### Disc Mulcher

### **Operation and Maintenance Manual**







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® Disc Mulcher. 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 right side of the motor hood.

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

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

### **Table of Contents**

1. Safety	4-5
1.1 General Safety Information	4
1.2 Operator Safety Training Tips	4
2. Operation	6-10
2.1 Skid Steer Requirements	6
2.2 Unpacking Your Shipment	6
2.3 Using Your Mulcher	6
3. Maintenance	11-12
3.1 Lubrication Check & Add	11
3.2 Disk Removal & Installation	11
3.3 Teeth Removal & Replacement	12
3.4 Hydraulic System	12
4. Torque	13
4.1 Main Case Drain	13
4.2 Torque Hardware	13
5. Parts	14-22
5.1 Disc Mulcher Tooth Parts List	14
5.2 Disc Mulcher Parts	15
5.3 44" Disc Assembly	17
5.4 60" Disc Assembly	19
5.5 Disc Assembly Warning	21
5.6 Safety Decals	22
6. Troubleshooting	23
7. Specifications	24
8. Warranty	25

#### 1.1 General Safety Information

#### 1.2 Operator Safety



#### **DANGER**



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.



#### WARNING



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.



#### **CAUTION**



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.



### IMPORTANT A



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



#### **DANGER**





#### WARNING



It is the responsibility of the operator using this attachment to be acquainted with the safe operation. In addition to reading this manual, it is important that the operator read the skid steer's operation manual and follow its manufacturer's recommendations!



#### **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.

#### 1. Safety

Before lifting or lowering the mulcher, make sure the area is clear of bystanders and objects.

Machinery parts often have sharp edges. Always wear work gloves when moving or servicing parts. Always use caution around mulcher teeth as they are very sharp.

Never use drugs or alcoholic drinks when operating or servicing this piece of equipment.

Always wear the proper personal protection equipment when servicing or operating this piece of equipment. Never service or operate this attachment with bare feet, sandals, or other light footwear.

Always use eye protection during operation. Mount this attachment on a skid steer equipped with thermoplastic polycarbonate door panel and side panels.

Speed Kills! Operate this implement at a safe working speed. When transporting the implement, keep a safe speed to avoid losing control of the attachment or prime mover.

Keep proper clearance between the implement and objects (utilities, large rocks, buildings, etc.) Contacting these objects with the implement or prime mover could cause a loss of control or damage to the implement or property.

Before each operation of this implement, check all hardware (bolts, nuts, pins, etc.) for their proper location and tightness.

Stop the engine on the skid steer or prime mover and set the brake to avoid the implement rolling forward or backwards while you are exiting the prime mover.

Store this implement in an area not frequented by children.

Allow no riders on this attachment. Keep all bystanders clear of attachment during operation. Always replace worn, torn, or missing safety decals before operation.

Never operate the mulcher when bystanders are within 300 feet (91 m) of the work area.

Cut only during daylight or well-lit artifical light.

#### 2.1 Skid Steer Requirements

Your Disc Mulcher should only be used on a skid steer with a lift capacity of at least 3,000 lbs and with a weight of at least 10,000 lbs with the bucket removed. A skid steer equipped with tracks will provide superior stability in this application.

The range of flow available in the high flow setting of your skid steer loader may determine which model Disc Mulcher motor will work best.

To protect the operator from any flying debris, it is important that the skid steer should be equipped with a thermoplastic polycarbonate windshield or similar material, and similar protection on the sides of the operator's cab.



#### **CAUTION**



Make sure your skid steer is in good working condition. Follow the operating instructions found in the manual that accompanied your skid steer. Failure to do so could result in Minor or Serious Injury.

#### 2.2 Unpacking Your Shipment

Your attachment arrives from the factory banded to a wooden pallet, and requires no final assembly before use.



#### **CAUTION**



Careless removal of the shipping bands that secure the implement to the pallet could result in Minor or Serious Injury.

Clear the area of all bystanders and stand to the side when cutting the bands with a pair of sheet metal shears.

#### 2.3 Using Your Mulcher

#### **Connecting Mulcher to Skid Steer**



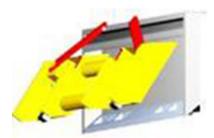
#### **DANGER**



Never enter the area underneath the coupler or any part of the attachment when it is in the raised position to avoid an accident that will result in Death or Serious Injury.

Verify that the hydraulic hoses are clear from the front of the attaching plate on the attachment and that the mounting plate is free from dirt and debris. When clear, move the skid steer to proximity of the attachment plate.

Tilt skid steer coupler forward to align coupling point with the upper part on the attachment plate and raise the coupler slightly.



**Figure 1. Connecting Coupler to Attachment** 

When the top edge of the coupler is seated in the top part of the coupler plate, roll the skid steer tilt function back until the attaching plate is flat against the skid steer coupler. Lock down the coupler levers.

**NOTE:** If your skid steer is equipped with a hydraulically operated coupler, activate the coupler lock at this time.

#### 2. Operation

## ⚠ IMPORTANT ⚠

Attachment and Machine-side Couplings must be FREE OF DEBRIS before installing. Failure to comply will void warranty.

### ⚠ IMPORTANT ⚠

Wipe off any dirt or dust from the male or female hydraulic flat-face couplers with a clean rag before attaching hoses, to keep contaminants from entering the hydraulic system.

### **⚠** IMPORTANT **⚠**

Never operate this mulcher without the case drain hose connected to the case drain circuit on the prime mover.

Connect the attachment hydraulic hoses to the auxiliary supply couplers located on your skid steer loader lift arm.

Check the surrounding area for bystanders and clear them before starting the skid steer or attachment.

Before operating the attachment, always visually inspect and verify that the coupler lock pins are fully engaged through the latch slots on the attachment plate.

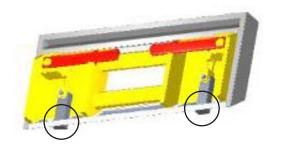


Figure 2. Check Coupler Lock Engagement

#### **Pre-Operation Walk-around Inspection**

Before every use, it is important to perform a short inspection and certain maintenance on your mulcher.

	ITEMS
<b>✓</b>	Check that all shields and guards are in place.
<b>✓</b>	Look for loose bolts and tighten them if necessary.
<b>✓</b>	Check that all safety decals are in place and can be read. Replace them if necessary.
<b>✓</b>	Refer to disk manual regarding safety checks and maintenance of blade and teeth.
<b>✓</b>	Take care of our environment. Repair any hydraulic leaks.

#### **Mulcher Boom Controls**

Your forestry mulcher is designed to run off the skid steer loaders auxiliary hydraulic system, and is activated and deactivated by a control in the operator's cab. Consult your skid steer operator's manual for precise instructions on how to activate and deactivate the auxiliary circuit.

Height and tilt functions of the mulcher are operated with the control handles or pedals in the cab. Consult your skid steers operator's manual for precise instructions regarding these functions.

#### **Engaging the Mulcher for the First Time**

## ⚠ IMPORTANT ⚠

If this is your initial startup with the attachment on this machine, check the skid steer's hydraulic oil level and add oil, if necessary, before and after doing steps 1 - 3 below.

### **⚠** IMPORTANT **⚠**

Make sure the case drain hose is properly attached to the prime mover's case drain connection. Do not operate this attachment without the case drain hose attached.

After starting skid steer, lift the attachment 6" (152 mm) off the ground surface:

- 1. With the skid steer engine RPMs just above idle, slowly engage the auxiliary hydraulic flow to the mulcher. Use your machine's auxiliary hydraulic flow lever or switch, activate the auxiliary flow to the mulcher.
- 2. Allow the mulcher to run for 30 seconds to purge the air from the system. Ensure that the rotation is correct. Turn off the mulcher drive, allowing it to come to a complete stop.
- 3. Lower the mulcher attachment to the ground and shut off the skid steer's engine and exit the operator's compartment.
- 4. Check the skid steers hydraulic oil level, and add oil if necessary.
- 5. Inspect the hydraulic plubming for any noticeable leaks. Correct these leaks before continuing.
- 6. Restart the skid steer. With the attachment raised off the ground and the engine throttle set just above idle, engage the drive circuit. Allow the mulcher to speed up before increasing flow.

#### Starting the Mulcher



Moving or engaging the mulcher with bystanders in the area could result in Death or Serious Injury. Before engaging mulcher hydraulics, always make sure the area is clear of bystanders.

Engage the mulcher drive hydraulics with the prime mover's engine at a low rpm. Slowly raise the skid steer engine's rpm to the correct and desired speed. Use the skid steer's hand throttle to set the speed; never use a foot throttle when using the mulcher.



If the mulcher ever creates a vibration when ramping up speed, turn the mulcher attachment to the off position and investigate cause. Refer to the troubleshooting section in this manual.

#### **Stopping the Mulcher**

When stopping the mulcher, raise the mulcher slightly and lower the skid steer's engine RPMs to an idle, and allow the mulcher to slow down. After the mulcher has slowed down you may turn the auxiliary hydraulics to the "off" position.

#### 2. Operation

#### **Getting Familiar with the Attachment**



#### **DANGER**



Never operate the mulcher when bystanders are withing 300' (91 m) of your work area. Flying debris could result in Death or Serious Injury.



#### CAUTION



Be cautious when operating on uneven ground surfaces. A machine roll over could result in Minor or Serious Injury.

Always wear your seat belt when operating this type of machinery.

Before starting the skid steer engine with this mulcher attached, make sure you are knowledgeable and comfortable with the operation of the mulcher controls as outlined in the previous and following sections of this manual.

When operating the mulcher, set the skid steer throttle at a speed that will produce the required flow. Refer to your skid steer manual or call your local skid steer dealer for additional help, if necessary. Your skid steer dealer can meausre the flow available on your machine and recommend a throttle setting that is compatible with this attachment.

To begin with, learn what the mulcher deck looks like in a level cutting position when you are seated in the skid steer. Knowing what a level mulcher looks like will help you avoid damage to the cutting teeth and disk by cutting too close to the ground surface.

The correct ground speed for cutting with this attachment can be monitored by sound and feel and depends on the material density. If the skid steer engine is bogging down or if the mulcher speed is turning too slow because of too much load, the ground speed should be decreased. Listen and feel for any strange vibration when

working the mulcher. A bad vibration felt when mulching could indicate a damaged disk, or material trying to be cut at too fast a pace. Slow down the skid steers ground speed to see if vibration stops. If it does not, stop the mulcher, turn off the skid steer engine, and investigate cuase of vibration. Refer to the troubleshooting section in this manual for further instructions.

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



#### CAUTION



Cutting tree branches with the mulcher in an elevated position could result in Death or Serious Injury if the skid steer becomes unstable. Never raise the cutter more than a few feet off the ground without extreme caution.

#### **Adjusting Cutter Height & Level**

Use the skid steer loader lift to adjust the elevation of the mulcher. The fore and aft leveling can be accomplished by using the skid steer's attachment tilt cylinders.



### IMPORTANT A



When cutting dense or heavy material, you may want to adjust the level of the mulcher deck. Keeping the front of the deck raised slightly, while cutting small trees will allow for a good feed of material. For larger trees, cutting the top out then vertically mulching is recommended.



#### CAUTION



Use care when operating on uneven terrain or any type of sloped surface. Raising your mulcher high will increase chances of a roll over that could result in Minor or Serious Injury.

#### 2. Operation

#### **Before Cutting**

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

Determine a safe cutting pattern before the start of the cut. Stop the forward progress of the skid steer loader.

Do not enter into an area to be cut before the mulcher rotation is up to the operating speed.

#### **Cutting Tips**



#### CAUTION



Never operate this attachment when bystanders are in proximity of the work area, this could result in Minor or Serious Injury from flying debris.

- 1. Always inspect work area before starting the mulcher. Locate and mark any utilities, steel posts, rocks, or any other objects that could be damaged or would damage the mulcher during operation. Never assume the work area is safe and never skip the inspection before the start of operation.
- 2. Operate at a safe comfortable pace that will allow you to watch the area head of the mulcher and loader.
- 3. Make sure you are operating the skid steer's engine at an RPM that will produce the volume of oil flow required for this attachment.

#### **Cutting Ground Level Vegetation**

- 4. Raise the rear of the brush cutter approximately 4" (102 mm) above ground level. Tilting the front of the attachment up while cutting results in a good feed.
- 5. Your mulcher is capable of cutting and mulching small trees and other vegetation of up to 5" (127 mm) in diameter while cutting at the bottom and

feeding material on top of the disk. Anything bigger should be vertically mulched with the bottom of the disk.



#### **CAUTION**



Do not operate the mulcher if you (the operator) can see the disk. If the operator can see the disk, the back of the cutter is raised TOO HIGH and should be lowered to avoid debris being thrown back at the operator and causing Minor or Serious Injury.

#### **Cutting Above Ground Level Vegetation**

- 6. Tilt the front of the deck slightly above the rear and drive into the trees near their base, as the trees are being cut tilt the front slightly more to allow a feed of material above the disk. The trees will be pulled into the center of the deck and the chips will be shot out of the other side. Back drag the mulcher to perform the finish work, removing remaining branches and debris.
- 7. If the disk speed slows down, reduce your travel speed and allow the mulcher to reach the proper rotating speed. Mulching too quickly in thick material could result in jamming the disk. If the disk completely stops, stop flow and use a tree to rotate the blade and work the jammed material out. This can be accomplished by placing the outside edge tooth on the tree then turning the skid steer so the disk turns opposite of its cutting direction to bring the jammed material back out the feed side.
- 8. Never use your mulcher to push, pull, lift, or move any type of object or vehicle. Do not use this attachment to "push" down trees without the mulcher being use.
- 9. Always allow mulcher to come up to operating speed before moving attachment into the material you wish to cut.

#### 3. Maintenance

#### 3.1 Lubrication Check & Add

The use and maintenance of proper lubrication is critical to the successful operation and performance of the engineered bearing housing.

Level the attachment. Remove the motor from the gear box. If oil level is low, add ISO 150 EP gear oil lubricant to the housing until the gearbox is filled. Reattach the motor to gearbox. For seasonal oil change, while motor is off of gear box, tilt attachment to drain oil out of gear box or siphon oil out. Refill to proper level when emptied and reattach motor.



#### CAUTION



Ensure the motor alignment pins are lined up when reattaching the motor to prevent damage.

#### **Before Every Use**

Check that all fasteners (nuts, bolts, pins, kieepers) are in their right place and are tight.

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

Investigate the location of any oil leaks and repair.

#### **Every Week**

Check the condition of the teeth by raising the attachment off the ground and titlt the attachment forward to the 90° position. Lower the attachment to the ground.

Sharp teeth will cut more efficiently than dull ones.

#### **After Every Season**

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

The gearbox oil should be changed every 2500

operating hours, old oil should be drained and measured, and the same amount of new oil should then be refilled. The bearings should be greased every time the oil is changed. Use a grease gun to fill cavity until it is full.

The disk assembly should be disassembled and inspected every 1000 operating hours or sooner, refer to disk manual for proper maintenance and safety checks.

Visually inspect the teeth and disk as described in manual.

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

Store your implement in a shed or cover with a water-proof tarp to protect it from the weather. Store in an area not frequented by children.

## 3.2 Disk Removal & Installation

Refer to the disc assembly manual for proper removal and installation of saw disk.



#### CAUTION



Be cautious during the steps detailed. The blade cutter could fall resulting in Minor or Serious Injury. Stand to the side.



### IMPORTANT 🛕



11

Use a hoist, power jack, or forklift to support the blade holder during installation.

#### 3.3 Teeth Removal & Replacement



### CAUTION



Teeth can be very sharp and could cause Minor or Serious Injury if mishandled. ALWAYS WEAR PROTECTIVE GLOVES AND FOOTWEAR.

#### WARNING



To avoid an accident that could result in Death or Serious Injury, never find yourself in a position where any body part is located under an unsupported cutter deck when servicing this attachment.

Refer to the disk manual for proper removal and installation of teeth. Be sure to follow torque specs detailed in the manual. Inspection methods are also included in the manual.

#### 3.4 Hydraulic System



#### WARNING



A small stream of oil from a pinhole leak could penetrate your skin if contacted. To avoid an accident that could result in Death or Serious Injury, never use your hand or other body parts in an attempt to locate a hydraulic leak.

### 



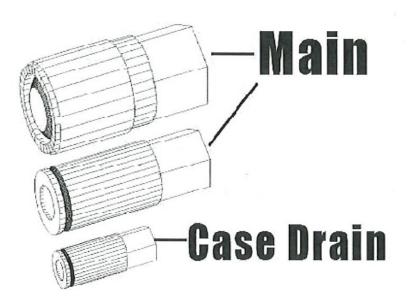
Make sure the case drain hose is properly attached to the prime mover's case drain connection. Do not operate this attachment without the case drain hose attached and connected to the skid steer case drain circuit.

### IMPORTANT 🛕



Make sure the case drain hose is properly attached to the prime mover's case drain connection. Do not operate this attachment without the case drain hose attached and connected to the skid steer case drain circuit.

#### 4.1 Main Case Drain



### 4.2 Hardware Torque

	GRADE 2	GRADE 5	GRADE 8
1/4"	66 in/lb	8 ft/lb	12 ft/lb
5/16"	10 ft/lb	17 ft/lb	20 ft/lb
3/8"	20 ft/lb	30 ft/lb	45 ft/lb
1/2"	45 ft/lb	75 ft/lb	110 ft/lb
3/4"	160 ft/lb	260 ft/lb	380 ft/lb
7/8"	190 ft/lb	400 ft/lb	600 ft/lb
1"	_	580 ft/lb	900 ft/lb

**NOTE**: Higher torques may require the use of a torque multiplier. All values are "dry" torques.

#### 5. Parts

When requiring any parts for your implement, please collect the following information:

Implement Model Number
Implement Serial Number
Parts Manual Date (see Pg 2)
Part Description
GPM requirements
Quantity Required
Ship-to Name & Address
Payment Method

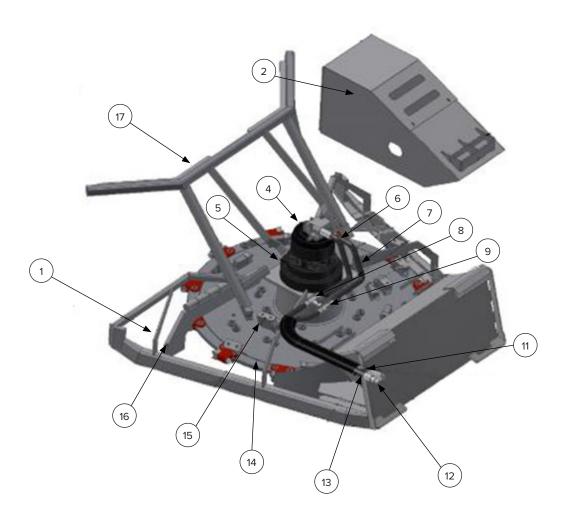
After retrieving call your local dealer for OEM parts specifically designed for your attachment.

Always use Genuine Parts from Blue Diamond® Attachments.

#### 5.1 Disc Mulcher Tooth Parts List

PART NUMBER	DESCRIPTION
203550	Disc Mulcher Chipping Tooth for 1033** Series (44" req 30, 60" req 44)
203551	Disc Mulcher Carbide Tooth for 1033** Series (44" req 30, 60" req 44)
203553	Disc Mulcher Tooth Holder (Top & Bottom) 44" Req 20, 60" Req 32
203556	Disc Mulcher Tooth Holder (Perimeter) 44" req 10, 60" req 12
203554	Disc Mulcher Tooth Bolt (Top & Bottom) 44" req 20, 60" req 32
203557	Disc Mulcher Tooth Bolt (Perimeter) 44" req 10, 60" req 12

### **5.2** Disc Mulcher Parts

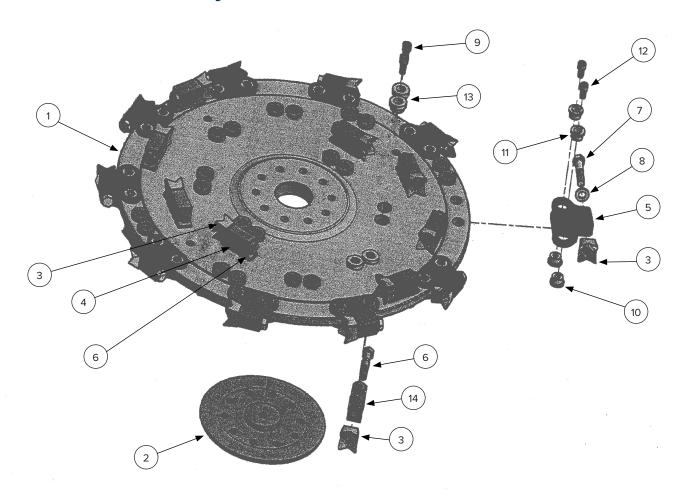


### 5. Parts

### 5.2 Disc Mulcher Parts Cont'd

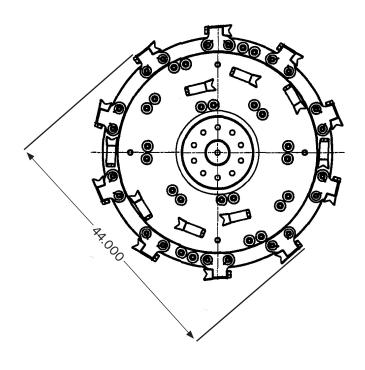
ITEM	PART NUMBER for 44"	PART NUMBER for 60"	DESCRIPTION		QTY 60"	
1	203521	203522	Deck Weldment		_	
2	203523	203524	Motor Cover	1	1 –	
	203301	_	100cc Motor	_	-   -	
4	203300	203300	150cc Motor	_	_	
	N/A	203304	200cc Motor	_	_	
	203302	_	Gearbox for 100cc Motor	_	_	
5	203305	203305	Gearbox for 150cc Motor	_	_	
	N/A	203306	Gearbox for 200cc Motor	_	_	
	203307		100cc Motor and Gearbox Assembly	_	_	
4&5	203308	203308	150cc Motor and Gearbox Assembly	_	_	
	N/A	203309	200cc Motor and Gearbox Assembly	_	_	
	295010 — M04JIC—M04BSPPES		Adapter (Case Drain to Case Drain Hose)	_	_	
6	203561		Case Drain Hose	_	_	
	224062		Case Drain Coupler	_	_	
7	203571		Motor to H-Valve Hose	_	_	
8	295050—M12JIC	M12JICM12JIC	H-Valve Tee	2	2	
9	203	566	H-Valve	_	_	
11	224011	224055	Female Quick Coupler	_	_	
12	224012	224057	Male Quick Coupler	_	_	
13	203560		H-Valve to Machine Hose	_	_	
14	203303	_	Mulching Disk —		_	
15	203550		Deck Mounted Teeth	5	_	
16	203567	203568	Deflector	Deflector —		
17	203569 203570 Pusher Bar Assembly		_	_		
_	299467		Motor Bolts	15	_	

### 5.3 44" Disc Assembly

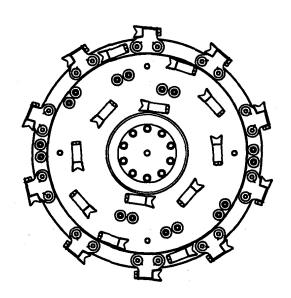


ITEM	PART NUMBER	DESCRIPTION	QTY
1	203303	Mulcher Disc Only 44"	1
2	203541	Bolting Flante (44")	1
	203550	Mulcher Replacement Teeth	30
3	203551	Mulcher Carbide Replacement Teeth	30
4	203553	Replacement Holder	20
5	203556	Tooth Retainer No Shank	10
6	203554	Replacement Bolt 3/4-16 X 4 GR	20
7	203557	Replacement Bolt 3/4-16 X 3-1/2 GR8	10
8	203558	3/4" Hardened Flat Washer	10
9	203559	SOC HD Bolt DIA 4/8-18UNF X 1-1/4"	40
10	203552	Sleeve Eccentric Threaded	20
11	203555	Sleeve Eccentric	20
12	203562	Hex SOC HD Cap Screw 9/16-18 NFX1	20
13	203563	Sleeve	32
14	203543	Sleeve	8

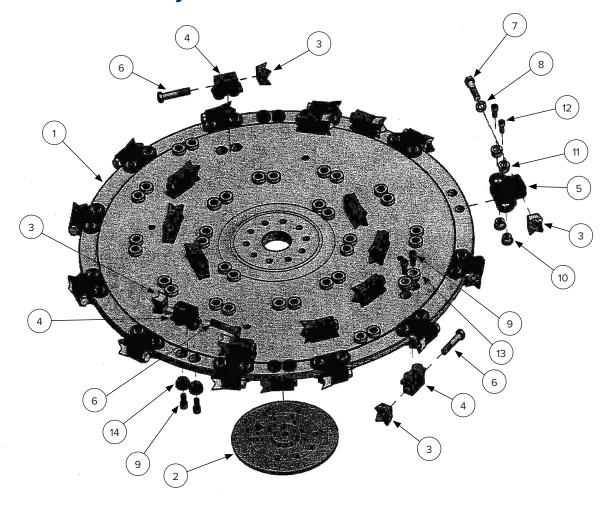
### 5.3 44" Disc Assembly Cont'd





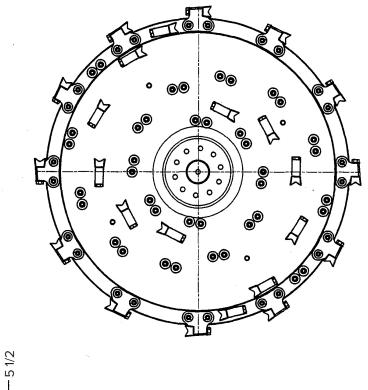


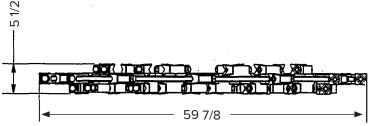
### 5.4 60" Disc Assembly

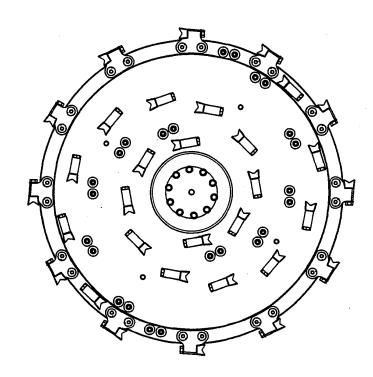


ITEM	PART NUMBER	DESCRIPTION	
1	206540	Mulcher Disc Only 60"	1
2	203542	Bolting Flante (60")	1
3	203550	Mulcher Replacement Teeth	44
3	203551	Mulcher Carbide Replacement Teeth	44
4	203553	Replacement Holder	32
5	203556	Tooth Retainer No Shank	12
6	203554	Replacement Bolt 3/4-16 X 4 GR	32
7	203557	Replacement Bolt 3/4-16 X 3-1/2 GR8	12
8	203558	3/4" Hardened Flat Washer	12
9	203559	SOC HD Bolt DIA 5/8-18UNF X 1-1/4"	64
10	203552	Sleeve Eccentric Threaded	24
11	203555	Sleeve Eccentric	24
12	203562	Hex SOC HD Cap Screw 9/16-18 NFX1	24
13	203563	Sleeve	56
14	203543	Sleeve	8

### 5.4 60" Disc Assembly Cont'd







### 5.5 Disc Assembly Warning



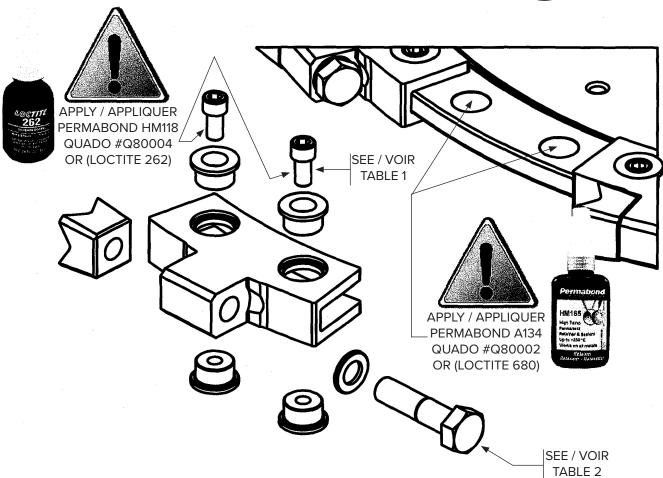


TABLE 1		
BOLT SIZE	TORQUE	
1/2 NF	136 N•m (100 FT-LB)	
9/16 NF	150 N•m (110 FT-LB)	
5/8 NF	169 N•m (125 FT-LB)	

TABLE 2		
BOLT SIZE	TORQUE	
3/8" NF	61 N•m (41 FT-LB)	
1/2" NF	115 N•m (115 FT-LB)	
9/16" NC	136 N•m (100 FT-LB)	
5/8" NF	203 N•m (150 FT-LB)	
5/8" NC	203 N•m (150 FT-LB)	
3/4" NF	271 N•m (200 FT-LB)	
1" NF	407 N•m (300 FT-LB)	

#### 5.6 Safety Decals

# ANGER STAY BACK ////



He not place any part of body or limb under raised loader arms, bucket, or attachments at any time

To prevent serious injury or death from pinching: · Keep all persons and objects clear while any part of this machine is in motion.





Keep all components in good repair

Grease all fittings daily.

WARNING DO NOT EXCEED

4

OR)

DO NOT EXCEED 35

WARNING

OR)

WARNING DO NOT EXCEED Actor di Million

Idle Engine before shutting down cutter

Do not reverse hydraulic flow to cutter while operating

**MUST READ OPERATOR MANUAL MUST READ OPERATOR MANUAL MUST READ** 6 **OPERATOR MANUAL MUST READ OPERATOR MANUAL MUST READ OPERATOR MANUAL** 



PLEASE NOTE:

Attachment and Machineside Couplings must be

**FREE OF DEBRIS** BEFORE INSTALLING.

Failure to comply will void warranty.

ITEM	DESCRIPTION	
1*	Decal, (Danger Stay Back)	2
2*	Decal, (Danger Pinch Points)	2
3*	Decal, (Warning, High Pressure Fluid Hazard)	1
4*	Decal, (Warning, Do Not Exceed 24, 35, or 48 GPM) (Note: Select proper decal for your model)	1
5	Decal, Idle Engine Before Disengaging Cutter	1
6	Decal, Must Read Operator Manual	1
7	Decal, Made in the USA	1
9	Decal, Clean debris from hydraulic couplings	1



#### WARNING



Replace any decals marked with an asterisk (\*) worn, torn, or missing safety decals before operating!

5

### 6. Troubleshooting

PROBLEM	CAUSE	SOLUTION
	Deck is not properly leveled & material is balling under deck	Refer to leveling instructions found in this manual
Mulcher bogs down	Dull Teeth	Refer to cutting disk manual.
	Ground speed too fast	Slow down ground speed
	Mulcher speed too slow	Raise engine RPMs or investigate other low oil flow problem
	Missing, loose, damaged, or unbalanced cutting disk	Replace teeth with new or re-sharpened and equally balanced teeth
Vibration felt when running	Damaged disk	Refer to disk manual
mulcher	Gearbox loose on deck	Tighten & torque gearbox mounting bolts. Replace bolts if they are damaged.
	Cutting height too low for cutting in sandy or rocky soils	Raise mulcher height.
Teeth get dull too quickly	Teeth have contacted solid objects (rocks, steel pipes, etc.)	Clear cutting area of solid objects before hitting them, or raise the cutter height to clear exposed rock surfaces.
Teeth breaking	Excessive shock loads	Avoid hitting solid objects (rock, steel pipes, large tree stumps, etc)
	Leak at mulcher motor or other plubming	Investigate & repair
Hydraulic oil level goes down during operation	Leaks in skid steer hydraulic system	Investigate & repair
	Motor seal leak	Cutter ran without case drain connected to skid steer.
Disk does not spin when flow is activated	No oil flow	Confirm that quick disconnects are fully seated in their mating connector.  Check that skid steer auxiliary circuit is activating.
	Motor or drive shaft failed.	Call your dealer for further recommendations.

### 7. Specifications

	MODEL	
SPEC	44"	60"
Cutting Width	60" (1524 mm)	
Weight (Deck and Blade)	1740 lbs. (789 kg)	2450 lbs. (1111 kg)
Cutting Capacity (On top of disk)	5" (127 mm)	
Cutting Disk Weight	640 lbs. (426 kg)	
Min SSL Weight	10000 lbs. (4536 kg)	
Min SSL Power	90 HP (67 KW)	
Min Hydraulic Flow	32 GPM (121 L/min)	45 GPM (170 L/min)
Max Hydraulic Flow	44 GPM (166.5 L/min)	60 GPM (227 L/min)
Max PSI	4000 PSI	
Lubrication	ISO 150 EP	
Warranty	12 Months	



#### 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 Disc Mulcher 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

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