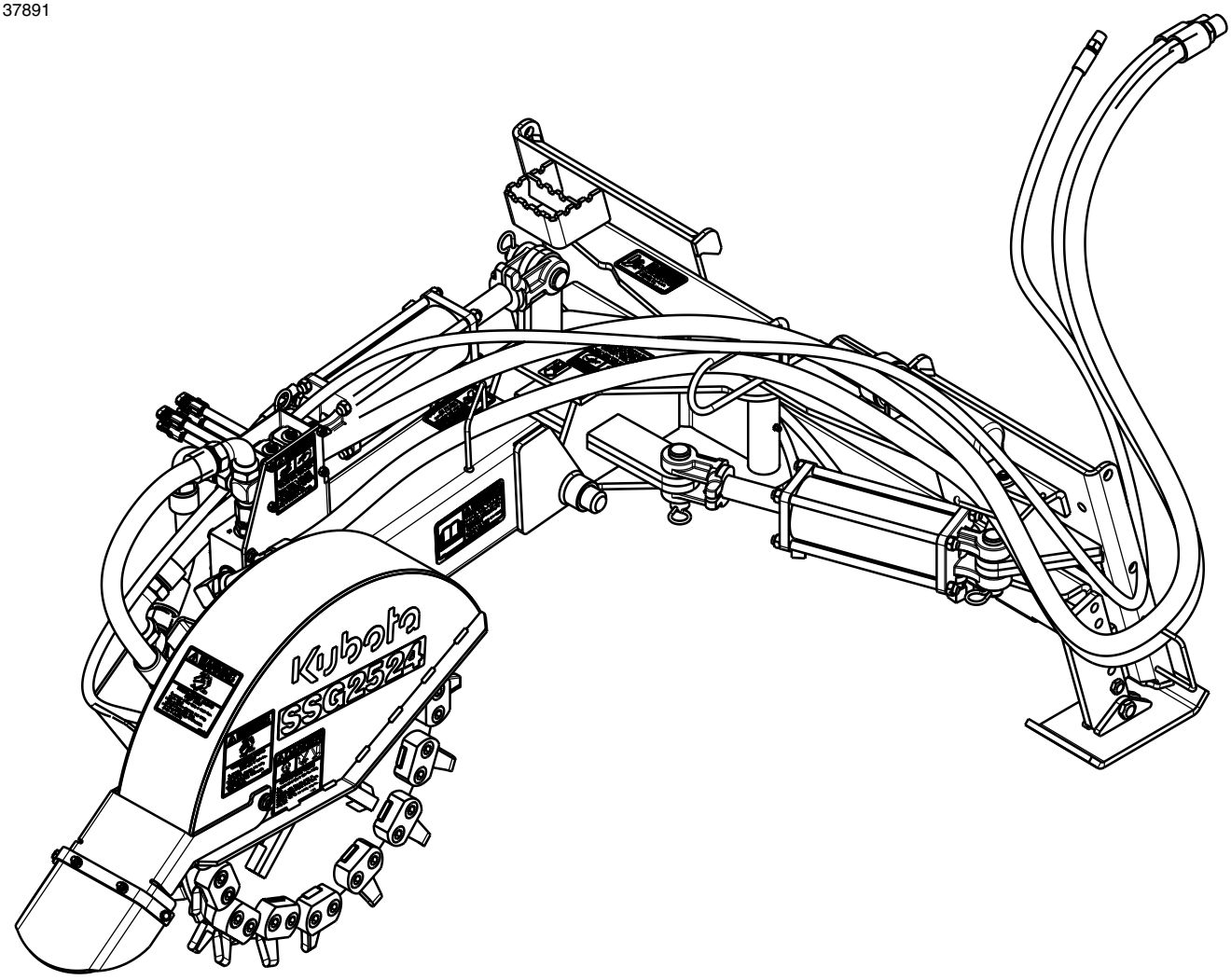
Table of Contents

Stump Grinder

AP-SSG2524

37891



328-215MK
Operator's Manual

Kubota®

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 Kubota dealer.

Printed 2/27/24

Machine Identification

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

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

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

Dealer Contact Information

Name: _____

Street: _____

City/State: _____

Telephone: _____

Email: _____

California Proposition 65

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

Important Safety Information 1
Safety at All Times 1
Look for the Safety Alert Symbol 1
Safety Labels 6
Introduction 9
Application 9
Using This Manual 9
Terminology 9
Owner Assistance 9
Serial Number 9
Further Assistance 9
Section 1: Assembly & Set-up 10
Skid Steer Requirements 10
Torque Requirements 10
Before You Start 10
Skid Steer Shutdown Procedure 10
Customer Supplied Quick Couplers 10
Skid Steer Hook-up 11
Hydraulic Hose Hook-up 11
Solenoid Hook-up 12
Check Equipment Clearances 13
Section 2: Adjustments 14
Skid Shoe Adjustment 14
Section 3: Operating Procedures 15
Operating Checklist 15
General Inspection 15
Operating Safety 15
Transport Safety 16
Stump Grinder Operation 17
Unhooking the Stump Grinder 18
General Operating Instructions 19
Section 4: Options 20
Electrical Control Harness (Optional) 20
Control Harness With Deutsch 14 Pin Plug 20
Control Harness With Deutsch 2 Pin Plug 21
Assembly Instructions 22
Initial Preparations 22
Mount Control Box (#2) in Cab 22
Connect to Power 22
Route Wire Harness (#3) 22
Hook-up Solenoid Harness (#4) 23
Control Harness With 2 Eyelets 25
Initial Preparations 25
Route Wire Harness (#1) 26
Route Harness (#1) Along Loader Arm 26
Rout Harness (#1) into Engine Room 27
Route Harness (#2) & Power Cord (#3) 27
Route Harnesses (#2 & #3) Through the Cab . . 27
Route Harness (#2) to Engine Room 28
Route Power Cord (#3) to Engine Room 28
Mount Control Box (#6) in Cab 28
Hook-up Solenoid Harness (#4) 30
CTL/SS Coupler 30
Flat Face Couplers 30
Section 5: Maintenance & Lubrication 31
Maintenance 31
Skid Steer Maintenance 31
Cutting Wheel Maintenance 31
Long-Term Storage 32
Lubrication Points 33
Articulate Pivot Point 33
Tilt Pivot Point 33
Section 6: Specifications & Capacities 34
Section 7: Features & Benefits 35
Section 8: Troubleshooting 36
Section 9: Torque Values Chart 37
Section 10: Warranty & Legal Disclaimer . . . 38

© Copyright 2021 All rights Reserved

Kubota provides this publication “as is” without warranty of any kind, either expressed or implied. While every precaution has been taken in the preparation of this manual, Kubota assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Kubota reserves the right to revise and improve its products as it sees fit. This publication describes the state of this product at the time of its publication, and may not reflect the product in the future.

Kubota is a registered trademark.

All other brands and product names are trademarks or registered trademarks of their respective holders.

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 Kubota 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 before operating the power machine and this attachment.

- ▲ Thoroughly read and understand the “Safety Label” section. Read all instructions noted on them.
- ▲ Do not operate the equipment while under the influence of drugs or alcohol, as they impair your ability to safely and properly operate the equipment.
- ▲ Operator should be familiar with all functions of the skid steer and attachment 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 attachment.
- ▲ Keep all bystanders away from equipment and work area.
- ▲ Start skid steer from the driver’s seat with steering levers and hydraulic controls in neutral.
- ▲ Operate skid steer and controls from the driver’s seat only.
- ▲ Never dismount from a moving skid steer or leave the skid steer unattended with the engine running.
- ▲ Do not allow anyone to stand between the attachment and skid steer while connecting to the attachment.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ While transporting and operating equipment, watch out for objects overhead and along the sides such as fences, trees, buildings, wires, etc.
- ▲ Store attachment in an area where children normally do not play. When needed, secure attachment against falling with support blocks.

Look for the Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety 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.

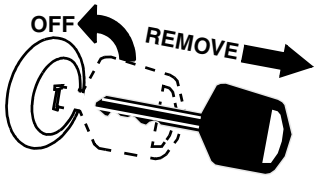
Safety Precautions for Children

Tragedy can occur if the operator is not alert to the presence of children. Children generally are attracted to attachments 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 attachment and skid steer/track loader down if children enter the work area.
- ▲ Never carry children on the power machine or attachment. 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 attachment.
- ▲ Use extra caution when backing up. Before the power machine starts to move, look down and behind to make sure the area is clear.

Skid Steer Shutdown And Storage

- ▲ Reduce engine speed and shut-off all power to the attachment.
- ▲ Park on solid, level ground and lower attachment until it is flat on the ground or on non-concrete support blocks.
- ▲ Turn off engine. Do not remove ignition key at this time.
- ▲ Turn ignition key to the “RUN” position. Relieve all hydraulic pressure by moving both joysticks.
- ▲ Turn ignition key to Off and remove to prevent unauthorized starting.
- ▲ If included, raise seat bar and move controls until both lock.
- ▲ 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 skid steer.



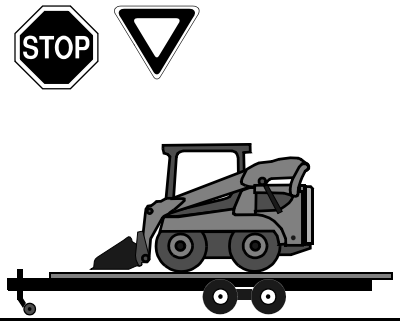
Listed below are common practices that may or may not be applicable to the products described in this manual.

Dig Safe - Avoid Underground Utilities

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

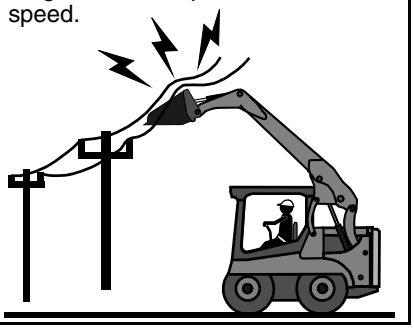
Towing Safely

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



Transport Safely

- ▲ Comply with federal, state, and local laws.
- ▲ Avoid contact with any overhead utility lines or electrically charged conductors.
- ▲ Always drive with attachment on the end of the loader arms low to the ground.
- ▲ Follow recommendations in the power machine Operator's Manual when driving uphill or downhill and when parking on an incline.
- ▲ Never travel at a speed which does not allow adequate control of the load, steering, and stopping. Some rough terrains require a slower speed.

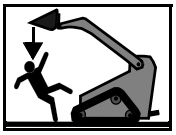


Tire Safety

- ▲ 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 attachment 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

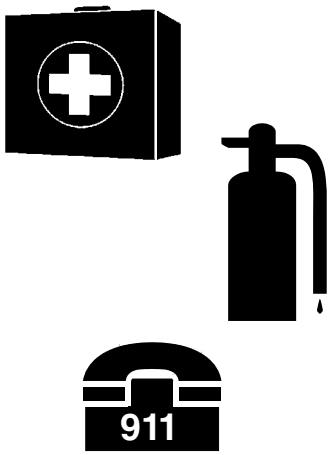
- ▲ Understand procedure before doing work. Refer to the Operator's Manual for additional information.
- ▲ Work on a level surface in a clean dry area that is well-lit.
- ▲ Lower attachment to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- ▲ 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 equipment.
- ▲ Inspect all parts. Make certain that parts are in good condition & installed properly.
- ▲ Replace parts on this attachment with genuine Kubota parts only. Do not alter this attachment in a way which will adversely affect its performance.
- ▲ Do not grease or oil attachment 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 attachment are properly collected and disposed.
- ▲ Remove all tools and unused parts from the equipment before operation.



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

Prepare for Emergencies

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



Wear Personal Protective Equipment (PPE)

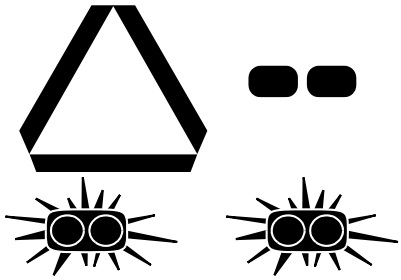
- ▲ Wear protective clothing and equipment appropriate for the job such as safety shoes, safety, glasses, hard hat, dust mask, and ear plugs.
- ▲ Clothing should fit snug without fringes and pull strings to avoid entanglement with moving parts.
- ▲ Prolonged exposure to loud noise can cause hearing impairment 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 cardboard or wood, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ **DO NOT DELAY.** If an accident occurs, seek immediate emergency medical care or gangrene may result.

Use Safety Lights and Devices

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



Use Seat Belt and ROPS

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

Keep Riders Off Machinery

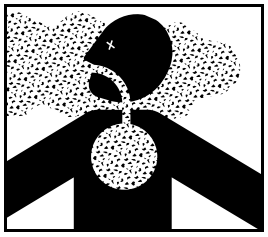
- ▲ Never carry riders on the power machine or attachment.
- ▲ Riders obstruct operator's view and interfere with the control of the power machine.
- ▲ Riders can be struck by objects or thrown from the equipment.
- ▲ Never use the power machine or attachment to lift or transport riders.

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

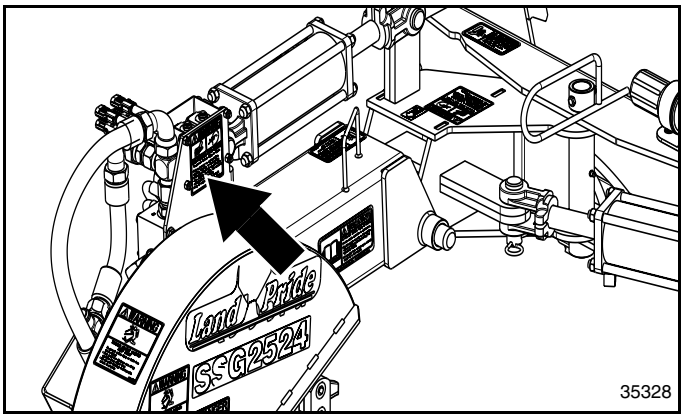
- ▲ Protective clothing should be worn.
- ▲ Handle all chemicals with care.
- ▲ Follow instructions on container label.
- ▲ Agricultural chemicals can be dangerous. Improper use can seriously injure persons, animals, plants, soil, and property.
- ▲ Inhaling smoke from any type of chemical fire can be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

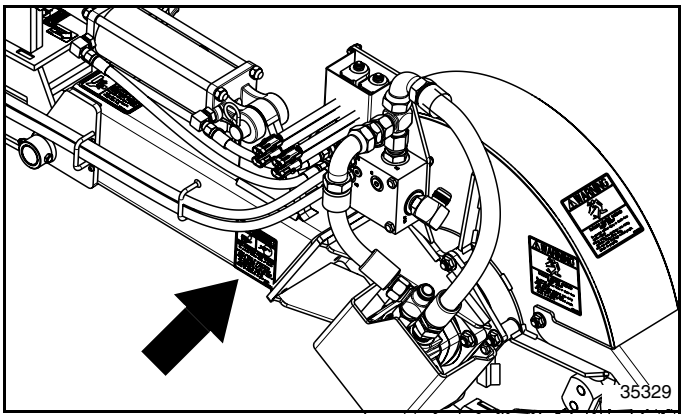
This page left blank intentionally.

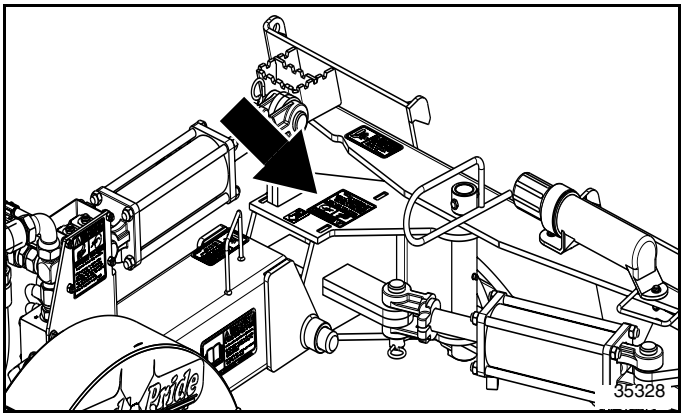
Safety Labels

Your Stump Grinder comes equipped with all safety labels in place. They are designed to help you safely operate your attachment. 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 Kubota 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 Kubota. 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.*

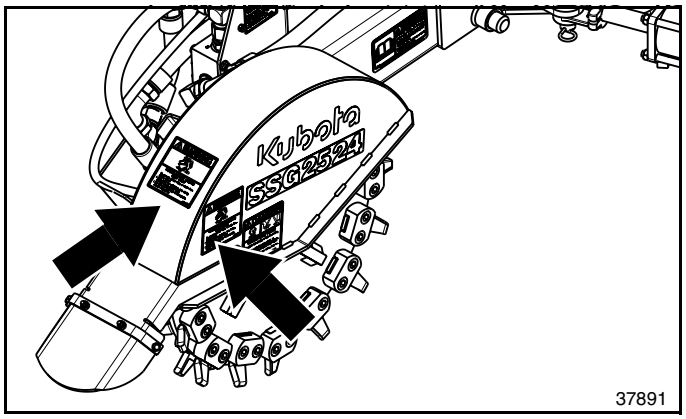


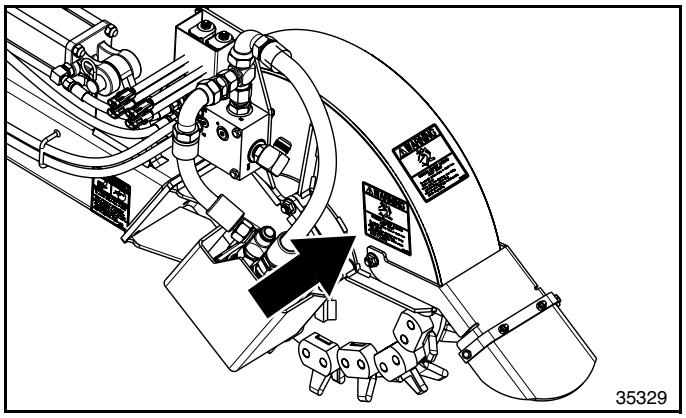




70372

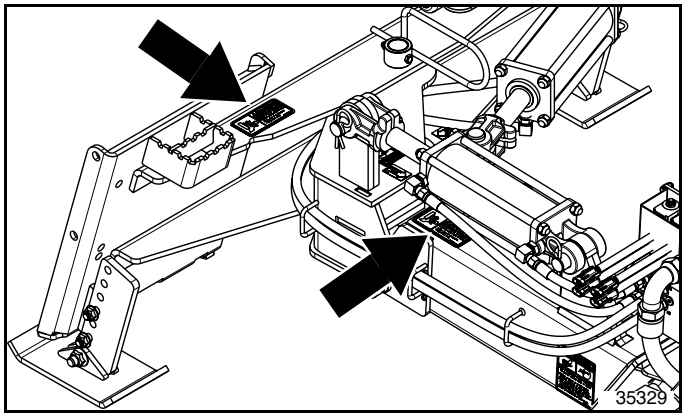
818-339C
Warning: High Pressure Fluid Hazard
3 Places





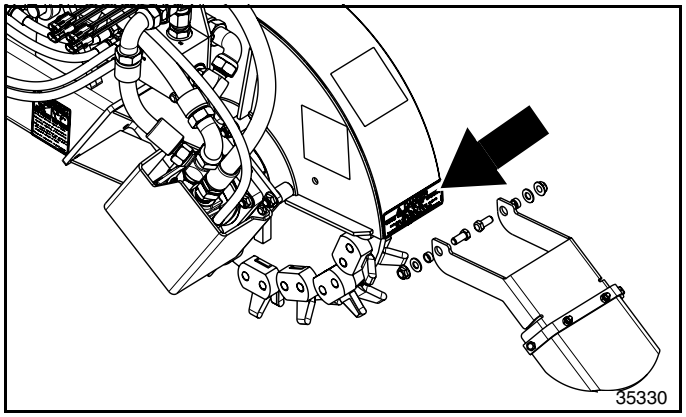
72926

838-107C
Warning: Thrown Object Hazard
3 Places



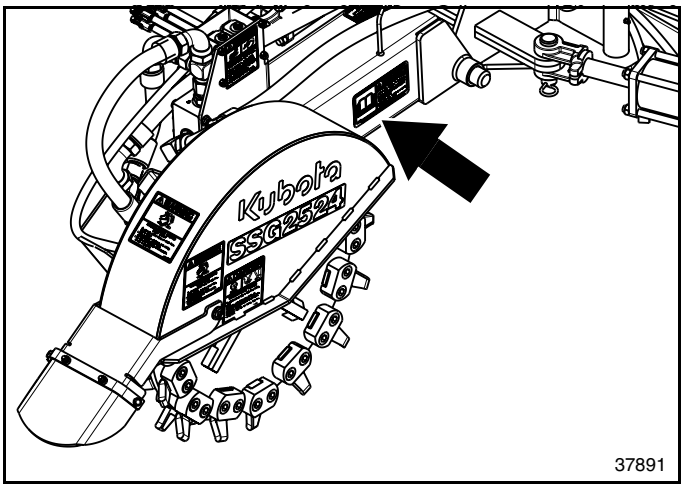
70369

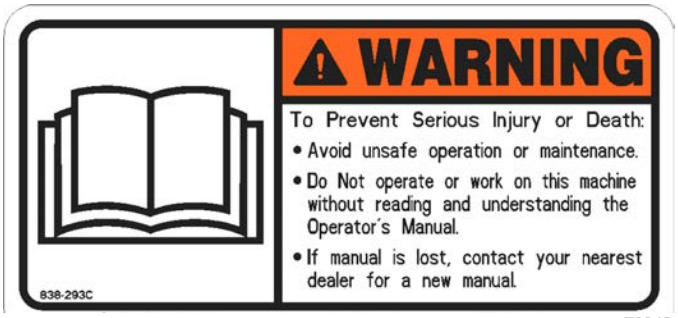
818-798C
Warning: Pinch Point Hazard
2 Places



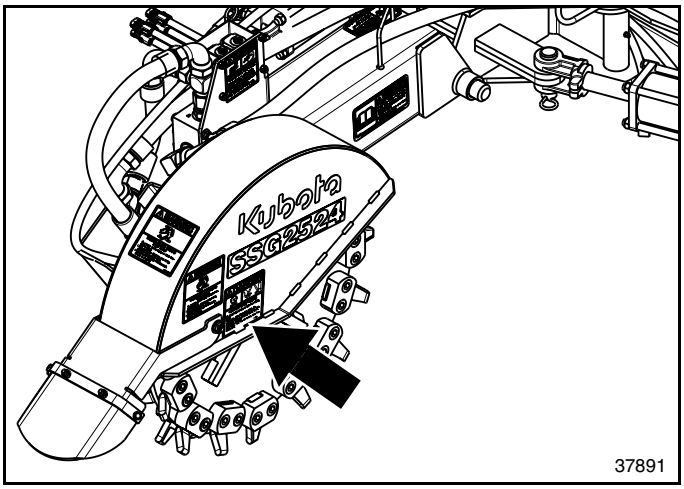
70252

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





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



838-295C
Danger: Rotating Blade Hazard
1 Place

Kubota 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 attachment.

Application

The Kubota SSG2524 Stump Grinder has uses and applications with contractors, landscapers, and forestry departments. Skid steer mounted, this Stump Grinder turns large stumps into small chips.

It features durable carbide teeth mounted to a 1/2" (13 mm) cutting wheel that spins up to 1,100 rpm. Fully controllable from inside the cab, this unit has a maximum cutting arc of 55 degrees and depth of 8" (20.3 cm) below ground.

For additional information and performance enhancing options, see "**Specifications & Capacities**" on page 19 and "**Features & Benefits**" on page 20.

Using This Manual

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

Terminology

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

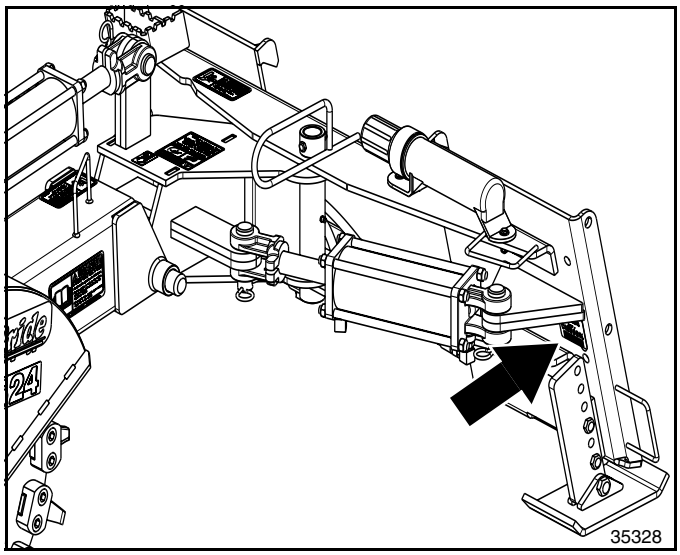
Owner Assistance

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

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

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 Kubota dealer. For location of your serial number plate, see Figure 1.



Serial Number Plate Location
Figure 1

Further Assistance

Your Kubota dealer wants you to be satisfied with your 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 attachment 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:

Kubota by Land Pride
Service Department

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

E-mail address
lpservicedept@landpride.com

Skid Steer Requirements

The Stump Grinder is designed to attach to a universal quick attach mounting system. Consult the skid steer Operator's Manual for operating capacity, lifting capacity, and operating specifications. They will vary from unit to unit. Do not exceed the rated capacities and specifications of the skid steer.

WARNING

To avoid serious injury or death:

Lightweight power machines may need weight added to the rear to maintain steering control and prevent forward and/or side tipping. Consult your power machine Operator's Manual to determine proper weight requirements and maximum limitations.

Torque Requirements

Refer to **"Torque Values Chart"** on page 37 to determine correct torque values when tightening hardware.

Before You Start

Make sure that the intended skid steer conforms to the requirements provided on this page. Also, read and understand this Operator's Manual for your Stump Grinder. An understanding of how it works will aid in its assembly and set-up.

The Stump Grinder is shipped fully assembled except for the optional quick disconnect hose couplers and wire harness. See **"Section 4: Options"** on page 20 for detailed descriptions of options.

Go through the **Pre-Assembly Checklist** before preparing the Stump Grinder for field use. To speed up your set-up task and make the job safer, have all needed parts and equipment readily at hand.

Pre-Assembly Checklist

✔	Check	Reference
☐	Make sure all major components and loose parts are shipped with the attachment.	Assembly & Set-up
☐	Double check to make sure all parts, fasteners, and pins are installed in the correct location. 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 328-215MK Parts Manual 328-215PK
☐	Make sure working parts move freely, bolts are tight & cotter pins are spread.	Operator's Manual
☐	Make sure all grease fittings are in place and lubricated.	Page 33
☐	Make sure all safety labels are correctly located and legible. Replace if damaged.	Page 6

Skid Steer Shutdown Procedure

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

1. Reduce engine speed and shut-off all power to the attachment.
2. Park on solid, level ground and lower attachment until it is flat on the ground or on non-concrete support blocks.
3. Turn off engine. Do not remove ignition key at this time.Relieve all hydraulic pressure to auxiliary hydraulic lines.
4. Turn ignition key to the "RUN" position and relieve all hydraulic pressure by moving both joysticks.
5. Turn ignition key off and remove to prevent unauthorized starting.
6. If included, raise seat bar and move controls until both lock.
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 skid steer or attachment.

Customer Supplied Quick Couplers

Refer to Figure 1-1 on page 11:

NOTE: Quick disconnect couplers (#3, #4, & #13) are not included with the base unit. Optional hydraulic quick couplers are available. See **"Flat Face Couplers"** and **"CTL/SS Coupler"** on page 30 for detailed information and part numbers.

Refer to Figure 1-1 & Figure 1-4 on page 12:

How to identify hydraulic lines (#1, #2, & #12)

- Pressure Line (#1) connects to motor (#9)
- Return line (#2) connects to solenoids (#10 & #11).
- Case drain line (#12) connects to motor (#9).

9. Thread hydraulic hoses (#1, #2, & #12) through hose loops (#5, #6, #7, & #8).
10. Consult your skid steer Operator's Manual to determine which hydraulic line on your attachment is under pressure. Select customer supplied male (#4) or female (#3) quick disconnect coupler that will mate with your attachment's pressure line coupling.
11. Screw selected coupler to line (#1) until tight.
12. Screw remaining coupler to line (#2) until tight.
13. Screw case drain coupler to line (#12) until tight.
14. If available, tie hydraulic hoses (#1, #2, & #12) together with cable ties.

Skid Steer Hook-up

DANGER

To avoid serious injury or death:

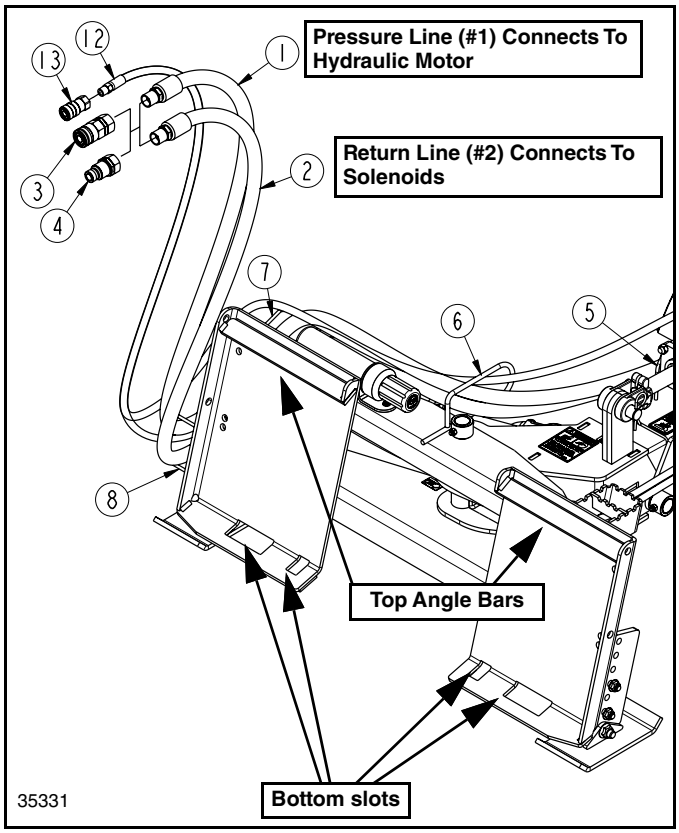
A crushing hazard exists when connecting and disconnecting the attachment. Do not allow anyone to stand between attachment and power machine while approaching or backing away from the attachment. Do not operate hydraulic controls while someone is near the power machine and/or attachment.

WARNING

To avoid serious injury or death:

Check hitch fit-up frequently. An improper fit-up can cause the attachment to come loose from the loader hitch plate and fall.

NOTE: The Stump Grinder is designed for skid steers with universal quick attach mounting system.



Hooking-up to the Stump Grinder
Figure 1-1

Refer to Figure 1-1:

1. Check for and remove any debris in the hitch point areas before hooking-up to the Stump Grinder.
2. Drive skid steer slowly to the grinder hitch making sure the skid steer hitch plate is parallel with the grinder's top angle bars.
3. Rotate top of skid steer tilt arms slightly forward.
4. Place top of skid steer hitch plate under the top angled bar on the grinder. Slowly raise hitch plate up until hitch plate is seated under the top angle bar.
5. Rotate top of skid steer tilt arms back until grinder makes full contact with hitch plate.
6. Push lock handles on skid steer hitch down so that the pins go through the bottom slots of the grinder hitch and make sure handles lock down.

Hydraulic Hose Hook-up

DANGER

To avoid serious injury or death:

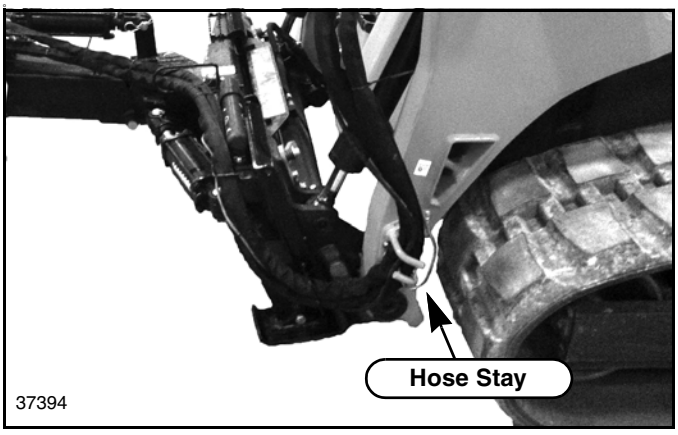
- *Make sure the skid steer has been properly shut down and pressure to the hydraulics has been relieved.*
- *Hydraulic fluid under high pressure will penetrate the skin or eyes causing serious injury. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece 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.*

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

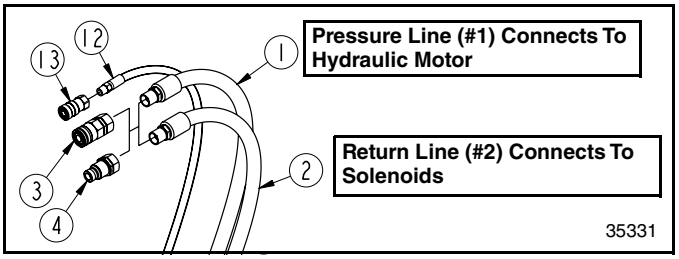
IMPORTANT: Make sure coupler fittings on the hydraulic hoses and power machine are clean before connecting them together.

NOTE: The Stump Grinder will not operate with hydraulic hoses hooked-up backwards.

NOTE: If attaching to a Kubota skid steer or track loader, route hydraulic hoses through Kubota's Hose Stay as shown in Figure 1-2. Purchase **Hose Stay #S6763** through your nearest Kubota dealer. Refer to your power machine Operator's Manual for more instructions.



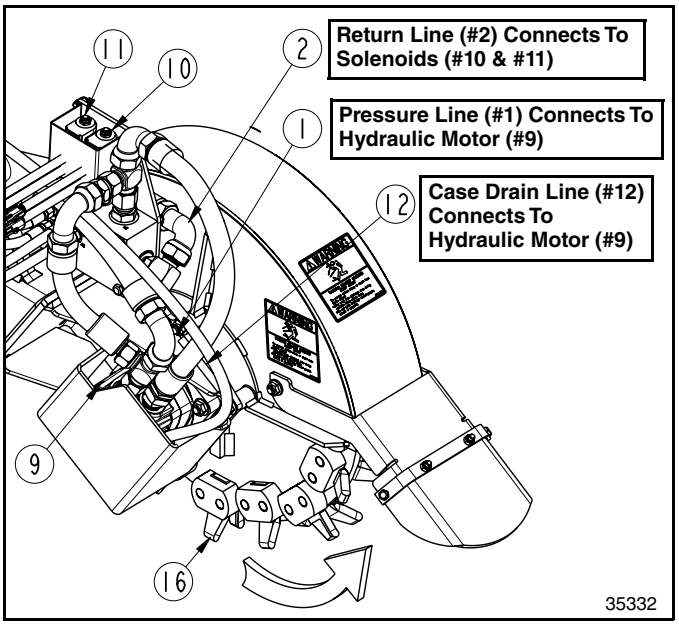
Kubota Hose Stay Kit
Figure 1-2



Hooking-up to the Stump Grinder
Figure 1-3

Refer to Figure 1-3:

1. Clean quick disconnect couplers(#3 & #4) of dirt and connect male and female couplers to the skid steer 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.
2. Clean case drain coupler (#13) and connect to skid steer case drain coupler.



Hydraulic Hose Identification
Figure 1-4

Refer to Figure 1-4:

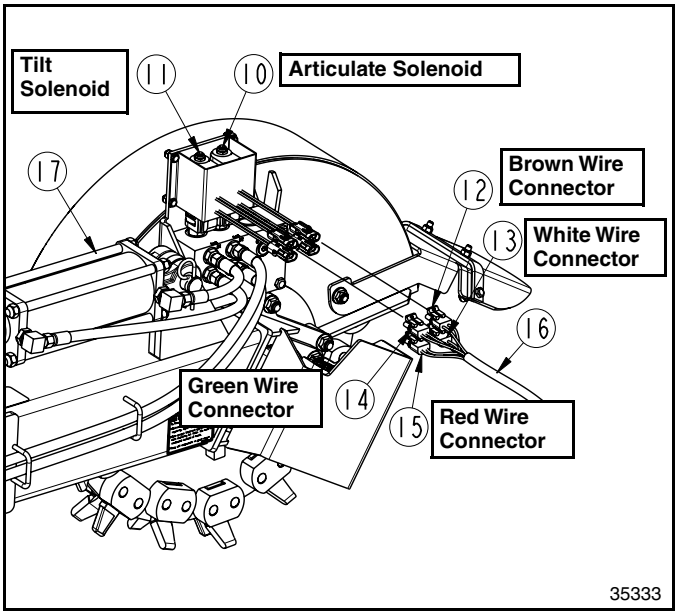
3. At a low engine rpm, engage hydraulics while watching rotation of cutting wheel (#16).
   - The cutting wheel should rotate counterclockwise if looking at the cutting wheel from the motor (#9) side as shown in Figure 1-4.
4. If cutting wheel rotates in the wrong direction, switch male and female couplers on the hydraulic hoses and then reconnect hoses to the skid steer outlets.
5. For additional help, refer to Hydraulic Hook-up in your skid steer Operator's Manual.
6. Continue with **"Solenoid Hook-up"** before operating hydraulic cylinders.

Solenoid Hook-up

There are five optional wiring harnesses available and they all connect the same way to the Stump Grinder solenoids. See pages 20-25 for a detailed description and installation instructions of all five.

Refer to Figure 1-5 on page 13:

1. Thread wiring harness (#16) through hose support loops (#5, #6, #7, & #8) as shown in Figure 1-1 on page 11.
2. Locate solenoid (#11). It operates tilt cylinder (#17) (controls up/down movement). Attach green wire connector (#15) and red wire connector (#14) to that solenoid.
3. Locate solenoid (#10). It operates the articulate cylinder (controls left/right swing movement). Attach brown wire connector (#13) and white wire connector (#12) to that solenoid.
4. Attach solenoid wiring harness to the skid steer:
   - If attaching one of the optional Deutsch HGD30 14 pin 2 functions harness, attach the internal 14 pin plug to the skid steer's external 14 pin plug.
   - If attaching optional toggle switch control harness, see **"Control Harness With Deutsch 2 Pin Plug"** on page 21
   - If attaching optional toggle switch control harness for Kubota CTL, see **"Control Harness With 2 Eyelets"** on page 25
5. While sitting in the skid steer seat with seat belt fastened, start skid steer, turn auxiliary hydraulics "on", and extend tilt cylinder (#17).
6. If tilt cylinder operates in the opposite direction desired, lower skid steer loader arms fully down and change green wire connector with red wire connector at the solenoid.
7. Return to the skid steer seat, raise Stump Grinder off the ground, and extend articulate cylinder (#2) shown in Figure 3-1 on page 17.
8. If articulate cylinder operates in the opposite direction desired, lower skid steer loader arms fully down and change brown wire connector with white wire connector at the solenoid.
9. Continue with **"Check Equipment Clearances"** on page 13.



Solenoid Hook-up
Figure 1-5

Check Equipment Clearances

It is important to check clearance before putting the grinder into operation. Make sure hydraulic hoses and wiring harness are long enough and won't become pinched or entangled in the equipment. Also, make sure Stump Grinder does not come in contact with skid steer frame and tires by carefully going through its full range of motions.

1. Visually inspect hydraulic hoses for possible pinch points and shortness. If needed, make hose adjustments before putting equipment into service.
2. Visually inspect wiring harness for possible pinch points and shortness. If needed, make adjustments to the wiring harness before putting equipment into service.
3. If necessary, have someone stand nearby that can motion for the operator to stop if a problem develops while completing steps 4-8 below.

IMPORTANT: Make sure hydraulic hoses and wiring harness are long enough and properly secured so that they do not become stretched or pinched through their full range of motions.

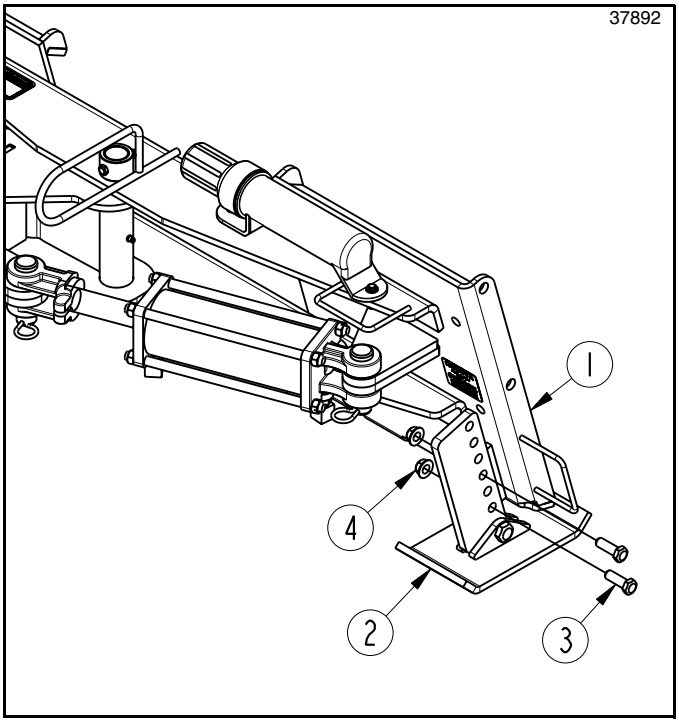
4. Start skid steer and raise loader arms high enough to tilt the hitch plate fully down without Stump Grinder making contact with the ground.
5. Fully extend tilt cylinder on the Stump Grinder.
6. Fully extend hydraulic cylinders on end of loader arms.
7. Lower loader arms while watching for interferences between skid steer and grinder frame.
8. Return loader arms to the height established in step 4.
9. Fully extend articulate cylinder on the Stump Grinder to pivot cutting wheel to the right and repeat steps 7 & 8.
10. Fully retract articulate cylinder on the Stump Grinder to pivot cutting wheel fully to the left and repeat steps 7 & 8.
11. Retract hydraulic cylinders on end of loader arms and tilt cylinder on Stump Grinder to return Stump Grinder to its straight out parking position.
12. Lower Stump Grinder until resting on its skid shoes.

Skid Shoe Adjustment

Refer to Figure 2-1:

IMPORTANT: Make sure skid shoes are firmly planted on the ground before operating Stump Grinder. This will help minimize vibration and help protect against structural damage to the unit.

1. Remove hex flange locknuts (#4) and hex head cap screws (#3).
2. Move skid shoe (#2) up or down to preferred height.
3. Reinsert 1/2"-13 x 1 1/2" GR5 cap screws (#3) and secure with hex flange locknuts (#4).
4. Tighten hex flange locknuts (#4) to the correct torque.
5. Repeat steps 1 to 4 for the right-hand side.



Skid Shoe Adjustment
Figure 2-1

Operating Checklist

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transport, storage, and maintenance of the Stump Grinder. Therefore, it is absolutely essential that no one operates the unit unless they have read, fully understood, and are totally familiar with the Operator's Manual. Make sure the operator has completed the Operating Checklist below.

Operating Checklist

✔	Check	Ref.
	Read & follow all safety rules carefully. Refer to "Important Safety Information" and Safety Alert Symbols throughout this manual.	All pages
	Read & follow hook-up & preparation instructions. Refer to "Section 1: Assembly & Set-up".	13
	Read and follow all operating procedures. Refer to "Section 3: Operating Procedures".	15
	Read & follow all maintenance instructions. Refer to "Section 5: Maintenance & Lubrication".	31
	Make sure there are no hydraulic leaks. Refer to "Avoid High Pressure Fluids Hazard".	3
	Check grinder initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	37

General Inspection

Make the following inspections with Stump Grinder attached to a skid steer that is parked on a level surface.

1. Complete Operating Checklist table provided above.
2. Inspect skid steer safety equipment to make sure it is in good working condition and that all safety alert decals are visible and readable. Replace all missing and unreadable safety alert decals.
3. Inspect hitch hook-up to grinder. Make sure skid steer hitch is secured under the grinder's top angle bar, lock pins extend fully through bottom slots in grinder hitch, and handles are locked down.
4. Inspect wiring harness and connection points before starting the skid steer. Make sure harness and connectors are not pinched, frayed, or broken and that they will not come in contact with moving parts.
5. Inspect hydraulic hoses, fittings, and valves before starting the skid steer. Make sure hoses are not pinched, kinked, twisted, or frayed and that they will not come in contact with moving parts.
6. Hose sleeves help protect hoses from wear and operator from oil sprays. Inspect hose sleeves to make sure they are properly secured to the hydraulic hoses, are not torn, and are not worn thin. Replace hose sleeve if worn thin, torn, or not properly secured to hydraulic hoses.
7. Operate hydraulic controls to verify control lever movements function properly and equipment movements are correct. Make any necessary changes to controls and hydraulic hook-ups before putting equipment into service.
8. Operate Stump Grinder through its full range of movements to check for clearances.

Operating Safety

⚠ DANGER

To avoid serious injury or death:

- *All guards and shields must be installed and in good working condition while operating the implement.*
- *Do not attach Stump Grinder to a tractor loader. The driver can not see the unit in front of the tractor to position it or to watch it while it is working. Not having good visibility of your work area can cause a serious injury or death.*
- *Always operate skid steer while seated in the cab with seat bar lowered when equipped and seat belt properly fastened. The operator can be pinched, crushed, or thrown if not properly seated in the cab or if operating the dipper arm from outside the cab.*
- *Keep attachment, loader arms, and/or load away from overhead electrical power lines. Place an orange warning sign under overhead lines indicating type of danger above.*
- *Keep attachment, loader arms, and/or load away from overhead electrical power lines. Place an orange warning sign under overhead lines indicating type of danger above.*
- *A crushing hazard that can cause serious injury or death always exists around power equipment.*
- *The operator of this attachment must know how to control the power machine with attachment and how to stop them quickly in an emergency.*
- *Do not drive up to anyone or an animal in front of a fixed object such as a wall or bench. Never assume that the power machine will stop in time.*
- *Keep bystanders, pets, and livestock away from your work area. Never allow anyone to go near or under the attachment or its load. The attachment and/or load can fall.*
- *Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to the hydraulics is off.*

⚠ WARNING

To avoid serious injury or death:

- *Never make contact with underground utilities such as electrical power lines, gas lines, phone lines, etc. They can cause serious injury or death from electrocution, explosion, or fire. Always call 811 (USA) or local utility companies before digging so that they can mark the location of underground services in the area. For contact information, see Dig Safe in the "Important Safety Information" starting on page 1.*

- *Use Stump Grinder for grinding tree stumps only. Do not use as a ditcher or for any other purpose. The attachment can come in contact with underground utilities, rock, and other debris that can damage the cutting wheel/skid steer and cause serious injury or death.*
- *Hydraulic fluid under high pressure will penetrate the skin or eyes causing 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 attachment who have fully read and comprehended this manual, and who have been properly trained in the safe operation of this attachment. Serious injury or death can result from failure to read, understand, and follow instructions provided in this manual.*
- *Do not travel across an incline where equipment could slip or roll-over. Consult the Operator's Manual for acceptable inclines the power machine is capable of crossing.*
- *Do not use Stump Grinder to remove material other than wood. Doing so can cause components to break, solid objects to be thrown, and breakdowns. Any of these problems can cause serious injury or death.*
- *Operate only power machines equipped with a certified Roll-Over Protective Structure (ROPS) and seat belt. Keep folding ROPS in the "locked up" position when appropriate. If ROPS is in the locked up position, fasten seat belt snugly and securely to help protect against serious injury or death from falling and machine overturn.*
- *Never carry riders on the attachment or power machine. Riders can obstruct the operator's view, interfere with controls, be pinched by moving components, become entangled in rotating components, struck by objects, thrown about, fall off and be run over, etc.*
- *Do not abuse equipment. Incorrect use of skid steer and Stump Grinder can damage equipment structurally and cause serious injury or death.*
- *Check hook-up points frequently to make sure skid steer hitch is properly positioned under the top angle bar, locking pins are seated in their notches, handles are locked down, and equipment is in good operating condition.*
- *Do not carry or lift loads with the Stump Grinder.*
- *Do not use Stump Grinder as a working platform. Using grinder as a working platform can cause serious injury or death.*
- *Do not use Stump Grinder for lifting front end of skid steer off the ground. Doing so can damage equipment and cause injury if exceeding lift capacity of unit.*
- *Do not use Stump Grinder for pulling objects out of the ground, for digging into the ground, for prying other objects, or for pushing and towing other equipment.*
- *The parts on your Stump Grinder have been specially designed and should only be replaced with genuine Kubota parts. Altering the grinder can adversely affect its performance and/or reliability.*
- *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.*

⚠ CAUTION

To avoid minor or moderate injury:

- *Failure to obey all safety instructions listed below can result in injury to the operator and other personnel.*
- *Always lower Stump Grinder to ground level before dismounting skid steer.*
- *Always store Stump Grinder in a secure position so that it will not fall over.*
- *Follow all recommendations provided by the skid steer manufacturer when adding counter weights and other ballast.*
- *Follow manufacturer's recommendations when dismounting and parking the skid steer.*
- *Do not exceed Stump Grinder specifications for maximum input power and/or cutting wheel speed. Personal injury and/or equipment damage can occur.*

Transport Safety

⚠ WARNING

To avoid serious injury or death:

- *Follow all safety precautions when transporting a load. Not using safe transporting methods can damage the equipment and cause serious injury or death.*
- *Always transport loads as close to the ground as possible without hitting objects. A load carried high could shift causing the load to fall, tipping of the machine, and/or loss of control.*
- *Always travel straight up and straight down inclines. Never make turns on the incline.*
- *Transporting loads across inclines, over ramps, on bumpy, soft, or slippery surfaces reduces machine stability and lift capacity. Transporting and lifting loads under these conditions is extremely dangerous. Follow all transport instructions in your power machine Operator's Manual.*
- *When traveling on public roadways, travel in such a way that faster moving vehicles may pass safely. Use hazard lights, clean reflectors, and a slow moving vehicle sign that is visible from the back to warn operators in other vehicles of your presence. Always comply with all federal, state, and local laws.*

Stump Grinder Operation

DANGER

To avoid serious injury or death:

Clear area of all bystanders before turning on hydraulics to the grinder. Keep all bystanders away while grinder is operating. Turning on hydraulics powers the cutting wheel and hydraulic cylinders. Anyone close by can become pinched, crushed, and/or entangled in the grinder while it is operating causing serious injury or death.

WARNING

To avoid serious injury or death:

- *Clear all debris from cutting 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.*
- *Never make contact with underground utilities such as electrical power lines, gas lines, phone lines, etc. They can cause serious injury or death from electrocution, explosion, or fire. Always call 811 (USA) or local utility companies before digging so that they can mark the location of underground services in the area. For contact information, see Dig Safe in the "Important Safety Information" starting on page 1.*

IMPORTANT: Do not backup or move forward while Stump Grinder is removing wood chips. Doing so can cause vibration and may damage hydraulic motor and other components.

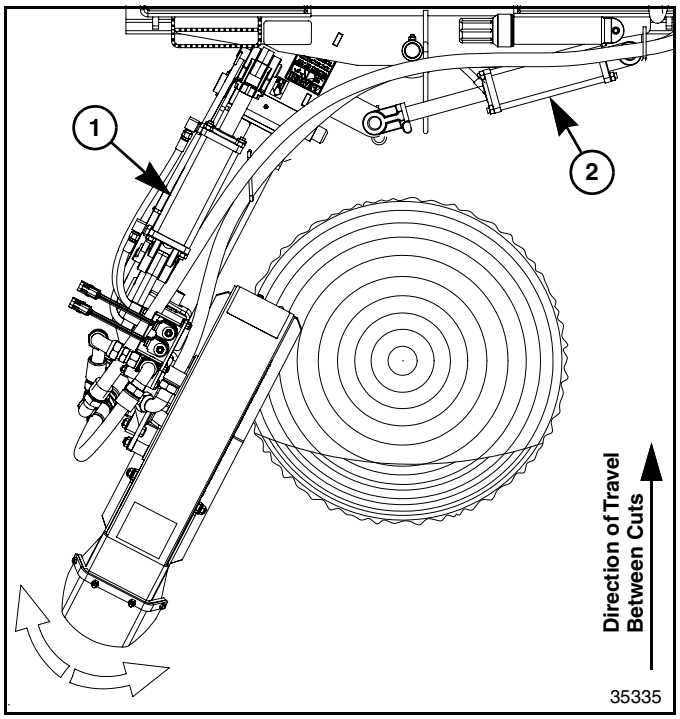
IMPORTANT: Make sure skid shoes are firmly planted on the ground and if available, park brake is set before operating Stump Grinder. This will help prevent skid steer movement, minimize vibration, and help protect against structural damage.

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

1. Be sure to read and understand all safety alerts under **Operating Safety** on page 15:.
2. Check for overhead and below ground obstructions before grinding stump.
3. If attachment is to be operated in reverse, make sure visibility to the rear is appropriate for the attachment.

Refer to Figure 3-2 on page 18:

4. Fully retract tilt cylinder (#1) and extend or retract articulation cylinder (#2) so that the cutting wheel is centered on the stump.
5. Move skid steer forward until cutting wheel is located on far side of stump as shown.
6. Lower skid steer hitch down until skid shoes are firmly planted on the ground. See **"Skid Shoe Adjustment"** on page 14 for detailed adjustment instructions. If available, set skid steer park brake.

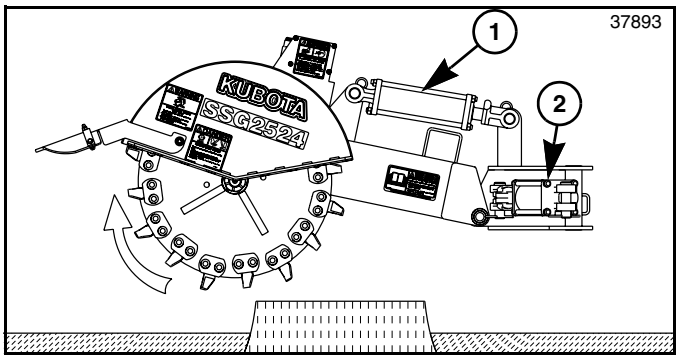


Start of First Cut
Figure 3-1

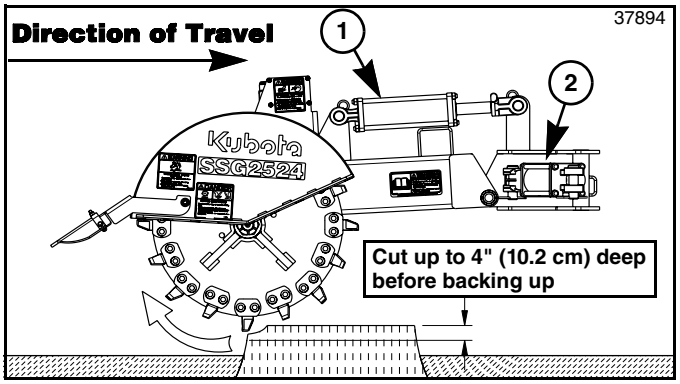
7. Rotate top of skid steer hitch plate forward or rearward until cutting teeth are just above the stump.
8. Using articulation cylinder (#2), move cutting wheel to the right as shown in Figure 3-1 and engage hydraulics to rotation start cutting wheel rotation.
9. Slightly extend tilt cylinder (#1) to lower carbide teeth enough to make a cut into the stump as shown in Figure 3-3 on page 18.

Refer to Figure 3-1:

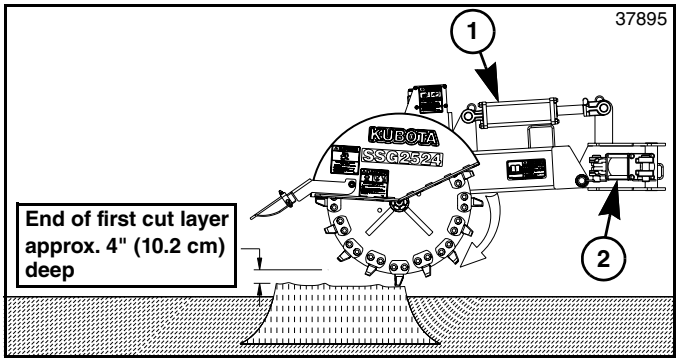
10. Slowly retract articulation cylinder (#2) to make a cross cut across top of stump.
11. Once cutting wheel has made a full swing across top of stump, extend tilt cylinder (#1) to make another cut and start back across the stump.
12. Continue swinging cutting wheel back and forth across top of stump and extending tilt cylinder at start of each new pass until depth of cut is around 4" deep in the stump.
13. Fully retract tilt cylinder (#1), raise loader arms up several inches, and back skid steer up to a new location to continue removing chips from the stump.
14. Repeat steps 9 to 13 until top of stump has been completely removed to the 4" (10.2 cm) depth as shown in Figure 3-4 on page 18.
15. Raise loader arms up several inches and drive forward to reposition cutting teeth just above far side of remaining stump and to the right side.
16. Repeat steps 9-15 until the stump has been removed approximately 8" (20.3 cm) below ground as shown in Figure 3-5 on page 18.



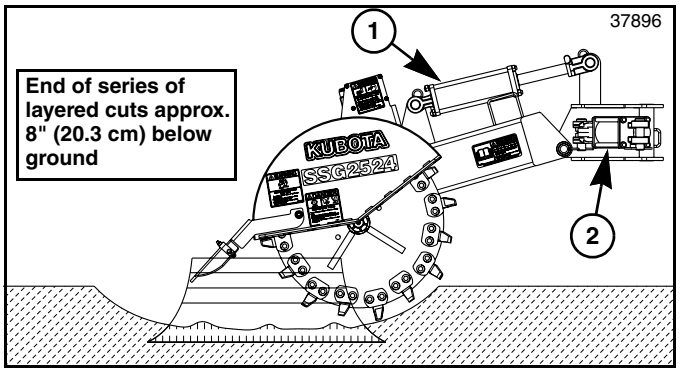
Position Cutting Wheel on Far Side of Stump
Figure 3-2



Start of First Cut
Figure 3-3



End of 1st Layer Across Stump
Figure 3-4



End of Series of Layered Cuts
Figure 3-5

Unhooking the Stump Grinder

Refer to Figure 3-6:

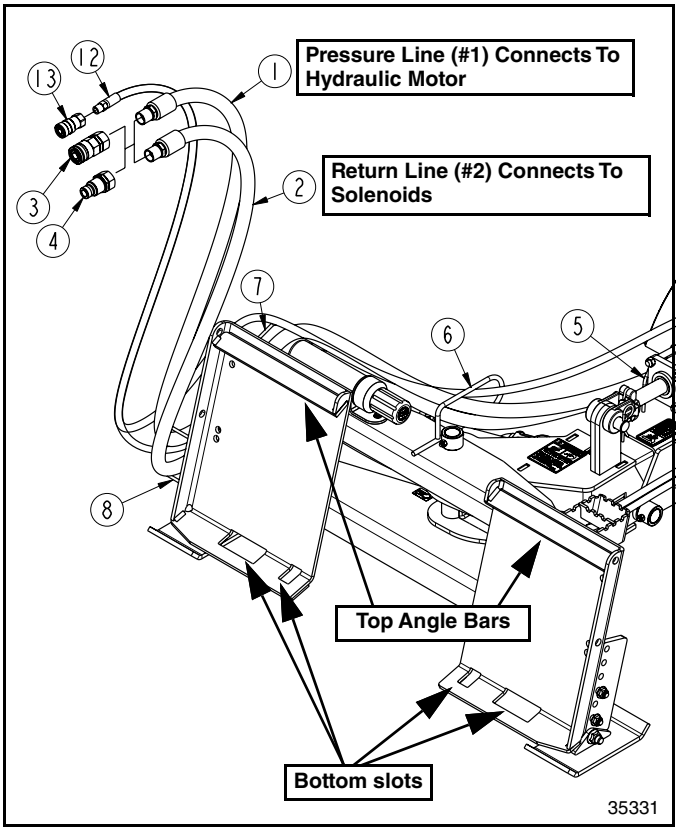
1. Park skid steer on a flat, level, solid surface, and lower grinder onto the surface.
2. Place transmission in park, set park brake, shut power equipment off, and remove switch key.
3. With Stump Grinder resting on the ground, release all hydraulic system pressures before disconnecting hydraulic hoses from skid steer. See Skid Steer Operator's Manual for instructions on how to release all hydraulic system pressures.
4. Disconnect hydraulic hoses (#1 & #2) from skid steer and store hoses on the grinder.

Refer to Figure 4-2 on page 21:

5. At the loader arm, unhook wire harness (#4) from harness (#1). Coil wire harness (#4) up and store with Stump Grinder.

Refer to Figure 3-6:

6. Pull lock handles up to remove pins from bottom slots in hitch plate.
7. Return to skid steer and tilt bottom of hitch plate slightly back towards the skid steer.
8. Slowly lower skid steer hitch until top angle bar and skid steer hitch have separated.
9. Back skid steer slowly away from the grinder making sure it does not interfere with unit.



Unhooking From the Stump Grinder
Figure 3-6

General Operating Instructions

By now you should have familiarized yourself with the Operator's Manual for your model SSG2524 Stump Grinder. If you have not done so, please do so now. We cannot overstress the importance of reading and following the safety information and operating procedures that are spelled out in this Manual.

If attachment is to be operated in reverse, make sure visibility to the rear of the power unit is appropriate for the attachment.

Proceed by getting into the seat of your skid steer and fastening your seat belt before starting your skid steer. It won't take you long to learn how to use your new Kubota Stump Grinder, but we do recommend that you take a little time to practice securely attaching and detaching your Stump Grinder to and from your mounting hitch plate. It is also important to practice maneuvering, lowering, rotating the hitch plate, tilting the cutting wheel up and down, and articulating 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 skid steer's park brake is engaged and auxiliary hydraulics are disengaged. You should now start the engine and lower the hitch plate until the skid shoes are fully seated on the ground. Next, rotate the top of the hitch plate back to lift the cutting wheel off the ground, back off the engine rpm to approximately one-quarter the throttle speed, and then engage auxiliary hydraulics. Never engage auxiliary hydraulics at full engine rpm. Damage to the Stump Grinder can occur. As you engage the hydraulics, you should be watching the direction the cutting wheel turns. The bottom of the wheel should rotate away from the skid steer. If the bottom of the cutting wheel is rotating towards the skid steer, then you should disengage auxiliary hydraulics and shut off the engine. You will need to switch the quick disconnect couplings on the hydraulic hoses to correct this situation. Once the couplings are switched, reattach hydraulic hoses to the skid steer and return to the skid steer seat to recheck rotational directional of the cutting wheel. Increase throttle speed if everything is running properly and smoothly until you have reached full operating speed.

Next you should extend and retract the articulation cylinder to move the cutting wheel left to right and right to left. Also extend and retract the tilt cylinder to raise and lower the cutting wheel. If either one of the hydraulic cylinders are operating opposite of what is expected, slow the engine to an idle, disengage auxiliary hydraulics, make sure loader arms are all the way down, and shut the engine off. You will need to switch electrical connections at the skid steer solenoids to correct the problem. Switch only the electrical connections that operated the hydraulic cylinder in the opposite direction intended. Return to the loader and recheck the cylinder or cylinders in question.

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.

Also check for overhead obstructions and place orange warning signs under overhead electrical power lines indicating type of danger above.

Before approaching the stump, fully retract the tilt cylinder and move the cutting wheel left or right until it is centered in front of the skid steer. With skid steer engine at an idle, continue to approach the stump. You will want to rotate the top of the hitch plate back to clear the stump as the cutting wheel passes over it and you should stop moving forward once the cutting wheel is positioned on the far side of the stump. Once stopped, set park brake, lower hitch plate down until skid shoes are firmly planted on the ground, and then rotate top of hitch plate forward until the cutting wheel is just above the stump. It is time to raise the engine rpm to full operating speed, extend the articulate cylinder to move the cutting wheel fully to the right, and extend the tilt cylinder until the cutting teeth are below the top of the stump.

You are now ready to begin chipping away at the stump. Slowly retract the articulation cylinder to move the cutting wheel to the left as it removes pieces of wood from the top of the stump. 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. At the end of each pass across the stump, lower the cutting wheel and make another pass back across the stump until a layer of approximately 4" (10.2 cm) deep has been removed and/or you are ready to back-up to a new cutting position over the stump.

Before backing-up, you should fully retract tilt cylinder, move cutting wheel left or right until centered over the stump, raise loader arms up several inches, lower engine speed to an idle, release park brake, and then back skid steer up to a new location over the stump. After you have stopped moving, you should lower the hitch plate down until it is resting on its skid shoes and reset the park brake. With park brake set, raise engine speed to full operating speed and move cutting wheel to the right side of the stump. Begin chipping away at the stump as before until approximately 4 more inches (10.2 cm) have been removed across the top of the stump. You should repeat this process of cutting down the top of the stump and backing up until the first layer, approximately 4" (10.2 cm) deep, has been completely removed from far side to near side of stump.

Once the top layer has been completely removed, retract tilt cylinder, raise hitch plate up several inches, return engine to an idle, and move forward to the far side of the stump to begin removing a second 4" (10.2 cm) deep layer of wood. After the second layer has been completely removed, the skid steer should once again be repositioned to the far side of the stump to continue to remove another layer and another until the stump has been completely removed below the ground up to a maximum depth of 8" (20.3 cm).

With a little practice, you will find that you will quickly become very adept, handy, and skillful at using your Kubota SSB2524 Stump Grinder.

See **"Specifications & Capacities"** on page 19 and **"Features & Benefits"** on page 20 of your Operator's Manual for additional information.

Electrical Control Harness (Optional)

Kubota offers two electrical control harness. If not purchased with the grinder, one may be purchased from your nearest Kubota dealer. Additional instructions are provided on the page noted in the list below.

- Part No. 370-336A - - - - - - - - - - - - - - - - - Control harness with Deutsch 14 pin 2 function power plug.
  - Refer to **"Control Harness With Deutsch 14 Pin Plug"** below.
- Part No. 370-434A - - - - - - - - - - - - - - - - - Control harness with Deutsch 2 pin plug and control box.
  - Refer to **"Control Harness With Deutsch 2 Pin Plug"** on page 21.

Kubota offers two controllers for operating the Powered Rake attached to a Kubota compact track loader or skid steer loader. See your nearest Kubota dealer to purchase one of their controllers.

- Part No. V0511-97010 - - - - - - - - - - - - - - SVL Electrical connector (2 functions)
- Part No. W/G S6699 - - - - - - - - - - - - - - - - SVL Multifunction handle (7 functions.)

Control Harness With Deutsch 14 Pin Plug

Refer to Figure 4-1:

One 14 pin wiring harness is available. It attaches to the Stump Grinder solenoids and skid steer 14 pin coupler. Included with the wiring harness are 3 cable ties.

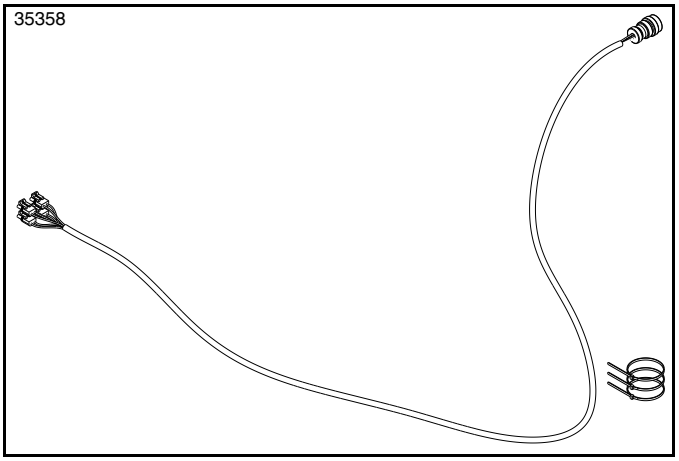
370-336A Deutsch HD30 14 Pin 2 Function

This harness will work with the following skid steers:

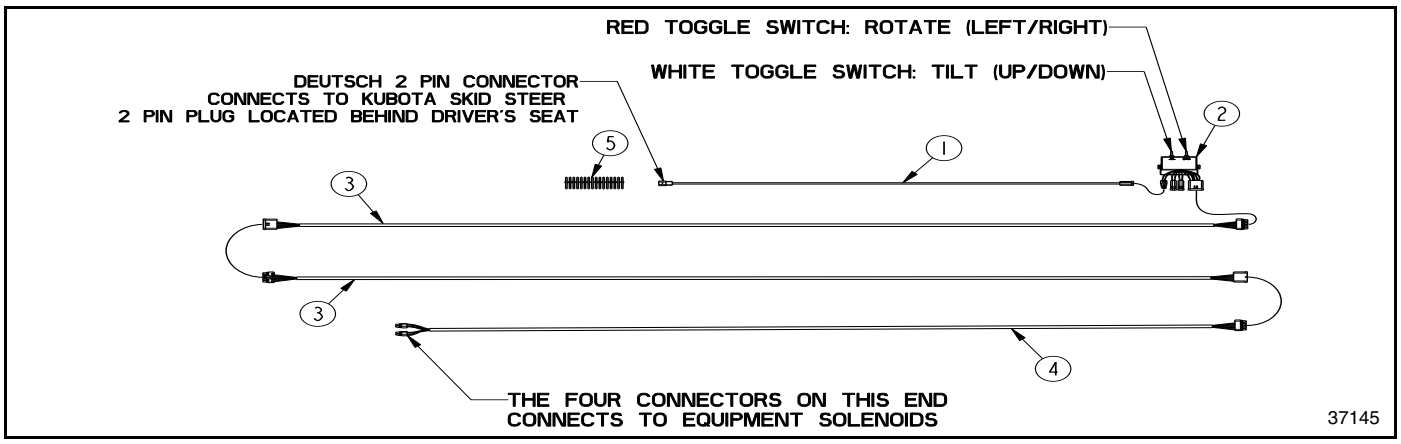
- Bobcat with 14 pin coupler
- GEHL with 14 pin coupler
- Kubota with 14 pin coupler
- Komatsu with 14 pin coupler
- Mustang with 14 pin coupler
- Takeuchi with 14 pin coupler
- Volvo with 14 pin coupler

It will also work with the following skid steers by reversing the red and green wires at the solenoid:

- Case-Post 9/1/01 with 14 pin coupler
- Case-400 Series with 14 pin coupler
- New Holland with 14 pin coupler



Deutsch HGD30 14 Pin 2 Function Wiring Harness
Figure 4-1



Toggle Switch Control Harness For Kubota CTL Skid Steers
Figure 4-2

Kit No. 370-434A Control Harness Kubota Skid Steer

Item	Part No.	Part Description	Qty
1	823-439C	HRN DTP04-2P 14GA 2WPS /5' (5 ft. long.)	1
2	823-377C	CONTROL BOX 2 PRIORITY	1
3	823-385C	HARNESS EXTENSION (11' - 0" long.)	1
4	823-405C	HARNESS SOLENOID 2 PRIORITY (8' - 11" long.)	1
5	800-112C	CABLE TIE .19X7.25 1.75D 50LB	16

Control Harness With Deutsch 2 Pin Plug

Refer to Figure 4-2:

370-434A Kubota CTL Skid Steer Control Harness

This harness is used with skid steers equipped with a Deutsch 2 pin coupler but not the Deutsh HD30 14 pin coupler. It consist of the following:

Refer to Figure 4-3:

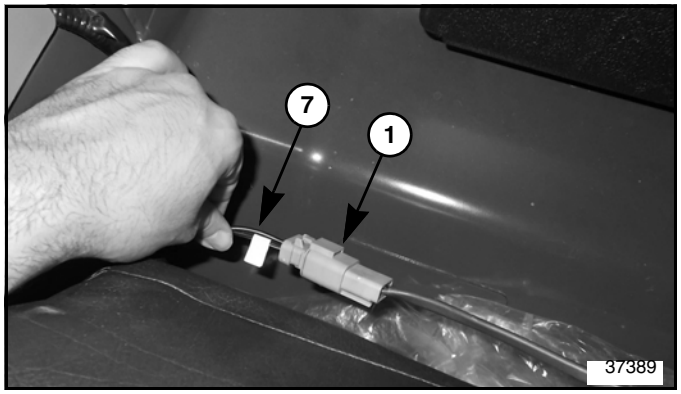
- Power cord (#1): Attach Deutsch 2 pin plug (#1) to Kubota's CTL male plug (#7) located behind the driver's seat.

Refer to Figure 4-4:

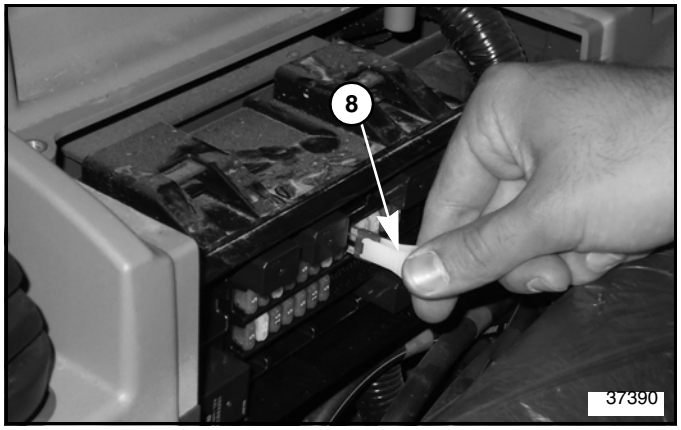
- 10 amp Fuse (#8): Fuse (#8) is supplied by customer. Install 10 amp fuse (#8) in Kubota's fuse box slot #17 labeled "Electrical Outlet-2".

Refer to Figure 4-2:

- Power cord (#1): Attaches to Deutsch 2 pin connector and to control box (#2).
- Control box (#2): Mounts in a convenient location for the operator to access from the operator's seat.
- Wire harness (#3): Attaches to control box (#2) and runs from the control box to the loader arm.
- Wiring harness (#4): Attaches to wire harness (#3) at the loader arm and at the solenoids on the Stump Grinder.
- Cable ties (#5): For securing wire harnesses (#1, #3, & #4) to the skid steer and Stump Grinder.



Kubota Power Connection (Located Behind Drive Seat)
Figure 4-3



Installation of 10 amp Fuse
Figure 4-4

Assembly Instructions

A detailed listing of parts for this accessory kit is provided on page 21. Use this list to identify components during assembly and as a checklist to inventory parts received. Please contact your local Kubota dealer for any missing hardware.

Initial Preparations

The steps listed below must be followed before installing this kit:

1. Park on a flat surface, lower lift arms and put attachment flat on the ground. Turn off engine and engage park brake.
2. If included, raise seat bar and move controls until both lock.
3. Remove key to prevent unauthorized starting.
4. Use steps, grab-handles and skid-resistant surfaces when getting on or off the loader.

Mount Control Box (#2) in Cab

Refer to Figure 4-5 & Figure 4-2 on page 21:

1. Locate control box (#2) inside the cab in an area where the box is easy to access and operate.
2. Fasten control box (#2) to that location with hardware furnished by the customer.
3. Plug 11'-0" (3.35 m) long wire harness (#3) and 5'-0" (1.52 m) long power cord (#1) to control box (#2).

Connect to Power

Refer to Figure 4-2 on page 21 & Figure 4-6:

4. Plug opposite end of power cord (#1) to Kubota's 2-pin Deutsch plug "A" located behind driver's seat.
5. Make sure power cord (#1) is placed in an out-of-the-way area to prevent operator entanglement with the cord.
6. Add zip ties (#5) to power cord (#1) as needed.

Refer to Figure 4-7:

7. Fuse "B" is supplied by customer. Install 10 amp fuse "B" in Kubota's fuse box slot #17 labeled "Electrical Outlet-2".

Route Wire Harness (#3)

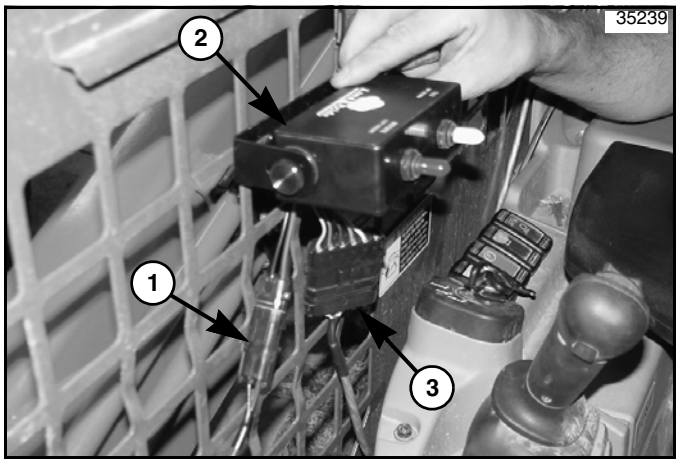
Refer to Figure 4-2 on page 21 & Figure 4-8 on page 23:

⚠ DANGER

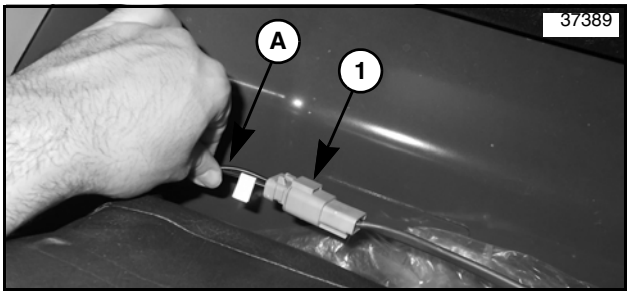
To avoid serious injury or death:

Do not work underneath raised skid steer lift arms without first securing loader arms in the raised position with an approved lift-arm support. Not securing loader arms in the raised position can result in a serious injury or death.

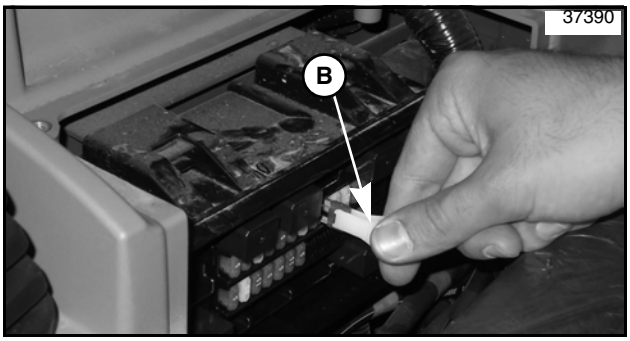
IMPORTANT: Make sure wire harness (#3) does not become entangled, stretched, or kinked while loader arms are being raised and lowered.



Mount Control Box
Figure 4-5

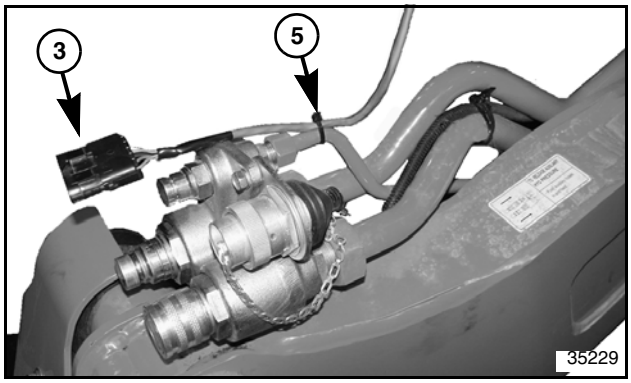


Kubota Power Connection (Located Behind Drive Seat)
Figure 4-6

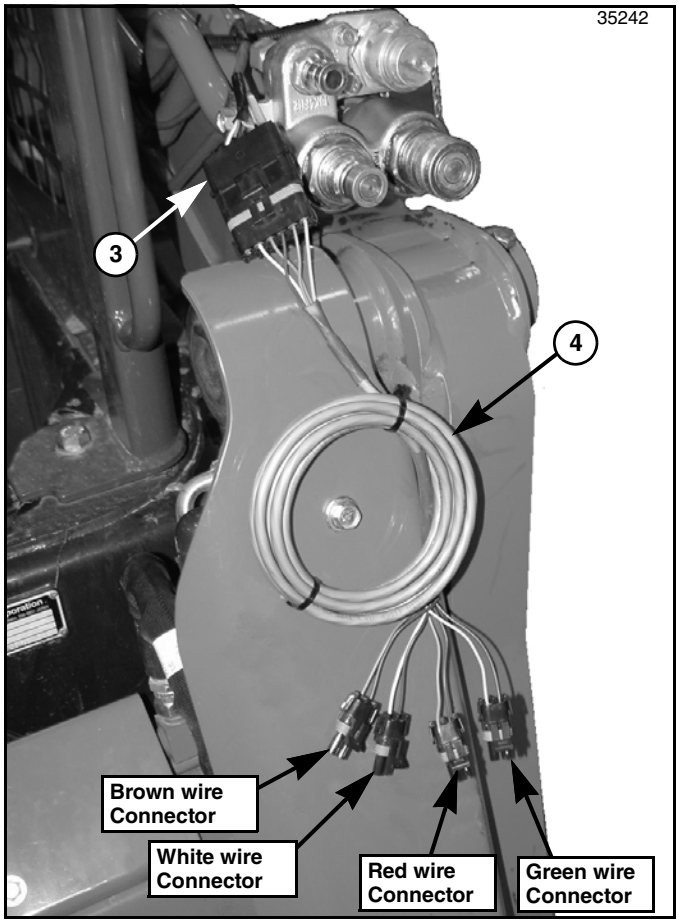


Installation of 10 amp Fuse
Figure 4-7

1. Route wire harness (#3) from control box (#2) to the loader arm with quick release couplings in such a way that the front cab door can be shut and latched.
2. Attach end of wire harness (#3) near the quick release hydraulic couplings on the loader arm with zip tie (#5).
3. Make sure wire harness (#3) is placed in an out-of-the-way area inside the cab to prevent operator entanglement with harness.
4. Also, make sure harness does not become entangled, stretched, or kinked while loader arms are being raised and lowered.
5. Secure wire harness (#3) as needed with zip ties (#5).



Attach Cable to Hydraulic Coupling Lines
Figure 4-8

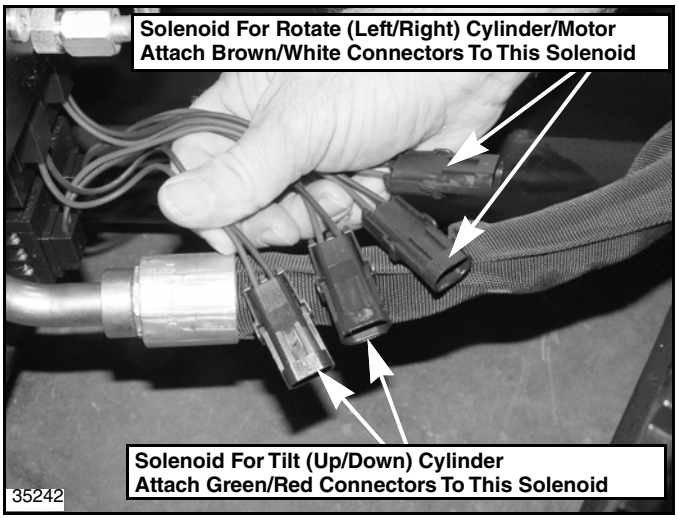


Attach Solenoid Harness to Skid Steer Harness
Figure 4-9

Hook-up Solenoid Harness (#4)

Refer to Figure 4-2 on page 21 & Figure 4-9:

1. If not already connected, connect attachment hydraulic hoses to the quick release couplings on the loader arm. Refer to **"Hydraulic Hose Hook-up"** in the attachment Operator's Manual for detailed instructions.
2. Connect 8'-11" (2.72 m) long solenoid harness (#4) to wire harness (#3).
3. Zip tie wire harness (#3) along one of he hydraulic hoses to the attachment's solenoid.
4. Coil excess solenoid harness (#4) up and zip tie coil to the attachment. Leave enough harness to reach the solenoids.

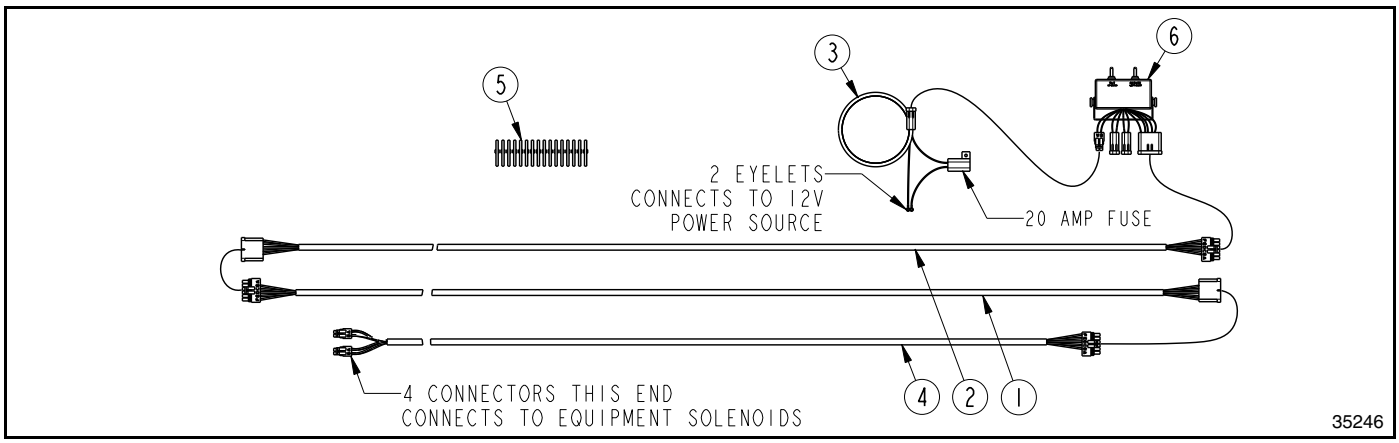


Solenoid Wires
Figure 4-10

Refer to Figure 4-10:

5. Refer to **"Solenoid Hook-up"** instructions in the attachment Operator's Manual and below:
   a. Locate solenoid on attachment that controls the cylinder for articulating the Stump Grinder left and right. Attach brown wire connector and white wire connector to that solenoid.
   b. Locate solenoid on attachment that controls the cylinder for tilting the Stump Grinder up and down. Attach green wire connector and red wire connector to that solenoid.
   c. Return to the skid steer and operate tilt switch and rotate switch to verify they are functioning as desired.
   d. If the switch operates the cylinder in the opposite direction desired, turn off engine, raise seat bar if included, move skid steer controls until they lock, and remove switch key before dismounting to make changes to the solenoid connections.
   e. If tilt cylinder on the Stump Grinder operates in the opposite direction desired, switch green wire connector with red wire connector.

This page left blank intentionally.



Toggle Switch Control Harness
Figure 4-11

Kit No. 370-134A Skid Steer Control Harness

Item	Part No.	Part Description	Qty
1	823-385C	HARNESS EXTENSION (11' - 0" long.)	1
2	823-385C	HARNESS EXTENSION (11' - 0" long.)	1
3	823-386C	HARNESS, POWER (13' - 0" long)	1
4	823-405C	HARNESS SOLENOID 2 PRIORITY (8' - 11" long.)	1
5	800-112C	CABLE TIE .19X7.25 1.75D 50LB	16
6	823-377C	CONTROL BOX 2 PRIORITY	1

Control Harness With 2 Eyelets

Refer to Figure 4-11:

370-134A Skid Steer Control Harness

This harness is used with skid steers not equipped with a Deutsch HD30 14 pin or 2 pin coupler. It consist of the following:

- Power cord (#3): Attaches to skid steer battery and control box (#6).
- Control box (#6): Mounts in a convenient location for operator to access from the seat.
- Wire harness (#2): Attaches to control box (#6) and runs from control box to rear of the loader arm.
- Wire harness (#1): Attaches to wire harness (#2) at the rear of the loader arm and travels along the loader arm to the front of the loader arm.
- Wiring harness (#4): Attaches to wire harness (#1) at the loader arm and solenoids at the Stump Grinder.
- Cable ties (#5): For securing wire harnesses (#1, #2, #3, & #4) to the skid steer and Stump Grinder.

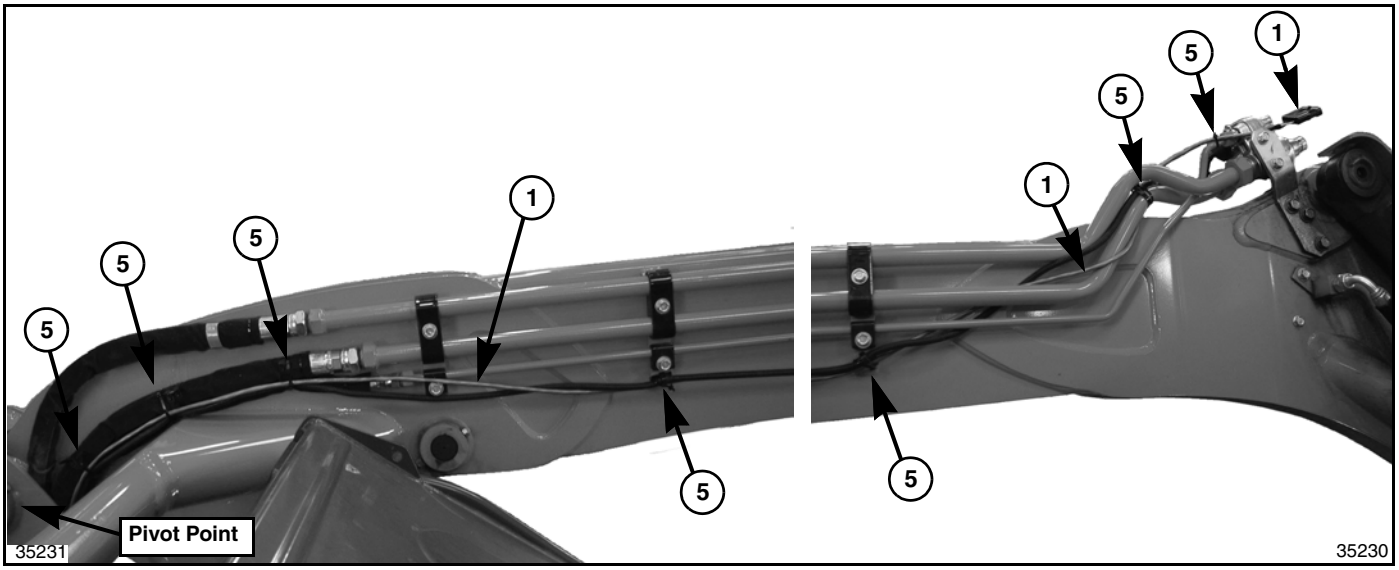
Assembly Instructions

A detailed listing of parts for this accessory kit is provided above. Use this list to identify components during assembly and as a checklist to inventory parts received. Please contact your local Kubota dealer for any missing hardware.

Initial Preparations

The steps listed below must be followed before installing this kit:

1. Park on a flat surface, lower lift arms and put attachment flat on the ground. Turn off engine and engage parking brake.
2. If included, raise seat bar and move controls until both lock.
3. Remove key to prevent unauthorized starting.
4. Use steps, grab-handles and skid-resistant surfaces when getting on or off the loader.



Attach Wire Harness Along Loader Arm To Pivot Point
Figure 4-13

Route Wire Harness (#1)

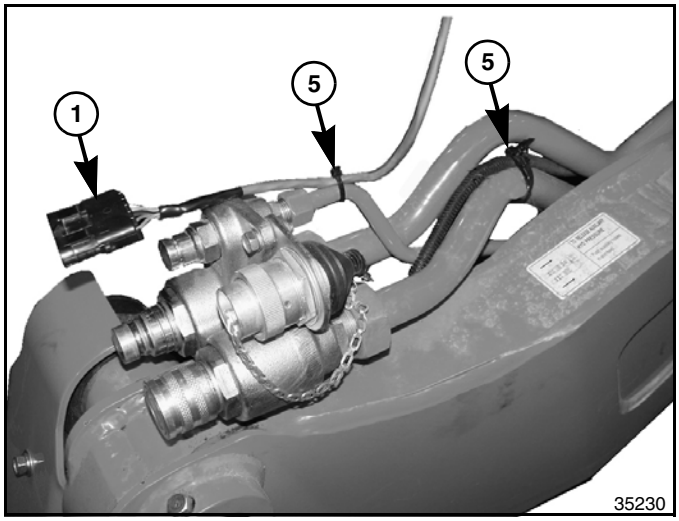
Wire harness (#1) starts at the front of the loader arm and runs along the loader arm to the engine room.

Route Harness (#1) Along Loader Arm

Refer to Figure 4-11 on page 25 & Figure 4-12:

IMPORTANT: Make sure wiring harness (#1) does not become entangled, stretched, or kinked while loader arms are being raised and lowered.

1. Attach female end of wire harness (#1) at the front of the loader arm and near the hydraulic couplings with cable ties (#5).



Attach Cable to Hydraulic Coupling Lines
Figure 4-12

Refer to Figure 4-13:

DANGER

To avoid serious injury or death:

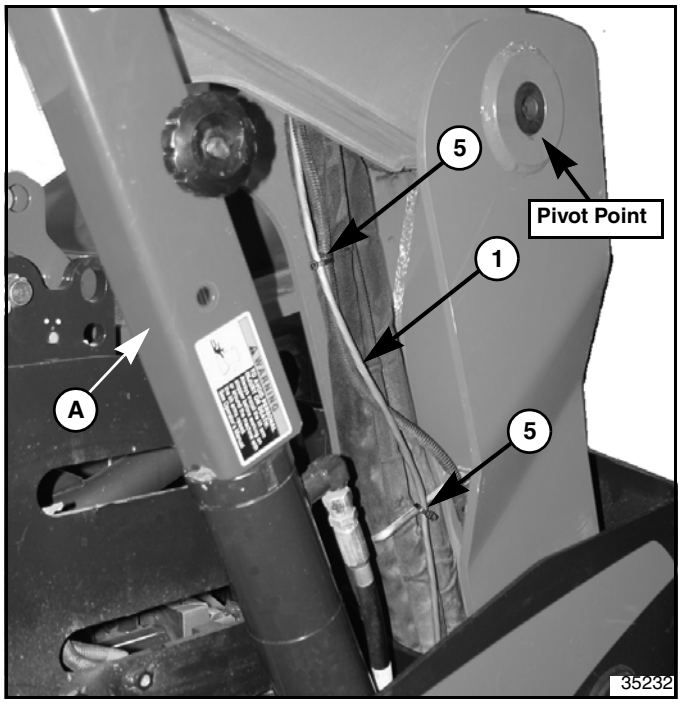
Do not work underneath raised skid steer lift arms without first securing loader arms in the raised position with an approved lift-arm support. Not securing loader arms in the raised position can result in a serious injury or death.

IMPORTANT: Make sure wiring harness (#1) does not become entangled, stretched, or kinked while loader arms are being raised and lowered.

2. Continue routing wire harness (#1) along loader arm while frequently attaching it to the hydraulic lines and mounting brackets with cable ties (#5). If necessary, add additional cable ties to prevent harness from becoming slack and catching on objects as loader arm is raised and lowered.

Refer to Figure 4-14 on page 27:

3. Raise loader arm up to access area below loader arm pivot point.
4. Before continuing, secure loader arm in the raised position with support stop “A” provided with the skid steer.
5. Continue routing wire harness (#1) below loader arm pivot point while frequently attaching harness to hydraulic lines and mounting brackets with cable ties (#5). Make certain harness is not slack and will not catch on objects as loader arm is raised and lowered.

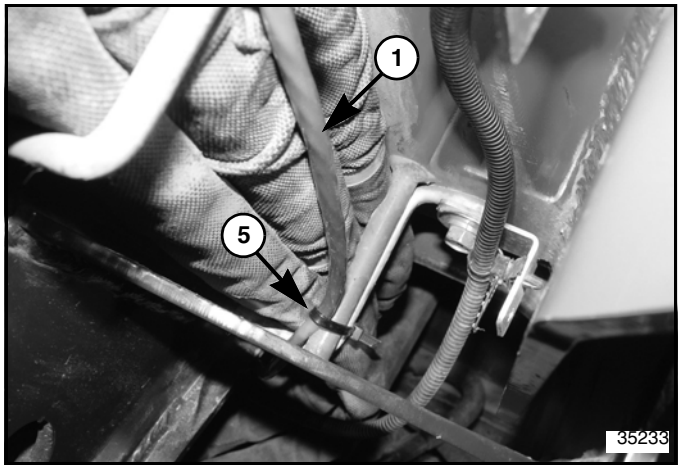


Attach Wire Harness Below Pivot Point
Figure 4-14

Rout Harness (#1) into Engine Room

Refer to Figure 4-15:

6. At the bottom of the vertical run and just before crossing over into the engine room, attach wire harness (#1) to hydraulic hoses or mounting bracket with cable tie (#5). Again, make sure harness is snug and cannot catch on objects, stretch, or pull apart as loader arm is operated.

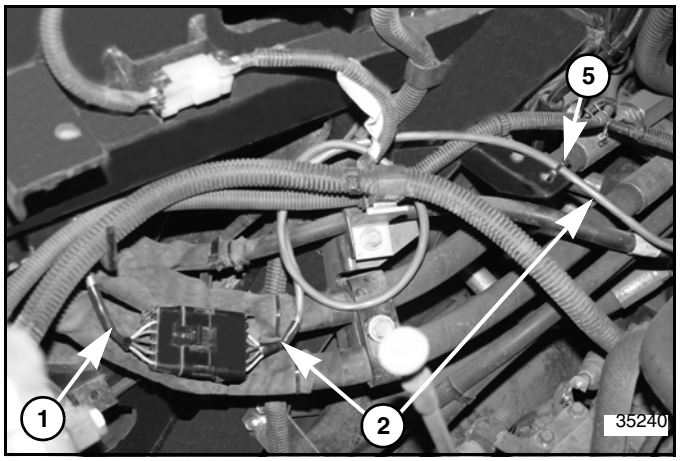


Attach Wire Harness Prior to Entering Engine Room
Figure 4-15

Refer to Figure 4-16:

7. Terminate male end of wire harness (#1) in the engine room.

NOTE: Wire harness (#2) will be routed to the same location and connected to wire harness (#1) later.



Pass Wire Harness (#1) into Engine Room
Figure 4-16

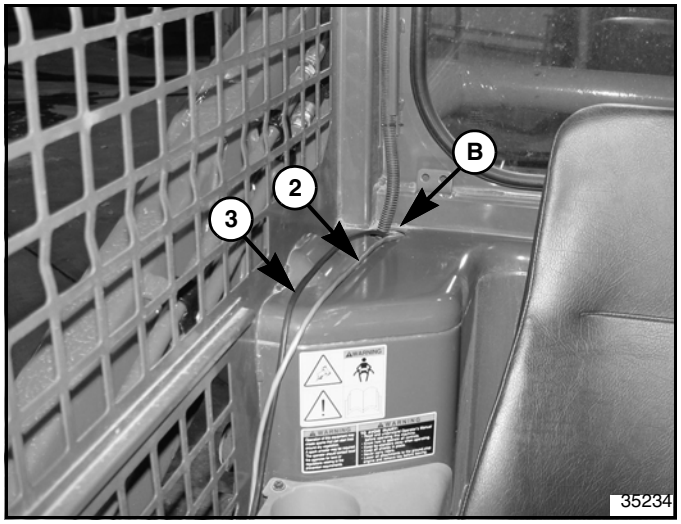
Route Harness (#2) & Power Cord (#3)

Wire harness (#2) and power cord (#3) start in the cab and run through the cab housing to the engine room.

Route Harnesses (#2 & #3) Through the Cab

Refer to Figure 4-11 on page 25 & Figure 4-17:

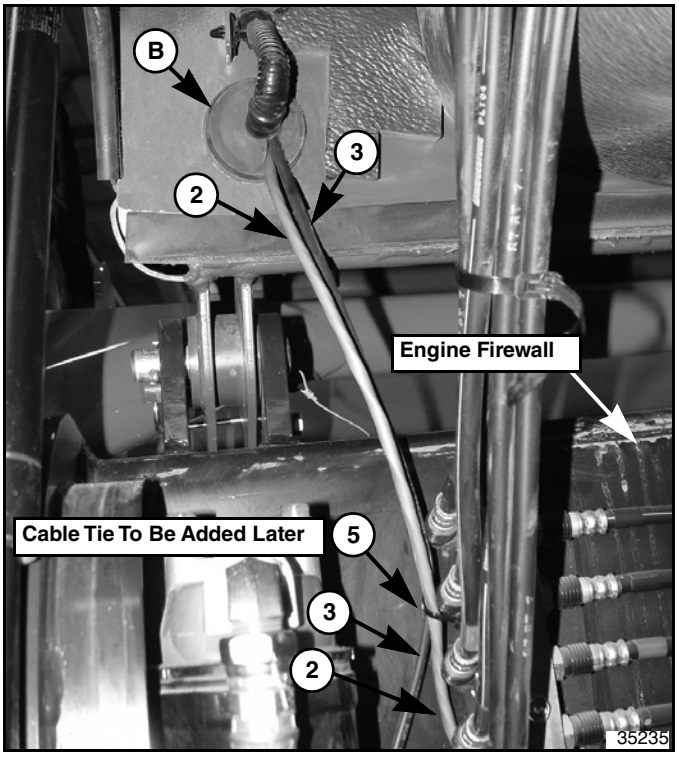
1. Locate inside the cab best location to route wire harness (#2) and power cord (#3) through the cab housing. Illustration shown in Figure 4-17 utilizes existing wire harness hole and rubber grommet “B”. Actual location will vary.
2. Remove rubber grommet “B” from wire harness hole and thread female end of wire harness (#2) and eyelet end of power cord (#3) through grommet. See Figure 4-18 on page 28 for illustration of wire harness and power cord protruding through grommet beneath the cab.
3. Replace grommet “B” in wire harness hole.



Thread Wiring Harness (#2) & Power Cord (#3) Through Cab
Figure 4-17

Refer to Figure 4-18:

4. Raise cab up and lock into position to access area beneath cab.
5. Pull enough wire harness (#2) through rubber grommet “B” to reach wire harness (#1) shown in the engine room in Figure 4-16.
6. **DO NOT** attach wire harness (#2) & power cord (#3) with a cable tie (#5) until routing is completed.



Route Wiring Harness (#2) & Power Cord (#3) Beneath Cab
Figure 4-18

Route Harness (#2) to Engine Room

Refer to Figure 4-19:

1. Thread wire harness (#2) through hydraulic hoses along engine fire wall to the left-hand side of the tractor.
2. Continue to thread wire harness (#2) rearward along the left side of the tractor into the engine room.

Refer to Figure 4-20:

3. Inside the engine room, loop excess harness (#2) around power cords and/or hydraulic hoses close to connection with wire harness (#1). See loop “A”
4. Connect wire harness (#2) to wire harness (#1).
5. Attach wire harness (#2) to the tractor frame or other suitable tie off point close to the connection of wire harnesses (#1 & #2) with a cable tie (#5).
6. Add any other required cable ties (#5) to contain wire harness (#2) in the engine room. No additional ties were required in this situation as the weaving through the hoses contained the harness.

Route Power Cord (#3) to Engine Room

Refer to Figure 4-21 on page 29:

1. Pull enough power cord (#3) through rubber grommet “B” to reach the tractor battery.
2. **DO NOT** attach wire harness (#2) & power cord (#3) with cable tie (#5) until routing for both is completed.
3. **Refer to Figure 4-23 on page 29:** Disconnect negative (-) black power cord from battery post.
4. **Refer to Figure 4-22 on page 29:** Attach positive (+) red wire eyelet to the battery’s positive (+) post and tighten fastener hardware.
5. **Refer to Figure 4-23 on page 29:** Attach negative (-) black wire eyelet and negative (-) black power cord to the battery’s negative (-) post and tighten.

Refer to Figure 4-21:

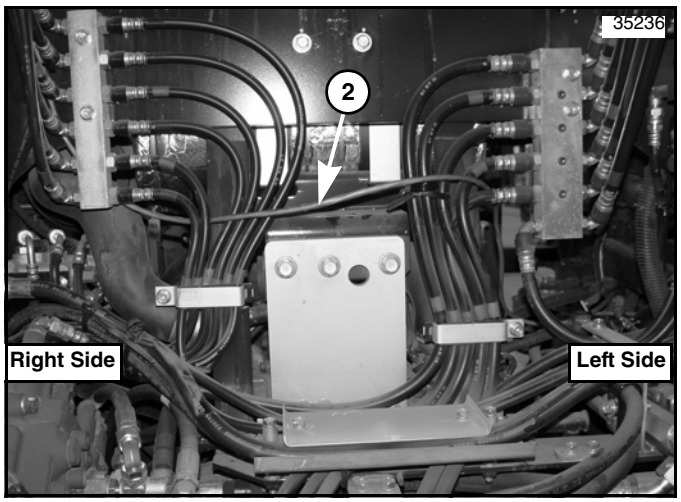
> **IMPORTANT:** Make sure harnesses (#2 & #3) will not stretch or kink as the cab is raised and lowered or become entangled with moving components in the engine room. Add cable ties (#5) as needed.

6. Attach wire harness (#2) and power cord (#3) with a cable tie (#5) near the area where the harnesses exit through the cab as shown in Figure 4-21.
7. Add any other required cable ties (#5) to contain wire harness (#2 & #3) under the cab. No additional ties were required in this situation as the weaving through the hoses contained the harness.

Mount Control Box (#6) in Cab

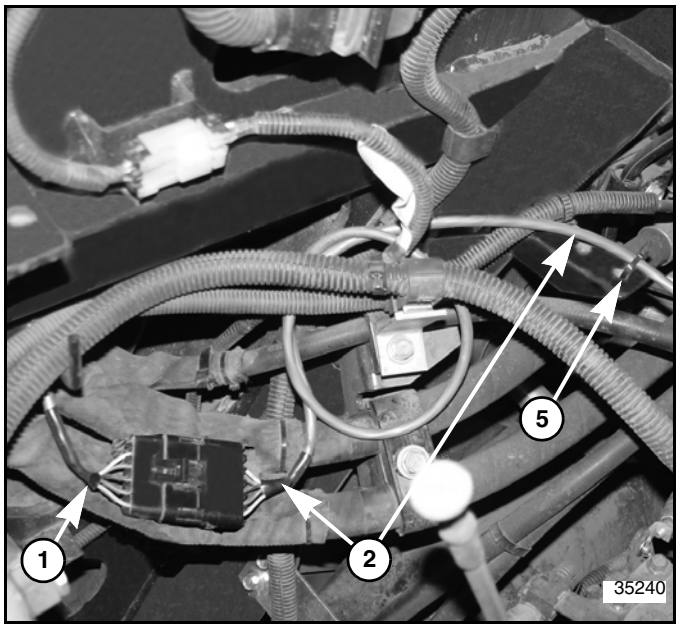
Refer to Figure 4-11 on page 25 & Figure 4-24 on page 29

1. Locate inside the cab where control box (#6) can be mounted that is easy to access and operate.
2. Fasten control box (#6) to that area with hardware furnished by the customer.
3. Plug wire harness (#2) and power cord (#3) to control box (#6).

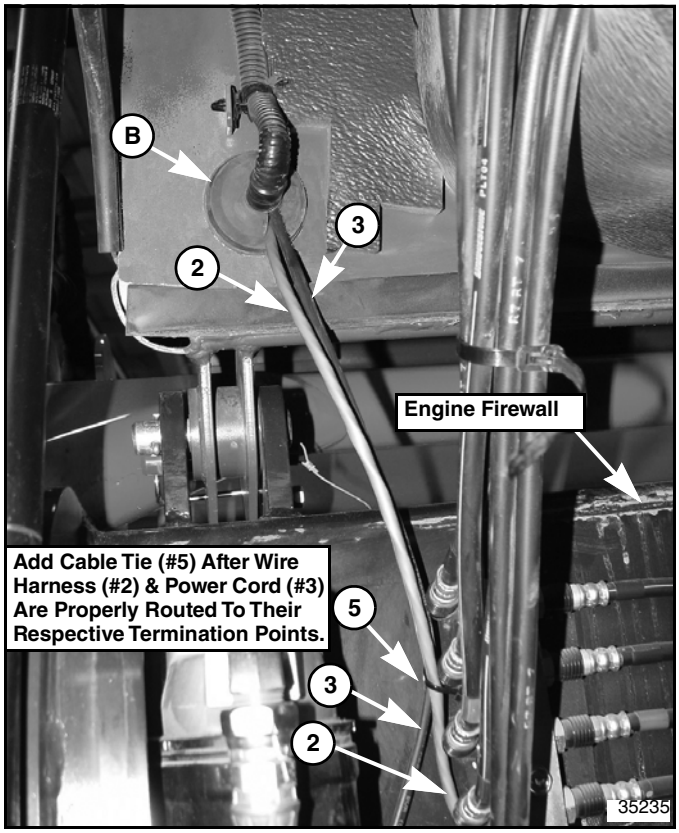


Thread Wiring Harness (#2) Along Firewall
Figure 4-19

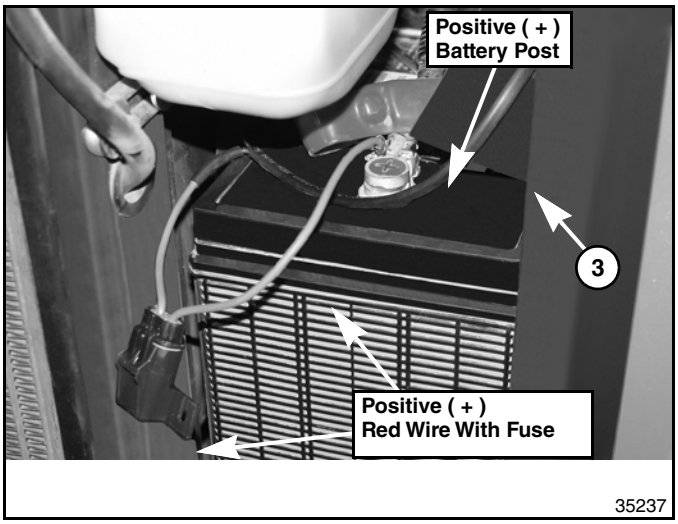
4. Make sure all wiring harness inside the cab are placed in an out-of-the-way area to prevent entanglement with cords.



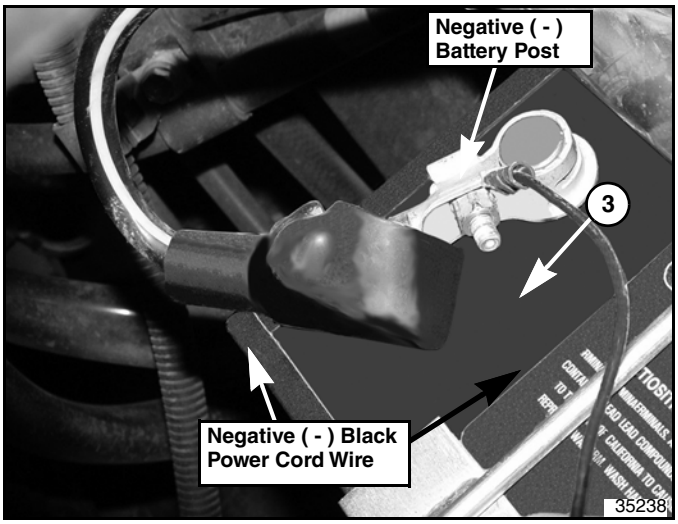
Connect Wire Harness (#2) to Wire Harness (#1)
Figure 4-20



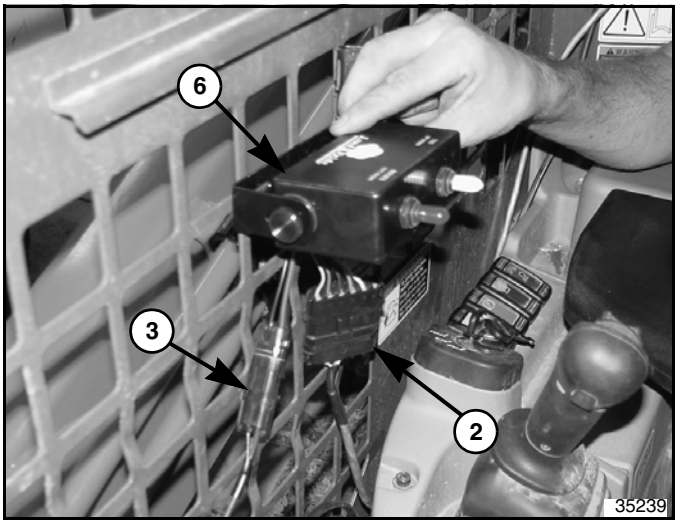
Route Power Cord (#3) & Tie Harness (#2) Beneath Cab
Figure 4-21



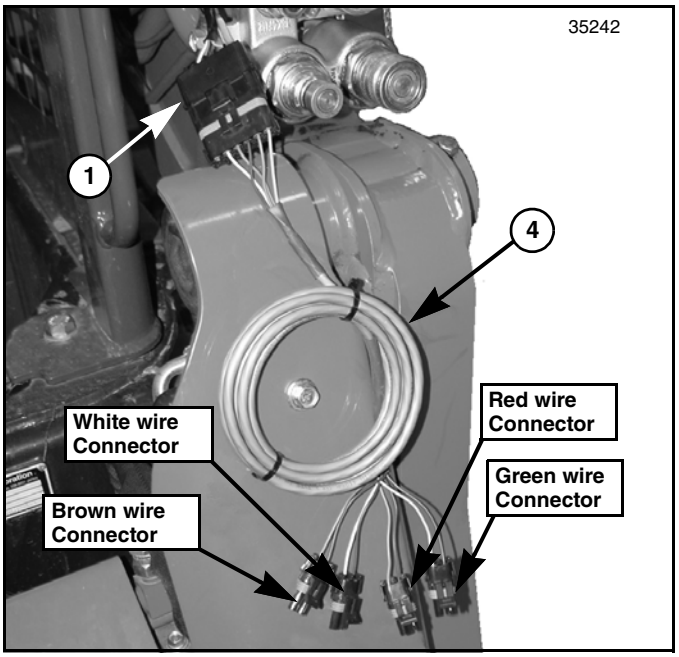
Battery's Positive (+) Post Connection
Figure 4-22



Battery's Negative (-) Post Connection
Figure 4-23



Mount Control Box
Figure 4-24



Attach Solenoid Harness to Skid Steer Harness
Figure 4-25

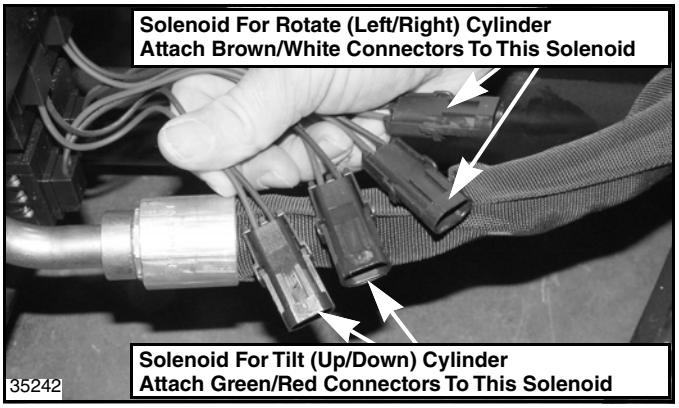
Hook-up Solenoid Harness (#4)

Refer to Figure 4-11 on page 25 & Figure 4-25:

1. At the front of the loader arm, connect solenoid harness (#4) to wire harness (#1).

Refer to Figure 4-26:

2. Locate solenoid that will operate (up/down) tilt cylinder and attach green wire and red wire connectors in Figure 4-25 to that solenoid.
3. Locate solenoid that will operate the (left/right) rotate cylinder and attach brown wire and white wire connectors in Figure 4-25 to that solenoid.
4. Operate tilt switch. Change green wire connector with red wire connector if tilt cylinder operates in the opposite direction desired.
5. Operate rotate switch. Change brown wire connector with white wire connector if unit rotates in the opposite direction desired.



Attach Solenoid Wires to Equipment
Figure 4-26

CTL/SS Coupler

Refer to Figure 4-27:

The following flat face hydraulic coupler is available for attaching the case drain line to the skid steer case drain port. It consist of one 3/8" quick disconnect coupler and three cable ties.

326-474A CTL/SS COUPLER PACKAGE

Flat Face Couplers

Refer to Figure 4-28:

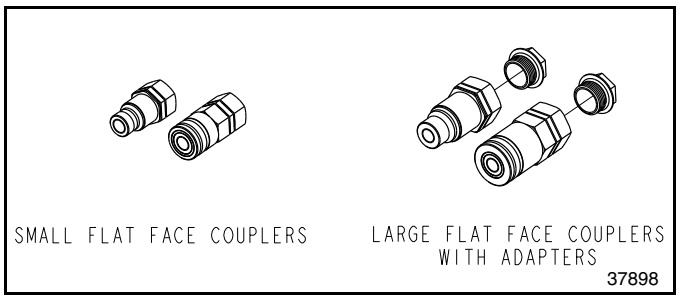
The following flat face hydraulic couplers are available.

LARGE FLAT FACE COUPLERS 328-113A

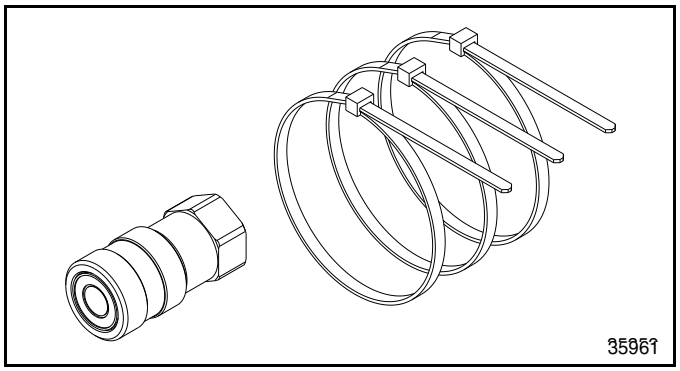
Large flat face couplers consist of one large flat face male coupler, one large flat face female coupler, and two adapters.

SMALL FLAT FACE COUPLERS 326-627A

Small flat face couplers consist of one small flat face male coupler and one small flat face female coupler.



Flat Face Couplers
Figure 4-28



CTL/SS Coupler
Figure 4-27

Maintenance

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

Check all bolts and pins after using the grinder for several hours and on a regular basis thereafter to ensure they are tight and secured.

Check hitch fit-up, hydraulic hoses, hydraulic fittings, and wiring harness on a regular basis to ensure trash or other objects have not loosened hitch connection or damaged hydraulic hoses, fittings, and wiring harness.

Replace worn, damaged, or missing Stump Grinder parts only with genuine Kubota parts.

Replace illegible or missing safety labels by obtaining new labels from your Kubota dealer.

⚠ DANGER

To avoid serious injury or death:

- *Do not go near or under raised loader arms without first securing loader arms in the raised position with an approved lift-arm support.*
- *Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to the hydraulics is off.*

⚠ WARNING

To avoid serious injury or death:

- *Always shut power machine down using the "Shutdown Procedure" provided in this manual before servicing, adjusting, cleaning, or maintaining the attachment.*
- *Check hitch fit-up frequently. An improper fit-up can cause the attachment to come loose from the loader hitch plate and fall.*
- *Perform scheduled maintenance. Check for loose hardware, missing parts, broken parts, structural cracks, and excessive wear. Make repairs before putting the implement back into service.*
- *Do not alter attachment or replace parts on the attachment 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 attachment. Replace parts only with genuine OEM parts.*
- *Make sure controls are all in the neutral position or park before starting the power machine.*

Skid Steer Maintenance

One of the most important things you can do to prevent hydraulic system problems is to ensure your skid steer reservoir remains free of dirt and contamination.

Use a clean cloth to wipe hose ends before attaching them to your skid steer. Replace your skid steer's hydraulic filter element at the prescribed intervals. These simple maintenances will go a long way to prevent occurrence of control valve and hydraulic cylinder problems.

Cutting Wheel Maintenance

NOTE: "Right-hand" and "left-hand" designation for the carbide teeth are determined by standing in front of the Stump Grinder while facing the skid steer.

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

Refer to Figure 5-1 on page 32:

The cutting wheel has 32 carbide cutting teeth. Eight are straight teeth (#4), twelve are left-hand bent teeth (#2), and twelve are right-hand bent teeth (#3).

IMPORTANT:
Carbide Cutting Edge Must Lead In Rotation.
Straight teeth (#4) are attached only to the outer bolt circle diameter. Always attach one straight tooth and one bent tooth in pairs. Alternate straight teeth from side to side when attaching them.

The right-hand teeth (#2) are attached to the cutting wheel on the far side (FS) in series of three between the straight teeth.

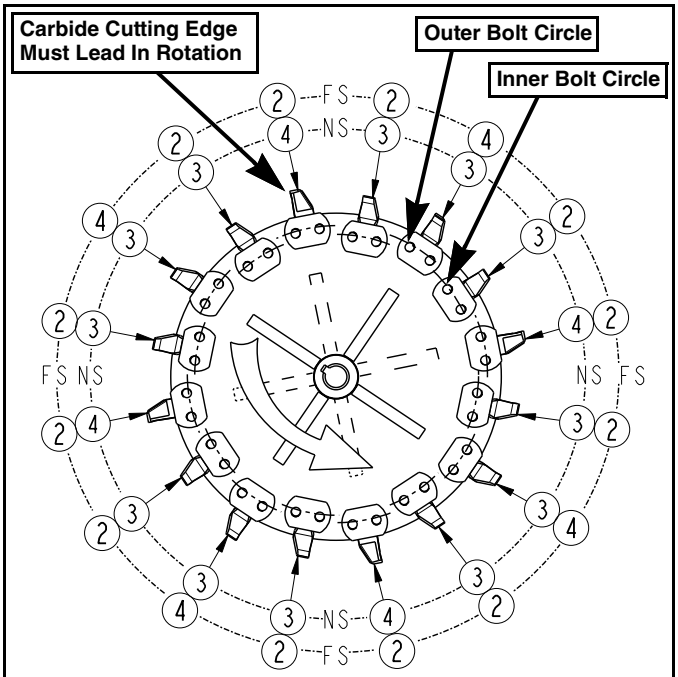
The left-hand teeth (#3) are attached to the cutting wheel on the near side (NS) in series of three between the straight teeth.

Refer to Figure 5-3 on page 32:

1. Remove hex flange locknuts (#3) and shroud (#2) from cutting wheel (#1).

Refer to Figure 5-2 on page 32:

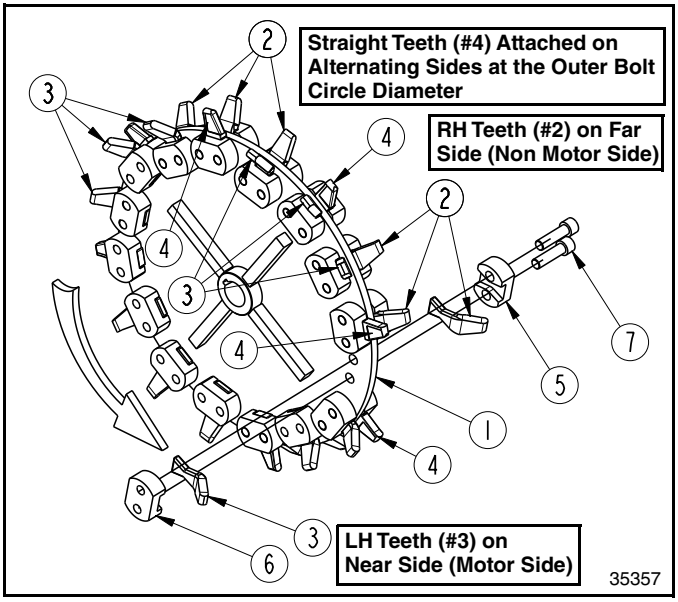
2. Hold tapped block (#6) against cutting wheel (#1) while loosening the two hex socket cap screws (#7) until right-hand tooth (#2) can be removed.
3. Remove and replace right-hand tooth (#2) with a new or resharpened right-hand tooth.
4. Hold counterbore block (#5) against cutting wheel (#1) and remove left-hand tooth (#3).
5. Replace left-hand tooth (#3) with a new or resharpened left-hand tooth.
6. Tighten hex socket cap screws (#7) to the torque value provided under **"Torque Values Chart for Common Bolt Sizes"** on page 37.
7. Repeat steps 2 to 6 to replace the remaining right-hand, left-hand, and straight teeth.



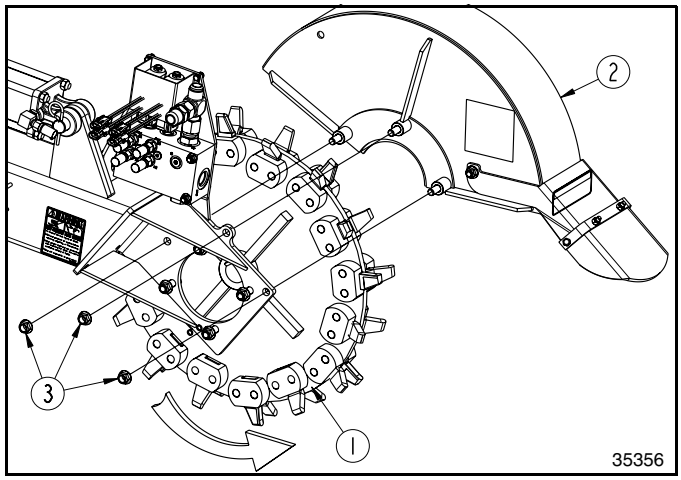
IMPORTANT:
Carbide Cutting Edge Must Lead In Rotation.

Right-hand teeth (#2) are attached on the far side (FS). Left-hand teeth (#3) are attached on the near side (NS). Straight teeth (#4) are attached to the outer bolt circle diameter and alternate from near side to far side.

Configuration of Carbide Teeth
Viewed From Motor Side
Figure 5-1



Replace Carbide Teeth
Viewed From Motor Side
Figure 5-2



Remove & Install Cutting Wheel Guard
Viewed From Motor Side
Figure 5-3

Refer to Figure 5-3:

8. Replace cutting wheel shroud (#2) and secure hex flange locknuts (#3). Tighten locknuts to the correct torque.

Long-Term Storage

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

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. Repaint parts where paint is worn or scratched to prevent rust. Ask your Kubota dealer for touch-up paint. Paint is available in aerosol can, quarts, and gallon sizes. See chart below.

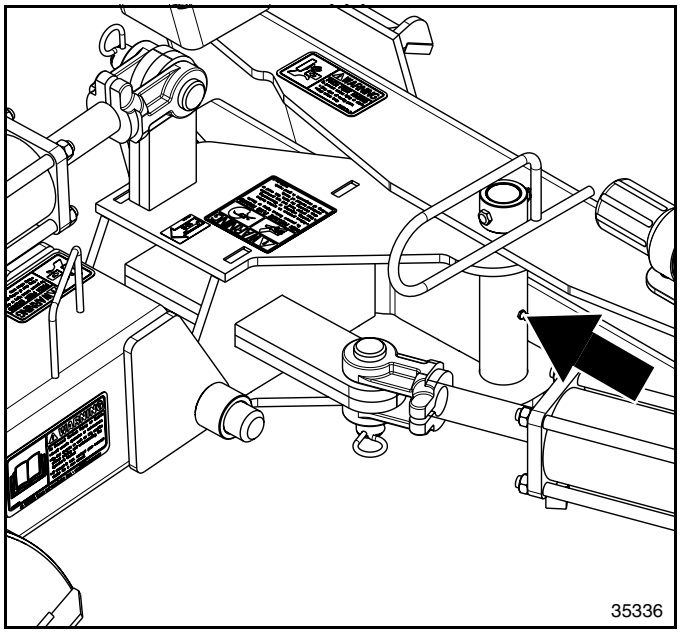
Kubota Touch-up Paint

Part No.	Part Description
77700-06430	GLOSS BLACK ENAMEL SPRAY CAN
77700-06431	GLOSS BLACK ENAMEL QUART
700 00-00017	GLOSS BLACK ENAMEL GALLON

4. Replace all damaged or missing guards & decals.
5. Lubricate as noted in **"Lubrication Points"** starting on page 18.
6. Store grinder on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer Stump Grinder life.
7. Do not allow children to play on or around the stored Stump Grinder.

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



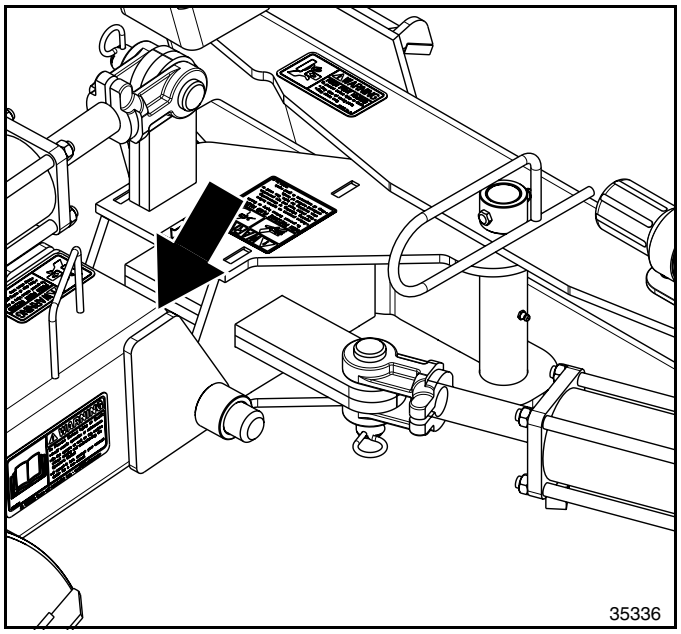
10 Hrs

Articulate Pivot Point

1- Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required (make sure grease is visible)



10 Hrs

Tilt Pivot Point

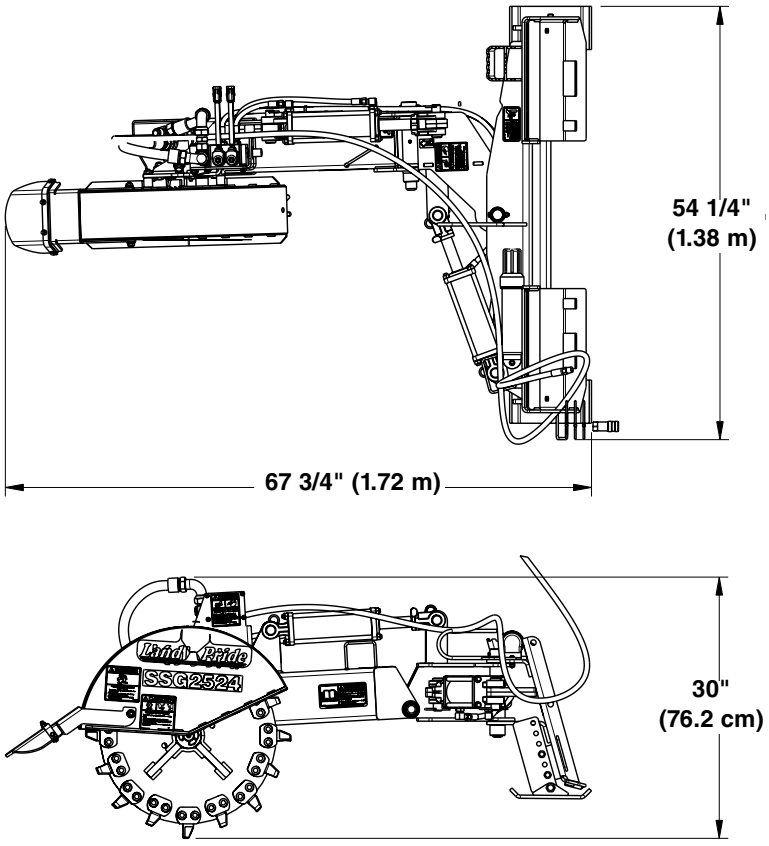
1- Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required (make sure grease is visible)

SSG2524 Model

Specifications & Capacities		
Mounting Plate		Quick Attach
Main Frame	in (mm)	6 x 6 x 1/4 (152 x 152 x 6) Tube
Overall Mounting Width	in (m)	48 (1.22)
Overall Length	in (m)	60 (1.52)
Overall Weight	lbs (kg)	540 (244.9)
Drive And Control System		Hydraulic motor with electric over hydraulic
Hydraulic Requirements	gpm (Lpm)	17 to 32 (64.4 to 121.1)
Cutting Wheel Speed		470 to 875 rpm
Articulate Cylinder	in (cm)	3 (7.6) x 6 (15.2) stroke with 1 1/4 (3.2) rod dia.
Tilt Cylinder	in (cm)	3 (7.6) x 6 (15.2) stroke with 1 1/4 (3.2) rod dia.
Hydraulic Lines & Hoses	in (mm)	3/4 (19) I.D. Hydraulic hoses with crimp on cordura sleeve 1/4 (6) I.D. Case drain hydraulic hose
Number of Cutting Teeth **Straight** **Left-Hand** **Right-Hand**		8 - Replaceable carbide teeth 12 - Replaceable carbide teeth 12 - Replaceable carbide teeth
Cutting Arc		55 Degrees
Maximum Cutting Depth Below Ground	in (cm)	8 (20.3)
Greasable Hinge Points		Yes
Color		Black
Outside Cutting Wheel Diameter	in (cm)	23 3/4 (60.3)
Cutting Wheel Thickness	in (mm)	1/2 (13)
Maximum Pressure Rating	psi (mPa)	3500 (24.1)



SSG2524 Model

Features	Benefits
Universal quick attach mounting system	For quick and easy attachment.
8" (20.3 cm) Digging depth	A good depth below the ground. Removes base of most trees.
Adjustable skid shoes	Adjustable to fit all sizes of skid steers.
Pivoting discharge deflector	Discharge deflector pivots up while cutting wheel is digging into the ground.
Welded on serrated step	Good safe step for accessing skid steer operator's seat.
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 are easy to replace. Carbide tips for extra long life.
Hydraulic hose lines	Hydraulic hoses absorb shock. Steel hydraulic lines crack from vibration.
Case drain hydraulic line	Protects against component damage.
Keyed, tapered spindle on end of hydraulic motor	Able to draw cutting wheel tight against the tapered shaft providing an excellent fit-up and less likely to shear the key off.
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-site from operator's seat.

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	Skid Steers pressure is too low.	Hitch Stump Grinder to a skid steer with a higher pressure rating.
	Skid Steer oil flow volume is low.	Hitch Stump Grinder to a skid steer with a higher flow volume.
Cutting wheel won't turn	Quick disconnect couplers are attached to the wrong hydraulic hoses.	Switch quick disconnect couplers on the hydraulic hoses
	Hydraulic hoses are not coupled to the skid steer.	Reattach quick disconnect couplings to the skid steer.
	Hydraulic hoses and/or fittings are damaged.	Replace damaged hydraulic hoses and fittings.
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.	Replace teeth with new teeth or have teeth sharpened by a professional.
	Skid Steers pressure is too low.	Hitch Stump Grinder to a skid steer with a higher pressure rating.
	Carbide tips are missing on the teeth.	Replace teeth with new teeth.
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 is loosely attached to the Skid Steer	Quick Attach Hitch is not properly attached to skid steer.	Reattach hitch before using Stump Grinder.
Stump Grinder vibrates excessively	Making cuts with skid shoes off the ground.	Lower hitch until skid shoes are firmly planted on the ground.
	Backing up while making a cut.	Don't move skid steer while making a cut. If available, set skid steer park brake.
	Making deep cuts in the stump.	Make shallower cuts in the stump.
Articulation cylinder operates backwards	Brown & white connectors at the solenoid are hooked up backwards.	Switch brown & white connectors at the solenoid.
Tilt cylinder operates backwards	Red & green connectors at the solenoid are hooked up backwards.	Switch red & green connectors at the solenoid.
Articulation & tilt cylinders do not operate	Wiring harness connections are loose.	Reconnect all wire harness connections.
	Wires in wiring harness are broken or chewed through by rodents.	Replace or repair broken or damaged wiring harness.

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

Tooth Mounting Bolts 5/8"-13 UNF GR 8	200 ft-lbs

Warranty

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

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 original purchase. Registration is done by your dealer.

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** _____

Legal Disclaimer

Kubota Corporation notes that specifications and technical information are subject to change without notice and Kubota does not represent or warrant that the information in this publication is completely accurate or current; however, Kubota used reasonable efforts to set forth and include accurate and up to date information in this publication. Kubota disclaims all representations and warranties, whether express or implied, including, but not limited to, warranties of merchantability and fitness for a particular purpose and Kubota shall not be liable for any damages, whether compensatory, direct, indirect, incidental, special, or consequential, arising out of or in connection with the use of this publication, or in the information therein.

The Product(s) described in this Publication are designed and manufactured only for the country in which they are initially wholesaled by Kubota. Kubota does not provide parts, warranty or service for any Product which is re-sold or retailed in any country other than the country for which the Product(s) were designed or manufactured.

KUBOTA TRACTOR CORPORATION
1000 Kubota Drive, Grapevine, TX 76051
Telephone: (817) 756-1171

Western Division: 1175 S. Guild Ave., Lodi, CA 95240
Telephone: (209) 334-9910

Midwest Division: 31700 W. 207th ST., Edgerton, KS 66021
Telephone: (913) 215-5915

Central Division: 14855 FAA Blvd., Fort Worth, TX 76155
Telephone: (817) 571-0900

Northern Division: 6300 at One Kubota Way, Groveport, OH 43125
Telephone: (614) 835-1100

Southeast Division: 1025 Northbrook Parkway, Suwanee, GA 30024
Telephone: (770) 995-8855