

BLUE DIAMOND ATTACHMENTS

Extreme Duty rock bucket grapple Operation and Maintenance Manual

To ensure warranty coverage please register your attachment at: http://www.bluediamondattachments.com/warranty-registration/

Document History

The table below lists all revisions of the Extreme Duty rock bucket grapple Operation and Maintenance Manual.

Document Revision	Summary of Changes	Publication Date		
First publication	First revision	6/19/2017		

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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.

Hazard Notices Used in this Manual

The following hazard notices are used in this document:

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

CAUTION – Cautions are used to indicate a potentially hazardous situation which, if not avoided, may result in damage to the equipment or other property.

WARNING – Warnings are used to indicate a potentially hazardous situation which, if not avoided, could result in serious injury or death.

DANGER – Danger is used to indicate a potentially hazardous situation which, if not avoided, will result in serious injury or death.

Terminology

Prime Mover: The Extreme Duty rock bucket grapple 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.

Safety

Safety Notices

Before operating or conducting maintenance on this equipment, it is important to wear proper protection. Recommended safety equipment when operating and maintaining this equipment 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. It is recommended that this equipment be inspected 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.

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.

About the Extreme Duty rock bucket grapple Attachment

The Extreme Duty rock bucket grapple attachment is intended for use in materials handling. The primary use of the Extreme Duty rock bucket grapple attachment includes land clearing, landscaping, demolition, construction, and grounds maintenance. Use of this equipment in any other manner is considered to be contrary to the intended use of the attachment.

Extreme Duty rock bucket grapples

The Extreme Duty rock bucket grapple attachment is vital in the tree industry and is quickly becoming a necessity among all contractors today. This unique Extreme Duty rock bucket grapple is offered in a variety of sizes for a variety of applications.



Figure 1 – Extreme Duty rock bucket grapple

With the Extreme Duty rock bucket grapple, you can perform three jobs in one. In a single pass the Extreme Duty rock bucket grapple rakes away debris, keeps it in a manageable pile to move around with ease, and the round bottom bar provides the necessary tool for backfill. The wide tine opening makes easy loading of logs, brush, rocks, demolition debris, and many other materials into the large bucket area. It is ideal for separating dirt from rock, lumber, or building materials with ease. The larger capacity means less loading and cost saving in both time and energy. Hydraulic cylinders operate independently to adjust for uneven loads. Enclosed cylinders and hoses come standard to minimize maintenance. Tines curve upward in order to slide across the land without damaging topsoil or catching utility lines or cables.

Extreme Extreme Duty rock bucket grapple

The Extreme Extreme Duty rock bucket grapple is intended for anyone who makes a living with skid steers or tractors. The Extreme Duty rock bucket grapple is industrial strength and produced for everyday use. It is constructed of 3/4" top-quality steel plate (60,000 psi). Oversized points and bushings increase the durability. The lifting capacity of this skid-steer attachment exceeds that of the machine. Hydraulic cylinders are 2" bore and 10" stroke. Opened, distance from tine to tine is 38 inches. Depth from inside front to back of the Extreme Duty rock bucket grapple is 34.5 inches. Available in three sizes: 72", 78", and 84".

Attaching the Extreme Duty rock bucket grapple to the Prime Mover

NOTE: Before attempting to attach the Extreme Duty rock bucket grapple 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 Extreme Duty rock bucket grapple 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.
- 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. Inspect that the attachment is mounted properly and securely. If the attachment does not meet this requirement, follow the instructions to remove the Extreme Duty rock bucket grapple and reattach using the instructions above.

Removing the Extreme Duty rock bucket grapple from the Prime Mover

WARNING – Improper disconnection may result person 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. Disengage the prime mover latches (or other locking mechanism) from the attachment.
- 4. Move the prime mover from the attachment.

Operation and Maintenance

Equipment Inspection

It is recommended to inspect the equipment for damage and wear before use. Use the following list as a guideline during equipment inspection.

- Check all hardware connections to the prime mover for damage or fatigue such as cracks or other structural flaws.
- Check that all latches or locks are closed.
- Check that all hydraulic fittings are tight and free of leaks
- Check that all hydraulic lines are free of leaks, holes, or cracks.

WARNING – Do not use hands to check for hydraulic leaks. Keep body parts away from leaking hydraulic lines and couplings that are under pressure.

 Check that the tires on the prime mover are in good condition and have proper load ratings.

NOTE: Replace any damaged hardware, hoses, and fitting before using the equipment.

Usage Guidelines

Before each use do the following:

- Perform daily maintenance as indicated in the Daily Maintenance Schedule.
- Inspect the attachment by performing a walk around
- Use the Extreme Duty rock bucket grapple for materials handling only.

DANGER – Keep all body parts away from the Extreme Duty rock bucket grapple when in use. The upper tines may open or close unexpectedly causing serious bodily injury or death.

Inspect the Extreme Duty rock bucket grapple daily before use. It is also recommended to inspect the Extreme Duty rock bucket grapple after Extreme use or damage. Use the following inspection checklist as a guideline.

In	spection Checklist
	Are all safety notices and warning decals in proper locations and visible?
	Are there any visible hydraulic leaks?
	Are any cracks visible in Extreme Duty rock bucket grapple structure?
	Are the tines worn or bent?
	Have all grease fittings (zerk fittings) have been greased?
	Are the bolts holding pins secure and tight?
	Has the prime mover been properly inspected for hydraulic leaks and proper tire inflation?
	Has the prime mover been properly maintained?

Detailed Parts List

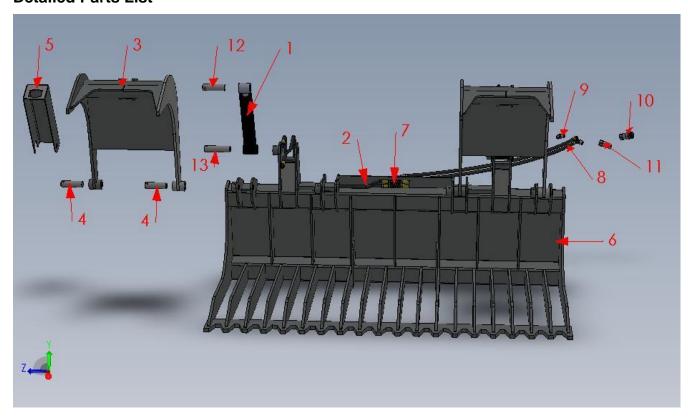


Figure 2 – Extreme Duty rock bucket grapple – Parts List

Table 1 - Parts List

#	Part Name	Description	Size	Part No.	Qty.
1 Cylinder		Hydraulic Cylinder (Extreme duty)	2" x 10" x 1-1/4" rod	206305	2
2	Short Cylinder Hose	(72", 78" & 84") #6 JIC Female, 1/4" NPT Male	OAL 36-1/4"	206357	2
2	Long Cylinder Hose	(72", 78" & 84") #6 JIC Female, 1/4" NPT Male	OAL 45-5/8"	206358	2
3	Extreme Duty rock bucket grapple Top Tine	Top clamp	18" wide	206335	2
4	5-1/4 Pin	Pin 1-1/4" Dia x 5-1/4" Long Pin W/ 3/8" Hole	1-1/4" Dia. x 5-1/4" Long	206343	6
5	Cylinder Cover	Cover for Hydraulic cylinder	4-1/4" W x 4-1/2" H x 16" L	206314	2
6	Main Frame	72" RG Main Frame	72" Wide	AE07102	1
6	Main Frame	78" RG Main Frame	78" Wide	AE07103	1
6	Main Frame	84" RG Main Frame	84" Wide	AE07104	1
7	Bulkhead Branch Tee	Bulkhead Branch Tee #6 JIC W/Nut	3/8" Male JIC	206355	2
8	Machine Hose	(60", 66", 72" , 78", & 84") #6 JIC Female, # 6 JIC 90° Elbow	OAL 75"	206360	2
9	90-Degree Elbow	(60", 66", 72" , 78", & 84") #6 JIC Male 1/2" NPT Female 90° Elbow	1/2" pipe X 3/8" JIC	206362	2
Not shown	3/8" Bolt	3/8 HHCS (holds pivot pins in)	3/8" 16 x 2-1/2"	206344	8
Not shown	3/8" Nut	3/8" Stover Lock Nut	3/8" 16	(included with 206344 bolt)	10
Not shown	Hose Cover	(72", 78" & 84") Hose Cover W/ Step	OAL 23-3/4"	206350	1
10	Female Coupler	Flat-face Female Quick Coupler	1/2" Female	224005	1
11	Male Coupler	Flat-face Male Quick Coupler	1/2" Female	224006	1
12	RG 5-1/4" Pin	Pin 1-1/4" Dia x 5-1/4" Long Pin W/ 3/8" hole	1-1/4" Dia. x 206343 5-1/4" Long		2
13	RG 6" Pin	Pin 1-1/4" x 6" Long Pin W/ 3/8" Hole	1-1/4" Dia. x 6" Long	206342	2

Extreme Duty rock bucket grapple Specifications

Table 2 - Extreme Duty rock bucket grapple Specifications

Hydraulic Cylinders		Bucket Tines			Grapple Tines			
Bore	Stroke	Pins	Spacing	Thickness	Material	Opening Height	Opening Depth	Material
2"	10"	1.25"	3"	0.5" x 4"	0.5" 60,000 psi min	38"	34.5"	0.5" 60,000 psi min.

Weight				
72" Wide	78" Wide	84" Wide		
1034 lbs.	1083 lbs.	1150 lbs.		

Warning Decal Placement

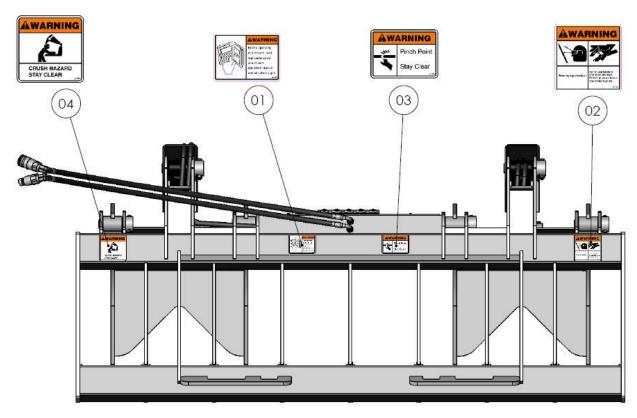


Figure 3 - Extreme Duty rock bucket grapple - Rear View

Table 3 - Parts List - Warning Decals

#	Part Name	Description	Size	Part No.	Qty.
01	Decal, (read owner's manual)	Warning Before Operating Read Manual	2-1/2"H x 3-1/2"L		1
02	Decal (hydraulic pressure warning)	Warning Wear Eye Protection; Relieve Hydraulic Pressure	3-1/2"H x 3-1/2"L		1
03	Decal (pinch point)	Warning Pinch Point Stay Clear	2-1/2"H x 3-1/2"L		1
04	Decal (crush hazard)	Warning Crush Hazard Stay Clear	3-1/2"H x 3-1/2"L		1

Table 4 - Warning Stickers



Manufacturer's Warranty

One-Year Limited Warranty

Blue Diamond Attachments LLC, hereinafter referred to as BLUE DIAMOND ATTACHMENTS, a manufacturer of quality machinery since 1996, warrants new BLUE DIAMOND ATTACHMENTS machinery 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.

BLUE DIAMOND ATTACHMENTS'S 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'S obligation shall terminate twelve (12) months after the delivery of the goods to original purchaser. This warranty 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'S 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.

Warranty Registration:

Please fill out this warranty registration within 30 days of the purchase of your attachment. It can be faxed to 865-246-2007 or emailed to: info@bluediamondattachments.com

Name and address	
Phone #	
Attachment part #	
Attachment serial #	
Date purchased	
Name of dealer attachment was purchased from:	
Comments:	



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