

Owner's/Operator's/Maintenance Manual



Mini-Excavator Brush Cutter 36", 42" & 50"

(with mini spindle greasable drive)

TO THE OWNER/OPERATOR OF THIS IMPLEMENT

Please read this manual "before" unpacking or using this implement for the first time. This manual provides you with the necessary instructions to safely install and use your purchase. Do not let other people use this attachment without first being instructed how to safely use it.



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MAKE SURE TO REGISTER YOUR WARRANTY WITHIN 30 DAYS OF PURCHASE.

Visit www.bluediamondattachments.com to register.

Thank You

Blue Diamond Attachments[™] is a 3-generation family-owned business providing high quality attachments for construction and farm machinery. Our dedication to meeting the customer's needs is shown in our design and manufacturing procedures that are based on "in the trench reality!"

We understand that the purchase of your new Blue Diamond attachment is one you make your living with and we strive to give you the edge you need to stay competitive in your local marketplace.

We believe product support is the best form of advertising and we strive to make every experience with Blue Diamond Attachments, a good one! If you ever have any questions that your local dealer cannot answer, please contact us at once.

Again, Thanks!

Management & Employees Blue Diamond Attachments™ Knoxville, TN

Information

Record product information here for future reference.

Model (✔)
36" Mini-Excavator Brush Cutter
42" Mini-Excavator Brush Cutter
50" Mini-Excavator Brush Cutter
S/N or MFG. Date
Dealer Name
Dealer Phone
Date of Purchase//

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About Your New Brush Cutter

Your Brush Cutter is a rotary cutter machine propelled by a single prime mover and single operator. The Brush Cutter attachment is intended for use as a brush cutting and brush clearing tool.

The primary use of the Brush Cutter attachment includes land clearing, landscaping, and grounds maintenance. This cutter can also be utilized to clear limbs away from edges of fields or road/path right-ofways, pipeline access, wildfire prevention, vegetation management, invasive plant control and wildlife restoration.

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Brush Cutter Deck......14

Orientation



Serial Number Plate is Located on One of the Crossmembers

Importance of Safety

As the operator is the #1 safety device on all types of vehicles or equipment, it is important that the operator read, learn and know all safety recommendations for this product. The user is responsible to his family, friends and co-workers to operate in a safe manner. Ensure that everyone who operates or assists in the operation or maintenance of this product read and understand all the elements required to safely operate this piece of equipment. Accidents that can be avoided are very costly to human life and property.

This attachment has spinning blades that include additional dangers.

Throughout this manual you will find safety notes which are very important to read and understand before operating this piece of equipment. These classifications alert you to situations that could be harmful to you or bystanders. When you see these alerts in the manual, carefully read and follow all instructions and also protect other workers from the same danger.

<u>A DANGER</u> Will result in Death or Serious Injury.

WARNING Could result in Death or Serious Injury.

<u>A CAUTION</u> Could result in Minor or Serious Injury.

NOTICE Not related to Personal Injury.

Operator Safety Training Tips

It is the responsibility of the operator using this attachment to be acquainted with the safe operation. In addition to reading this manual, it is important that the operator read the excavator's operation manual and follow its manufacturer's recommendations!

Always visually check the mounting connection between the excavator and attachment. Make sure all pins, lock, keepers and hardware are in place and secure.

Before lifting or lowering the cutter, make sure the area is clear of bystanders or objects.

Machinery parts sometimes have sharp edges. Wear work gloves when moving parts. Always use caution around cutter blades as they often are very sharp.

Never use drugs or alcoholic drinks when operating or servicing this piece of equipment.

Always wear the proper personal protection equipment when servicing or operating this piece of equipment. Never service or operate this attachment with bare feet, sandals, or other light footwear.

Always use eye protection during operation. Mount this attachment on an excavator with thermoplastic polycarbonate cab windshield.

Keep proper clearance between the implement and objects (utilities, tree stumps, large rocks, buildings, etc.). Contacting these objects with the implement or prime mover could cause a loss of control or damage to the implement or property.

Before each operation of this implement, check all hardware (bolts, nuts, pins, etc.) for their proper location and tightness.

Stop the engine on the excavator and set the drive and swing brake to avoid unwanted movement while you are exiting the prime mover.

Store this implement in an area not frequented by children.

Allow <u>no</u> riders on this attachment. Keep all bystanders clear of attachment during operation.

Always replace worn, torn or missing safety decals before operating.

Cut only during daylight or well-lit artificial light

Excavator Requirements

Your Blue Diamond Attachments™ Brush Cutter should only be used on a miniexcavator with adequate lift capacity to safely maneuver the cutter at full reach on uneven ground. Contact your excavator dealer for guidance.

⚠ CAUTION

This attachment was designed for hydraulic system pressures of 3000 PSI (206 bar) maximum. Pressures over this specification could result in, Minor or Serious Injury, and/or product failure.

The mini-excavator this attachment will be mounted to will also require an auxiliary

hydraulic function plumbed out to near the end of the dipperstick that will provide 13-23 GPM to the attachment, and is equipped with a circuit relief system providing a maximum of 3300 PSI (227 bar).

To protect the operator from any flying debris, it is important that the excavator should be equipped with a thermoplastic polycarbonate windshield or similar material, and similar protection on the sides of the operator's cab.

▲ CAUTION

Make sure your miniexcavator is in good working condition.

Follow the operating instructions found in the manual that accompanied your excavator. Failure to do so could result in Minor or Serious Injury.

In the attachment's hydraulics and the excavator, always clean the couplers before mating the attachment to the prime mover.

Unpacking Your Shipment

Your attachment arrives from the factory banded to a wooden pallet, and requires no final assembly before use.

⚠ CAUTION

Careless removal of the shipping bands that secure the implement to the pallet could result in Minor or Serious Injury. Clear the area of all bystanders and stand to the side when cutting the bands with a pair of sheet metal shears.

Modifications

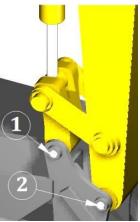
Any modifications made to this equipment may void any warranty and relieve the manufacturer of liability of any resulting injury or damage.

Using Your Implement

Connecting Cutter to Excavator

DANGER Never enter the area underneath any part of the attachment or excavator boom or dipperstick when it is in the raised position to avoid an accident that will result in Death or Serious Injury.

 Extend the tool cylinder and paddle link to a position that lines up with the attachment pin position #1 in the image below. Align the paddle hole with the mounting position (#1). Install pin through attachment and paddle and secure with appropriate hardware.



Installing attachment

2. Adjust the height of the excavator's dipperstick to align with the #2 hole in the attachment mounting ears. Insert pin and secure with appropriate hardware.

▲ CAUTION This attachment was designed for hydraulic system pressures of 3000 PSI (206 bar) maximum. Pressures over this specification could result in Minor or Serious Injury, and/or product failure.

- Connect the hoses from the attachment to the auxiliary hydraulic lines on the end of the dipper stick/arm.
- 4. To disconnect the cutter from the prime mover, reverse the procedure outlined above.

Pre-Operation Walk-around Inspection

Before every use, it is important to perform a short inspection and certain maintenance on your brush cutter.

	Item				
✓	Check that all shields				
	and guards are in place.				
✓	Look for loose bolts				
	and tighten them if				
	necessary.				
✓	Check that all safety				
	decals are in place and				
	can be read. Replace				
	them if necessary. See				
	page 16 for decal				
	locations.				
✓	Check that blades are				
	in good condition.				
	Sharpen or replace				
	them, if necessary.				
✓	Take care of our				
	environment. Repair				
	any hydraulic leaks.				

Cutter Boom Controls

Your brush cutter is designed to run off the excavator's auxiliary hydraulic system, and is activated and deactivated by a control in the operator's cab. Consult your excavator operator's manual for precise instructions on how to activate and deactivate the auxiliary circuit.

Height and tilt functions of the brush cutter are operated with the control handles in the cab. Consult your excavator operator's manual for precise instructions regarding these functions.

Engaging Cutter the First Time

startup with this attachment on this machine, check the excavator's hydraulic oil level and add oil, if necessary, before and after doing steps 1-3 below.

After starting excavator, lift the attachment 6" (152mm) off the ground surface:

- 1. With the excavator engine RPMs just above idle, slowly engage the auxiliary hydraulic flow to the cutter head. Using your machine's auxiliary hydraulic flow lever or switch, activate the auxiliary flow to the brush cutter.
- Allow the cutter to run for 30 seconds in each direction to purge the air from the system.
 Turn off the cutter drive, allowing it to come to a complete stop.
- 3. Lower the cutter attachment to the ground and shut off the excavator's engine and exit the operator's compartment.
- 4. Check the excavator's hydraulic oil level, and add oil if necessary.
- 5. Inspect the cutter hydraulic plumbing for any noticeable leaks. Correct these leaks before continuing.
- 6. Restart the excavator. With the attachment raised off the ground and the engine throttle set just above idle, engage the cutter drive circuit to start cutter. Allow cutter to come up to speed before increasing engine speed.

Starting the Cutter

▲ WARNING Moving or engaging the cutter with bystanders in the area could result in Death or Serious Injury. Before engaging cutter hydraulics, always make sure the area is clear of bystanders.

Engage the cutter drive hydraulics with the prime mover's engine at a low rpm. Slowly raise the excavator's engine rpm to the correct and desired cutter speed. Use the excavator's throttle to set the speed.

If the cutter ever creates a vibration when ramping up speed,

turn the cutter attachment to the off position and investigate cause. Refer to the Troubleshooting section in this manual. Stopping the Cutter

When stopping the cutter, raise the cutter slightly and lower the excavator engine RPMs to an idle, and allow the cutter to slow down. After the cutter has slowed down you may turn the auxiliary hydraulics to the "off" position. Allow the cutter to come to a stop before resting the attachment on the ground surface.

Getting Familiar with the Attachment

⚠ **WARNING**Never operate the cutter when bystanders are within 100′ (30 m) of your work area. Flying debris could result in Death or Serious Injury.

▲ CAUTION

Be cautious when operating on un-level ground surfaces. A machine roll over could result in Minor or Serious Injury. Always wear your seat belt when operating this type of machinery.

Before starting the excavator's engine with this cutter attached, make sure you are knowledgeable and comfortable with the operation of the excavator and brush cutter controls as outlined in the previous and following sections of this manual.

▲ WARNING

Do not over-speed the cutter by allowing more than 23 GPM (87 l/min) to the cutter head. This attachment requires 13-23 gallons (49 – 87 l/min.) flow to cut efficiently. Using more than 23 GPM (87 l/min) will over-speed the drive motor and result in motor failure and possible Serious Injury.

When operating the cutter, set the excavator's throttle at a speed that will produce the required flow. Refer to your excavator owner's manual or call your local

excavator dealer for additional help, if necessary. Your excavator dealer can measure the flow available on your machine and recommend a throttle setting that is compatible with this attachment.

To begin with, learn what the cutter head looks like in a level cutting position when you are seated in the excavator. Knowing what a level cutter head looks like will help you avoid damage to the cutting blades by cutting too close to the ground surface.

The correct ground speed for cutting with this attachment can be monitored by sound and feel and depends on the material density. If the excavator engine is bogging down or if the cutter speed is turning too slow because of too much load, the ground or swing speed should be decreased.

Listen and feel for any strange vibration when working the cutter. A bad vibration felt when cutting could indicate a damaged cutting blade, or material trying to be cut at too fast a pace. Slow down the excavator's swing or ground speed to see if the vibration stops. If it does not, stop the cutter, turn off the excavator's engine and investigate cause of vibration. Refer to the Troubleshooting section in this manual for further instructions.

Always be aware of your surroundings. While watching the cutter, also pay attention to what obstacles or terrain are in front of the cutter and prime mover's tracks. Maintain a safe swing and travel speed while cutting.

△ CAUTION

Cutting tree branches with the cutter in an elevated position could result in Death or Serious Injury if the excavator becomes unstable. Never raise the cutter more a few feet off the ground when working on slopes or uneven terrain.

Adjusting Cutter Height & Level

Use the excavator's boom and dipper to adjust the elevation of the cutter. The fore &

aft leveling can be accomplished by using the excavator's attachment tool cylinder.

CAUTIONUse care when operating on uneven terrain or any type of sloped surface. Keep your cutter low to the ground when working in these conditions to avoid a roll over that could result in Minor or Serious Injury.

Before Cutting

DANGER

Never cut in close

proximity to above ground electrical wires to

prevent an accident that will result in Death

or Serious Injury.

Inspect the area to be cut and make sure it is free of any utilities, rocks, fence posts fence wire, or any other objects that you do not want to cut or that would damage the cutter.

Determine a safe cutting pattern before the start of the cut. Stop the forward progress of the excavator to start the cut.

Do not enter into an area to be cut before the cutter rotation come up to the operating speed.

Cutting Tips

⚠ CAUTION

Never operate this attachment when bystanders are in proximity of the work area that could result in Minor or Serious Injury from flying debris.

NOTICE

Beware of fence wire and rope in your cutting area. Entangling wire or rope around the cutter's drive components could damage the lower main seal in the direct drive system, resulting in a loss of oil and component failure.

 Always inspect work area before starting the cutter. Locate and mark any utilities, steel posts, rocks or any other objects that

- could be damaged or would damage the cutter during operation. Never assume the work area is safe and never skip the inspection part before start of operation. Remove any fence material that could damage the drive components.
- 2. Operate at a safe slow-paced speed that will allow you to watch the area ahead of the cutter & loader.
- 3. Make sure you are operating the excavator's engine at an rpm that will produce the volume of oil flow required for this attachment.

Cutting Ground Level Vegetation

- 4. Your brush cutter is capable of cutting and mulching small trees and other vegetation of up to 3" (76mm) in diameter. Learn and realize which way the tree is likely to fall so it does not end up crashing onto the prime mover.
- 5. Swing the attachment from side-to-side over the vegetation to be mulched. Use a constant swing speed through the material; slow enough to adequately mulch the material to the desired size.

CAUTION

Do not operate the cutter if you (the operator) can see the cutter blade. If the operator can see the cutter blade, the back of the cutter is raised TOO HIGH and should be lowered to avoid debris being thrown back at the operator and causing Minor or Serious Injury.

Cutting Above Ground Level Vegetation

⚠ CAUTION

Never operate this attachment when bystanders are in proximity of the work area that could result in Minor or Serious Injury from flying debris.

6. Tilt and raise the front of the deck to the desired height. Allow the cutter blade to cut the vegetation. Lower the deck as you continue to mulch the material. Swing the

- cutter side-to-side to further minimize the size of the debris.
- 7. If the cutter speed slows down, reduced your swing/travel speed and allow cutter to reach the proper rotating speed.
- 8. Never use your cutter to push, pull, lift or move any type of object or vehicle. Do not use this attachment to "push" down trees without the cutter being used.
- Always allow cutter to come up to operating speed before moving attachment into the material you want to cut.

Maintaining your Attachment

Before Every Use

Check that all fasteners (nuts, bolts, pins, keepers) are in their right place and are tight.

Inspect and replace any worn, torn or missing safety decals.

Investigate the location of any oil leaks and repair.

Every Week

Check the condition of the blades by raising the cutter attachment off the ground and tilt the attachment forward to the 90° position. Lower the attachment to the ground.

Inspect the cutter blades and remove and sharpen them if necessary. Sharp cutter blades will cut more efficiently than dull blades.

Every 250 hours

Lubricate the drive unit using Shell Gadus red lithium S5 V100 2 grease ... or equivalent. Pump grease through zerk until you notice excess grease escaping from the small hole on the opposite side of the housing.



Location of housing bearing grease zerk

After Every Season

Inspect the implement for any loose or worn parts that may need to be replaced prior to the next cutting season.

Visually inspect the cutting blades. Sharpen or replace them, if necessary.

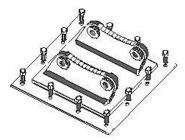
Clean, sand & repaint any area that looks worn or scratched to prevent further rusting. Use an equipment-paint found at your local hardware store or building center.

Store your implement in a shed or cover with a water-proof tarp to protect it from the weather. Store in an area not frequented by children.

Bracket Interchange

Your Blue Diamond mini-excavator brush cutter can be used on various brands of mini-excavator by changing the mounting bracket.

Order the appropriate bracket from your local Blue Diamond Attachments™ dealer by supplying the brand and model information of your alternate machine.



Bracket Installation

- 1. This bracket is heavy. Use an appropriate hoist and slings to place the bracket into position.
- 2. Loosen the hardware and position the sling straps on the hoist to position the bracket over the mounting location.
- 3. Align the holes between the bracket and deck and insert the appropriate hardware.
- 4. Torque hardware to the specification detailed in the "Hardware Torque" section of this manual.

The mounting bracket is secured to the cutter with 12 bolts. Always insert all the mounting hardware and torque them according to the value found in the Hardware Torque chart in this manual.

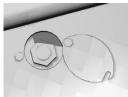
Blade Removal

To avoid an accident that could result in Death or Serious Injury, never find yourself in a position where any body part is located under an unsupported cutter deck when servicing this attachment.

CAUTION

Cutter blades can be very sharp and could cause Minor or Serious Injury if mishandled. Always wear protective gloves and footwear.

 Loosen the two bolts securing the blade nut access cover to the deck plate on the top right side of the deck plate. Pivot the cover to access the nut through the hole in the top of the deck.



Blade Hardware Access Hole On Top Right Side of Deck

2. Slowly rotate the blade carrier until the blade mounting nut is centered in the access hole as shown in the above image.

Loosen and remove the nut with an air impact and allow the blade to drop to the floor.

Blade Inspection

Always service
(sharpen or replace) the blades as a set.
Never run the cutter with unmatched blades.
Never install one used and one new blade as they may cause the cutter to be unbalanced and result in a vibration during operation and may cause harm to other cutter components.

Sharpen the blades with the appropriate equipment, but be careful not to overheat the blade steel causing the blade material to become brittle and prone to early failure. Grind both blades to the similar shape and size being careful not to create a mismatched set of blades

Blade Installation

1. Insert the new blade bolt up through the hole in the blade and spacer through the carrier and have another person install the nut on the bolt.

Always use a new pivot bolt and new nut in every installation. Reusing hardware will sometimes not retain the torque necessary to stay tight.

- Tighten the blade hardware with an air impact, the torque the blade retention hardware to 1440 lb. ft (1952 Nm). You will probably require a torque multiplier to attain this torque.
- 3. When both sets of blade hardware have been properly torqued, place the access cover back into position and tighten the hardware.

Hardware Torque

	Grade	Grade	Grade		
	2	5 lb-ft	8 lb-ft		
	lb-ft		$\langle S_i \rangle$		
1/4"	66*	8	12		
5/16"	10	17	20		
3/8"	20	30	45		
1/2"	45	75	110		
3/4"	160	260	380		
7/8"	190	400	600		
1"	-	580	900		
1 1/8"			1440		

^{*=} inch pounds

Higher torques require the use of a torque multiplier.

All values are "dry" torques.

Hydraulic System

⚠ CAUTION This attachment was designed for hydraulic system pressures of 3000 PSI (206 bar) maximum. Pressures over this specification could result in, Minor or Serious Injury, and/or product failure.

Consult with your Mini-Excavator dealer regarding the maximum pressure available to the attachment. Never use this attachment on a system that would supply more than 3000 PSI (206 Bar) to the hydraulic motor.

A small stream of oil from a pinhole leak could penetrate your skin if contacted. To avoid an accident that could result in Death or Serious Injury, never use your hand or other body parts in an attempt to locate a hydraulic leak.

NOTICE Always release the hydraulic system pressure from the cutter circuit prior to removing the attachment or any hydraulic system service work.

Hose Replacements – Always make repairs with proper rated hydraulic components.



When requiring any parts for your implement, please collect the following information:
Implement Model Number
Implement Serial Number
Parts Manual Date (lower right corner)
Parts Manual Page

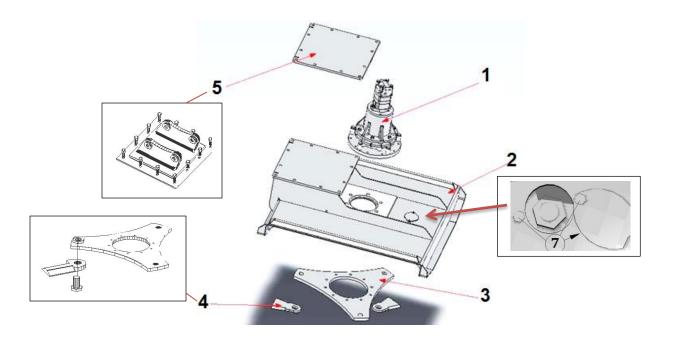
Parts Manual Page
Part Description
Quantity Required
Ship-to Name & Address
Payment Method

...then call your local dealer for factory fresh parts specifically designed for your attachment.

Use Genuine Parts from



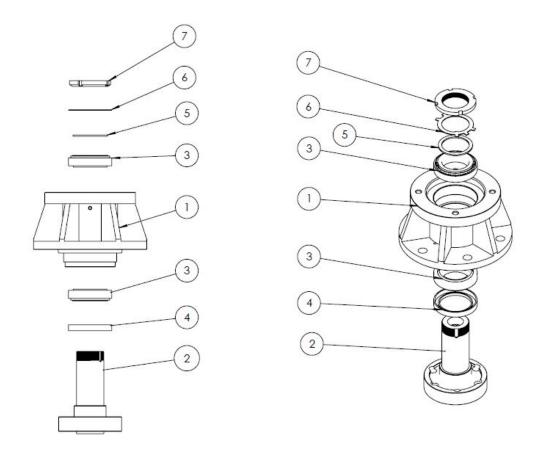
Brush Cutter Deck



203629 (BRUSH CUTTER, DIRECT DRIVE ASSEMBLY, SMALL 2.36" SPINDLE)? Please Update the manual with this part munber.

Ref.	Description	Part Number	Qty.
1	Cutter Drive	203629	1
2	Dock Woldmont	Contact	1
2	Deck Weldment	Factory	1
	Blade Carrier 36"	203627	1
	Blade Carrier 42"	203678	1
3	Blade Carrier 50"	203723	1
	Bolt (Carrier to drive flange)	202062	10
	½ X 13 x 1 ½" Grade 8	203063	10
	Blade (36" Cutter)	203620	3
	Blade (42" Cutter)	203670	3
4	Blade (50" Cutter)	203720	3
	Bolt	203035	3
	Nut	203030	3
	Diata with attachment mount	Contact	1
_	Plate, with attachment mount	Factory	1
5	Bolt, bracket to deck	203035	12
	Nut, bracket to deck	203030	12
7	Cover, Blade Nut Access	203008	1
/	Bolt, Access Cover	203009	2

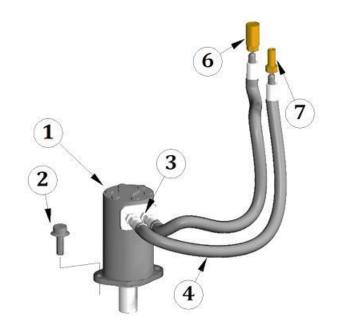
Direct Drive



Ref.	Description	Part No.	Qty.
1-7	Complete housing assembly	203629	1
1	Mini spindle housing	203630	1
2	Mini spindle	203632	1
3	Bearing	203635	2
4	Seal	203638	1
5	Washer	203640	1
6	Lock washer	203642	1
7	Nut	203645	1

203639BRUSH CUTTER DIRECT DRAIN MAIN SEAL KEEPER (SNAP RING) FITS 2.36" SPINDLE

Hydraulic



Ref.	Description	Part No.	Qty.
1	Hydraulic Motor 6.0 CID / 100cc	203763	1
1	Hydraulic Motor 4.9 CID / 80cc	203760	1
2	Flange Bolt, motor to Drive	203167	4
2	Housing		4
3	Adapter, Motor to Hose		2
4	Hose Set, Adapter to Quick	203039	1
4	Disconnect		1
6	Quick Disconnect, Female	224011	1
7	Quick Disconnect, Male	224012	1

Cross Port Relief Valve 203770

Decals





6





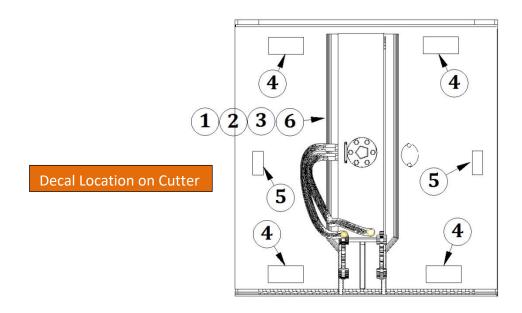


Warning

Use of over 23 gallons will cause motor damage and possible serious injury.

Ref.	Description	Part Number	Qty.
1*	Decal, (Warning, High Pressure Fluid Hazard)	BD-007	1
2	Decal, (Read Owners Manual Before Operating)	BD-02	1
3*	Decal, (Do not operate without safety chains in	BD-03	1
3	place		1
4*	Decal, (Warning, Keep Hands & Feet Away))	BD-04	4
5*	Decal, (Danger, Debris Discharge Area-Stay Back)	BD-055	2
6*	Decal, (Warning, Use of over 23 Gallons)		1

* **MARNING** Replace any worn, torn or missing safety decals before operating!



Troubleshooting

Problem	Cause	Resolution
Cutter bogs down	Dull blades	Remove and sharpen blades.
	Ground or swing speed too fast	Slow down ground/swing speed.
	Cutter speed too slow	Raise engine RPMs or investigate other low oil flow problem
Vibration felt when running cutter	Missing, loose, damaged or unbalanced cutter blades	Replace blades with new or re-sharpened and equally balanced blades.
	Blade carrier damaged Drive housing loose on deck	Replace blade carrier Tighten & torque drive mounting bolts. Replace bolts if they are damaged.
	Cutting height too low for cutting in sandy or rocky soils	Raise cutter height.
Blades get dull too quickly	Blades have contacted solid objects (rocks, steel pipes, etc.)	Clear cutting area of solid objects before hitting them, or raise the cutter height to clear exposed rock surfaces.
Blades breaking	Excessive shock loads	Avoid hitting solid objects (rock, steel pipes, large tree stumps, etc.).
Hydraulic oil level goes down during operation	Leak at cutter motor or other plumbing	Investigate & repair
	Leak in excavator hydraulic system	Investigate & repair
Blades do not spin when flow is activated	Excavator's auxiliary system problem	Possible excessive system pressure. Contact your excavator Dealer
	Hydraulic motor failed	Possible excessive system pressure. Contact your local Blue Diamond Dealer.

Specifications

	3	6"	42	2"	50"
Cut Width	36" (93	L4 mm)	42" (10	67 mm)	50" (1270mm)
Deck			1/4" (6.3	5 mm)	
Thickness					
Number	3	3	:	3	3
of Blades					
Blade			Doublo	Edgod	
Design			Double	Lugeu	
Drive					
System			Direct	Drive	
Type					
Rotation			Bi-Dire	ctional	
Weight	550 lbs.	(250 kg)	625 (2	284 kg)	780 lbs. (354 kg)
	Plus mount	ing Bracket	Plus mount	ting bracket	Plus mounting Bracket
Flow	80cc	100cc	80cc	100cc	100cc
Minimum	13 GPM	17 GPM	13 GPM	17 GPM	13 GPM
	(49 L/min)	(64 L/min)	(49 L/min)	(64 L/min)	(49 L/min)
Flow	4.9 CID	6.0 CID	4.9 CID	6.0 CID	23 GPM
Maximum	20 GPM	23 GPM	20 GPM	23 GPM	(87 L/min)
	(75 L/min)	(87 L/min)	(75 L/min)	(87 L/min)	
Max.					
Relief	3000 PSI (206 bar)				
Pressure					
Drive	Shell Gadus red lithium S5 V100 2 grease				
Lubricant					

Accidents, Big Or Small, Avoid Them All!

Manual Development by Cynalog LLC, Wichita, KS USA





Mini Excavator Brush Cutter

Limited Warranty

Blue Diamond Attachments[™], a manufacturer of quality attachments, warrants new Blue Diamond Attachments products and/or attachments at the time of delivery to the original purchaser, to be free from defects in material and workmanship when properly set up and operated in accordance with the recommendations set forth by Blue Diamond Attachments, LLC.

To file a warranty claim, please contact your nearest Blue Diamond Dealer or sales representative.

Brush Cutters:

The Blue Diamond Brush Cutters have a one (1) year warranty policy. Dis-assembly of the cutter in any way, including the blade carrier, housing components, and/or motor, may void the warranty. Please contact Blue Diamond Attachments for instructions and authorization before taking apart to verify warranty.

To submit a warranty claim, a return authorization from BLUE DIAMOND ATTACHMENTS must be obtained. The failed part may then be returned. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

Exclusions of Warranty

Except as otherwise expressly stated herein, BLUE DIAMOND ATTACHMENTS makes no representation or warranty of any kind, expressed or them slide, AND MAKES NO WARRANTY OF MERCHANT THE ABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE. BLUE DIAMOND ATTACHMENTS shall not be liable for incidental or consequential damages for any breach or warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of goods by the buyer.

No agent, employee, or representative of BLUE DIAMOND ATTACHMENTS has any authority to bind BLUE DIAMOND ATTACHMENTS, LLC, to any affirmation, representation, or warranty concerning its machinery and/or attachments except as specifically set forth herein. This warranty policy supersedes any previous documents..

WARRANTY MAY BE VOIDED IF ATTACHMENT IS ALTERED IN ANY WAY