



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

## HYDRAULIC ROTARY BRUSH CUTTERS for Mini Skid Steers, Skid Steers, and Mini Excavators

*Mini Skid Steer Models  
Available Sizes: 42" and 48"*



*Skid Steer Models  
Available Sizes: 60" and 72"*



*Mini Excavator Models  
Available Sizes: 42" and 48"*





# OPERATORS MANUAL

## TABLE OF CONTENTS

TOPIC	PAGE
Letter To Owner.....	2
Specification Chart.....	3-5
Warranty Information.....	6
<b><u>Mini Skid Steer Cutter Operations/Warnings</u></b>	
Important Safety Precautions & General Warnings.....	7
Debris Discharge Warnings.....	7
Rotating Parts Warnings & Hydraulic System Warnings.....	8
Operating Warning, Attachment of Machine & Cutting Operation.....	9
<b><u>Skid Steer Cutter Operations/Warnings</u></b>	
Important Safety Precautions & General Warnings.....	10
Debris Discharge Warnings.....	11
Rotating Parts Warnings & Hydraulic System Warnings.....	11-12
Operating Warning, Attachment of Machine & Cutting Operation.....	13
Lift Limiting Safety Chain Attaching Instructions.....	14
<b><u>Mini Excavator Cutter Operations/Warnings</u></b>	
Important Safety Precautions & General Warnings.....	15
Debris Discharge Warnings.....	15
Hydraulic System Warnings.....	16
Operating Warning, Attachment of Machine & Cutting Operation.....	17
<b><u>Repair And Maintenance</u></b>	
Blade Carrier Removal/Installation.....	18
Blade Removal/Installation.....	19
Auburn & Eskridge Gear Box Lubrication.....	20
Initial Lubrication Change After 50 Hours.....	20
Troubleshooting.....	21
Bolt Torque Specifications.....	22
Parts Breakdowns & Hose Details.....	23-31
Notes.....	32-33



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

Dear Customer,

Thank you and congratulations on the purchase of your new Brush Cutter! We strive to manufacture the best hydraulic brush cutter on the market today. No matter which unit that you purchased, you can rest assured that it was manufactured to rigid quality standards, utilizing the highest technology in hydraulic system components that are available. Our skid steer models feature breakaway blades, the ability to cut bi-directional and built-in cross port valves for smooth shut-down and reduced wear on the hydraulic motor. Our cutters were designed and manufactured to cut nearly all types of brush, shrubs and small trees over a wide variety of terrains. When attached to your machine, it is highly maneuverable for close cutting in tight areas.

Please take the time to thoroughly read this informative owner's manual. Be sure to pay particularly close attention to the safety portion of this manual. Remember, the safety guidelines that are mentioned in this manual are not only for your safety, but also for the safety of others. Only with a complete understanding of your cutter will you be able to operate it to its full potential.

Thanks again for your purchase. As always, if you have any questions about your Brush Cutter, or would like to give us feedback, feel free to contact us. We will be happy to help you in any way that we can.

Sincerely,

Construction Attachments, Inc.



# OPERATORS MANUAL

## MINI SKID STEER HYDRAULIC BRUSH CUTTER SPECIFICATIONS

Item #	Description	# of Blades	Blade Length	Blade Width	Cutting Capacity Diameter	True Cut Width	Min. Cut Height	Oil Flow Required GPM	Tip Speed FPM	Est Weight (lbs)
1BCM42	42" Mini Skid Steer Brush Cutter	2	11.94"	6"	4"	42"	2.5"	10-18	11,000-18,000	521
1BCM48	48" Mini Skid Steer Brush Cutter	3				48"				628



	42" Cutter	48" Cutter
Overall Cutter Width:	50"	56"
Overall Cutter Depth:	53"	61"
Overall Cutter Height:	22"	

### PRODUCT FEATURES:

- One piece top deck design for strength and structural durability
- 1/2" thick serrated blade carrier
- Recessed carrier design for bolt head protection
- Fully welded bolt protector on blade carrier
- Heavy duty brush guard
- Available with Mini Universal Hitch
- **42" models have a two (2) blade cutting system**
- **48" models have three (3) blade cutting system**
- 41cc piston type motor (does not require a drain line)
- Available jumper hose lengths: 6 ft, 8 ft, and 10 ft  
*(Dealer Must Specify at Time of Order)*



# OPERATORS MANUAL

## SKID STEER HYDRAULIC BRUSH CUTTER SPECIFICATIONS

Item #	Description	# of Blades	Blade Length	Blade Width	Cutting Capacity Diameter	True Cut Width	Min. Cut Height	Oil Flow Required GPM	Tip Speed FPM	Est Weight (lbs)
1BCSS60	60" Skid Steer Standard Flow	3	14-3/8"	6"	8"	60"	2"	16-25	7,700-13,600	1626
1BCSS60T	60" Skid Steer Standard Flow with Teeth					1636				
1BCSS72	72" Skid Steer Standard Flow					1964				
1BCSS72T	72" Skid Steer Standard Flow with Teeth					1974				
1BCSS72HF	72" Skid Steer High Flow					1994				
1BCSS72HFT	72" Skid Steer High Flow with Teeth					2004				



	60" Cutter	72" Cutter
Overall Cutter Width:	70"	82"
Overall Cutter Depth:	77"	84"
Overall Cutter Height:	25"	

Available with or without Bolt-on Mulching Teeth;  
**Models without Bolt-on Mulching Teeth:**  
*blades are bi-directional*

### PRODUCT FEATURES:

- Replaceable AR400 skid shoes
- One piece top deck design for strength and structural durability
- 5/8" thick serrated blade carrier
- Fully welded bolt protector on blade carrier
- Heavy duty brush guard
- Motor does not require drain lines
- Available jumper hose lengths: 8 ft, and 10 ft  
**(Dealer Must Specify at Time of Order)**



# OPERATORS MANUAL

## MINI EXCAVATOR HYDRAULIC BRUSH CUTTER SPECIFICATIONS

Item #	Description	# of Blades	Blade Length	Blade Width	Cutting Capacity Diameter	True Cut Width	Min. Cut Height	Oil Flow Required GPM	Tip Speed FPM	Est Weight (lbs)
1BCEX42-41	Brush Cutter 42" Mini Excavator 41cc Motor	2	11.94"	6"	6"	42"	1"	10-18	11,000-	655
1BCEX42-63	Brush Cutter 42" Mini Excavator 63cc Motor					19-29		670		
1BCEX48-41	Brush Cutter 48" Mini Excavator 41cc Motor	3	11.94"	6"	6"	48"	1"	10-18	18,000	728
1BCEX48-63	Brush Cutter 48" Mini Excavator 63cc Motor					19-29		743		

**PIN-ON HITCHES ARE AVAILABLE FOR ALL MINI EXCAVATOR BRUSH CUTTER MODELS**

	42" Cutter	48" Cutter
Overall Cutter Width:	48"	54"
Overall Cutter Depth:	48"	54"
Overall Cutter Height:	24"	



### PRODUCT FEATURES:

- 1/2" thick blade carrier
- 1/4" deck with 1/2" reinforcement
- Recessed carrier design for bolt head protection
- Fully welded bolt protector on blade carrier
- **42" models have a two (2) blade cutting system**
- **48" models have three (3) blade cutting system**
- 41cc piston type motor (does not require a drain line)
- Available jumper hose lengths: 6 ft, 8 ft, and 10 ft  
*(Dealer Must Specify at Time of Order)*



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

## WARRANTY INFORMATION

### **LIMITED WARRANTY**

We warrant each new brush cutter unit to be free from defects in materials and workmanship for a period of eighteen months from the date of shipment if the unit has been properly maintained and lubricated as directed according to the operation and maintenance instructions listed in this manual. We will replace, free of charge, any component that is defective due to quality of material or workmanship for the eighteen month warranty period.

### **NON-COVERED ITEMS**

The above limited warranty does not include nor cover wear parts: blades, blade bolts, mulching teeth, skid shoes or hoses and fittings. Wear of these items is a direct result from normal and recommended use.

### **EXCLUSIONS TO THE LIMITED WARRANTY**

Repairs to any component of this machine performed by any firm or individual other than the original manufacturer will void all warranties. Replacement parts not supplied by the original manufacturer will void all warranties. Damage due to repairs, accidents, or operator abuse and neglect, and failure to maintain this machine according to the maintenance and operation instructions listed in this manual, will void all warranties. Disassembly of the motor will void motor warranty and the disassembly of the gear box and/or the valve block will void gear box warranty. Use of a standard flow Brush Cutter on a "high flow" skid steer loader will cause damage to the cutter's hydraulic motor. Such use shall void all warranties.

### **WARRANTY STATEMENT**

Our obligation under this Limited Warranty shall be solely limited to repairing or replacing any part (excluding blades, blade bolts, mulching teeth, skid shoes or hoses and fittings) free of charge that, according to our judgment, shows evidence of a defect in quality of material or workmanship for the stated eighteen month warranty period. This Limited Warranty shall not be interpreted to render the manufacturer liable for any injury or damage to persons, business or property of any kind nor expenses or losses incurred for labor, supplies, substitute machinery rental, or for any other reason. Repaired or replaced parts are subject to the supply conditions at the time of repair or replacement, which may directly affect our ability to obtain materials and/or replacement parts. We reserve the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of previously purchased units.






**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

## MINI SKID STEER HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### IMPORTANT SAFETY PRECAUTIONS

Look for the  symbol throughout this manual to point out important safety precautions. Remember, the safety of both yourself and others is involved in the operation of this equipment.

### GENERAL WARNINGS

- NEVER operate this or any other equipment under the influence of drugs or alcohol.
- NEVER carry passengers on the Brush Cutter.
- NEVER leave the Brush Cutter unattended in a raised position.
- ALWAYS stop and inspect both the mini excavator and cutter for damage after striking a foreign object. Any damage should be repaired prior to restarting the host machine engine and resuming cutting.
- Cut only in daylight or well-lit artificial light.
- Keep all nuts, bolts and screws tight and be sure the equipment is in safe operating condition and check the blade mounting bolts for proper tightness at frequent intervals.
- When working under the deck of the Brush Cutter, always securely block it up to reduce the risk of falling.
- Stay alert for holes or drop-offs on all terrains.
- KEEP CHILDREN AWAY FROM THE CUTTING AREA AT ALL TIMES.

### DEBRIS DISCHARGE WARNINGS

Your mini skid steer brush cutter discharges debris out the front of the machine. When cutting with the brush cutter, NEVER discharge material toward bystanders. All bystanders must be AT LEAST 75 feet away when operating the cutter. NEVER allow bystanders near the machine while it is in operation. ALWAYS clear the cutting area of objects (bottles, rocks, fencing, wire, etc.) that may be picked up and thrown.



# OPERATORS MANUAL

## MINI SKID STEER HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### **ROTATING PARTS WARNINGS**

ALWAYS disengage power to the Brush Cutter and shut the skid steer loader engine off prior to leaving the operator's cab or performing any inspection or maintenance to either the brush cutter or the skid steer loader.

- NEVER place hands or feet under the Brush Cutter deck or near the blade system while the unit is in operation.
- NEVER articulate (roll) the deck downward to a degree that exposes the operator to the blade system.

### **HYDRAULIC SYSTEM WARNINGS**

- ALWAYS release the pressure on the hydraulic system of the cutter prior to removing the attachment from the skid steer loader or working on any part of the hydraulic system. Hydraulic hoses and components operate under extreme pressure and heat. A small stream of fluid from a pinhole leak in a hydraulic hose can penetrate the skin and/or cause burns. Whenever hydraulic fluid is injected into the body, seek medical attention at once to reduce chances of a dangerous infection. ALWAYS wash skin with soap and water after contact with hydraulic fluid, as it is an irritant to skin and eyes.
- The brush cutter has been designed to reduce the possibility of a hydraulic system leakage. Each and every hydraulic system is checked prior to shipment. However, over time, any hydraulic system may develop fluid leaks. Very small leaks may produce high-pressure discharge flows capable of causing injury should skin come in contact with such discharge.
- Leaking fluid can make the deck and ground surfaces very slippery, causing difficulty in using tools and also increasing the possibility of slips and falls. ALWAYS wipe away all fluid that may have leaked during maintenance.
- NEVER operate a Brush Cutter on a "high-flow" skid steer loader unless the cutter is equipped with a "high-flow" motor. Motor failure can occur if such use is performed. Damage incurred to the hydraulic motor due to "high flow" usage is not covered. Please refer to the specification chart on page 3 for the maximum allowable flow for your Brush Cutter.



# OPERATORS MANUAL

## MINI SKID STEER HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### **OPERATING WARNING**

Before operating and after 8 hours of use, check torque on all bolts and nuts.

### **ATTACHMENT OF MACHINE**

The installation of your Brush Cutter is the same for any other powered attachment for your skid steer loader:

- Using the attached instructions, connect the Safety chain to skid steer prior to using Brush Cutter (see page 14).
- Pull up to the brush cutter and connect it to your skid steer loader.
- Secure the lock down lever or levers.
- Connect the hydraulic hoses from the brush cutter to your machine. The hoses provided are equipped with quick-disconnect fittings (both male and female) for ease of use.

### **CUTTING OPERATION**

The brush cutter is capable of, and in fact intended to be utilized for, mulching trees and other vegetation of varying heights and diameters of up to 8". As a safety feature, when cutting large diameter vegetation, the Brush Cutter is equipped with a hydraulic motor cushion valve for shut down of the blade system. This feature lessens the chance of damaging the cutter's hydraulic system or blade system when cutting larger diameter vegetation. Directions for use are as follows:

### **CUTTING GROUND LEVEL VEGETATION**

Raise the rear of the brush cutter approximately 4"-5" above ground level. The deck of the brush cutter should be sloping downward and away from the operator. This is the optimum position for cutting materials that are close to the ground. Please note: If the operator can see the blade system in operation, the back of the brush cutter is raised TOO HIGH.

### **CUTTING ABOVE GROUND LEVEL VEGETATION**

Raise the front deck of the brush cutter up approximately 1'-2' above ground level. Do not lift the rear portion of the deck. Keep it approximately 4"-5" above ground level. Slowly drive into the vegetation and use the hydraulic tilt (roll) the bend or push the vegetation over. As you bend the vegetation over and drive into it, the blades will cut it into. The vegetation can now be mulched by rotating the front of the brush cutter and driving forward several feet. Then roll the back of the cutter down and back-drag atop the vegetation.




**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

## SKID STEER HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### IMPORTANT SAFETY PRECAUTIONS

Look for the  symbol throughout this manual to point out important safety precautions. Remember, the safety of both yourself and others is involved in the operation of this equipment.

### GENERAL WARNINGS

- NEVER operate this or any other equipment under the influence of drugs or alcohol.
- NEVER carry passengers on the Brush Cutter.
- NEVER leave the Brush Cutter unattended in a raised position.
- ALWAYS stop and inspect both the skid steer loader and cutter for damage after striking a foreign object. Any damage should be repaired prior to restarting the skid steer loader engine and resuming cutting.
- Cut only in daylight or well-lit artificial light.
- Keep all nuts, bolts and screws tight and be sure the equipment is in safe operating condition and check the blade mounting bolts for proper tightness at frequent intervals.
- If attached to your skid steer loader, visually inspect your lock-on pins to ensure that the Brush Cutter is locked onto your skid steer loader. Remember, the Brush Cutter is made of all steel components and is extremely heavy.
- When working under the deck of the Brush Cutter, always securely block it up to reduce the risk of falling.
- Reduce speeds on slopes and make turns gradually to prevent tipping or loss of control. Exercise extreme caution while making turns on slopes.
- Stay alert for holes or drop-offs on all terrains. Use caution when walking on the deck of the Brush Cutter. The deck may be extremely slick when wet.
- NEVER operate your Brush Cutter with the deck raised more than two (2) feet.
- ALWAYS operate with safety chain attached.
- KEEP CHILDREN AWAY FROM THE CUTTING AREA AT ALL TIMES.



# OPERATORS MANUAL

## SKID STEER HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### **! DEBRIS DISCHARGE WARNINGS**

Your brush cutter discharges debris out the front of the machine. When cutting with the Brush Cutter, NEVER discharge material toward bystanders. All bystanders must be AT LEAST 75 feet away when operating the cutter. NEVER allow bystanders near the machine while it is in operation. When cutting near bystanders is unavoidable, DO NOT operate the cutter without the front guard flap in place (if equipped with guard flap).

- ALWAYS clear the cutting area of objects (bottles, rocks, fencing, wire, etc.) that may be picked up and thrown.
- ALWAYS use a shatterproof cab door and the 5/16" x 6' safety chain that came with your Brush Cutter when cutting. The door is used not only to protect the operator from flying debris, but also from overhanging or protruding objects (tree limbs, rebar, vines, etc.) from entering the cab and causing operator injury.

### **! ROTATING PARTS WARNINGS**

ALWAYS disengage power to the Brush Cutter and shut the skid steer loader engine off prior to leaving the operator's cab or performing any inspection or maintenance to either the brush cutter or the skid steer loader.

- NEVER place hands or feet under the Brush Cutter deck or near the blade system while the unit is in operation.
- NEVER articulate (roll) the deck downward to a degree that exposes the operator to the blade system.

### **! HYDRAULIC SYSTEM WARNINGS**

- ALWAYS release the pressure on the hydraulic system of the cutter prior to removing the attachment from the skid steer loader or working on any part of the hydraulic system. Hydraulic hoses and components operate under extreme pressure and heat. A small stream of fluid from a pinhole leak in a hydraulic hose can penetrate the skin and/or cause burns. Whenever hydraulic fluid is injected into the body, seek medical attention at once to reduce chances of a dangerous infection. ALWAYS wash skin with soap and water after contact with hydraulic fluid, as it is an irritant to skin and eyes.



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

## SKID STEER HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### HYDRAULIC SYSTEM WARNINGS (cont'd)

- The brush cutter has been designed to reduce the possibility of a hydraulic system leakage. Each and every hydraulic system is checked prior to shipment. However, over time, any hydraulic system may develop fluid leaks. Very small leaks may produce high-pressure discharge flows capable of causing injury should skin come in contact with such discharge.
- Leaking fluid can make the deck and ground surfaces very slippery, causing difficulty in using tools and also increasing the possibility of slips and falls. ALWAYS wipe away all fluid that may have leaked during maintenance.
- NEVER operate a Brush Cutter on a "high-flow" skid steer loader unless the cutter is equipped with a "high-flow" motor. Motor failure can occur if such use is performed. Damage incurred to the hydraulic motor due to "high flow" usage is not covered. Please refer to the specification chart on page 4 for the maximum allowable flow for your Brush Cutter.



# OPERATORS MANUAL

## SKID STEER HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### **OPERATING WARNING**

Before operating and after 8 hours of use, check torque on all bolts and nuts.

### **ATTACHMENT OF MACHINE**

The installation of your Brush Cutter is the same for any other powered attachment for your skid steer loader:

- Using the attached instructions, connect the safety chain to skid steer prior to using Brush Cutter (see page 14).
- Pull up to the brush cutter and connect it to your skid steer loader.
- Secure the lock down lever or levers.
- Connect the hydraulic hoses from the brush cutter to your machine. The hoses provided are equipped with quick-disconnect fittings (both male and female) for ease of use.

### **CUTTING OPERATION**

The brush cutter is capable of, and in fact intended to be utilized for, mulching trees and other vegetation of varying heights and diameters of up to 8". As a safety feature, when cutting large diameter vegetation, the Brush Cutter is equipped with a hydraulic motor cushion valve for shut down of the blade system. This feature lessens the chance of damaging the cutter's hydraulic system or blade system when cutting larger diameter vegetation. Directions for use are as follows:

### **CUTTING GROUND LEVEL VEGETATION**

Raise the rear of the brush cutter approximately 4"-5" above ground level. The deck of the brush cutter should be sloping downward and away from the operator. This is the optimum position for cutting materials that are close to the ground. Please note: If the operator can see the blade system in operation, the back of the brush cutter is raised TOO HIGH.

### **CUTTING ABOVE GROUND LEVEL VEGETATION**

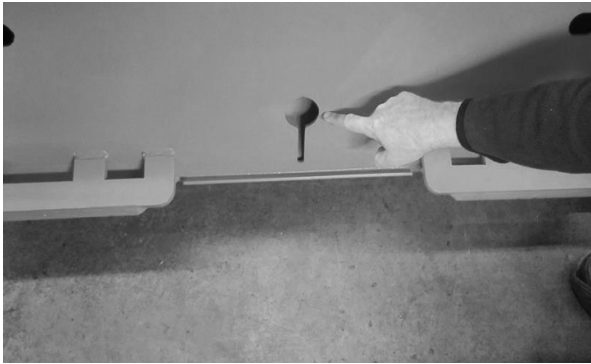
Raise the front deck of the brush cutter up approximately 1'-2' above ground level. Do not lift the rear portion of the deck. Keep it approximately 4"-5" above ground level. Slowly drive into the vegetation and use the hydraulic tilt (roll) the bend or push the vegetation over. As you bend the vegetation over and drive into it, the blades will cut it into. The vegetation can now be mulched by rotating the front of the brush cutter and driving forward several feet. Then roll the back of the cutter down and back-drag atop the vegetation.



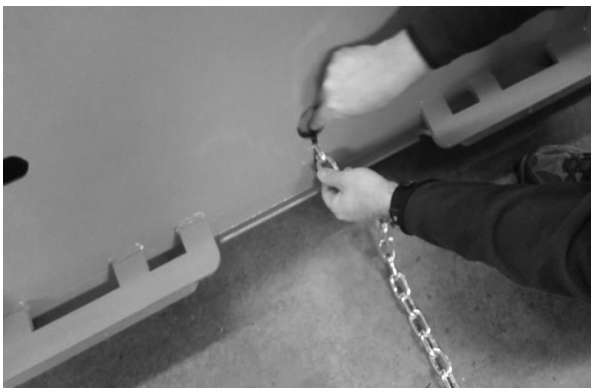
# OPERATORS MANUAL

## LIFT LIMITING SAFETY CHAIN ATTACHING INSTRUCTIONS

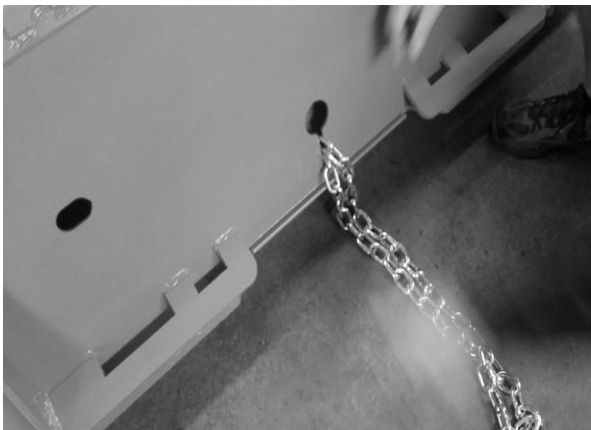
Provides additional operator protection from flying objects by limiting the operating height of the skid steer bush cutter.



Step 1: Find link hole at back of unit



Step 2: Using one end of safety chain, drop number of desired links into link hole. Once chain is in place check to ensure it is secure and cannot be pulled back through link hole.



Step 3: Taking end of the chain not connected to brush cutter and secure to the main frame of the host machine. *Due to the large number of different machine configurations, the tie down and chain attachment points may vary depending on your machine.* Regardless of the machine configuration, the chain must **ALWAYS** be attached.






# OPERATORS MANUAL

## MINI EXCAVATOR HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### IMPORTANT SAFETY PRECAUTIONS

Look for the  symbol throughout this manual to point out important safety precautions. Remember, the safety of both yourself and others is involved in the operation of this equipment.

### GENERAL WARNINGS

- NEVER operate this or any other equipment under the influence of drugs or alcohol.
- NEVER carry passengers on the Brush Cutter.
- NEVER leave the Brush Cutter unattended in a raised position.
- ALWAYS stop and inspect both the mini excavator and cutter for damage after striking a foreign object. Any damage should be repaired prior to restarting the host machine engine and resuming cutting.
- Cut only in daylight or well-lit artificial light.
- Keep all nuts, bolts and screws tight and be sure the equipment is in safe operating condition and check the blade mounting bolts for proper tightness at frequent intervals.
- When working under the deck of the Brush Cutter, always securely block it up to reduce the risk of falling.
- Stay alert for holes or drop-offs on all terrains.
- KEEP CHILDREN AWAY FROM THE CUTTING AREA AT ALL TIMES.

### DEBRIS DISCHARGE WARNINGS

Your mini excavator brush cutter discharges debris out the sides of the machine. When cutting with the Brush Cutter, NEVER discharge material toward bystanders. All bystanders must be AT LEAST 75 feet away when operating the cutter. NEVER allow bystanders near the machine while it is in operation. ALWAYS clear the cutting area of objects (bottles, rocks, fencing, wire, etc.) that may be picked up and thrown.

- ALWAYS use a shatterproof cab door. The door is used not only to protect the operator from flying debris, but also from overhanging or protruding objects (tree limbs, rebar, vines, etc.) from entering the cab and causing operator injury.



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

## MINI EXCAVATOR HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### HYDRAULIC SYSTEM WARNINGS

- ALWAYS release the pressure on the hydraulic system of the cutter prior to removing the attachment from the mini excavator or working on any part of the hydraulic system. Hydraulic hoses and components operate under extreme pressure and heat. A small stream of fluid from a pinhole leak in a hydraulic hose can penetrate the skin and/or cause burns. Whenever hydraulic fluid is injected into the body, seek medical attention at once to reduce chances of a dangerous infection. ALWAYS wash skin with soap and water after contact with hydraulic fluid, as it is an irritant to skin and eyes.
- Your Brush Cutter has been designed to reduce the possibility of hydraulic system leakage. Each and every hydraulic system is checked prior to shipment. However, over time, any hydraulic system may develop fluid leaks. Very small leaks may produce high-pressure discharge flows capable of causing injury should skin come in contact with such discharge.
- Leaking fluid can make the deck and ground surfaces very slippery, causing difficulty in using tools and also increasing the possibility of slips and falls. ALWAYS wipe away all fluid that may have leaked during maintenance.
- NEVER operate the Brush Cutter beyond the recommended flow rate of 10-18 GPM for the 41cc motor or 19-29 GPM for the cc motor. Motor failure can occur if such use is performed. Damage incurred to the hydraulic motor due incorrect usage is not covered. Please refer to the specification chart on page 5 for the maximum allowable flow for your Brush Cutter.
- The 41cc and 63cc piston type motors must be operated on “hammer mode” or some machine manufactures refer to “zero back to tank line”. Any back pressure on the return line will result in gear motor damage or failure.



# OPERATORS MANUAL

## MINI EXCAVATOR HYDRAULIC BRUSH CUTTER OPERATIONS / WARNINGS

### **OPERATING WARNING**

Before operating and after 8 hours of use, check torque on all bolts and nuts.

### **ATTACHMENT OF MACHINE**

The installation of your Brush Cutter is the same for any other powered attachment for your mini excavator:

### **OPERATING WARNING**

Before operating and after 8 hours of use, check torque on all bolts and nuts.

### **ATTACHMENT OF MACHINE**

The installation of your Brush Cutter is the same for any other powered attachment for your mini excavator:

- Pull up to the brush cutter and connect it to your mini excavator.
- Secure the coupler of stick to the Brush Cutter with normal mounting procedures (pins, locking collars, etc.)
- Connect the hydraulic hoses from the brush cutter to your machine. The hoses provided are equipped with quick-disconnect fittings (both male and female) for ease of use.

### **CUTTING OPERATION**

The brush cutter is capable of, and in fact intended to be utilized for, mulching trees and other vegetation of varying heights and diameters of up to 6". As a safety feature, when cutting large diameter vegetation, the Brush Cutter is equipped with a hydraulic motor cushion valve for shut down of the blade system. This feature lessens the chance of damaging the cutter's hydraulic system or blade system when cutting larger diameter vegetation. Directions for use are as follows:

### **CUTTING GROUND LEVEL VEGETATION**

Follow the terrain slope keeping cutter level. Please note: If the operator can see the blade system in operation, the back of the brush cutter is raised TOO HIGH.

### **CUTTING ABOVE GROUND LEVEL VEGETATION**

The mini excavator cutter line does not have a cutting height limit. Always follow the machine manufactures guidelines for maximum lift capabilities.



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

## REPAIR AND MAINTENANCE

**⚠️ WARNING!** AVOID SERIOUS INJURY. DUE TO THE HEAVY WEIGHT OF THE BRUSH CUTTER AS WELL AS THE BLADE CARRIER IT IS IMPORTANT TO USE CAUTION WHEN WORKING UNDER OR AROUND THE BRUSH CUTTER. ALWAYS WORK ON LEVEL GROUND AND USE STURDY JACK STANDS, SAW HORSES, OR WOOD BLOCKING TO SUPPORT THE WEIGHT OF THE BRUSH CUTTER OR CARRIER. THE BRUSH CUTTER CAN BE LIFTED USING THE HOST MACHINE OR A FORK LIFT TO BE PLACED IN POSITION FOR MAINTENANCE.

### BLADE CARRIER REMOVAL / INSTALLATION

To remove blade carrier, position the brush cutter on jack stands, saw horses, or wood blocks by using the host machine or a fork lift. Make sure that the blade carrier is supported so it does not fall once fasteners are removed. Leave enough space to reach under the carrier to access the 8 bolts that attach the carrier to the gear box. Loosen all 8 bolts and remove them to remove the carrier from the gear box. The brush cutter deck can now be lifted away from the carrier using the host machine or fork lift. **BLADE CARRIERS ARE VERY HEAVY AND CAN HAVE VERY SHARP EDGES DUE TO WEAR. USE CAUTION WHEN MOVING OR HANDLING THE BLADE CARRIER.**

To reinstall blade carrier, make sure carrier is supported by jack stands, saw horses or wood blocks and is set on a level surface. Use the host machine or fork lift to move brush cutter deck over top of carrier. Carefully align brush cutter so the gear box mounting flange is aligned with the mounting holes in the carrier. Lower brush cutter until it is possible to get several bolts through the holes in the carrier and get bolts to start to thread into the gear box. (A second person to help with aligning the gear box flange to the carrier is suggested). Always use a thread locking compound on the bolts that attach the carrier to the gear box. Once bolts are started into threads, use an impact wrench or torque wrench to tighten. If using a torque wrench, torque all 8 bolts evenly to about 200 FT/LBS.



# OPERATORS MANUAL

## REPAIR AND MAINTENANCE

### BLADE REMOVAL / INSTALLATION

Removing blades from the carrier will require cutting the welded nut from the blade bolt. This can be accomplished using a cutting torch, angle grinder with cutoff wheel, reciprocating saw etc. Use caution and property safety equipment, such as safety glasses, long sleeve shirt or covering, and work gloves when cutting. **WORN, CRACKED, OR BROKEN BLADES MUST BE REMOVED AND REPLACED.** Discard old blades, bolts, and hardware.

When replacing a blade, be sure to use correct blades for the specific brush cutter being used. Refer to spare parts list for part numbers when ordering. Only use supplied blade bolts and hardware. Using incorrect blades or bolts will void warranty.

To reinstall blade(s), insert supplied bolt through the hole in the blade so the blade rests on the bolt shoulder and then insert bolt through the hole in carrier. Blades should always be below carrier with the tapered edge on top (widest part of blade facing ground). Install lock washer and nut and tighten with an impact wrench. **NUT MUST BE WELDED TO THREADED BOLT SHANK AFTER TIGHTENING.**



BLADE BOLT SHOWN WITH CONTINUOUS WELD AROUND TOP OF NUT AND BOLT SHANK TO ENSURE THAT NUT STAYS ATTACHED FOR THE LIFE OF THE BLADE



BLADE SHOWN BOLTED TO CARRIER IN CORRECT ORIENTATION WITH TAPERED SIDE OF BLADE FACING UP AND WIDER SIDE OF BLADE FACING DOWN



# OPERATORS MANUAL

## REPAIR AND MAINTENANCE

### AUBURN GEAR BOX & ESKRIDGE GEAR BOX LUBRICATION

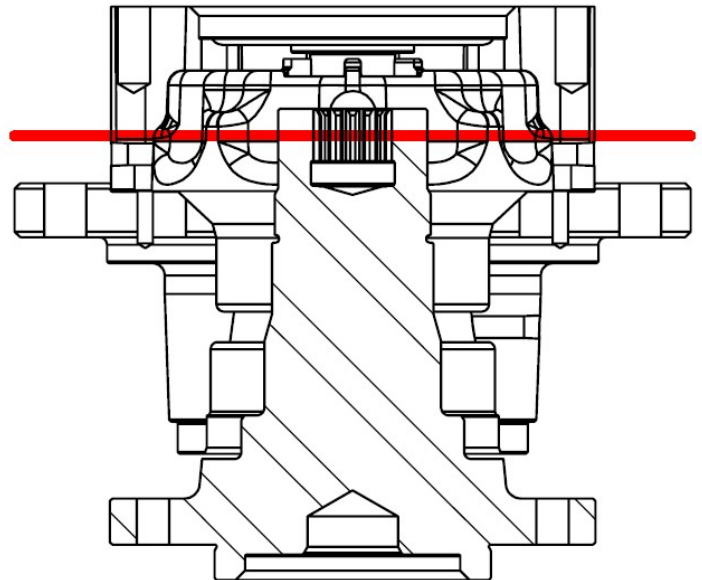
In normal applications use an extreme pressure lubricant API-GL-5 approved. AGI recommends SAE 80W, 90, 80W-90 and 85W-90 grades of lube under normal climate and operating conditions. See chart below.

**INITIAL LUBRICATION CHANGE AFTER 50 HOURS OF OPERATION MUST BE PERFORMED BY AN AUTHORIZED DEALER.** Subsequent changes every 500 hours or yearly whichever comes first. Use drain and fill plugs located in cover and ring gear when adding or changing oil. Fill unit until oil can be seen at top gear mesh.

**DISASSEMBLY OF GEAR BOX WILL VOID WARRANTY!**

Auburn Gear Box & Eskridge Gear Box Low Temperature Gear Lube Requirement	
SAE Viscosity Grade	Auburn Gear Recommended Minimum Temperature
75W-90	-40°F (-40°C)
80W, 80W-90	-15°F (-26°C)
85W, 85W-90	10°F (-12°C)
90	35°F (2°C)

When you begin to see oil at the top gear mesh, the gear box is nearly full of oil and you may cease filling. This oil level will also allow some expansion due to heat generation. The amount of heat varies by application/duty cycle.





# OPERATORS MANUAL

## TROUBLESHOOTING

<b>PROBLEM</b>	<b>POSSIBLE CAUSE</b>	<b>POSSIBLE REMEDY</b>
Loss of power	Host machine auxillary valve not engaged Inadequate hydraulic flow from host machine Low oil supply Couplers not engaged Air in hydraulic lines Broken hose Obstruction in hydraulic lines Loose or damaged hydraulic connection Debris entangled around carrier Hydraulic motor damaged or seal blown	Engage auxillary valve Check hydraulic flow to brush cutter Add oil Engage couplers Activate system until air is purged from system Replace damaged hose Remove obstruction and replace if necessary Tighten or replace fittings Remove debris Call dealer service department for instructions
Excessive vibration	Dull, broken or damaged blades Bent /damaged carrier	Replace damaged or broken blade(s) Replace carrier assembly
Leaking oil	Loose or damaged hydraulic line Ruptured gearbox seal Loose or missing gearbox plug Hydraulic motor damaged or seal blown	Tighten or replace Call dealer service department for instructions Tighten or replace Call dealer service department for instructions



# OPERATORS MANUAL

## BOLT TORQUE SPECIFICATIONS




### GENERAL TORQUE SPECIFICATION TABLE

Use the following chart when determining bolt torque specifications when special torques are not given. Always use grade 5 or better when replacing bolts.

### SAE BOLT TORQUE SPECIFICATIONS

NOTE: The following torque values are for use with extreme pressure lubricants, plating or hard washer applications. Increase torque 15% when using hardware that is unplated and either dry or lubricated with engine oil.

## FASTENER TORQUE CHARTS

	 <b>BOLT CLAMP LOADS</b>  Suggested Assembly Torque Values									
	USS/SAE GRADE 5					USS/SAE GRADE 8				
DIAMETER & THREADS PER INCH	TENSILE STRENGTH MIN. PSI	PROOF LOAD LB	CLAMP LOAD LB	TORQUE DRY FT LB	LUBRICATED FT LB	TENSILE STRENGTH MIN. PSI	PROOF LOAD LB	CLAMP LOAD LB	TORQUE DRY FT LB	LUBRICATED FT LB
1/4-20 28	120,000	2,700	2,020	8	6.3	150,000	3,800	2,850	12	9
	120,000	3,100	2,320	10	7.2	150,000	4,350	3,250	14	10
5/16-18 24	120,000	4,450	3,340	17	13	150,000	6,300	4,700	24	18
	120,000	4,900	3,700	19	14	150,000	6,950	5,200	27	20
3/8-16 24	120,000	6,600	4,950	30	23	150,000	9,300	6,980	45	35
	120,000	7,450	5,600	35	25	150,000	10,500	7,900	50	35
7/16-14 20	120,000	9,050	6,780	50	35	150,000	12,800	9,550	70	50
	120,000	10,100	7,570	55	40	150,000	14,200	10,650	80	60
1/2-13 20	120,000	12,100	9,050	75	55	150,000	17,000	12,750	110	80
	120,000	13,600	10,200	85	65	150,000	19,200	14,400	120	90
9/16-12 18	120,000	15,500	11,600	110	80	150,000	21,800	16,350	150	110
	120,000	17,300	12,950	120	90	150,000	24,400	18,250	170	130
5/8-11 18	120,000	19,200	14,400	150	110	150,000	27,100	20,350	210	160
	120,000	21,800	16,350	170	130	150,000	30,700	23,000	240	180
3/4-10 16	120,000	28,400	21,300	260	200	150,000	40,100	30,100	380	280
	120,000	31,700	23,780	300	220	150,000	44,800	33,500	420	310
7/8-9 14	120,000	39,300	29,450	430	320	150,000	55,400	41,600	600	450
	120,000	43,300	32,450	470	350	150,000	61,100	45,800	670	500
1-8 14	120,000	51,500	38,600	640	480	150,000	72,700	54,500	910	680
	120,000	57,700	43,300	720	540	150,000	81,500	61,100	1,020	760

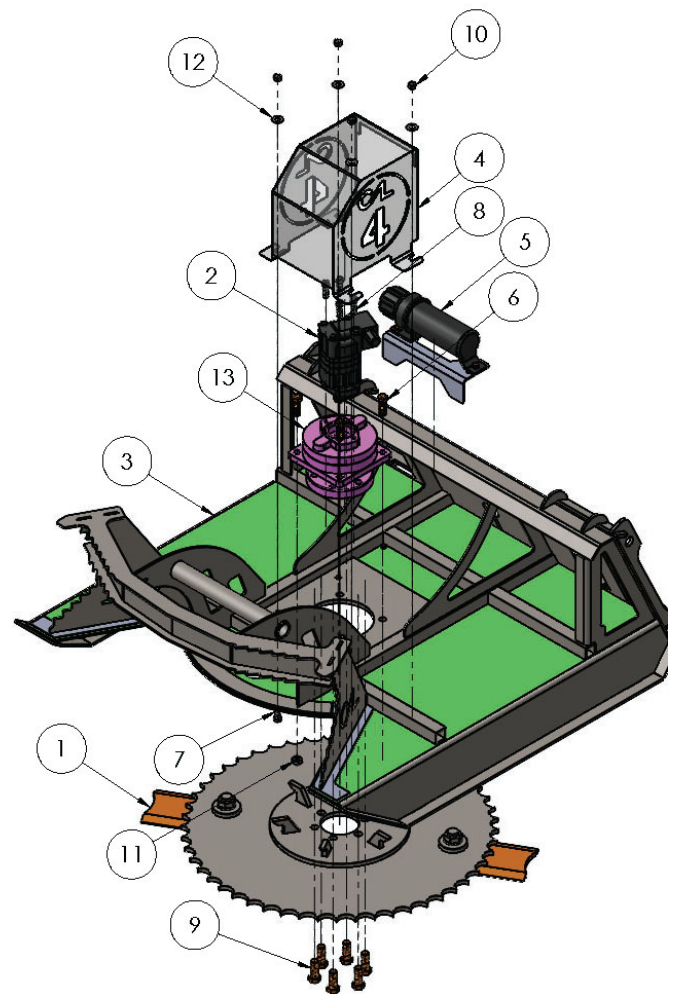




# OPERATORS MANUAL

## 42" MINI SKID STEER HYDRAULIC BRUSH CUTTER BREAKDOWN

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3BCPC14	BLADE CARRIER ASSEMBLY FOR 42" MINI SKID STEER CUTTER W/ BLADES INSTALLED	1
2	6BCPC42A	41cc MINI BRUSH CUTTER MOTOR	1
3		MINI BRUSH CUTTER FRAME ASSEMBLY	1
4		MINI BRUSH CUTTER MOTOR COVER ASSEMBLY	2
5	6BCPC26	MANUAL CANISTER	1
6	6HARB39	5/8-11 x 2" Lg. HEX CAP SCREW GRADE 8 Y/Z	4
7	6HARB45	1/2-13 x 1-3/4" Lg. HEX CAP SCREW GRADE 8	4
8	6HARB152	1/2-13 x 1-1/2" Lg. SOCKET HEAD CAP SCREW	4
9	6HARB157	Zinc Yellow-Chromate Plated Hex Head Screw	6
10	6HARNU10	1/2"-13 STOVER LOCK NUT	4
11	6HARNU27	5/8"-11 STOVER LOCK NUT	4
12	6HARWA02	1/2" ZINC FLAT WASHER (USS)	4
13	6BCPC17A	ESKRIDGE or AUBURN GEAR BOX	1
*	6BCPC02	CUTTER BLADE	2
*	6BCPC40A	BB-62 BLADE BOLT	2
*	6BCPC40B	BB-62 JAM NUT	2
*	6BCPC40C	BB-62 LOCK WASHER	2

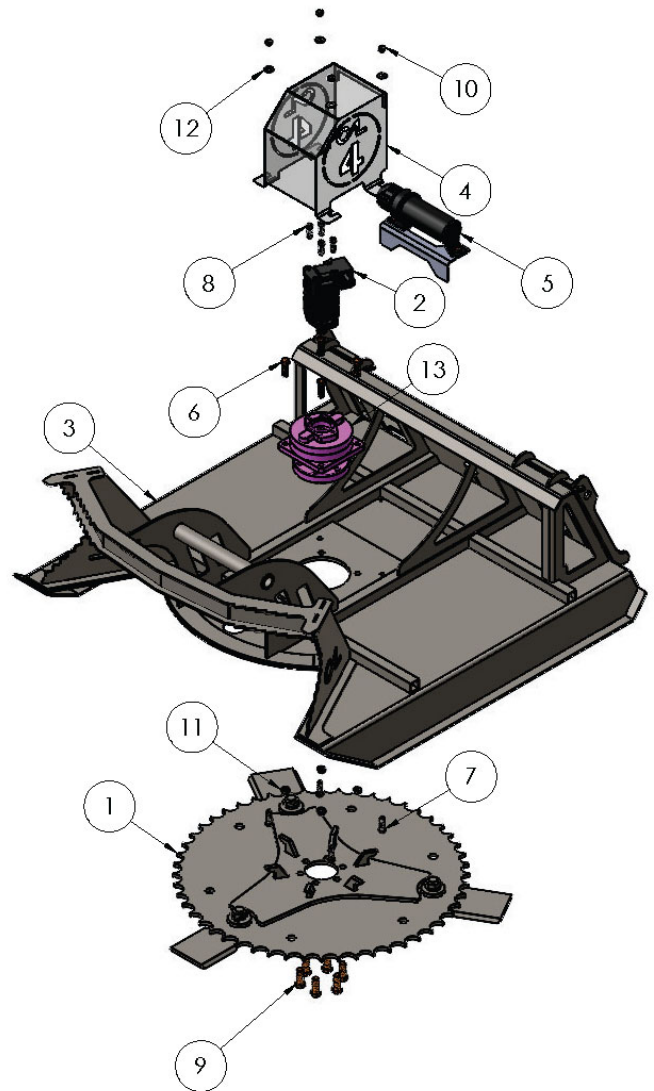




# OPERATORS MANUAL

## 48" MINI SKID STEER HYDRAULIC BRUSH CUTTER BREAKDOWN

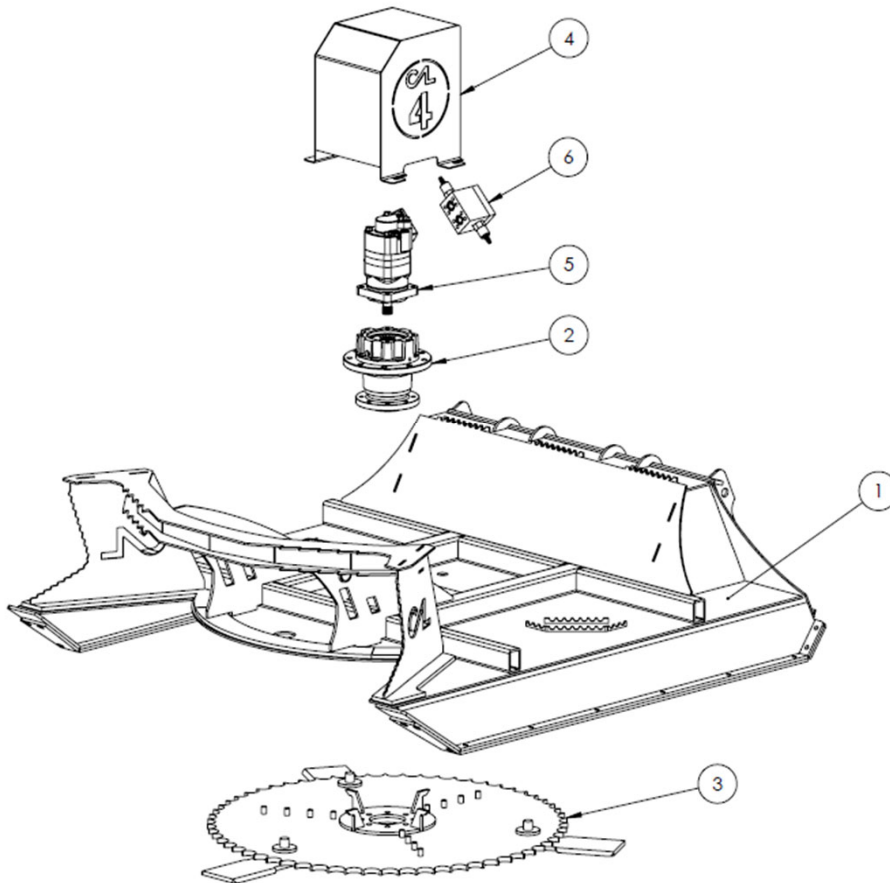
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3BCPC15	BLADE CARRIER ASSEMBLY FOR 48" MINI SKID STEER CUTTER W/ BLADES INSTALLED	1
2	6BCPC42A	41cc MINI BRUSH CUTTER MOTOR	1
3		MINI BRUSH CUTTER FRAME ASSEMBLY	1
4		MINI BRUSH CUTTER MOTOR COVER ASSEMBLY	2
5	6BCPC26	MANUAL CANISTER	1
6	6HARB39	5/8-11 x 2" Lg. HEX CAP SCREW GRADE 8 Y/Z	4
7	6HARB45	1/2-13 x 1-3/4" Lg. HEX CAP SCREW GRADE 8	4
8	6HARB152	1/2-13 x 1-1/2" Lg. SOCKET HEAD CAP SCREW	4
9	6HARB157	Zinc Yellow-Chromate Plated Hex Head Screw	6
10	6HARNU10	1/2"-13 STOVER LOCK NUT	4
11	6HARNU27	5/8"-11 STOVER LOCK NUT	4
12	6HARWA02	1/2" ZINC FLAT WASHER (USS)	4
13	6BCPC17A	ESKRIDGE or AUBURN GEAR BOX	1
*	6BCPC02	CUTTER BLADE	3
*	6BCPC40A	BB-62 BLADE BOLT	3
*	6BCPC40B	BB-62 JAM NUT	3
*	6BCPC40C	BB-62 LOCK WASHER	3





# OPERATORS MANUAL

## 60" SKID STEER HYDRAULIC BRUSH CUTTER BREAKDOWN



Replacement Mulching Teeth  
 item #: **6BCPC06**



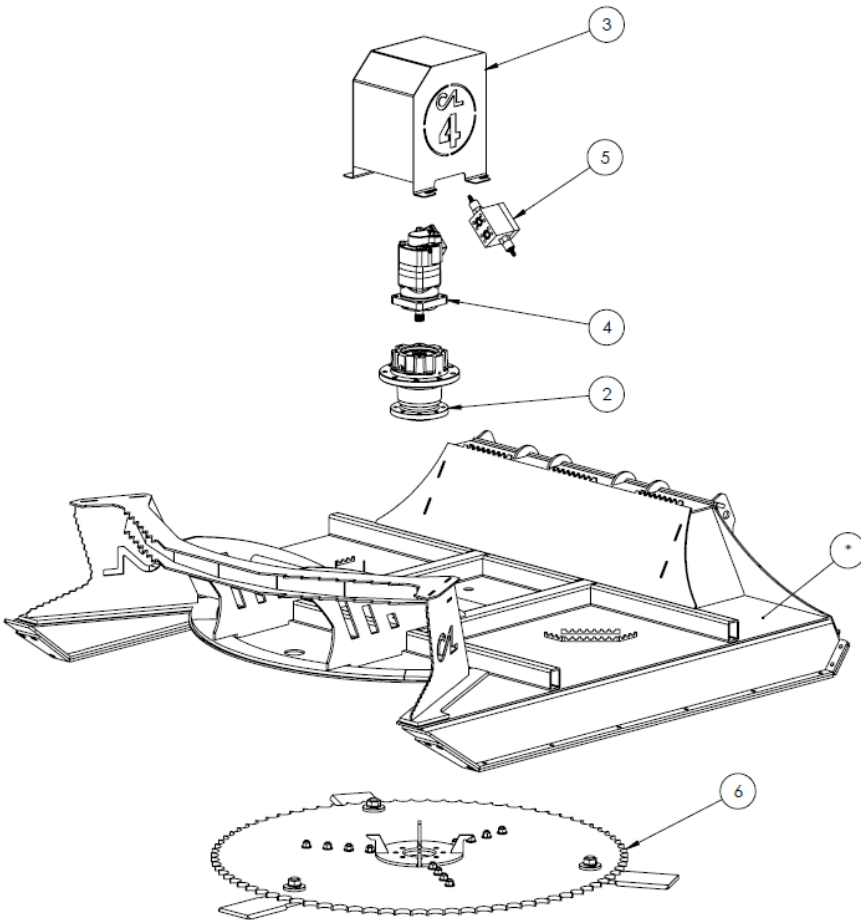
Replacement 60" and 72" cutter blades  
 \*nuts must be welded\*

ITEM #	PART #	DESCRIPTION
1		60" Skid Steer Cutter Deck
2	6BCPC17A	Gear Box
3	3BCPC05	60" Blade Carrier Assembly
	3BCPC06	60" Blade Carrier Assembly With Mulching Teeth
4	3BCPC03	Skid Steer Motor Cover
5	6BCPC41	4K Standard Flow Motor
6	6BCPC39	Cross Port Relief Manifold
*	6BCPC01	BLADE FOR 60 AND 72 INCH BRUSH CUTTERS
*	6BCPC40A	BB-62 BLADE BOLT
*	6BCPC40B	BB-62 JAM NUT
*	6BCPC40C	BB-62 LOCK WASHER



# OPERATORS MANUAL

## 72" SKID STEER HYDRAULIC BRUSH CUTTER BREAKDOWN



Replacement Mulching Teeth  
 item #: **6BCPC06**



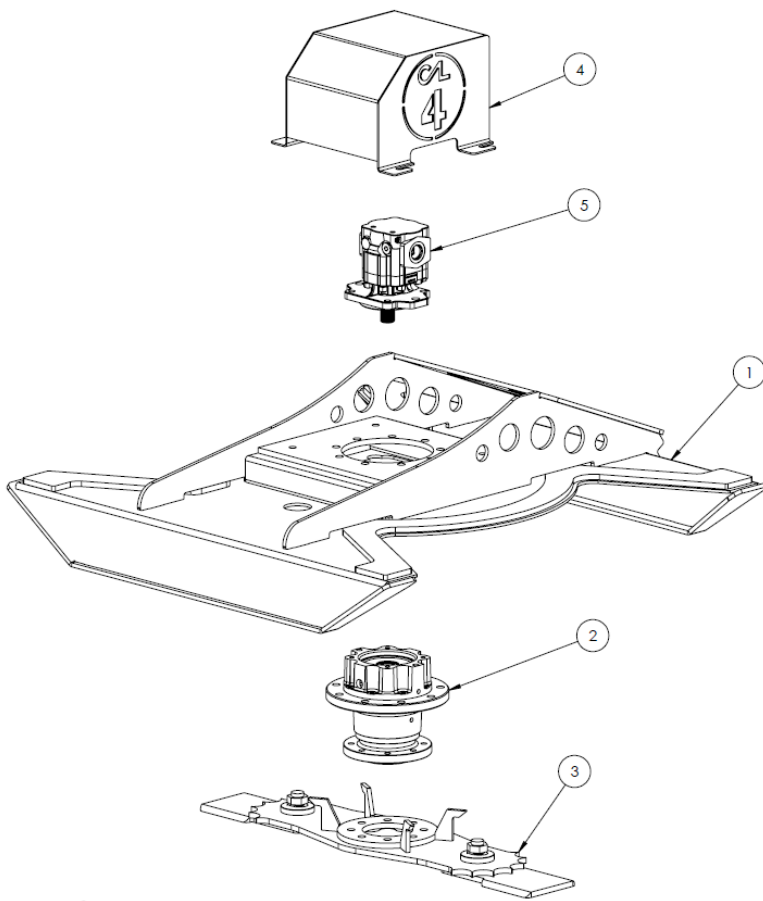
Replacement 60" and 72" cutter blades  
 \*nuts must be welded\*

ITEM #	PART #	DESCRIPTION
*		72" Skid Steer Cutter Deck
2	6BCPC17A	Gear Box
3	3BCPC03	Skid Steer Motor Cover
4	6BCPC41	4K Standard Flow Motor
	6BCPC44	6K High Flow Motor
5	6BCPC39	Cross Port Relief Manifold
6	3BCPC07	72" Blade Carrier Assembly
	3BCPC08	72" Blade Carrier Assembly With Mulching Teeth
*	6BCPC01	BLADE FOR 60 AND 72 INCH BRUSH CUTTERS
*	6BCPC40A	BB-62 BLADE BOLT
*	6BCPC40B	BB-62 JAM NUT
*	6BCPC40C	BB-62 LOCK WASHER



# OPERATORS MANUAL

## 42" MINI EXCAVATOR HYDRAULIC BRUSH CUTTER BREAKDOWN



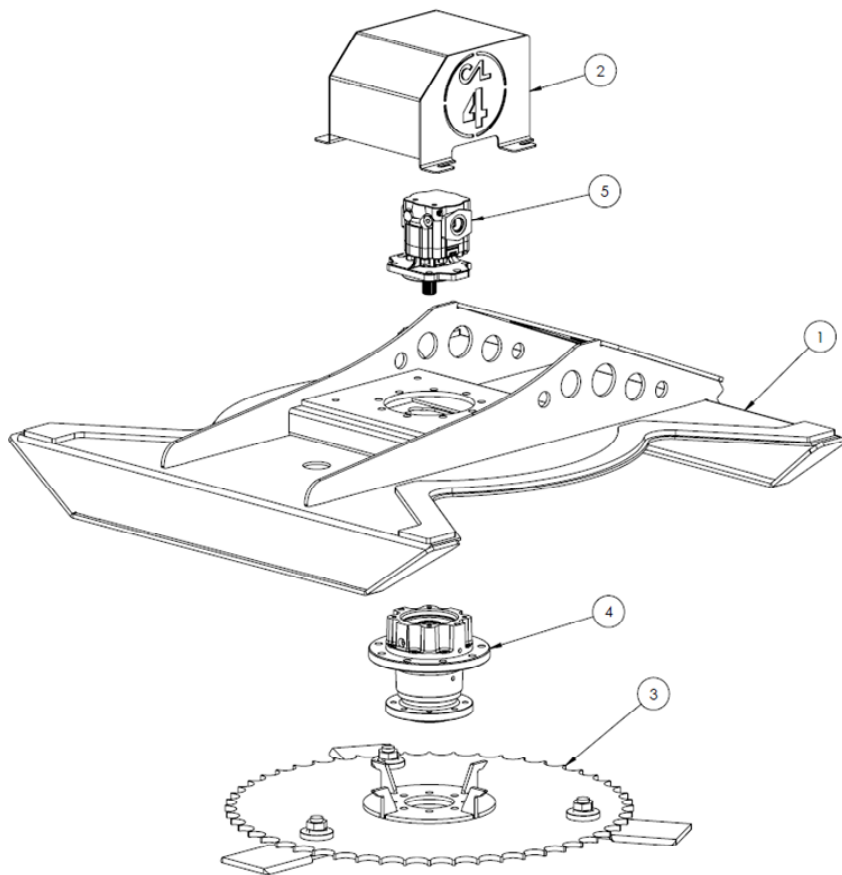
Replacement 42" and 48" cutter blades  
 \*nuts must be welded\*

ITEM #	PART #	DESCRIPTION
1		42" Mini Excavator Cutter Deck
2	6BCPC17A	Gear Box
3	3BCPC09	42" Blade Carrier Assembly
4	3BCPC04	Mini Excavator Motor Cover
5	6BCPC42A	41cc Gear Motor
	6BCPC43A	63cc Gear Motor
*	6BCPC02	BLADE FOR 42 AND 48 INCH BRUSH CUTTER
*	6BCPC40A	BB-62 BLADE BOLT
*	6BCPC40B	BB-62 JAM NUT
*	6BCPC40C	BB-62 LOCK WASHER



# OPERATORS MANUAL

## 48" MINI EXCAVATOR HYDRAULIC BRUSH CUTTER BREAKDOWN



Replacement 42" and 48" cutter blades  
 \*nuts must be welded\*

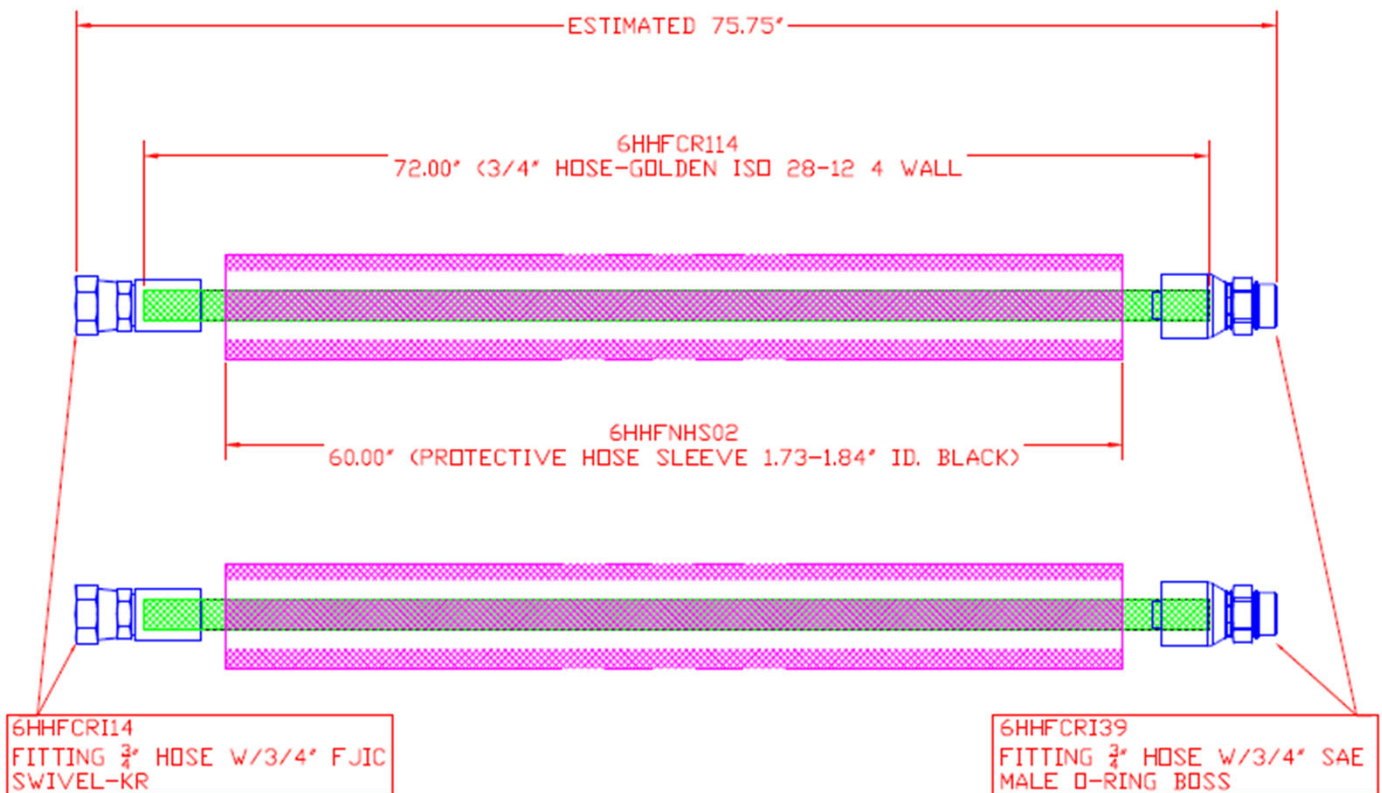
ITEM #	PART #	DESCRIPTION
1		48" Mini Excavator Cutter Deck
2	3BCPC04	Mini Excavator Motor Cover
3	3BCPC10	48" Blade Carrier Assembly
4	6BCPC17A	Gear Box
5	6BCPC42A	41cc Gear Motor
	6BCPC43A	63cc Gear Motor
*	6BCPC02	BLADE FOR 42 AND 48 INCH BRUSH CUTTER
*	6BCPC40A	BB-62 BLADE BOLT
*	6BCPC40B	BB-62 JAM NUT
*	6BCPC40C	BB-62 LOCK WASHER



# OPERATORS MANUAL

## HOSE DETAIL FOR EX AND MINI SS MODELS

### 6HHKBC01 6FT HOSE KIT DETAIL



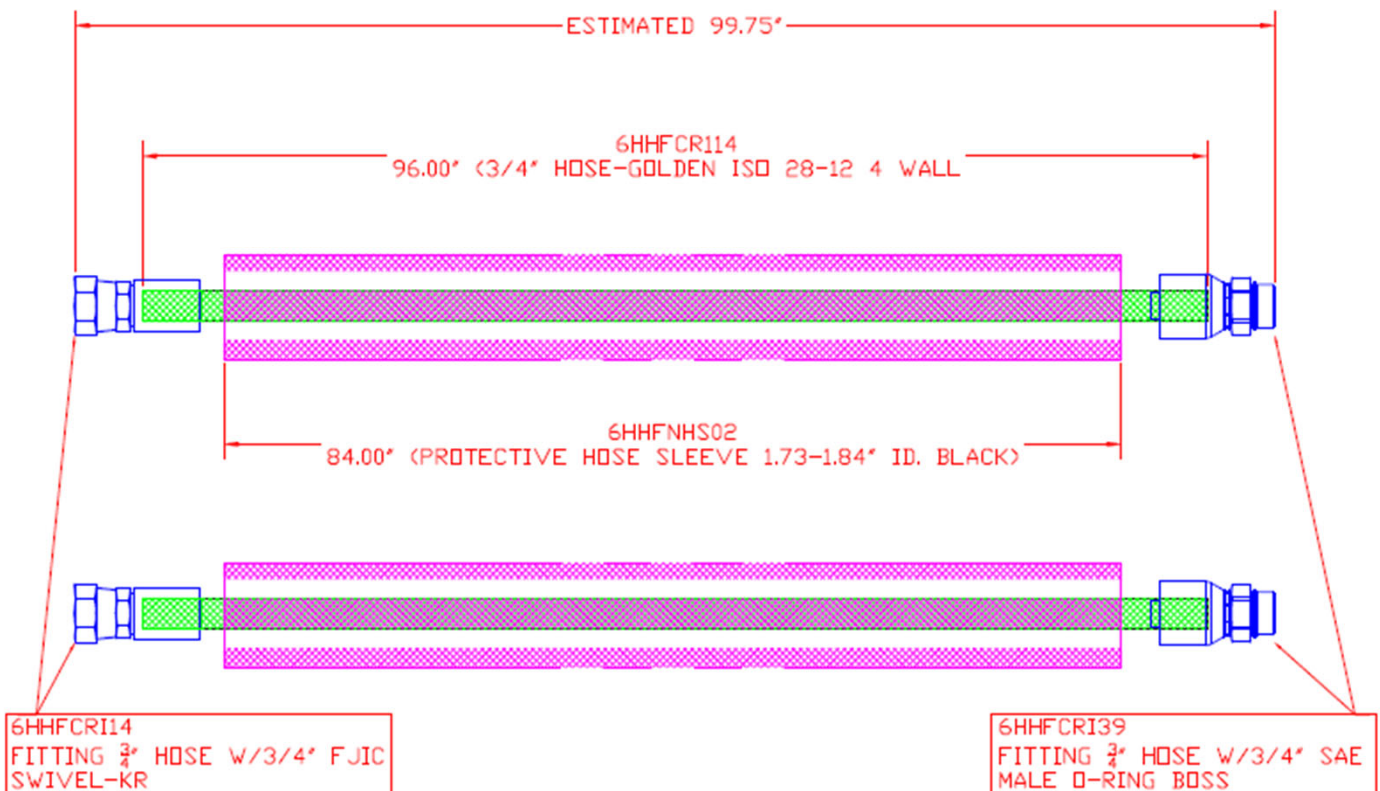
NOTE: QTY 2 OF 6HHFADP77 REQUIRED ON EX MODEL HOSE KITS



# OPERATORS MANUAL

## HOSE DETAIL FOR EX AND SS MODELS

### 6HHKBC02 8FT HOSE KIT DETAIL



NOTE: QTY 2 OF 6HHFADP77 REQUIRED ON EX MODEL HOSE KITS

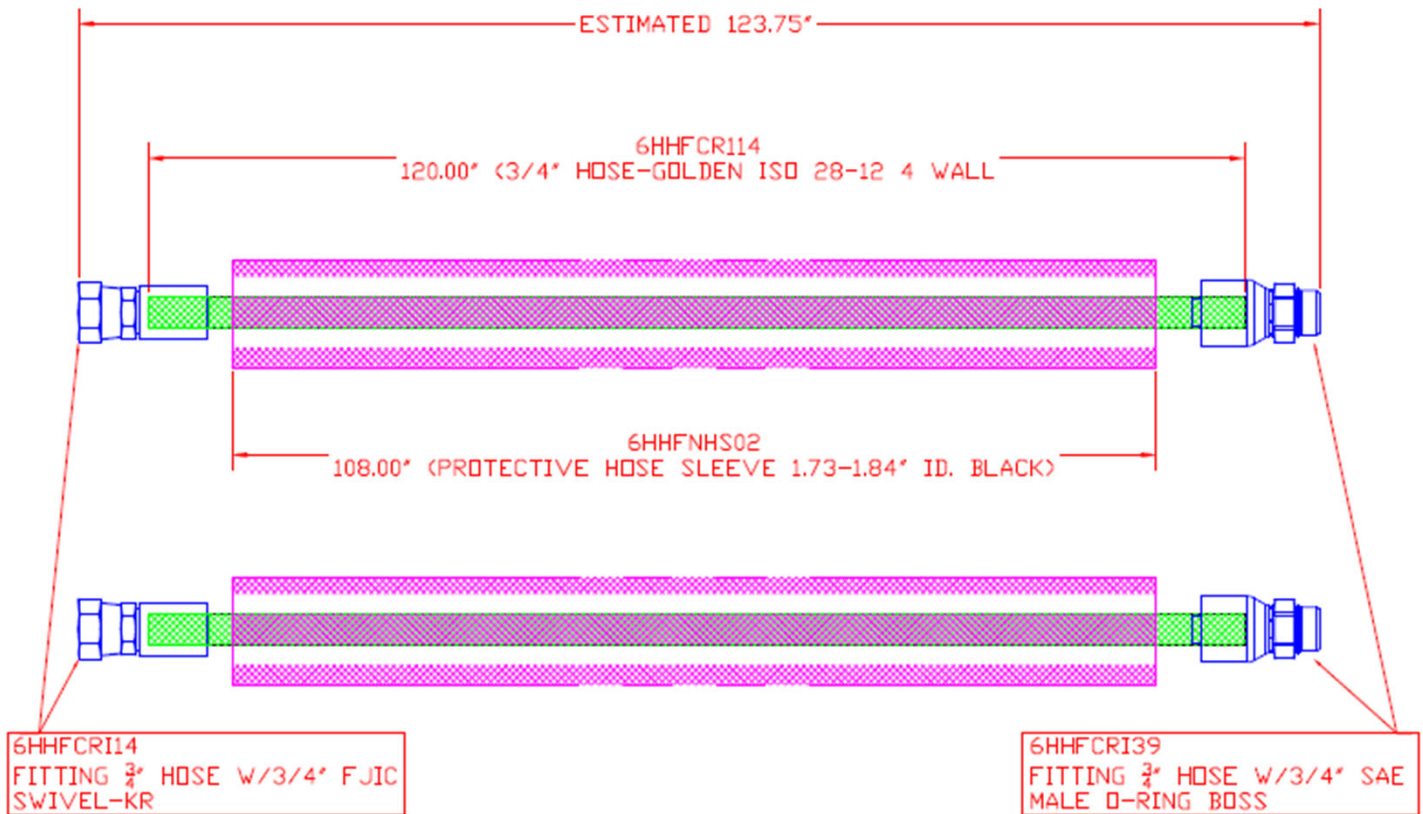




# OPERATORS MANUAL

## HOSE DETAIL FOR EX AND SS MODELS

### 6HHKSSBR01 10FT HOSE KIT DETAIL



NOTE: QTY 2 OF 6HHFADP77 REQUIRED ON EX MODEL HOSE KITS



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

NOTES



**CONSTRUCTION**  
ATTACHMENTS, INC.  
PROUDLY MADE IN THE USA

# OPERATORS MANUAL

NOTES

# CONSTRUCTION ATTACHMENTS, INC.



## A TRADITION OF QUALITY

Construction Attachments is a leading manufacturer of construction and agricultural grade attachments for tractors, compact excavators, skid steer loaders, tractor loader backhoes, and large excavators.

**"THE BITTERNESS OF POOR QUALITY LINGERS LONG AFTER THE SWEETNESS OF A CHEAP PRICE IS FORGOTTEN!"**



**1160 CAL COURT, LENOIR, NC 28645 USA**

**[www.constructionattachments.com](http://www.constructionattachments.com)**

**sales@calmfg.com | ph (828) 758-2674 | fax (828) 754-1887**