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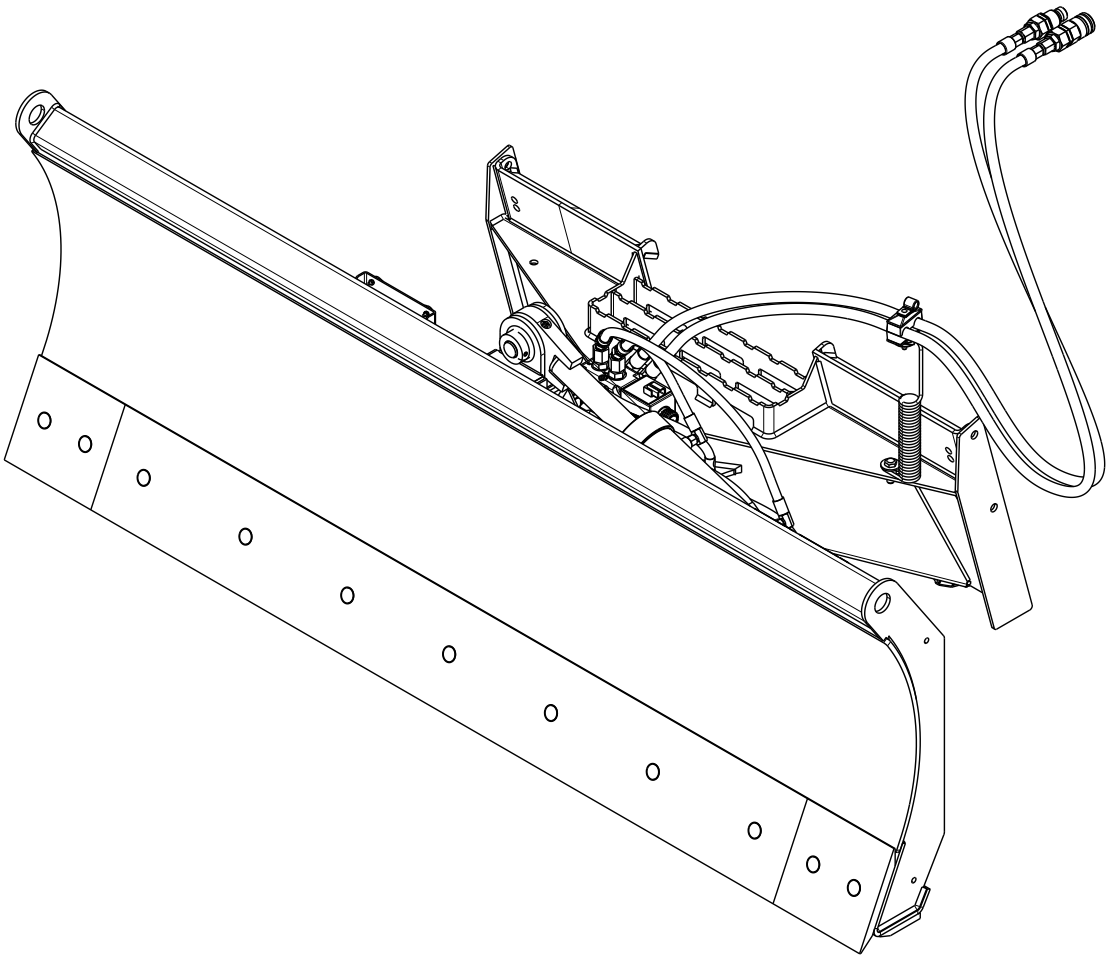
6-Way Dozer Blade

AP-DZ3084 & AP-DZ3096



70586

301-587MK
Operator's Manual

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

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

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

Printed 7/17/23

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

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Printed in the United States of America.

See previous page for Table of Contents.

Parts Manual QR Locator

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

Dealer QR Locator

The QR code on the left will link you to available dealers for 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.

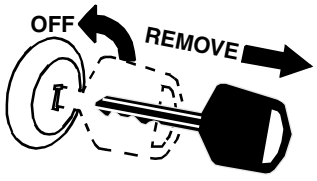
Safety Precautions for Children

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.



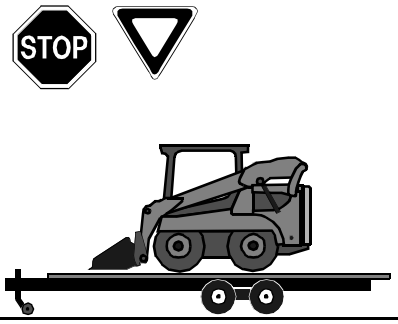
Listed below are common practices that may or may not be applicable to the products described in this manual.

Dig Safe - Avoid Underground Utilities

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

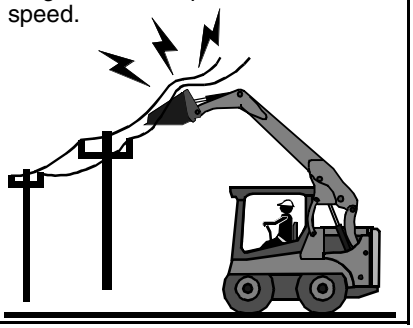
Towing Safely

- ▲ 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.

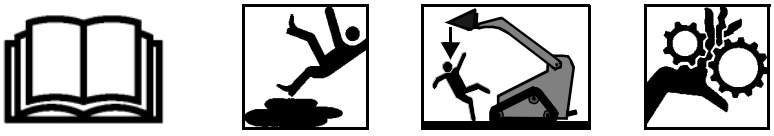


Tire Safety

- ▲ 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

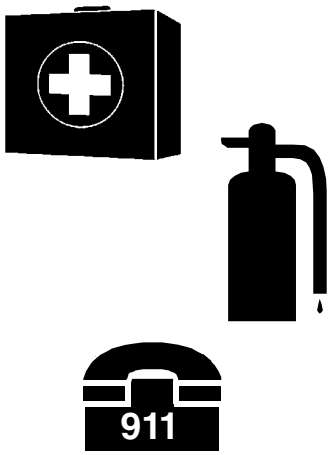
- ▲ Understand procedure before doing work. Refer to the Operator's Manual for additional information.
- ▲ Work on a level surface in a clean dry area that is well-lit.
- ▲ Lower attachment to the ground and follow all shutdown procedures before leaving the operator's seat to perform maintenance.
- ▲ 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.

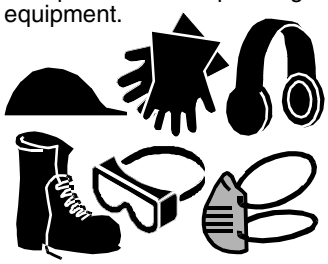
Prepare for Emergencies

- ▲ 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.

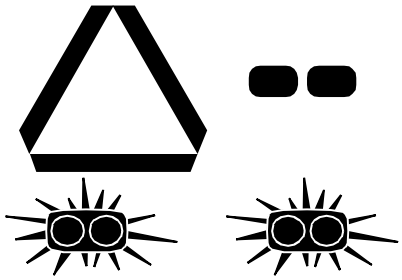


Avoid High Pressure Fluids

- ▲ 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.

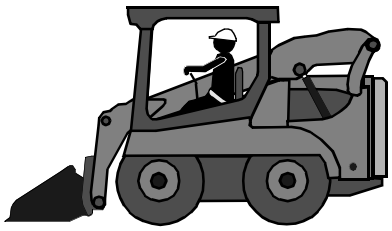
Use Safety Lights and Devices

- ▲ 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

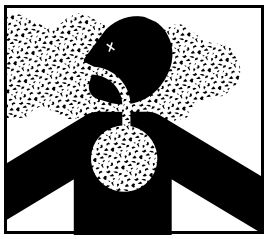
- ▲ Never carry riders on the power machine or attachment.
- ▲ Riders obstruct operator's view and interfere with the control of the power machine.
- ▲ Riders can be struck by objects or thrown from the equipment.
- ▲ Never use the power machine or attachment to lift or transport riders.

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.

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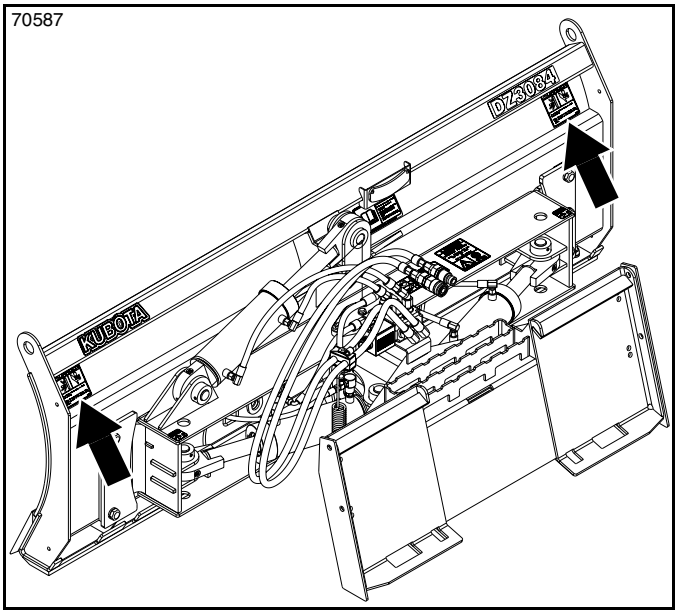
Safety Labels

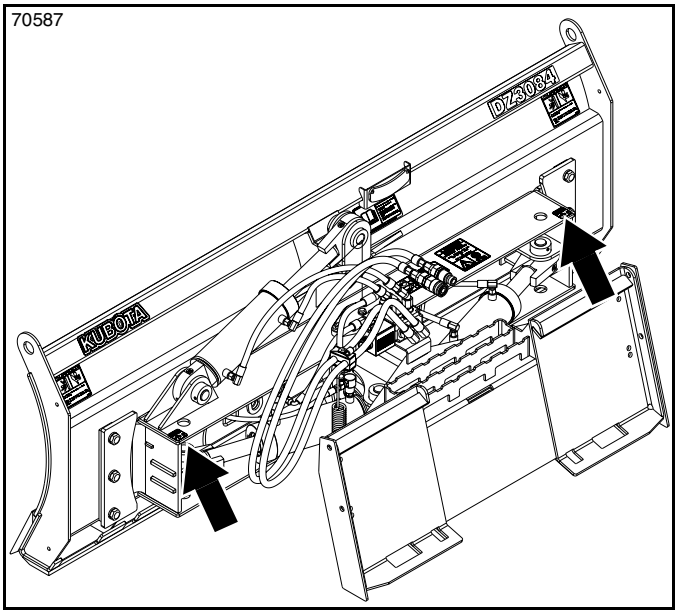
Your 6-Way Dozer Blade comes equipped with all safety labels in place. They are designed to help you safely operate your attachment. Read and follow their directions.

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.*



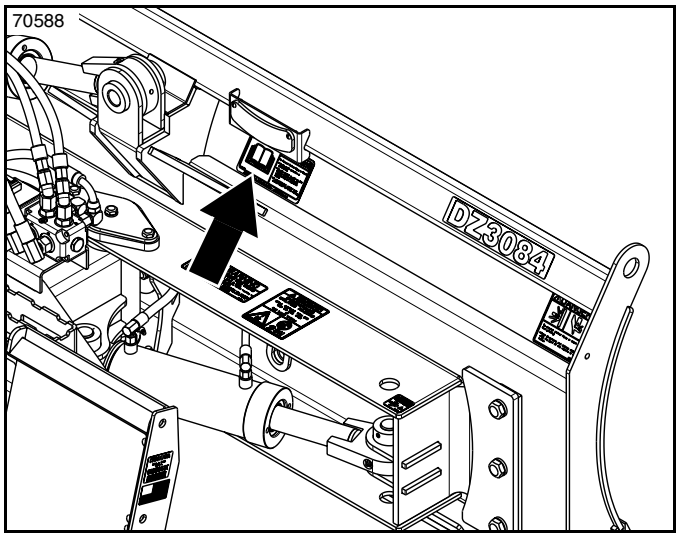
838-112C

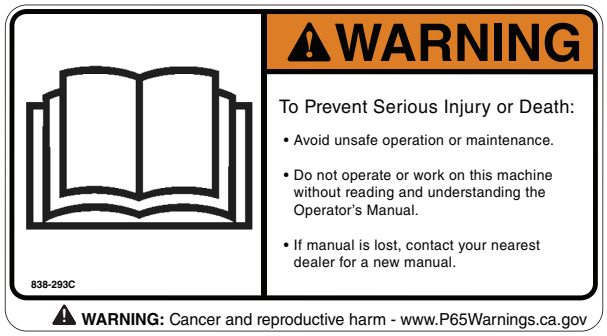
Danger: Pinching Hazard
2-Places



858-765C

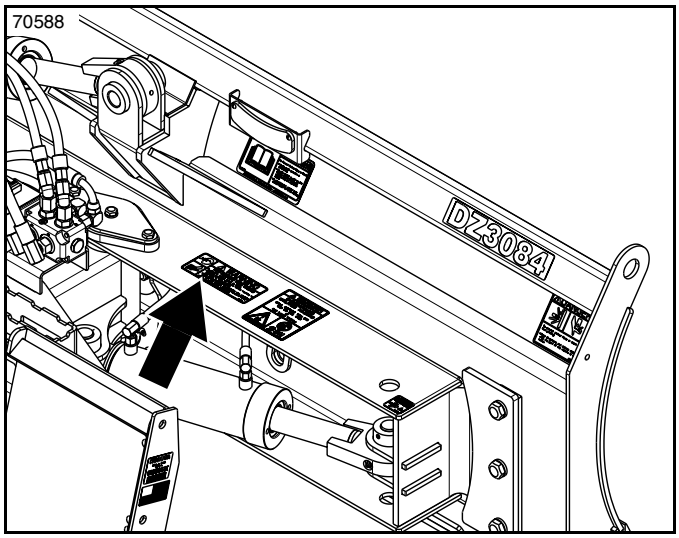
Warning: General Safety Information
2-Places





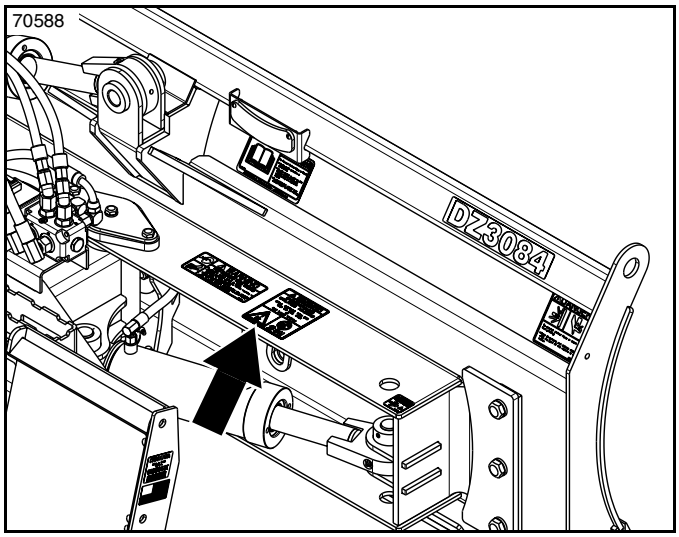
838-293C

Warning: Read Manual
1-Place



838-094C

Warning: High Pressure Fluid Hazard
1-Place



858-237C

Warning: Underground utilities Hazard
1-Place

Kubota welcomes you to the growing family of new product owners. This 6-Way Dozer Blade has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance, and safe operating practices will help you get years of satisfactory use from this product.

Application

The DZ30 Series 6-Way Dozer Blades are construction-grade blades designed to meet the needs of landscapers, construction companies, municipalities, farmers, ranchers, landowners, or anyone that needs to push material from point A to point B. They are used for backfilling, grading, landscaping, leveling, and other dirt working tasks.

The 6-way Dozer Blade turns any skid steer or track loader into an earth-moving machine and is available in an 84" or 96" wide model. Both models feature a 3/8" thick moldboard with fully boxed bracing for rugged dependability. The 6-way blade angles up to 30 degrees in each direction to move material left or right. It tilts 10 degrees up or down to create slopes. The hydraulic controls simplify these adjustments. The 3-piece cutting edges are 3/4" thick x 8" wide and are reversible and replaceable. The user can replace the entire cutting edge or just the high-wear, 8 1/2" long corner sections.

The hitch and angle mechanism are manufactured from high-strength steel for years of dependable use. The pivot pins are 3" diameter. Angle and tilt are accomplished with strong 3.5" x 8" welded cylinders. It also features a full length 1/2" x 4" wear bar for extended life and durability.

See **"Specifications & Capacities"** on page 36 and **"Features & Benefits"** on page 36 for additional information and performance enhancing options.

Using This Manual

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

Terminology

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

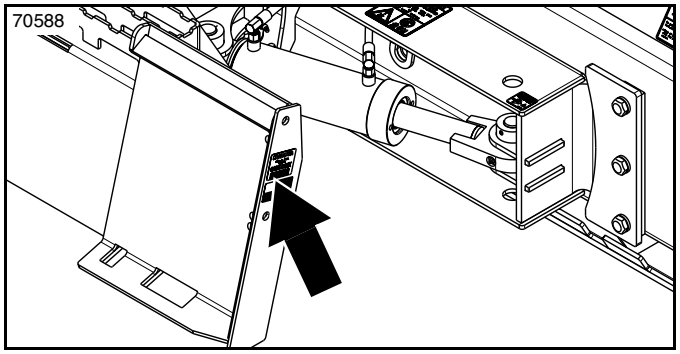
Owner Assistance

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 6-Way Dozer Blade 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 dealer wants you to be satisfied with your new 6-Way Dozer Blade. 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 6-Way Dozer Blade is designed to attach to Kubota's SSV65, SSV75, SVL75-2, and SVL95-2s skid steers.

⚠ 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.*
- *Consult your skid steer's manual for operating capacity, lifting capacity, and operating specifications. Exceeding rated capacities and specifications can result in a roll-over or other serious hazard.*

Torque Requirements

Refer to **"Torque Values Chart for Common Bolt Sizes"** on page 32 to determine correct torque values when tightening hardware.

Before You Start

⚠ WARNING

To avoid serious injury or death:

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.

Make sure that the intended skid steer conforms to the requirements stated above. Also, read and understand this Operator's Manual for your 6-Way Dozer Blade. An understanding of how it works will aid in its assembly and set-up.

Go through the **Pre-Assembly Checklist** before assembling the Dozer Blade. To speed up your assembly task and make the job safer, have all needed parts and equipment readily at hand.

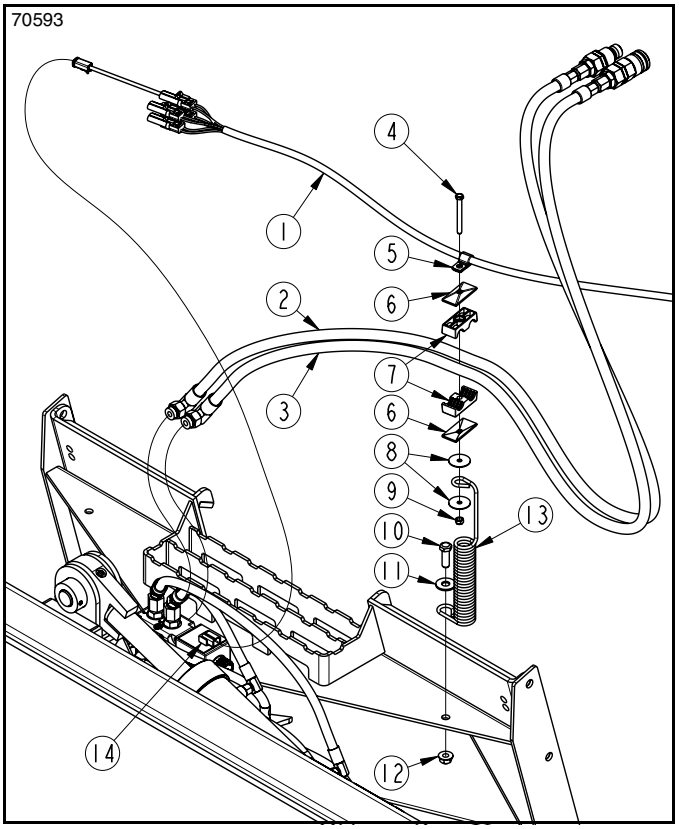
Pre-Assembly Checklist

✔	Check	Reference
☐	Have a fork lift or loader with properly sized chains and safety stands capable of lifting and supporting the equipment on hand.	
☐	Have a minimum of two people available during assembly.	
☐	Make sure all major components and loose parts are shipped with the 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. By double checking, you will lessen the chance of incorrectly using a bolt that may be needed later. **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 301-587MK Parts Manual 301-587PK
☐	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 36
☐	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.
3. Adjust attachment level and straight (not angling).
4. Lower attachment until it is flat on the ground or on support blocks.
5. Turn off engine, and remove switch key to prevent unauthorized starting.
6. Relieve all hydraulic pressure to auxiliary hydraulic lines.
7. If included, raise seat bar and move controls until both lock.
8. Wait for all components to come to a complete stop before leaving the operator's seat.
9. Use steps, grab-handles and anti-slip surfaces when stepping on and off the skid steer or attachment.



Hitch Assembly
Figure 1-1

Spring Hose Holder Assembly

Refer to Figure 1-1:

Attach spring hose holder (#13) to the hitch plate as follows:

1. Attach spring hose holder (#13) to the hitch plate with 1/2"-13 x 1 1/2" GR5 hex bolt (#10), flat washer (#11), and hex whiz nut (#12). Tighten hex whiz nut to the correct torque.
2. Connect wire harness (#1) to diverter valve (#14).
3. Spread hose clip (#5) apart just enough to insert wire harness (#1) into the clip.
4. Attach hose clip (#5) and hose clamp halves (#7) to spring hose holder (#13) as follows:
   a. Insert 5/16-18 x 3" GR5 hex head bolt (#4) through hose clip (#5), upper hose clamp cover plate (#6), and upper hose clamp half (#7).
   b. Place hydraulic hoses (#2 & #3) in lower hose clamp half (#7).
   c. Continue to insert bolt (#4) through lower hose clamp half (#7), lower hose clamp cover (#6), flat washer (#8), spring hose holder (#13), and second flat washer (#8).
   d. Secure bolt (#4) in place with hex nylock nut (#9). Draw nylock nut up snug; do not tighten at this time.
5. Adjust hoses (#2 & #3) in hose clamp (#7) to allow slack between the spring hose holder (#13) and diverter valve (#14).
6. Adjust wire harness (#1) in hose clip (#5) to allow slack between the spring hose holder (#13) and diverter valve (#14).
7. Tighten hex nylock nut (#9) to where hose clamp (#7) is able to pivot on hose spring (#13) with hydraulic hoses (#2 & #3) secured in the hose clamp.

NOTE: Supplied with the dozer is one 12" piece of spiral hose wrap (not shown). Cut wrap as needed into shorter lengths to contain and protect the wire harness and hydraulic hoses.

8. Wrap a piece of the spiral hose wrap around wire harness (#1) and hydraulic hoses (#2 & #3) halfway between diverter valve (#14) and hose clamp (#7).
9. Apply a second spiral hose wrap halfway between hose clamp (#7) and hydraulic hose couplers. Other cut pieces of wrap may be applied as needed.

Hook-up Dozer Blade

Refer to Figure 1-2 on page 11:

DANGER

To avoid serious injury or death:

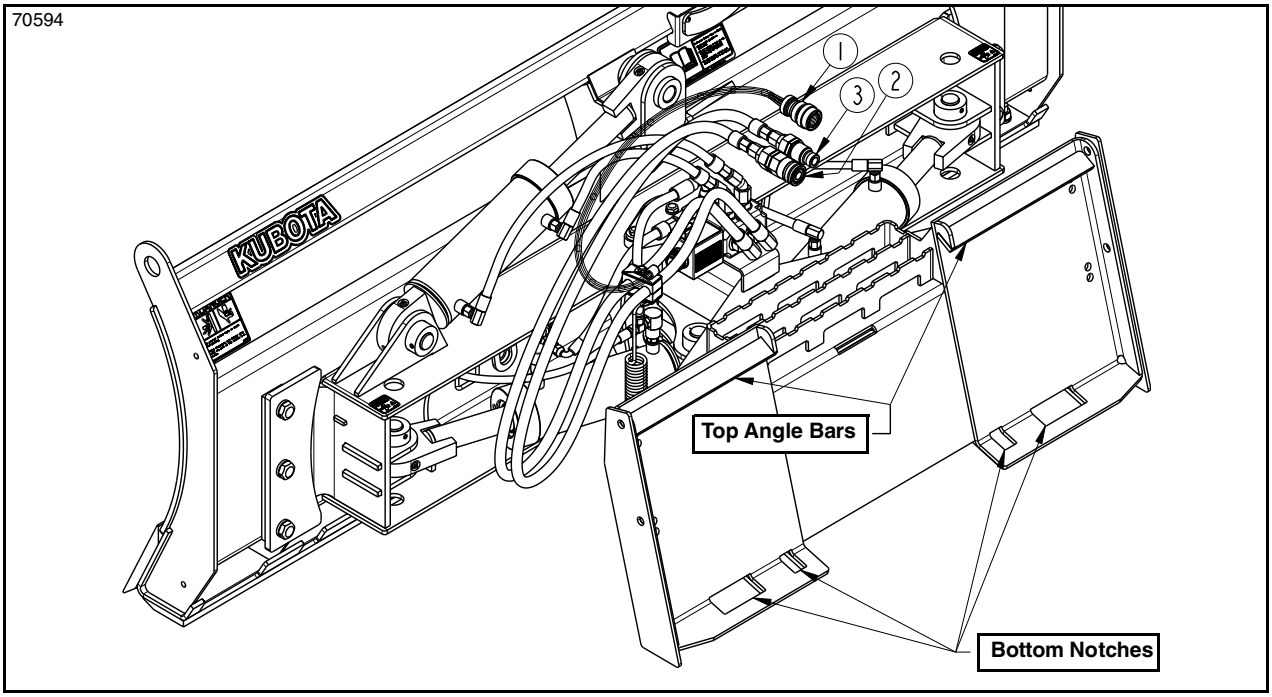
A crushing hazard exists when connecting and disconnecting the attachment. Do not allow anyone to stand between attachment and power machine while approaching or backing away from the attachment. Do not operate hydraulic controls while someone is near the power machine and/or attachment.

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.

1. Check for and remove all debris in the skid steer and dozer hitch point areas.
2. Make sure wire harness (#1) and hydraulic hoses (#2 & #3) do not interfere with hitch hook-up.
3. Raise lock pins on skid steer hitch for hook-up.
4. Carefully dive up to the dozer making sure the hitch plate on the skid steer loader arms is parallel with the dozer hitch plate.
5. Rotate top of loader hitch plate slightly forward.
6. Place top of skid steer hitch under the dozer's top angled bars.
7. Slowly raise loader arms up until the loader hitch plate is seated under the top angle bar.
8. Rotate top of loader hitch plate back until the hitch plate makes full contact with the dozer's hitch plate.
9. If lock pins are mechanical, skip to step 11 below. Otherwise, continue with step 10.



6-Way Dozer Blade Hitch Plate
Figure 1-2

10. Hydraulically lower lock pins on the skid steer hitch. Make sure lock pins go through the bottom notches in the dozer hitch and are in the locked down position.
11. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.
12. If lock pins are mechanical, manually lower them. Make sure they go through bottom notches in the dozer hitch and are in the locked down position.

Hydraulic Hose Hook-up

Refer to Figure 1-2:

⚠ WARNING

To avoid 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.*
- *Shut power machine down and release all hydraulic pressure to the equipment before connecting or disconnecting hydraulic hoses to or from the power machine.*

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

1. Clean quick connect couplers of dirt.
2. Connect female (#2) and male (#3) couplers to the skid steer high-pressure outlets. Make sure quick connect 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.
3. For additional help, refer to Hydraulic Hook-up in your skid steer Operator's Manual.

Electrical Hook-up

Refer to Figure 1-2:

Five different harnesses are available to fit your skid steer. All connect the same way to the solenoid on the dozer blade. Control harness connection to the skid steer will vary:

- **Control Harness With 14 Pin Plug**

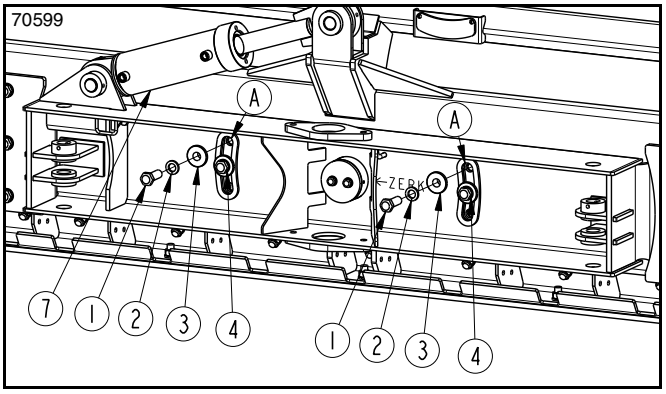
  Connect control harness (#1) to the skid steer's 14 pin coupler located on the end of the loader arm. Refer to **"Kubota 14 Pin Plug Control Harness"** on page 14, **"John Deere 14 Pin Plug Control Harness"** on page 14, or **"John Deere EH14 Pin Plug Control Harness"** on page 14.

- **Control Harness With 2-Pin Plug**

  Connect control harness to the skid steer's 2 pin coupler located behind the skid steer's seat. Refer to **"2-Pin Plug Control Harness"** on page 15.

- **Control Harness With 2 Eyelets**

  Connect control harness directly to the skid steer's battery. Refer to **"Battery Connect Control Harness"** on page 15.



Tilt Control Hardware
Figure 1-3

Tilt Control Hardware

Refer to Figure 1-3:

WARNING

To avoid serious injury or death:

Keep body, body extremities, loose clothing, pull strings, etc. away from pinch points such as rotating, extending, and/or retracting components. Secure pinch point areas to ensure they will not move before working on or near them.

The blade is shipped with tilt control locked to prevent tilt pivot movement. Remove locking hardware before operating the tilt cylinder.

IMPORTANT: Never remove bolts (#4) except to purge tilt cylinder (#7). They must be torqued tight for the tilt mechanism to function properly.

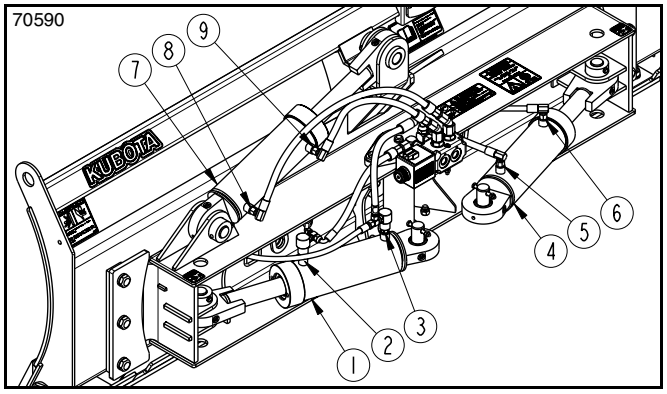
1. Remove hex bolts (#1), lock washers (#2), and float bushings (#3). Store removed hardware in a safe retrievable location for future use.
2. Complete steps a and b below when purging tilt cylinder (#7). Otherwise, continue with step 3 below.
   a. Remove Hex bolts (#4), lock washers (#2), and float bushings (#3). Store removed hardware in a safe retrievable location for installation after purging the hydraulic system.
   b. Skip to **"Purge Hydraulic System"** below.
3. If removed, install bolts (#4) in the location shown with lock washers (#2) and float bushings (#3).
4. Tighten 3/4"-10 GR5 bolts (#4) to the correct torque.
5. Do not remove bolts (#4) again unless tilt cylinder (#7) requires additional purging.

Purge Hydraulic System

WARNING

To avoid serious injury or death:

Purge hydraulic cylinder and/or hoses of air before putting the equipment into service. Not purging the system can cause uneven cylinder movement and positioning.



Purge Hydraulic System
Figure 1-4

Refer to Figure 1-4:

1. With blade raised off the ground about 30", cycle all hydraulic cylinders (#1, #4, & #7) from fully extended to fully retracted several times.
2. Purge tilt cylinder (#7) if it continues to operate unevenly. Otherwise skip to step 3 on page 13.
   a. If not completed, complete step 2 under **"Tilt Control Hardware"** on this page.
   b. Start skid steer, raise dozer blade up until tilt cylinder (#7) can be fully retracted.
   c. Lower dozer hitch plate onto a solid, non-concrete support block that is capable of supporting the fully tilted blade off the ground.
   d. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 9.
   e. Loosen elbow (#8) on tilt cylinder (#7).
   f. Start skid steer and slowly extend tilt cylinder (#7) to purge any air trapped in the system. Stop purging once all air is removed.
   g. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 9.
   h. Tighten elbow (#8).
   i. Start skid steer and fully extend tilt cylinder (#7).
   j. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 9
   k. Loosen elbow (#9) on tilt cylinder (#7).
   l. Start skid steer and slowly retract cylinder (#7) to purge any trapped air from the system.
   m. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 9.
   n. Tighten elbow (#9).
   o. Start skid steer, tilt blade level, raise pivot frame off of the support block, and back skid steer up until support block is in front of the blade.
   p. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.
   q. Complete steps 3-5 under **"Tilt Control Hardware"** on this page.

3. Purge angle cylinders (#1 & #4) if they continue to operate unevenly:
   a. Fully extend angle cylinder (#4) and fully retract angle cylinder (#1).
   b. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.
   c. Loosen elbow (#3) on angle cylinder (#1) and elbow (#6) on angle cylinder (#4).
   d. Start skid steer, raise blade slightly off the ground, slowly retract hydraulic cylinder (#4), and extend hydraulic cylinder (#1) to purge any air trapped in the system. Stop purging once all air is removed.
   e. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 9.
   f. Tighten elbows (#3 & #6).
   g. Start skid steer, raise blade slightly off the ground, fully extend angle cylinder (#1), and fully retract angle cylinder (#4).
   h. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 9.
   i. Loosen elbow (#2) on angle cylinder (#1) and elbow (#5) on angle cylinder (#4).
   j. Start skid steer, raise blade slightly off the ground, and slowly retract angle cylinder (#1) and extend angle cylinder (#4) to purge any air trapped in the system. Stop purging once all air is removed.
   k. Shut skid steer down using **"Skid Steer Shutdown Procedure"** on page 9.
   l. Tighten elbows (#2 & #5).
4. Properly collect and dispose spilled oil.

Equipment Clearances

It is important to check clearance before putting the Dozer Blade into operation. Make sure hydraulic hoses and control harness are long enough and will not become pinched or entangled in the equipment. Also, make sure the Dozer Blade does not make contact the skid steer by carefully going through the Dozer Blade full range of motions.

1. Visually inspect hydraulic hoses for possible pinch points and freedom of movement. Make hose adjustments before ever starting the machine.
2. Visually inspect wiring harness for possible pinch points and freedom of movement. If needed, adjust the wiring harness before putting equipment into service.
3. The following steps will require operating the hydraulic cylinders. Refer to **"Operating Functions"** on page 19 for detailed instructions. If necessary, have someone stand nearby that can motion to the operator to stop if a problem develops.
4. Check operating clearance on the right side:
   a. Start skid steer and raise dozer blade approximately 30" off the ground.
   b. Watch dozer blade, hydraulic hoses, and wire harness for clearance, pinch points, and freedom of movement why repositioning the dozer blade as follows:
      - Fully extend the angle cylinder on the left side while retracting the cylinder on the right side to angle the blade back on the right side.
      - Fully extend the tilt cylinder to tilt the blade down on the right side.
      - Rotate top of loader hitch plate fully forward to position the bottom right corner of the blade close to the skid steer.
   c. Fully extend arm lift cylinders to raise loader arms up while watching for interferences between the skid steer and Dozer Blade.
   d. Fully retract arm lift cylinders to lower loader arms while watching for interferences between the skid steer and Dozer Blade.
   e. Extend arm lift cylinders to support blade approximately 30" off the ground, return blade tilt to level, and blade angle to straight.
5. Check operating clearance on the left side:
   a. Watch dozer blade, hydraulic hoses, and wire harness for clearance, pinch points, and freedom of movement why repositioning the dozer blade as follows:
      - Fully extend the angle cylinder on the right side while retracting the cylinder on the left side to angle the blade back on the left side.
      - Fully retract the tilt cylinder to tilt the blade down on the left side.
      - Rotate top of loader hitch plate fully forward to position the bottom left corner of the blade close to the skid steer.
   b. Fully extend arm lift cylinders to raise loader arms up while watching for interferences between the skid steer and Dozer Blade.
   c. Fully retract arm lift cylinders to lower loader arms while watching for interferences between the skid steer and Dozer Blade.
   d. Extend arm lift cylinders to support blade approximately 30" off the ground, return blade tilt to level, and blade angle to straight.
   e. Lower arm lift cylinders until Dozer Blade is resting on the ground.
6. Shut skid steer down before dismounting using **"Skid Steer Shutdown Procedure"** on page 9.

Electrical Control Harness (Optional)

Kubota offers three different 14-pin connect control harness, one 2-pin connect control harness, and one control harness with eyelets. If not purchased with the 6-Way Dozer Blade, purchase one from your nearest Kubota dealer.

- Part No. 301-592A - - - - -Control harness with Deutsch 14 pin plug. Fits most skid steer's 14 pin coupler.
  - - - - - - - - - - - - - - - - - -Refer to **"Kubota 14 Pin Plug Control Harness"** below.

- Part No. 301-593A - - - - -Control harness with Deutsch 14 pin plug. Fits John Deere 14 pin coupler
  - - - - - - - - - - - - - - - - - -Refer to **"John Deere 14 Pin Plug Control Harness"** below.

- Part No. 301-594A - - - - -Control harness with Deutsch EH 14 pin plug. Fits John Deere EH 14 pin coupler.
  - - - - - - - - - - - - - - - - - -Refer to **"John Deere EH14 Pin Plug Control Harness"** below.

- Part No. 301-590A - - - - -Control harness with 2 pin plug and thumb switch.
  - - - - - - - - - - - - - - - - - -Refer to **"2-Pin Plug Control Harness"** on page 15.

- Part No. 301-588A - - - - -Control harness with eyelets and a thumb switch.
  - - - - - - - - - - - - - - - - - -Refer to **"Battery Connect Control Harness"** on page 15.

HD30 14 Pin Plug Control Harness

Refer to Figure 2-1:

The HD30 14 pin plug on the control harness connects to the 14-pin coupler on the skid steer. The opposite end of the harness has a 2-pin plug that connects to the solenoid on the Dozer Blade. Refer to **"Operating Functions"** on page 19 for detailed instructions.

Kubota 14 Pin Plug Control Harness

Refer to Figure 2-1:

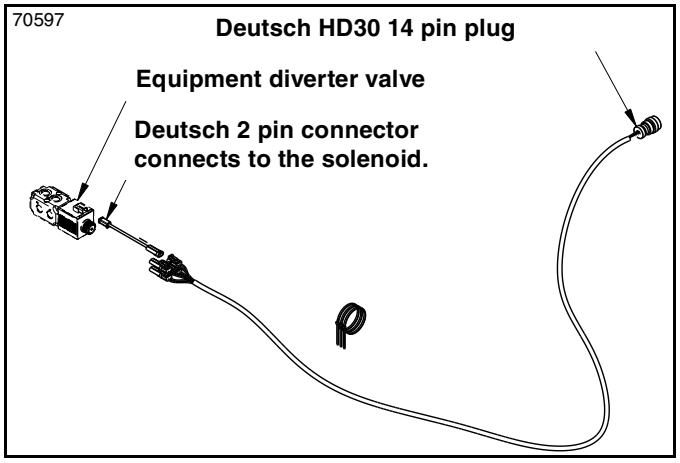
301-592A Deutsch HD30 14 Pin Plug
Fits most skid steers 14 pin coupler

This harness will work with the following skid steers:

- Kubota with 14 pin coupler
- Bobcat with 14 pin coupler
- GEHL 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 14 Pin Single Function Wiring Harness
Figure 2-1

John Deere 14 Pin Plug Control Harness

Refer to Figure 2-1:

301-593A Deutsch HD30 14 Pin Plug
Fits John Deere 14 pin coupler

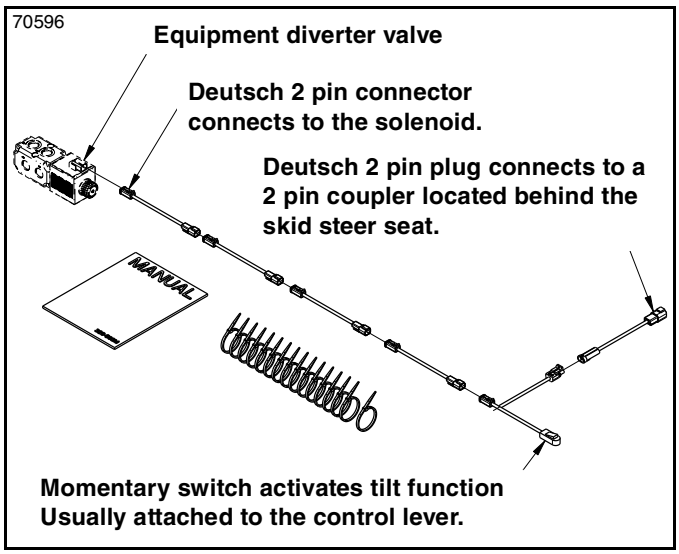
This harness will work with John Deere skid steers equipped with a 14 pin coupler.

John Deere EH14 Pin Plug Control Harness

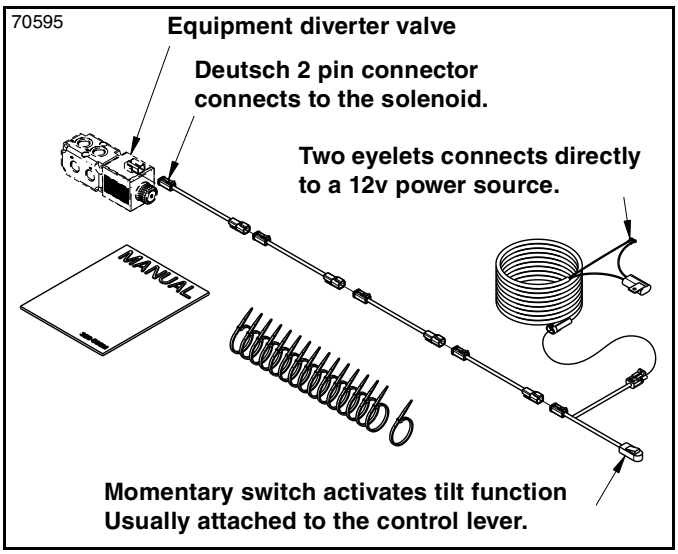
Refer to Figure 2-1:

301-594A Deutsch HD30 14 Pin Connector,
Fits John Deere EH 14 pin coupler

This harness will work with John Deere skid steers equipped with a JD EH14 pin coupler.



2-Pin Plug With Thumb Switch
Figure 2-2



Battery Connect With Thumb Switch
Figure 2-3

2-Pin Plug Control Harness

Refer to Figure 2-2:

301-590A 2 Pin Plug, Thumb Switch
Universal Fit

The 2-pin plug on the control harness connects to a receiving 2-pin coupler located behind the skid steer's seat. On the opposite end of the harness is another 2-pin plug that connects to the solenoid on the Dozer Blade. Use the skid steer's auxiliary port variable switch or auxiliary hold switch to operate the angle cylinders on the blade. Press and hold the momentary switch on the harness to operate the blade tilt cylinder. Release the momentary switch to return operation back to the angle cylinders. For convenience, the momentary switch is usually mounted near the skid steer toggle switch. Included with the control harness are sixteen cable ties and one installation manual.

Battery Connect Control Harness

Refer to Figure 2-3:

301-588A Battery Connect, Thumb Switch
Universal Fit

The 2 eyelets on the control harness connect directly to the skid steer's 12 volt power source. On the opposite end of the harness is a 2-pin plug that connects to the solenoid on the Dozer Blade. Use the skid steer's auxiliary port variable switch or auxiliary hold switch to operate the angle cylinders on the blade. Press and hold the momentary switch on the harness to operate the blade tilt cylinder. Release the momentary switch to return operation back to the angle cylinders. For convenience, the momentary switch is usually mounted near the skid steer toggle switch. Included with the control harness are sixteen cable ties and one installation manual.

Tilt Control

Refer to Figure 3-1:

WARNING

To avoid serious injury or death:

Keep body, body extremities, loose clothing, pull strings, etc. away from pinch points such as rotating, extending, and/or retracting components. Secure pinch point areas to ensure they will not move before working on or near them.

IMPORTANT: Never remove bolts (#4) except to purge tilt cylinder (#7). They must be torqued tight for the tilt mechanism to function.

Depending on the arrangement of the tilt control hardware (#1, #2, & #3), the Dozer Blade can be fully locked to stop all tilting, unlocked to allow clockwise and counterclockwise tilting, locked to allow only clockwise tilting from horizontal to 10° down, or locked to allow only counterclockwise tilting from horizontal to 10° down.

Tilt Control Fully Locked

Refer to Figure 3-1:

1. Install bolts (#1), lock washers (#2) and float bushing (#3) in upper holes (A). Make sure the boss end of float bushings (#3) are in the tilt slots.
2. Tighten 3/4"-10 GR5 bolts (#1) to the correct torque.
3. Check 3/4"-10 GR5 bolts (#4) to verify their torque value. Do not remove these two bolts.

Tilt Control Fully Unlocked

Refer to Figure 3-1:

1. Remove bolts (#1), lock washers (#2) and float bushing (#3). Store removed hardware in a safe retrievable location for future use.
2. Check 3/4"-10 GR5 bolts (#4) to verify their torque value. Do not remove these two bolts.

Tilt Control Set for Clockwise Tilting

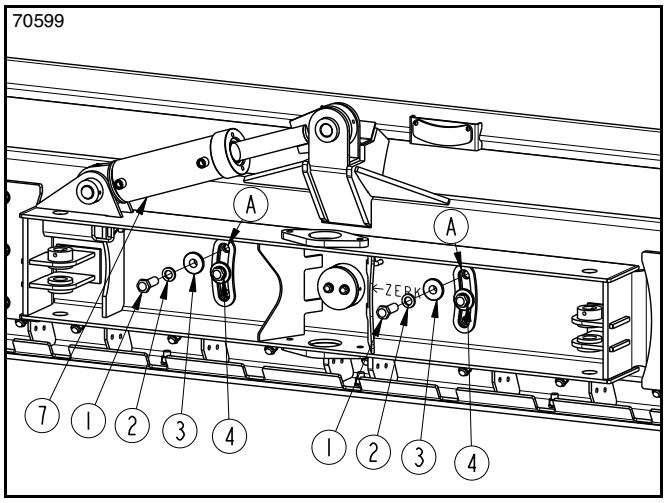
Refer to Figure 3-2:

1. Install bolts (#1), lock washers (#2) and float bushings (#3) in the lower hole (B) on the right side and upper hole (A) on the left side. Make sure the boss end of float bushings (#3) are in the tilt slots.
2. Tighten 3/4"-10 GR5 bolts (#1) to the correct torque.
3. Check 3/4"-10 GR5 bolts (#4) to verify their torque value. Do not remove these two bolts.

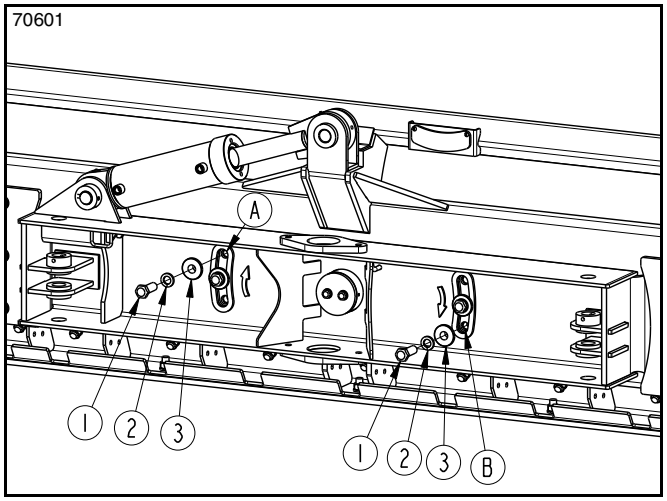
Tilt Control Set for Counterclockwise Tilting

Refer to Figure 3-3:

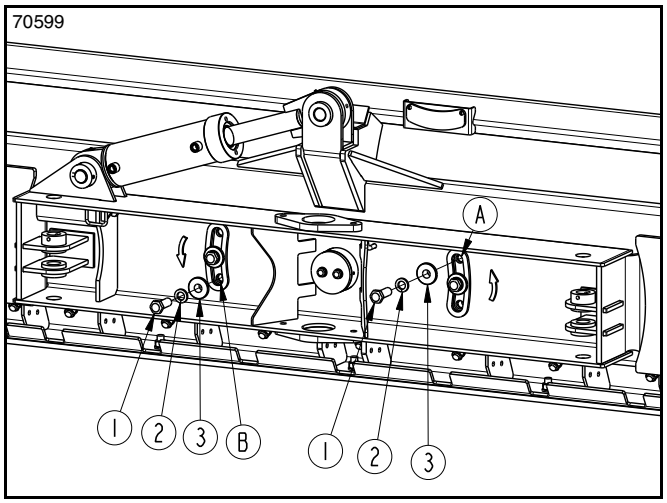
1. Install bolts (#1), lock washers (#2) and float bushings (#3) in the upper hole (A) on the right side and lower hole (B) on the left side. Make sure the boss end of float bushings (#3) are in the tilt slots.
2. Tighten 3/4"-10 GR5 bolts (#1) to the correct torque.
3. Check 3/4"-10 GR5 bolts (#4) to verify their torque value. Do not remove these two bolts.



Tilt Control Fully Locked/Unlocked
Figure 3-1



Tilt Control Locked For Only Clockwise Tilting
Figure 3-2



Tilt Control Locked For Only Counter Clockwise Tilting
Figure 3-3

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 6-Way Dozer Blade. Therefore, it is absolutely essential that no one operates the 6-Way Dozer Blade unless they are age 16 or older and have read, fully understood, and are totally familiar with the Operator's Manual.

Perform the following inspections before using your Dozer Blade.

Operating Checklist

✔	Check	Page
	Read & follow all safety rules & safety decals. Refer to "Important Safety Information".	1
	Make sure all guards and shields are in place. Refer to "Important Safety Information".	1
	Read & follow preparation instructions. Refer to "Section 1: Assembly & Set-up".	9
	Read & make all required adjustments. Refer to "Section 3: Adjustments".	16
	Read and follow all operating procedures. Refer to "Section 4: Operating Procedures".	17
	Read & follow all maintenance Instructions. Refer to "Section 5: Maintenance & Lubrication".	22
	Read & follow all lubrication instructions. Refer to "Lubrication Points".	36
	Check 6-Way Dozer Blade initially and periodically for loose bolts and pins. Refer to "Torque Values Chart".	32

General Safety Information

DANGER

To avoid serious injury or death:

- *Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to the hydraulics is off.*
- *Keep attachment and/or loader arms away from overhead electrical power lines. Place an orange warning sign under overhead lines indicating type of danger above.*
- *Keep all persons and objects clear while any part of the machine is in motion. A person can be pinched or crushed by the machine.*
- *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.*
- *Use a "spotter" when it is hard to see in the direction you are traveling and when placing a load that obstructs your vision. A person or animal could be nearby in a blind spot.*
- *Do not drive close to ditches, retaining walls, drop-offs, water, etc. Rollover due to a cave-in or mishap could result.*

WARNING

To avoid serious injury or death:

- *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.*
- *Make sure controls are all in neutral position or park before starting the power machine.*
- *Never carry riders on the implement or power machine. Riders can obstruct the operator's view, interfere with controls, be pinched by moving components, become entangled in rotating components, struck by objects, thrown about, fall off and be run over, etc.*
- *Check hitch fit-up frequently. An improper fit-up can cause the attachment to come loose from the loader hitch plate and fall.*
- *Use step pad on the hitch plate and hand holds on the skid steer when climbing into the skid steer cab. Never step on smooth surfaces or on the blade. Feet can slip on smooth surfaces especially if wet or icy.*
- *Allow only persons to operate this implement who have fully read and comprehended this manual, and who have been properly trained in the safe operation of this implement. Serious injury or death can result from the inability to read, understand, and follow instructions provided in this manual.*
- *Operate only power machines equipped with a certified Roll-Over Protective Structure (ROPS) and seat belt. Fasten seat belt snugly and securely to help protect against serious injury or death from machine overturn.*
- *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.*
- *Make sure safety labels are in their proper location and are in good condition before operating the attached implement. Read and obey all instructions on the labels.*
- *Keep body, body extremities, loose clothing, pull strings, etc. away from pinch points such as rotating, extending, and/or retracting components. Secure pinch point areas to ensure they will not move before working on or near them.*
- *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.*
- *Do not abuse equipment. Incorrect use of the attachment can damage equipment structurally and cause serious injury or death..*

- *Do not use this attachment to lift, carry, push or tow other equipment or objects. It is not properly designed or guarded for this use. The operator could lose control resulting in equipment damage and/or tipping hazard.*
- *Avoid hitting solid objects with this attachment. Solid objects can damage equipment and throw the operator forward causing loss of control, bodily injury, or death.*
- *Do not move material at high speeds. High speeds can result in sudden loss of control leading to damaged property, equipment, and bodily harm.*
- *Avoid driving over freshly filled holes or trenches. The soil may not be compacted and allow tires or tracks to sink making the power machine unstable.*
- *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.*

Equipment Inspection

1. Park skid steer with 6-Way Dozer Blade on a flat level surface.
2. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.
3. Visually check for worn, damaged, cracked, or loose parts. Replace parts with genuine Kubota parts.
4. Inspect all hydraulic connections for leaks. Tighten loose connections.
5. Inspect hydraulic hose for pinch points that can damage the hose during operation and for sufficient length and equipment clearances. See **"Equipment Clearances"** on page 13.
6. Start skid steer and check all controls and operating functions of the skid steer.

Transporting

DANGER

To avoid serious injury or death:

Do not allow the blade to cross over the centerline of a public road. Oncoming traffic can hit the blade resulting in personal injury, loss of life, and damage to equipment.

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.*
- *When traveling on public roadways, travel in such a way that faster moving vehicles may pass safely.*
- *Always transport loads low to the ground to maintain stability of the skid steer/tractor.*

1. Raise 6-Way Dozer Blade to a safe traveling height that does not block your view.
2. Angle blade straight across and tilt blade level when traveling from one site to another.
3. Set hydraulic flow to the loader arms to off or neutral to prevent accidental lowering of the blade. Never adjust Dozer Blade while traveling.
4. Select a safe ground speed when transporting from one area to another.
5. Be sure to reduce ground speed when turning and leave enough clearance so the blade does not contact obstacles such as buildings, trees, or fences.
6. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely.
7. Slow down when traveling over rough or hilly terrain.

Operating Guidelines

Removing material with your blade is easier by following some simple guidelines.

DANGER

To avoid serious injury or death:

- *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.*
- *Do not allow bystanders to be near the attachment, loader arms, or power machine during operation. They can be hit by falling objects, entangled in the equipment, ran over, etc.*

WARNING

To avoid serious injury or death:

- *Always operate attachment while seated with seat belt properly fastened. Lower seat bar when equipped with the skid steer. This will help protect the operator against sudden stops when hitting solid objects.*
- *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 remove snow or other materials on concrete or asphalt. Doing this can damage the concrete/asphalt and/or equipment. It can also cause the operator to be jolted and lose control of the power machine.*
- *Always operate attachment while seated with seat belt properly fastened. Lower seat bar when equipped with the skid steer. This will help protect the operator against sudden stops when hitting solid objects.*

- *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.*

1. When possible, thoroughly inspect the area for potential problems before moving material with the dozer blade.
   a. Mark all potential obstructions with visible stakes or flags.
   b. Identify emergency equipment and utility outlets that may need quick access. Make a plan on how not to block these areas so that emergency crews can access them quickly.
   c. Identify areas where to pile material safely without obstructing traffic visibility and access to fire hydrants, utilities, mailboxes, property, and parking areas.
   d. Check with local regulations before pushing material across roadways. This may be illegal in your area.
   e. Do not pile material on streets, sidewalks, or someone else's property without proper permission.
2. Do not overload equipment. Push only as much material as the equipment can safely and easily handle.
3. Accelerate slowly when starting a pass to allow time for tire/track traction and for material to accumulate in front of the blade.
4. Reduce speed when coming to the end of a pass and when needed.

Operating Functions

The Dozer Blade has 6 different functions:

- The top of the blade tilts forward or backward.
- The blade angles left or right up to 30 degrees.
- The blade tilts clockwise or counterclockwise up to 10 degrees in either direction.

IMPORTANT: Using a skid steer with tracks will increase its pushing force. Skid steers with wheels tend to slip more.

IMPORTANT: The 6-Way Dozer Blade is designed primarily for moving material over the ground. Do not remove material on concrete or asphalt. The blade will damage concrete and asphalt surfaces.

Tilt Top of Blade Forward or Backward

Extend hydraulic cylinders at the front of the loader arms to tilt the top of the blade forward or retract the cylinders to tilt the top of the blade backward.

Tilting the top of the blade too far forward causes the blade to ride up over material. Tilt top of the blade backward when backing up to spread material over a surface.

Angle Blade Left or Right

1. Operate angle cylinders on the blade to angle the blade right or left up to 30 degrees in either direction.
2. Moving the skid steer's auxiliary port variable switch in one direction will angle the blade to the right and in the opposite direction will angle the blade to the left.
3. Release the switch when the blade is at the preferred angle.
4. Switch male and female couplers on the hydraulic hoses if blade angles in the opposite direction desired.

Tilt Blade Clockwise or Counterclockwise

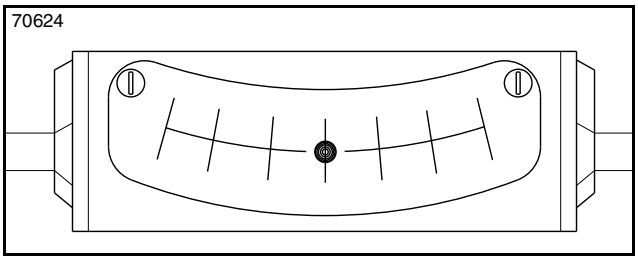
Switch blade angle hydraulics to the tilt cylinder as follows:

Control Harness with 14-pin plug

1. Turn auxiliary electrical control switch on.
2. Moving auxiliary port variable switch in one direction will tilt one end of the blade down and in the opposite direction will tilt the other end of the blade down.
3. Turn auxiliary electrical control switch off to return hydraulic function to blade angling.

Control Harness with 2-pin plug or 2 eyelets.

1. Press and hold momentary switch on the control harness.
2. Moving the skid steer's auxiliary port variable switch in one direction will tilt one end of the blade down and in the opposite direction will tilt the other end of the blade down.
3. Release the momentary switch to return hydraulic function to blade angling.

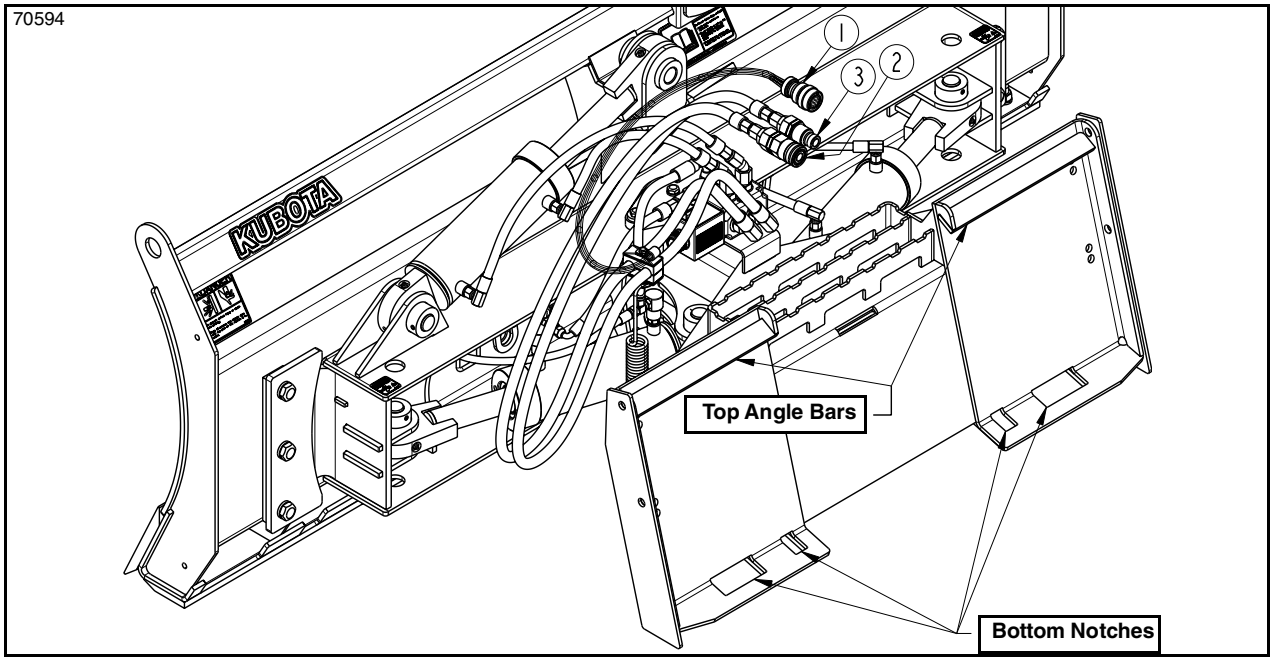


Gradiometer
Figure 4-1

Gradiometer

Refer to Figure 4-1:

A gradiometer, located behind the blade, indicates blade tilt angle. The numbers above the ball indicate the tilt angle in percentage of grade and the numbers below the ball indicates the tilt angle in degrees.



6-Way Dozer Blade Hitch Plate
Figure 4-2

Operating the Dozer Blade

Scraping and/or Leveling

Angle the blade left or right up to 30 degrees to scrape material into windrows on either side of the skid steer. Increase depth of cut by tilting top of blade forward. Tilt top of blade backward to release dirt under the blade while dumping the excess off to one side.

Using the gradiometer, level the blade and lower the loader arms to make a level cut. Raise the blade slightly to spread out the load under the cutting edge while traveling forward or backward.

Building a Ditch or Berm

Tilting one end of the blade down and angling opposite end back makes it possible to cut a ditch while diverting the spoils to the side of the power unit. Keep the same setting on the return pass to widen the ditch and dump the spoils on the opposite side. Reverse the tilt and angle on the return pass to dump the spoils on the same side as the first pass.

Filling Holes or Undulations.

To fill a hole or level an uneven area, adjust blade tilt to level and blade angle to straight or to preferred angle. Level the area by tilting top of blade forward or backward to add or subtract amount of material released under the blade, moved forward, or to the side.

Remove and Pile Debris or Trees

Adjust blade angle to straight and set blade height at ground level or just above ground level. Move forward while pushing material to a pile. To make the pile higher, raise the loader arms while still moving forward and at the same time, rolling the top of the hitch plate forward.

Unhook Dozer Blade

Refer to Figure 4-2:

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:

- *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.*
- *Shut power machine down and release all hydraulic pressure to the equipment before connecting or disconnecting hydraulic hoses to or from the power machine.*

1. Park skid steer with attached 6-Way Dozer Blade on solid, level ground.
2. Tilt blade horizontal (parallel with the ground) and angle blade straight (parallel with the hitch plate).
3. Lower blade and hitch plate onto the ground or support blocks.

4. Shut skid steer down before dismounting. Refer to Skid Steer Shutdown Procedure on page 9.
5. Uncouple hydraulic hose fittings (#2 & #3) from the skid steer. Coil hydraulic hose and store them on the dozer with hose ends out of the dirt.
6. Disconnect wire harness (#1) from the skid steer. Coil wire harness up and store on the dozer with the plug end hanging down to keep moisture and dirt out.
7. If lock handles are mechanical, pull lock handles up on the loader hitch plate to remove lock pins from the bottom notches in the attachment's hitch plate.
8. Return to the skid steer seat.
9. If lock handles are hydraulic, raise lock pins to remove them from the hitch plate notches.
10. Tilt bottom of the loader hitch plate slightly back or away from the dozer hitch plate.
11. Slowly lower the loader arms until the loader hitch plate has separated from the attachment's top angle bars.
12. Back skid steer slowly away from the dozer making sure the skid steer does not interfere with the attachment's hitch plate, hydraulic hoses, and wire harness.

General Operating Instructions

Once you have familiarized yourself with the Operator's Manual, completed **"Operating Guidelines"** on page 18, and properly attached your Kubota DZ3084 or DZ3096 6-Way Dozer Blade to your skid steer loader, you are now almost ready to begin work. The 6-Way Dozer Blade attaches quickly to a skid steer or track loader fitted with a universal quick attach hitch plate. They are ideal for dirt working such as scraping, leveling, ditching, berm building, filling holes, leveling surfaces, and backfilling.

By now, you should have checked out your work site for obstacles that you would not want to damage or encounter. Place marking stakes to help you avoid obstacles and establish pushback limits for collection piles. It is important that all operators wear seat belts for their own personal safety.

If attachment is to be operated in reverse, make sure visibility to the rear of the power unit is appropriate for the attachment. Backup camera or mirror is recommended. Maintain cleanliness of lens or mirror.

Now that you are ready, set the blade straight and lower the loader arms until the blade is below grade to make your first cut into the earth. Tilt the top of the hitch plate slightly forward to increase digging depth and slightly back to decrease digging depth. You should leave the blade straight to collect and move dirt to a pile. If you want to move dirt to one side, you should set the blade at an angle.

If you want to level an area, adjust the blade to be straight. Maintain blade levelness using the gradiometer throughout the operation. Raise or lower the blade as needed while you are scraping off high spots and filling in low areas. To backfill an area, tilt the top of the loader hitch back and back the skid steer up while adjusting the height of the loader arms to release more or less material from under the blade.

If you want to create a crown on a road, use the gradiometer to tilt one end of the blade slightly down and angle the opposite end back to divert the spoils onto the crown or middle of the road.

Use the same process if you want to dig a ditch or build a berm. Tilt one end of the blade down and angle the opposite end back. Lower the loader arms and tilt top of blade forward to cause the low end of the blade to go into the ground. The spoils from the ditch will discharge to one side creating a berm. Use the gradiometer to determine the slope on the ditch and berm. Spread out the berm with the blade if the berm is undesired.

When pushing debris, brush, or trees, you will want to level the blade, adjust it to be straight, and set the loader arm at a height to carry the dozer blade just above ground. You can push brush, trees, and other debris into a pile with this setting. To push debris higher onto the pile, tilt the top of the hitch plate back and raise the blade while pushing the debris higher onto the pile.

Becoming proficient with a dozer blade requires practice. Your personal skill level, skid steer traction capabilities, and soil composition will all have a definite impact on how easily and effectively you get the job done. Develop a plan to achieve your expected results. Set the blade up at the proper angles, tilt, and depth to get the job done. This may require some experimentation to achieve the desired results.

With a little practice, you should become a very good operator and consistently achieve the desired results you expect with your Kubota DZ30 Series 6-Way Dozer Blade.

See the **"Features and Benefits"** section or the **"Product Specifications"** section for additional information and performance enhancing options.

General Maintenance Information

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 after using the unit for several hours to be sure they are tight. Replace any worn, damaged, or illegible safety labels by obtaining new labels from your Kubota dealer.

DANGER

To avoid serious injury or death:

- *Always secure equipment with solid, non-concrete supports before working under it. Never go under equipment supported by concrete blocks or hydraulics. Concrete can break, hydraulic lines can burst, and/or hydraulic controls can be actuated even when power to the hydraulics is off.*
- *Keep all persons and objects clear while any part of the machine is in motion. A person can be pinched or crushed by the machine.*

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.*
- *Make sure controls are all in neutral position or park before starting the power machine.*
- *Keep all steps, grab bars, pedals, and controls free of dirt, grease, debris, and oil.*
- *Perform scheduled maintenance. Check for loose hardware, missing parts, broken parts, structural cracks, and excessive wear. Make repairs before putting the attachment 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.*
- *Keep body, body extremities, loose clothing, pull strings, etc. away from pinch points such as rotating, extending, and/or retracting components. Secure pinch point areas to ensure they will not move before working on or near them.*

Hydraulic System

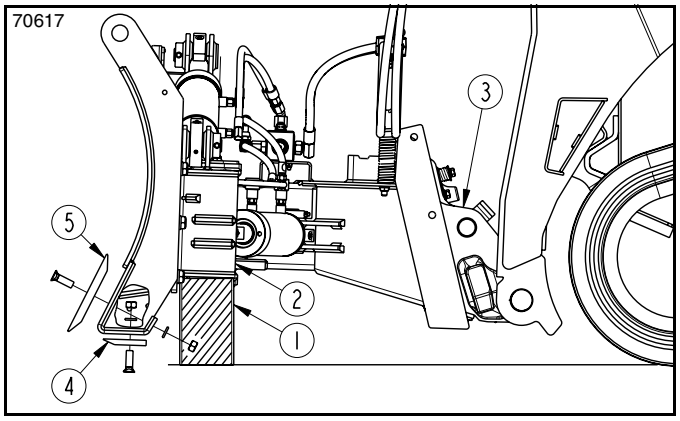
WARNING

To avoid 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.

One of the most important things you can do to prevent hydraulic system problems is to ensure that your skid steer's reservoir remains free of dirt and contamination. These simple maintenances will go a long way to prevent occurrence of hydraulic problems:

1. Replace your skid steer's hydraulic filter element at the prescribed intervals.
2. Inspect skid steer hydraulic oil level. Add oil if it is low.
3. Use a clean cloth to wipe hose ends before attaching them to your skid steer.
4. Inspect quick connect couplers to verify full engagement. Replace improperly sized couplers.
5. Inspect hydraulic hoses and cylinder for oil leaks. Tighten or replace components to fix leaks.



Support Dozer Blade & Wear Edge Off The Ground
Figure 5-1

Cutting Edges & Wear Edge

Refer to Figure 5-1:

The moldboard is fitted with three cutting edges (#5). The outside cutting edges usually receive the highest wear and require frequent replacement.

The wear edge (#4) protects the bottom of the moldboard against wear.

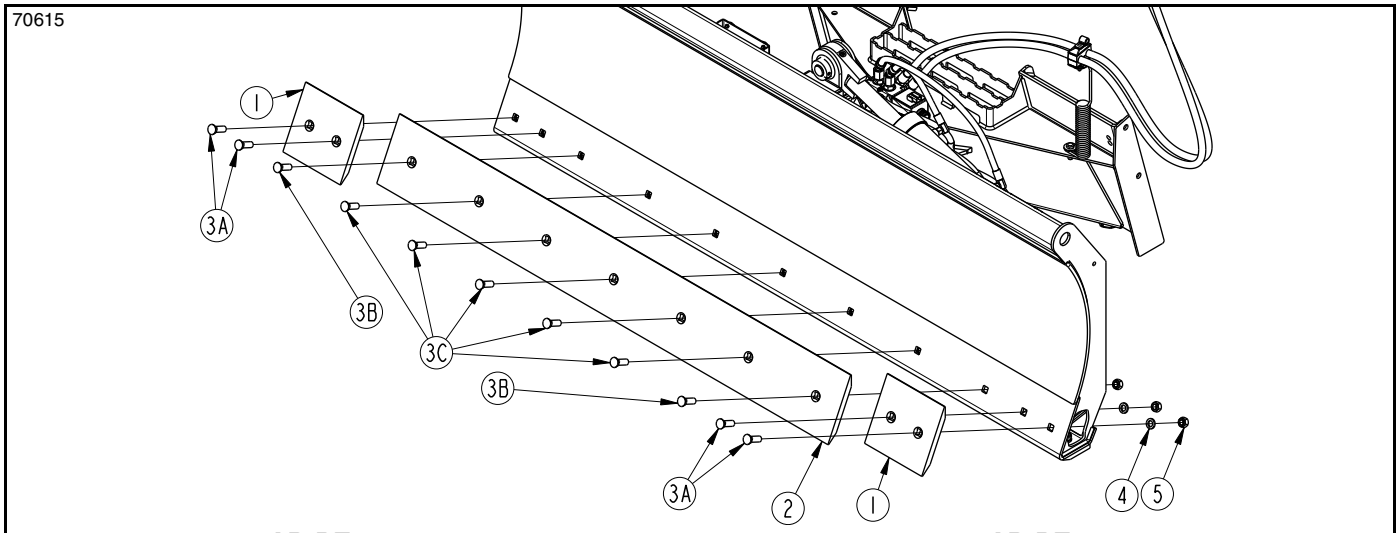
Reverse or replace the cutting edges when they are too dull to cut. Replace cutting edges (#5) and wear edge (#4) before they too worn to protect the moldboard from wear.

Preparation Instructions

Refer to Figure 5-1:

IMPORTANT: Support block (#1) must be a solid non-concrete block and must be able to support the wear bar (#4) 2 1/2" or more off the ground.

1. Angle blade straight and tilt blade level.
2. Park skid steer with dozer blade on solid, level ground.
3. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.



AP-DZ3084

#	Part No.	Description	Qty
1	820-665C	Cutting edge, 3/4X8X8.5	2
2	820-593C	Cutting edge, 66" bucket bolt-on	1
3	802-288C	Plow 5/8-11X2 GR5	11
4	804-022C	Lock washer spring 5/8 plt	11
5	803-021C	Nut hex 5/8-11 plt	11

AP-DZ3096

#	Part No.	Description	Qty
1	820-665C	Dozer Blade, 3/4X8X8.5	2
2	820-551C	Cutting edge, 78" bucket bolt-on	1
3	802-288C	Plow 5/8-11X2 GR5	13
4	804-022C	Lock washer spring 5/8 plt	13
5	803-021C	Nut hex 5/8-11 plt	13

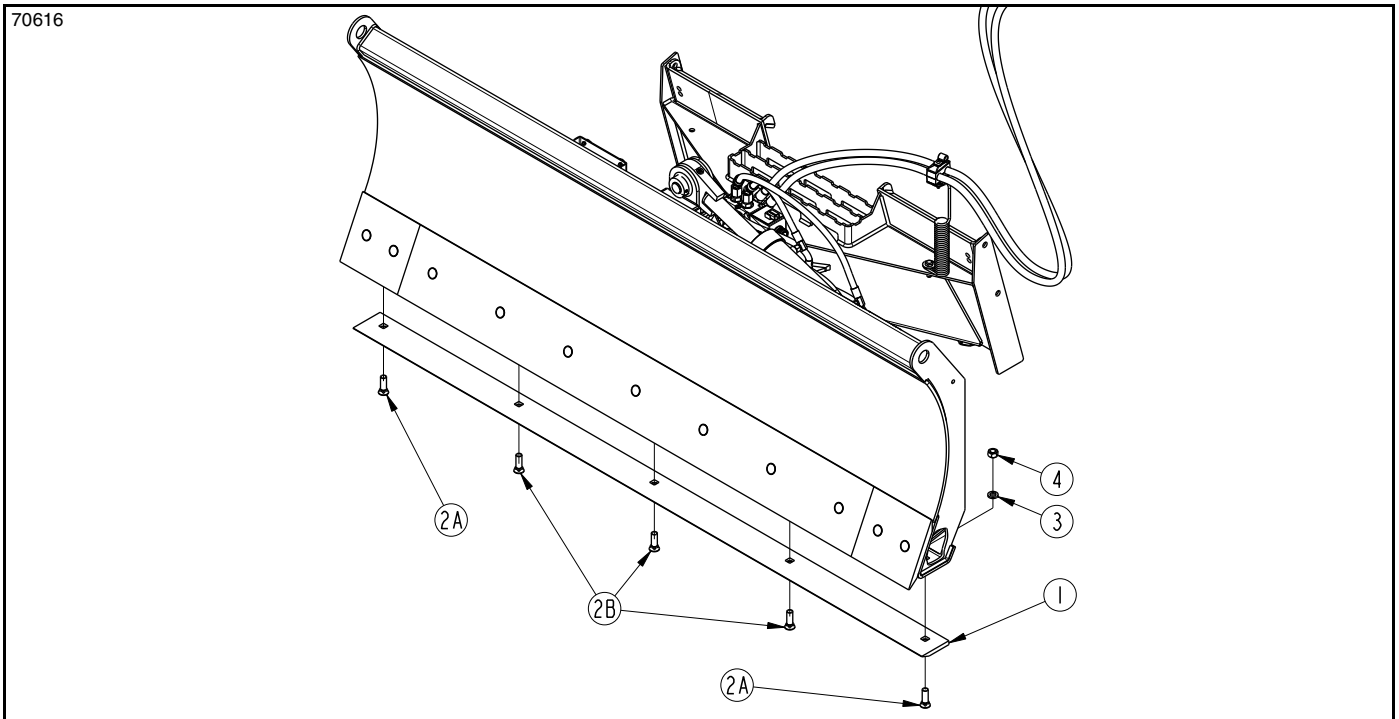
Removal and Assembly of Cutting Edges
Figure 5-2

4. Place a solid non-concrete support block (#1) near the center and approximately 12" in front of the blade.
5. Rotate top of the loader hitch plate (#3) fully back and lower loader arms fully down.
6. Slowly drive forward until pivot frame (#2) is above support block (#1).
7. Rotate top of skid steer hitch (#3) slowly forward until pivot frame (#2) is resting on support block (#1).
8. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.

Removal & Assembly of Cutting Edges

Refer to Figure 5-2:

1. Remove plow bolts (#3A), outside cutting edges (#1), and associated hardware (#4 & #5).
2. Do not remove the two end bolts (#3B) at this time. Do remove all the in-between bolts (#3C) and their associated hardware (#4 & #5).
3. Loosen the two end nuts (#5) associated with plow bolts (#3B). Do not remove nuts at this time.
4. Hold one end of cutting edge (#2) up and remove plow bolt (#3B) and associated hardware (#4 & #5) from that end. Lower that end to the ground.
5. Hold opposite end of cutting edge (#2) up and remove plow bolt (#3B) and associated hardware (#4 & #5) from that end. Lower cutting edge (#2) to ground.
6. Inspect plow bolts (#3) and nuts (#5) for wear. Replace as needed.
7. Inspect both, top and bottom edges of cutting edges (#1 & #2). Replace any cutting edge that has both edges excessively worn.
8. With the good edge of cutting edge (#2) down, raise one end up to the moldboard and attach that end to the moldboard with plow bolt (#3B), lock washer (#4), and hex nut (#5). Draw nut up snug. Do not tighten.
9. Attach the opposite end to the moldboard with plow bolt (#3B), lock washer (#4), and hex nut (#5). Draw nut up snug. Do not tighten.
10. Install remaining plow bolts (#3C), lock washers (#4), and nuts (#5). Draw nuts (#5) up snug. Do not tighten.
11. With the good edge of cutting edges (#1) down, attach cutting edges (#1) to both ends of the moldboard with plow bolts (#3A), lock washers (#4), and nuts (#5). Draw nuts (#5) up snug. Do not tighten.
12. Tighten all nuts (#5) to the correct torque for a 5/8"-11 GR5 plow bolts.
13. Continue with **"Wear Edge Removal & Assembly"** on page 24.



AP-DZ3084

#	Part No.	Description	Qty
1	820-667C	84" Wear edge	1
2	802-288C	Plow 5/8-11X2 GR5	5
3	804-022C	Lock washer spring 5/8 plt	5
4	803-021C	Nut hex 5/8-11 plt	5

AP-DZ3096

#	Part No.	Description	Qty
1	820-668C	96" Wear edge	1
2	802-288C	Plow 5/8-11X2 GR5	6
3	804-022C	Lock washer spring 5/8 plt	6
4	803-021C	Nut hex 5/8-11 plt	6

Wear Edge Removal and Assembly
Figure 5-3

Wear Edge Removal & Assembly

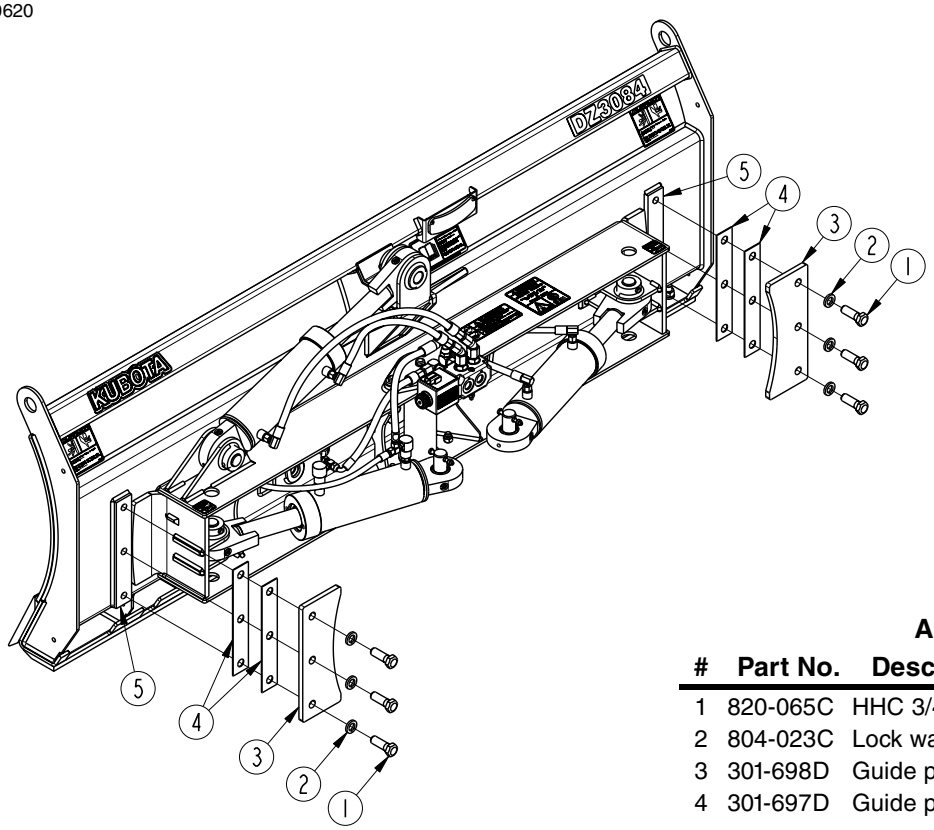
Refer to Figure 5-3:

Inspect wear edge (#1). Replace wear edge if it is 3/16" or less in thickness as follows:

1. Remove all bolts (#2B) and associated lock washers (#3) and nuts (#4). Do not remove bolts (#2A) at this time.
2. Loosen the two end nuts (#4) associated with plow bolts (#2A). Do not remove nuts at this time.
3. Hold one end of the wear edge (#1) up and remove nut (#4), lock washer (#3), and plow bolt (#2A) from that end. Lower that end to the ground or onto a support block.
4. Hold opposite end of wear edge (#1) up and remove nut (#4), lock washer (#3), and plow bolt (#2A) from that end. Lower that end to the ground.
5. Inspect plow bolts (#2A & #2B), lock washers (#3), and nuts (#4) for wear. Replace as needed.
6. With beveled edge facing forward, attach one end of the new wear edge (#1) to the bottom of the moldboard with plow bolt (#2A), lock washer (#3), and nut (#4). Draw nut up snug. Do not tighten.
7. Attach the opposite end to the moldboard with plow bolt (#2A), lock washer (#3), and hex nut (#4). Draw nut up snug. Do not tighten.
8. Install remaining plow bolts (#2B), lock washers (#3), and nuts (#4). Draw nuts (#4) up snug. Do not tighten.
9. Tighten all nuts (#4) to the correct torque for a 5/8"-11 GR5 plow bolts.
10. Continue with **"Remove Support Block"** below.

Remove Support Block

1. Return to the skid steer. Raise dozer up enough to clear the support block and back skid steer up until support block is in front of the blade.
2. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.
3. Remove support block and store in a safe location for future use.



AP-DZ30 Series

#	Part No.	Description	Qty
1	820-065C	HHC 3/4"-10x2 1/4" GR5	6
2	804-023C	Lock washer spring 5/8 plt	6
3	301-698D	Guide plate	2
4	301-697D	Guide plate shim	4

Guide Plates (Hitch Frame not shown for clarity)
Figure 5-4

Guide Plates

Refer to Figure 5-4:

Over time, tilting the blade will wear the guide plates (#3) thin. Reverse guide plates if they have 1/16" or more wear on the inside surface. Replace guide plates with new guide plates when both sides are worn more than 1/16".

IMPORTANT: It is important to reverse or replace the guide plates once they have worn more than 1/16" on a side as they share in handling the forces required to pull a load backward.

1. Shut skid steer down before dismounting. Refer to **"Skid Steer Shutdown Procedure"** on page 9.
2. On the Left side, remove 3/4-10 GR5 bolts (#1), lock washers (#2), and guide plates (#3). Shims (#4) do not need removing but may fall from the moldboard.
3. Reverse guide plate (#3) by flipping it end over end. Replace guide plate if worn on both sides.
4. Attach the reversed or new guide plate (#3) to the moldboard with existing 3/4"-10 GR5 bolts (#1), lock washers (#2), and shims (#4) as shown.
5. Tighten bolts (#1) to the correct torque.
6. Repeat steps 1-5 on the right side of the moldboard.

Long-Term Storage

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

DANGER

To avoid serious injury or death:

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

WARNING

To avoid serious injury or death:

- *Always shut power machine down following the "Shutdown Procedure" provided in this manual before leaving the operator's station.*
- *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.*

1. Remove any dirt and grease that may have accumulated on the blade and moving parts. Scrape off compacted dirt from the bottom of blade and then wash surface thoroughly with a garden hose.
2. Inspect for loose, damaged or worn parts and adjust or replace as needed.
3. Repaint worn or scratched parts to prevent rust. Ask your Kubota dealer for touch-up paint. Paint is available in aerosol can, quarts, and gallon sizes. See chart below.

Touch-Up Paint

Part No.	Part Description
821-070C	GLOSS BLACK ENAMEL SPRAY CAN
821-070CTU	GLOSS BLACK ENAMEL BOTTLE & BRUSH
821-070CQT	GLOSS BLACK ENAMEL QUART
821-070CGL	GLOSS BLACK ENAMEL GALLON

4. Replace all damaged or missing decals.
5. Apply a coating of oil to the unpainted portion of the lower blade area to minimize oxidation while in storage.
6. To protect against sizing, lubricate moving parts as noted in **"Lubrication Points"** starting on page 36.
7. Store blade on a level surface in a clean, dry place. Inside storage will reduce maintenance and make for a longer blade life.
8. Follow all unhooking instructions on page 20 when unhooking the 6-Way Dozer Blade.

Lubrication Points

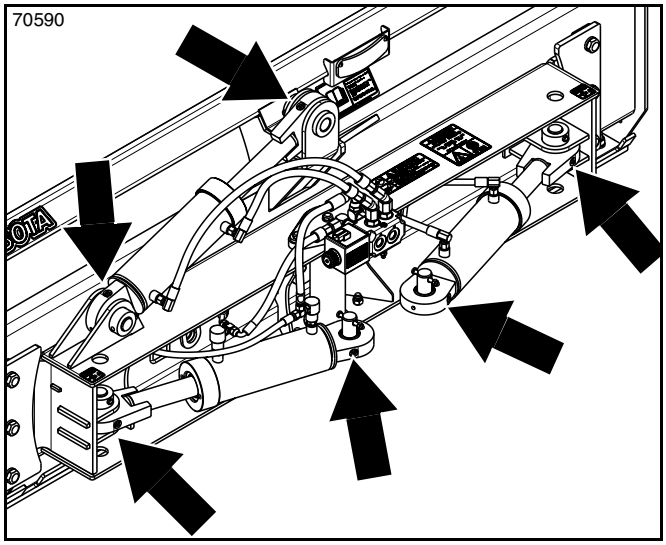
Lubrication Legend

Multi-purpose spray lube

Multi-purpose grease lube

Multi-purpose oil lube

50 Hrs — Intervals in hours at which lubrication is required



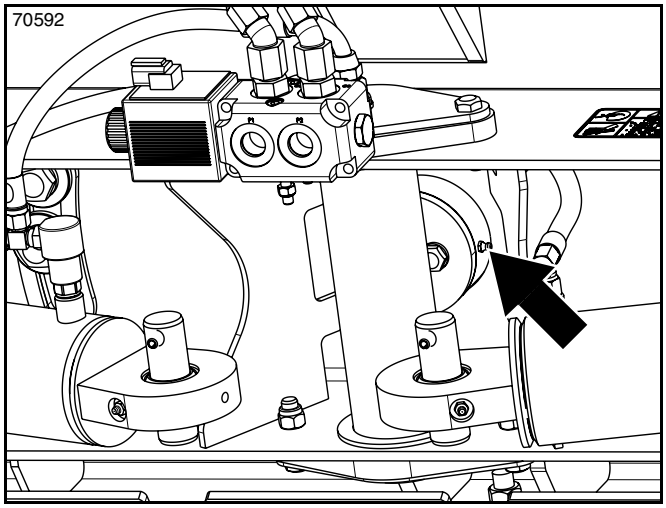
10 Hours

Hydraulic Cylinder Pivot Pins

6 - Zerks

Type of Lubrication: Multi-purpose Grease

Quantity = As required



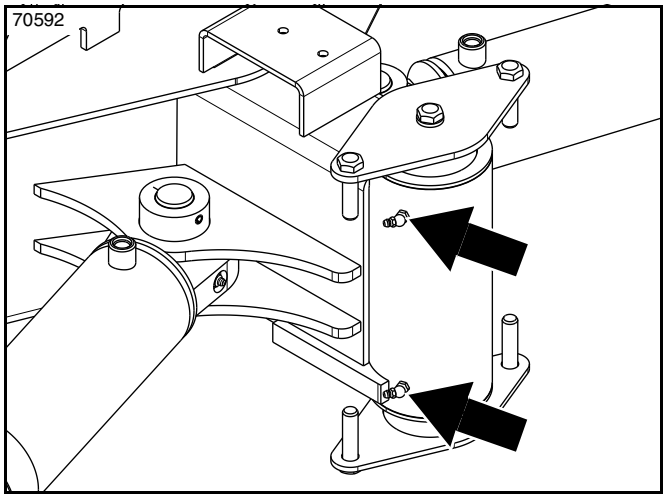
10 Hours

Blade Tilt Pin

1 - Zerk

Type of Lubrication: Multi-purpose Grease

Quantity = As required



10 Hours

King Pin

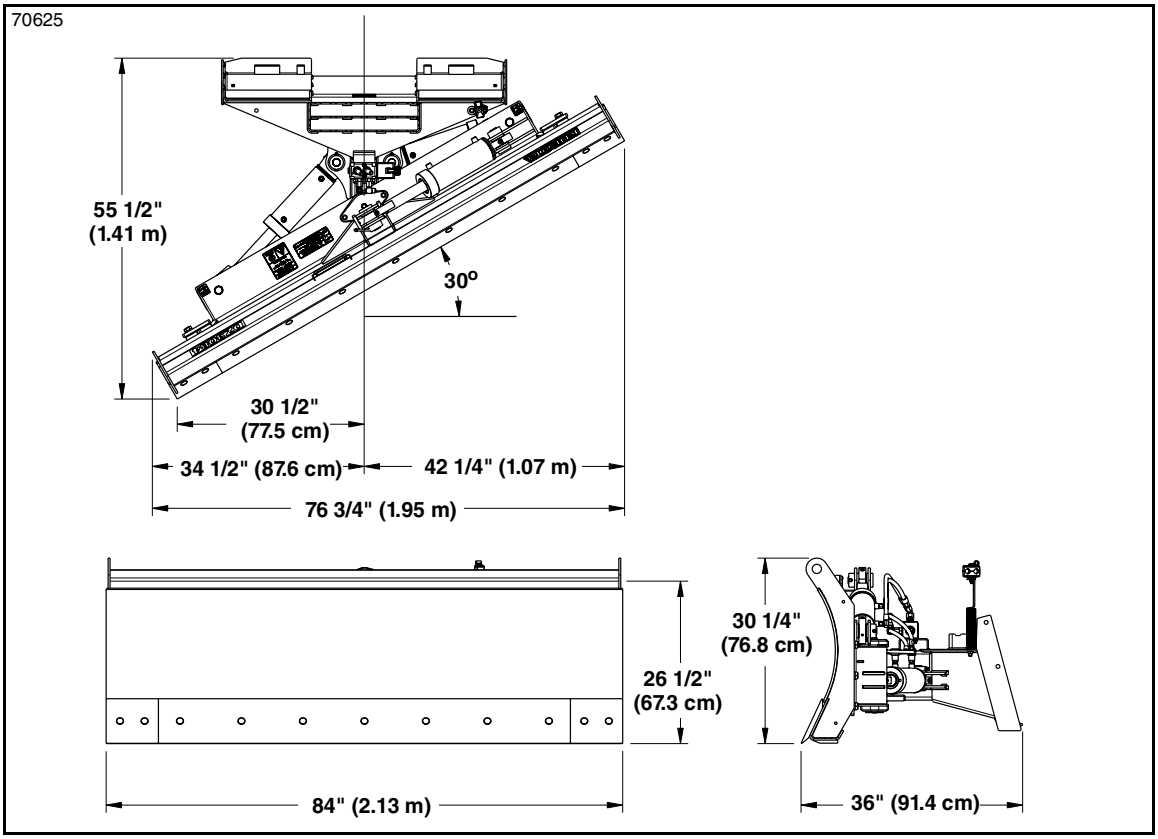
2 - Zerks

Type of Lubrication: Multi-purpose Grease

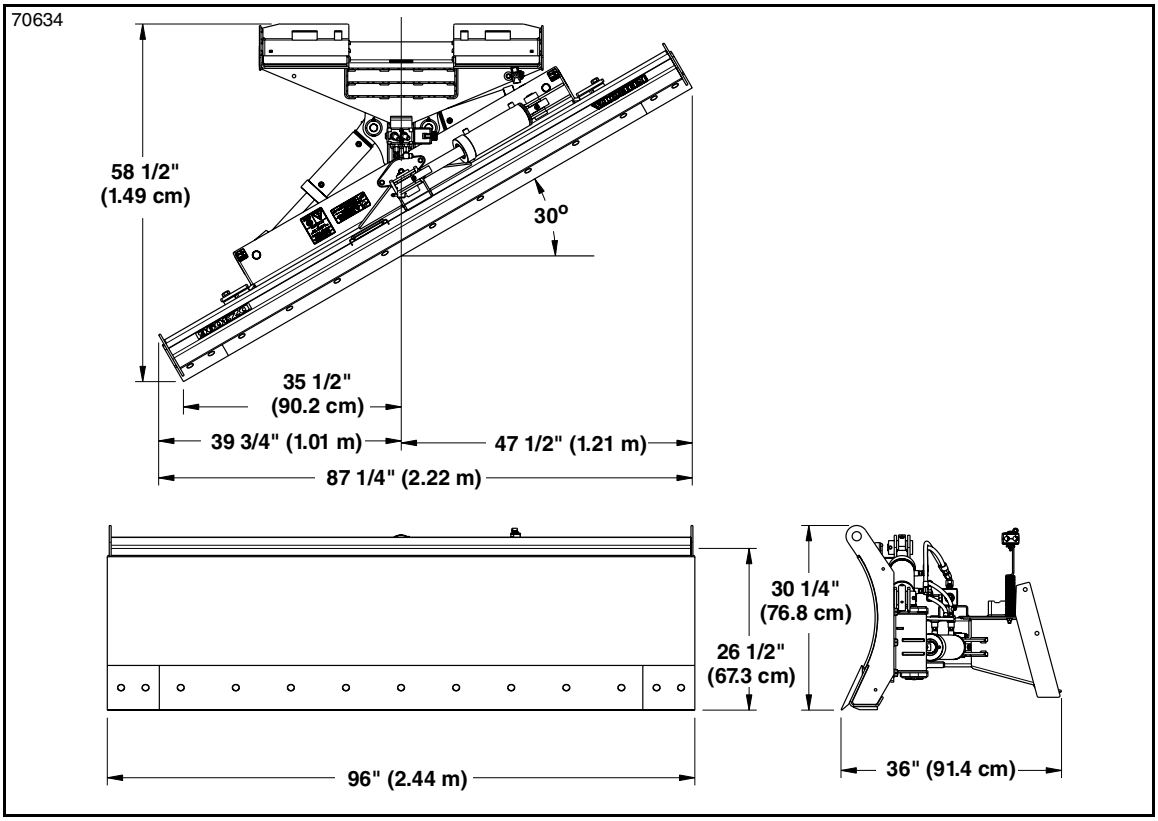
Quantity = As required

DZ3084 and DZ3096 Models

Specifications & Capacities		
Model Numbers	**DZ3084**	**DZ3096**
Weight	1345 lbs (610.1 kg)	1440 lbs (653.2 kg)
Hitch type	Skid steer type Universal Quick-Attach, meets ISO 24410	
6-Way blade adjustment	Top of hitch plate tilts forward or backward. Blade angles left or right. Blade tilts clockwise or counterclockwise.	
Maximum blade angle	30 degrees left and 30 degrees right	
Maximum blade tilt	10 degrees clockwise and 10 degrees counterclockwise	
Cylinder size	3 1/2" bore x 8" stroke	
Maximum hydraulic pressure	3500 psi (24.13 MPa)	
Maximum blade cutting width **At straight across** **At 30 degree angle**	 84" (2.13 m) 72 3/4" (1.85 m)	 96" (2.44 m) 83 1/4" (2.11 m)
Moldboard thickness	3/8" (10 mm)	
Moldboard height	26 1/2" (67.3 cm)	
Pivot bushings	Replaceable and greasable, hardened spring bushings	
Pivot pin sizes	Angle pin = 3" x 11 5/8" lg. Pivot pin = 3" x 2 13/16" lg.	
Cutting edges **End cutting edges** **Center cutting edge**	3/4" x 8" x 8 1/2" (1.9 cm x 20.3 cm x 21.6 cm) 3/4" x 8" x 66" (1.9 cm x 20.3 cm x 1.68 m)	3/4" x 8" x 8 1/2" (1.9 cm x 20.3 cm x 21.6 cm) 3/4" x 8" x 78" (1.9 cm x 20.3 cm x 1.98 m)
Wear edge	1/2" x 4" x 84" (1.3 cm x 10.2 cm x 2.13 m)	1/2" x 4" x 96" (1.3 cm x 10.2 cm x 2.44 m)



DZ3084 Model



DZ3096 Model

DZ3084 and DZ3096 Models

Features	Benefits
Universal Quick Attach-Hitch, Meets ISO 24410	Design for quick and easy attachment to most skid steers and track loaders.
Choice of 84" or 96" working widths	Allows customers to choose the blade that meets their operational needs.
Blade pivots hydraulically 6-ways	Hydraulic adjustment provides for quick and easy blade positioning. Blade adjust 6-ways to meet the operator's needs.
Reinforced 3/8" moldboard with fully boxed bracing	Provides added strength and durability.
3 1/2" Double acting welded hydraulic cylinders	Easily enables angling up to 30 degrees left or right, and tilts 10 degrees up or down. The material can easily be distributed where you want it to go.
Standard operator mounting step	Provides for safer and easier mounting into and dismounting from the skid steer cab.
26 1/2" Overall moldboard height	Provides ability to perform in deeper material conditions.
Replaceable bottom wear edge	Protects underside of moldboard against wear.
Reversible and replaceable 3-piece cutting edge	3-Pieces so that the end user can replace the entire cutting edge or just the high-wear corner sections to reduce maintenance cost.
Heavy 3" diameter pivot pins with greasable hardened spring bushings	Large diameter pivot pins stand up to rugged use. Lubrication helps protect against wear and rust seizing. Hardened bushings can be replaced if needed.

Troubleshooting Chart

Problem	Cause	Solution
Quick connect couplings do not fit properly	Hydraulic lines are charged with high pressure oil.	Relieve hydraulic pressure.
	Couplings on the hydraulic hoses are the wrong size to fit power equipment couplers.	Replace hydraulic hose couplers with couplers that match power equipment couplers.
Hydraulic Cylinder leaks oil	Cylinder packing is loose.	Tighten packing 1/8 of a turn.
	Cylinder is defective.	Repair or replace hydraulic cylinder.
Hydraulic cylinder is sluggish or does not work	Power equipment oil level is too low.	Add hydraulic oil to power equipment reservoir (Do Not Overfill).
	Hydraulic connection(s) leak.	Tighten or redo hydraulic connections.
Hydraulic cylinder does not hold blade angle while ditching	Release pressure is set too low.	Have the release pressure valve adjusted by a qualified mechanic.
Hydraulic cylinder holds blade angle too rigid while ditching	Release pressure is set too high.	Have the release pressure valve adjusted by a qualified mechanic.
Blade angles the opposite direction expected	Hydraulic hoses are hooked-up wrong.	Switch quick connect couplers on the hoses and reconnect to the power equipment.
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.
Control harness is stretched or damaged	Control harness is catching on tree limbs, debris, or other solid objects.	Replace or repair control harness. Stay away from objects that can catch on harness. Stop immediately if harness is catching on an object and remove object. If helpful, readjust harness routing.
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 on an object and remove object. If helpful, readjust hose routing.

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)

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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 Cylinder: One year Parts and Labor.

Hoses and Cutting Edge: 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.

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

Model Number _____ **Serial Number** _____

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