



BLUE DIAMOND ATTACHMENTS

Extreme Duty 4-in-1 bucket Operation and Maintenance Manual

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

Document History

The table below lists all revisions of the 4-in-1 bucket Operation and Maintenance Manual.

Document Revision	Summary of Changes	Publication Date
First publication	First revision	3/11/2016

Notice: This document is for informational purposes only and does not set forth any warranty, expressed or implied, concerning any equipment, equipment feature, or service offered or to be offered by Blue Diamond. Blue Diamond reserves the right to make changes to this document at any time, without notice, and assumes no responsibility for its use. This informational document describes features that may not be currently available. Contact a Blue Diamond sales office for information on feature and product availability.

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

Table of Contents

Document History	3
About this Manual	
Hazard Notices Used in this Manual	5
Terminology	5
Safety	
Safety Notices	5
Modifications to Equipment	5
About the 4-in-1 bucket Attachment	6
4-in-1 buckets	6
Attaching the 4-in-1 bucket to the Prime Mover	7
Removing the 4-in-1 bucket from the Prime Mover	7
Operation and Maintenance	8
Equipment Inspection	8
Usage Guidelines	8
Inspection Checklist	
Detailed Parts List	9
4-in-1 bucket Specifications	
Warning Decal Placement	11
Manufacturer's Warranty	12
One-Year Limited Warranty	
Warranty Claim	
Exclusions of Warranty	12

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 4-in-1 bucket 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 4-in-1 bucket Attachment

The 4-in-1 bucket attachment is intended for digging, carrying, back dragging, dozing and grappling material. Dual powerful cylinders open and close the bucket to allow dumping, grading and clamping.

4-in-1 buckets

The 4-in-1 bucket attachment is a very versatile tool that is quickly becoming a necessity among all contractors today. This unique 4-in-1 bucket is offered in a variety of sizes for a variety of applications.



Figure 1 – 4-in-1 bucket

With the 4-in-1 bucket, you can perform three jobs in one. In a single pass the 4-in-1 bucket 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 4-in-1 bucket

The extreme 4-in-1 bucket is intended for anyone who makes a living with skid steers or tractors. The 4in-1 bucket is industrial strength and produced for everyday use. It is constructed of ½" top-quality steel plate (60,000 psi). Oversized points and bushings increase the durability. The lifting capacity of this skidsteer 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 4-in-1 bucket is 34.5 inches. Available in five sizes: 60", 66", 72", 78", and 84".

Attaching the 4-in-1 bucket to the Prime Mover

NOTE: Before attempting to attach the 4-in-1 bucket 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 4-in-1 bucket 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. Inspect that the attachment is mounted properly and securely. If the attachment does not meet this requirement, follow the instructions to remove the 4-in-1 bucket and re-attach using the instructions above.

Removing the 4-in-1 bucket 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 4-in-1 bucket for materials handling only.

DANGER – Keep all body parts away from the 4-in-1 bucket when in use. The upper tines may open or close unexpectedly causing serious bodily injury or death.

Inspect the 4-in-1 bucket daily before use. It is also recommended to inspect the 4-in-1 bucket after extreme use or damage. Use the following inspection checklist as a guideline.

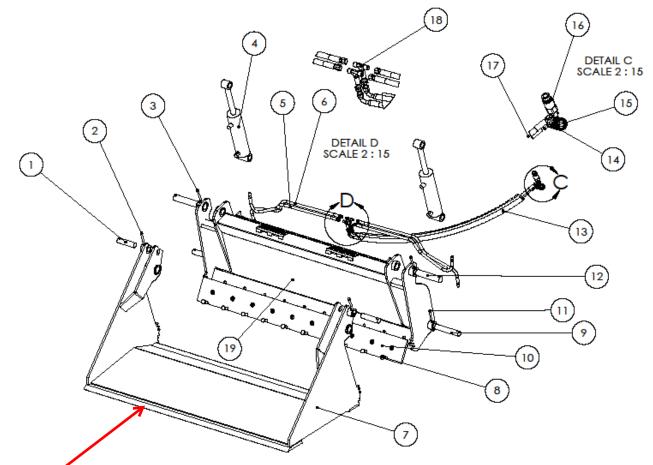
Inspection Checklist

- □ Are all safety notices and warning decals in proper locations and visible?
- □ Are there any visible hydraulic leaks?
- □ Are any cracks visible in 4-in-1 bucket structure?
- \Box 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



208730-84 4 IN 1 BUCKET PO CHECK VALVE



Use same front lip BOE as other buckets

Figure 2 – 4-in-1 bucket – Parts List Table 1 - Parts List

#	Part Name	Description	Size	Part No.	Qty.
1	Top cylinder pin	Pivot pin for top of cylinder	1 ¼" x 5.25"	206343	2
2	Pin retainer bolt and nut	Holds pivot pin in place	3/8" x 2 ³ / ₄ "	206344	6
3	Same as above	Same as #2	3/8" x 2 ³ / ₄ "	206344	6
4	cylinder	Welded cylinder	2" bore 10" stroke	208725	2
5	Upper cylinder hose				1
6	Lower cylinder hose				1
7	Main bucket portion			208766	
8	Bolt for bolt on edge	Holds bolt on edge to bucket	5/8-11X1-3/4 GR5 PLOW BOLT C0A	109176	varies
9	Lower cylinder pin	Pivot pin for bottom of cylinder	1 ¼" x 7"	208727	2
10	Bolt-on-edge	Replaceable bolt-on wear edge	varies	call	1
11	Pin retainer bolt and nut	Same as # 2	3/8" x 2 ¾"	206344	6

12	Main pivot pin	Pin connecting bucket to frame	1 ½" x 7"	208729	2
13	Machine hose kit	Hoses connecting bucket to machine	OAL 75"	206360	1 set
14	Female coupler	Flat face quick connect, female		224007	1
16	Male coupler Flat face quick coupler, male			224008	1
18	Branch T fitting Connects cylinder lines to machine hoses		#6 JIC T with nut	206355	2
19	Main frame				1

4-in-1 bucket Specifications

Table 2 - 4-in-1 bucket Specifications

Weight				
60" Wide	66" Wide	72" Wide	78" Wide	84" Wide
711 lbs.	862 lbs.	908 lbs.	979lbs.	1004 lbs.

Warning Decal Placement

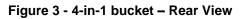




Table 3 - Parts List - Warning Decals

#	Part Name	Description	Size	Part No.	Qty.
01	RG Warning Decal	Warning Before Operating Read Manual	2-1/2"H x 3-1/2"L		1
02	RG Warning Decal	Warning Wear Eye Protection; Relieve Hydraulic Pressure	3-1/2"H x 3-1/2"L		1
03	RG Warning Decal	Warning Pinch Point Stay Clear	2-1/2"H x 3-1/2"L		1
04	RG Warning Decal	Warning Crush Hazard Stay Clear	3-1/2"H x 3-1/2"L		1

Table 4 – Warning Stickers

Warning Decal 01	Warning Decal 02	Warning Decal 03	Warning Decal 04
READ OWNERS MANUAL BEFORE OPERATING	HIGH PREVENT SERIOUS INJURY OR DEATH • RELEVE PRESSURE ON SYSTEM BEFORE DISCONNECTING ADJUSTING REPAIRING • WEAR PROPERTE AND FAND PROTECTION • DO NOT USE HAND TO SEARCH FOR LEAKS	Image: Constraint of the second state of the second sta	CRUSH HAZARD STAY CLEAR

Manufacturer's Warranty

One-Year Limited Warranty

Blue Diamond Attachments, a Trade mark of BLUE DIAMOND ATTACHMENTS INC, 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: <u>info@bluediamondattachments.com</u>

Name and address	
Phone #	
Attachment part #	
Attachment serial #	
Date purchased	
Name of dealer attachment was purchased from:	
Comments:	
WARRANTY MAY BE VOIDED IF ATTAC (May weaken unit and	CHMENT IS ALTERED IN ANY WAY