

Nursery Fork

Operation and Maintenance Manual



114088, 114092, 114095



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® Nursery Fork. 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 frame to the right of the mount as shown above.

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

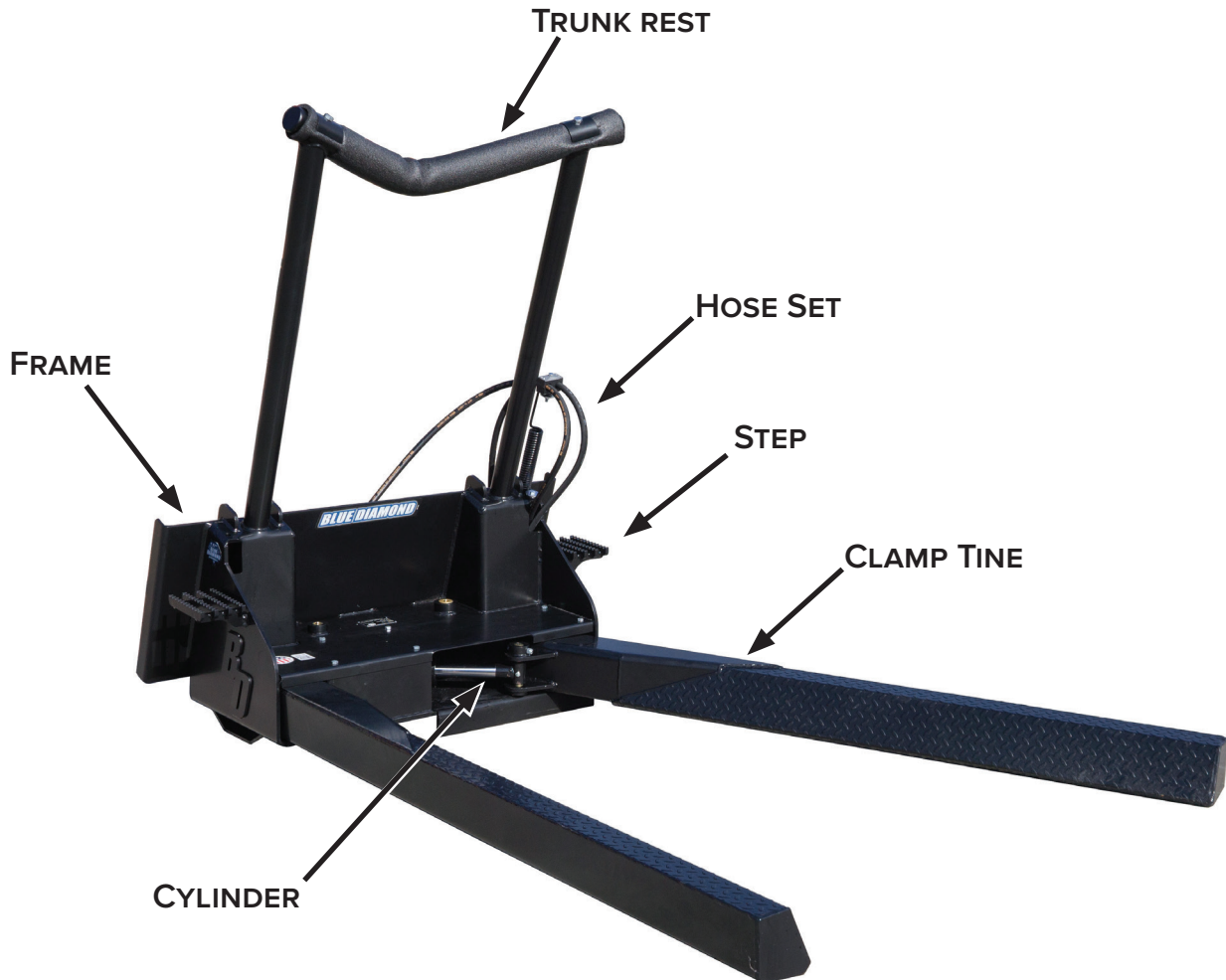
NOTE: The directions left, right, front, and rear, as mentioned throughout this manual, are as viewed from the operator's position.

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1. Introduction

1.1 Attachment Identification



1.2 About this Attachment

The Blue Diamond® Skid Steer Nursery Forks were designed for the operator who handles tree bulbs regularly. The attachment comes ready to use and includes hoses, couplers, and a frame to cradle the tree trunk. The hoses can be routed to the left or right side to best fit where your machine couplers are. Severe Duty models have a hose protector spring that prevents the hose from getting pinched in between the mount and machine, and a protective foam sleeve on the trunk rest frame.

1.3 Attachment Model Numbers

MODEL NUMBER	MODEL	MOUNT
114088-25	Mini Series	Mini Uni
114088-26	Mini Series	Bobcat MT
114088-35	Mini Series	Avant
114092	Standard Duty	Skid Steer
114095	Severe Duty	Skid Steer

2. Safety

2.1 General Safety Information



This **SAFETY ALERT SYMBOL** identifies important safety messages on the equipment and in the owner's manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



The signal word **IMPORTANT** identifies procedures which must be followed to avoid damage to the machine.



The signal word **DANGER** on the machine and in the manuals indicates a hazardous situation which, if not avoided, will result in death or serious injury.



The signal word **WARNING** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



The signal word **CAUTION** on the machine and in the manuals indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTE: Notes are used to indicate important information. This information may be repeated in other areas of the manual.

Terminology

Host Machine, Machine, Prime Mover:

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

Attachment, Implement, Equipment:

- The Nursery Fork is the tool that is being attached to the host machine; therefore, the terms “attachment”, “implement”, and “equipment” will be used. The attachment and implement mean any tool that is being used on any equipment, 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.

2. Safety

2.2 Operators

Qualified Operators

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

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

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



DANGER



AVOID SERIOUS INJURY OR DEATH

Operators must receive instructions before operating the machine. Untrained operators can cause serious injury or death.

For an operator to be qualified, he or she must not use drugs or alcoholic drinks which impair alertness or coordination while working. An operator who is taking prescription drugs must get medical advice to determine if he or she can safely operate a machine and the equipment. For an operator to be qualified, he or she must have read and understood the instructions of this manual, he or she must make adequate preparation for the proper use of the machine, and he or she must hold a driving license.

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

Operator Training

- Check the rules and regulations at your location. The rules may include an employer's work safety requirements. Regulations may apply to local driving requirements or use of a Slow Moving Vehicle (SMV) emblem. Regulations may identify a hazard such as a utility line.
- The new operator must start in an area without bystanders and use all the controls until he or she can operate the machine safely under all conditions of the work area.

Operator Safety

- 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.

2. Safety

2.3 Safety Guidelines

Operating Safety

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

Machine Requirements and Capabilities

- 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 3200 psi (220 bar) operating pressure.
- Use caution on slopes and near banks and ditches to prevent overturn.

2. Safety

2.3 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 cylinder 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.

3. Operation

3.1 Pre–Operation Inspection

Before operating the Nursery Fork 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.

- Lubricate the attachment per the schedule outlined in the Maintenance section. See "4.1 Service Schedule" on page 13.
- Check the attachment mounting frame for damage or cracks.
- Check that all shields and guards are in place.
- Check for loose bolts and tighten them if necessary.
- Check all welds on the attachment for wear and damage each time the attachment is removed from the machine.
- Check for damaged or missing safety decals. Replace if necessary.
- Inspect the machine's mounting frame. (See the machine's Operator's Manual for inspecting the mounting frame.) Replace any parts that are damaged, bent, or missing. Keep all fasteners tight. Look for cracked welds.
- Verify that the attachment is properly connected to the machine.



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.

3. Operation

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

3.3 Attachment Installation

Connecting Attachment to the Machine

WARNING



CRUSH HAZARD

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

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

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

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

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

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

3. Operation

3.3 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.

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

Connecting Hydraulic Hoses



IMPORTANT



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

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.

Pull on each hose to verify full connection is made.

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.

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 10.

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.

3. Operation

3.4 Operating the Attachment



WARNING



Never allow riders on the attachment.

Engaging the Attachment for the First Time



IMPORTANT



If this is the initial startup with this attachment on this machine, check the host machine's hydraulic oil level and add oil, if necessary, before and after doing steps 1–2 below.

After starting the machine, lift the attachment 6" off the ground surface:

1. With the machine's engine RPMs just above idle, slowly engage the auxiliary hydraulics to open the clamp tine. Move the auxiliary control pedal, lever, or switch in the opposite direction to open and close the Nursery Fork. Repeat this three (3) times to purge air from the hydraulic system.
2. Lower the attachment to the ground and shut off the host machine's engine. Leave the operator's position. See "Leaving The Operator's Position" on page 10.
3. Check the machine's hydraulic oil level, and add oil if necessary.
4. Inspect the attachment's hydraulic system for any noticeable leaks. If leaks are present, correct before continuing operation.

Operating the Nursery Fork



WARNING



AVOID SERIOUS INJURY OR DEATH

Use extreme caution when moving to keep from hitting yourself or bystanders. Close the tines when not moving material.

Install the attachment onto the host machine. (See "Connecting Attachment to the Machine" on page 10.)

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

Raise the attachment slightly off the ground.

Cycle the Nursery Fork's cylinder several times to purge the hydraulic system of air. (See the machine's Operator's Manual for precise instructions in regards to these functions.)

To pick up a tree or shrub, angle the fork to a width larger than the tree ball or container.

Drive forward and position the tree between the forks and as close to the fork frame as possible. Gently angle the fork frame inward until the forks contact the tree ball or container. Use the loader arms to raise or lower the tree.

The pressure must be enough to securely hold the tree without damaging the burlap bag, root ball, or container.

For transporting, carry tree as close to the attachment as possible for stability and to maximize the life of the attachment.

NOTE: If the tree appears to be unstable, lower the Nursery Fork and either increase pressure on the load or open the arms and reposition.

NOTE: Carrying the tree close to the fork frame will also reduce bouncing of the tree ball during transport and will minimize possible damage to the root ball.

NOTE: Do not transport a tree at the end of the arms. Place the tree at the end of the arms for tree placement only.

4. Maintenance

4.1 Service Schedule

DESCRIPTION	SERVICE PROCEDURES					
	Check	Clean	Lube	Change	Adjust	Drain
Daily Maintenance (or every 8 hours)						
Hydraulic Fittings	•					
Hydraulic Hoses	•					
Hydraulic Cylinder	•					
Frame (cracks, bends, or excessive wear)	•	•				
All Hardware	•					
Covers and Guards	•					
Pivot Pins	•		•			

4.2 Before Each Use

Before each use, perform the following:

- Perform the “3.1 Pre–Operation Inspection” on page 9 by walking around the equipment.
- Perform a daily inspection as indicated in “4.1 Service Schedule” on page 13.
- Verify that the proper attachment is being used for the task at hand. Use the Nursery Fork for material handling only.

Inspect the attachment daily before each use. It is also recommended to inspect the attachment after extreme use or damage. Use “4.1 Service Schedule” on page 13 as a guideline.

4.3 Lubrication Points

Grease all pivot points every eight (8) hours of use to prevent excess wear on the pins.

The Severe Duty Nursery Fork has three (3) grease points. These points are circled in Figure 1. The Mini and Standard Duty Nursery Forks have two (2) grease points on the cylinder pins.



Figure 1

4. Maintenance

4.4 Storage

Storage

Sometimes it may be necessary to store your Nursery Fork 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.
- 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.

4.5 Troubleshooting

PROBLEM	CAUSE	SOLUTION
Hydraulic oil level goes down during operation.	Leaking hoses on the attachment	Investigate and repair.
	Leak in the prime mover hydraulic system	Investigate and repair.
Tine does not open or close.	Quick disconnects not connected	Check and recouple quick disconnects.
	Hoses damaged	Check for a smashed or kinked hose. Replace if found.
	Auxiliary hydraulics not engaged	Engage hydraulics.
	Skid steer auxiliary circuit inoperative.	Investigate and repair.
Tine moves abnormally slow.	Restricted hose	Check for damaged hose between skid steer and cylinder. If damaged, replace the hose.
	Bad circuit relief on skid steer	Investigate and repair.
	Auxiliary valve spool on skid steer not shifting properly	Investigate and repair.
	Cylinder seals bypassing	Have cylinder repacked or replaced.

Return to Service

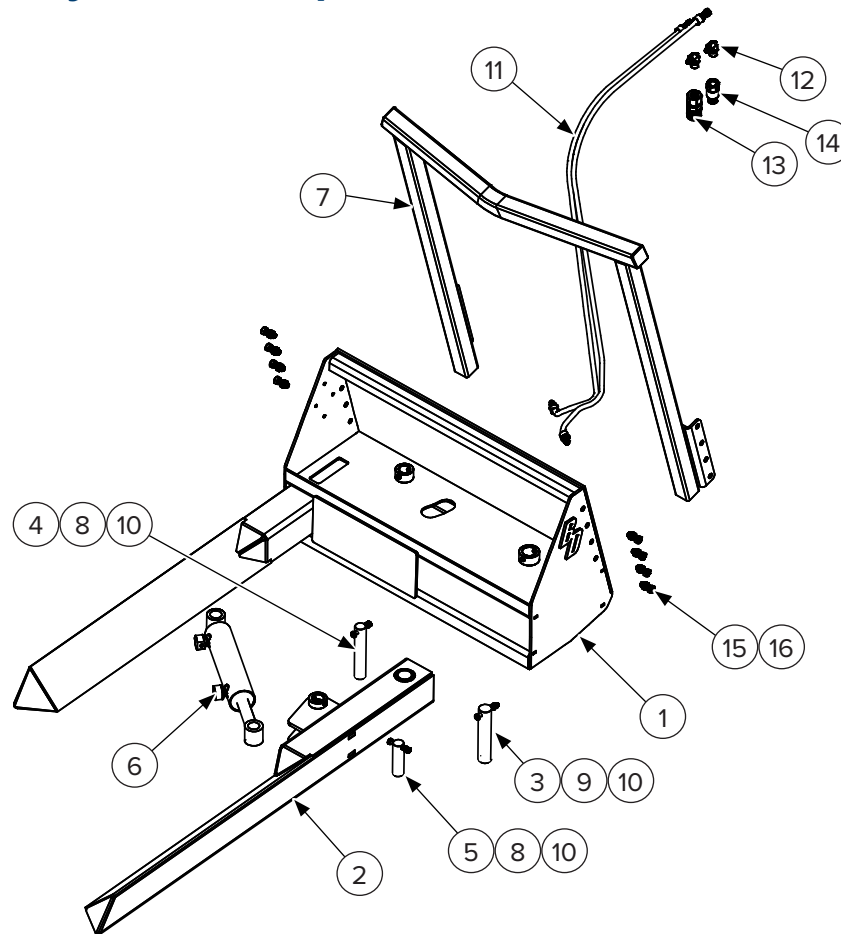
After the Nursery Fork has been in storage, it is necessary to follow a list of items to return the attachment to service.

- Lubricate the attachment.
- Clean the exposed portion of the cylinder rod and apply a light coating of oil.
- Connect and operate the attachment and check for correct function.
- Check for leaks. Repair as needed.

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5. Parts

5.1 Mini Nursery Fork Components

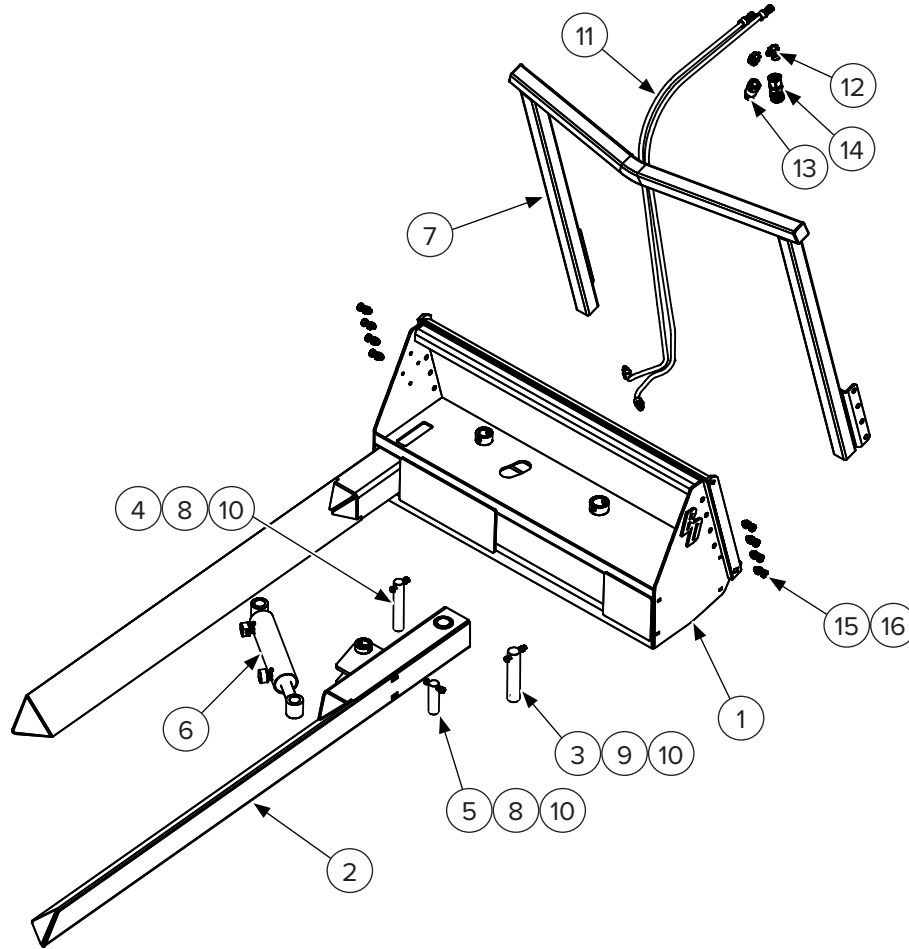


ITEM	PART NUMBER	DESCRIPTION	QTY
1	214088*	Main Frame And Mount Weldment	1
2	214080	Left Clamp Tine	1
3	214083	Left Tine Pivot Pin 1 1/2" OD x 7 1/8" Long	1
4	214084	Body End Cylinder Pivot Pin 1 1/4" OD x 7" Long	1
5	214085	Rod End Cylinder Pivot Pin 1 1/4" OD x 4 1/4" Long	1
6	208725	Cylinder 2.5" Bore x 8" Stroke x 15" Retracted Length	1
7	214081	Trunk Rest Frame	1
8	299329	3/8"-16 x 2 1/2" Bolt Hex Head	2
9	299425	3/8"-16 x 3" Bolt Hex Head	1
10	299625	3/8"-16 Nylock Nut	3
11	214082	Hose Set, 86" Long With Sleeve	1
12	295030-M06JIC-M08NPT	90 Degree Coupler Fitting Male #6 JIC to Male #8 Pipe Thread	2
13	224006	Coupler Male Flat Face Straight 1/2" Body Female #8 NPT	1
14	224005	Coupler Female Flat Face Straight 1/2" Body Female #8 NPT	1
15	299344	1/2"-13 x 1 1/4" Bolt Hex Head	8
16	299655	1/2"-13 Stover Lock Nut	8

*Specify Mount Type

5. Parts

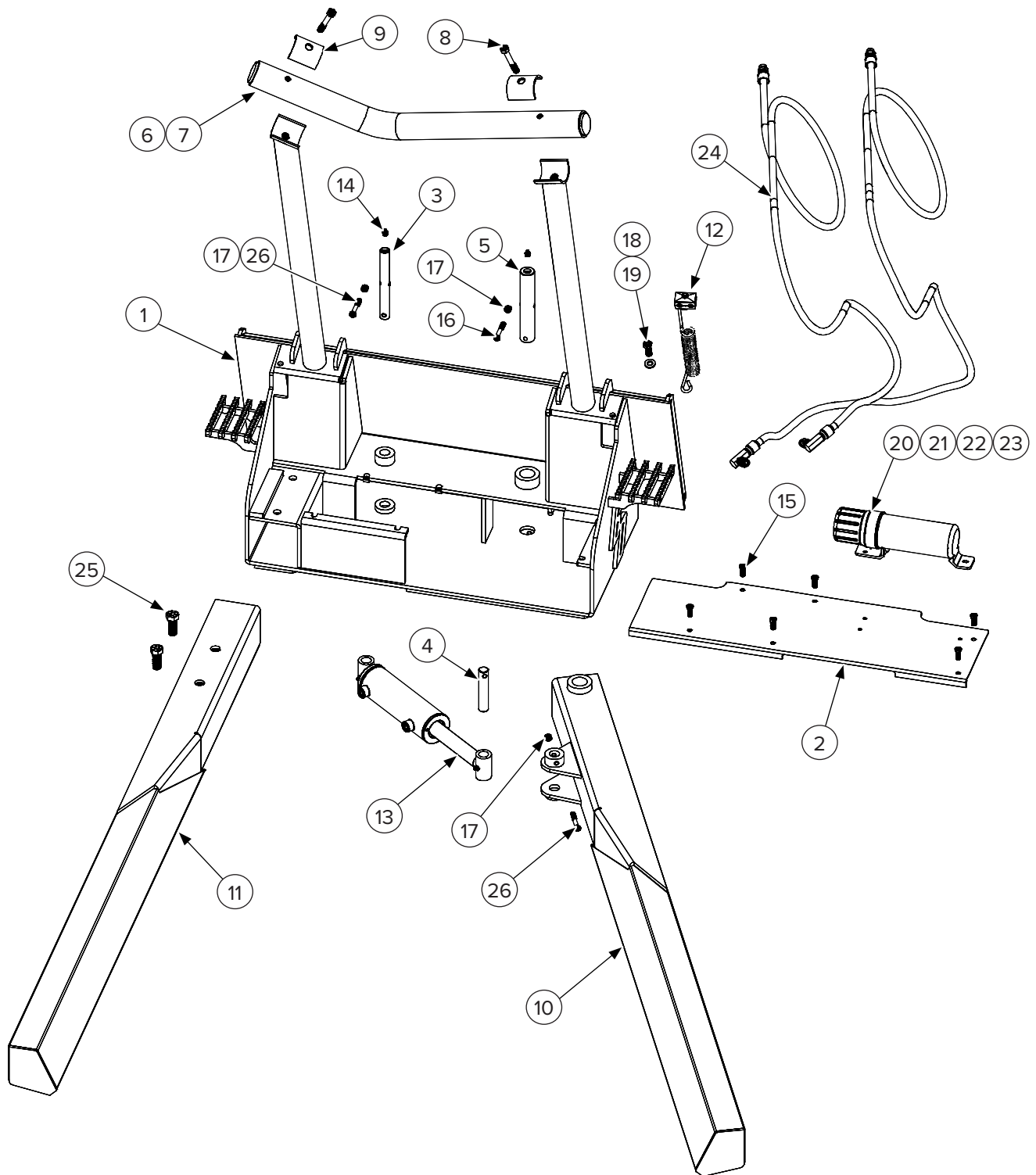
5.2 Standard Duty Nursery Fork Components



ITEM	PART NUMBER	DESCRIPTION	QTY
1	214092	Main Frame And Mount Weldment	1
2	214093	Left Clamp Tine	1
3	214083	Left Tine Pivot Pin 1 1/2" OD x 7 1/8" Long	1
4	214084	Body End Cylinder Pivot Pin 1 1/4" OD x 7" Long	1
5	214085	Rod End Cylinder Pivot Pin 1 1/4" OD x 4 1/4" Long	1
6	208725	Cylinder 2.5" Bore x 8" Stroke x 15" Retracted Length	1
7	214094	Trunk Rest Frame	1
8	299329	3/8"-16 x 2 1/2" Bolt Hex Head	2
9	299425	3/8"-16 x 3" Bolt Hex Head	1
10	299625	3/8"-16 Nylock Nut	3
11	214082	Hose Set, 86" Long With Sleeve	1
12	295030-M06JIC-M08NPT	90 Degree Coupler Fitting Male #6 JIC to Male #8 NPT	2
13	224006	Coupler Male Flat Face Straight 1/2" Body Female #8 NPT	1
14	224005	Coupler Female Flat Face Straight 1/2 Body Female #8 NPT	1
15	299344	1/2"-13 x 1 1/4" Bolt Hex Head	8
16	299655	1/2"-13 Stover Lock Nut	8

5. Parts

5.3 Severe Duty Nursery Fork Components



5. Parts

5.3 Severe Duty Nursery Fork Components Cont'd

ITEM	PART NUMBER	DESCRIPTION	QTY
1	214095	Main Frame And Mount Weldment	1
2	214303	Top Cover	1
3	214308	Body End Cylinder Pivot Pin	1
4	214309	Rod End Cylinder Pivot Pin	1
5	214310	Left Tine Pivot Pin	1
6	214304	Trunk Rest Tube	1
7	214301	Trunk Rest Foam Sleeve	1
8	299436	1/2"-13 x 3 1/2" Bolt Hex Head	2
9	214305	Trunk Rest Tube Clamp	2
10	214306	Left Clamp Tine	1
11	214307	Right Fixed Tine	1
12	206800	Hose Saver Kit	1
13	214300	Cylinder	1
14	299016	1/8" NPT Male Straight Grease Zerk Fitting	2
15	299423	3/8"-16 x 1" Bolt Hex Head	6
16	299425	3/8"-16 x 3" Bolt Hex Head	1
17	299625	3/8"-16 Nylock Nut	3
18	299732	1/2" SAE Washer	1
19	299432	1/2"-13 x 1 1/2" Bolt Hex Head	1
20	216402	Manual Storage Tube	1
21	299420	5/16"-18 x 1 1/4" Bolt Hex Head	3
22	299721	5/16" Flat Washer	3
23	299620	5/16"-18 Nylock Nut	3
24	214302	Machine Hose Set 2 Hoses 120" OAL 1/2" ID 90 Degree Male #8 O-Ring Boss To Straight Male #8 NPT	1
NS	224016	Coupler Male Flat Face 90 Degree 1/2" Body Female #8 O-Ring Boss	1
NS	224015	Coupler Female Flat Face 90 Degree 1/2" Body Female #8 O-Ring Boss	1
25	299454	3/4"-10 x 2" Bolt Hex Head	2
26	299329	3/8"-16 x 2 1/2" Bolt Hex Head	2

5. Parts

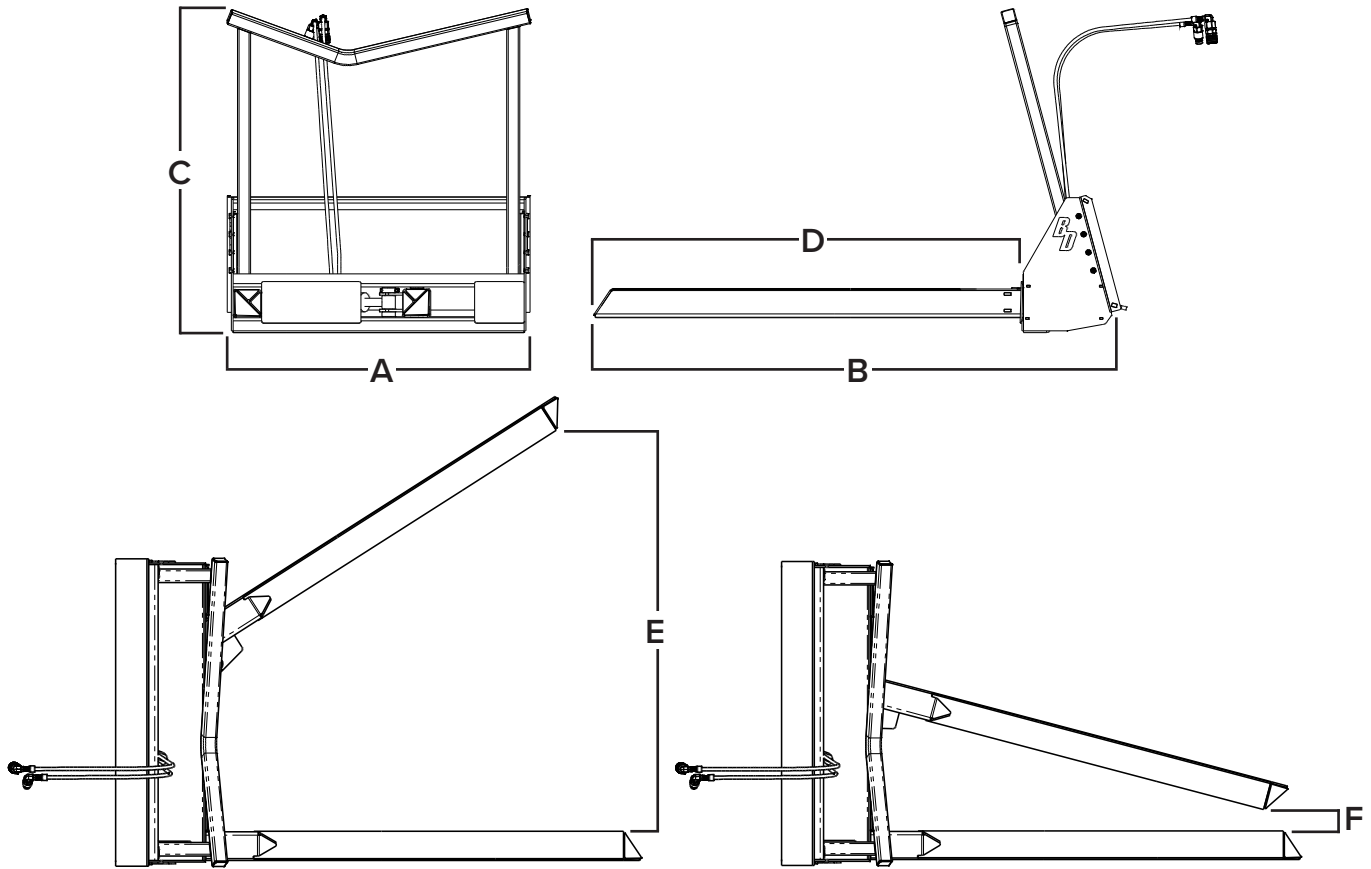
5.4 Safety Decals



ITEM	PART NUMBER	DESCRIPTION	QTY
1	BD-056	2.0" x 12.0" Decal, Blue Diamond	1
2	BD-060	2.4375" x 3.375" Decal, Blue Diamond Attachments	2
3	BD-004	2.0" x 4.0" Decal, Grease All Fitting Every 8 Hours	1
4	BD-123	3.0" x 3.0" Decal, High Pressure Fluid Hazard	1
5	BD-001	3.0" x 3.0" Decal, Read Owner's Manual	1
6	BD-092	1.5" x 2.0" Decal, Warranty Registration QR	1

6. Specifications

6.1 Attachment Specifications



DESCRIPTION	114088	114092	114095
Overall Width (A)	36"	46"	48"
Overall Length (B)	59"	79"	87"
Overall Height (C)	49"	49"	61"
Fork Length (D)	45"	65"	65"
Fork Opening - Parallel	22"	21"	18"
Fork Opening - Open (E)	43"	60"	54"
Fork Opening - Closed (F)	3"	3"	6"
Maximum Ball Diameter	36"	44"	44"
Distance from Mount to Center of Ball	33"	39"	57"
Weight	400 lbs	440 lbs	650 lbs
Maximum Load Capacity	2000 lbs	3000 lbs	3000 lbs
Maximum Pressure	3200 PSI		
Maximum Flow	Standard Flow Only		

6. Specifications

6.2 Torque Specifications

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



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 Nursery Fork after the delivery of the goods to original purchaser.

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

WARRANTY CLAIM

To submit a warranty claim, a claim must be filed with BLUE DIAMOND® ATTACHMENTS before work is performed. The BLUE DIAMOND® PRODUCT SUPPORT TEAM will advise repairs and applicable parts exchanges. Tampering with the failed part may void the warranty. This warranty does not include freight or delivery charges incurred when returning machinery for servicing. Dealer mileage, service calls, and pickup/delivery charges are the customers' responsibility.

EXCLUSIONS OF WARRANTY

Except as otherwise expressly stated herein, BLUE DIAMOND® ATTACHMENTS makes no representation or warranty of any kind, expressed or implied, AND MAKES NO WARRANTY OF MERCHANTABILITY IN RESPECT TO ITS MACHINERY AND/OR ATTACHMENTS ARE FIT FOR ANY PARTICULAR PURPOSE. BLUE DIAMOND® ATTACHMENTS shall not be liable for incidental or consequential damages for any breach or warranty, including but not limited to inconvenience, rental of replacement equipment, loss of profits or other commercial loss. Upon purchase, the buyer assumes all liability for all personal injury and property resulting from the handling, possession, or use of the goods by the buyer.

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

This warranty policy supersedes any previous documents. Please see bluediamondattachments.com/warranty-policies for the most up to date warranty information.

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