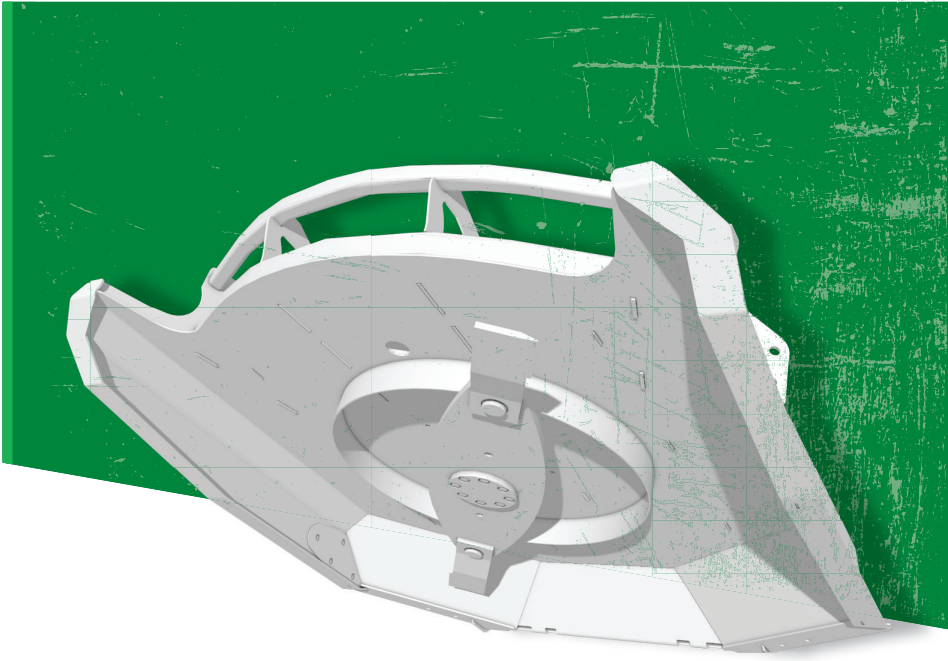


S BRUSH CUTTER PRO

OPERATOR'S MANUAL



DIAMONDMOWERS.COM



PRODUCT INFORMATION

Record the model and serial number of your unit here. When calling for warranty, service or parts, you may be asked to provide this information, in order to ensure fast, accurate service.

MODEL: Brush Cutter Pro

SIZE: 72"(1829mm)

SERIAL NUMBER: _____

Any failure to read, understand and follow the instructions found in this operator's manual could lead to serious injury. Operators who choose to operate this equipment without following instructions, or who choose to operate this equipment in a manner inconsistent with the recommendations set forth in this manual, do so at their own risk and assume the risk of injury. Diamond Mowers will not be liable for an owner or operator's loss, damage, or injury due to the misuse of the equipment, failure to understand the inherent risks, or inability to properly operate the equipment.

© Diamond Mowers®, LLC
All rights reserved.

— WELCOME! —

Thank you for choosing Diamond Mowers®, and welcome to your Brush Cutter Pro. Before you begin operating, we encourage you to look through this manual to review the proper maintenance and operating techniques that will keep you, and your equipment, safe – while ensuring you the most productive Brush Cutter in the market.

We have nothing but respect and admiration for you. Our job at Diamond® is to provide you with the toughest, most reliable and safest equipment that will allow you to do your job better. That also means being there when you need us.

CONTACT US:

Parts: 888.960.0361 | parts@diamondmowers.com

Warranty / Service: 888.960.0364 | warranty@diamondmowers.com

Main Office: 800.658.5561 | 605.977.3300

Website: www.diamondmowers.com | **Email:** info@diamondmowers.com

Your time is important to us.

We guarantee that Genuine Diamond Parts will ship within 72-hours of the order being placed or the parts and shipping are free.

Thanks again for choosing Diamond.

If at any time your needs are not being met, please feel free to contact anyone in our executive team.

PRODUCT REGISTRATION

OWNER REGISTRATION

In your welcome packet you should have received a warranty registration form. Complete and return this form to our main office. It's a self-mailer, so no postage is required.

If you'd rather complete this info online, go to:

<http://info.diamondmowers.com/register-my-product>

Returning your registration information to Diamond will help us process any warranty claims quickly and efficiently – so you can get back to work, fast.

TRANSFERRED OWNERSHIP

If you have acquired this Brush Cutter Pro from a previous owner, we encourage you to register your equipment online. By registering your Diamond Mowers unit, you'll stay informed on product advancements, offers and service alerts.

Register by going to: <http://info.diamondmowers.com/register-my-product>

We honor our equipment's warranty from the date it was put into service, no matter who's in charge of running it.

For any questions, contact our Warranty / Service team at:

888.960.0364 or 605.977.3300

warranty@diamondmowers.com



TABLE OF CONTENTS

INTENDED USE	6
TAKE A LOOK AROUND	7
INSTALLATION	8
OPERATING YOUR BRUSH CUTTER PRO	12
MAINTENANCE	20
TROUBLESHOOTING	27
INDEX	30

INTENDED USE

This attachment is designed to be used for mowing and brush management applications.

This includes:

- Cutting grass.
- Mulching brush.
- Cutting 3" (76mm) material continuously and 5" (125mm) material intermittently.

This attachment should only be used in an area free of obstructions and bystanders. Any use on non-vegetative material, or in an area that is not clear of persons and property, is strictly prohibited. Any use outside of the aforementioned application is considered contrary to its intended use. Any damage that may occur as a result of misuse will void warranty as stated in Diamond Mowers' warranty policy.

NOTICE

Do not operate this unit without first reading the safety precautions and operating instructions in this manual.

TAKE A LOOK AROUND



BLADES

Two, hardened steel knives $\frac{5}{8}$ " (16mm) thick. The blades are built to swing, allowing them to break away when in contact with rocks.



PUSH BAR

Guides material away from the skid steer / compact track loader.



DUAL-HEX DISC

It is important to build momentum in the cutting disc and allow for recovery time. This disc acts like a flywheel and stores energy. It will take some time for the disc to come up to full speed. If the disc begins to slow down in heavy brush or while cutting large trees, slow your movements to allow the disc to return to full speed.



HOSES

Shipped with $\frac{1}{2}$ " QD couplers and a case drain line with both male and female ends. High flow motors are equipped with a case drain line while standard flow motors are not. If your Brush Cutter Pro is equipped with a case drain line, ensure that it is properly connected and unrestricted to tank.

INSTALLATION



MACHINE FLOW

Diamond's Brush Cutter Pro can be used on either a standard or high flow machine capable of 17-41 GPM (65-155 LPM). Make certain the Brush Cutter Pro you purchased is sized right for your skid-steer / compact track loader.

MACHINE FLOW

DECK SIZE	GPM	LPM	CASE DRAIN	MACHINE
72" (1829mm)	17-20	65-76	No	
	21-28	79-106	No	
	29-34	110-129	Yes	
	35-41	132-155	Yes	



SAFETY POLYCARBONATE

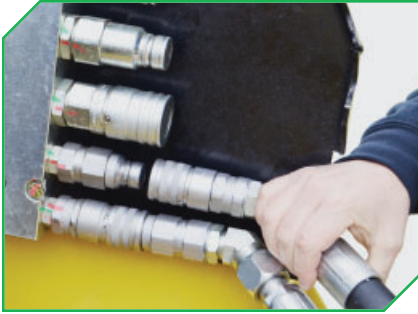
A minimum ½" (13mm) safety door is **REQUIRED!** This product must not be used without a minimum ½" (13mm) safety door. Debris can fly back at the cab and cause injury.



QUICK ATTACH

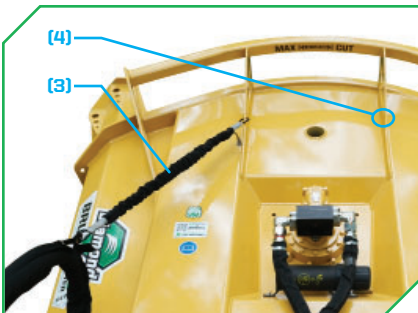
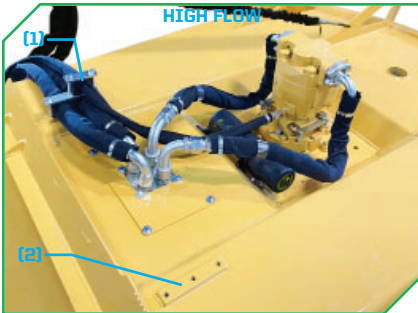
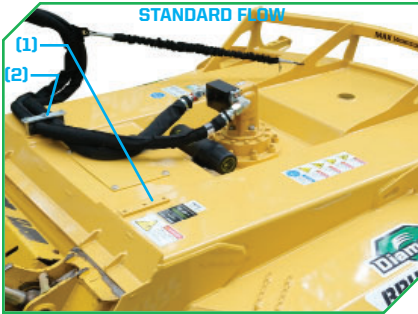
The Brush Cutter Pro will mount onto the front of the skid-steer / compact track loader quick attach plate in place of a bucket or other implements.

INSTALLATION



QD COUPLERS

The case drain line must be properly connected or you will damage your hydraulic motor. The case drain line will come equipped with both male and female QD couplers.



- Install the QD coupler(s) that matches the machine.
 - **NOTE:** The pressure hose will have a red ID band attached.
- Attachment is shipped with ½" flat face connectors, which are a common size for most skid-steer / compact track loaders.
- Clean connections before attaching to prevent contamination.
- An additional hose bracket mounting location (1) is provided in the event your skid steer auxiliary hydraulics are located on the right side of the machine.
 - Unbolt the hose bracket (1) and hoses from their current position and secure them to the alternate mounting location (1).
 - Unclip the hose carrier (3) from the push bar and reconnect it to the alternate mounting location (4).
- Start machine at low idle and verify that the disc is spinning in a clockwise direction as viewed from the operator's position.
 - If the pressure and return hoses are reversed, the disc will spin counter-clockwise resulting in damage.

CONTINUED ON NEXT PAGE

-
- If this reversal occurs, either inverse the flow from your machine, or switch the QD couplers on the pressure and return hoses.

OPERATING YOUR BRUSH CUTTER PRO

Before you operate, note that the primary responsibility for safety on this equipment falls to the operator. Only trained individuals who have read and understood this manual should operate this unit.

If any portion of this manual is not understood, contact:
Diamond Mowers' Service/Warranty at 888.960.0364 or 605.977.3300.

SAFETY TIPS

Be sure to read all warnings carefully. They are included for your safety, and for the safety of others working with you.

NOTICE

Indicates a property damage hazard *ONLY*, no *PERSONAL* injury.

CAUTION

Indicates where *MINOR* injury *COULD* result if instructions are not followed.

WARNING

Indicates where *SERIOUS* injury or death *COULD* result if instructions are not followed.

DANGER

Indicates where *SERIOUS* injury or death *WILL* result if instructions are not followed.

- Always wear personal protective equipment (safety glasses, goggles, etc.), when operating.
- **DO NOT** operate this unit without a shatter resistant cab enclosure OR shield installed on your excavator cab; this unit will cause flying debris.
- Block off work area from bystanders, livestock, etc.
- Bystanders must keep a distance of 300ft/100m from the unit when operating.
- Blades are always sharp and can cause injury, even when not in motion.
- **DO NOT** use extremities to dislodge debris from the blades or disc.

CONTINUED ON NEXT PAGE

- Operate only from the operator's station.
- Hydraulic fluid is hot and will heat any exposed steel, hoses, motor, or spindle in its proximity.
- Route hoses correctly to ensure a full range of motion.
- Make certain hoses are out of the way and will not snag on vegetation and debris.
- Be certain the disc has come to a complete stop before exiting the cab.

START-UP PROCEDURES

- Start the carrier (reference the carrier's operator manual for starting recommendations and procedures) and allow the carrier to warm up and instruments to stabilize.
- Prior to operation, ensure both engine and hydraulic oil temperature reaches the carrier's recommended operational temperature range.



STOWED POSITION

When transporting Diamond's Brush Cutter Pro between operations, make sure to protect it from collisions and accidental damages by placing it in the stowed position.

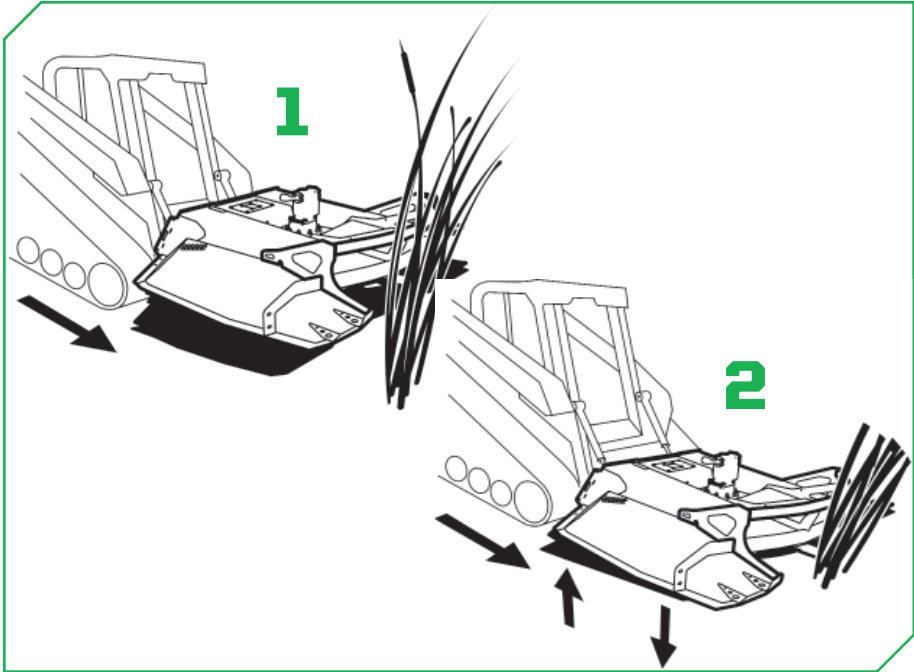
Failure to place the head in its stowed position could result in structural damage.

DANGER

Contact with the disc and/or blades while the disc is in motion will cause serious injury or death. The disc spins at a very high speed and can take several minutes to stop. Be sure all personnel are clear of the machine before engaging the Brush Cutter Pro.

OPERATING YOUR BRUSH CUTTER PRO

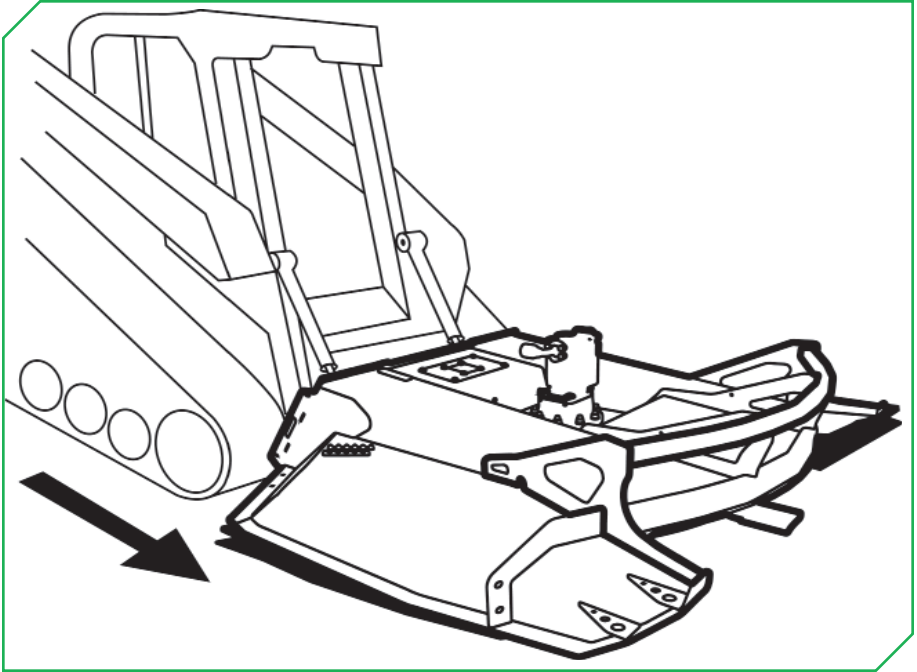
GRASS AND BRUSH CUT



Use to cut grass or brush.

- 1** Lower the front of the deck slightly to ensure ample room for exhausted material to be dispersed.
 - If you hear the blades, or engine slow down, lift up the head and/or slow your ground speed.
- 2** A second pass may be needed for heavy brush or grass.
 - Complete the initial pass at 12" (305mm) into the material.
 - Complete a second pass at ground level to thoroughly mulch the remaining material.
- Maximum vegetation diameter should not exceed 5" (125mm).

FINISHED MOW

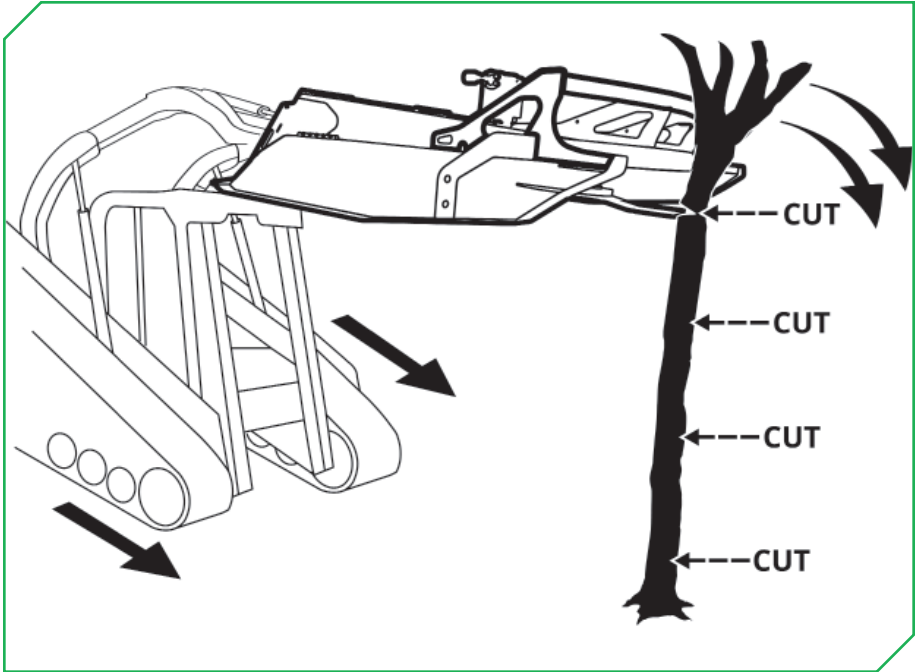


Use for a finished look.

- Drive straight into the material keeping the deck low and level, or slightly pitched forward.
- Maintain speed of the disc and arm swing speed.
- Maximum vegetation diameter should not exceed 5" (125mm).

OPERATING YOUR BRUSH CUTTER PRO

TREE CUT



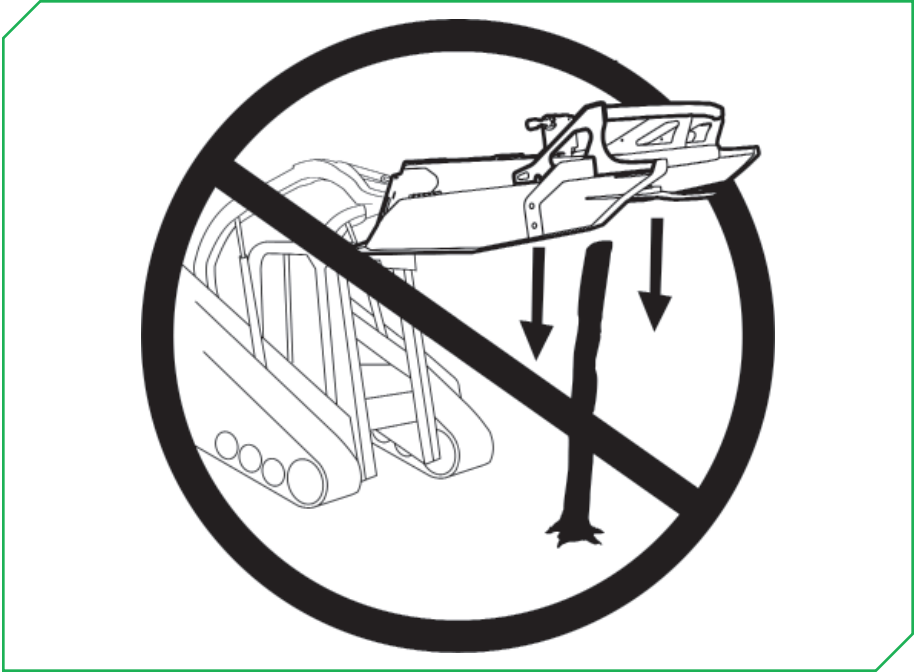
Use to cut tree without mulching.

- On trees up to 5" (125mm) in diameter, start working at the top and cut the tree in 12" (305mm) increments.
- With the Brush Cutter Pro lifted slightly, drive straight into the material.
- Use the push bar to push the tree over while cutting.
- Use a smooth, quick action to cut the material completely.
 - **NOTE:** Never drop the mower head straight down on trees. Severe damage will incur. **NO PANCAKING!**
- Maximum vegetation diameter should not exceed 5" (125mm).

⚠ WARNING

Be aware when cutting standing trees as there is a potential for treetops to fall onto the operator's cab.

NO PANCAKING



DO NOT pancake.

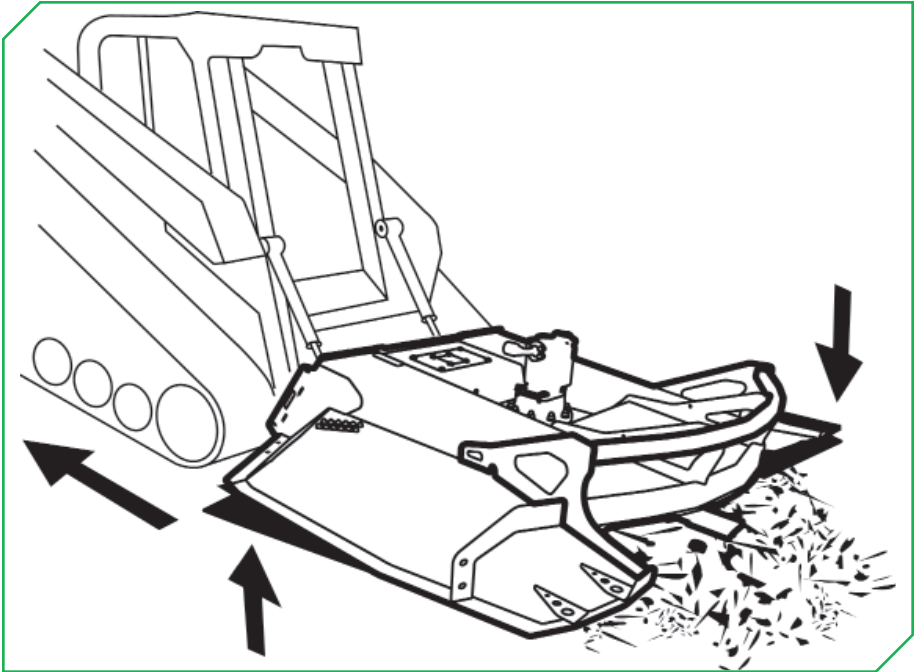
- This machine is not built to drop on top of material for cutting or mulching. Damage will incur to the blades and spindle as a result of driving down (pancaking) on top of the material.

NOTICE

Dropping the Brush Cutter Pro straight down (pancaking) on heavy vegetation can cause severe damage to the disc and spindle.

OPERATING YOUR BRUSH CUTTER PRO

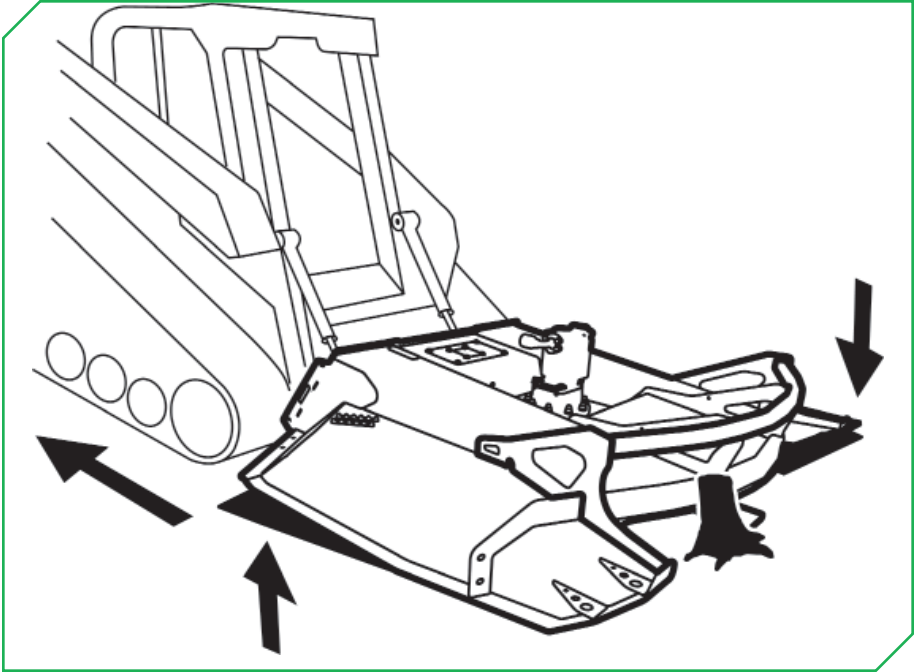
CLEANING & RE-PROCESSING



Use to clean up branches and large debris. Re-processing the debris will provide a groomed finish.

- Raise lift arms about 6" (152mm) and drop front of head toward the ground for the leading edge to skim the ground.
- Back over the remaining debris for a more finished look.

STUMP CUT



Use to cut stumps at ground level.

- Keeping the deck level, cut the stump low to the ground.
- Wait to rebuild speed before proceeding with a stump cut.
- Lift up the deck and point the nose down to the ground to allow the blades to be closer to the ground.
- Drive over the stump again, cutting at or below ground level.
- Maximum stump diameter should not exceed 5" (125mm).

For more tips, visit us online at www.DiamondMowers.com

MAINTENANCE

Regular maintenance will make certain your unit stays productive and retains a long operating life. The following chart represents the minimum intervals recommended for inspection and maintenance.

MAINTENANCE INTERVALS

PROCEDURE	10 HOURS/ DAILY	50 HOURS/ WEEKLY	500 HOURS/ ANNUALLY	AS NEEDED
BLADES	Inspect			
CASTLE NUTS/ROLL PINS	Inspect			
DISC	Inspect			
HOSE CARRIER		Inspect		
HYDRAULIC HOSES & FITTINGS	Inspect			
MOTOR BOLTS		Inspect		
PUSH BAR				Inspect
QD COUPLERS				Inspect
SAFETY POLYCARBONATE	Inspect			Clean
SPINDLE	Inspect	Change Oil	Change Oil	
SPINDLE BOLTS	Inspect			

When replacing parts, use Genuine Diamond Parts. Guaranteed to ship within 72-hours of your order being placed, or the parts and shipping are free.

Call: 888-960-0361 or 605.977.3300 | **Email:** parts@diamondmowers.com

Order online: www.diamondmowers.com

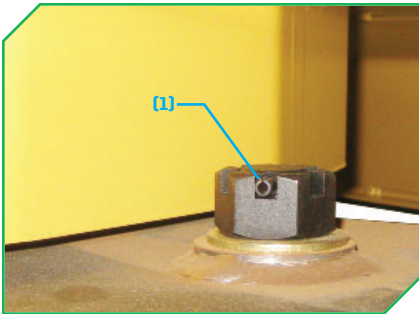


BLADES

- Blades should be inspected every 10 hours or daily.
- Inspect the blades for any cracks or damage.
- Blades that show 50% wear from original width should be replaced. Blades should be replaced as a set of two to maintain balance.

To replace a blade:

- Remove the roll pin, castle nut, and blade bolt.
- Replace the blade.
- Using new hardware, torque castle nuts to 400ft-lbs (543Nm). **DO NOT** use Loctite.
- Refer to **CASTLE NUT & ROLL PIN** for installation specifications.

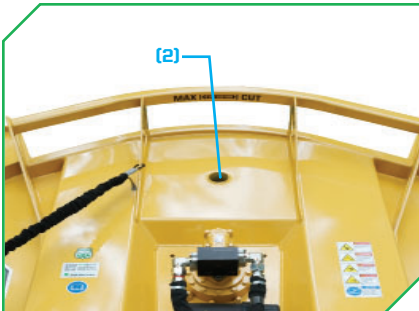


CASTLE NUT & ROLL PIN

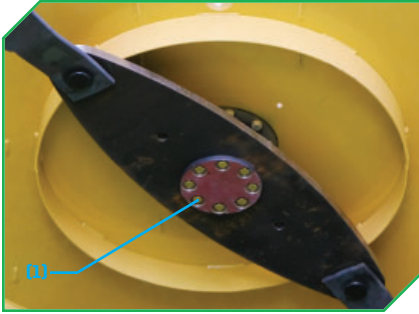
- Castle nuts and roll pins (1) should be inspected every 10 hours or daily.
- Access to castle nuts can be reached from the front of the deck, or through the access hole (2).

If a roll pin is missing:

- Torque castle nut to 400ft-lbs (543Nm).
- Replace the roll pin.
- If the roll pin cannot be inserted after the castle nut has been torqued, continue to torque the castle nut until the roll pin will fit.



MAINTENANCE

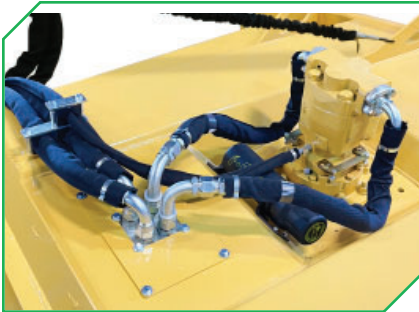


DISC

- Disc should be inspected every 10 hours or daily.
- Raise and secure the deck to inspect the disc for any cracks or other damage. If damage is found, disc should be replaced.

If disc bolts are loose:

- Remove the bolts.
- Apply Loctite 262 (red) to the threads.
- Replace the bolts and torque to 212ft-lbs (287Nm).



HYDRAULIC HOSES & FITTINGS

- Hydraulic hoses and fittings should be inspected every 10 hours or daily.

What to look for:

- Hydraulic fitting clamps and threaded connections for any hydraulic fluid.
 - If any leaks are observed, stop immediately to prevent damage to your machine.
- Hoses for any abrasions or cuts. Replace damaged or worn hoses.
- Attach hose wrap around critical points where hoses are likely pinched or rubbed.

CAUTION

DO NOT check for hydraulic leaks with your hands or any part of your body. Use a heavy piece of paper or cardboard to check areas that are not readily visible. Pressurized hydraulic fluid can penetrate the skin and lead to serious health risks.



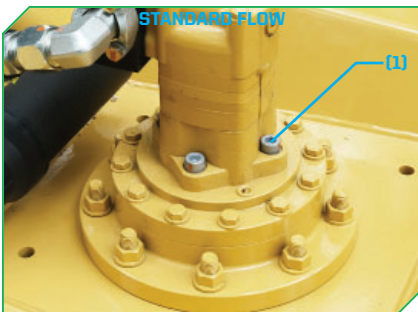
HOSE CARRIER

- The hose carrier ⁽¹⁾ should be inspected every 50 hours or weekly.
 - Replace when wear is noted.
- Adjust the hose carrier ⁽¹⁾ where it wraps the hoses to suspend the hose bundle from resting on the deck.
 - **DO NOT** allow hoses to hang below the deck or be pinched between the machine and the carrier.



MOTOR BOLTS

- Motor bolts ⁽¹⁾ should be torqued daily for the first 40 hours, and weekly thereafter.
- Torque hardware to:
 - 85ft-lbs (115Nm) for **STANDARD** flow motors.
 - 90ft-lbs (122Nm) for **HIGH** flow motors.
- **High Flow Motors ONLY:** Verify locking tabs ⁽²⁾ are in place.
 - Assemble locking tabs ⁽²⁾ to the U-shaped tab over the motor bolts ⁽¹⁾ with their hardware. Tighten the nylock nuts until one thread appears past the nylock nut.



MAINTENANCE



PUSH BAR

- Check for cracks.
- Repair as necessary.



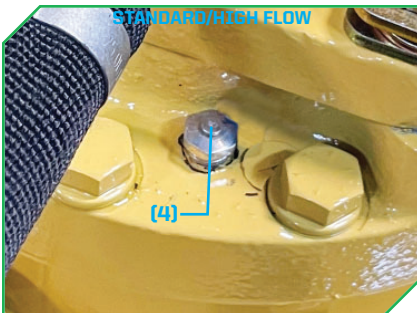
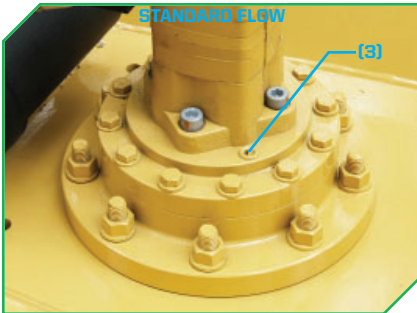
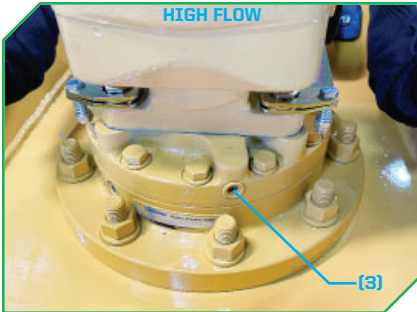
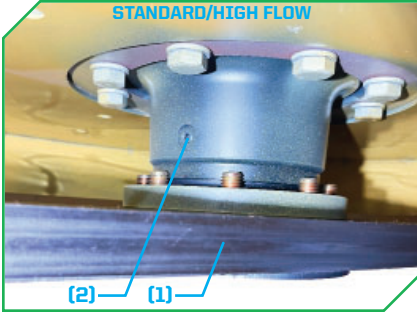
QD COUPLERS

- Inspect connections for leaks, damage, etc.
- Replace as necessary.



SAFETY POLYCARBONATE

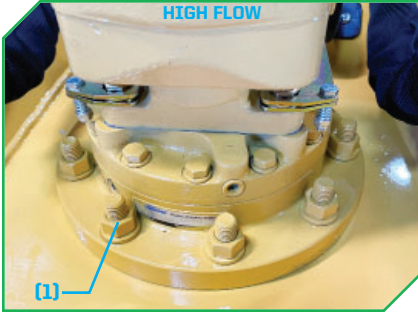
- **REQUIRED!** Debris can be thrown unexpectedly in any direction. Do not use this unit without a minimum ½" (13mm) safety door.
- Clean only with mild soap and water using a sponge or soft cloth.
- Inspect every 10 hours or daily. Replace as needed.



SPINDLE

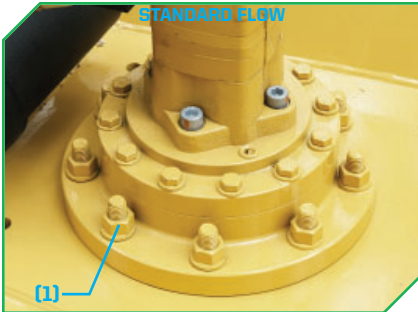
- Inspect topside of the cutting disc ⁽¹⁾ for oil.
 - If oil is present, the spindle's lower bearing seal may be damaged and will require replacement.
- The disc ⁽¹⁾ should rotate smoothly.
 - If excessive play is found, the spindle bearings are likely worn and will require replacement.
- Drain and replace oil annually or every 500 hours with 18oz of 75w90 synthetic gear oil.
 - Remove the drain plug ⁽²⁾ and fill plug ⁽³⁾ on the spindle.
 - Tilt head down/forward over oil catch pan until all oil stops draining, then replace the drain plug ⁽²⁾.
 - Use an air-powered vacuum if necessary to remove the oil.
 - Tilt head up/back to allow pour access to the fill plug ⁽³⁾.
 - Fill spindle with oil, then replace fill plug ⁽³⁾.
- Keep the pressure relief valve ⁽⁴⁾ free of debris every 10 hours or daily.
 - **NOTE:** Oil leaking from the pressure relief valve ⁽⁴⁾ while operating indicates a motor seal failure. Light weepage may occur if the spindle oil level exceeds 18oz.

MAINTENANCE



SPINDLE BOLTS

- Spindle hardware ¹ must be inspected every 10 hours or daily.
- If the hardware ¹ is loose, re-torque the hardware to 150ft-lbs (203Nm).



NOTICE

Failure to inspect and replace hardware at recommended intervals will cause damage to the machine and attachment.

TROUBLESHOOTING

PROBLEM	POTENTIAL CAUSE	SOLUTION
<p>Disc Will Not Spin</p>	<p>No hydraulic flow from skid steer / compact track loader</p>	<p>Verify hydraulic flow from power unit.</p>
	<p>Reversed flow from skid steer / compact track loader</p>	<p>After connecting the hoses to the machine, start machine at low idle and verify that the disc is spinning clockwise.</p>
	<p>Hydraulic motor shaft failure</p>	<p>Will require replacement. Contact Diamond Parts at 888.960.0361 or 605.977.3300.</p>
	<p>Material jammed</p>	<p>Dislodge material from disc by first disengaging the implement and backing up. This will typically clear the cutting head. If the cutting head does not clear, shut down the implement and rest the head on the ground. Clear the head manually.</p> <ul style="list-style-type: none"> ● DO NOT use extremities to dislodge debris from blades or disc.

CONTINUED ON NEXT PAGE

TROUBLESHOOTING

PROBLEM	POTENTIAL CAUSE	SOLUTION
<p>Excessive Vibration</p>	<p>Disc to spindle hardware is loose</p>	<p>Tighten hardware.</p> <ul style="list-style-type: none"> ● Torque hardware to 212ft-lbs (287Nm).
	<p>Vegetation build up on disc</p>	<p>Clean disc to remove debris by first disengaging the implement and backing up. This will typically clear the cutting head.</p> <p>If the cutting head does not clear, shut down the implement and rest the head on the ground. After the disc has come to a complete stop, clear the head manually.</p> <ul style="list-style-type: none"> ● DO NOT use extremities to dislodge debris from teeth or disc.
	<p>Missing or broken blade</p>	<p>Replace blade.</p> <ul style="list-style-type: none"> ● Remove the blade bolt. ● DO NOT use Loctite. ● Use a torque wrench set to torque to 400ft-lbs (543Nm). <ul style="list-style-type: none"> ○ If the roll pin cannot be inserted after the castle nut has been torqued, continue to torque the castle nut until the roll pin will fit.
	<p>Excessive play in spindle</p>	<p>The disc should rotate smoothly.</p> <ul style="list-style-type: none"> ● If excessive play is found, the spindle bearings are likely worn and will require replacement. Contact Diamond Parts at 888.960.0361 or 605.977.3300.

CONTINUED ON NEXT PAGE

PROBLEM	POTENTIAL CAUSE	SOLUTION
<p>Disc Slows Quickly</p>	<p>Skid-steer / compact track loader is operating on standard flow vs. high flow</p>	<p>Ensure skid steer / compact track loader is on high flow.</p>
	<p>Need to replace blades</p>	<p>Replace blade.</p> <ul style="list-style-type: none"> ● Remove the blade bolt. ● DO NOT use Loctite. ● Use a torque wrench set to torque to 400ft-lbs (543Nm). <ul style="list-style-type: none"> ○ If the roll pin cannot be inserted after the castle nut has been torqued, continue to torque the castle nut until the roll pin will fit.

For any questions, contact our Warranty / Service team at
888.960.0364 or 605.977.3300

INDEX

B

Blades 7, 21
Bolts
 Motor 23
 Spindle 26

C

Castle Nut & Roll Pin 21
Copyright Information 2

D

Disc 7, 22

H

Hose Carrier 23
Hoses & Fittings 7, 10, 22, 24

I

Intended Use 6

M

Machine Flow 8
Maintenance Intervals 20

O

Operation
 Safety Tips 12
 Start-Up Procedures 13
 Stowed Position 13
 Techniques
 Cleaning & Re-Processing 18
 Finished Mow 15
 Grass & Brush Cut 14
 No Pancaking 17
 Stump Cut 19
 Tree Cut 16
Owner Registration 4

P

Pressure Relief 25
Product Information 2
Push Bar 7, 24

Q

QD Couplers 10, 24
Quick Attach (Skid-Steer) 9

S

Safety Polycarbonate 9, 24
Spindle 25

T

Transferred Ownership 4
Troubleshooting 27

W

Welcome 3

(This Page Is Intentionally Left Blank)

**DEMAND
BRILLIANCE**

DIAMOND MOWERS.COM

15-1200
DMR-MANUAL-220602