

Utility Buckets

Operation and Maintenance Manual



UTILITY, HIGH CAPACITY, HIGH BACK



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® Utility Bucket. 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 top right on the back of the attachment as shown above.

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

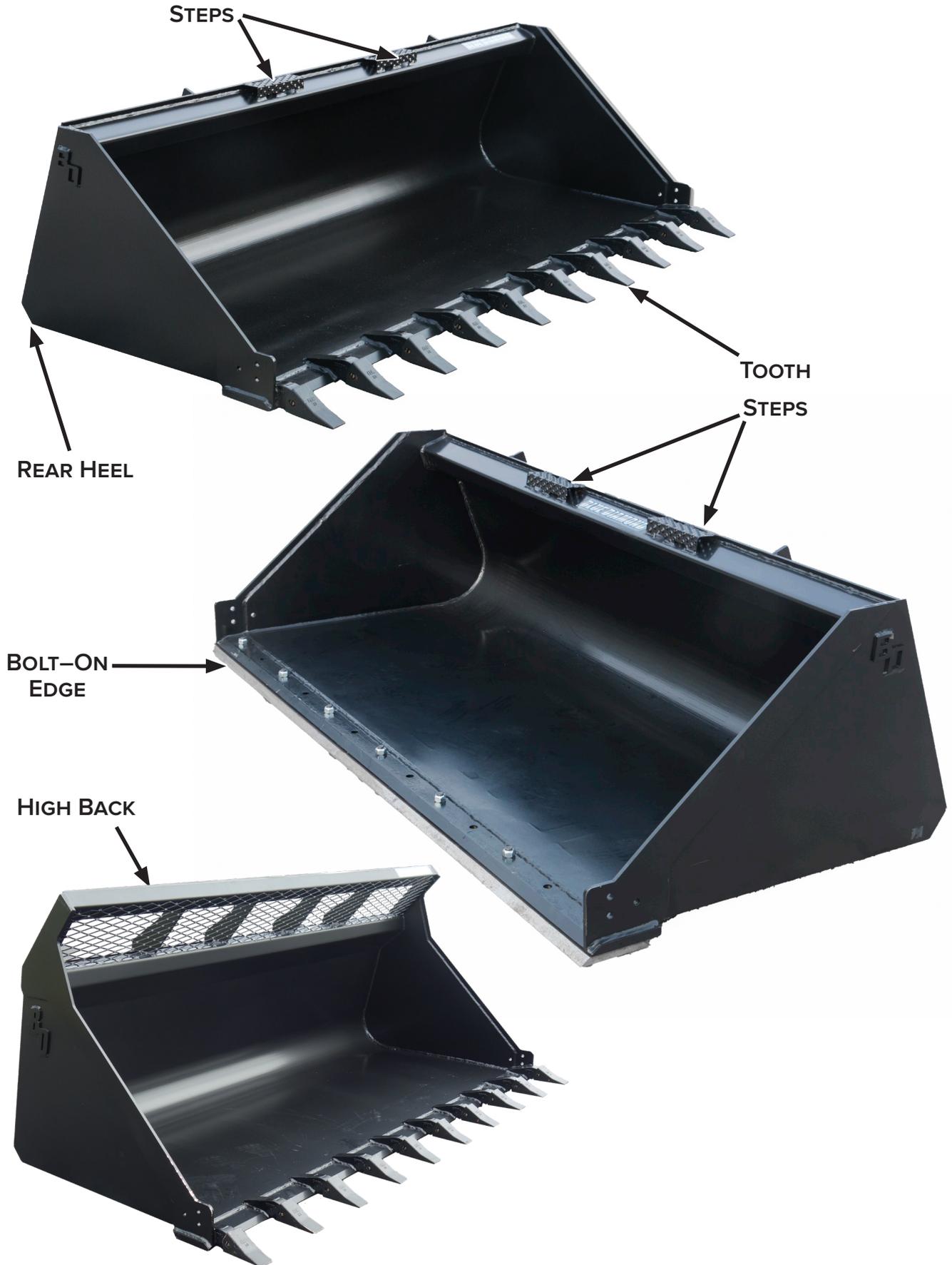
NOTE: The directions left, right, front, and rear, as mentioned throughout this manual, are as viewed from the operator's position.

Table of Contents

Introduction: Owner Information	2
1. Introduction.....	4
1.1 Attachment Identification	4
1.2 About this Attachment	5
1.3 Attachment Model Numbers	5
2. Safety	6
2.1 General Safety Information	6
2.2 Operators	7
2.3 Safety Guidelines	8
3. Operation	10
3.1 Pre-Operation Inspection	10
3.2 Entering & Exiting the Prime Mover	10
3.3 Attachment Installation	11
3.4 Operating the Attachment	12
3.5 Operating Tips	13
4. Maintenance	14
4.1 Service Schedule	14
4.2 Before Every Use	15
4.3 Every Week	15
4.4 After Every Season	15
4.5 Bolt-On & Tooth Front Edge	16
4.6 Side Cutters – Optional	17
4.7 Storage	17
4.8 Troubleshooting	18
5. Parts.....	19
5.1 Tooth Components	19
5.2 Bolt-On Edge Components	20
5.3 Side Cutter Components	21
5.4 Safety Decals	22
6. Specifications	23
6.1 Attachment Specifications – Utility Bucket	23
6.2 Attachment Specifications – High Capacity	24
6.3 Attachment Specifications – High Capacity High Back 25	
6.4 Torque Specifications – Imperial	26
Warranty	27

1. Introduction

1.1 Attachment Identification



1. Introduction

1.2 About this Attachment

The entire Blue Diamond® line of Utility Buckets are built to last and offer more capacity than our standard low profile buckets. The rolled back allows material to be easily poured from the bucket but the sharp edge of the rear heel remains. The rear heel allows you to backdrag and level without having to use a different attachment. We offer two options for the front edge of the bucket. The smooth option comes with a bolt-on edge, preserving integrity of the front edge. The tooth option allows a more aggressive approach when it comes to digging. When the teeth become worn from use, they are also replaceable. These buckets are designed for use on larger machines.

1.3 Attachment Model Numbers

Utility Bucket

MODEL NUMBER	WIDTH	EDGE TYPE
108968	68"	Tooth
108960	72"	Smooth w/ BOE
108965	72"	Tooth
108970	78"	Smooth w/ BOE
108975	78"	Tooth
108980	84"	Smooth w/ BOE
108985	84"	Tooth
108987	90"	Smooth w/ BOE

Utility Bucket High Capacity

MODEL NUMBER	WIDTH	EDGE TYPE
108944	72"	Smooth w/ BOE
108946	72"	Tooth
108948	78"	Smooth w/ BOE
108950	78"	Tooth
108952	84"	Smooth w/ BOE
108954	84"	Tooth
108956	90"	Smooth w/ BOE
108957	90"	Tooth
108958	96"	Smooth w/ BOE
108959	96"	Tooth

Utility Bucket High Capacity High Back

MODEL NUMBER	WIDTH	EDGE TYPE
108944-HB	72"	Smooth w/ BOE
108946-HB	72"	Tooth
108948-HB	78"	Smooth w/ BOE
108950-HB	78"	Tooth
108952-HB	84"	Smooth w/ BOE
108954-HB	84"	Tooth
108956-HB	90"	Smooth w/ BOE
108957-HB	90"	Tooth
108958-HB	96"	Smooth w/ BOE
108959-HB	96"	Tooth

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.

Terminology

Host Machine, Machine, Prime Mover:

- The Utility Bucket can be attached to many different pieces of construction equipment; therefore, the terms “host machine”, “machine”, and “prime mover” will be used. Host machine, machine, and prime mover mean any vehicle, tractor, or skid steer providing power to the attachment.

Attachment, Implement, Equipment:

- The Utility Bucket is the tool that is being attached to the host machine; therefore, the terms “attachment”, “implement”, and “equipment” will be used. The attachment, implement, and equipment mean any tool that is being used on any vehicle, tractor, or skid steer being used for different applications.

Operating Safety

- Read and follow instructions in this manual and the machine's Operator's Manual before operating.
- The manual must always remain with the machine. In case of loss or damage, request a new copy from your dealer or from Blue Diamond®.
- Strictly follow all rules prescribed by the safety pictograms/decals applied to the machine. Ensure that all safety pictograms/decals are legible. If pictograms/decals are worn, they must be replaced with new ones obtained from Blue Diamond® and placed in the position indicated by this manual.
- Before using the machine, make sure that all safety devices are installed and in good working condition. In case of damaged or missing shields, replace them immediately.
- It is absolutely forbidden to remove or alter safety devices and/or safety precautions
- If the use of the machine is required at night or in conditions of reduced visibility, use the lighting system of the prime mover and an auxiliary lighting system if required.

2. Safety

2.2 Operators

Qualified Operators

The operator is a person suited to the work and who is physically and psychologically able to withstand the demands connected with operating the equipment for its intended use. The operator must not allow anyone to approach the machine while it is working and must not allow external personnel to operate the machine or attachment.

The operator is to follow the given instructions in this manual and the machine's operator's manual in order to obtain maximum performance, minimal fuel consumption, and maximum safety for himself and for others.

The operator is responsible for scrupulously observing all the instructions given in this manual.



DANGER



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. For an operator to be qualified, he or she must have read and understood the instructions of this manual, he or she must make adequate preparation for the proper use of the machine, and he or she must hold a driving license.

In case of doubt regarding the use of the machine and/or the interpretation of this manual, the operator must contact either their dealer or Blue Diamond®.

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.

Operator Safety

- Any use of the machine other than the intended use is a non-intended use and is considered to be unauthorized and dangerous. Blue Diamond® is not liable for any damage or injury resulting from non-intended use.
- Before starting, and during operation of the attachment, make sure there are no people or animals in the operation area; bystanders coming in contact with the attachment while it is in motion creates risks of serious injury or death.
- During operation, adjustment, maintenance, repairing, or transportation of the machine, the operator must always use appropriate Personal Protective Equipment (PPE) including but not limited to safety glasses, working gloves, dust mask, safety helmet, and hearing protection.
- Do not operate the attachment or machine while wearing loose fitting clothing that can be entangled or caught in parts of the machine.
- Do not operate the implement when tired, not in good condition, or under the influence of alcohol or drugs.

2. Safety

2.3 Safety Guidelines

Operating Safety

- Read and follow instructions in this manual and the machine's Operator's Manual before operating.
- Under no circumstances should young children be allowed to work with this equipment.
- This equipment is dangerous to persons unfamiliar with its operation.
- Check for overhead and/or underground lines before operating equipment.
- In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of equipment.
- Check that the attachment is securely fastened to the machine.
- Make sure all the machine controls are in the NEUTRAL before starting the machine.
- Operate the equipment only from the operator's position.
- Operate the equipment according to the Operator's Manual.
- When learning to operate the equipment, do it at a slow rate in an area clear of bystanders.
- Do not permit personnel to be in the work area when operating the equipment.
- The equipment must be used ONLY on approved machines.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Do not make any adjustments or repairs on the equipment while the machine is running.
- Keep shields and guards in place. Replace if damaged.
- DO NOT operate equipment in poor visibility conditions such as fog, darkness, or any conditions that limit clear visibility less than 300 feet (100 m) in front of and to the sides of the equipment.
- DO NOT operate in a work area that has not been inspected for foreign debris and obstacles.
- Remove any foreign objects and clearly mark any objects that cannot be removed.
- Wear safety glasses, gloves, hearing protection, and other protective clothing when required.

Machine Requirements and Capabilities

- Keep bystanders clear of moving parts and the work area. Keep children away.
- The prime mover must be in good working condition before operating.
- The prime mover must have adequate horsepower and lift capacity to provide satisfactory results. See "6. Specifications" on page 24 for more information.
- Use caution on slopes and near banks and ditches to prevent overturn.

2. Safety

2.3 Safety Guidelines Cont'd

Fire Prevention Safety

- All fuels, most lubricants, and some coolant mixtures are flammable. Flammable fluids that are leaking or spilled onto hot surfaces or onto electrical components can cause a fire.

Transporting Safety

- Comply with state and local laws governing highway safety and movement of machinery on public roads.
- Check local laws for all highway lighting and marking requirements.
- Always yield to oncoming traffic and move to the side of the road so any following traffic may pass.
- Never allow riders on either machine or equipment.
- If transporting the equipment on a truck or trailer, make sure the equipment is properly secured to the transport vehicle.

Personal Protective Equipment



Proper Work Clothes: To help ensure your safety as a designated operator wear proper work clothes including tight fitting clothes, protective gloves, and shoes.



Hand Protection: To help ensure your safety as a designated operator wear protective gloves.



Protective Shoes: To help ensure your safety as a designated operator wear protective shoes.



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



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

3. Operation

3.1 Pre–Operation Inspection

Before operating the Utility Bucket for the first time and each time thereafter, use the following list as a guideline during equipment inspection.



WARNING



AVOID SERIOUS INJURY OR DEATH

- Disengage machine's auxiliary hydraulics, engage the machine's parking brake, stop the engine, and make sure all moving parts are completely stopped before connecting, disconnecting, adjusting, or cleaning equipment.
- Always keep shields and guards in place when using the equipment.
- Disengage machine's auxiliary hydraulics for road travel.
- Keep hands, feet, and clothing away from rotating parts.

- Check the attachment mounting frame for damage or cracks.
- Check that all shields and guards are in place.
- Check for loose bolts and tighten them if necessary.
- Check all welds on the attachment for wear and damage each time the attachment is removed from the machine.
- Check for damaged or missing safety decals. Replace if necessary.
- Inspect the machine's mounting frame. (See the machine's Operator's Manual for inspecting the mounting frame.) Replace any parts that are damaged, bent, or missing. Keep all fasteners tight. Look for cracked welds.
- Verify that the attachment is properly connected to the machine.
- Inspect the bolt–on edge or teeth for damage. Replace if necessary.

3.2 Entering & Exiting the Prime Mover



IMPORTANT



See the machine's Operator's Manual for detailed information on operating the loader.

Entering the Operator's Position

Use the safety treads, handles, and steps on the attachment and machine to enter the operator's position. Always maintain three (3) points of contact.

When in the operator's position, secure the seatbelt, lower safety seat bar, start the engine, and release the parking brake.

Leaving the Operator's Position



WARNING



AVOID SERIOUS INJURY OR DEATH

- Always park on a flat, level surface.
- Lower lift arms and place attachment flat on the ground.
- Place all controls in NEUTRAL.
- Engage the parking brake.
- Stop the engine, and remove the key.
- Wait for all moving parts to stop.

SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.

Park the machine/attachment on a flat, level surface.

Place all controls in neutral, engage the parking brake, stop the engine, and wait for all moving parts to stop. Leave the operator's position.

3. Operation

3.3 Attachment Installation

Connecting Attachment to the Machine



WARNING



CRUSH HAZARD

- Before moving the machine, look in all directions and make sure no bystanders, especially small children are in the work area. Do not allow anyone between the machine and attachment when approaching the attachment for connecting.
- Keep fingers and hands out of pinch points when connecting and disconnecting the attachment.

Before connecting to the attachment, inspect the machine's mounting plate. (See the machine's Operator's Manual for inspecting the mounting frame.)

Enter the operator's position. See "Entering the Operator's Position" on page 10.

Drive the machine slowly forward, until the top edge of the machine's mounting plate is under the top flange of the attachment mounting frame.

Slowly tilt the machine's mounting plate back until the attachment mounting frame fully contacts the front of the machine's mounting plate.

Leave the operator's position. See "Leaving the Operator's Position" on page 10.



WARNING



AVOID SERIOUS INJURY OR DEATH

The locking pins/wedges must extend through the holes in the attachment mounting frame. Failure to secure locking pins/wedges can allow attachment to come off.

SEE MACHINE'S OPERATOR'S MANUAL FOR ADDITIONAL INFORMATION.

Engage attachment locking levers/wedges (See the machine's Operator's Manual for detailed information.)

Disconnecting Attachment From the Machine

Park the machine and attachment on a flat, level surface. Lower the attachment flat on the ground.

Leave the operator's position. See "Leaving the Operator's Position" on page 10.

Disengage locking pins/wedges. (See the machine's Operator's Manual for correct procedure.)

Enter the operator's position. See "Entering the Operator's Position" on page 10.

Slowly tilt the machine's mounting plate forward until the attachment mounting frame is free from the machine's mounting plate.

Drive the machine slowly backward, away from the attachment.

3. Operation

3.4 Operating the Attachment



Do not exceed the host machine's rated operating capacity (ROC). See the machine's Operator's Manual for more information.

How to Dig

The Utility Bucket can be used for digging into the ground or piles of soil, rocks, sand, or other similar material.

Using the host machine's controls, move the host machine/attachment to the center of the material to be picked up.

Come to a complete stop in front of the material to be picked up and position the bucket at the proper height. Do not ram the attachment into the material desired to be worked.

Into the Ground

1. Lower the machine's arms until the bucket is placed on the ground.
2. Tilt the front of the bucket down until the bolt-on edge or teeth are on the ground.
3. Slowly drive forward while continuing to tilt the front of bucket downwards until the front edge begins to dig.
4. Once the bucket has begun to dig, tilt the front edge up slightly to increase the host machine's traction and to create an even digging depth.
5. When the bucket is filled, stop digging. Raise the bucket while tilting the front edge back to keep the material inside.
6. While being vigilant of potential obstacles, turn or reverse the host machine.
7. Position the loaded bucket at a safe, low height with the front edge still tilted backward.
8. Transport the load to the dump site.

NOTE: The tooth edge option is best used for when digging into hard ground.

Into a Pile

1. Lower the machine's arms until the bucket is placed on the ground.
2. Tilt the front of the bucket down until the bolt-on edge or teeth are on the ground.
3. Slowly drive forward into the pile.
4. Once the bucket is almost filled to capacity, stop and raise the attachment out of the pile while tilting the front edge of the bucket backwards to keep the material inside.
5. While being vigilant of potential obstacles, turn or reverse the host machine.
6. Position the loaded bucket at a safe, low height with the front edge still tilted backward.
7. Transport the load to the dump site.

How to Travel with a Load

When traveling with a bucket full of material, be aware of the following:

- Pedestrians have the right of way.
- Keep the front edge of the bucket slightly tilted back.
- Travel with the load close to the ground if possible.
- Constantly be vigilant of bystanders, animals, obstacles, etc. in your path, especially when turning.
- Always drive at a safe speed and slow down when going around curves or when turning. Do not brake suddenly if possible.
- When traveling on an incline, keep the load on the uphill side of the host machine, i.e. drive in reverse when going downhill to prevent material from spilling from the Utility Bucket.
- When possible, travel perpendicular to slopes, ramps, inclines, etc.
- Slow down when traveling over rough terrain.
- Do not transport loads on public roads.
- Plan the best route before traveling with a loaded bucket.

3. Operation

3.4 Operating the Attachment Cont'd

How to Release a Load

1. After traveling with a load to the dump site, stop in front of the desired location. Slowly raise the bucket to the required height for dumping.
2. While maintaining visibility, slowly move forward while making sure all obstacles are cleared by both the attachment and the host machine.
3. Once the bucket is positioned over its release location, stop moving forward.
4. To release the load from the bucket, slowly tilt the front edge of the bucket until all material is expelled from the bucket and is now piled onto the dump site.
5. After the load has been completely released, tilt the front edge of the bucket back until it is level.
6. Slowly reverse the machine, avoiding obstacles, bystanders, etc.
7. When clear of the pile, stop and lower the bucket until it is close to the ground, readying it for transport before moving again.

How to Level

The Utility Bucket can be used to level the ground. Buckets equipped with a smooth front edge provide the best results.

1. Before beginning operation, remove large rocks, debris, vegetation, and other material from the work site.
2. Enter the operator's position (see "Entering the Operator's Position" on page 10).
3. Tilt the front edge of the bucket slightly forward.
4. Slowly move the host machine over the desired area. The front edge should be cutting into the high parts of the ground, and the material being cut from the high points should be filling in the low spots.

How to Backdrag

Using the rear heel of the Utility Bucket will provide a finer finish when it comes to leveling the work site.

1. After using the front edge of the bucket to level the bucket, tilt the front edge of the bucket upwards until it is level.
2. Lower the machine's lift arms until the bucket is flat and level on the ground.

NOTE: Some host machines are equipped with a "float" function, which allows the attachment to rest on the surface without applying down pressure. This mode can be engaged if preferred by the operator.

3. Move the machine in reverse with the rear heel of the Utility Bucket dragging, furthering smoothing the ground surface.

3.5 Operating Tips

- Always inspect the work area before using the attachment. Locate and mark any utilities, steel posts, rocks, or any other objects that could be damaged or would damage the attachment during operation.
- Operate at a safe, slow speed that will allow the operator to observe the area surrounding the attachment and host machine.
- Avoid overloading the Utility Bucket.
- Save time by performing "skid" turns going forward instead of reversing when possible.
- Reduce the number of trips by filling the Utility Bucket to its rated capacity.
- Keep the loaded bucket low to the ground with the front edge tilted slightly upwards for visibility.
- When leveling:
 - Do not use excessive down pressure as it will create more unevenness.
 - Work in smaller, overlapping sections to ensure the entire area is covered.
 - Use the tracks of the host machine to drive over and compact the newly leveled area.
 - Keep a slow, steady speed to avoid waves.

4. Maintenance

4.1 Service Schedule

DESCRIPTION	SERVICE PROCEDURES					
	Check	Clean	Lube	Change	Adjust	Drain
Daily Maintenance (or every 8 hours)						
All Hardware	•					
Bucket	•	•				
Safety Decals	•					
Weekly Maintenance (or every 40 hours)						
Bolt–On Edge Teeth (if equipped)	•					
Mount Frame (cracks, bends, or damage)	•					
Seasonal Maintenance						
Bolt–On Edge or Tooth Bar (if equipped)	•			•		
All Hardware	•				•	
Paint	•			•		
Safety Decals	•			•		

4. Maintenance

Proper and regular maintenance ensures a long life of the attachment, avoids failures, and saves times and repair costs.

Periodic inspections and maintenance operations described in this section must be performed by an operator in times and terms prescribed. Failure to comply with maintenance prescriptions can compromise the function and lifetime of the attachment, which will result in the warranty becoming void.

Repairs, maintenance, and modifications other than those mentioned in this manual should NOT be performed without consulting Blue Diamond® Product Support.

Wrong or inappropriate repairs or maintenance may generate abnormal operating conditions, equipment damage, and generate risks for the operator.



WARNING



AVOID SERIOUS INJURY OR DEATH

The following must always be performed prior to any adjustment being made:

- Always park on a flat, level surface.
- Lower lift arms, and place attachment flat on the ground.
- Place all controls in **NEUTRAL**.
- Engage the parking brake.
- Stop the engine, and remove the key.
- Wait for all moving parts to stop.
- Set the parking stand.

**SEE MACHINE'S OPERATOR'S MANUAL FOR
ADDITIONAL INFORMATION.**

4.2 Before Every Use

Check that all hardware (nuts, bolts, etc.) are in their right place and are tight.

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

Check to make sure bucket is not warped or bent.

4.3 Every Week

Check the condition of the mounting frame. Repair if necessary.

Check the condition of the bolt-on edge or teeth, whichever is equipped. Contact Blue Diamond® Product Support to order replacements for the bolt-on edge or teeth as soon as they become worn.

4.4 After Every Season

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

Inspect the bolt-on edge or teeth, whichever is equipped. Replace if necessary.

Clean and repaint any area that looks worn or scratched to prevent further rusting. Use an equipment paint found at a local hardware store.

Replace any safety decals that have been lost or damaged.

Store the attachment in a shed or cover with a waterproof tarp to protect it from the weather.

Do not store in an area frequented by children.

4. Maintenance

4.5 Bolt–On & Tooth Front Edge



WARNING



To avoid serious death injury or death, do not go underneath any part of an unsupported blade or frame when servicing this attachment.



CAUTION



AVOID INJURY

Cutting edges can be very heavy and could cause minor or serious injury if mishandled. Always wear protective gloves and footwear.

Bolt–On Cutting Edge

Make sure to park on a flat, level surface and that the attachment is securely supported by blocks and not by the machine's hydraulic system itself. Engage the parking brake, and turn off the engine.

1. Remove any debris around the bolt area.
2. Identify the bolt size. Using the appropriate wrench or socket, loosen and remove the bolts.
3. Remove the worn cutting edge.

NOTE: Blue Diamond's Bolt–On Edge are reversible. If only one side of the cutting edge has been used and is worn, rotate it 180° before purchasing a new cutting edge.

4. Clean the bolts holes, removing any dirt, rust, and/or debris.
5. Place the new cutting edge onto the bucket's front edge. Align the holes of the cutting edge with the holes of the bucket.
6. Insert a new bolt and nut into each of the holes, and torque following "6.4 Torque Specifications – Imperial" on page 26.

Tooth

Make sure to park on a flat, level surface and that the attachment is securely supported by blocks and not by the machine's hydraulic system itself. Engage the parking brake, and turn off the engine.

1. Remove any debris around the tooth area.
2. Access the retaining pin that is holding the tooth in place by using a pin removal tool or punch.
3. Using a hammer, remove the pin from the tooth and the shank.
4. Once the pin is removed, slide the worn tooth off the shank.
5. Clean the shank using a wire brush, removing dirt, rust, and/or debris.
6. Slide the new tooth onto the shank, making sure the tooth's retainer aligns with the recess on the shank.
7. Insert the retaining pin through the hole on the tooth and the shank. Make sure they are still aligned.
8. Firmly hammer the pin until it is flush with the tooth to lock the new tooth into place.
9. Repeat until each tooth is replaced.

4. Maintenance

4.6 Side Cutters – Optional

Side cutters can be used to provide additional protection to your Utility Bucket. The cutters protect the bucket's side wall from damage that might occur when digging.

To attach the side cutters to the Utility Bucket, perform the following:

1. Remove any debris around the bolt area.
2. Place a side cutter against the outside of the bucket with the angle side facing inwards. This will allow it to cut and angle dirt into the bucket.

The cutters are left and right oriented. Make sure the holes line up before proceeding. If they do not align, try to place the side cutter on the other side of the bucket.

3. Put red Loctite on one of the 1 1/4" long bolts (BD PN 299334) and two of the 1" long bolts (BD PN 299333).
4. From the outside of the bucket, push the 1 1/4" long bolt through the hole most towards the inside of the bucket [Figure 1, Item 1]. Then push the 1" long bolts through the two holes closest to the outer edge [Item 2].
5. Thread all three bolts through the side cutter and into the bucket. Torque to 80 lbf·ft (108 N·m).
6. Repeat to the other side.
7. Allow the Loctite to cure for 24 hours before proceeding with operations.



Figure 1

The side cutters are reversible. Once they are worn, remove them from the bucket. Flip them 180° so that the back is now at the front, and reinstall them onto the bucket.

4.7 Storage

Storage

Sometimes it may be necessary to store your Utility Bucket for an extended period of time. Below is a list of items to perform before storage.

- Thoroughly wash the attachment before storing it for long periods.
- Check for loose hardware, missing guards, or damaged parts.
- Check for damaged or missing decals. Replace if necessary.
- Replace worn or damaged parts.
- Place the attachment flat on the ground in a dry, protected shelter.

NOTE: In muddy conditions or to prevent the attachment from freezing to the ground, put the attachment on planks or blocks before removing the attachment from the machine.

Return to Service

After the Utility Bucket has been in storage, it is necessary to follow a list of items to return the attachment to service.

- Check for damaged or missing parts. Replace if necessary.
- Connect and operate the attachment and check for correct function.

4. Maintenance

4.8 Troubleshooting

PROBLEM	CAUSE	SOLUTION
Bucket does not cover the width of the machine	Bucket is too small for host machine	Contact Blue Diamond® Product Support or your local dealer to get a properly sized bucket.
	Bucket is too large for host machine	
Machine cannot pick up loaded bucket	Loaded bucket exceeds the host machine's lift capacity	Contact Blue Diamond® Product Support or your local dealer to get a properly sized bucket.
Grading is not level or smooth	Front edge of the bucket is worn	Replace bolt-on edge with new one.
	Rear heel of bucket is worn	Be aware of downpressure being used when grading/leveling the ground.
Bucket is damaged, i.e. bent, cracked, buckling	Bucket is not rated for the host machine's horsepower	Contact Blue Diamond® Product Support or your local dealer to get a properly sized bucket.

5. Parts

5.1 Tooth Components



ITEM	PART NUMBER	DESCRIPTION
1	210005	Tooth, Heavy Cast 230 (Side Pin)
2	210006	Tooth Retainer Pin for 230 Tooth (Side Pin)

Tooth & Pin Quantity

BUCKET SIZE	36"	42"	44"	48"	52"	60"	66"	72"	78"	84"	96"
QTY	4	5	5	6	6	6	8	8	9	10	12

5. Parts

5.2 Bolt-On Edge Components



ITEM	PART NUMBER	DESCRIPTION	QTY
1	See the tables below*	Boron Steel Bolt-On Edge 1 1/2" Thick Predrilled on 6" Centers Reversible	1
2	109176	5/8-11 x 2" Bolt	A/R
3	109177	Bearing 6207	A/R

*Replace the "3", the first number in the SKU for the Bolt-On Edge Kits, with 1 to know the part number for just the bolt-on edge, not hardware included.

Boron Steel Bolt-On Edge Kits

BUCKET SIZE	PART NUMBER
72"	309125
78"	309130
84"	309140
90"	309145
96"	309150

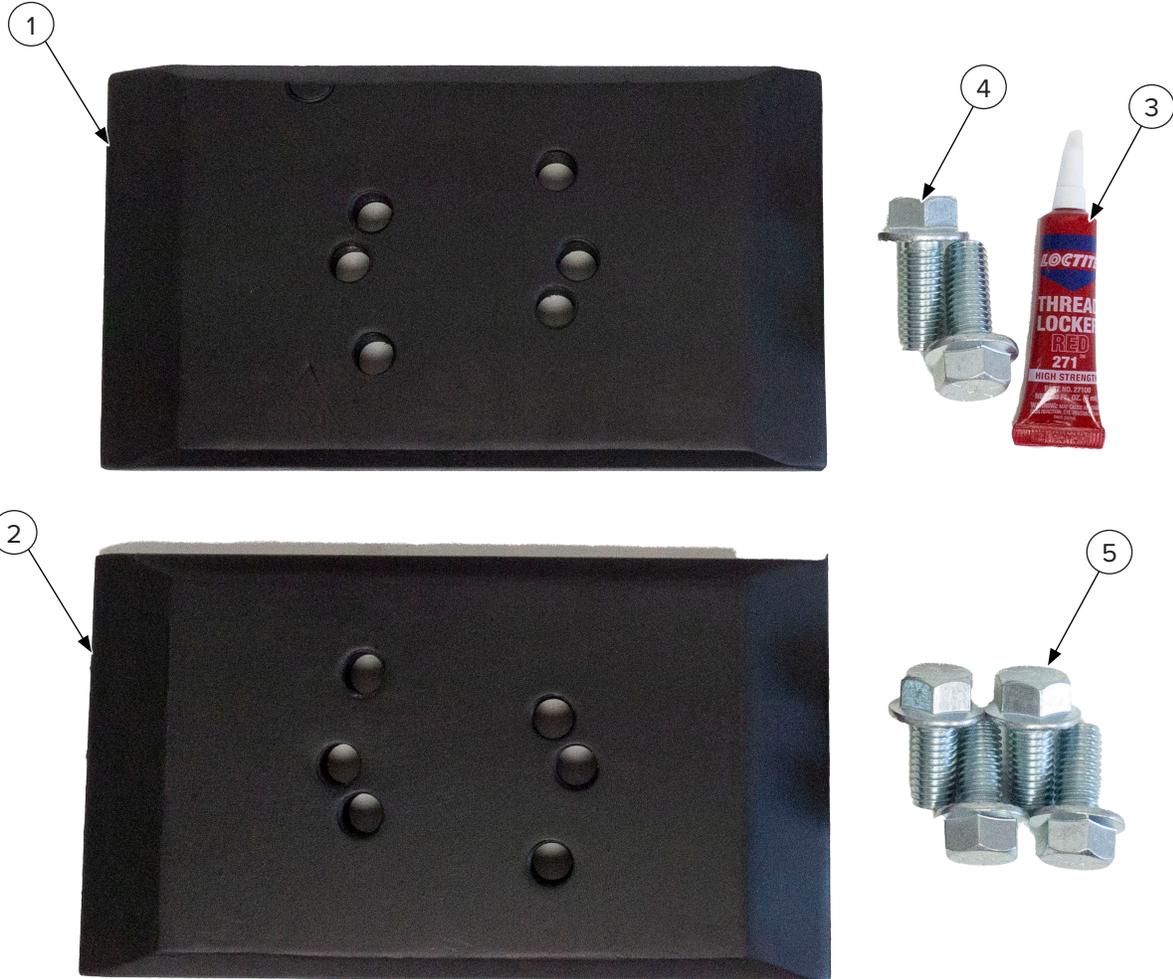
UHMW Poly Bolt-On Edge Kits

BUCKET SIZE	PART NUMBER
72"	309125-P
78"	309130-P
84"	309140-P
90"	309145-P
96"	309150-P

NOTE: These kits are comprised of a poly bolt-on edge, PN 109180 bolts, PN 109177 locknuts, and PN 299844 washers.

5. Parts

5.3 Side Cutter Components



ITEM	PART NUMBER	DESCRIPTION	QTY
1	208150L	Left Side Cutter	1
2	208150R	Right Side Cutter	1
3	299895	Loctite Red 0.2 fl. oz.	1
4	299334	1/2"–13 x 1 1/4" Hex Head Bolt with Serrated Flange	2
5	299333	1/2"–13 x 1" Hex Head Bolt with Serrated Flange	4
1–5	208150-KIT	Bolt-On Side Cutters Kit	1

5. Parts

5.4 Safety Decals



ITEM	PART NUMBER	DESCRIPTION	QTY
1	BD-056	2.0" x 12.0" Decal, Blue Diamond	1
2	BD-060	2.4375" x 3.375" Decal, Blue Diamond Attachments	2
3	BD-092	1.5" x 2.0" Decal, Warranty Registration QR	1

6. Specifications

6.1 Attachment Specifications – Utility Bucket

DESCRIPTION	108960	108965	108970	108975	108980	108985	108987
Width	72 in. (1829 mm)		78 in. (1981 mm)		84 in. (2134 mm)		90 in. (2286 mm)
Type of Edge	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth	Smooth w/ BOE
Depth	34 in. (864 mm)						
Height	22 in. (559 mm)						
Back Wall Thickness	0.25 in. (6 mm)						
Struck Capacity	13.5 ft. ³ (0.38 m ³)		14.58 ft. ³ (0.41 m ³)		15.66 ft. ³ (0.44 m ³)		16.74 ft. ³ (0.47 m ³)
Max. Horsepower	100 HP						
Weight	620 lbs (281 kg)	609 lbs (276 kg)	670 lbs (304 kg)	659 lbs (299 kg)	720 lbs (327 kg)	709 lbs (322 kg)	770 lbs (349 kg)

6. Specifications

6.2 Attachment Specifications – High Capacity

DESCRIPTION	108944	108946	108948	108950	108952	108954
Width	72 in.		78 in.		84 in.	
Type of Edge	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth
Depth	37 in.					
Height	28 in.					
Back Wall Thickness	0.5 in. (12 mm)					
Struck Capacity	19.71 ft. ³		21.33 ft. ³		23 ft. ³	
Max. Horsepower	100 HP					
Weight	922 lbs (418 kg)	925 lbs (420 kg)	983 lbs (446 kg)	986 lbs (447 kg)	1044 lbs (474 kg)	1047 lbs (475 kg)

DESCRIPTION	108956	108957	108958	108959
Width	90 in.		96 in.	
Type of Edge	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth
Depth	37 in.			
Height	28 in.			
Back Wall Thickness	0.5 in. (12 mm)			
Struck Capacity	25 ft. ³		26.19 ft. ³	
Max. Horsepower	100 HP			
Weight	1105 lbs (501 kg)	1108 lbs (503 kg)	1166 lbs (529 kg)	1169 lbs (530 kg)

6. Specifications

6.3 Attachment Specifications – High Capacity High Back

DESCRIPTION	108944-HB	108946-HB	108948-HB	108950-HB	108952-HB	108954-HB
Width	72 in.		78 in.		84 in.	
Type of Edge	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth
Depth	37 in.					
Height	28 in.					
Back Wall Thickness	0.25 in. (6 mm)					
Struck Capacity	19.71 ft. ³		21.33 ft. ³		23 ft. ³	
Max. Horsepower	100 HP					
Weight	952 lbs (432 kg)	955 lbs (433 kg)	1013 lbs (459 kg)	1016 lbs (461 kg)	1074 lbs (487 kg)	1077 lbs (489 kg)

DESCRIPTION	108956-HB	108957-HB	108958-HB	108959-HB
Width	90 in.		96 in.	
Type of Edge	Smooth w/ BOE	Tooth	Smooth w/ BOE	Tooth
Depth	37 in.			
Height	28 in.			
Wrap Thickness	0.25 in. (6 mm)			
Struck Capacity	25 ft. ³		26.19 ft. ³	
Max. Horsepower	100 HP			
Weight	1135 lbs (515 kg)	1138 lbs (516 kg)	1196 lbs (542 kg)	1199 lbs (544 kg)

6. Specifications

6.4 Torque Specifications – Imperial

Standard Hardware and Lock Nuts

BOLT TYPE	SAE GRADE 5		SAE GRADE 8		LOCK NUTS			
	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	W/ Grade 8 Bolt
1/4	4.6 lbf•ft	6.0 lbf•ft	7.2 lbf•ft	9.3 lbf•ft	10.0 lbf•ft	13.1 lbf•ft	5.1 lbf•ft	7.2 lbf•ft
	6.2 N•m	8.1 N•m	9.7 N•m	12.6 N•m	13.6 N•m	17.7 N•m	6.9 N•m	9.8 N•m
5/16	9.6 lbf•ft	12.5 lbf•ft	14.8 lbf•ft	19.2 lbf•ft	20.7 lbf•ft	27.3 lbf•ft	10.3 lbf•ft	14.8 lbf•ft
	13 N•m	17 N•m	20 N•m	26 N•m	28 N•m	37 N•m	14 N•m	20 N•m
3/8	17 lbf•ft	22 lbf•ft	26 lbf•ft	34 lbf•ft	37 lbf•ft	48 lbf•ft	19 lbf•ft	26 lbf•ft
	23 N•m	30 N•m	35 N•m	46 N•m	50 N•m	65 N•m	26 N•m	35 N•m
7/16	27 lbf•ft	35 lbf•ft	42 lbf•ft	54 lbf•ft	59 lbf•ft	77 lbf•ft	30 lbf•ft	42 lbf•ft
	37 N•m	47 N•m	57 N•m	73 N•m	80 N•m	104 N•m	41 N•m	57 N•m
1/2	42 lbf•ft	54 lbf•ft	64 lbf•ft	83 lbf•ft	91 lbf•ft	117 lbf•ft	45 lbf•ft	65 lbf•ft
	57 N•m	73 N•m	87 N•m	113 N•m	123 N•m	159 N•m	61 N•m	88 N•m
9/16	60 lbf•ft	77 lbf•ft	92 lbf•ft	120 lbf•ft	130 lbf•ft	169 lbf•ft	65 lbf•ft	92 lbf•ft
	81 N•m	104 N•m	125 N•m	163 N•m	176 N•m	229 N•m	88 N•m	125 N•m
5/8	83 lbf•ft	107 lbf•ft	128 lbf•ft	165 lbf•ft	180 lbf•ft	233 lbf•ft	90 lbf•ft	127 lbf•ft
	112 N•m	145 N•m	174 N•m	224 N•m	244 N•m	316 N•m	122 N•m	172 N•m
3/4	146 lbf•ft	189 lbf•ft	226 lbf•ft	293 lbf•ft	319 lbf•ft	413 lbf•ft	160 lbf•ft	226 lbf•ft
	198 N•m	256 N•m	306 N•m	397 N•m	432 N•m	560 N•m	217 N•m	306 N•m
7/8	142 lbf•ft	183 lbf•ft	365 lbf•ft	473 lbf•ft	515 lbf•ft	667 lbf•ft	258 lbf•ft	364 lbf•ft
	193 N•m	248 N•m	495 N•m	641 N•m	698 N•m	904 N•m	350 N•m	494 N•m
1	213 lbf•ft	275 lbf•ft	547 lbf•ft	708 lbf•ft	773 lbf•ft	1000 lbf•ft	386 lbf•ft	545 lbf•ft
	289 N•m	373 N•m	742 N•m	960 N•m	1048 N•m	1356 N•m	523 N•m	739 N•m



Warranty

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 Utility Bucket 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 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 claim must be filed with BLUE DIAMOND® ATTACHMENTS before work is performed. The BLUE DIAMOND® PRODUCT SUPPORT TEAM will advise repairs and applicable parts exchanges. 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. Please see bluediamondattachments.com/warranty-policies for the most up to date warranty information.

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