

60" Brush Cutter Heavy Duty Series 3

Operation and Maintenance Manual



103002 & 103003



888-376-7027 | BlueDiamondAttachments.com

Register your
WARRANTY
within 30 days
of purchase



Introduction: Owner Information

Thank you for your decision to purchase a Blue Diamond® Heavy Duty Series 3 Brush Cutter. To ensure maximum performance of your equipment, it is mandatory that you thoroughly study the Operator's Manual and follow the recommendations. Proper operation and maintenance are essential to maximize equipment life and prevent personal injury.

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

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

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

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

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

Serial Number Location:

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



Model Number: _____

Serial Number: _____

Dealer Name: _____

Dealer Number: _____

Date of Purchase: _____

The serial number plate is located on the left side of the mounting frame 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

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.
- ☐ Verify required hydraulic flow range for customer's host machine.

1.2 Visual Inspection

- ☐ Unit is free of shipping damage, dents, cracked welds, etc.
- ☐ Verify motor and safety covers are in place and secure.
- ☐ Ensure drive system is correctly lubricated.
- ☐ Fasteners are properly torqued.

1.3 Hydraulic System & Operational Test

- ☐ Hydraulic hose routing is appropriate for application.

- ☐ Fittings are properly tightened; verify no leakage.
- ☐ Quick couplers are correct and clean.
- ☐ Smooth operation; no hydraulic leaks or excessive vibration of attachment.
- ☐ Verify attachment has been connected to the host machine that will be used for operation and tested.
- ☐ Verify the host machine's hydraulic flow with a flow meter.

1.4 Final Delivery

- ☐ Maintenance schedule located in Operation and Maintenance Manual has been reviewed.
- ☐ Grease type and intervals were provided.
- ☐ Blade change procedure and maintenance safety have been explained.
- ☐ Register the attachment for warranty by following the instructions below:
 - ☐ Fill out this form and email it to warranty@bdatattachments.com

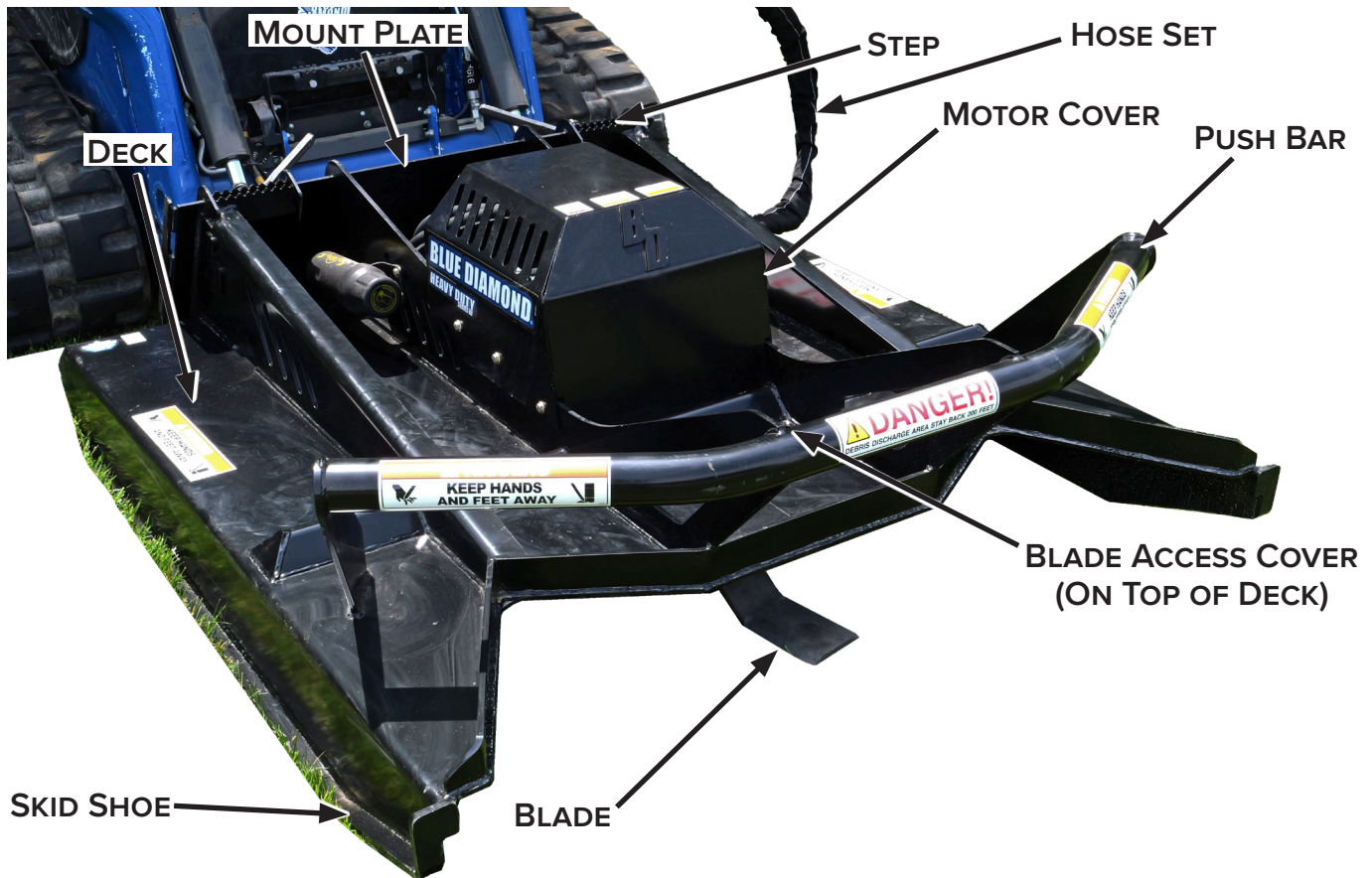
TECHNICIAN: _____

CUSTOMER: _____

DATE: _____

2. Introduction

2.1 Attachment Identification



2.2 About this Attachment

The Blue Diamond® Heavy Duty Open Front Brush Cutter delivers powerful, reliable cutting performance at an exceptional value. Built to cut grass, heavy brush, and trees up to 5 inches in diameter, it features a reinforced $\frac{1}{4}$ " steel deck, oil-filled direct drive system, and three swing-away blades for a clean, efficient cut. The open front design with heavy push bar increases productivity by feeding material directly into the blades, making it an ideal choice for skid steers up to 75 horsepower using standard flow hydraulics.

2.3 Attachment Model Numbers

MODEL NUMBER	WORKING WIDTH	MOTOR SIZE
103002	60"	80cc
103003		100cc

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 Heavy Duty Series 3 Brush Cutter 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 Heavy Duty Series 3 Brush Cutter 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
- Pay maximum attention to avoid any accidental contact with rotating parts of the machine.
- 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.

3. Safety

3.2 Operators

Qualified Operators

The operator is a person who is suited to the work and 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 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 judgement 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 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; the machine can project material from the back with 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

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 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 to less than 300 feet (100 m) in front of and to the sides of the equipment.
- When conditions make it necessary to slow ground speed, shift to a lower gear rather than reducing engine speed. The engine will maintain rated speed and keep cutter running at optimum cutting speed.
- The operator is responsible for the safety of all people in the vicinity of the operating area. If any person enters the operating area, the operator must immediately stop the machine and attachment.
- Make sure everyone on site is accounted for and their location is known.
- 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

- The machine's operator's cab should be equipped with a thermoplastic polycarbonate or similar material front window, and similar protection on the sides of the operator's cab before operating the equipment.
- Keep bystanders clear of moving parts and the work area. Keep children away.
- Do not exceed 4,000 psi (275 bar) operating pressure.
- Use caution on slopes and near banks and ditches to prevent overturn.

3. Safety

3.3 Safety Guidelines Cont'd

Fire Prevention Safety

- Flammable debris (leaves, grass, etc.) must be removed regularly. If flammable debris is allowed to accumulate, it can cause a fire hazard. Clean often to avoid this accumulation.
- The equipment's hydraulic motor compartment must be inspected every day and cleaned if necessary to prevent fire hazards and overheating.
- 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.

Hydraulic System

- Check hydraulic tubes, hoses, and fittings for damage and leakage. Never use open flame or bare skin to check for leaks. Hydraulic tubes and hoses must be properly routed and have adequate support and secure clamps. Tighten or replace any parts that show leakage.
- Always clean fluid spills. Do not use gasoline or diesel fuel for cleaning parts. Use commercial nonflammable solvents.

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 Brush Cutter 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 by performing a walk-around daily before and after use.
- Inspect the attachment for shipping damage. If damage does exist, do not operate until the damaged parts have been replaced or repaired.
- Lubricate the attachment per the schedule outlined in the Maintenance section. See "5.1 Service Schedule" on page 21.
- 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.



WARNING



Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required.

Wear goggles. Use cardboard to check for leaks.

- Check the condition of all hydraulic components for leaks. Repair as required.
- NOTE:** Do not operate with hydraulic leaks.
- Check for wear and tear on pins, linkages, blades; and replace any damaged and/or excessively worn parts.
 - 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. Operation

4.2 Machine Requirements



DANGER



FLYING DEBRIS OR OBJECTS WILL CAUSE SERIOUS INJURY OR DEATH

To protect the operator from any flying debris or objects, it is important that the machine's operator's cab should be equipped with a thermoplastic polycarbonate or similar material front window, and similar protection on the sides of the operator's cab before operating the Heavy Duty Series 3 Open Front Skid Steer Brush Cutter.

Blue Diamond® recommends that the machine be equipped with a thermoplastic polycarbonate or similar material front windshield and similar protections on the side of the operator's cab.

Only use the Heavy Duty Series 3 Brush Cutter on compatible host machines. The hydraulic flow of 103002 must not exceed sixteen gallons per minute (16 GPM) or sixty liters per minute (60 L/min). The hydraulic flow of 103003 must not exceed twenty gallons per minute (20 GPM) or seventy-five liters per minute (75 L/min). Do not use high flow hydraulics when operating this attachment.



IMPORTANT



Do not use high flow hydraulics when operating the Heavy Duty Series 3 Brush Cutter as this could result in serious damage.

The host machine's relief pressure must not exceed 4,000 psi (275 bar). Consult the host machine's Operator's Manual for hydraulic flow and pressure specifications.

The host machine must have adequate lift capacity to safely maneuver the cutter at full reach on uneven ground.



DANGER



ROTATING BLADES WILL CAUSE SERIOUS INJURY OR DEATH

- Never put hands, feet, or objects into or under Brush Cutter when engine is running.
- Keep bystanders away.
- No riders.
- Stop engine before leaving the machine to service.



WARNING



THROWN OBJECTS OR ROTATING BLADES CAN CAUSE SERIOUS INJURY OR DEATH

- Clear work area of all debris, such as rope, wire, cable, or other materials that can wrap around blade carrier and blades, causing entanglement and attachment damage.
- DO NOT operate attachment in vicinity of bystanders, animals, or damageable property. Objects can be thrown more than several hundred feet.
- Keep all chains and shields installed. Repair or replace if damaged or missing.
- Check blade carrier, blades, and mounting hardware. Replace if damaged. Never weld or modify.

MODEL NUMBER	WIDTH	MOTOR SIZE	REQUIRED GPM	MAXIMUM HORSEPOWER	MAXIMUM PRESSURE
103002	60"	80cc	11 – 16	75 HP	4,000 PSI
103003		100cc	13 – 20		

4. Operation

4.2 Machine Requirements Cont'd



WARNING



AVOID SERIOUS INJURY OR DEATH

- Never operate the Brush Cutter with the back of the deck more than 24" (610 mm) off the ground.
- Never operate the Brush Cutter with any guards removed, including the motor cover.
- Never operate the Brush Cutter without the safety chain securely fastened to the machine.



IMPORTANT



DO NOT operate the Brush Cutter when excessive vibration is present. Serious damage can result. Check the blade carrier, blades, and mounting hardware. Replace if damaged.



WARNING



Never allow riders onto the attachment.

NOTE: The ground conditions and the type of brush being cut will determine the best cutting procedure and ground speed. The Heavy Duty Series 3 Brush Cutter is designed to cut short or tall grass and brush or trees up to five inches (5") (127 mm) in diameter.

4.3 Transporting the Attachment



CAUTION



The operator in charge of the transportation and installation of the attachment must be familiar with the following instructions.

Be sure to pay careful attention to the weight of the Brush Cutter.

Disconnect the hydraulics from the host machine. See "Disconnecting Attachment From the Machine" on page 15.

Clear branches, grass, and any other debris from the Brush Cutter.

If the Brush Cutter is still attached to the host machine, carefully raise the attachment and center it onto the deck of the trailer.

Lower the Brush Cutter flat onto the deck of the trailer, and disconnect it from the host machine. See "Disconnecting Attachment From the Machine" on page 15 for further instructions.

Use a minimum of four (4) heavy duty ratchet straps or chains rated for the attachment's weight. See "7.1 Attachment Specifications" on page 35.

Hook the ratchet straps to the designated anchor points. Do not drape straps over the motor cover as this could cause denting or cracking.

Make sure the Brush Cutter is properly secured prior to heading towards the next location.

Travel Position While Operating

Raise the attachment four to five inches (4 – 5") (100 – 127 mm) above the ground when traveling in the work area.

4. Operation

4.4 Entering & Exiting the Prime Mover



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



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.

4.5 Attachment Installation

Connecting Attachment to the Machine



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 13.

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.)

4. Operation

4.5 Attachment Installation Cont'd

Connecting Attachment to the Machine Cont'd



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.**

Leave the operator's position. See "Leaving the Operator's Position" on page 13.

Connecting Hydraulic Hoses



IMPORTANT



Thoroughly clean the quick couplers before making connections. Dirt can quickly damage the hydraulic system.

Verify that all hydraulic couplings are compatible with the host machine.

Remove dirt or debris from the male and female couplers. Visually inspect the couplers for corroding, cracking, damage, or excessive wear. Replace as needed.

Connect the attachment hydraulic hoses to the machine. The hydraulic hoses must be connected in the following order: return hose then pressure hose.

For the hydraulic hoses, the return hose must be connected before the pressure hose.

Pull on each hose to verify full connection is made.

Connecting Safety Chain

The safety chain is designed to keep the rear of the Brush Cutter below the host machine's door to prevent debris being thrown against the cab's windshield.

Attach the safety chain to a secure point on the host machine's frame with enough slack for the Brush Cutter to be lifted but not higher than the bottom edge of the cab door. See Figure 1.

The connection point may be different depending on the host machine, but any tie-down point or other firm connection point can be used.



Figure 1

Disconnecting Hydraulic Hoses



WARNING



AVOID SERIOUS INJURY OR DEATH

Hydraulic fluid, tubes, fittings, and quick couplers can get hot during operation. Be careful when connecting and disconnecting hydraulic hoses.

Relieve auxiliary hydraulic pressure. (See the machine's Operator's Manual for correct procedure.)

Disconnect attachment hydraulic hoses from the machine. The hoses must be disconnected in the following order: pressure hose then return hose.

The pressure hose must be disconnected before the return hose.

4. Operation

4.5 Attachment Installation Cont'd

Disconnecting Attachment From the Machine

Relieve auxiliary hydraulic pressure. (See the machine's Operator's Manual for correct procedure.)

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 13.

Remove the safety chain from the host machine.

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 13.

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.

4.6 Clear Work Area

! IMPORTANT !

- DO NOT operate in a work area that has not been cleared of foreign debris and obstacles.
- Rocks, metal, construction debris, and other objects can damage the blade carrier and blades.
- Clearly mark any objects that cannot be removed.



4. Operation

4.7 Initial Setup



IMPORTANT

Check the host machine's hydraulic oil level. If necessary, add oil before and after performing steps 1 – 3 below.

1. After starting the host machine, lift the attachment approximately six inches (6") (152 mm) off the ground.
2. With the host machine's engine RPM just above idle, slowly engage the auxiliary hydraulic flow to the attachment. Using your machine's auxiliary hydraulic flow switch, activate the auxiliary continuous flow to the Brush Cutter.
3. Allow the attachment to run for thirty (30) seconds to purge the air from the system. Deactivate the auxiliary hydraulics to turn off the Brush Cutter, allowing it to come to a complete stop.
4. Lower the Brush Cutter to the ground, and shut off the host machine's engine. Leave the operator's position. (See "Leaving the Operator's Position" on page 13.)
5. Check the host machine's hydraulic oil level, and add oil if necessary.
6. Inspect the attachment's hydraulic system for noticeable leaks. Correct these leaks before continuing.



WARNING



Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.

7. Restart the host machine. With the Brush Cutter raised off the ground and the engine throttle set just above idle, engage auxiliary hydraulics to start the attachment. Allow the Brush Cutter to come up to speed before increasing engine speed.

4.8 Operating the Attachment

Starting the Brush Cutter

Install the Heavy Duty Series 3 Brush Cutter onto the host machine. (See "Connecting Attachment to the Machine" on page 13.)

Enter the operator's position. (See "Entering the Operator's Position" on page 13.)

Use the host machine to raise the attachment six inches (6") (152 mm) off the ground.

With the host machine's engine RPM just above idle, slowly engage the auxiliary hydraulic flow to the attachment. Using your machine's auxiliary hydraulic flow switch, activate the auxiliary continuous flow to the Brush Cutter.

Slowly raise the host machine's engine RPM to the correct and desired cutting speed. Use the host machine's controls to set the speed.



IMPORTANT



If the Brush Cutter ever creates a vibration when increasing the speed, turn the attachment off and investigate the cause. Refer to "5.10 Troubleshooting" on page 26 for more information.



CAUTION



AVOID DAMAGE TO MACHINE & ATTACHMENT
DO NOT exceed 4,000 psi (275 bar) operating pressure. Damage can result.

4. Operation

4.8 Operating the Attachment Cont'd

Stopping the Brush Cutter

Use the host machine to raise the attachment approximately six inches (6") (152 mm) off the ground.

Lower the host machine's engine RPM to an idle, and allow the Brush Cutter to slow down.

After the attachment has slowed down, turn off the auxiliary hydraulics.

Allow the Brush Cutter to come to a complete stop before resting the attachment flat on the ground. Wait for the Brush Cutter to come to a complete stop for leaving the operator's position. (See "Leaving the Operator's Position" on page 13.)

Getting Familiar with the Attachment



WARNING



AVOID SERIOUS INJURY OR DEATH

Never operate the Brush Cutter when bystanders are within 200 ft (60 m) of your work area. Flying debris could result in serious injury or death.



CAUTION



AVOID INJURY

Be cautious when operating on uneven ground surfaces. A machine rollover could result in injury. Always wear your seatbelt when operating this type of machinery.

Before starting the host machine's engine with the Brush Cutter attached, make sure the operator is knowledgeable and comfortable with the operation of the skid steer and the Brush Cutter controls as outlined in the previous and following sections of this manual.



CAUTION



AVOID INJURY AND/OR PRODUCT FAILURE

DO NOT overspeed the Brush Cutter by allowing more than the maximum GPM specified in "7.1 Attachment Specifications" on page 35 to the attachment's hydraulic system. That table states what GPM is required to cut efficiently. Using more than the maximum GPM will overspeed the drive motor and will result in motor failure and possible serious injury.

When operating the attachment, set the host machine's throttle at a speed that will produce the required flow. Refer to the machine's Operator's Manual for additional information if necessary.

Start with learning what the Brush Cutter deck looks like in a level cutting position while in the operator's position. Knowing what a level Brush Cutter looks like will help avoid damage to the cutting blades by cutting too close to the ground.

The correct ground speed for cutting with this attachment can be monitored by sound and feel, which depends on the density of the material being cut. If the host machine's engine is bogging down or if the blade carrier is turning too slow without too much load, the ground or cutting speed should be decreased.

Listen and feel for any strange vibration when operating the attachment. A bad vibration felt when cutting could indicate a damaged cutting blade or material trying to be cut at too fast a pace. Slow down the host machine's speed or the attachment's cutting speed to see if the vibration stops. If it does not, stop the attachment, turn off the machine's engine, and investigate the cause of the vibration. Refer to "5.10 Troubleshooting" on page 26 for further instructions.

Always be aware of your surroundings. While watching the Brush Cutter, also pay attention to what obstacles or terrain are in front of the Brush Cutter and the prime mover. Maintain a safe travel speed while cutting.

4. Operation

4.8 Operating the Attachment Cont'd

Getting Familiar with the Attachment Cont'd



WARNING



AVOID SERIOUS INJURY OR DEATH

Cutting tree branches with the Brush Cutter in an elevated position could result in serious injury or death if the host machine becomes unstable. Never raise the cutter more than a few feet off the ground when working on slopes or uneven terrain.

4.9 Cutting Procedures



DANGER



ROTATING BLADES WILL CAUSE SERIOUS INJURY OR DEATH

- Never put hands, feet or objects into or under brush cutter when engine is running.
- Keep bystanders away.
- No riders.
- Stop engine before leaving the machine to service.



WARNING



AVOID SERIOUS INJURY OR DEATH

Never operate the attachment with any guards removed, including the motor cover.



WARNING



Never allow riders on the attachment.



WARNING



THROWN OBJECTS OR ROTATING BLADES CAN CAUSE SERIOUS INJURY OR DEATH

- Clear work area of all debris, such as rope, wire, cable or other materials that can wrap around the blade and blade carrier, causing entanglement and attachment damage.
- DO NOT operate the Brush Cutter in vicinity of bystanders, animals, or damageable property. Objects can be thrown more than several feet.
- Keep all shields installed. Repair or replace if damaged or missing.
- Check blades, blade carrier, and mounting hardware. Replace if damaged. Never weld or modify.

Adjusting Cutting Height & Level

Use the skid steer's lift arms to adjust the elevation of the Brush Cutter. The level of the Brush Cutter can be adjusted using the skid's steer mount plate.



IMPORTANT



DO NOT operate the Brush Cutter when excessive vibration is present. Serious damage can result. Check blade carrier, blades, and mounting hardware. Replace if damaged.

4. Operation

4.9 Cutting Procedures Cont'd

Before Cutting

Inspect the area to be cut and make sure it is free of any utilities, rocks, fence posts, fence wire, or any other objects that you do not want cut or that would damage the attachment.

Determine a safe cutting pattern prior to operation.

DO NOT enter into an area to be cut before the blade rotation comes up to full operating speed.

NOTE: The ground conditions and type of brush being cut will determine the best cutting procedure and ground speed. The Heavy Duty Series 3 Open Front Brush Cutter is designed to cut short or tall grass, brush, and small trees up to five inches (5") (127 mm) in diameter.



DANGER



AVOID SERIOUS INJURY OR DEATH

Never cut in close proximity to above ground electrical wires to prevent an accident that will result in serious injury or death.



IMPORTANT



To minimize larger cut material discharging to the rear, always keep the machine between material being cut (work area) and occupied areas, such as buildings or roadways.



CAUTION



AVOID INJURY

Use care when operating on uneven terrain or any type of sloped surface. Keep the Brush Cutter low to the ground when working in these conditions to avoid the host machine rolling over that could result in injury.



CAUTION



AVOID DAMAGE TO MACHINE & ATTACHMENT

DO NOT exceed 4,000 psi (275 bar) operating pressure. Damage can result.



CAUTION



AVOID DAMAGE TO MACHINE & ATTACHMENT

Maximum cutting capacity of the Brush Cutter is five inches (5") (127 mm). DO NOT exceed. Damage can result.



CAUTION



AVOID INJURY

DO NOT operate the Brush Cutter if you (the operator) can see the cutter blade. If the operator can see the cutter blade, the back of the cutter is raised TOO HIGH and should be lowered to avoid debris being thrown back at the operator and potentially causing injury.

Brush Cutting

With the blades rotating, tilt the machine's mounting frame backward, raising the front of the Brush Cutter to roughly a 30° – 45° angle. Slowly drive forward to cut the brush. Slightly lift the rear of the Brush Cutter off the ground, tilt the front of the attachment down until it comes in contact with the ground and reverse over the freshly cut material to finely mulch.

Grass Cutting

With the blades rotating, tilt the machine's mounting frame until the Brush Cutter deck is parallel to the ground. Lower the Brush Cutter deck to the ground or the desired cutting height. Slowly drive forward to cut the grass.

4. Operation

4.9 Cutting Procedures Cont'd

Tree Cutting

With the blades rotating, tilt the machine's mounting frame backward, raising the front of the Brush Cutter to a 45° angle. Slowly drive forward toward the tree. Cut the lower branches to expose the trunk of the tree.

Tilt the machine's mounting frame until the Brush Cutter's deck is parallel to the ground or slightly tilted backward. Slowly drive into the tree until the push bar makes contact with the tree trunk. Maintain slow, steady pressure, cutting the trunk (as low to the ground as possible), and allowing the push bar to push the tree away from the machine.

To remove the stump, level the Brush Cutter, and raise it until the blades are a few inches below the top of the stump. Drive forward until the top of the stump is removed, and repeat the process until the stump is level with or below ground surface.

To mulch the trunk and branches of the tree, start at the top of the tree with the small branches. Lower the rear of the attachment to the ground, and raise the front to a 45° angle. Slowly drive forward to cut the trunk. If necessary, mulch the material into a finer finish by reversing back over the material with the rear of the Brush Cutter slightly raised and the front of the deck lowered to the ground.

4.10 Blade Reversing Procedure

New from the factory, these Brush Cutters are designed to spin *clockwise* when properly connected to your host machine.

If wanting the blades to spin counterclockwise, perform the following:

1. Disengage the hydraulic flow and allow the blade carrier to come to a complete stop.
2. Using the machine's joystick controls, reverse the hydraulic flow, testing the operation of the Brush Cutter, and inspect for leaks.

The blades should now be spinning counterclockwise.

4.11 Operating Tips



IMPORTANT



Beware of fence wire and rope in the cutting area. Entangling wire or rope around the cutter's drive components could damage the lower main seal in the direct drive system, resulting in loss of oil and components failure.

Always inspect the work area before starting the Brush Cutter. Locate and mark any utilities, steel posts, rocks, or any other objects that could be damaged or would damage the Brush Cutter during operation.

Never assume the work area is safe and never skip inspecting the work area before the start of operation.

Remove any fence material that could damage the drive components.

Operate at a safe, slow speed that will allow the operator to watch the area ahead of the attachment and the host machine.

Make sure the host machine's engine is operated at an rpm that will produce the volume of oil flow required for this attachment.

5. Maintenance

5.1 Service Schedule

DESCRIPTION	SERVICE PROCEDURES					
	Check	Clean	Lube	Change	Adjust	Drain
Daily Maintenance (or every 8 hours)						
Hydraulic Fittings	•					
Hydraulic Hoses	•					
Hydraulic Motor	•	•				
Blades (wear, damage, and loosening)	•					
Blade Carrier	•					
All Hardware	•					
Deck	•	•				
Chain Guard	•					
Weekly Maintenance (or every 40 hours)						
Blade Bolt Torque – 1440 lbf•ft (1952 N•m)	•					
All Hardware	•					
Deck (cracks, bends, or damage)	•					
Chain Guard (replace missing/ broken chains)	•					
Safety Chain	•					
Monthly Maintenance						
Blades (cracks, bends, or excessive wear)	•					
Skid plates	•					
All Hardware	•					
1000 Hour Maintenance						
Drive Assembly*				•		

*Drive assembly's oil must be changed after the first 100 hours, and then every 1,000 hours afterwards. See "5.5 Direct Drive Lubrication" on page 23 for more information.



5. Maintenance

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.

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

5.2 Daily Maintenance

Inspect the attachment by performing a walk-around daily before and after use. Use the following inspection checklist as a guideline.

Check the following items daily or every eight (8) hours of operation:

- Verify that the Brush Cutter is properly connected to the host machine.
- Check that all shields and guards are in place.
- Check hydraulic lines, connections, and fittings for hydraulic oil leaks. Repair or replace damaged parts if necessary.
- Check the Brush Cutter mounting hardware for damage. Inspect the pins and mount on the attachment for wear and damage. Repair or replace damaged parts.

5.3 Weekly Maintenance

Check the following items once a week or every forty (40) hours of operation:

- Check the blade bolts for correct torque — 1,440 lbf•ft (1,952 N•m).
- Check all bolts for tightness:
 - 3/8" bolts should be torqued to 50 lbf•ft (68 N•m).
 - 1/2" bolts should be torqued to 100 lbf•ft (135 N•m).
 - See "7.2 Torque Specifications – Imperial" on page 36 for more information regarding torque values.
- Inspect the deck for cracks, bends, or damage.
- Inspect the discharge chain, and replace any missing or broken chains.

4. Operation

5.4 Monthly Inspection

Check the following items once a month or every thirty (30) days of operation:

- Inspect the blades for cracks, bends, or excessive wear.
- Check that all bolts are properly torqued.
- Check the blades and mounting plate for cracks or damage. Replace if necessary.
- Check blade mounting hardware for correct torque – 1440 lbf•ft (1952 N•m).
- Check the mounting plate hardware.
- Check the chains, deck, shields, and guards. Repair if damaged or replace if necessary.
- Check for damaged or missing decals. Replace if necessary.
- Clean all debris, leaves, grass, and flammable material from the deck area and under the motor cover.
- Check for damaged or leaking hydraulic hoses or fittings. Replace if necessary.
- Lubricate as required. See “5.5 Direct Drive Lubrication” on page 23 for more information.



WARNING



Leaking fluids under pressure can enter the skin and cause serious injury or death. Immediate medical attention is required. Wear goggles. Use cardboard to check for leaks.

5.5 Direct Drive Lubrication



IMPORTANT



Fluid, such as hydraulic fluid, coolants, grease, etc., must be disposed of in an environmentally safe manner. Some regulations require that certain spills and leaks on the ground must be cleaned in a specific manner. See local, state, and federal regulations for correct disposal.

The Heavy Duty Series 3 Brush Cutter has an oil-filled direct drive.

The direct drive's oil needs changed after the first one hundred (100) hours of operation.

After initial oil change, the direct drive's oil will need changed every thousand (1,000) hours or once a year, whichever comes first.

To replace the oil, perform the following:

1. Remove both plugs and insert one end of a discharge hose into the lowest oil port and the other end into a waste container.

NOTE: If the drive only has one plug, use it for both draining and refilling.

NOTE: Be sure the used oil is disposed of properly.

2. Using a fluid removal pump, remove the old oil from the direct drive.
3. Reinstall the bottom plug. Refill with 85W–140 5EP grade gear oil from the top filler plug.

NOTE: BC75–SAE–C must be filled with minimum ten ounces (10 oz.) of oil. The maximum capacity is fourteen ounces (14 oz.).

4. Once filled, reinstall the oil filler plug.

5. Maintenance

5.6 Blades



DANGER



AVOID SERIOUS INJURY OR DEATH

Before servicing the Brush Cutter:

- Lower lift arms and place the attachment on a flat, level surface.
- Engage parking brake, stop engine, and exit the machine.
- Disconnect the attachment's hydraulic hoses.

Tools Required

- Impact Driver
- Breaker Bar
- 9/16" (14 mm) Impact Socket
- 1 11/16" (43 mm) Impact Socket
- Torque Multiplier with at least 2,000 lbf•ft (2,712 N•m) output
- Torque Wrench capable of the necessary input to achieve 1,440 lbf•ft (1,952 N•m) when paired with a torque multiplier [e.g. 480 lbf•ft (651 N•m) is required for use with a 1:3 ratio multiplier].

Blade Removal

1. Rest the Brush Cutter's skid shoes on blocks to provide easy access to the blades and bolts.
2. Connect the male coupler to the female coupler on the attachment hoses to equalize hydraulic pressure, allowing the blade carrier to be turned by hand.
3. Using the 9/16" (14 mm) socket and impact driver, remove the access cover bolts [Figure 2, Item 1].



Figure 2

4. Using the torque multiplier and breaker bar, remove the nut. The blade and blade bolt should fall to the ground. If not, use a hammer to strike the bolt until the blade and bolt are released from the blade carrier.

NOTE: The motor cover can be removed if required to provide more stability for the torque multiplier.

5. Turn the blade carrier by hand to align the next blade nut with the access hole.
6. Repeat steps 3 – 5 until all blade nuts and bolts have been removed.

Blade Installation



WARNING



AVOID SERIOUS INJURY OR DEATH

The blade's bolt and nut **MUST** be replaced at the same time as the blades. **DO NOT** reuse a bolt or nut that has been previously used. Used hardware does not maintain torque, greatly increasing the risk of loosening and/or failing, which could result in serious injury or death if in operation.

1. Put a new blade on a new bolt. Align the shoulder of the bolt with the D-shaped hole, and push the bolt up through the blade carrier. Verify that the blade and blade bolt are fully seated.
2. Fit a new nut onto the blade bolt, and hand-tighten it.
3. Using the torque multiplier and torque wrench, tighten the blade nut until the correct torque of 1,440 lbf•ft (1,952 N•m) is reached ($\pm 5\%$).
4. Repeat steps 1 – 3 until all blades, nuts, and bolts have been installed.
5. Reinstall the access cover, using 9/16" (14 mm) socket and impact driver.

5. Maintenance

5.7 Cleaning the Attachment



WARNING



AVOID SERIOUS INJURY OR DEATH

Before servicing the Brush Cutter:

- Disconnect the attachment's hydraulic hoses.
- Raise the host machine's lift arms, and tilt the Brush Cutter fully forward (down) until the front of the attachment comes in contact with the ground.
- Engage the parking brake, stop the engine, and leave the operator's position.

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 13.

Disconnect the safety chain from the machine.

Enter the operator's position. See "Entering the Operator's Position" on page 13.

Start the engine, slowly raise the machine's lift arms while tilting the Brush Cutter forward (down) until the front of the attachment comes in contact with the ground.

Stop the engine, engage the parking brake, and leave the operator's position. See "Leaving the Operator's Position" on page 13.

Use water or air pressure to clean debris from under the Brush Cutter.

Be careful removing any obstructions that are wrapped around the blades and blade carrier.

5.8 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. Maintenance

5.9 Storage

Storing the Attachment

Sometimes it may be necessary to store your Heavy Duty Series 3 Brush Cutter for an extended period of time. Below is a list of items to perform before storage.

- Make sure the hydraulic hose couplers are capped, plugged, or connected to each other.
- Thoroughly wash the attachment before storing it for long periods.
- Lubricate the attachment.
- 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 Brush Cutter has been in storage, it is necessary to follow a list of items to return the attachment to service.

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

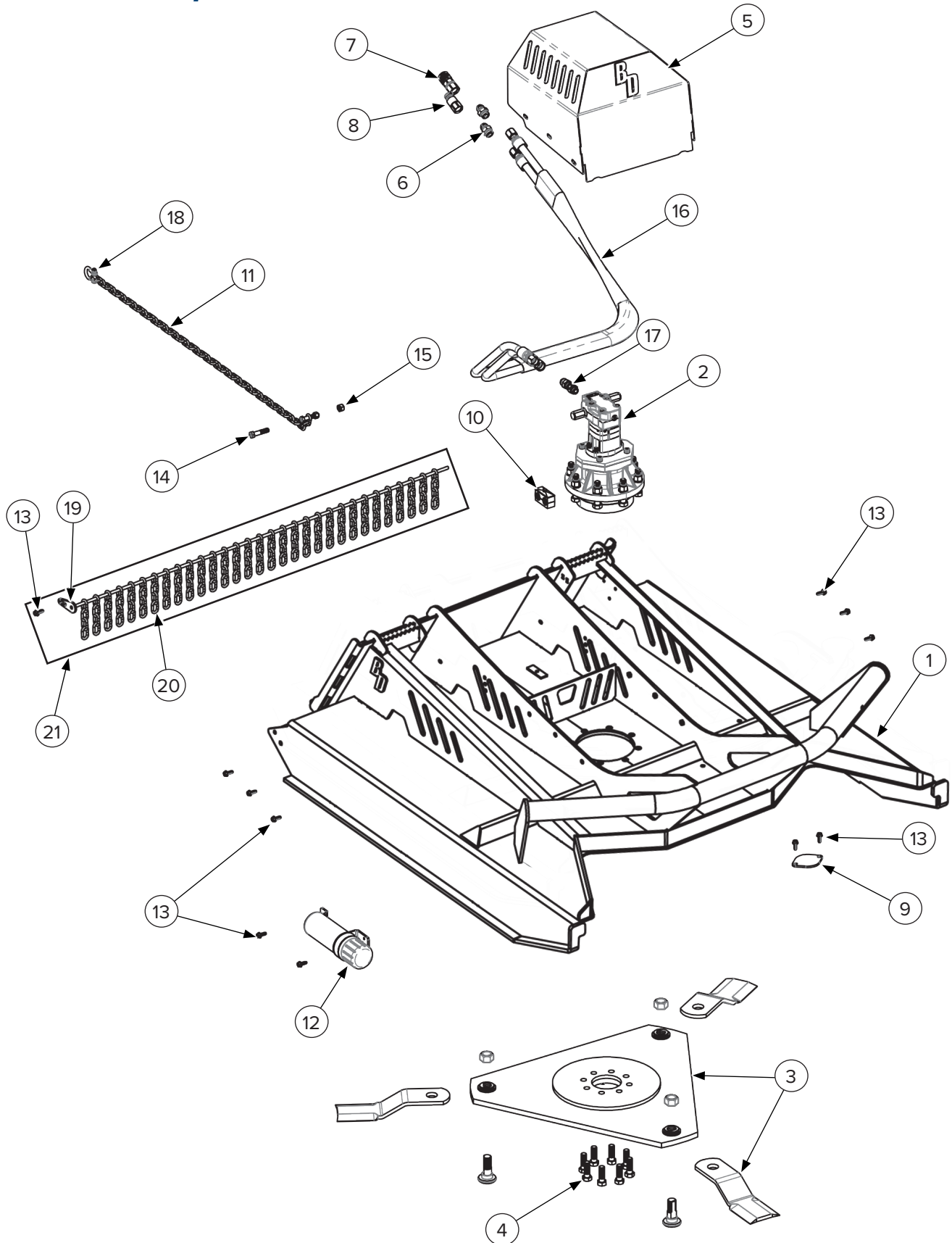
5.10 Troubleshooting

PROBLEM	CAUSE	SOLUTION
Brush Cutter Vibrating	Broken or damaged blades	Check blades and replace as needed.
	Debris under deck or on blade carrier	Remove all debris and verify all parts rotate freely.
	Loose or missing blade bolts	Replace missing bolts, and tighten all blade bolts.
Low Pressure at Start Up/ Blades Turning Too Slow	Hydraulic couplers reversed	Reverse male and female couplers. Check for correct pressure.
	Faulty relief valve on Brush Cutter or host machine	Contact your dealer or Blue Diamond® Product Support.
Hydraulic Pressure But No Blade Rotation	Debris jammed under deck or on blade carrier	Remove all debris and verify all parts rotate freely.
	Against an obstacle preventing the blade carrier from rotating	Adjust the Brush Cutter until all blades rotate freely.
	Damaged or seized drive	Check blades and blade carrier. Verify that all blades and blade carrier rotate freely. Replace damaged or seized drive.
	Damaged motor shaft or seized motor	Contact your dealer or Blue Diamond® Product Support.
Poor Cutting	Travel speed too slow	Increase travel speed during operation.
	Broken or dull blades	Replace blades as needed.

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6. Parts

6.1 Main Components



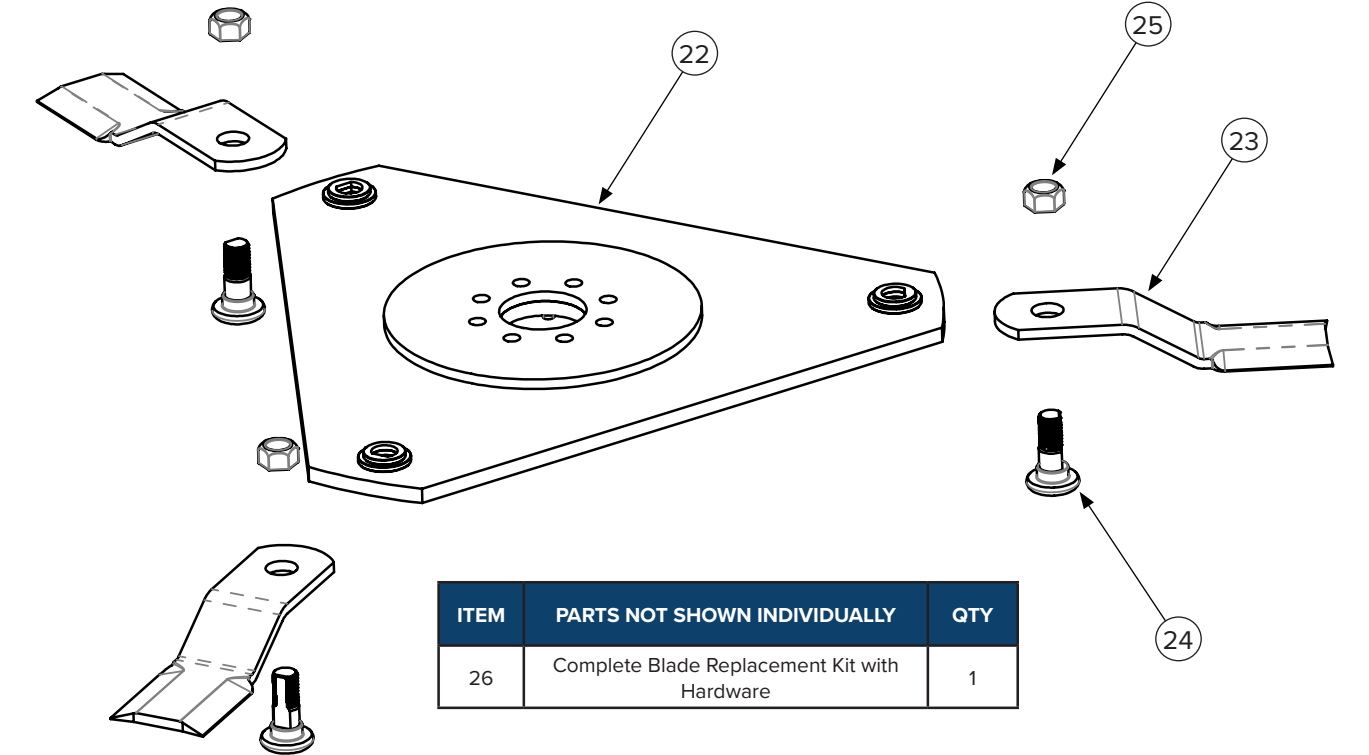
6. Parts

6.1 Main Components Cont'd

ITEM	PART NUMBER	DESCRIPTION	QTY
1	203013	Deck Weldment	1
2	See page 31	Direct Drive Assembly	1
3	See page 30	Blade Carrier with Blades	1
4	299469-F	3/4"–16 x 2 1/4" Hex Head Bolt Fine Thread Grade 8	8
5	203018	Motor Cover	1
6	295010-M12JIC-M12ORB	Hydraulic Straight Fitting Male #12 JIC to Male #12 JIC O–Ring Boss	1
7	224011	Female Coupler, Flat Face Straight 1/2" Body Female #12 O–Ring Boss	1
8	224012	Male Coupler, Flat Face Straight 1/2" Body Female #12 O–Ring Boss	1
9	203008	Blade Bolt Access Cover	1
10	206820	Hose Clamp with 5/16"–18 x 2" Bolt	1
11	203048	96" Safety Chain & Clevis	1
12	216402	Manual Storage Tube	1
13	203006	3/8"–16 x 1" Thread Forming Bolt	11
14	299414	9/16"–12 x 2 1/2" Hex Head Bolt Grade 8	1
15	299619	9/16"–12 Nylock Nut Grade 8	1
16	203039	Hose Set, 2 Hoses 112" OAL 3/4" ID Straight Female #12 JIC Swivel Both Ends Hose Wrap (Couplers Not Included)	1
17	295010-M12JIC-M10ORB	Hydraulic Straight Fitting Male #12 JIC to Male #10 O–Ring Boss	1
18	299340	Steel Clevis with Pin Shackle, 7/16"	1
19	203050	Chain Retainer Bar	1
20	203045	4–Link Discharge Chain	44
21	203050-KIT	Chain Curtain Kit	1

6. Parts

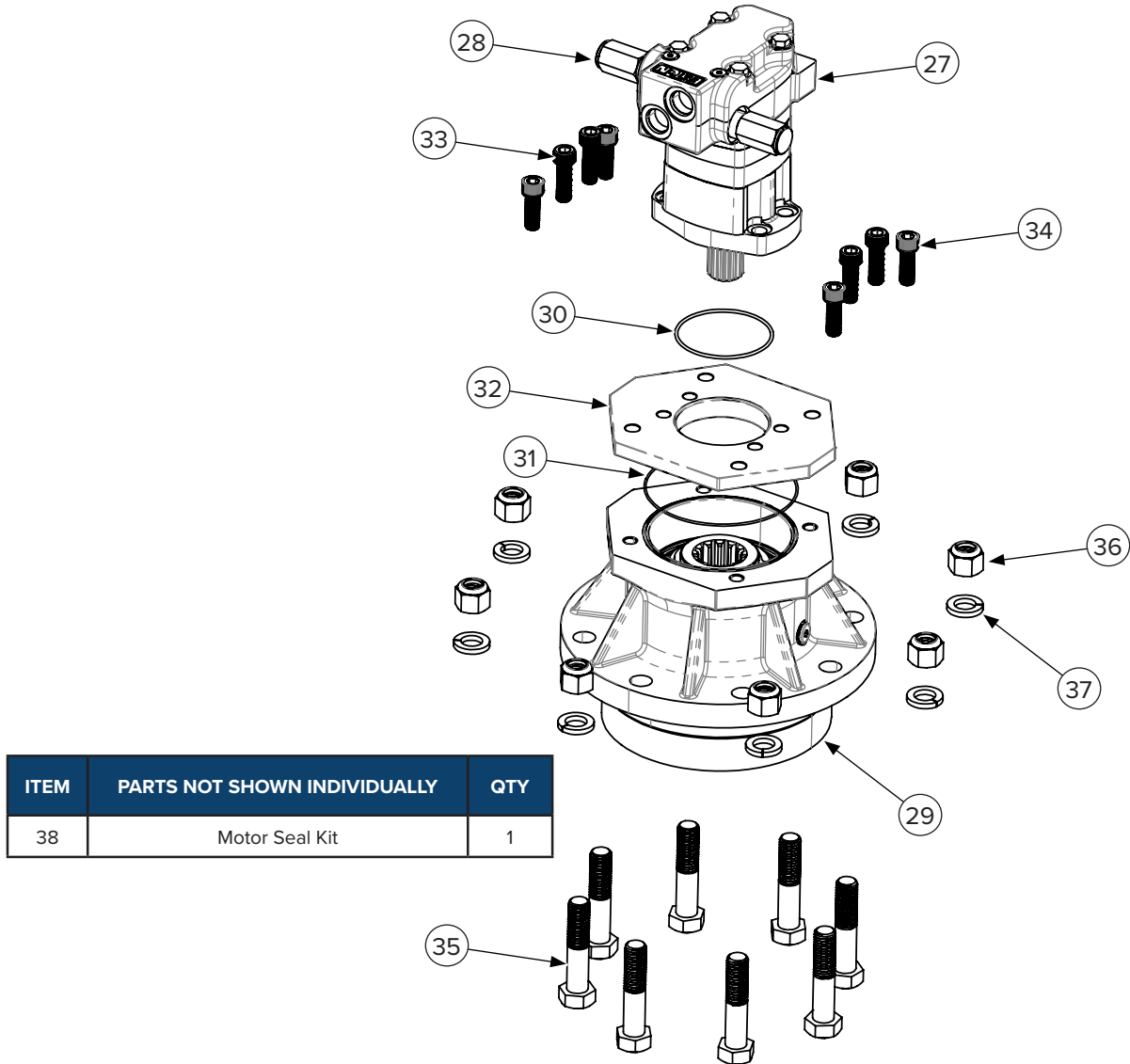
6.2 Blade Carrier Components



ITEM	PART NUMBER	DESCRIPTION	QTY
22	203051	Blade Carrier	1
23	203028	Blade	3
24	203035	Blade Pivot Bolt	3
25	203030	Blade Nut	3
26	203028-KIT	Complete Blade Replacement Kit with Hardware (Includes Items 2 – 4)	1

6. Parts

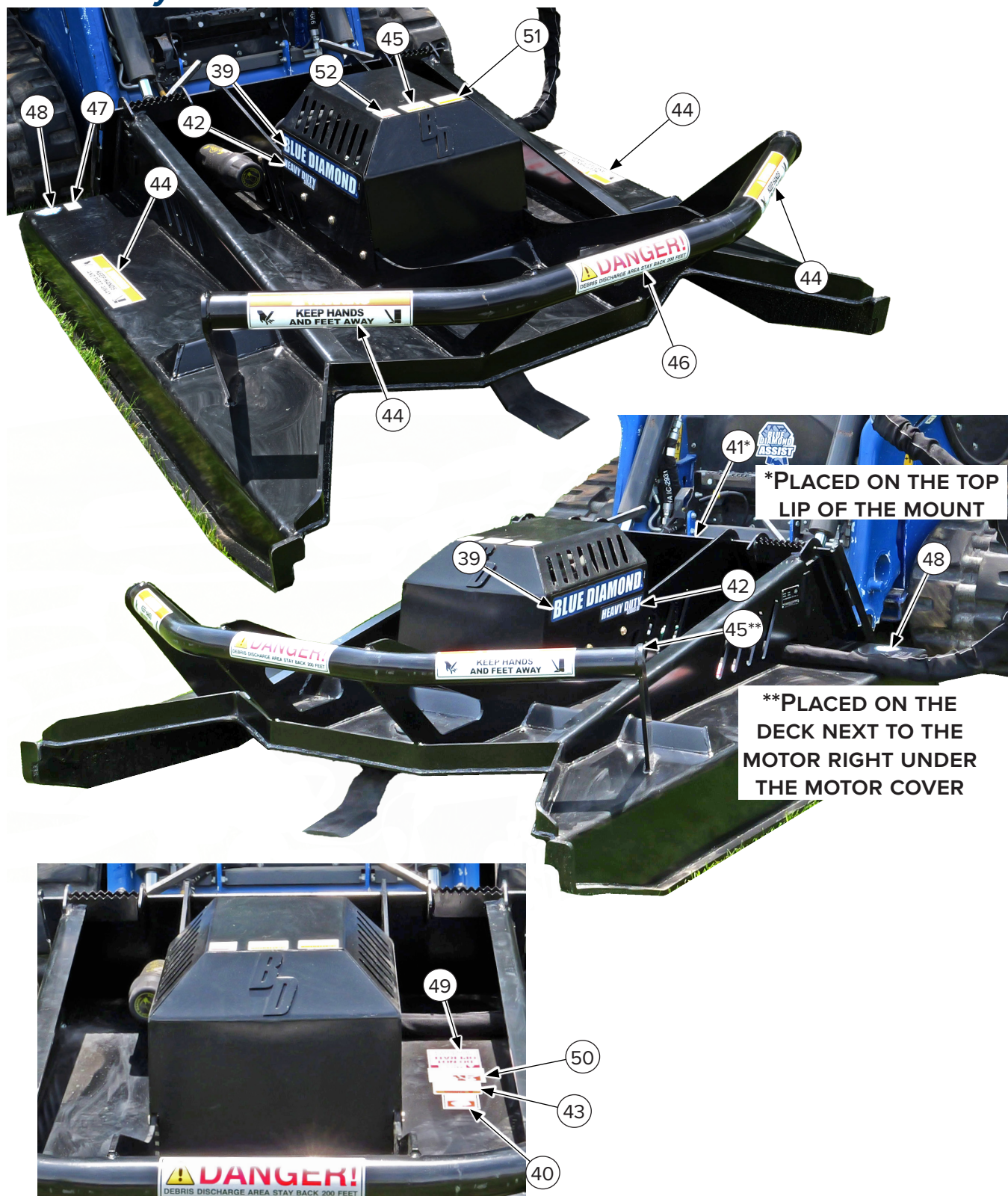
6.3 Direct Drive & Motor Components



ITEM	PART NUMBER	DESCRIPTION	QTY
27	203790	80cc Hydraulic Motor with Dual Integrated Reliefs	1
	203797	100cc Hydraulic Motor with Dual Integrated Reliefs	1
28	203793	Motor Relief Valve	2
29	BC75-SAE-C	Direct Drive	1
30	297500	O-Ring Seal Buna-N Round 3/32 Dash 152 Durometer 70A	1
31	297501	O-Ring Seal Buna-N Round 1/16 Dash 050 Durometer 70A	1
32	203148-14	Motor Adapter Flange	1
33	299463-A	1/2"-20 x 1 1/2" Allen Head Bolt Grade 8	4
34	299305	1/2"-13 x 1 3/8" Socket Head Bolt	4
35	299470	3/4"-10 x 3 1/2" Hex Head Bolt Grade 8	8
36	299628	3/4"-10 Nylock Hex Nut Grade 8	8
37	299856	0.188" x 3/4" x 1.265" Lock Washer Grade 8	8
38	203794	Motor Seal Kit	1

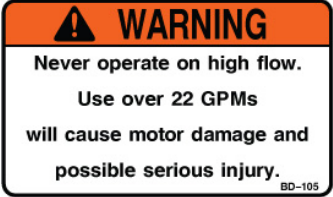
6. Parts

6.4 Safety Decals



6. Parts

6.4 Safety Decals Cont'd

- 39  BD-036
- 40  BD-040
- 41 **BUILT STRONG. ATTACHED FOR LIFE.** BD-103
- 42  BD-117-3
- 43  BD-105
- 44  BD-041
- 45  BD-042
- 46  BD-043
- 47  BD-044
- 48  BD-045
- 49  BD-046
- 50  BD-047
- 51  BD-119
- 52  BD-008

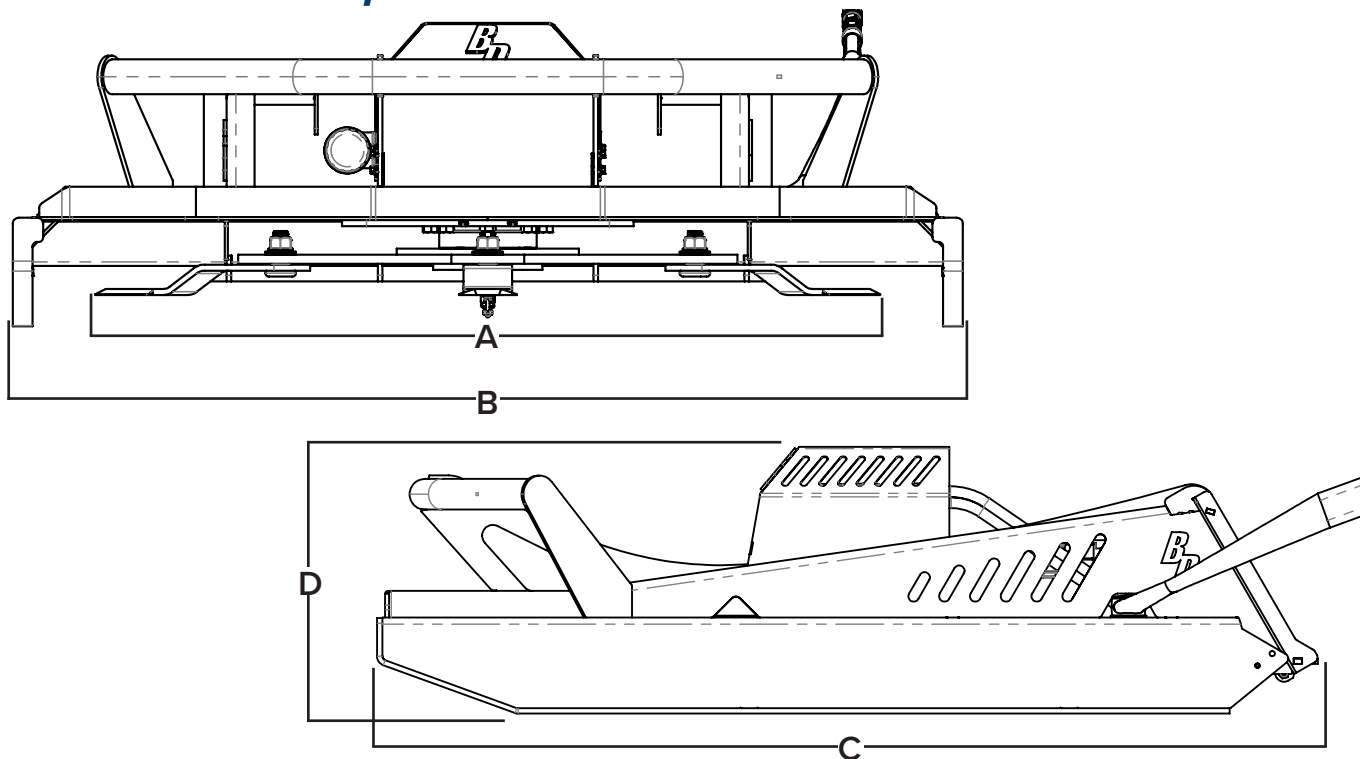
6. Parts

6.4 Safety Decals Cont'd

ITEM	PART NUMBER	DESCRIPTION	QTY
39	BD-057	2.9" x 17.364" Decal, Blue Diamond	2
40	BD-001	3" x 3" Decal, Read Owner's Manual	1
41	BD-133	1" x 13" Decal, Tagline Single Line	1
42	BD-117-3	1.85" x 8" Decal, Heavy Duty Series 3	2
43	BD-105	4" x 2.5" Decal, Warning Do Not Use Over 22 GPM	1
44	BD-081	3" x 12" Decal, Warning Keep Hands and Feet Away	4
45	BD-082	2" x 3" Decal, Attention Disassembly Voids Warranty	2
46	BD-055	3" x 11.9062" Decal, Danger Debris Discharge Area	1
47	BD-092	1.5" x 2.0" Decal, Warranty Registration QR	1
48	BD-060	2.4375" x 3.375" Decal, Blue Diamond Attachments	2
49	BD-070	4.5" x 4.5" Decal, Do Not Operate with Safety Chain	1
50	BD-007	4.75" x 3" Decal, High Pressure Fluid Hazard	1
51	BD-119	3" x 2" Decal, Clean Motor Area to Prevent Overheating	1
52	BD-008	2" x 2" Decal, See Owner's Manual for Lubrication	1

7. Specifications

7.1 Attachment Specifications



DESCRIPTION	103002	103003
Cutting Width (A)	60 in. (1,524 mm)	
Overall Width (B)	66.71 in. (1,694 mm)	
Length (C)	74.86 in. (1,901 mm)	
Height (D)	25.14 in. (639 mm)	
Required Hydraulic Flow	11 – 16 GPM (42 – 60 L/m)	13 – 20 GPM (49 – 75 L/m)
Cutting Capacity	5 in. (127 mm)	
Number of Blades	3	
Blade Carrier Thickness	3/4 in. (20 mm)	
Maximum Horsepower	75 HP	
Maximum Pressure	4,000 PSI (275 bar)	
Weight	1,200 lbs (544 kg)	

7. Specifications

7.2 Torque Specifications – Imperial

Standard Hardware and Lock Nuts

BOLT TYPE	SAE GRADE 5		SAE GRADE 8		LOCK NUTS			
Nominal Size	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	Plated or Unplated Silver	Plated W/ ZnCr Gold	W/ Grade 5 Bolt	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

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Warranty Policies

OUR WARRANTY PROMISE

At Blue Diamond® Attachments, we stand by our products. Our warranty ensures you can depend on our attachments for your toughest jobs. We are committed to your satisfaction and peace of mind, offering reliable support for continued productivity.

MANUFACTURER'S LIMITED WARRANTY

BLUE DIAMOND® ATTACHMENTS, LLC ("BDA"), a manufacturer of quality attachments, warrants new BDA 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 BDA.

BDA's liability for any defect with respect to accepted goods shall be limited to repairing the goods at a BDA designated location or at an authorized dealer location, or replacing them, as BDA shall elect. The above shall be in accordance with BDA warranty adjustment policies.

WARRANTY TERM

BDA's warranty obligation is subject to the following terms, whichever occurs first:

- The warranty terminates twelve (12) months after the date of delivery of the attachment from the dealer to the end user (original purchaser); or
- The warranty terminates thirty-six (36) months after the date of BDA's invoice to the dealer, regardless of whether the attachment has been sold to an end user.

For the purposes of this warranty, "delivery" means the date on which the authorized dealer delivers the attachment to the end user.

WARRANTY ELIGIBILITY AND REGISTRATION

BDA warrants its products to the original purchaser only. Warranty coverage is not transferable.

Product registration is strongly encouraged and assists BDA in processing warranty claims efficiently. Registration may be completed at any time prior to filing a warranty claim at bluediamondattachments.com/warranty-registration. If registration has not been completed at the time a claim is filed, BDA may request a valid bill of sale or other proof of original purchase to verify eligibility.

This warranty shall not apply to any machine or attachment which has been repaired or altered in any way outside the BDA factory or an authorized BDA dealership in any way so as to, in BDA's judgment, affect its stability or reliability, nor which has been subject to misuse, negligence, or accident beyond the company-recommended machine rated capacity.

USED AND SECONDARY MARKET EQUIPMENT

Attachments sold through used equipment channels, dealer-to-dealer transactions, auctions, or any source other than the original authorized sale to an end user do not carry BDA warranty coverage unless BDA has explicitly granted warranty coverage for that specific attachment by serial number in writing. No implied warranty coverage applies to used or secondary market purchases.



Warranty Policies Cont'd

HOW TO SUBMIT A WARRANTY CLAIM

At Blue Diamond® Attachments, streamlining your warranty claim is a priority. Contact the Product Support Team at the first sign of equipment issues for efficient management of your claim.

SUBMITTING A WARRANTY CLAIM ONLINE

To file a warranty claim, complete the online form at www.bluediamondattachments.com/warranty-claim. Before starting, gather the information below to ensure your claim can be processed without delay:

- Contact and shipping information, including your name, company, phone, email, and billing and shipping addresses.
- Attachment details, including the model number, attachment type, attachment name, and serial number.
- Purchase information, including the purchase invoice date, invoice number, and the name and city of the selling dealer.
- Failure information, including the failure date, the host machine make and model, and a description of the issue.
- Photos of the failure, including detailed images of the failed component and overall images showing the condition of the attachment.

When completing the form, provide a clear response in each of the following fields:

- Complaint, describing what is not functioning correctly.
- Cause, describing what you believe led to the failure.
- Correction, describing any corrective action taken or proposed.
- Key Part, providing the part number of the components that caused the failure.

Upload all supporting photos, accept the warranty policies, and click Submit. A member of the BDA Product Support Team will follow up to advise on next steps. Do not perform any repairs or disassembly until your claim has been reviewed and approved by BDA.

GENERAL CLAIM TERMS

A claim must be filed with BDA and approved before any work is performed.

BDA will advise on repairs and applicable parts exchanges.

Submit detailed photos of the issue and images of overall condition of the attachment to warranty@bdattachments.com. Photos are required for processing.

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 and delivery charges are the customer's responsibility and will not be paid by BDA.

BDA covers standard Less-Than-Truckload (LTL) freight and UPS ground shipping on warranty parts and attachments sent from the factory to the dealer or end user. Next Day Air (NDA) or any other special freight services are not covered under warranty but can be arranged at the dealer and/or end user's expense.

Labor, where covered, is typically credited to your account at \$105 per hour. When more than four (4) hours are needed for repair, BDA requires an estimate before work is performed.

Coverage of travel time, host machine service and repairs, diagnostics, and business downtime are neither expressed or implied.



Warranty Policies Cont'd

EXCLUSIONS OF WARRANTY

Except as otherwise expressly stated herein, BDA 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 OR THAT THEY ARE FIT FOR ANY PARTICULAR PURPOSE.

BDA shall not be liable for incidental or consequential damages for any breach of 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 personal injury and property damage resulting from handling, possession, or use of goods by the buyer.

No agent, employee, or representative of BDA has any authority to bind BDA to any affirmation, representation, or warranty concerning its machinery and/or attachments except as specifically set forth herein.

PLEASE NOTE: Replacing genuine OEM parts with aftermarket parts may void the warranty.

HOSES, COUPLERS, HOSE ROUTING, AND CONNECTIONS

BDA supplies attachments with hoses that are universal in length, but hose configuration may vary by machine manufacturer. BDA cannot guarantee that the hose length will be correct on every machine or for every routing.

It is the responsibility of the end user to adjust hose length to fit their specific machine and to ensure that hose routing does not result in hoses becoming tangled, caught, pinched, crushed, or run over during operation.

- It is the end user's responsibility to ensure that hose routing clears pinch points and allows the attachment to move properly.
- BDA will not cover hose or coupler damage due to poor hose routing. Hose extenders and hose keeps are available at additional cost.

BDA supplies most attachments with standard size quick couplers; some attachments may have couplers sold separately. Coupler configuration varies by machine manufacturer, and BDA cannot guarantee that the standard coupler will be correct for every application. Coupler changes can be made before the attachment leaves the BDA facility if noted on the sales order. BDA is not responsible for coupler compatibility after the attachment has left the facility unless a specific configuration was requested at the time of order.

HYDRAULIC MOTORS

Do not disassemble any hydraulic motor. Disassembly of the motor voids the warranty.

BDA products equipped with hydraulic motors or gearbox assemblies carry a one (1) year warranty on parts and labor. A warranty claim must be submitted and reviewed by an authorized BDA representative before any action is taken.

Under no circumstances should a hydraulic motor or gearbox be disassembled by the customer. Disassembled units cannot be returned to the original manufacturer and will void the warranty. BDA will replace motors or gearboxes found to be defective under warranty. There are no user-serviceable internal parts in these components while under warranty.

CYLINDERS

Defective cylinders are covered for one (1) year. Disassembly of the cylinder will void the cylinder warranty. In any event of a cylinder issue or failure, submit a warranty claim prior to disassembly or repair. Cylinders under warranty are exchanged if found to be defective. For a cylinder claim to be granted, the defective cylinder must be returned to BDA.



Warranty Policies Cont'd

FREIGHT DAMAGE AND CONCEALED FREIGHT DAMAGE

Blue Diamond® Attachments, LLC ("BDA") is not responsible for damage that occurs during shipment once the product has been released to the carrier. It is the responsibility of the receiving dealer or end user ("Receiver") to inspect all shipments immediately upon delivery, regardless of shipping method, including small package carriers (e.g. UPS, FedEx) and Less-Than-Truckload (LTL) freight.

VISIBLE FREIGHT DAMAGE

All shipments must be inspected at the time of delivery prior to signing the Bill of Lading (BOL) or delivery receipt. Any visible damage, shortage, or indication of mishandling must be clearly noted on the BOL or delivery receipt at the time of delivery and acknowledged by the carrier. The Receiver must retain a copy of the signed BOL with damage notation and submit clear photographic evidence of the damage and packing to BDA.

If the BOL or delivery receipt is signed without notation of damage or shortage, the shipment will be deemed received in good condition. No freight damage claim may be made in such cases, and responsibility for any damage rests solely with the Receiver.

CONCEALED FREIGHT DAMAGE

Concealed damage is damage that is not reasonably apparent at the time of delivery and is discovered only after unpacking. The Receiver must notify BDA of any concealed damage within five (5) business days of receipt. Notification must include written notice and clear photographic documentation of the damage and all original packaging materials.

Failure to notify BDA and provide required documentation within five (5) business days will result in the concealed damage being deemed the responsibility of the Receiver, and BDA will have no obligation or liability for such damage.

GENERAL CONDITIONS

- All original packaging must be retained until any freight damage claim is resolved.
- BDA reserves the right to request additional documentation or inspection as required by the carrier.
- Freight damage claims are separate from and not covered under BDA's product warranty.
- BDA's determination regarding freight damage claims shall be final.

WARRANTY MAY BE VOIDED IF ATTACHMENT IS ALTERED IN ANY WAY.

This warranty policy supersedes any previous documents.

For the most current information, visit bluediamondattachments.com/warranty-policies.

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



QUALITY | DEPENDABILITY | INTEGRITY

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