

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

1. If collapsible length of driveline (#5) has not been checked, go to **"Check Driveline Collapsible Length"** on this page. Otherwise, continue with step 2 below.
2. Park tractor and Stump Grinder on a level surface.
3. Shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 11.
4. If tractor drawbar interferes with the driveline during hook-up, move drawbar forward, to the side, or remove.
5. Remove driveline (#5) from driveline support (#6) as shown in Figure 1-7. Driveline support is spring loaded and will rotate up against frame.
6. Collapse driveline by pushing tractor end of driveline toward the Stump Grinder's gearbox.
7. Pull back on the driveline pull collar and push yoke onto the tractor power take-off shaft. Release pull collar and continue to push driveline yoke forward until pull collar pops out and locks in place.
8. Pull on driveline ends to make sure they are secured to the tractor and Stump Grinder.
9. Continue with **"Hydraulic Hose Hook-up"** on page 20.



Check Driveline Minimum Length
Figure 1-10



Driveline Shortening
Figure 1-11

Check Driveline Collapsible Length

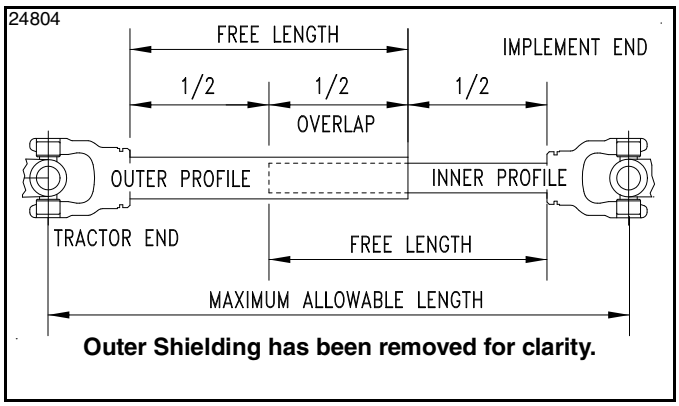
Refer to Figure 1-10:

> **IMPORTANT:** A driveline that is too long can bottom out causing structural damage to the tractor and implement. Always check driveline minimum length during initial setup, when connecting to a different tractor, and when alternating between using a quick hitch and a standard 3-point hitch. More than one driveline may be required to fit all applications.
>
> **IMPORTANT:** The power take-off shaft and gearbox input shaft must be aligned and level with each other when checking driveline minimum length. A driveline that is too long can damage tractor and implement.

1. With driveline attached only to the 3-point implement, remove outer driveline (tractor end) from inner driveline to separate the two profiles.
2. Park tractor and implement on a level surface.
3. Raise implement until its gearbox input shaft is level with the tractor's power take-off shaft.
4. Without changing the 3-point lift height, shut tractor down using **"Tractor Shutdown Procedure"** on page 11.
5. Place support blocks under the mainframe to keep the gearbox input shaft level with the tractor's output shaft.
6. Attach outer driveline to the tractor's power take-off shaft. Refer to steps 7-8 under **"Driveline Hook-Up"** on this page.
7. Hold inner and outer drivelines parallel to each other. If dimension "A" is greater than or equal to 1" (2.5 cm), then skip to **"Check Driveline Maximum Length"** on this page. Otherwise continue with step 8.

Refer to Figure 1-11:

8. If dimension "A" was less than 1" (2.5 cm), shorten driveline as follows:
   a. Measure 1" (2.5 cm) (**"B1"** dimension) back from outer driveline shield and make a mark at this location on the inner driveline shield.
   b. Measure 1" (2.5 cm) (**"B2"** dimension) back from the inner driveline shield and make a mark at this location on the outer driveline shield.
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 **"Check Driveline Maximum Length"** on this page.



Driveline Maximum Extended Length
Figure 1-12

Check Driveline Maximum Length

Refer to Figure 1-12:

The driveline maximum allowable length must, when fully extended, have a minimum overlap of profile tubes by not less than 1/2 the free length with both inner and outer profile tubes being of equal length.

1. Apply multi-purpose grease to the inside of the outer shaft and reassemble the driveline.
2. Assemble the two driveline profiles together with just 1/2 overlapping of the profile tubes as shown. Once assembled, measure and record maximum allowable length here. _____
3. Reattach driveline to the tractor power take-off shaft and gearbox input shaft. Refer to **"Driveline Hook-Up"** on page 17.
4. Continue with **"Hydraulic Hose Hook-up"** on page 20.

Hydraulic Hose Hook-up

DANGER

To avoid serious injury or death:

Make sure the implement is lowered to the ground and all hydraulic pressure is relieved before hooking-up or disconnecting any hydraulic lines, fittings, or cylinders.

WARNING

To avoid serious injury or death:

- *Hydraulic fluid under high pressure will penetrate the skin or eyes causing a serious injury. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for leaks. If an accident occurs, seek immediate emergency medical care or gangrene may result. DO NOT DELAY.*
- *Keep body, body extremities, loose clothing, pull strings, etc. away from pinch points such as rotating, extending, and/or retracting components. Secure pinch point areas to ensure they will not move before working on or near them.*

IMPORTANT: Hose routing is the responsibility of the owner/operator. Pinched and/or stretched hoses are not covered under the warranty.

IMPORTANT: Make sure coupler fittings on hydraulic hoses are clean before connecting them together.

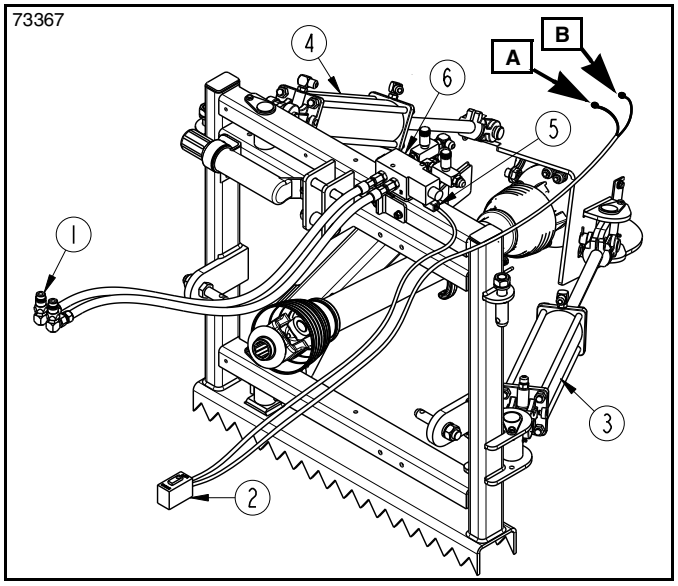
Single Remote Bundle

328-155A . . . . . Single Remote Bundle

Hose Hook-up

Refer to Figure 1-13:

1. Clean male couplers (#1) of dirt and connect to the tractor duplex outlets. Make sure quick disconnect couplers have fully engaged. If they have not, check the following:
   a. Make sure couplers are same size and type.
   b. Make sure hydraulic pressure has been released.



Single Remote Bundle Assembly
Figure 1-13

Single Remote Control Harness Hook-up

Refer to Figure 1-13, & Figure 1-4 on page 13:

1. Disconnect negative (-) black ground cable from the tractor's battery post (not shown).
2. Attach positive (+) red wire eyelet (A) from the wire harness to a 12 volt power source. Tighten fastener hardware.
3. Attach negative (-) black wire eyelet (B) to ground. Tighten fastener hardware.
4. Reconnect negative (-) black ground cable to the tractor's battery. Tighten fastener hardware.
5. If unattached, attach connector (#5) to solenoid valve (#6) in the location shown.
6. Keep the single remote control switch (#2) in a convenient easy to reach location.

NOTE: The control switch (#2) lights in the "LIFT" position. When lit, the solenoid is activated, and drawing electrical current from the battery.The control switch, can be located approximately 8 ft. from the solenoid valve.

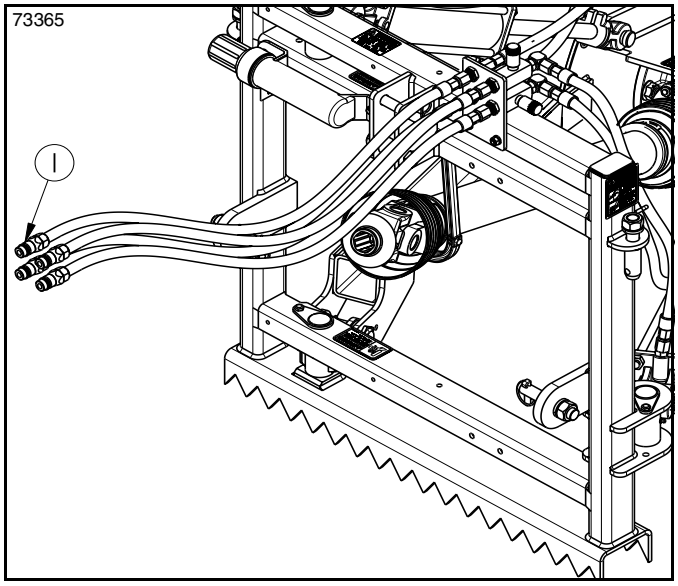
7. Operate switch as follows:

   Swing Position

   a. Toggle switch (#2) to the "SWING" position. Operate the tractor control lever for the duplex outlet to swing the grinder head left or right with hydraulic cylinder (#3).

   Lift Position

   b. Toggle switch (#2) to the "LIFT" position. "LIFT" switch lights-up when activated. Operate the tractor control lever for the duplex outlet to raise and lower the grinder head with hydraulic cylinder (#4).



Dual Remote Bundle
Figure 1-14

Dual Remote Bundle

328-151A . . . . . .Dual Remote Bundle

Hose Hook-up

Refer to Figure 1-14, & Figure 1-6 on page 14:

1. Clean male couplers of dirt and connect couplers (#1 & #2) to one of the tractor duplex outlets. Connect (#3 & #4) to the tractor's second remote duplex outlets. Make sure quick disconnect couplers have fully engaged. If they have not, check the following:
   a. Make sure couplers are same size and type.
   b. Make sure hydraulic pressure has been released.

Check Driveline Interference

Refer to Figure 1-15:

DANGER

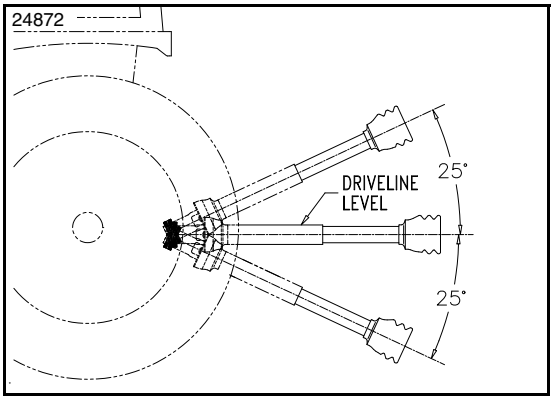
To avoid serious injury or death:

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

WARNING

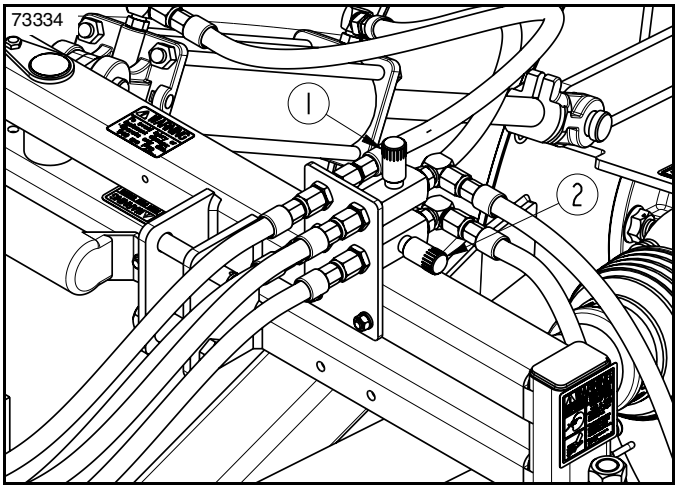
To avoid serious injury or death:

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.



Maximum Driveline Movement During Operation
Figure 1-15

1. Raise Stump Grinder fully up.
2. Without changing 3-point lift height, shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 11.
3. Support Stump Grinder in the raised position to keep it from falling.
4. Check to make sure the driveline does not exceed any of the limits listed below:
   - Driveline does not exceed maximum allowable length recorded in step 2 under **"Check Driveline Maximum Length"** on page 19.
   - Driveline angle does not exceed 25° above horizontal or 25° below horizontal.
5. 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. Supports placed under the grinder may need to be lowered to complete this step.
6. If needed, repeat steps 1-5 until all limits mentioned in step 3 are maintained.
7. Start tractor, raise implement slightly, and drive forward enough to clear the support.
8. Lower implement to ground and shut tractor down before dismounting. Refer to **"Tractor Shutdown Procedure"** on page 11.



Needle Valve Adjustments
Figure 2-1

Valve Adjustments

Refer to Figure 2-1:

Adjust needle valves (#1& #2) to regulate the flow rate to the swing cylinder. Adjust valve (#1) until the grinder operates with a smooth even cut while swinging from right to left. Adjust needle valve (#2) until the grinder operates with an even cut while swinging from left to right. Eliminate stutter cuts by reducing both needle valves until the cutting paths are smooth.

Operator's Responsibilities

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 Stump Grinder. Therefore, it is absolutely essential that no one operates the Stump Grinder 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 & Set-up,** page 11
- **Section 2: Adjustments,** page 22
- **Section 3: Operating,** page 23
- **Section 4: Maintenance & Lubrication,** page 28

Perform the following inspections before using your Stump Grinder.

Operating Checklist

	Check	Ref.
	Read and follow all safety rules carefully. Refer to "Important Safety Information".	Page 1
	Make sure all guards and shields are in place. Refer to "Important Safety Information".	Page 1
	Make sure there are no hydraulic leaks. Refer to "Avoid High Pressure Fluids Hazard".	Page 3
	Read and follow all operating instructions. Make sure operator understands how to operate the Stump Grinder. Refer to "Section 2: Adjustments".	Page 22
	Read and make all required adjustments. Be sure all pins have been installed and secured. "Section 3: Operating"	Page 23
	Read and follow all maintenance instructions. Refer to "Section 4: Maintenance & Lubrication".	Page 28
	Check Stump Grinder initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	Page 38

Safety Information

DANGER

To avoid serious injury or death:

- *Do not engage power take-off while hooking-up or unhooking the driveline, or while someone is standing near the driveline. A person's body and/or clothing can become entangled in the driveline.*
- *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.*
- *All guards and shields must be installed and in good working condition. Loose clothing caught on rotating components can pull a person into the machinery. Hands and other body extremities can become entangled in the machinery. Objects can be thrown by rotating components.*
- *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) 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.*
- *Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to hydraulics is off.*

WARNING

To avoid serious injury or death:

- *Hydraulic fluid under high pressure will penetrate the skin or eyes causing a serious injury. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for leaks. If an accident occurs, seek immediate emergency medical care or gangrene may result. DO NOT DELAY.*
- *Allow only persons to operate this implement who have fully read and comprehended this manual, and who have been properly trained in the safe operation of this implement. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.*
- *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.*
- *Keep body, body extremities, loose clothing, pull strings, etc. away from pinch points such as rotating, extending, and/or retracting components. Secure pinch point areas to ensure they will not move before working on or near them.*
- *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.*
- *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.*
- *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 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.*

- *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 a tractor that is too small. Small tractors can be pushed around and flipped over by the weight of the attached implement.*
- *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.*
- *Do not use implement for a purpose other than the work it is designed to do as defined in this manual.*
- *Do not use implement as a man lift or work platform. It is not properly designed or guarded for this use.*
- *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. Doing so can result in loss of control and damage the equipment.*

Transporting

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:

- *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.*
- *When traveling on public roadways, travel in such a way that faster moving vehicles may pass safely. Use accessory 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.*

1. Select a safe ground speed when transporting from one area to another. Maximum transport speed for the Stump Grinder is 20 mph (32.2 km/h). **DO NOT EXCEED**.
2. Be sure to reduce tractor ground speed when turning and leave enough clearance so the Stump Grinder does not contact obstacles such as buildings, trees, or fences.
3. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
4. Shift tractor to a lower gear when traveling over rough or hilly terrain.

Stump Grinder Operation

DANGER

To avoid serious injury or death:

- *Keep bystanders and animals away from machinery while in operation. They can become entangled in the equipment, pinched, hit by throwing objects, ran over, etc.*
- *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) 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.*
- *Keep bystanders away from rotating teeth. They can be injured or entangled by the rotating teeth.*

WARNING

To avoid serious injury or death:

- *Clear all debris from stump area before operating unit. Keep all bystanders at a safe distance away from product being discharged. Wood chips and debris can discharge at high speeds causing serious injury or death.*
- *Hydraulic fluid can become hot as it flows through components such as hydraulic couplers, hoses, lines, fittings, motors, etc. Wear gloves when working with hydraulic components including while connecting and disconnecting couplers. It is best to allow hydraulic components to cool before touching them.*

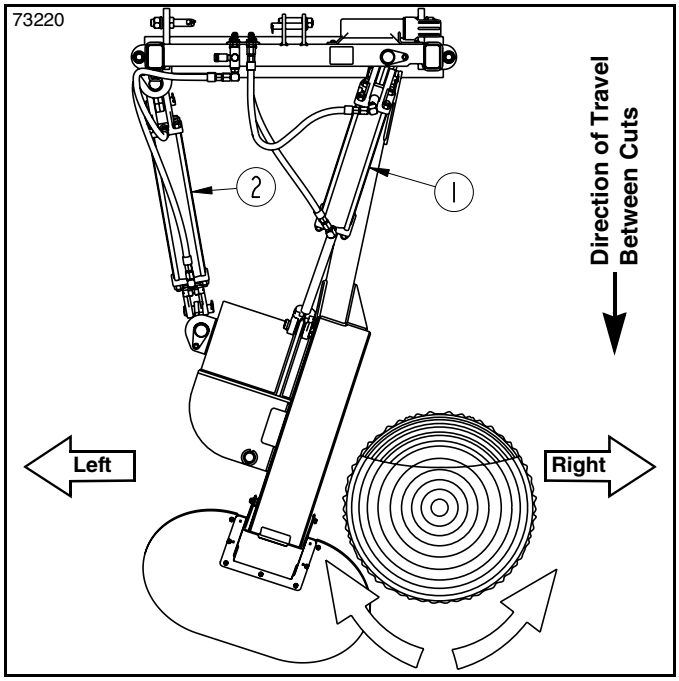
IMPORTANT: Do not move tractor forward or rearward while Stump Grinder is removing wood chips. Doing so can damage components.

NOTE: Rate and depth of cut is determined by sharpness of the rotary teeth, density of the wood, and condition of the wood.

1. Be sure to read and understand all safety alerts under **"Operator's Responsibilities"** on page 23**.**
2. Check for overhead and below ground obstructions before grinding the stump.

Refer to Figure 3-1 on page 25:

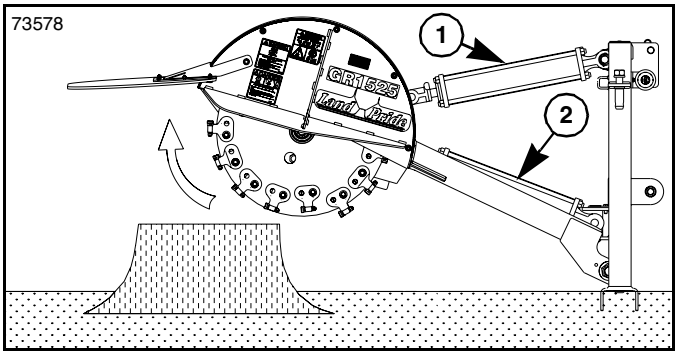
3. Fully retract lift cylinder (#1) and swing cylinder (#2).
4. Position the cutting wheel on the far left side of the stump as shown.
5. Lower hitch down until the Stump Grinder frame is firmly planted on the ground.
6. Extend lift cylinder (#1) until the cutting teeth are just above the stump as shown in Figure 3-2 on page 25.
7. Engage power take-off and use swing cylinder (#2) to move cutting wheel to the right as shown in Figure 3-1.
8. Slightly extend lift cylinder (#1) to lower the carbide teeth enough to make a cut into the stump as shown in Figure 3-3 on page 25.



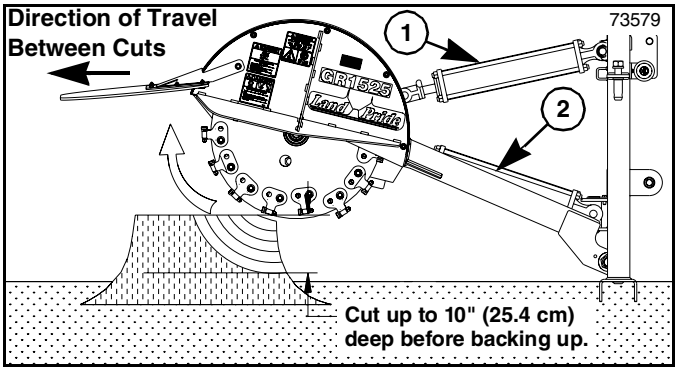
Start of First Cut
Figure 3-1

Refer to Figure 3-1:

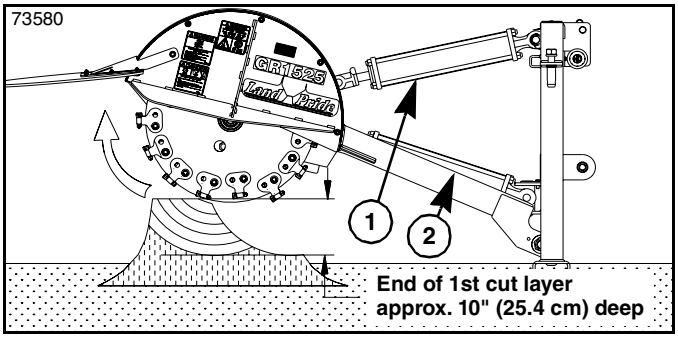
9. Slowly retract swing cylinder (#2) to make a cross cut across the top of the stump. Approximately 1" (2.5 cm) below the top of the stump if the stump is hard, and up to 4" (10 cm) if the wood is very soft or rotten.
10. Once the cutting wheel has made a full swing across the stump, extend lift cylinder (#1) to make another cut and start back across the stump.
11. Continue swinging the cutting wheel back and forth across the stump and extending the lift cylinder at the start of each new pass until depth of cut is around 10" (25.4 cm) deep in the stump.
12. Skip step 13 if stump is small enough to remove without repositioning the tractor.
13. Fully retract lift cylinder (#1), raise hitch up several inches, and drive tractor backward to a new location to continue removing chips from the stump.
14. Repeat steps 8-13 until top of stump has been completely removed to the 10" (25.4 cm) depth as shown in Figure 3-4.
15. Raise hitch up several inches and drive forward to reposition the cutting teeth just above the near side of remaining stump.
16. Repeat steps 8-15 until the stump has been removed approximately 10" (25.4 cm) below the ground as shown in Figure 3-5.



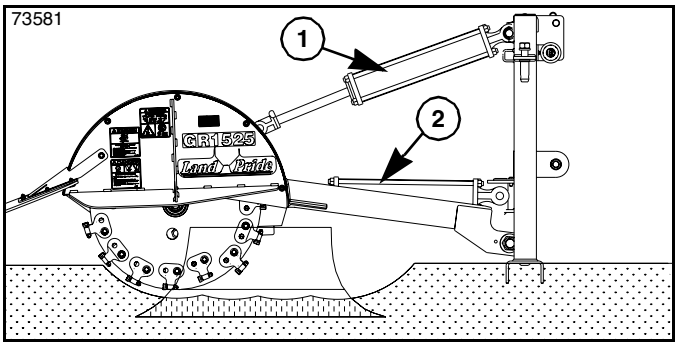
Position Cutting Wheel on Near Side of Stump
Figure 3-2



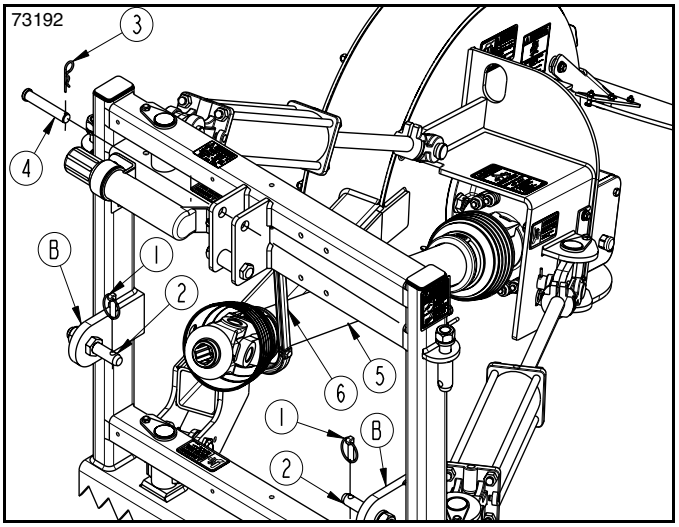
Start of First Cut (Approximately 1"-4" (2.5-10.2 cm)
Figure 3-3



End of 1st Layer
Approx. 10" (25.4 cm) Deep Across Top of Stump
Figure 3-4



End of Series of Layered Cuts
Approx. 10" (25.4 cm) Below Ground
Figure 3-5



Unhooking Stump Grinder (Cat. I shown)
Figure 3-6

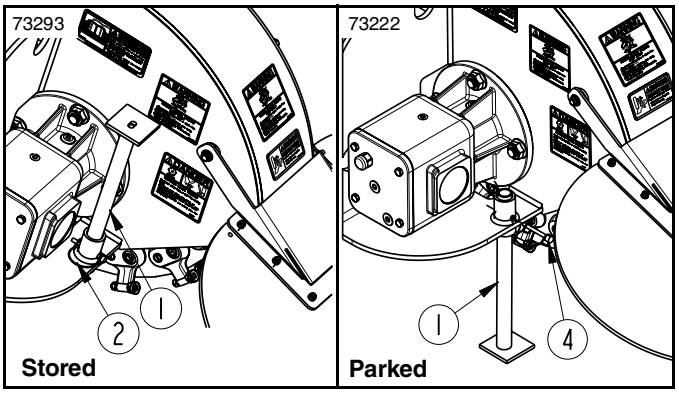
Unhook Stump Grinder

Refer to Figure 3-6:

1. Park tractor on a flat, level, solid surface, and lower grinder onto the surface.
2. Using the 3-point lift lever, raise grinder enough to install the park stand.
3. Without changing the 3-point lift height, shut tractor down according to **"Tractor Shutdown Procedure"** on page 11.

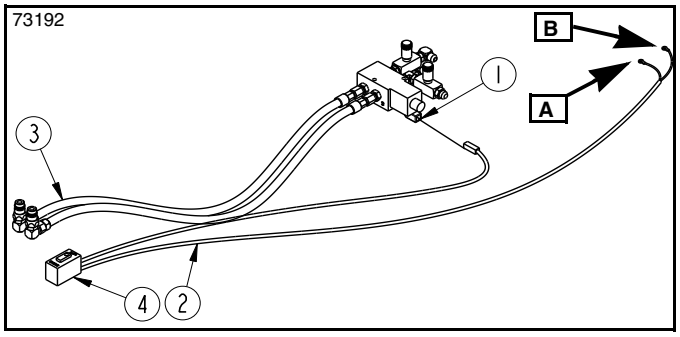
Refer to Figure 3-7:

4. Remove wire retaining pin (#2) and park stand (#1) from it's stored position. Flip park stand over and position as shown in parked position.
5. Reinsert wire retaining pin (#2).
6. Hook wire retainer over end of pin to secure.
7. Return to the tractor seat, start tractor and lower the grinder until the grinder is resting on the mainframe and park stand.



Parking Stand
Figure 3-7

8. Shut tractor down before dismounting. Refer to the **"Tractor Shutdown Procedure"** on page 11.
9. Pull back on the driveline pull collar and hold while pulling the driveline yoke from the tractor's power take-off shaft.
10. Support collapsed driveline off the ground by rotating driveline hook holder under driveline and letting driveline rest in J-hook for storage.



Disconnect Wire Harness
Figure 3-8

Refer to Figure 3-8:

11. If equipped with a **"Single Remote Bundle"**, disconnect wire harness (#2) as follows:
    a. Toggle rocker switch (#4) to "SWING" position.
    b. Disconnect negative (-) black ground cable from the tractor's battery.
    c. Disconnect negative (-) black wire eyelet (B) from the tractor.
    d. Disconnect positive (+) red wire eyelet (A) from the tractor's battery.
    e. Reconnect the tractor's negative (-) black cable to the negative post on the tractor's battery.
    f. Coil wire harness (#2) up and store with the grinder or disconnect wire harness from the solenoid (#1) and store wire harness in a dry location.
12. Disconnect hydraulic hoses (#3) from the tractor. Coil hoses up, and store on the grinder to keep couplings out of the dirt.

Refer to Figure 3-6:

13. If unhooking from a Quick Hitch, follow instructions in the Quick Hitch Operator's Manual. Otherwise, continue below.
14. Remove hitch pin keepers(#3) and clevis pin (#4).
15. Store top center 3-point link in the tractor holder.
16. Reinstall clevis pin (#4), and keeper (#3) in the upper clevis hitch for safe keeping.
17. Remove linchpins (#1).
18. Move tractor lower 3-point arms off of the Stump Grinder's lower 3-point hitch pins (#2). Return linchpins (#1) to hitch pins (#2) for safe keeping.
19. Return to the tractor and drive slowly away making sure tractor and lower 3-point arms are clear while pulling away.

General Operating Instructions

By now you should have familiarized yourself with the Operator's Manual for your model GR1525 Stump Grinder. If you have not done so, please do so now. We cannot over-stress the importance of reading and following the safety information and operating procedures that are spelled out in this Manual.

Proceed by getting onto the seat of your tractor and fastening your seat belt before starting your tractor. It won't take you long to learn how to use your new Land Pride Stump Grinder. It is also important to practice moving the cutting wheel up and down, and swinging the cutting wheel left and right until you have gained the confidence and skill needed to have a good feel in what you are doing.

It is now time for you to make a running operational check. Make certain that the tractor's transmission is in park or in neutral and the park brake set and the power take-off is disengaged. You should now start the engine and lower the 3-point until the Stump Grinder mainframe is fully seated on the ground. Next, lift the cutting wheel off the ground, back off the engine to approximately one-quarter throttle speed, and then engage power take-off. Never engage power take-off at full engine rpm. Damage to the Stump Grinder can occur. Next you should extend and retract the swing cylinder to move the cutting wheel left to right and right to left. Also extend and retract the lift cylinder to raise and lower the cutting wheel.

It is now time to start removing those unwanted stumps. If you have not already done so, have the site marked with flags to indicate where underground utilities run.

Before approaching the stump, fully retract the lift cylinder and move the cutting wheel fully to the left. With tractor engine at an idle, continue to back-up to the stump. Stop moving back once the cutting wheel is positioned on the left and near side of the stump. Once stopped, set park brake. Lower 3-point hitch down until Stump Grinder mainframe is firmly planted on the ground; and then extend the lift cylinder until the cutting wheel is just above the stump. It is time to raise the engine to full operating speed. Extend the swing cylinder to move the cutting wheel to the right. Extend the lift cylinder until the cutting teeth are below the top of the stump. Approximately 1" (2.5 cm) below if the stump is hard, and up to 4" (10 cm) if the wood is very soft or rotten.

You are now ready to begin chipping away at the stump. Slowly extend the swing cylinder to move the cutting wheel to the right as it removes pieces of wood from the top of the stump. Adjust corresponding needle valve so that with full hydraulic control lever engagement, the cutting wheel makes a smooth steady pass across the stump while grinding. Once the cutting wheel has passed across the top of the stump, lower the cutting wheel again and begin moving the cutting wheel back across the stump. Again, adjust the needle valve, so that the cutting wheel makes a smooth steady pass. At the end of each pass across the stump, lower the cutting wheel. Make another pass back across the stump until a layer of approximately 10" (25.4 cm) deep has been removed and/or you are ready to back-up to a new cutting position over the stump.

Before moving back, you should fully retract lift cylinder. Move cutting wheel fully to the left. Raise 3-point arms up several inches. Lower engine speed to an idle. Release park brake. Then back the Stump Grinder to a new location over the stump. After you have stopped moving, you should lower the 3-point lift arms until the mainframe is firmly planted on the ground. Reset the park brake. With park brake set, raise engine speed to full operating speed and begin chipping away at the stump as before until approximately 10" (25.4 cm) have been removed across the stump. You should repeat this process of cutting down the stump until the stump has been completely removed below the ground, up to a maximum depth of 10" (25.4 cm) below the ground.

With a little practice, you will find that you will quickly become very adept, handy, and skillful at using your Land Pride GR1525 Stump Grinder.

See **"Specifications & Capacities"** on page 35 and **"Features & Benefits"** on page 36 of your Operator's Manual for additional information.

Maintenance

Proper servicing and maintenance are key to the long life of any Stump Grinder. 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

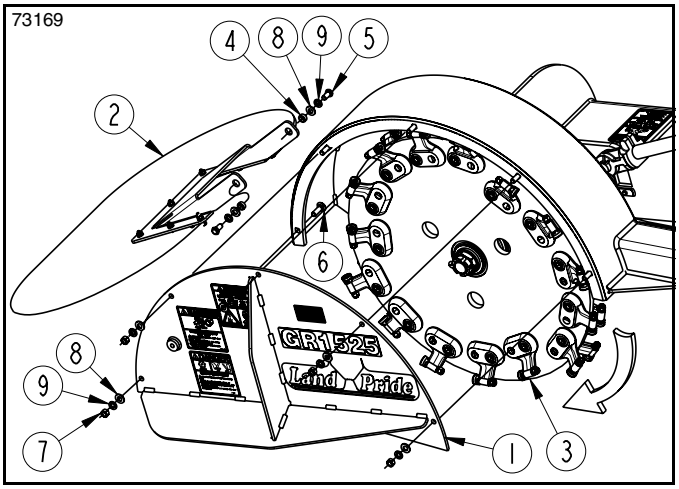
To avoid serious injury or death:

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 hydraulics is off.

WARNING

To avoid serious injury or death:

- *Always shut tractor down using "Tractor Shutdown Procedure" provided in this manual before servicing, adjusting, cleaning, or maintaining this implement.*
- *Make sure controls are all in neutral position or park before starting the power machine.*
- *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.*
- *Allow only persons to perform maintenance on this implement who have been properly trained in its safe operation.*
- *Before any lubrication or maintenance is performed, lower implement to ground, shut engine off, and remove ignition key. Do not attempt to lubricate 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.*



Remove & Install Cutting Wheel Guard
Figure 4-1

Cutting Wheel Maintenance

Access Cutting Wheel

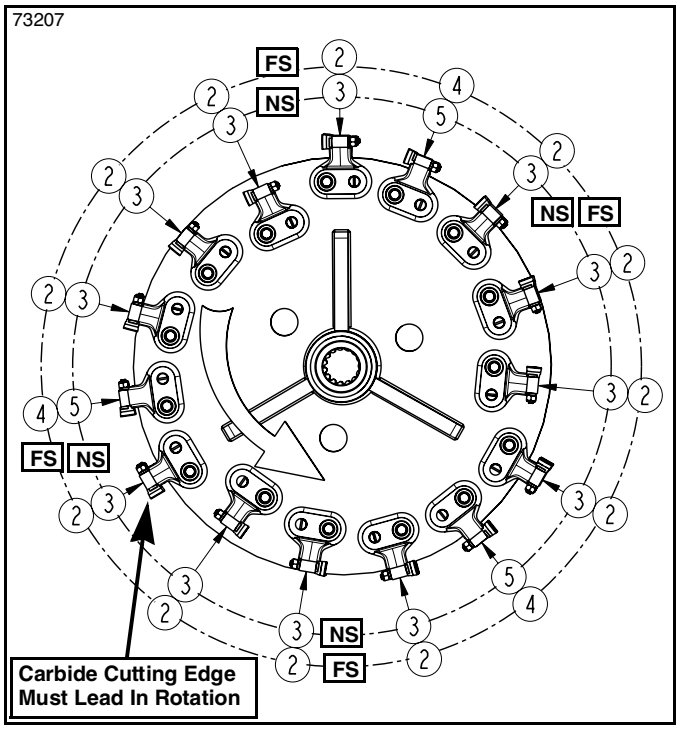
Refer to Figure 4-1:

1. Access cutting wheel by removing 3/8" bolts (#5), lock washers (#9), flat washers, (#8) guard bushings (#4), and deflector (#2).
2. Remove nuts (#7), lock washers (#9), and flat washers (#8). Do not remove carriage bolts (#6).

Carbide Teeth Configuration

NOTE: "Right-hand" and "left-hand" designation for the carbide teeth are determined by standing behind the tractor and Stump Grinder.

IMPORTANT: Make certain the teeth are mounted with the carbide cutting tip leading in rotation. Mounting a tooth backwards can cause the carbide tip to pull loose and damage the tooth.



Configuration of Carbide Teeth
Viewed From Left Side
Figure 4-2

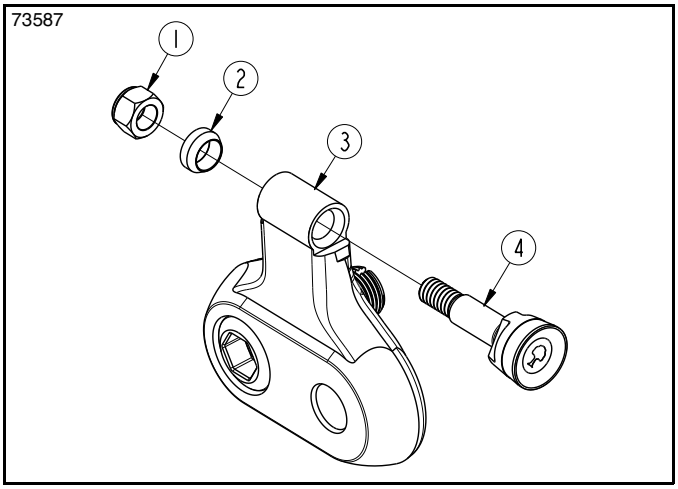
Refer to Figure 4-2:

The cutting wheel has 30 carbide cutting teeth.
Three are left-hand with straight teeth holders (#5).
Three are right-hand with straight teeth holders (#4).
Twelve are left-hand with bent teeth holders (#3).
Twelve are right-hand with bent teeth holders (#2).

IMPORTANT:
Carbide Cutting Edge Must Lead In Rotation.

The right-hand straight teeth (#4) are attached to the cutting wheel on the far side (FS) with a series of four bent teeth (#2) between the straight teeth.

The left-hand straight teeth (#5) are attached to the cutting wheel on the near side (NS) with a series of four bent teeth (#3) between the straight teeth.



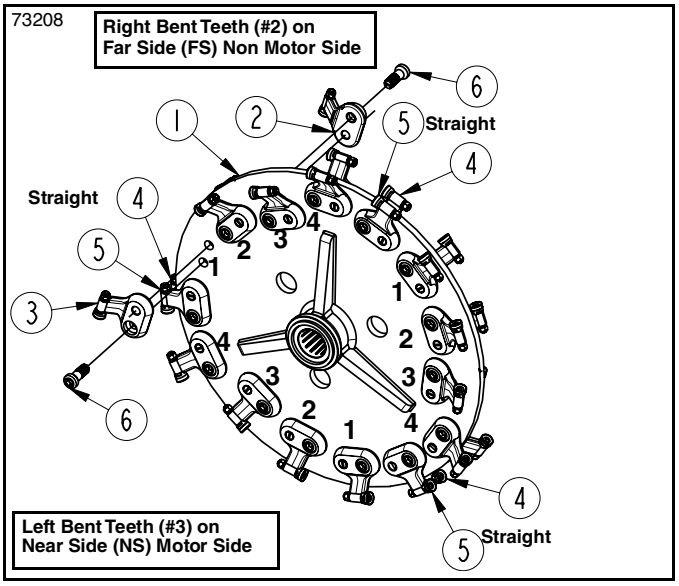
Straight Tooth Holder & Carbide Tooth
Figure 4-3

Carbide Teeth Maintenance

Refer to Figure 4-3:

The carbide teeth (#4) can be rotated two times before they need replacing. Once the upper third of the tooth becomes worn, rotate the tooth as follows:

1. Loosen carbide nut (#1) 3 or 4 full turns. Do not remove carbide nut.
2. Tap carbide tooth (#4) forward and rotate the head one-third of a turn to position a non-worn cutting edge up.
3. Tighten carbide nut (#1) to the correct torque for a 5/16-18 GR5 bolt.
4. Repeat steps 1-3 to rotate the tooth a second time.
5. Once all three outer thirds of the tooth are worn, replace the carbide tooth as follows:
   a. Remove carbide nut (#1) nut spacer (#2), and worn carbide tooth (#4) from the tooth holder (#3).
   b. Inspect carbide nut (#1) and nut spacer (#2) for wear. Replace nut and spacer as needed.
   c. Insert new carbide tooth (#4) in tooth holder (#3). Make sure the cutting edge is leading in rotation.
   d. Install tapered end of nut spacer (#2) leading in rotation as shown and secure with carbide nut (#1). Tighten nut to the correct torque for a 5/16-18 GR5 bolt.



Replace Tooth Holder Assembly
Viewed From Motor Side
Figure 4-4

Tooth Holder Assembly

Refer to Figure 4-4:

1. Loosen the two hex socket cap screws (#6). Remove tooth assemblies (#2 & #3) and replace with new assemblies (#2 & #3).
2. Tighten hex socket cap screws (#6) to the torque value provided under **"Additional Torque Values"** on page 38.
3. Repeat steps 3-4 to replace other damaged tooth assemblies.

Replace Wheel Guards

Refer to* "Figure 4-1" *on page 28

4. Install cutting wheel guard (#1) over carriage bolts (#6). Secure cover with flat washers (#8), lock washers (#9), and nuts (#7).Tighten nuts to the correct torque for 3/8"-16 GR5 bolts.
5. Attach deflector (#2) to the Stump Grinder, using 3/8" hex bolts (#5), lock washers (#9), flat washers (#8), and guard bushing (#4). Tighten bolts to the correct torque for 3/8"-16 GR5 bolts.

Slip Clutch Maintenance

Refer to Figure 4-5:

CAUTION

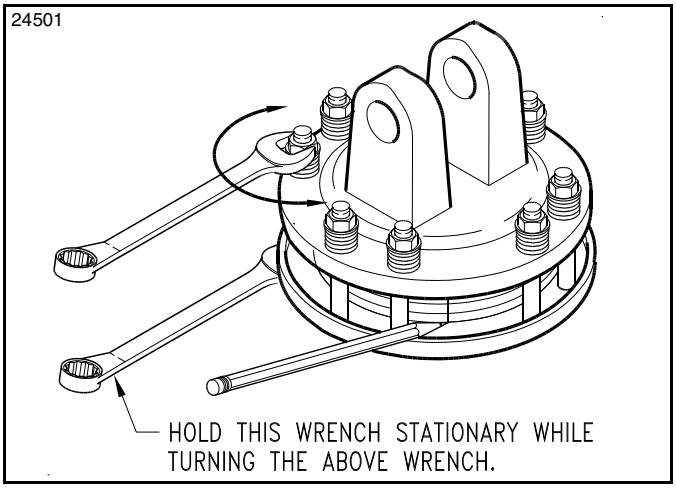
To prevent serious injury:

Slip clutches that have been in use or have been slipped for only two or three seconds during run-in may be too hot to touch. Allow a hot clutch to cool before working on it.

The Stump Grinder drive components are protected from shock loads by a friction slip clutch. The clutch must be capable of slippage during operation to protect the gearbox, driveline, and other drive train parts. 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.

Slip Clutch

Follow clutch run-in and assembly instructions below, shown in Figure 4-5.



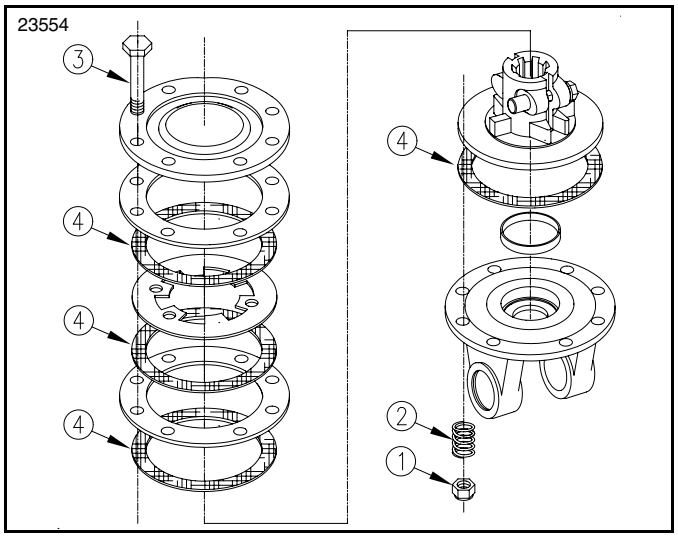
Slip Clutch Run-In
Figure 4-5

Clutch Run-In

Refer to Figure 4-5:

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

4. 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 disc and plate are still aligned. A clutch that has not slipped must be disassembled to separate the friction disc plates. See **"Clutch Assembly and Disassembly"** on this page.
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 cutting and periodically each week. An additional set of scribe marks can be added to check for slippage. See Figure 4-7 to adjust spring length.



Clutch Disassembly
Figure 4-6

Clutch Assembly and Disassembly

Disassembly

Refer to Figure 4-6:

IMPORTANT: Refer to Figure 4-7. Be Sure to measure and record length ("A") of each spring before disassembling the clutch.

See **"IMPORTANT NOTE"** above before disassembling 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. Refer to the Parts Manual for a detailed parts breakdown.

Inspection

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

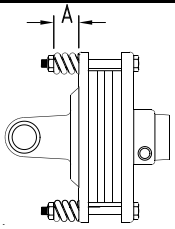
Assembly

Refer to Figure 4-6:

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

Refer to Figure 4-7:

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



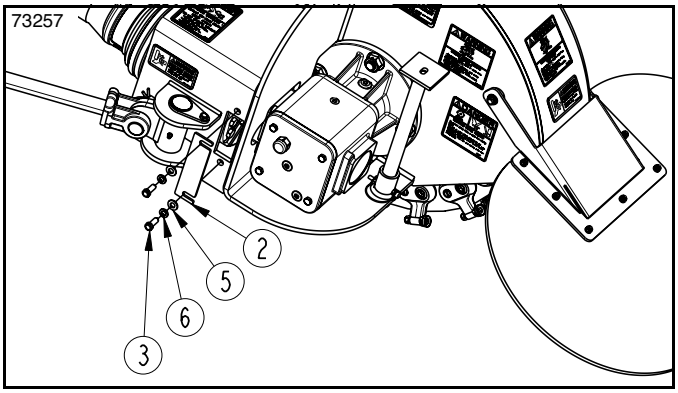
A = Measured length of each spring before disassembling slip clutch.

Use "A" dimension in table below if measurements were not taken before disassembling slip clutch.

24600

Model No.	Driveline No.	Power Take-Off Speed	Cat No.	"A" dim. inches (mm) Spring Height
GR1525	826-673C	540	4	1.319" (34 mm)

Clutch Adjustment
Figure 4-7



Removing the Cover Plate
Figure 4-8

Driveline Access

Refer to Figure 4-8:

1. To access the driveline bolts, remove 3/8" x 1" bolts (#2), lock washers (#4), and flat washers (#3), and cover (#1).

Long-Term Storage

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

DANGER

To avoid serious injury or death:

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

WARNING

To avoid serious injury or death:

- *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.*
- *Always shut tractor down using "Tractor Shutdown Procedure" provided in this manual before servicing, adjusting, cleaning, or maintaining this implement.*

1. Clean off any dirt and grease that may have accumulated on the Stump Grinder. Scrape off compacted dirt and then wash its surface thoroughly with a garden hose.
2. Inspect Stump Grinder for loose, damaged, or worn parts and adjust or replace when needed.
3. Check cutting teeth and mounts for loose hardware and wear. Replace teeth and/or teeth assemblies as needed.
4. Repaint parts where paint is worn or scratched to prevent rust. Ask your Land Pride dealer for aerosol touch-up paint. Paint is also available in touch-up bottles with brush, quarts, and gallon sizes by adding TU, QT, or GL to the end of the aerosol part number.

Land Pride Touch-up Paint

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

5. Replace all damaged or missing guards & decals.
6. Lubricate as noted in **"Lubrication Points"** starting on page 33.
7. A light coat of oil or grease may be applied to the cutting wheel and to any exposed hydraulic cylinder rods to minimize oxidation.
8. Store grinder on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer Stump Grinder life.
9. Do not allow children to play on or around the stored Stump Grinder.
10. Follow **"Unhook Stump Grinder"** on page 26 when disconnecting the unit from a tractor.

Lubrication Points

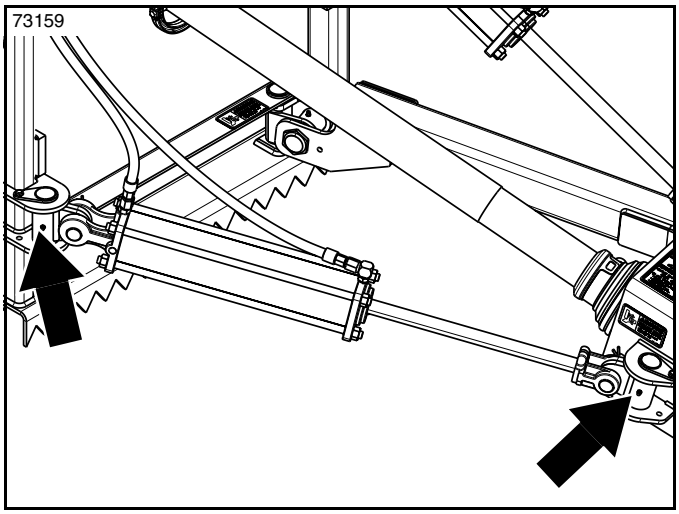
Lubrication Legend

Multi-purpose spray lube

Multi-purpose grease lube

Multi-purpose oil lube

50 Hrs — Intervals in hours at which lubrication is required



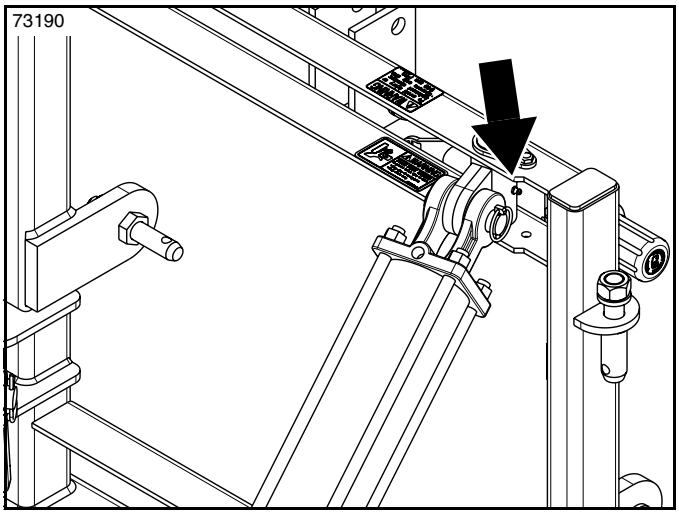
10 Hrs

Articulate Pivot Point

2- Zerks

Type of Lubrication: Multi-purpose grease

Quantity = As required (make sure grease is visible)



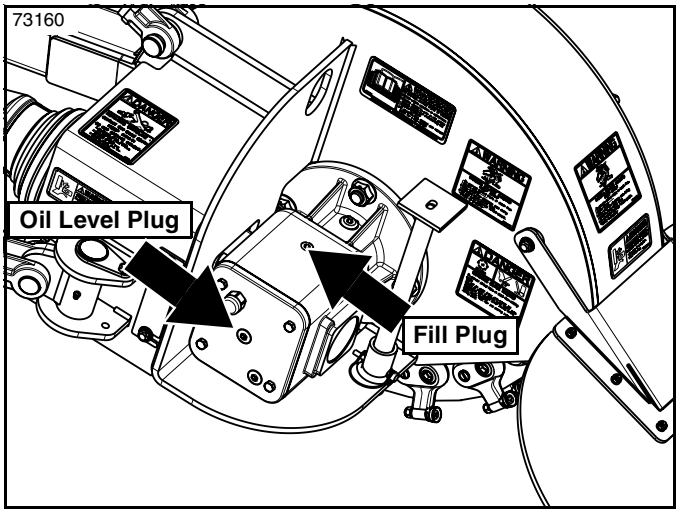
10 Hrs

Tilt Pivot Point

1- Zerk

Type of Lubrication: Multi-purpose grease

Quantity = As required (make sure grease is visible)



50 Hours

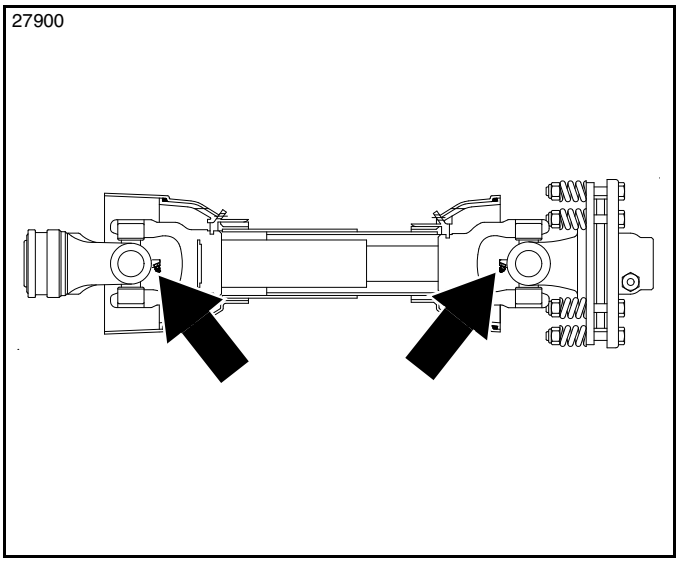
Gearbox Lubrication

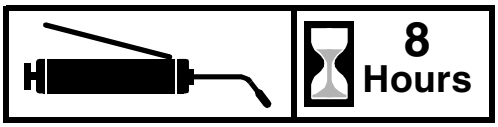
The stump grinder is shipped without oil in the gearbox. Check oil level before first use and every 50 hours thereafter. Allow time for the oil to cool before checking.

Check oil level with swing arm horizontal and level. Remove oil level plug. Oil should be level with bottom of oil level port. If not, remove fill plug and add gear lube until oil begins to flow out of the level port. Do not overfill. When finished, replace and tighten removed plugs.

Type of Lubrication: SAE 90W gear lube

Quantity: 1 1/2 pints (0.7 L)

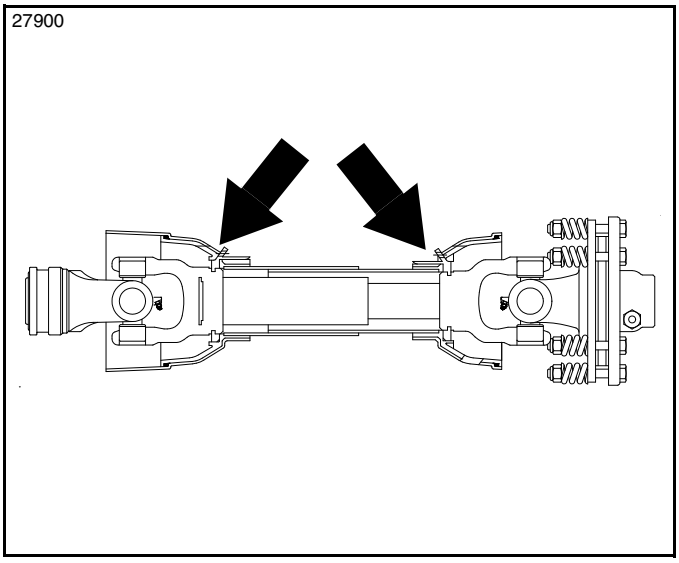


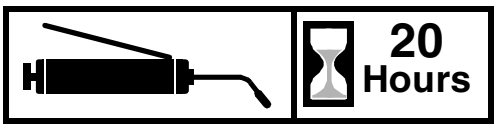


Driveline U-Joints

Grease pivot point every 8 hours
Two grease zerks

Type of Lubrication: Multi-purpose grease
Quantity: 6 pumps

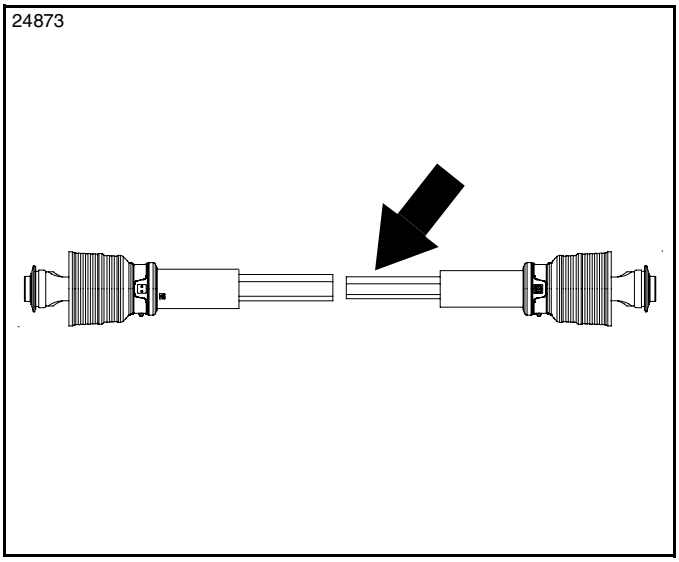


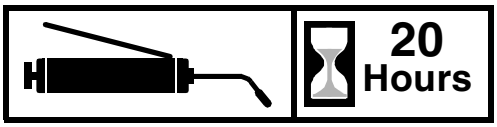


Driveline Inner Tube Bearings

Grease inner tube bearings every 20 hours
Two grease zerks

Type of Lubrication: Multi-purpose grease
Quantity: As required





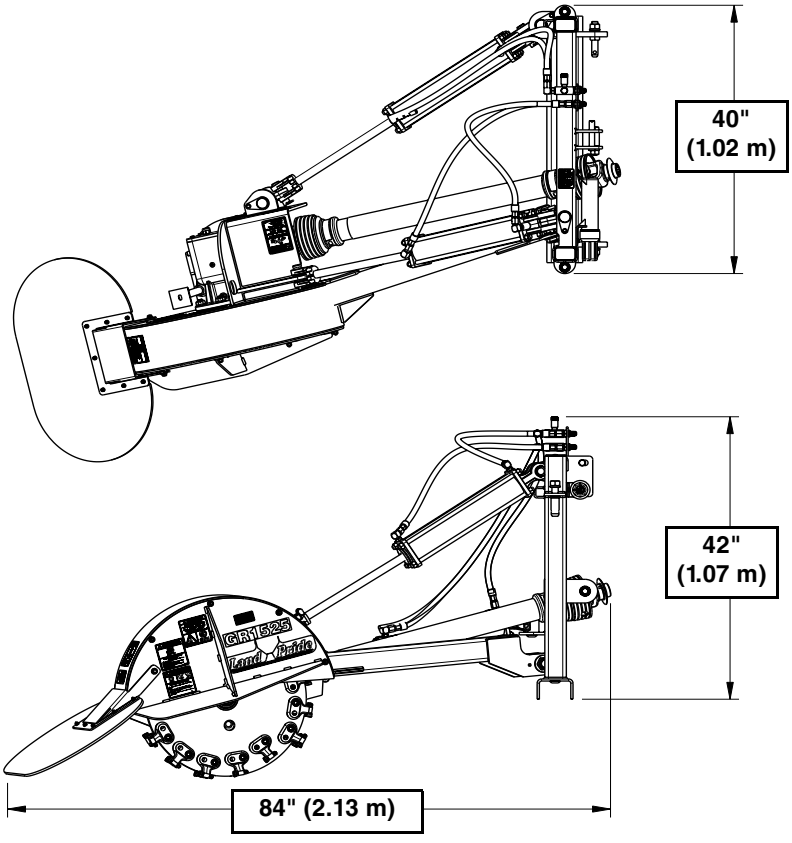
Driveline Profiles

Grease all driveline profiles every 20 hours

Type of Lubrication: Multi-purpose grease
Quantity: As required

GR1525 Model

List	Specifications & Capacities
Main Frame	6" x 6" Tube
Overall Mounting Width	40" (1.02 m)
Overall Length	84" (2.13 m)
Overall Weight	540 lbs (245 lg)
Drive and Control System	Power take-off and gearbox
Gearbox oil capacity and type	1 1/2 pints (.7 L) of SAE 90W gear lube
Hydraulic Requirements	1 or 2 Hydraulic duplex outlets
Articulate Cylinder	3.5" x 16" stroke with 1 1/4" rod dia.
Tilt Cylinder	3.5" x 16" stroke with 1 1/4" rod dia.
Hydraulic Lines & Hoses	3/4" I.D. hydraulic hoses with crimp on cordura sleeve
Number of Cutting Teeth **Straight** **Left-Hand** **Right-Hand**	6 - Replaceable carbide teeth 12 - Replaceable carbide teeth 12 - Replaceable carbide teeth
Cutting Wheel Speed	1050 rpm
Cutting Arc	35 Degrees
Maximum Cutting Depth Below Ground	10" (25.4 cm)
Greasable Hinge Points	Yes
Color	Orange
Outside Cutting Wheel Diameter	24" (61 cm)
Cutting Wheel Thickness	1/2" (13 mm)



GR1525 Model

Features	Benefits
Quick Hitch compatible	For quick and easy attachment.
10" (25.4 cm) Digging depth	A good depth below the ground. Removes base of most trees.
Pivoting discharge deflector	Discharge deflector pivots up allowing cutting wheel to grind below the ground.
High speed cutting wheel	Cuts faster with less vibration.
Permanent hose holders	Hoses aren't zip-tied to the frame. Zip ties can break over time.
Replaceable carbide cutting teeth	Cutting teeth can be rotated two times before they need replacing. Cutting teeth are easy to replace. Carbide tips for extra long life.
Hydraulic hose lines	Hydraulic hoses absorb shock. Steel hydraulic lines crack from vibration.
Commercial grade gearbox	Durability with 2yr warranty.
Cutting wheel designed with wheel puller access holes	Makes it easier to pull the cutting wheel off of the motor spindle.
Attached rain tight manual holding tube	Keeps manual with Stump Grinder for quick easy access. Manual won't get wet.
Offset articulating arm	Allow for optimum line-of-sight from the operator's seat.
Slip clutch driveline	To protect the gearbox and driveline when coming in contact with something solid.
Cat. I or Cat. II hook-up	Allows different tractor set-up.

Troubleshooting Chart

Problem	Cause	Solution
Digging into electrical, gas, water, and cable lines	Not locating utility lines before digging.	Call Dig Safe (811). Have utility companies flag location of underground utilities before digging.
Carbide cutting tips on end of teeth are missing	Cutting teeth are installed on the cutting wheel backwards.	Replace teeth with missing carbide tips. Install teeth with carbide tips leading.
Cutting wheel turns too slow	Not operating power take-off at 540 rpm.	Increase power take-off speed to 540 rpm before starting cut.
Cutting wheel won't turn	Not operating power take-off at 540 rpm.	Increase power take-off speed to 540 rpm before starting cut.
	Power take-off is not engaged.	Engage power take-off.
	Slip clutch is slipping.	Tighten clutch springs to the correct length. Do not over tighten. If spring length is correct, replace slip clutch disks.
Cutting wheel stops turning	Making deep cuts in the stump.	Make shallower cuts in the stump.
	Stump is made of a very hard wood or has hardened with age.	Take smaller bites out of the stump and go slower while articulating the cutting head across the top of the stump.
	Cutting teeth are installed backwards.	Turn cutting teeth around.
	Carbide tips are dull.	Rotate carbide tips one-third of a turn. If teeth are dull all around the circumference, replace teeth with new teeth.
	Slip clutch is slipping.	Tighten clutch springs to the correct length. Do not over tighten. If spring length is correct, replace slip clutch disks.
	Carbide tips are missing.	Replace missing tips with new tips.
Hydraulic hoses are stretched and/or damaged	Hydraulic hoses are catching on tree limbs, debris, or other solid objects.	Replace hydraulic hoses. Stay away from objects that can catch on hydraulic hoses. Stop immediately if hoses are catching on an object and remove object. If helpful, readjust hose routing.
	Hoses are too short.	Make longer hoses.
Hydraulic fittings are damaged	Hydraulic hoses are catching on tree limbs, debris, or other solid objects causing fittings to become damaged.	Replace hydraulic fittings. Stay away from objects that can catch on hydraulic hoses. Stop immediately if hoses are catching. If helpful, readjust hose routing.
Stump Grinder vibrates excessively	Solenoid needle valves not adjusted properly.	Adjust solenoid needle valves.
	Backing up while making a cut.	Don't move tractor while making a cut. If available, set tractor park brake.
	Making deep cuts in the stump.	Make shallower cuts in the stump.

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

Rotor Wheel Hub Nut M30 x 2 Class 8.8	550 ft-lb (745 N · m) minimum
Tooth Mounting Bolts 5/8"-13 UNF GR 8	200 ft-lb (271 N · m)

Warranty

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

Overall Unit: One year Parts and Labor

Hydraulic Cylinders: One year Parts and Labor;

Rotor: One year Parts and Labor

Carbide Teeth: Considered wear items

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

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

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

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

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

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

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

Model Number _____ **Serial Number** _____

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