

# Mini Heavy Duty Low Profile Buckets

Operation and Maintenance Manual



Register your  
**WARRANTY**  
within 30 days  
of purchase



888-376-7027 | [BlueDiamondAttachments.com](http://BlueDiamondAttachments.com)



BD-092

## Introduction: Owner Information

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Thank you for your decision to purchase a Blue Diamond® Mini Heavy Duty Low Profile 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](http://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 rear to the right of the mount plate 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.

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# 1. Pre-Delivery Inspection Instructions

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**Use this checklist to verify safety, function, and readiness prior to delivery.**

END USER'S NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

ITEM NUMBER & DESCRIPTION: \_\_\_\_\_

SERIAL NO.: \_\_\_\_\_

HOST MACHINE MAKE/MODEL: \_\_\_\_\_

## 1.1 Safety & Documentation

- Operation and Maintenance Manual is included.
- Safety decals are present and legible.
- Model and serial number plate is present and intact.

## 1.2 Visual Inspection

- Unit is free of shipping damage, dents, cracked welds, chipped paint, etc.
- Fasteners are properly torqued (if applicable).

## 1.3 Final Delivery

- Maintenance schedule located in Operation and Maintenance Manual has been reviewed.
- Grease type and intervals were provided.
- Bolt-on edge and/or tooth bar change procedure and maintenance safety have been explained.
- Register the attachment for warranty by following the instructions below:
  - Scan the QR code to fill out the form online.
  - Fill out this form and email it to warranty@bdattachments.com

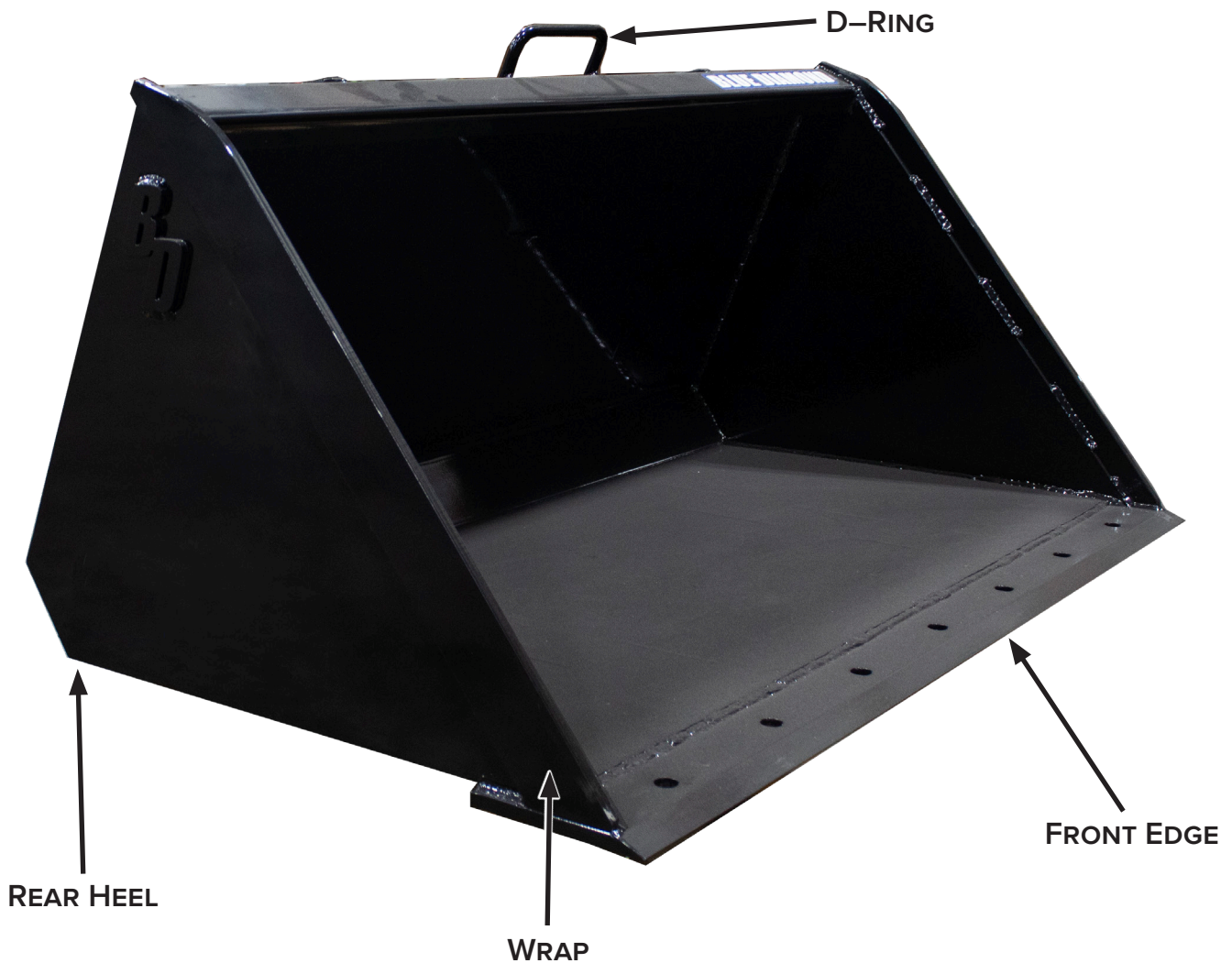
TECHNICIAN: \_\_\_\_\_

CUSTOMER: \_\_\_\_\_

DATE: \_\_\_\_\_

## 2. Introduction

### 2.1 Attachment Identification



### 2.2 About this Attachment

The Blue Diamond® Mini Skid Steer Heavy Duty Low Profile Bucket is great for grading and leveling applications as well as transporting, loading, and other material handling. With a reduced overall height of 20" and curved back, it enables efficient loading and unloading in tight spaces. This bucket is built of high-quality materials with 1/2" thick reinforcement braces and 3" wide bottom wear bars that ensure exceptional strength and longevity. It is available 36", 44", and 52" widths.

### 2.3 Attachment Model Numbers

MODEL NUMBER	WIDTH / HEIGHT	EDGE	STRUCK CAPACITY
107850	36" / 20"	Smooth	6.14 ft. <sup>3</sup>
107855	44" / 20"	Smooth	7.50 ft. <sup>3</sup>
107860	52" / 20"	Smooth	8.87 ft. <sup>3</sup>

## 3. Safety

### 3.1 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 Mini Heavy Duty Low Profile Bucket can be attached to many different pieces of 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 Mini Heavy Duty Low Profile 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 attachment. 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 attachment, 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 attachment 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.

## 3. Safety

### 3.2 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 and/or attachment while it is working and must not allow external personnel to operate the machine and/or attachment.

The operator is to follow the given instructions in this manual and the machine 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.
- It is the skill, care, common sense, and good judgment of the operator that will determine how efficiently and safely the job is performed.
- 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 attachment 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 machine/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.

## 3. Safety

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### 3.3 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 attachment is in motion.
- 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.
- Know the capabilities of your equipment and practice its operation to become familiar with the controls, emergency shut down procedures, and the way it handles your machine.
- 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 "7.1 Attachment Specifications" on page 22 for more information.
- Use caution on slopes and near banks and ditches to prevent overturn.

## 3. Safety

### 3.3 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.

## 4. Operation

### 4.1 Pre–Operation Inspection

Before operating the Mini Heavy Duty Low Profile 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.

- Inspect the attachment for shipping damage. If damage does exist, do not operate until the damaged parts have been replaced or repaired.
- Check the attachment mounting frame for damage or cracks.
- Check that all shields and guards are in place.
- Check for loose hardware (i.e. nuts, bolts, screws, etc.), 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.

- Use only Blue Diamond® recommended replacement parts. Other parts may be substandard in fit and quality.
- Ensure any damage or excessively worn parts are replaced.
- Always wear safety goggles or glasses when inspecting equipment.

### 4.2 Entering & Exiting the Prime Mover



#### IMPORTANT



See the machine’s Operator’s Manual for detailed information on operating the host machine.

#### 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.**

## 4. Operation

### 4.2 Entering & Exiting the Prime Mover Cont'd

#### Leaving the Operator's Position Cont'd

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.

### 4.3 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 connection.
- 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.

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



#### 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.**

#### 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 Cont'd" on page 11.

Disconnect attachment hydraulic hoses from the machine.

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.

## 4. Operation

### 4.4 Operating the Attachment

#### Machine Requirements



 **WARNING** 

**AVOID SERIOUS INJURY OR DEATH**  
Never allow riders on the attachment.

Refer to the machine's Operator's Manual for adequate lift capacity and horsepower.

Refer to the machine's Operator's Manual for instructions on the lift and tilt functions of the machine's arms.

Be sure to follow all potential machine limitations stated in "7.1 Attachment Specifications" on page 22. If the attachment is operated using an improper host machine, this could result in damage that will not be covered by the warranty.

 **IMPORTANT** 

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 Mini Low Profile Heavy Duty Bucket can be used for grading, leveling, transporting, loading, and other material handling purposes.

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 the 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.

## 4. Operation

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### 4.4 Operating the Attachment Cont'd

#### 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 Mini Heavy Duty Low Profile 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.

#### 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. Slow reverse the host 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 Mini Heavy Duty Low Profile 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 Mini Heavy Duty Low Profile 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 host machine in reverse with the rear heel of the bucket dragging, further smoothing the ground surface.

## 4. Operation

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### 4.5 Operating Tips

- At the start, learn what the bucket looks like in a level position when in the operator's position.
- 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 Mini Heavy Duty Low Profile Bucket.
- Save time by performing "skid" turns going forward instead of reversing when possible.
- Reduce the number of trips by filling the Mini Heavy Duty Low Profile 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.
  - Keep a slow, steady speed to avoid waves.

## 5. Maintenance

### 5.1 Service Schedule

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

## 5. Maintenance

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Proper and regular maintenance ensures a long life of the attachment, avoids failures, and saves time 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.**

### 5.2 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 the bucket is not warped or bent.

### 5.3 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.

### 5.4 After Every Season

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

## 5. Maintenance

### 5.5 Bolt–On Edge, Tooth Edge, & Tooth Bar



#### WARNING



##### AVOID SERIOUS INJURY OR DEATH

To avoid serious 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 Edge

These instructions also apply to serrated and poly edges.

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 bolt 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 according to “7.2 Torque Specifications – Imperial” on page 24.

#### Tooth Replacement

Make sure to park on a flat, level surface and that the attachment is securely supported by blocks and not by only the machine’s hydraulic system. 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.

#### Tooth Bar

The tooth bar is an accessory that can be added to smooth edge buckets, but the buckets do not come with a pre–drilled hole that for the tooth bar to be installed.

The tooth bar needs to be 1 – 2” smaller than the inside length of the bucket. The hardware should be shipped with the tooth bar.

1. Set the bucket on a flat, level surface with a wood board underneath to slightly lift the front factory edge of the bucket.
2. Slide the tooth bar into the bucket. Make sure that the bar is even. Mark the holes on the bucket using a paint marker that is a different color than the bucket.
3. Remove the bar from the bucket.

## 5. Maintenance

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### 5.5 Bolt–On Edges, Tooth Edge, & Tooth Bar Cont’d

#### Tooth Bar Cont’d

4. Using a low speed drill equipped with a pilot–tipped carbide bit, drill a hole through the previously placed marks on each side of the bucket. Make sure to the cutting oil to reduce friction when drilling into the bucket.
5. Place the bar back inside the bucket. This might require some force, depending on the length of the tooth bar.
6. Place a bolt through the bucket and the tooth bar. Hand–tighten the nut onto the bolt. Repeat for the other side.

NOTE: Blue Diamond® recommends to have the nut facing the inside of the bucket to avoid bending in case of removal.

7. Using a 3/4” socket or wrench, tighten the nuts on each side.

### 5.6 Spare Parts & Accessories

To maintain safety, performance, and product reliability, Blue Diamond® recommends the use of genuine Blue Diamond® replacement parts for all repairs and service.

Genuine Blue Diamond® parts are specifically designed and tested for your attachment. These components include critical items, such as hydraulic motors, cylinders, and structural weldments.

Use of non–genuine parts for components identified as Blue Diamond® OEM may affect product performance and could void applicable warranty coverage.

To obtain replacement parts, contact Blue Diamond® Product Support with the following information:

- Type of attachment
- Serial number
- Part number and/or description of part(s) needed
- Quantity of part(s) needed

### 5.7 Storage

#### Storage

Sometimes it may be necessary to store your Mini Heavy Duty Low Profile 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.
- Lubricate the attachment.
- Coat the exposed portion of the cylinder with oil.
- 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 Mini Heavy Duty Low Profile Bucket has been in storage, it is necessary to follow a list of items to return the attachment to service.

- Connect and operate the attachment and check for correct function.
- Check for leaks. Repair as needed.

## 5. Maintenance

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### 5.8 Troubleshooting

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

## 6. Parts

### 6.1 Bolt-On Edge Components



ITEM	PART NUMBER	DESCRIPTION	QTY
1	309104	36" Long, 3/4" Thick Boron Steel Bolt-On Edge Kit with Hardware	1
1	309107	44" Long, 3/4" Thick Boron Steel Bolt-On Edge Kit with Hardware	1
1	309111	52" Long, 3/4" Thick Boron Steel Bolt-On Edge Kit with Hardware	1
2	109176	5/8"-11 x 2" Bolt	A/R
3	109177	5/8"-11 Stover Lock Nut	A/R
4	309104-P	36" Long, 1 1/2" Thick UHMW Poly Bolt-On Edge Kit with Hardware	1
4	309107-P	44" Long, 1 1/2" Thick UHMW Poly Bolt-On Edge Kit with Hardware	1
4	309111-P	52" Long, 1 1/2" Thick UHMW Poly Bolt-On Edge Kit with Hardware	1
5	109180	5/8"-11 x 2 1/4" Hex Head Bolt	A/R
6	299844	5/8" SAE Washer	A/R
7	308203	36" Long Serrated Bolt-On Edge Kit with Hardware	1
7	308207	44" Long Serrated Bolt-On Edge Kit with Hardware	1

## 6. Parts

### 6.2 Tooth Components



ITEM	PART NUMBER	DESCRIPTION	QTY
1	109736	Tooth Bar 36" Fits Buckets with 36.25" to 38" Inside Dimension	1
1	109744	Tooth Bar 44" Fits Buckets with 44.25" to 46" Inside Dimension	1
1	109752	Tooth Bar 52" Fits Buckets with 52.25" to 54" Inside Dimension	1
2	209505	1/2"-13 x 1 3/4" Bolt with Locknut & 2 Washers	2

## 6. Parts

### 6.3 Safety Decals



\*PLACED ON  
BACK OF  
BUCKET

① **BUILT STRONG. ATTACHED FOR LIFE.**



ITEM	PART NUMBER	DESCRIPTION	QTY
1	BD-134	24.6" x 2.0" Decal, Tagline Single Line	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

## 7. Specifications

### 7.1 Attachment Specifications

DESCRIPTION	107850	107855	107860
Width	36 in. (914 mm)	44 in. (1,118 mm)	52 in. (1,321 mm)
Type of Edge	Smooth		
Depth	26 in. (660 mm)		
Height	20 in. (508 mm)		
Wrap	3/8 in. (10 mm)		
Struck Capacity	11.4 ft. <sup>3</sup> (0.32 m <sup>3</sup> )	11.4 ft. <sup>3</sup> (0.32 m <sup>3</sup> )	11 ft. <sup>3</sup> (0.31 m <sup>3</sup> )
Max. Horsepower	65 HP		
Weight	200 lbs (91 kg)	300 lbs (136 kg)	400 lbs (181 kg)

## 7. Specifications

### 7.2 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 Mini Heavy Duty Low Profile 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](http://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