



UTILITOUGH

AMERICAN GRIT

BRUSH CUTTER OWNER'S & OPERATOR'S MANUAL

STANDARD FLOW • MID FLOW • HIGH FLOW (V2 version)



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American GRIT 72" Brush Cutter

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PRODUCT REGISTRATION & MODEL ID

To prevent personal injury or death, read and understand this manual and the host-machine operator's manual before operating the American GRIT brush cutter. This attachment is designed for brush and vegetation clearing. Do not modify or use the cutter for an application other than its intended purpose.

MODEL _____

SERIAL NUMBER _____

PURCHASE DATE _____

DEALER NAME _____

DEALER PHONE _____

HYDRAULIC FLOW _____

HYDRAULIC PRESSURE _____

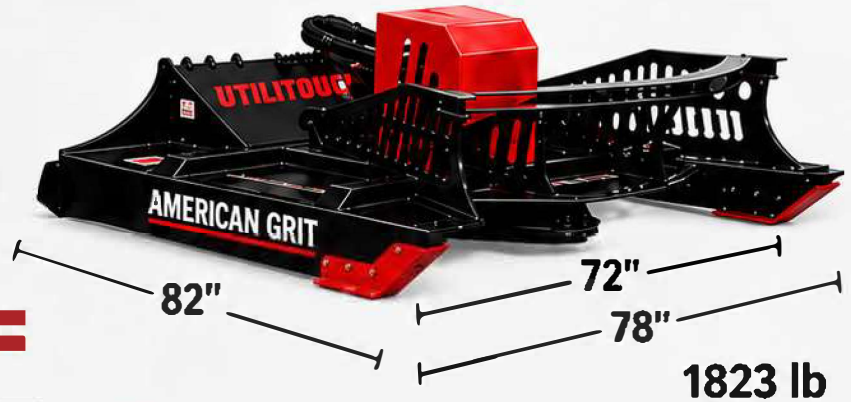
MODEL FAMILY

BC162572T_AG	STANDARD FLOW	16-25 GPM*
BC223072T_AG	MID FLOW	22-30 GPM*
BC304872T_AG	HIGH FLOW	30-48 GPM*

AMERICAN GRIT



AMERICAN GRIT BY **UTILITOUGH** STANDARD FLOW BRUSH CUTTER =



16-25 GPM
OPTIMAL FLOW RANGE

UP TO 7"
CUTTING CAPACITY
(TREE DIAMETER)

SPECIFICATIONS

OPTIMAL FLOW RANGE	16-25 GPM
CUTTING CAPACITY	Up to 7" (TREE DIAMETER)
CUTTING WIDTH	72"
OVERALL WIDTH	82"
OVERALL DEPTH	78"
OVERALL HEIGHT	22"
WEIGHT	1,823 lb
BLADE CARRIER	1/2" bottom plate 3/8" top plate
DECK CONSTRUCTION	Reinforced 1/4" steel deck
TOOTH HOLDER / SUPPORT	AR400
MOUNTING	Universal quick attach (Skid Steer)
WARRANTY	1 Year



HIGH TORQUE DIRECT-DRIVE MOTOR

Heavy-duty hydraulic motor delivers maximum torque and reliability in demanding conditions.



REINFORCED STEEL DECK

Built with 1/4" steel for extreme durability and long service life.



3 DOUBLE-EDGE BLADES

1/2" thick reversible blades for extended life and reduced downtime.



9 CARBIDE MULCHING TEETH

AR400 tooth holder/support for superior mulching performance.



BI-DIRECTIONAL CUTTING

Tooth system and blade carrier work in both directions for maximum efficiency.



~15 MINUTE TOOTH CHANGE

Change teeth on the bench, not under the cutter—fast, simple, and safe.



BOLT-ON SKID SHOES

Bolt-on skid shoes protect the deck and extend the life of your equipment.



HOSES & FITTINGS INCLUDED

Comes with hoses and fittings ready for quick connection to your machine.

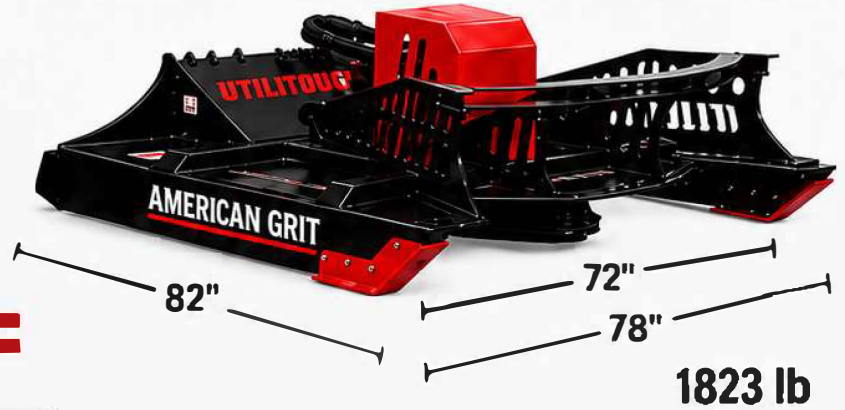
PATENT PENDING

POWER. PRODUCTIVITY. PROVEN PERFORMANCE.

AMERICAN GRIT

BY **UTILITOUGH**

MID FLOW BRUSH CUTTER =



22-30 GPM
OPTIMAL FLOW RANGE

UP TO 7"
CUTTING CAPACITY
(TREE DIAMETER)

SPECIFICATIONS

OPTIMAL FLOW RANGE	22-30 GPM
CUTTING CAPACITY	Up to 7" (TREE DIAMETER)
CUTTING WIDTH	72"
OVERALL WIDTH	82"
OVERALL DEPTH	78"
OVERALL HEIGHT	22"
WEIGHT	1,823 lb
BLADE CARRIER	1/2" bottom plate 3/8" top plate
DECK CONSTRUCTION	Reinforced 1/4" steel deck
TOOTH HOLDER / SUPPORT	AR400
MOUNTING	Universal quick attach (Skid Steer)
WARRANTY	1 Year



**HIGH TORQUE
DIRECT-DRIVE MOTOR**

Heavy-duty hydraulic motor delivers maximum torque and reliability in demanding conditions.



**REINFORCED
STEEL DECK**

Built with 1/4" steel for extreme durability and long service life.



**3 DOUBLE-EDGE
BLADES**

1/2" thick reversible blades for extended life and reduced downtime.



**9 CARBIDE
MULCHING TEETH**

AR400 tooth holder/support for superior mulching performance.



**BI-DIRECTIONAL
CUTTING**

Tooth system and blade carrier work in both directions for maximum efficiency.



**~15 MINUTE
TOOTH CHANGE**

Change teeth on the bench, not under the cutter—fast, simple, and safe.



**BOLT-ON
SKID SHOES**

Bolt-on skid shoes protect the deck and extend the life of your equipment.



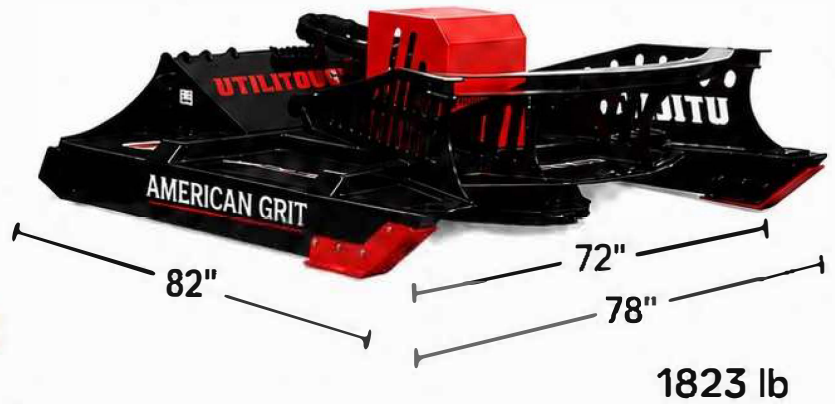
**HOSES & FITTINGS
INCLUDED**

Comes with hoses and fittings ready for quick connection to your machine.

PATENT PENDING

POWER. PRODUCTIVITY. PROVEN PERFORMANCE.

AMERICAN GRIT BY **UTILITOUGH** HIGH FLOW BRUSH CUTTER =



30-48 GPM
OPTIMAL FLOW RANGE

UP TO 10"
CUTTING CAPACITY
(TREE DIAMETER)

SPECIFICATIONS

OPTIMAL FLOW RANGE	30-48 GPM
CUTTING CAPACITY	Up to 10" (TREE DIAMETER)
CUTTING WIDTH	72"
OVERALL WIDTH	82"
OVERALL DEPTH	78"
OVERALL HEIGHT	22"
WEIGHT	1,823 lb
BLADE CARRIER	1/2" bottom plate 3/8" top plate
DECK CONSTRUCTION	Reinforced 1/4" steel deck
TOOTH HOLDER / SUPPORT	AR400
MOUNTING	Universal quick attach (Skid Steer)
WARRANTY	1 Year



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DIRECT-DRIVE MOTOR**

Heavy-duty hydraulic motor delivers maximum torque and reliability in demanding conditions.



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1/2" thick reversible blades for extended life and reduced downtime.



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MULCHING TEETH**

AR400 tooth holder/support for superior mulching performance.



**BI-DIRECTIONAL
CUTTING**

Tooth system and blade carrier work in both directions for maximum efficiency.



**~15 MINUTE
TOOTH CHANGE**

Change teeth on the bench, not under the cutter—fast, simple, and safe.



**BOLT-ON
SKID SHOES**

Bolt-on skid shoes protect the deck and extend the life of your equipment.



**HOSES & FITTINGS
INCLUDED**

Comes with hoses and fittings ready for quick connection to your machine.

PATENT PENDING

POWER. PRODUCTIVITY. PROVEN PERFORMANCE.

IMPORTANT WARRANTY DISCLAIMERS

ATTENTION: If your attachment has control valves, cylinders, gearboxes, or motors and they are opened or disassembled, the **WARRANTY for that item WILL IMMEDIATELY BE VOIDED!**

GEAR OIL STATEMENT: *If applicable in your attachment, check gear oil before each use:*

We recommend using 85-140 grade gear oil, for use with all our gear boxes, and bearing housings which is separate from the hydraulic fluid used to move your attachment or machine.

(Exception: gear oil used in mulchers is Shell Omala S2 GX 150!)

HYDRAULIC FLUID STATEMENT: Check your machine's hydraulic level and add hydraulic fluid if necessary before each use. Inspect for leaks, and repair if necessary. **Always use your machine's manufacturer recommended hydraulic fluid in your machine!** Fluid must be clean and debris free. If damage occurs from debris in hydraulic fluid flowing from your machine to our attachment it will VOID the warranty on any cylinders, motors, couplers, manifolds &/or valves (relief, lock, selector, check and flow control) downline from that flow.

NOTE: If your attachment requires a case drain, the warranty **WILL BE** immediately voided if the attachment is ran without it. Please refer to specifications sheet.

SECTION 2

SAFETY INFORMATION



BEFORE YOU OPERATE THIS BRUSH CUTTER

The American GRIT Brush Cutters are designed and manufactured with safety in mind. However improper use and operator error can result in death or serious injury. It is important that you read and fully understand the safety instructions and operating procedures presented in this manual before operating this brush cutter.

Read and understand the safety instructions and operating procedures contained in this manual. Acknowledge your understanding of all safety instructions presented in this manual by signing the "Safety Acknowledgment Form" at the end of this manual.

Although every effort has been made to ensure a safe product, every possible circumstance that could pose a potential hazard cannot be anticipated. The warnings presented in this manual and on this product are therefore not all-inclusive .

In addition to the safety messages presented in this section, you must also read and understand the safety messages presented in the other sections of this manual.

SAFETY SYMBOLS

This manual and the decals on this machine use safety symbols, hazard labels, pictograms and color coded signal words to alert you to potential hazards that may cause severe injury or death if a safety instruction is ignored.



SAFETY ALERT SYMBOL - This symbol is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

HAZARD CLASSIFICATIONS

Hazards are identified by the “Safety Alert Symbol” and followed by the signal word “DANGER”, “WARNING”, or “CAUTION”.

DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
This signal word is limited to the most extreme situations.

WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE

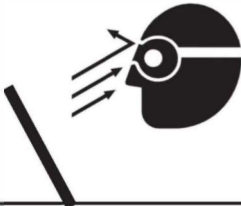
Indicates a situation which may cause damage to equipment or property.
Messages are not related to personal injury.

Safety Instructions

Indicates specific safety-related instructions or procedures.

SAFETY SYMBOLS

Pictograms are graphic symbols meant to alert you of a potential hazard. Read and understand the hazard description for each of these symbols.

Pictogram	Description
	PINCH HAZARD: Keep clear of machine and brush cutter attachment to prevent death or serious injury from pinching of moving parts.
	FLYING DEBRIS HAZARD: ONLY operate this attachment using a machine that has a shatter proof cab to prevent death or serious injury from objects being thrown.
	OPERATING MANUAL: Operators must read and understand the safety instructions in the operating manual to prevent death or serious injury.
	EYE PROTECTION & CARDBOARD: Operators and Maintenance personnel must wear proper eye protection and use cardboard or wood to investigate hydraulic leaks to prevent death or serious injury from being injected with high pressure hydraulic fluid.
	HIGH PRESSURE FLUID INJECTION HAZARD: Operators and Maintenance personnel must not place fingers or hands directly over a hydraulic leak to prevent death or serious injury from being injected with high pressure hydraulic fluid.
	NO BYSTANDERS: DO NOT operate this attachment near bystanders. Bystanders must stay back at least 300 feet from the attachment to prevent death or injury from objects being thrown.
	CRUSH HAZARD: DO NOT place any part of the body under the attachment or machine arms to prevent death or serious injury from being crushed .
	SAFETY CHAIN: We recommend installing to prevent the mower deck from being raised more than 2 feet from ground level. We can supply dimensions upon request.

SAFETY DECAL CHART

The safety decals affixed to this attachment are intended to keep operators and bystanders safe. Read and understand each decal before operating the cutter. Replace missing, worn or damaged decals immediately.

1	DANGER ? STAY BACK 300 FEET	Bystanders must remain at least 300 feet away while the cutter is operating.	
2	UTILITOUGH / AMERICAN GRIT BRAND	Approved brand identification decal for the attachment.	2
3	AUXILIARY HYDRAULIC FLOW	Use only the hydraulic flow range specified for the cutter model. Operating outside the approved range can reduce performance, damage the motor and affect warranty coverage.	1
4	DANGER / WARNING COMBO	Read and follow all safety warnings before operating or servicing the attachment.	1

MODEL-SPECIFIC FLOW DECALS

BC162572T_AG Standard Flow: 16-25 GPM*

BC223072T_AG Mid Flow: 22-30 GPM*

BC304872T_AG High Flow: 30-48 GPM*

SAFETY DECALS MUST BE CLEAN, LEGIBLE AND IN PLACE BEFORE OPERATION.

Clean and dry the metal surface before applying replacement decals. Avoid directing a hot pressure-washer jet directly at decals.

GENERAL SAFETY INSTRUCTIONS



MAKE SURE YOU FOLLOW THE GENERAL SAFETY INSTRUCTIONS THAT RELATE TO THE OVERALL OPERATION AND MAINTENANCE OF THIS ATTACHMENT. IT IS IMPORTANT THAT YOU READ AND UNDERSTAND EACH OF THESE MESSAGES TO PREVENT SERIOUS INJURY OR DEATH.

- ! NEVER use drugs or alcoholic beverages while operating or servicing this attachment.**
- ! DO NOT allow children to play on or around this attachment at any time. Store this attachment in an area not frequented by children.**
- ! ALWAYS operate this attachment during daylight or well-lit areas.**
- ! ALWAYS wear the proper personal protection equipment while operating or servicing this attachment. NEVER operate or service this attachment with bare feet, sandals, or other light footwear.**
- ! We recommend using a high strength clear protective door panel when using with this attachment.**
- ! ALWAYS wear work gloves when handling cutter blades as they are often very sharp.**
- ! To prevent the machine and attachment from rolling forward, stop the engine and set the parking brake when exiting the machine.**
- ! ALWAYS use eye protection while operating or servicing this attachment.**
- ! Inspect attachment for loose or missing hardware prior to using this machine.**
- ! ALWAYS watch for overhead power lines.**
- ! DO NOT allow this attachment to contact buildings, utilities, large rocks or tree stumps or you may lose control of the machine.**
- ! DO NOT place hands or feet under mower deck while blades are spinning.**
- ! DO NOT operate this attachment during lightning or severe weather conditions.**
- ! NEVER operate this brush cutter when bystanders are within 300 feet of your work area. Flying debris could cause serious injury or death.**
- ! DO NOT allow riders on the machine or on this attachment.**
- ! NEVER position your body or limbs under an unsupported cutter deck.**
- ! DO NOT speed! Keep your driving between 2 and 5 mph.**

IMPORTANT FEDERAL LAWS AND REGULATIONS CONCERNING EMPLOYERS, EMPLOYEES, AND OPERATORS

This section is intended to explain in broad terms the concept and effect of the following federal laws and regulations. It is not intended as a legal interpretation of the laws and should not be considered as such.

U.S. PUBLIC LAW 91-596 (The Williams-Steiger Occupational Safety and Health Act of 1970) OSHA

This Act Seeks:

“ ... to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources... ”

Sec. S(a) Each Employer –

DUTIES

(1) shall furnish to each of its employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to its employees.

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his or her own actions and conduct.

OSHA Regulations

Current OSHA regulations state in part: “At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved.” These will include (but are not limited to) instructions to:

Keep all guards in place when the machine is in operation;

Permit no riders on equipment;

Stop engine, disconnect the power source, and wait for all machine movement to stop before servicing, adjusting, cleaning, or unclogging the equipment, except where the machine must be running to be properly serviced or maintained, in which case the employer shall instruct employees as to all steps and procedures which are necessary to safely service or maintain equipment.

Make sure no one is within 300 feet of machinery before starting the engine, engaging power, or operating the machine.

EMPLOYEE MACHINE OPERATING INSTRUCTIONS:

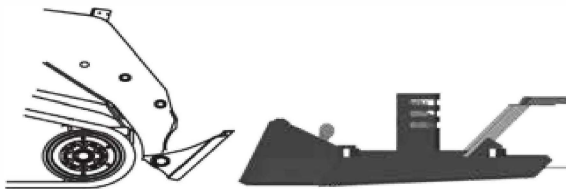
1. Securely fasten your seat belt if the machine has the capability.
2. Where possible, avoid operating the machine near ditches, embankments, and holes.
3. Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
4. Stay off slopes too steep for safe operation.
5. Watch where you are going, especially at row ends, on roads, and around trees.
6. Do not permit others to ride.
7. Operate the machine smoothly - no jerky turns, starts, or stops.
8. Hitch only to the drawbar and hitch points recommended by machine manufacturers.
9. When machine is stopped, set brakes securely and use park lock if available.

GENERAL ATTACHMENT METHOD

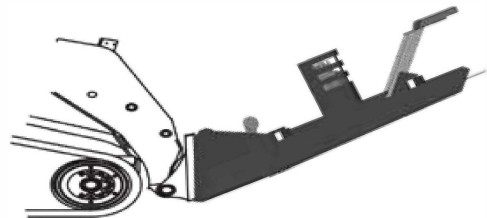
Refer to your machine's manual for specific instructions on how to mount and dismount your attachment.

This attachment method refers specifically to skid steers. For all other attachment instructions, refer to the Original Equipment Manufacturer (OEM) for instructions.

1. Enter operator's cab and start skid steer loader.
2. Tilt the skid steer loader Quick Attach Coupler slightly down and drive forward to the rear of the cutter until the top edge of the Quick Attach Coupler connects into the attachment mounting bracket.
3. Slightly tilt the skid steer Quick Attach Coupler up until the coupler and mounting bracket fully engage.
4. Activate the coupler pin mechanism to lock the pins into the attachment bracket. If your skid steer does not have this mechanism, shut skid steer engine off and exit the cab.
5. Push the skid steer Quick Attach locking pins down until you can see the locking pins extend into the slots on the attachment bracket.
6. Connect hydraulic hoses and the case drain hose to the auxiliary supply couplers located on your skid steer loader lift arm.
7. Install the safety chain so the cutter deck is below eye level of the operator while seated in the operator's seat. You should not be able to see the blades while seated in the operator's seat.



BRUSH CUTTER MOUNTING



COUPLER TO BRACKET

! WARNING

To avoid serious injury or death, ensure locking pins fully extend through the slots on the attachment bracket and that levers are down in the locked position to prevent cutter from detaching from host machine.

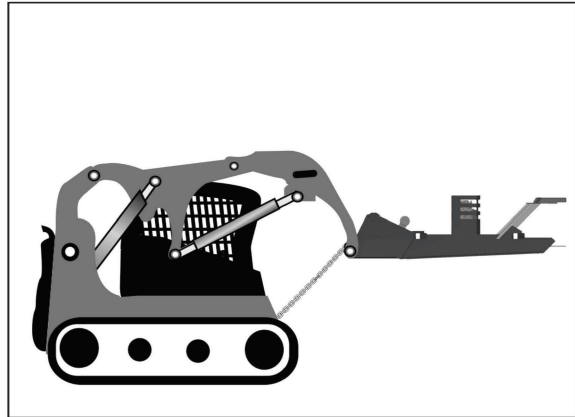
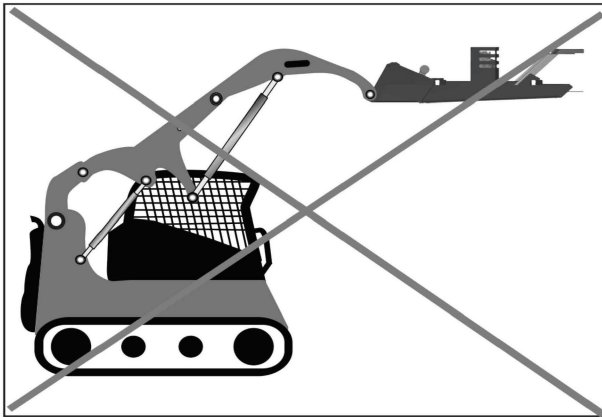
HOW TO MOUNT BRUSH CUTTER CONT.

NOTICE

To keep contaminants from entering the hydraulic system, use a clean cloth to wipe away dirt and grease from the hydraulic couplers.

! WARNING

To avoid serious injury or death from flying objects, we recommend installing a safety chain to limit the height of the brush cutter.



SAFETY CHAIN

HOW TO DISMOUNT BRUSH CUTTER

DISMOUNTING BRUSH CUTTER

1. Turn off auxiliary hydraulic circuit; relieve hydraulic pressure.
2. Park machine on a flat and level surface then lower brush cutter to the ground.
3. Set parking brake and disengage lock pins using the lock lever switch (if installed).
4. Turn off machine engine.
5. Disconnect hydraulic hoses.
6. Pull latch handles to disengage lock pins.
7. Re-enter cab and start machine engine.
8. Tilt mounting coupler forward until Quick Attach Coupler is free from mounting bracket.
9. Drive machine backward to clear cutter.

BRUSH CUTTER CONTROLS

Your brush cutter is designed to run off the machine's auxiliary hydraulic system, and is activated and deactivated by a control in the operator's cab. The height and tilt functions of your brush cutter are operated with the control handles or pedals in the cab. Consult your machine operator's manual for instructions regarding these functions.

HYDRAULIC FLOW REQUIREMENTS

When operating the cutter, set the machine engine RPM to a speed that will produce the required flow. Your machine dealer can measure the flow available on your machine and recommend a throttle setting that is compatible with this attachment.

DO NOT exceed the designed flow rate (GPM) of your brush cutter.

STARTING THE CUTTER

WARNING

To avoid serious injury or death from thrown objects and flying debris, ensure no bystanders are within 300 feet of the work area before starting this brush cutter.

1. Complete steps 1-6.
2. Set machine engine RPM to slightly above idle.
3. Activate machine auxiliary hydraulic circuit.
4. Once brush cutter ramps up to speed, increase machine engine to full throttle. Ensure cutter is running smoothly.

STOPPING THE CUTTER

If brush cutter vibrates while increasing RPM's, switch off the auxiliary hydraulic circuit and investigate the cause. Refer to the Troubleshooting Chart on page 33.

1. Raise the cutter slightly and set machine engine RPM to idle.
2. Switch off the auxiliary hydraulic circuit.
3. Allow the cutter to slow down.

WARNING

After switching off the auxiliary hydraulic circuit, keep hands and feet clear of the cutter deck until blade rotation has come to a complete stop.

FIRST TIME USE



Please refer to our "Hydraulic Fluid and Oil Statement" on Page 5 for gear oil or hydraulic fluid instructions.



NOTICE

Before operating brush cutter, check the hydraulic fluid level in the host machine and add manufacturer recommended fluid if necessary.

WARNING

Make sure the case drain hose is properly attached to the host machine's case drain connection.

Warranty WILL BE void if attachment is ran without the case drain hose connected. Excessive hydraulic pressure can blow out seals and damage the motor.

Verify that hydraulic hoses are securely locked to the machine hydraulic couplers before starting the brush cutter.

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

1. Set machine engine RPM to just above idle.
2. Switch on the auxiliary hydraulic circuit.
3. Allow the cutter to run for 30 seconds to purge air from the system, then switch off the auxiliary hydraulic circuit and allow cutter blades to come to a complete stop.

4. Lower the brush cutter to the ground, shut off machine engine and exit the cab.
5. Check the hydraulic fluid level in the machine, add manufacturer recommended fluid if necessary.
6. Inspect the brush cutter hydraulic lines for noticeable leaks. Fix before continuing.

WARNING

To avoid serious injury by hydraulic fluid injection into your skin, never use your hand or other body parts to locate a hydraulic leak. Detect leaks with a piece of wood or cardboard.

7. Restart machine, set engine RPM to slightly above idle
 8. Raise brush cutter off the ground and switch on the auxiliary hydraulic circuit.
 9. Once brush cutter ramps up to speed, increase machine engine to full throttle.
-

GENERAL OPERATING TIPS

1. **LEARN** what the cutter head looks like in a level position when you are seated in the machine. Knowing what a level cutter head looks like will prevent you from damaging the cutter blades if you cut too close to the ground.
2. **SLOW** down the machine if the engine “bogs” down or if the cutter speed is too slow because of too much load.
3. If you feel a strong vibration while cutting, slow the machine down and see if the vibration stops. If not, stop the brush cutter, turn off the machine engine and investigate the cause. Refer to the “Troubleshooting Chart”.
4. **ALWAYS** be aware of your surroundings and pay attention to obstacles and terrain in front of you.

WARNING

Cutting tree branches with the cutter in an elevated position could result in Death or Serious Injury if the machine becomes unstable. Always use brush cutter with the safety chain installed.

ADJUSTING CUTTER HEIGHT & LEVEL

Use the machine's lift and tilt controls to adjust brush cutter height and level. Refer to your machine operator's manual for instructions on these controls.

WARNING

To avoid serious injury or death from flying branches and debris, install safety chain to limit the height of the brush cutter.

When cutting dense grass adjust the level of the cutter deck so the front of the cutter is 1 inch lower than the back of the cutter. This will prevent material from "balling". When cutting dense wood, it must be OPPOSITE with the front tilted 1-6" higher than the back.

CAUTION

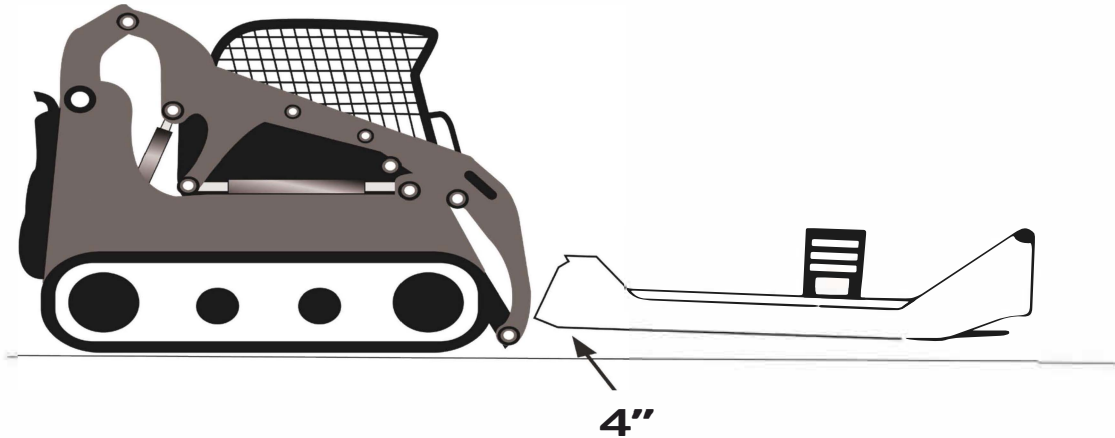
Use care when operating on uneven terrain or any type of sloped surface. Keep your cutter low to the ground when working in these conditions to avoid a roll over that could result in Minor or Serious Injury.

BEFORE CUTTING

1. Always inspect work area before starting the cutter. Locate and mark any utilities, steel posts, rocks or any other objects that could damage the brush cutter during operation. NEVER assume the work area is safe.
2. Operate the machine at a safe speed that will allow you to watch the area ahead of the cutter & machine.
3. Ensure machine engine RPMs are sufficient to deliver the required hydraulic flow to the brush cutter.

CUTTING GROUND LEVEL VEGETATION

Raise the rear of the brush cutter approximately 4 inches above ground level. The deck should be slightly sloping downward away from the operator.



The American GRIT standard flow and mid flow brush cutters are designed to cut trees up to 7" diameter and the high flow brush cutters are designed to cut trees up to 10" diameter. Use the push bar to push the tree while cutting.

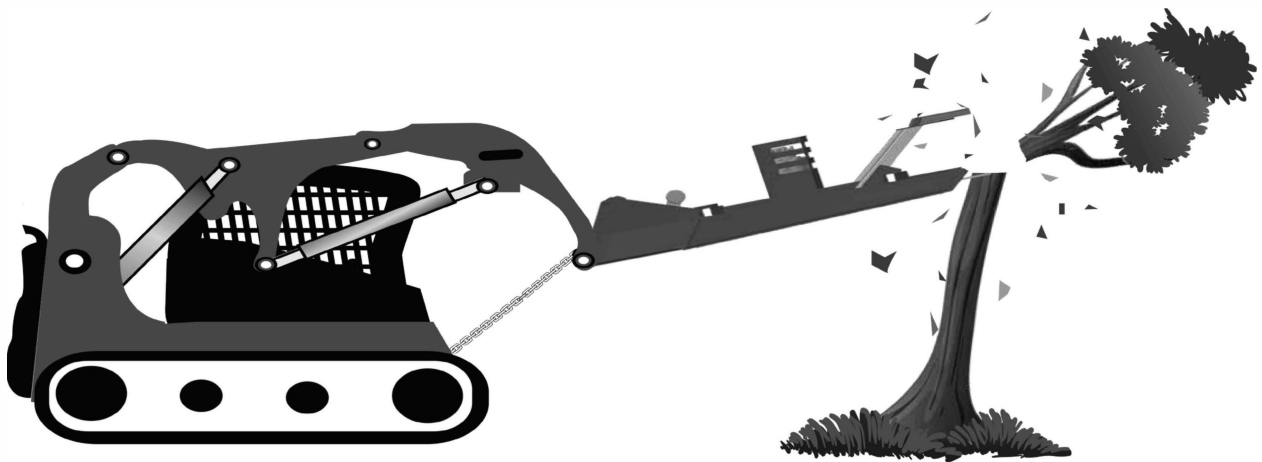
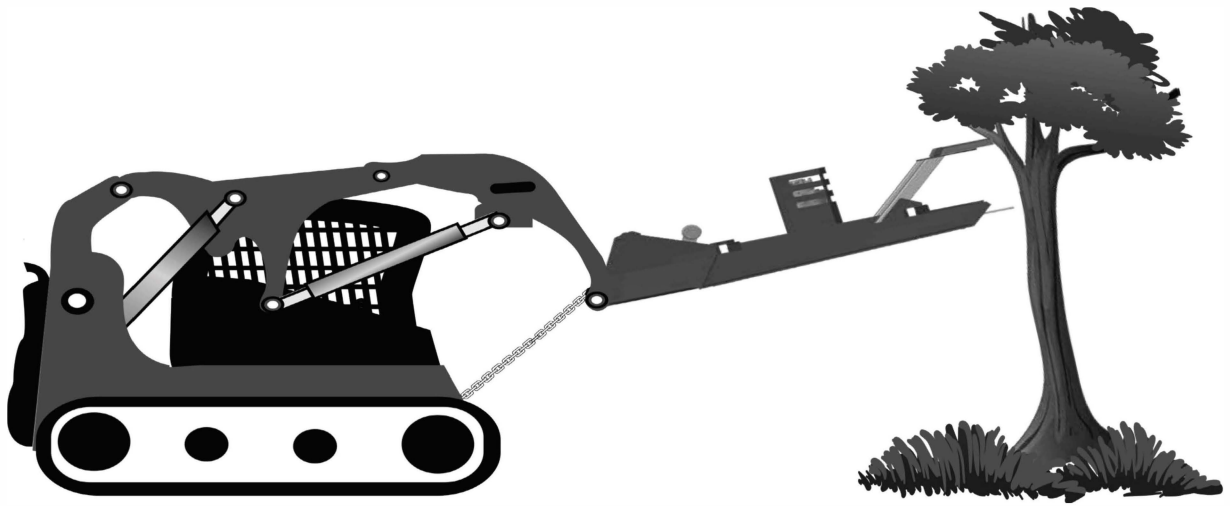
CAUTION

When cutting trees beware of the direction of fall to avoid the tree from crashing on to your machine.

CUTTING SMALL TREES (UP TO 5-7" DIAMETER)

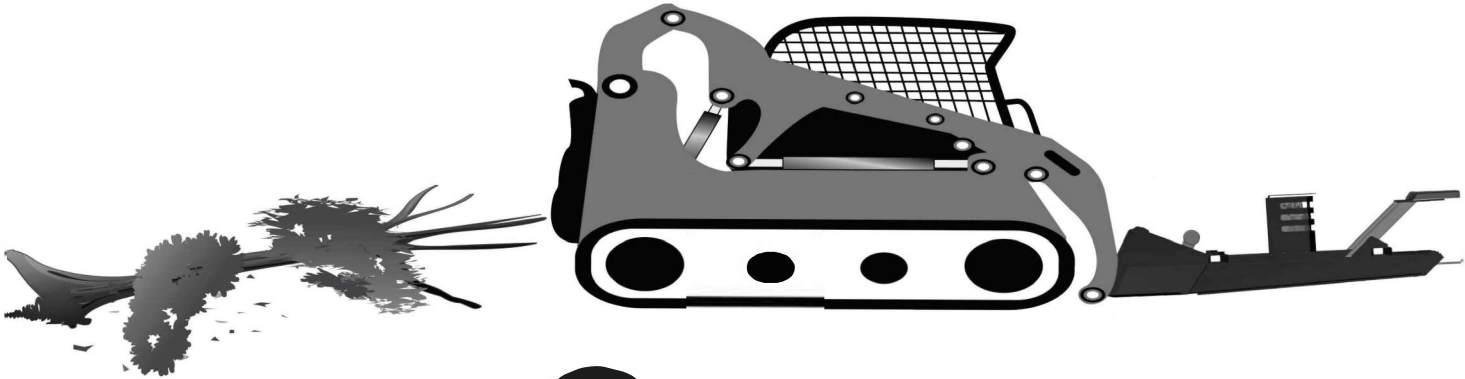
1. Tilt the front of the deck 1 to 2 feet above horizontal. *Note: Safety chain will limit height of the cutter deck.*
2. Slowly drive into the tree to allow the push bar to bend the tree while cutting. **S**
3. Lower the machine arms and repeat step #2 until tree is cut to desired height.
4. With the tree branches on the ground, tilt the front of the cutter deck up and drive forward of the branches.
5. Tilt the front of the cutter deck down and back drag the cutter over the branches.
6. Repeat steps #4 and #5 as necessary.

NOTE: The optional mulching teeth should be installed to achieve the best mulching results.



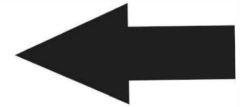
1

Drive Forward of Debris Pile.....



2

Back Drag Debris Pile.....



3

**Repeat Until
Satisfied with
Mulch Size**



MAINTENANCE PROCEDURES

The maintenance procedures described in this manual should only be carried out by qualified mechanics who have been trained to repair this attachment.

Some procedures require special tools and skills to complete. DO NOT attempt to repair or perform service work on this attachment unless you have the skills and tools to do so. Contact your local dealer for maintenance and repair services.

WELDING REPAIRS

Welding on attachments must be performed by certified welders who have requested and obtained written approval from an authorized representative of the manufacturer before welding begins.

All authorized welding repairs must be performed by qualified welders in accordance to the American Welding Society (AWS) standards. Welding procedures performed by unqualified welders may deem this cutter unsafe to operate and **VOID THE WARRANTY!**.

WARNING

PARTS

Only use genuine Original Manufacturer Replacement (OEM) replacement parts on this attachment. We will not be liable for any damages or injuries caused by the use of after market parts on this attachment.

NOTICE

Improper maintenance or modifications to the design or performance of this attachment will void the warranty.

Safety Instructions

Obey the following safety instructions when servicing or repairing this attachment

-  **Wear proper Personal Protective Equipment (PPE) while working on this attachment, which may include safety glasses, hard hats, steel toe boots, gloves, etc.**
-  **Wear a welding helmet when welding to protect your eyes, face and neck from flash burn, ultra-violet radiation and heat.**
-  **Ensure all jack stands, lifts and hoists are in good working condition and the rated load capacity to support the load.**

⚠ Only perform service work in a well-lit area.

⚠ Allow the attachment to cool down before servicing this attachment.

⚠ NEVER work under an unsupported cutter deck.

MAINTENANCE SCHEDULE This Brush Cutter attachment will provide years of dependable service if routine maintenance procedures are performed. The maintenance tasks listed below are based on normal operating conditions. More frequent maintenance may be necessary with intense use or when operating in adverse environmental conditions.

MAINTENANCE TASK	BEFORE EACH Use	WEEKLY	YEARLY
Check host machine's hydraulic fluid level. Add manufacturer recommended fluid as necessary. <i>Please refer to our "Hydraulic Fluid and Oil Statement" on Page 5 for gear oil or hydraulic fluid instructions.</i>	X		
Check that all fasteners (nuts, bolts, washers, pins, keepers) are in place. Tighten as necessary.	X		
Inspect and replace any worn, torn, or missing safety decals.	X		
Inspect hydraulic hoses and connectors for damage or leakage. Repair or replace hydraulic items as necessary.	X		
Check condition of cutter blades. Sharpen or replace as necessary. <i>*We recommend replacing the bushing & bolts with the blades.</i>	X	X	
Check oil level in bearing house. Add manufacturer recommended oil as necessary.		X	
Change 85-140 oil in bearing house. *Change oil after 50 hours of first time use, then every 1000 hours or yearly.			X 1,000 HRS
Wash brush cutter		X	
Check brush cutter for major scratches & dings. Sand and repaint these areas to prevent rust damage. *Contact the manufacturer for approved OEM paint for your attachment.			X

Document all maintenance and service activities performed on this brush cutter using the maintenance log sheets included at the end of this manual.



MAINTENANCE LOG



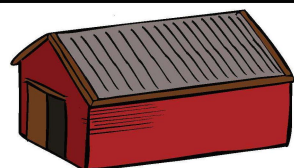
DESCRIPTION OF MAINTENANCE/REPAIR	SERVICED BY:	DATE:
<i>Replace Filter Blade</i>	<i>Joe</i>	<i>01/24/24</i>
<i>Inspect Kawasaki Pumping</i>	<i>Joe Smith</i>	<i>02/25/24</i>
<i>Change Oil in Bearing Housing</i>	<i>Joe Smith</i>	<i>04/24/24</i>

STORAGE TIPS

To get years of quality use out of your brush cutter, follow these tips when storing your brush cutter for the season:



Ensure brush cutter is free of debris, dirt and grease.



Store your brush cutter in a dry shed or garage.



When storing your brush cutter for the season, cover with a weather proof tarp to protect it from the elements.

TORQUE SPECIFICATION TABLE AND INSTRUCTIONS

BOLT TORQUE INSTRUCTIONS

1. Apply and maintain proper torque on all bolts.
2. Torque values are based on lubricated values. **Do not grease or oil bolts.**
3. Wipe bolts clean and use Loctite 635 or equivalent before tightening bolts. May need curing activator.
4. Use a torque wrench to assure the proper amount of torque is being applied to the bolt.
5. **MUST CURE 72 HOURS BEFORE USE TO PREVENT LOOSENING OF BOLTS.**

TORQUE VALUES

SAE GRADE 8

	DRY lb.-ft.	LUBRICATED lb.-ft.
1/4"	12	9
5/16"	24	18
3/8"	45	35
1/2"	110	80
3/4"	380	280
7/8"	600	450
1"	910	680
1 1/4"	1820	1360
1 1/2"	3162	2688

TORQUE EQUIPMENT REQUIREMENTS TOOLS & EQUIPMENT REQUIREMENTS

To complete the maintenance procedures described in this section, you may need the following tools:

- 1/2 inch drive breaker bar
- 3/4 inch impact socket
- 1/2 inch impact socket
- Tapping Hammer
- 1/2 inch drive torque wrench
- Nylon pry bar set
- Safety stands
- **Loctite 635 or Equivalent-MUST CURE 72 HRS**
- Lifting device (overhead crane hoist, forklift)



NOTE:

When removing bolts with Loctite, it will be necessary to apply localized heat of at least 250 degrees Celsius or to 482 degrees Fahrenheit to loosen bolts.

LOCTITE 635 TECHNICAL SPECIFICATIONS FOR BONDING, CURING, REMOVAL AND INSTALLATION CAN BE FOUND HERE:
<https://next.henkel-adhesives.com/>

EQUIPMENT REQUIREMENTS CONT.

WARNING

To avoid serious injury or death only use jacks, hoists, lifts and tools that have the capacity for the job. Use certified safety stands rated to support the applicable load.

PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS BOLT TORQUE REQUIREMENTS



BLADE HOLDER REMOVAL

REMOVAL PROCEDURE - BRUSH CUTTER ATTACHED TO MACHINE

DANGER

To prevent a crushing death by the machine arms, a lift arm lock must be installed on the machine hydraulic piston by a second person before the operator can exit the machine cab. Refer to your machine operator's manual for lift arm lock installation procedures.

1. Raise the machine arms and install machine lift arm lock.
2. Shut off hydraulic flow to the brush cutter, and release pressure from the auxiliary hydraulic circuit.
3. Turn off machine engine, SET parking brake, and CHOCK machine tracks/tires to prevent machine from moving.
4. Secure the front end of the cutter deck by using an overhead hoist and chain.
5. Place a rated lift under the blade holder.
6. Remove the **six 3/4 inch diameter hex bolts** that secure the holder to the gearbox shaft and let the blade holder rest onto the lift. If the blade holder fails to separate, use a wedge breaker tool to help separate the blade holder from the gearbox flange.

BLADE HOLDER INSTALLATION

INSTALLATION PROCEDURE

WARNING

To avoid serious injury or death from being crushed, use a lifting device that is rated to support the blade holder during installation.

1. Align the bolt holes in the blade holder with the bolt holes on the gearbox flange.
 2. The blade holder must be seated flat against the gearbox flange before proceeding to the next step.
 3. **Lubricate the six 3/4 inch diameter grade 8 hex bolts with Loctite 635 or equivalent.**
 4. Torque bolts to the Torque Value listed on the Torque Chart.
-

CAUTION

Cutter blades are sharp and could cut you if mishandled. **ALWAYS** wear protective gloves and foot-wear when handling cutter blades.

BLADE REMOVAL PROCEDURE

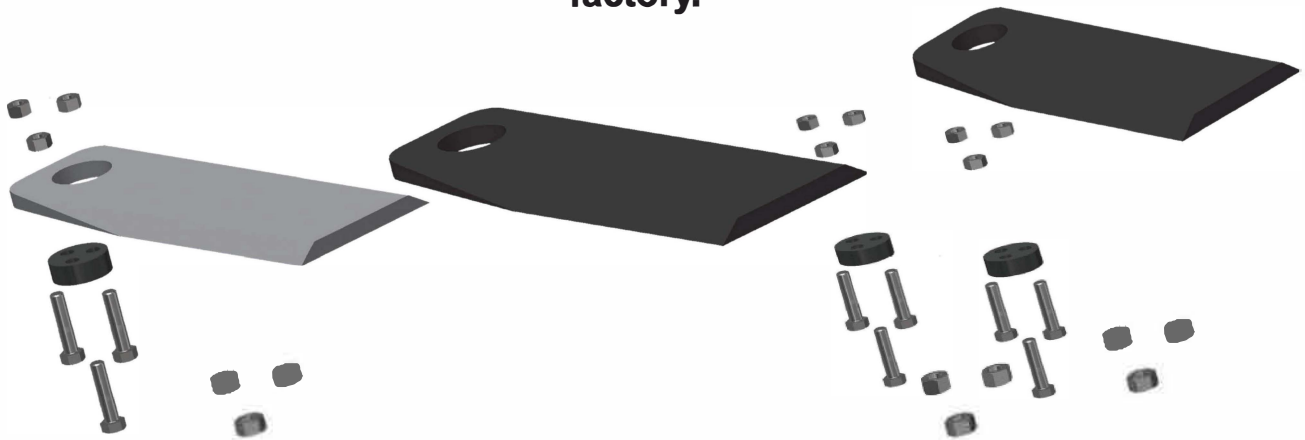
1. With the brush cutter on the ground:
2. Ensure the hydraulic hoses are disconnected from the machine couplers.
3. Rotate the blade holder until the 3/4" blade holder nuts are visible in the access opening.
4. Remove the hex nuts, washers and bolts.
5. Carefully pull the blade from the holder.
6. Remove the 2" bushing.

BLADE INSTALLATION

BLADE INSTALLATION PROCEDURE - BRUSH CUTTER ON THE GROUND

1. Install blade bushing.
2. Place blade into position on the blade holder.
3. Install the three blade bolts and blade nuts. *Note: Blade bolts are installed from the bottom up, with the blade nuts visible in the access opening.*
4. Repeat steps #1 thru #3 for the remaining blades.
5. Torque the 3/4" bolts to the Torque Value listed on the Torque Chart.

Note: Replacement blades are sold as a set and come pre-balanced from the factory.



DRIVE BEARING HOUSING MAINTENANCE



Please refer to our "Hydraulic Fluid and Oil Statement" for gear oil or hydraulic fluid instructions.



NOTICE

Maintenance procedures for the drive bearing housing require special tools and skills. DO NOT attempt to service drive bearings or gear boxes unless you have the tools and skills to do so.

CHECKING OIL LEVEL

1. Check the oil level weekly. Refill with 85-140 grade gear oil.
2. Check the oil level by removing the oil filler plug. The oil level should be to the bottom of the oil filler plug



NOTICE

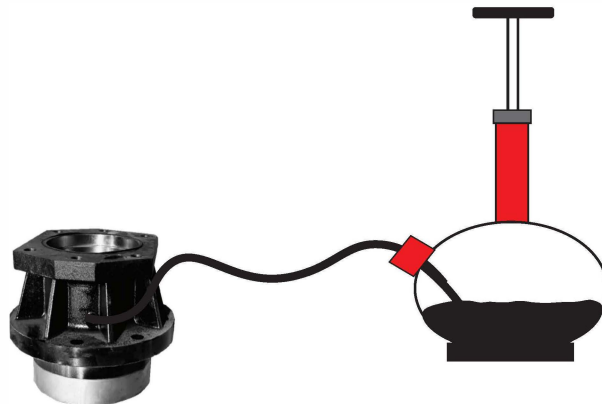
The initial oil should be changed after 50 hours of operation under load. Subsequent oil changes should take place after every 1000 hours of operation. More frequent oil changes may be necessary if operating this cutter in extreme hot conditions.

OIL CHANGE PROCEDURE

1. Remove oil filler plug and insert one end of a discharge hose into the oil filler port and the other end into an approved waste oil container.
2. Using an oil removal pump, remove the old oil from the gear box unit.
3. Refill with 85-140 grade gear oil until oil level is up to the bottom of the oil filler port.
4. Reinstall oil filler plug.

NOTICE

Properly dispose of used oil. Visit www.Earth911.com to search for the nearest used oil recycling center near you.



SECTION 5

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Cutter bogs down or loses power.	Deck is not leveled properly. Foreign material is "balling" under deck. Bearing failure-(To diagnose, shut off hydraulic flow to cutter then slowly rotate the blade holder assembly & listen for bearing noise.) Cutter speed too slow or ground speed to fast. Hydraulic fluid flow too slow.	Refer to page 20 for leveling information. Remove foreign material from under the deck. See dealer for bearing housing service; replace bearing housing. Increase RPMs and reduce ground speed. Look for hydraulic leaks & repair. Replace damaged blades.
Excessive Vibration	Missing, loose, damaged or stuck blades. Blade holder damaged. Bearing failure.	Replace blade holder. Repair or replace bearing housing.
Blades dull too quickly or are breaking too easily.	Blades are receiving excessive shock loads from contacting solid objects (rocks, steel pipes, etc.)	Clear the cutting area of solid objects, raise cutter height to clear exposed rock surfaces.
Hydraulic fluid level goes down during operation.	Hydraulic motor leak, or leaks in prime mover's hydraulic system.	Investigate and repair leaks.
Blades do not rotate when flow is activated.	Hydraulic motor or bearing house failure. Hydraulic lines disconnected. Problem with machine hydraulic controls.	Contact dealer for repair service. Connect hydraulic lines to machine couplers. Ensure hoses are locked in place. Contact machine dealer for diagnosis and repair.

DANGER

ONLY service the brush cutter on stable, even terrain. NEVER park on sloped terrain to avoid being struck and killed or seriously injured by the unexpected rolling or movement of the machine.

AMERICAN GRIT BY **UTILITOUGH** CHANGE TEETH IN MINUTES- NOT HOURS

30-48 GPM
HIGH FLOW
BRUSH CUTTER =



CUTS TREES UP TO
10" IN DIAMETER



CHANGE TEETH ON
THE BENCH, NOT
UNDER THE CUTTER



~15 MIN
CHANGE
VS. 1.5-3 HRS



BI-DIRECTIONAL
CUTTING
WITH
MULCHING TEETH



BLADE LIFE
MORE UPTIME
LESS DOWNTIME

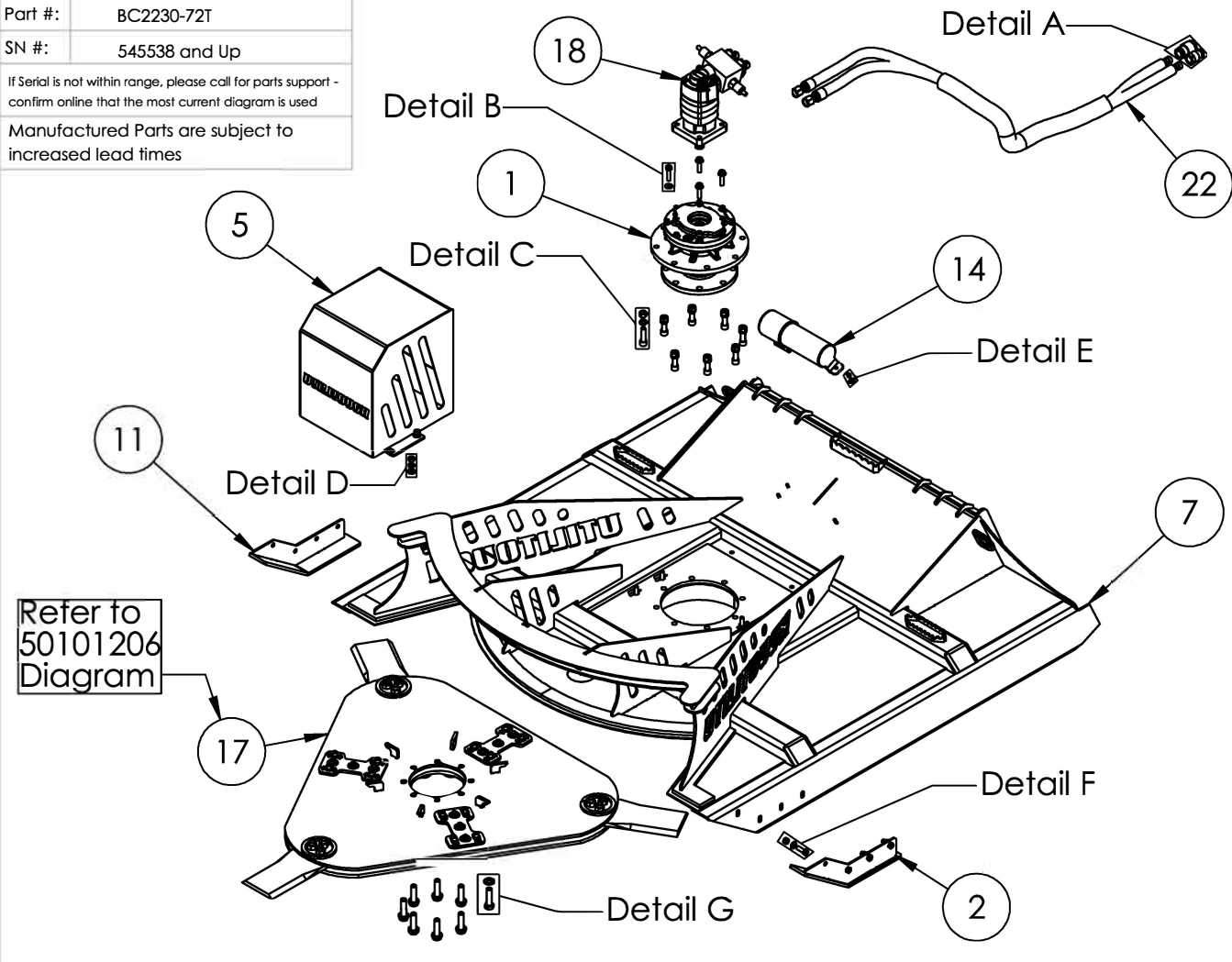


BI-DIRECTIONAL BLADE CARRIER
WITH MULCHING TOOTH SYSTEM

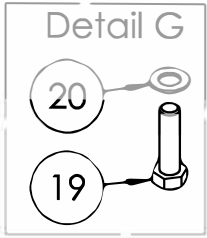
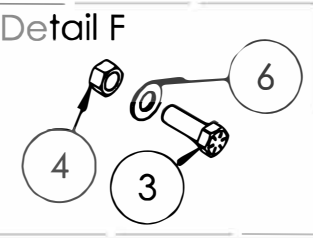
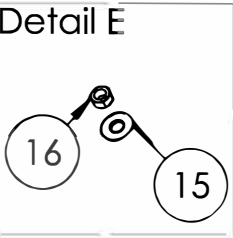
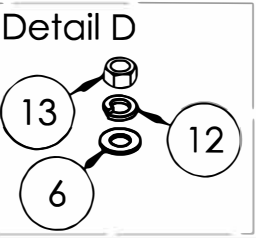
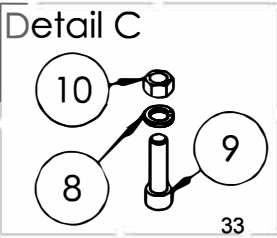
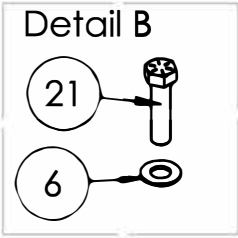
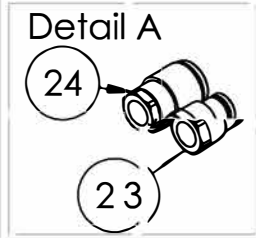
HOW IT WORKS

- 1 REMOVE THE PATENTED
TOOTH-BAR HOLDER.
- 2 REVERSE THE MULCHING TEETH
IN THE HOLDER. REPLACE WORN
TEETH AS NEEDED.
- 3 REINSTALL THE HOLDER WITH
THE TEETH SET FOR OPPOSITE
ROTATION.

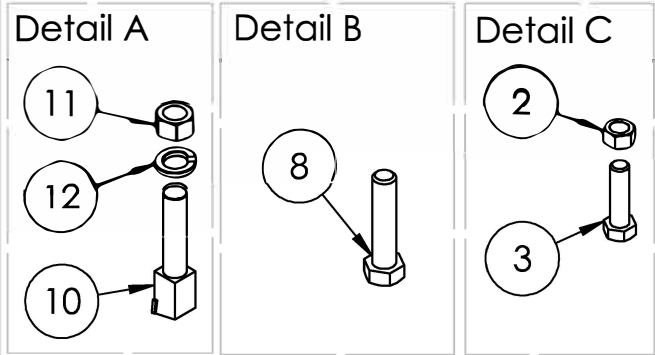
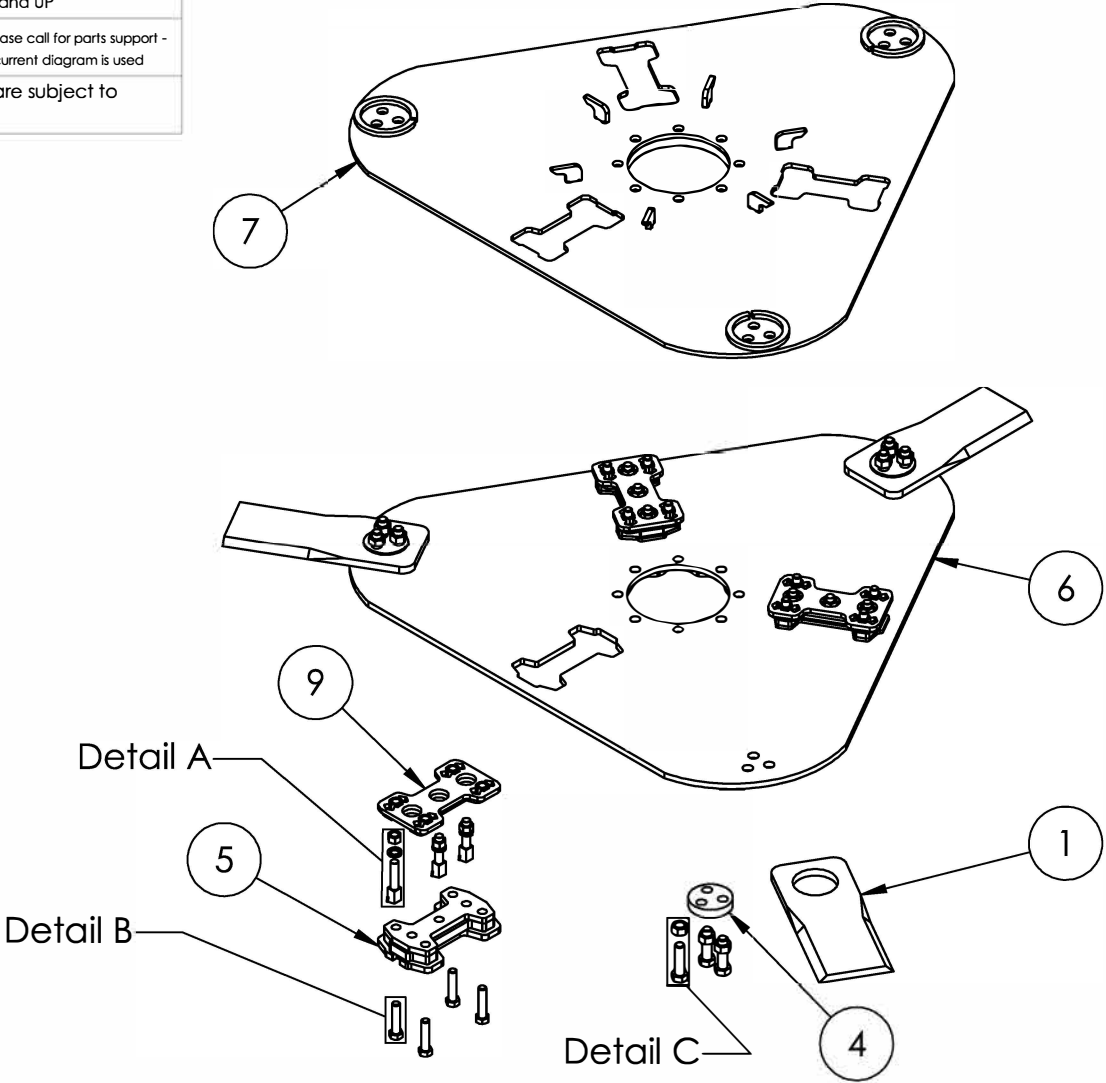
Part #:	BC2230-72T
SN #:	545538 and Up
If Serial is not within range, please call for parts support - confirm online that the most current diagram is used	
Manufactured Parts are subject to increased lead times	



ITEM	Part #	DESCRIPTION	QTY.
1	UT	Bearing Housing	1
2	81400626	Skid Shoe Left Weldment	1
3	11201086	1/2"-13 X 1 1/2" Hex Bolt GR 8	8
4	11200446	1/2"-13 Lock Nut GR C	8
5	80400106	Motor Cover	1
6	11200306	1/2" SAE Flat Washer GR 8 Z/YEL	16
7	81400646	Deck Weldment	1
8	11200336	5/8" Split Lock Washer GR 8	8
9	11200376	5/8"-11 X 2 1/4" Socket Head Cap Screw	8
10	11200366	5/8"-11 Lock Nut GR C	8
11	81400636	Skid Shoe Right Weldment	1
12	11200176	1/2" Split Lock Washer GR 8	4
13	11200276	1/2"-13 Hex FIN Nut GR 8	4
14	41100016	Manual Holder	1
15	11200256	5/16" USS Flat Washer GR 8	3
16	11200106	5/16"-18 Lock Nut GR C	3
17	50101206	Blade Holder (Mulching Teeth)	1
18	UT	Motor	1
19	11200206	3/4"-10 X 2 3/4" Hex Bolt GR 8	8
20	11200236	3/4" SAE Flat Washer GR 8	8
21	11200156	1/2"-13 X 2" Hex Bolt GR 8	4
22	UT	3/4" D X 114" L Machine Hose Kit	1
23	41000546	1/2" Flat Coupler M - Changeable	1
24	41000556	1/2" Flat Coupler FE - Changeable	1



Part #:	50101206
SN #:	545538 and UP
If Serial is not within range, please call for parts support - confirm online that the most current diagram is used	
Manufactured Parts are subject to increased lead times	



ITEM	Part #	DESCRIPTION	QTY.
1	20100116	Blade	3
2	11200216	3/4"-10 Lock Nut GR C	9
3	11200206	3/4"-10 X 2 3/4" Hex Bolt GR 8	9
4	10400036	Blade Bushing	3
5	50101156	Mulching Teeth Holder Bottom	3
6	50101186	Bottom Blade Holder	1
7	50101196	Top Blade Holder	1
8	11200976	5/8"-11 X 2 3/4" Hex Bolt GR 8	12
9	50101166	Mulching Teeth Holder Top	3
10	10500016	Mulching Teeth	9
11	11200736	5/8"-18 HEX FIN NUT GR 8	9
12	11200336	5/8" Split Lock Washer GR 8	9

AMERICAN GRIT



AMERICAN GRIT BY **UTILITOUGH** CHANGE TEETH IN MINUTES- NOT HOURS

**30-48 GPM
HIGH FLOW
BRUSH CUTTER =**



**CUTS TREES UP TO
10" IN DIAMETER**



**CHANGE TEETH ON
THE BENCH, NOT
UNDER THE CUTTER**



**~15 MIN
CHANGE
VS. 1.5-3 HRS**



**BI-DIRECTIONAL
CUTTING
WITH
MULCHING TEETH**



**BLADE LIFE
MORE UPTIME
LESS DOWNTIME**

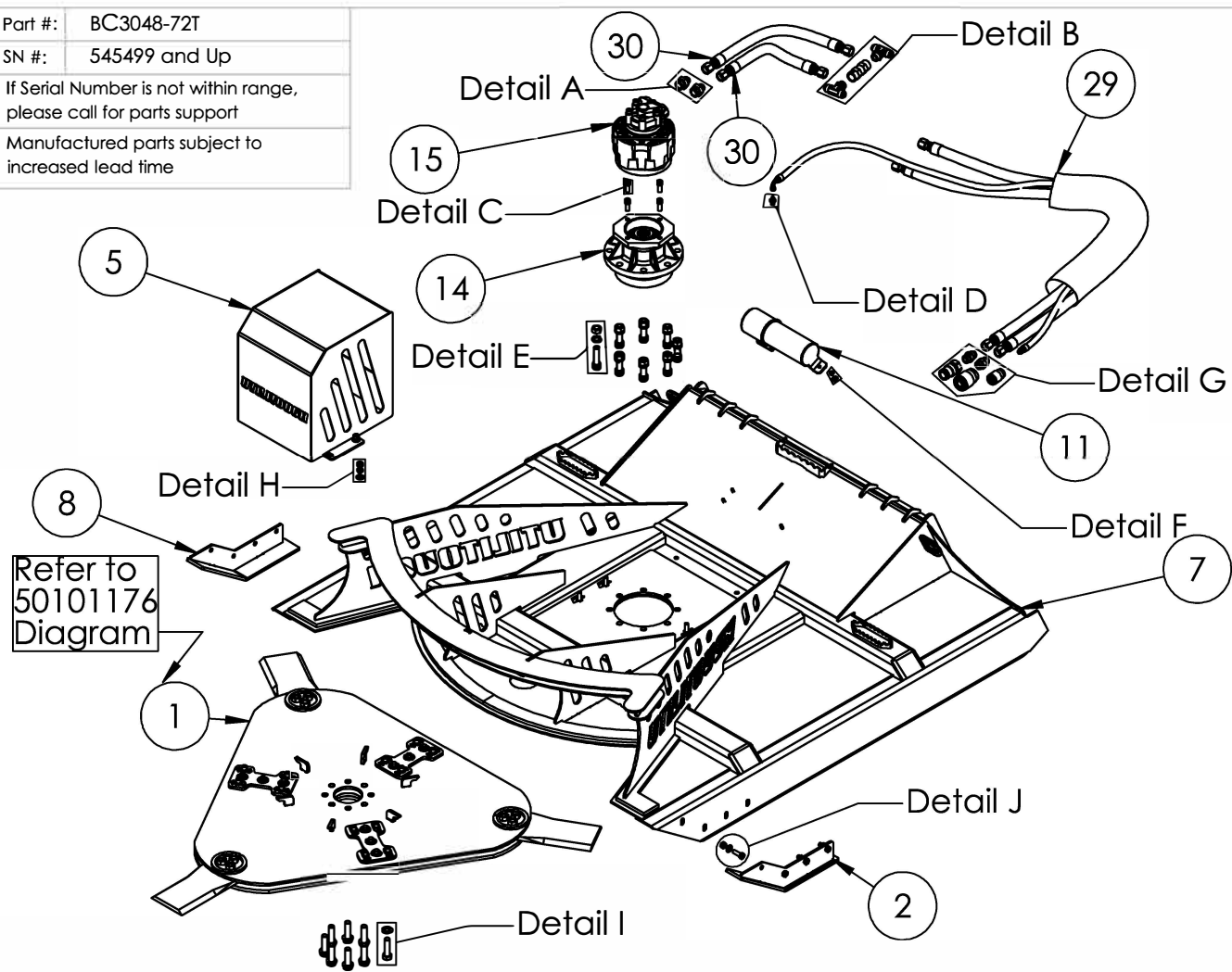


BI-DIRECTIONAL BLADE CARRIER
WITH MULCHING TOOTH SYSTEM

HOW IT WORKS

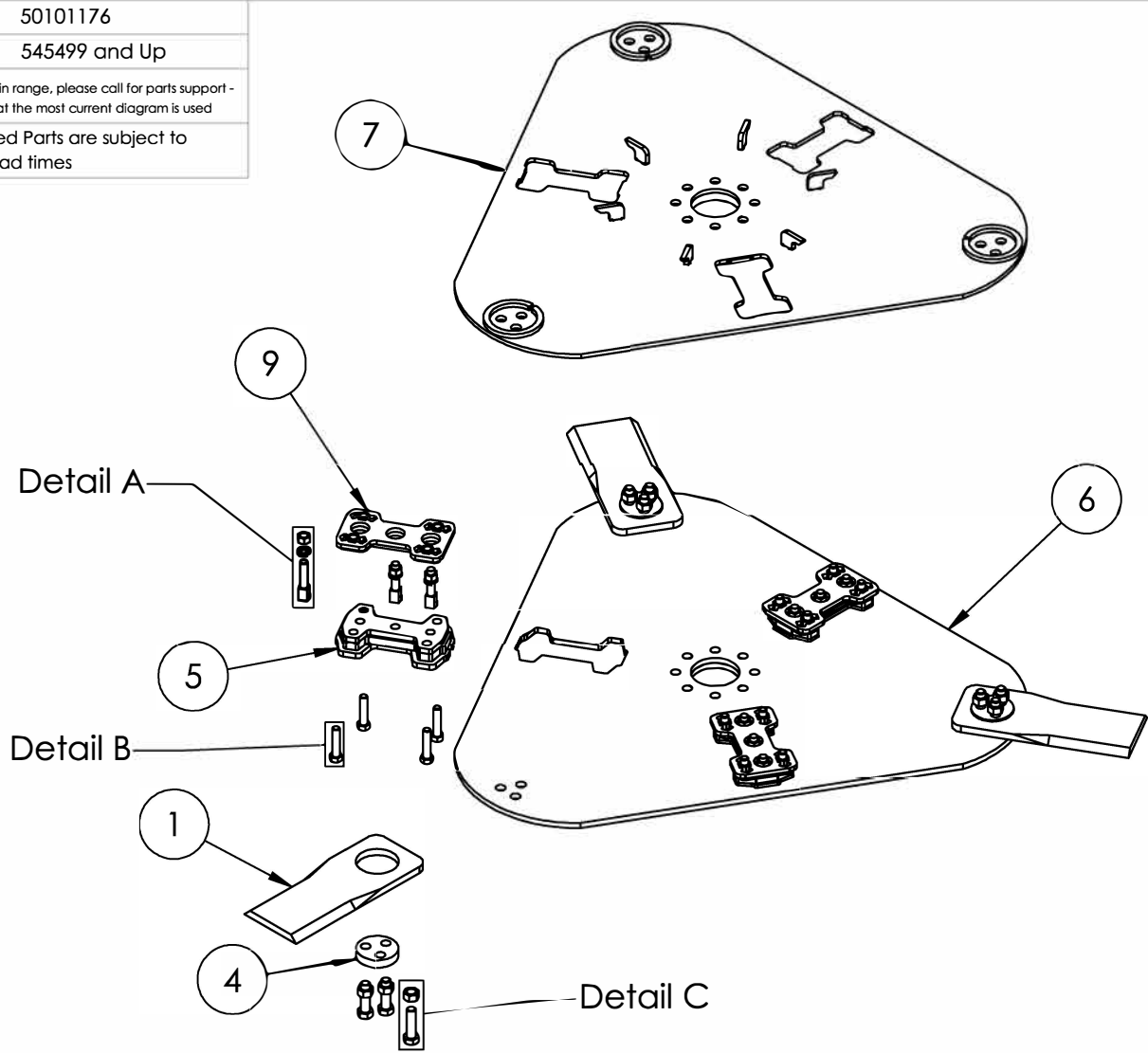
- 1** REMOVE THE PATENTED TOOTH-BAR HOLDER.
- 2** REVERSE THE MULCHING TEETH IN THE HOLDER. REPLACE WORN TEETH AS NEEDED.
- 3** REINSTALL THE HOLDER WITH THE TEETH SET FOR OPPOSITE ROTATION.
- 4** REVERSE CUTTING DIRECTION: REVERSE THE HYDRAULIC HOSES AT THE MOTOR, THEN ADJUST THE MOTOR RELIEF-VALVE SETTINGS.

Part #:	BC3048-72T
SN #:	545499 and Up
If Serial Number is not within range, please call for parts support	
Manufactured parts subject to increased lead time	

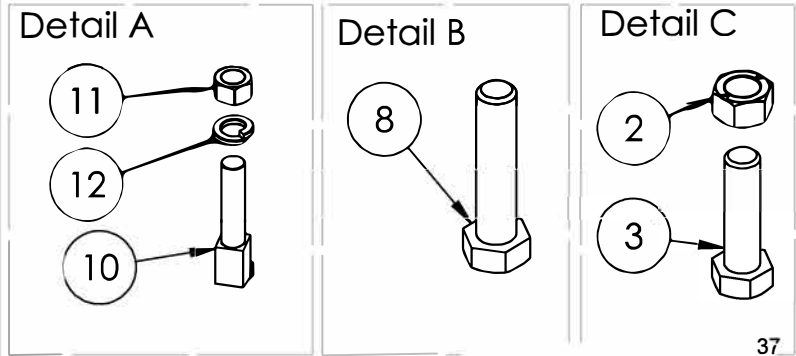


ITEM	Part #	DESCRIPTION	QTY.
1	50101176	Blade Holder (Mulching Teeth)	1
2	81400626	Skid Shoe Left Weldment	1
3	11201086	1/2"-13 X 1 1/2" Hex Bolt GR 8	8
4	11200446	1/2"-13 Lock Nut GR C	8
5	80400106	Motor Cover	1
6	11200306	1/2" SAE Flat Washer GR 8 Z/YEL	12
7	81400616	Deck Weldment	1
8	81400636	Skid Shoe Right Weldment	1
9	11200176	1/2" Split Lock Washer GR 8	4
10	11200276	1/2"-13 Hex FIN Nut GR 8	4
11	41100016	Manual Holder	1
12	11200256	5/16" USS Flat Washer GR 8	3
13	11200106	5/16"-18 Lock Nut GR C	3
14	40200106	Gearbox	1
15	40100126	Motor	1
16	11200206	3/4"-10 X 2 3/4" Hex Bolt GR 8	8
17	11200236	3/4" SAE Flat Washer GR 8	8
18	11200716	3/4"X 2 3/4" Socket Head Coarse Bolt	8
19	11200216	3/4"-10 Lock Nut GR C	8
20	11200226	3/4" Split Lock Washer GR 8	8
21	41000226	3/4" Flat Coupler FE - Changeable	1
22	41000236	3/4" Flat Coupler M - Changeable	1
23	41000046	3/4" Straight Fitting	2
24	41000126	3/8" Flat Coupler FE - Changeable	1
25	41000026	3/4" X 1" Motor Fitting	2
26	41000076	1/4" Case Drain Fitting	1
27	40600046	Check Valve	1
28	41000086	3/4" Tee Fitting	2
29	53200046	3/4" D X 7' Long Machine Hose Kit	1
30	52100056	3/4" D X 16 1/4" L Hose	2
31	11200966	1/2"-13 X 1 1/4" Socket Bolt	4

Part #:	50101176
SN #:	545499 and Up
If Serial is not within range, please call for parts support - confirm online that the most current diagram is used	
Manufactured Parts are subject to increased lead times	



ITEM	Part #	DESCRIPTION	QTY.
1	20100116	Blade	3
2	11200216	3/4"-10 Lock Nut GR C	9
3	11200206	3/4"-10 X 2 3/4" Hex Bolt GR 8	9
4	10400036	Blade Bushing	3
5	50101156	Mulching Teeth Holder Bottom	3
6	50101136	Bottom Weldment	1
7	50101146	Top Weldment	1
8	11200976	5/8"-11 X 2 3/4" Hex Bolt GR 8	12
9	50101166	Mulching Teeth Holder Top	3
10	10500016	Mulching Teeth	9
11	11200736	5/8"-18 HEX FIN NUT GR 8	9
12	11200336	5/8" Split Lock Washer GR 8	9



SECTION 8 · WARRANTY INFORMATION

UTILITOUGH LIMITED WARRANTY

Warranty terms for the American GRIT brush cutter must be governed by the current UtiliTough Limited Warranty in effect on the date of sale.

The supplied source manual contains manufacturer-specific warranty language that cannot be transferred to UtiliTough without authorization. Therefore, this conversion does not assign a warranty period, exclusions, freight responsibility or jurisdiction to UtiliTough.

For warranty service, retain the model and serial number, proof of purchase, a description of the issue and photographs of the attachment and failed component. Contact your authorized UtiliTough dealer for current warranty procedures and Return Material Authorization (RMA) requirements.

IMPORTANT WARRANTY NOTICE

Do not publish this manual as a final warranty document until the approved UtiliTough warranty statement and warranty-contact information have been inserted.

WARRANTY · RETURN AUTHORIZATION

RETURN MATERIAL AUTHORIZATION (RMA)

1. Contact your authorized UtiliTough dealer and provide the model and serial number.
2. Provide a description of the problem and photographs when requested.
3. Obtain an approved RMA number before returning a component.
4. Follow the dealer/UtiliTough shipping instructions for the returned component.
5. Warranty coverage, labor, freight and replacement-part responsibility will be determined under the current UtiliTough Limited Warranty.
6. Do not ship a component without the required RMA identification and documentation.

SECTION 10

MAINTENANCE LOGSHEETS

Use this log sheet to document all routine maintenance and repair services performed on this attachment.

[illegible]

MAINTENANCE LOG

Use this log sheet to document all routine maintenance and repair services performed on this attachment.

[illegible]

MAINTENANCE LOG

Use this log sheet to document all routine maintenance and repair services performed on this attachment.

[illegible]

MULCHING TEETH APPENDIX

HOW TO CHECK FASTENER TIGHTENING TORQUES-SEE PG 27 FOR TORQUE VALUES

1. With brush cutter firmly on the ground, proceed to lockout procedure of the carrier.
2. Set the torque wrench 10% lower than the recommended torque value of the fastener to be checked.
3. Place the torque wrench on the head of the nut or bolt and pull the torque wrench arm steady until you hear the "click" of the torque wrench setting point.
4. If the nut or bolt does not turn, the torque is still good.
5. If the nut or bolt turns, replace it if necessary and tighten to the recommended torque value specified.
6. Check torque of every fastener.

TEETH INSPECTION & REPLACEMENT

1. Brush Cutter is firmly on the ground in the vertical position with all power shut down.
2. While slowly rotating the blade holder by hand, thoroughly clean the visible parts of all TOOTH HOLDERS, and TOOTH.
3. Carefully inspect each TOOTH and TOOTH BOLT for looseness, cracks, damage, or excessive wear.
4. All damaged or loose parts must be replaced.
5. Carefully inspect ALL teeth. Teeth should have sharp cutting edges for maximum productivity.
6. Loosen TOOTH BOLT and tap on the head of the bolt until TOOTH pops loose.
7. Remove TOOTH BOLT and TOOTH.
8. Ensure that the mating surfaces of the TOOTH and TOOTH HOLDER are clean and free of burrs.
9. While holding TOOTH snugly against TOOTH HOLDER, screw in and torque TOOTH BOLT to specific tightening torque values and tightening condition as specified in this manual.
10. Repeat this procedure for the opposite tooth and for all other teeth that have to be replaced.

SIGNS OF TOOTH WEAR THAT AFFECT QUALITY & PERFORMANCE:

- Cutting and mulching speed abnormally slowing down.
- Excessive smoke.
- Cloud of fine sawdust.
- Excessive temperature of teeth.

NOTICE

Damaged or worn teeth will reduce blade holder life and decrease operating efficiency.

ALWAYS use sharp teeth.

REPLACE TEETH UNDER THE FOLLOWING CONDITIONS:

- Unbalanced blade holder.
- Missing tooth
- Damaged Teeth (fragmented)
- Worn cutting edges.

AMERICAN GRIT



AMERICAN GRIT

72" BRUSH CUTTER



STANDARD FLOW • MID FLOW • HIGH FLOW

UtiliTough • American GRIT

Keep this manual with the attachment.