

Rototiller

Operation and Maintenance Manual



Register your
WARRANTY
within 30 days
of purchase



888-376-7027 | BlueDiamondAttachments.com



Introduction: *Owner Information*

Thank you for your decision to purchase a Blue Diamond® Rototiller. 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 XXXX.

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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1.1 About the Rototiller Attachment

The primary use of the rototiller attachment includes gardens, nurseries, landscaping, and ground maintenance. Use of this equipment in any other manner is considered to be contrary to the intended use of the attachment.

1.2 Rototiller Features

The Blue Diamond® rototiller is a direct drive tiller with a bidirectional hydraulic motor. The swinging tines allow maximum cutting in both directions. The heavily constructed shroud floats better on rough ground by having round tube contacting the ground that floats well. The high quality hydraulic motor is backed by a 1 year warranty.

The Rototiller attachment is vital to the landscaping, nursery, and grounds maintenance industries. This unique Rototiller is offered in a variety of sizes for a variety of applications.

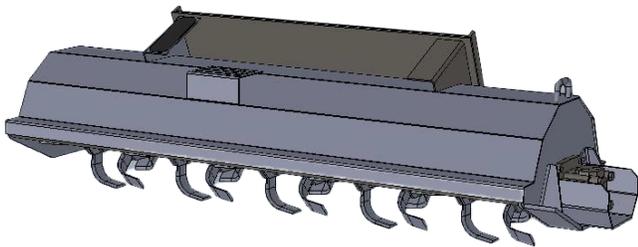


Figure 1

2. Safety

2.1 Hazard Notices



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.

2.2 Safety Notices

Before operating or conducting maintenance on this equipment, it is important to wear proper protection. Recommended safety equipment when operating and maintaining this equipment includes earplugs, eye protection, safety foot wear, and a hard hat.

NOTE: Additional safety equipment may be required depending on the operating environment and worksite conditions.

Qualified Operators

Only qualified and trained personnel should operate, maintain, and service this attachment.



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.

2. Safety

2.2 Safety Notices Cont'd

Call Before Digging

CAUTION

Call for underground utility locations before tilling. Underground utilities can cause serious damage to persons and the machine.

Follow all Regulations

It is the responsibility of the user to follow all local, state, and federal safety regulations. Improper use of this equipment may result in personal injury, property damage, and/or damage to the equipment.

Inspect Attachment Regularly

Blue Diamond® recommends that you inspect this equipment regularly for leaks, cracks, or other conditions that may impair proper usage of the equipment. Verify that all repairs have been completed and inspected prior to using the attachment under load.

2.3 Operation Safety

Call Before Digging

- Wear proper safety equipment as required by working conditions and local, state, and Federal laws.
- Get utility locations before tilling a new area.
- Never operate the Rototiller within 20 feet of people, animals, or damageable property. Clear the area of objects that could become projectiles, such as rocks, bottles, and construction debris.
- Never operate the Rototiller where your view is obstructed.
- Never operate the Rototiller with any guards removed.
- Disengage the Rototiller and shut off the engine before leaving the cab of your machine.
- Do not place hands or feet near the Rototiller while the machine is running.

DANGER

Keep all body parts away from the Rototiller when in use.



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



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

3. Maintenance

3.1 Equipment Inspection Schedule

We recommend that you inspect the equipment for damage and wear before use. Use the following list as a guideline during equipment inspection.

**WARNING**



DO NOT use hands to check for hydraulic leaks. Keep body parts away from leaking hydraulic lines and couplings that are under pressure. 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.

NOTE: Shut off the prime mover and disengage the Rototiller before performing any maintenance.

Daily Inspection

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

- After the Rototiller has been attached, check that all latches or locks are closed.
- Check that all hydraulic fittings are tight and free of leaks.
- Check all tines and tine bolts for damage.
- Check that all hydraulic lines are free of leaks, holes, or cracks. Replace as required.
- Check all hardware connections to the prime mover for damage or fatigue such as cracks or other structural flaws.
- Inspect underside of the shroud for anything that may have become wound on the drive shaft and for any obstructions that will stop the tines from turning.

- Inspect tines and bolts for wear, damage, and loosening.
- Check for wire or debris under the shroud; remove any present.
- Clean debris from the motor and drive area.
- Check that all guards and safety equipment are in good condition.

Weekly Inspection

- Check all bolts for tightness.
- Inspect the shroud for cracks, bends, or damage.
- Inspect the drive shaft and tines for bends or damage.

Monthly Inspection

- Inspect the quick attach area for wear.
- Inspect the tines for cracks, bends, or excessive wear.
- Check skid plates for wear.
- Inspect the bolts on the motor. Tighten if required.
- Check that all bolts are tight.

3. Maintenance

3.2 Inspection Checklist

	ITEMS
✓	Are all safety notices and warning stickers in proper locations and visible?
✓	Are all safety guards properly installed and in good condition?
✓	Are there any visible hydraulic leaks?
✓	Are the tines in good condition?
✓	Is there any wire or vines wound under the shroud or drive shaft?
✓	Are any cracks visible in Rototiller structure?
✓	Are the tines worn, bent, or broken?
✓	Has all debris been removed from the motor area?
✓	Has the prime mover been properly inspected by hydraulic leaks and proper tire inflation?
✓	Has the prime mover been properly maintained?

4. Operation

4.1 Entering and Exiting the Prime Mover

IMPORTANT



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

Entering The Operator's Position

Use the safety treads, handles and steps (on the machine) to enter the operator's position.

When in the operator's position, 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 park 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 park brake, stop the engine and wait for all moving parts to stop. Leave the operator's position.

4.2 Attachment Installation

Connecting Attachment To The Machine

WARNING



CRUSH HAZARD

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

WARNING

Improper attachment to the prime mover may cause personal injury.

CAUTION

All hydraulic connections must be clean and free of debris before making any connection.

Before connecting to the attachment, inspect the machine's mounting plate and all hydraulic couplings.

Enter the operator's position. See "Entering The Operator's Position" on page 9.

4. Operation

4.2 Attachment Installation Cont'd

Connecting Attachment to the Machine Cont'd

1. Place the Rototiller attachment on a level surface.
2. Position and align the prime mover to the rear of the attachment, within proximity of the front of the prime mover.
3. Insert and connect the prime mover into the attachment.
4. Connect the hydraulic lines from the attachment to the prime mover.
5. Close latches (or other locking mechanism) to secure the attachment to the prime mover.
6. Using the prime mover, raise the attachment and move the attachment to ensure hydraulic lines are clear of air and operate properly.



CAUTION



Hydraulics should operate in an even and smooth manner. Hydraulic movement that is not even and smooth may indicate that air is in the hydraulic lines.

7. Lower the attachment to ground level.
8. Inspect that the attachment is mounted properly and securely. If the attachment does not meet this requirement, follow the instructions to remove the Rototiller and re-attach using the instructions above.

Leave the Operator's position. See "Leaving the Operator's Position" on page 9.

Disconnecting Attachment From the Machine



WARNING



Improper disconnection may result in personal injury or damage to the attachment and prime mover



CAUTION



All hydraulic connections must be clean and free of debris before disconnection.

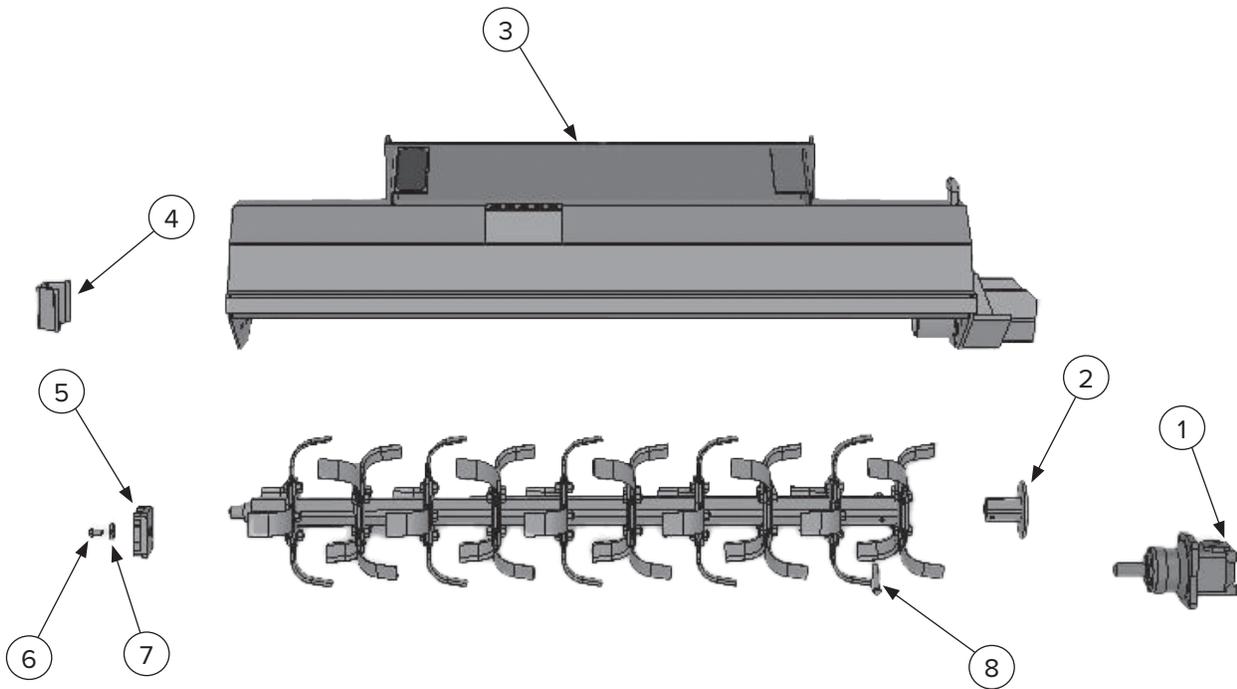
1. Using the prime mover, lower the attachment to the ground.
2. To prevent contamination, remove any dirt and debris from the couplings. Disconnect the hydraulic connection between the attachment and the prime mover.

NOTE: Hydraulic connections must be disconnected before disengaging latches to prevent damage to the prime mover or the attachment.

3. Disengage the prime mover latches (or other locking mechanism) from the attachment.
4. Move the prime mover from the attachment.

5. Parts

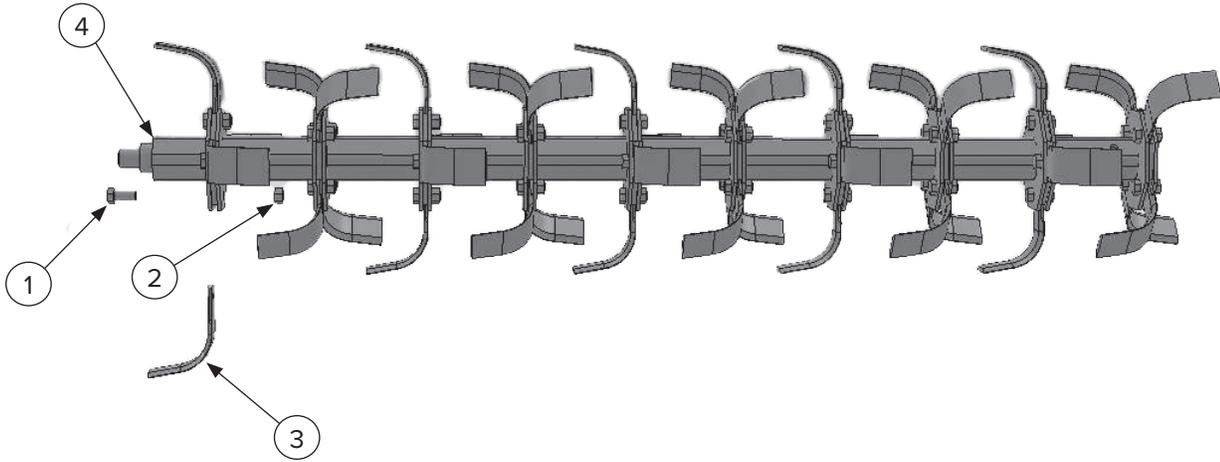
5.1 Rototiller Breakdown



ITEM	PART NUMBER	DESCRIPTION	QTY
1	229005	Hydraulic Motor	1
2	229020	Motor to Shaft Coupler	1
3	—	Main Frame	1
4	—	Bearing Guard	1
5	229010	Bearing	1
6	—	Shaft retaining bolt	1
7	—	Shaft retainer washer	1
8	—	Coupler retaining bolt	1
NS	229000	Rototiller Hydraulic Hose set with Sleevesno Couplers	—
NS	224011	Coupler Female Flat Face Style 1/2" Body 3/4" O-Ring #12	—
NS	224012	Coupler Male Flat Face Style 1/2" Body 3/4" O-Ring #12	—

5. Parts

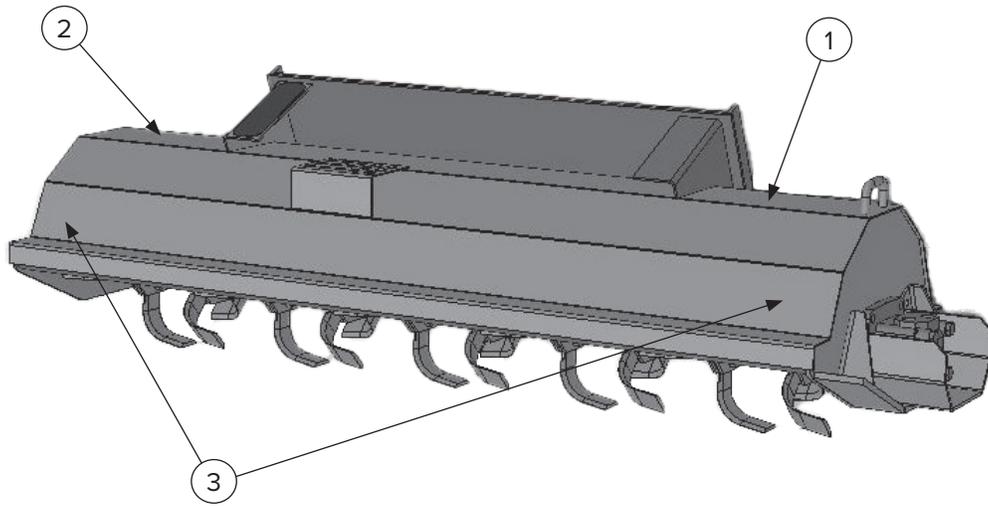
5.2 Rototiller Parts



ITEM	PART NUMBER	DESCRIPTION	QTY 76"	QTY 68"
1	229016-KIT-1	Tine, bolt, & nut	40	36
2				
3				
4	229025	Main Shaft - 68"	—	1
	229027	Main Shaft - 76"	1	—

5. Parts

5.3 Warning Decal Placement



Warning Decal 1	Warning Decal 2	Warning Decal 3

ITEM	PART NUMBER	DESCRIPTION	QTY
1	BD-01	High Pressure Fluid Hazard	1
2	BD-02	Read Owner's Manual Before Operating	1
3	BD-04	Warning: Keep Hands and Feet Away	2

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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 Rototiller 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.

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



QUALITY | DEPENDABILITY | INTEGRITY

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