

Extreme Duty Series 2 Brush Cutter

Operation and Maintenance Manual



103025-2, 303025



888-376-7027 | BlueDiamondAttachments.com

Register your
WARRANTY
within 30 days
of purchase



BD-092

Introduction: Owner Information

Thank you for your decision to purchase a Blue Diamond® Extreme Duty Series 2 Brush Cutter. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator's manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

Operate and maintain this equipment in a safe manner and in accordance with all applicable local, state, and federal codes, regulations and /or laws. Follow all on-product labeling and instructions.

Make sure that all personnel have read this Operator's Manual and thoroughly understand safe and correct operating, installation and maintenance procedures.

Blue Diamond is continually working to improve its products. Blue Diamond reserves the right to make any improvements or changes as deemed practical and possible without incurring any responsibility or obligation to make any changes or additions to equipment sold previously.

Although great care has been taken to ensure the accuracy of this publication, Blue Diamond makes no warranty or guarantee of any kind, written or expressed, implied or otherwise with regard to the information contained within this manual. Blue Diamond assumes no responsibility for any errors that may appear in this manual and shall not be liable under any circumstances for incidental, consequential or punitive damages in connection with, or arising from the use of this manual.

Keep this manual available for frequent reference. All new operators or owners must review the manual before using the equipment and annually thereafter. Contact your Blue Diamond Attachments Dealer for assistance, information, or additional copies of the manual. Contact www.bluediamondattachments.com or call 888-376-7027 for a complete list of dealers in your area.

Serial Number Location:

Please record attachment information in the space provided for future reference.



Model Number: _____

Serial Number: _____

Dealer Name: _____

Dealer Number: _____

Date of Purchase: _____

The serial number plate is located on the left side of the motor hood, just forward of the mounting plate.

Always use your serial number when requesting information or when ordering parts.

NOTE: The directions left, right, front and rear, as mentioned throughout this manual, are as viewed from the operator's position.

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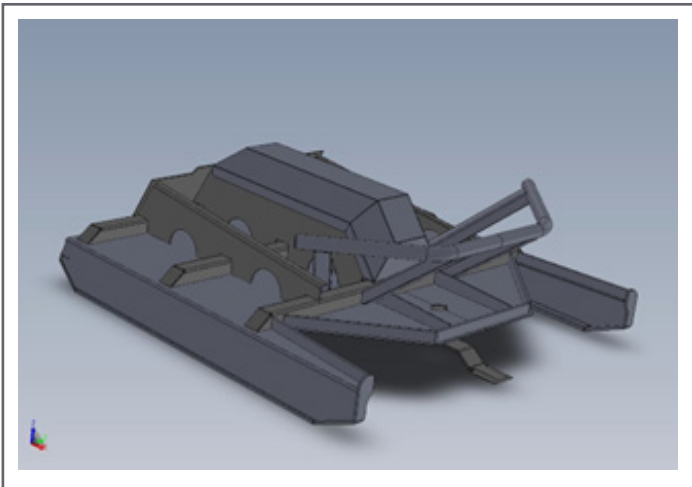
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1. Introduction

The Brush Cutter attachment is intended for use as a brush cutting and clearing tool. The primary use of the Brush Cutter attachment includes land clearing and grounds maintenance. Use of this equipment in any other manner is considered to be contrary to the intended use of the attachment.

1.1 About this Attachment

Requiring only 16 GPMs of hydraulic flow this aggressive cutter will allow a faster travel speed with increased cutting capabilities. The Extreme Brush Cutter features four swing-away blades and ultra- rugged construction. Cuts up to 6” trees and discharges very well for heavy grass cutting. The four- blade system, ultra-heavy construction and direct drive, combined with a protected reversible motor, allow you to cut the thickest brush with confidence. The larger capacity means less time in the field and cost savings in both time and energy. The Brush Cutter attachment is vital in the land clearing and grounds maintenance industries.



1.2 About this Manual

This manual contains information about the usage and maintenance required for the equipment. This document must be available for review by the operator before using the attachment to ensure proper safety, maintenance, and usage.

Terminology

Prime Mover: The Brush Cutter can be attached to many different pieces of equipment; therefore, the term “prime mover” will be used. A prime mover is any equipment, tractor, or skid steer providing power to the attachment.

1.3 Machine Requirements

FLOW	16 – 26 GPM
MAX PRESSURE	3000 PSI

2. Safety

2.1 General Safety Information



This **SAFETY ALERT SYMBOL** identifies important safety messages on the equipment and in the owner's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



The signal word **IMPORTANT** identifies procedures which must be followed to avoid damage to the machine.



The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Notes are used to indicate important information. This information may be repeated in other areas of the manual.

2.2 Safety Notices

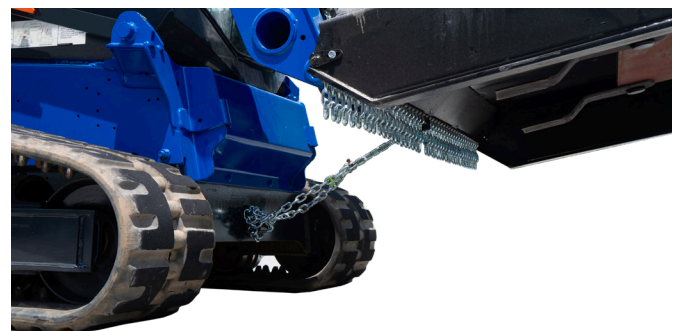
Before operating or conducting maintenance on this equipment, it is important to wear proper protection. Recommended safety equipment when operating and maintaining includes earplugs, eye protection, and a hard hat.

NOTE: Additional safety equipment may be required depending on the operating environment and worksite conditions.

Only qualified and trained personnel should operate, maintain, and service this attachment. Blue Diamond recommends that you inspect this equipment regularly for leaks, cracks, or other conditions that may impair proper usage of the equipment. Verify that all repairs have been completed and inspected prior to using the attachment under load.

It is the responsibility of the user to follow all local, state, and federal safety regulations. Improper use of this equipment may result in personal injury, property damage, and/or damage to the equipment.

NOTE: Fasten the safety chain to your machine with very little slack. Connect the safety chain under the machine's attachment mounting plate and secure to the frame of the machine. Not all machines will attach the same.



Do not raise the back of the cutter more than 12" off the ground while operating the attachment. Raising the cutter during operation may result in serious injury or death. Be aware of your surroundings as debris can be thrown far. Always work away from persons or damageable property.

2. Safety

2.3 Modifications to Equipment

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

2.4 Operator Qualifications

Safe Operation Needs a Qualified Operator



WARNING



AVOID SERIOUS INJURY OR DEATH

Operators must receive instructions before operating the machine. Untrained operators can cause serious injury or death. For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment.

Operator Training

- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area.

3. Operation

3.1 Attaching the Brush Cutter to the Prime Mover

NOTE: Before attempting to attach the Brush Cutter to the prime mover, verify that all hydraulic couplings are compatible.



WARNING



Improper attachment to the prime mover may cause personal injury.



CAUTION



All hydraulic connections must be clean and free of debris before making any connection.

1. Place the Brush Cutter attachment on a level surface.
2. Position and align the prime mover to the rear of the attachment, within proximity of the front of prime mover.
3. Insert and connect the prime mover into the attachment.
4. Connect the hydraulic lines from the attachment to the prime mover.
5. Close latches (or other locking mechanism) to secure the attachment to the prime mover.
6. Using the prime mover, raise the attachment and move the attachment to ensure hydraulic lines are clear of air and operate properly.



CAUTION



Hydraulics should operate in an even and smooth manner. Hydraulic movement that is not even and smooth may indicate that air is in the hydraulic lines.

7. Lower the attachment to ground level.
8. Attach the safety chain to the prime mover with minimal slack. Not all prime movers will attach the same.
9. Inspect that the attachment is mounted properly and securely. If the attachment does not meet this requirement, follow the instructions to remove the Brush Cutter and re-attach using the instructions above.

3.2 Removing the Brush Cutter from the Prime Mover



WARNING



Improper disconnection may result personal injury or damage to the attachment and prime mover.



CAUTION



All hydraulic connections must be clean and free of debris before disconnection.

1. Using the prime mover, lower the attachment to the ground.
2. To prevent contamination, remove any dirt and debris from the couplings. Disconnect the hydraulic connection between the attachment and the prime mover.

NOTE: Hydraulic connections must be disconnected before disengaging latches to prevent damage to the prime mover or the attachment.

3. Disconnect safety chain
4. Disengage the prime mover latches (or other locking mechanism) from the attachment.
5. Move the prime mover from the attachment.

3. Operation

3.3 Operation Safety

- Operate this attachment with a prime mover with an enclosed cab with safety glass in front door.
- Wear proper safety equipment as required by working conditions and local, state, and Federal laws.
- Never operate the Brush Cutter within 300 feet of people, animals, or damageable property. Clear the area of objects that could become projectiles, such as rocks, bottles, and construction debris.
- Never operate the Brush Cutter with the back more than 12" off the ground or where your view is obstructed.
- Never operate the Brush Cutter with any guards removed, including the motor cover.
- Never operate the Brush Cutter without the safety chain securely fastened to your machine.
- Disengage the Brush Cutter and shut off the engine before leaving the cab of your machine.
- Do not place hands or feet near the Brush Cutter while the machine is running.



DANGER



Keep all body parts away from the Brush Cutter when in use.



Eye and Ear Protection: To help ensure your safety as a designated operator wear eye and ear protection.





Safety Helmet: To help ensure your safety as a designated operator wear a safety helmet.

4. Maintenance

4.1 Equipment Inspection Schedule

We recommend that you inspect the equipment for damage and wear before use. See the following chart as a guideline during equipment inspection.

WARNING

DO NOT use hands to check for hydraulic leaks. Keep body parts away from leaking hydraulic lines and couplings that are under pressure.

NOTE: Shut off the prime mover and disengage the Brush Cutter before performing any maintenance.

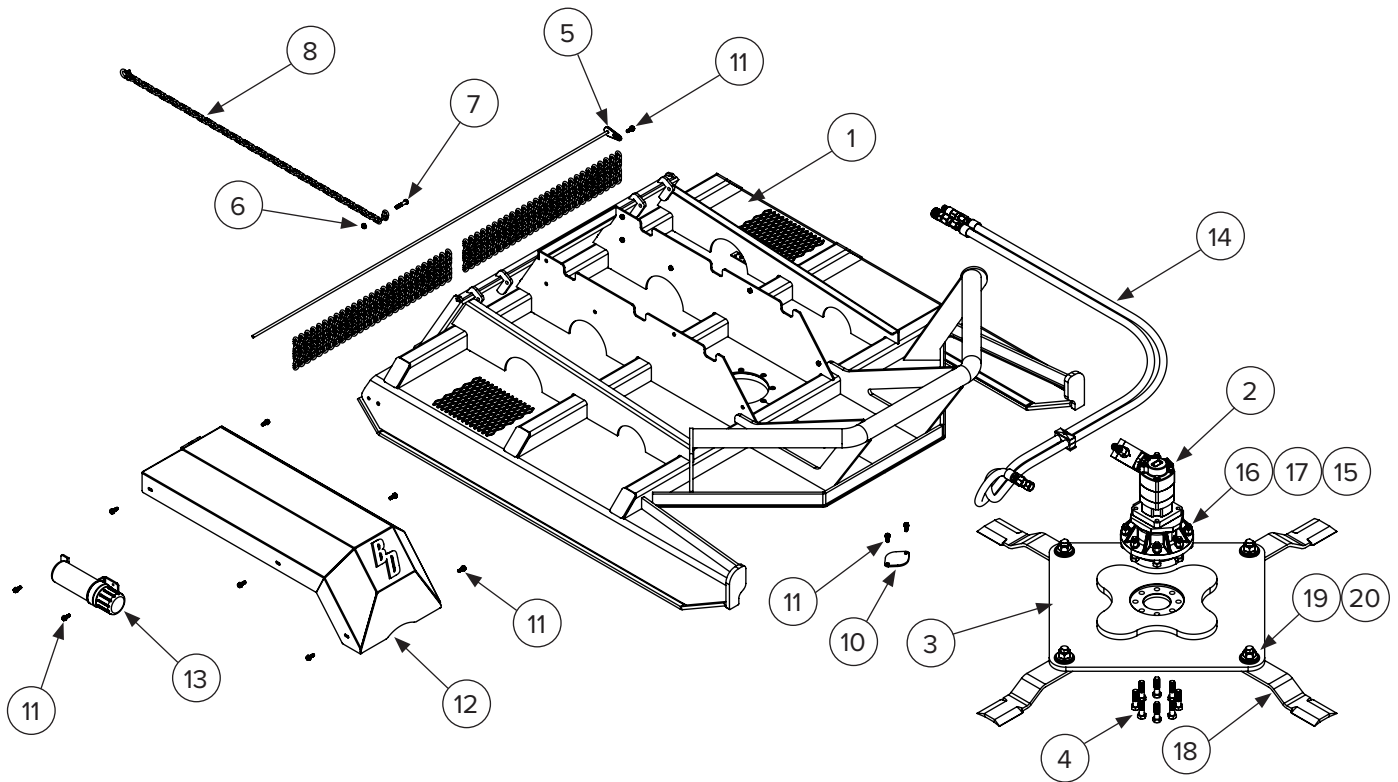
4. Maintenance

4.1 Equipment Inspection Schedule Cont'd

DESCRIPTION	SERVICE PROCEDURES					
	Check	Clean	Lube	Change	Adjust	Drain
Daily Maintenance (or every 8 hours)						
Hydraulic Fittings	•					
Hydraulic Hoses	•					
Hydraulic Motor	•	•				
Blades (wear, damage, and loosening)	•					
Blade Carrier	•					
All Hardware	•					
Deck	•	•				
Chain Guard	•					
Safety Chain	•					
Weekly Maintenance (or every 40 hours)						
Blade Bolt Torque - 1,440 ft/lb (1,952 N•m)	•					
All Hardware	•					
Deck (cracks, bends, or damage)	•					
Chain Guard (replace missing/broken chains)	•					
Safety Chain	•					
Monthly Maintenance						
Blades (cracks, bends, or excessive wear)	•					
Skid plates	•					
All Hardware	•					
1,000 Hour Maintenance						
Change Drive Oil				•		

5. Assembly

5.1 Parts Breakdown

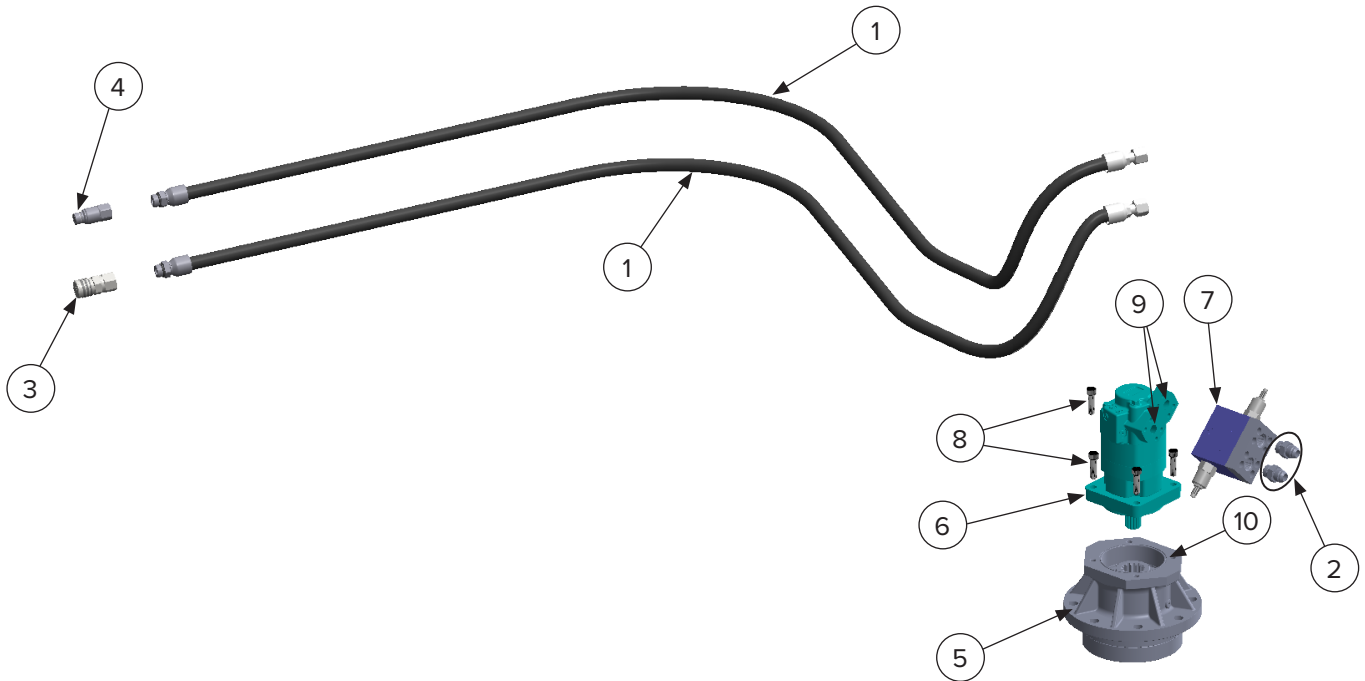


ITEM	PART NUMBER	DESCRIPTION	QTY
1	203510-2	Deck Weldment	1
2	See Hydraulics	Motor/Drive Unit Assembly	1
3	203044-2	Blade Carrier	1
4	299469-F	3/4-16 X 2 1/4" Blade Carrier Bolt	8
5	203055-2	Chain Retainer Bar	1
6	299618	1/2-13 Safety Chain Nut	1
7	299436	1/2-13 X 3 1/2" Safety Chain Bolt	1
8	203048	Safety Chain and Clevis	1
9	206825	Hose Clamp - Weld On	1
10	203008	Brush Cutter Inspection Cover	1
11	203006	3/8-16 X 1" Thread Forming Bolt	11
12	203005-2	Motor Cover	1
13	216402	Manual Tube	1
14	See Hydraulics	Hose Set	1
15	299855	3/4" Direct Drive Lock Washer	8
16	299628	3/4"-10 Direct Drive Nyloc Nut	8
17	299470	3/4"-10 Direct Drive Bolt	8
18	203027	Blade	4
19	203035	Blade Bolt	4
20	203030	Blade Nut	4

5. Assembly

5.2 Hydraulics Parts Breakdown

Hydraulic Breakdown for machines December 2022 and later



ITEM	PART NUMBER	DESCRIPTION	QTY
NS	203785	Motor, Block, and Hose Assembly	—
1	203782	Hose Set with Kevlar 3/4" X 110" #12 Male ORB to #12 Female JIC	1
2	295010-M12JIC-M12ORB	Hydraulic Fitting #12 Male JIC to #12 Male ORB	2
3	224011	Female Hydraulic Coupler 1/2" Body	1
4	224012	Male Hydraulic Coupler 1/2" Body	1
5	BC75-SAE-C	Direct Drive	1
6	203781	160cc Motor	1
7	203787	Relief Block	1
8	299332	Motor to Drive Bolts 1/2-13 X 1 3/4" Socket Head	4
9	203789	Relief Block to Motor O-Ring	2
10	203783	Motor to Drive O-Ring	1

5. Assembly

5.2 Hydraulics Parts Breakdown

Hydraulic Breakdown for machines before December 2022

PART NUMBER	DESCRIPTION	QTY
203039	Hose Set with Kevlar 3/4" X 110" #12 Male ORB to #12 Female JIC	1
295010-M12JIC-M12ORB	Hose to Block and Hose to Coupler Fittings #12 JIC to #12 Male ORB	4
244011	Female Hydraulic Coupler 1/2" Body	1
224012	Male Hydraulic Coupler 1/2" Body	1
BC75-SAE-C	Direct Drive	1
203768	160cc Motor (includes relief block and cartridges)	1
203770	Relief Block	1
299332	Motor to Drive Bolts 1/2-13 X 1 3/4" Socket Head	4
203908	Relief Block to Motor O-Ring	2
203783	Motor to Drive O-Ring	1

6. Specifications

6.1 Attachment Specifications

DESCRIPTION	SPECIFICATIONS
Overall Length	86"
Overall Width	76"
Working Width	72"
Motor	160cc
Flow (GPM)	16-26
Max Pressure (PSI)	3000
Cut Diameter	6"
SPECIAL TORQUE VALUES	
Blade Nut	1440 ft/lbs

6. Specifications

6.2 Torque Specifications

Standard Hardware and Lock Nuts

BOLT TYPE	SAE GRADE 5		SAE GRADE 8		LOCK NUTS			
	Nominal Size	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	W/ Grade 5 Bolt
1/4	55 in / lb (6.2 N•m)	72 in / lb (8.1 N•m)	86 in / lb (9.7 N•m)	112 in / lb (12.6 N•m)	121 in / lb (13.6 N•m)	157 in / lb (17.7 N•m)	61 in / lb (6.9 N•m)	86 in / lb (9.8 N•m)
5/16	115 in / lb (13 N•m)	149 in / lb (17 N•m)	178 in / lb (20 N•m)	229 in / lb (26 N•m)	250 in / lb (28 N•m)	325 in / lb (37 N•m)	125 in / lb (14 N•m)	176 in / lb (20 N•m)
3/8	17 ft / lb (23 N•m)	22 ft / lb (30 N•m)	26 ft / lb (35 N•m)	34 ft / lb (46 N•m)	37 ft / lb (50 N•m)	48 ft / lb (65 N•m)	19 ft / lb (26 N•m)	26 ft / lb (35 N•m)
7/16	27 ft / lb (37 N•m)	35 ft / lb (47 N•m)	42 ft / lb (57 N•m)	54 ft / lb (73 N•m)	59 ft / lb (80 N•m)	77 ft / lb (104 N•m)	30 ft / lb (41 N•m)	42 ft / lb (57 N•m)
1/2	42 ft / lb (57 N•m)	54 ft / lb (73 N•m)	64 ft / lb (87 N•m)	83 ft / lb (113 N•m)	91 ft / lb (123 N•m)	117 ft / lb (159 N•m)	45 ft / lb (61 N•m)	64 ft / lb (88 N•m)
9/16	60 ft / lb (81 N•m)	77 ft / lb (104 N•m)	92 ft / lb (125 N•m)	120 ft / lb (163 N•m)	130 ft / lb (176 N•m)	169 ft / lb (229 N•m)	65 ft / lb (88 N•m)	92 ft / lb (125 N•m)
5/8	83 ft / lb (112 N•m)	107 ft / lb (145 N•m)	128 ft / lb (174 N•m)	165 ft / lb (224 N•m)	180 ft / lb (244 N•m)	233 ft / lb (316 N•m)	90 ft / lb (122 N•m)	127 ft / lb (172 N•m)
3/4	146 ft / lb (198 N•m)	189 ft / lb (256 N•m)	226 ft / lb (306 N•m)	293 ft / lb (397 N•m)	319 ft / lb (432 N•m)	413 ft / lb (560 N•m)	160 ft / lb (217 N•m)	226 ft / lb (306 N•m)
7/8	142 ft / lb (193 N•m)	183 ft / lb (248 N•m)	365 ft / lb (495 N•m)	473 ft / lb (641 N•m)	515 ft / lb (698 N•m)	667 ft / lb (904 N•m)	258 ft / lb (350 N•m)	364 ft / lb (494 N•m)
1	213 ft / lb (289 N•m)	275 ft / lb (373 N•m)	547 ft / lb (742 N•m)	708 ft / lb (960 N•m)	773 ft / lb (1048 N•m)	1000 ft / lb (1356 N•m)	386 ft / lb (523 N•m)	545 ft / lb (739 N•m)

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MANUFACTURER'S 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.

BLUE DIAMOND® ATTACHMENTS liability for any defect with respect to accepted goods shall be limited to repairing the goods at a BLUE DIAMOND® ATTACHMENTS designated location or at an authorized dealer location, or replacing them, as BLUE DIAMOND® ATTACHMENTS shall elect. The above shall be in accordance with BLUE DIAMOND® ATTACHMENTS warranty adjustment policies. BLUE DIAMOND® ATTACHMENTS obligation shall terminate twelve (12) months for the Extreme Duty Series 2 Brush Cutter after the delivery of the goods to original purchaser.

This warrant shall not apply to any machine or attachment which shall have been repaired or altered outside the BLUE DIAMOND® ATTACHMENTS factory or authorized BLUE DIAMOND® ATTACHMENTS dealership or in any way so as in BLUE DIAMOND® ATTACHMENTS judgment, to affect its stability or reliability, nor which has been subject to misuse, negligence or accident beyond the company recommended machine rated capacity.

WARRANTY CLAIM

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 implied, AND MAKES NO WARRANTY OF MERCHANTABILITY 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 the goods by the buyer.

No agent, employee, or representative of BLUE DIAMOND® ATTACHMENTS has any authority to bind BLUE DIAMOND® ATTACHMENTS 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.

NOTE: Blue Diamond® Attachments is a trademark of BLUE DIAMOND® ATTACHMENTS



QUALITY | DEPENDABILITY | INTEGRITY

Blue Diamond® Attachments
4512 Anderson Road, Knoxville, TN 37918
888-376-7027