



REGISTER YOUR PRODUCT

(I) C	ID	336-859-2002
MODEL		WEIGHT
PART		HP RANGE
SERIAL		
HYDRAU	LIC PRESSURE	HYDRAULIC FLOW
		WWW.CIDATTACHMENTS.COM

Please see the inside of the back cover for instructions of where to find your model and serial number.

AWARNING

To prevent personal injury or even death, be sure you read and understand all the instructions in this manual and other related OEM equipment manuals! This brush cutter, if not used and maintained properly, can be dangerous to users unfamiliar with its operation. Do not allow operating, maintaining, adjusting, or cleaning of this brush cutter until the user has read this manual and has developed a thorough understanding of the safety precautions and functions of the unit. This brush cutter is designed for the specific purpose of clearing brush. DO NOT modify or use this brush cutter for any application other than that for which it was designed. Brush cutters maintained or operated improperly or by untrained personnel can be dangerous, exposing the user and/or bystanders to possible serious injury or death.

STORE THIS MANUAL IN THE DOCUMENT CANISTER ATTACHED TO THIS MACHINE.



Purchase Date:	
Dealer Name:	
Address:	
Phone Number:	

WELCOME

hank you for choosing CID. This attachment has been designed and manufactured to meet the

needs of discerning users. We are committed to providing you with a heavy duty product that will

provide years of satisfaction and safe operation.

This manual will provide instructions on how to safely operate and maintain this attachment. All users

must read and understand this manual before operating this machine. Upon reading this manual, all

users should sign the "Safety Acknowledgment Form" at the end of this manual.

Please record your model and dealer information on the inside front cover. You will be asked to provide

this information when ordering parts or requesting service. If you need more information on this product,

contact your local dealer or visit www.cidattachments.com.

Sincerely,

The CID Team

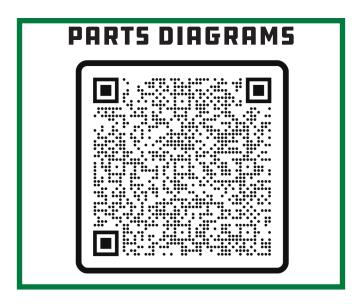


Approved: Jon Williams

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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 on page 34 of this manual.

SAFETY INFORMATION

The following terms may be used interchangeably throughout this manual.

Term	Alternate Terms Used	
Tree Reaper Brush Cutter	implement, attachment, rotary cutter,	
	machine, brush cutter, cutter	
Machine skid steer loader, skid steer tractor, loader		
	mover, host machine, tractor, compact track loader	
Operator	user, personnel	

The Tree Reaper Brush Cutter is 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. Accident prevention is a combination of good judgment, common sense, awareness and proper training!

BEFORE YOU OPERATE THIS BRUSH CUTTER:

KNOW how to safely operate your machine.

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.

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.

MARNING

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

A 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.

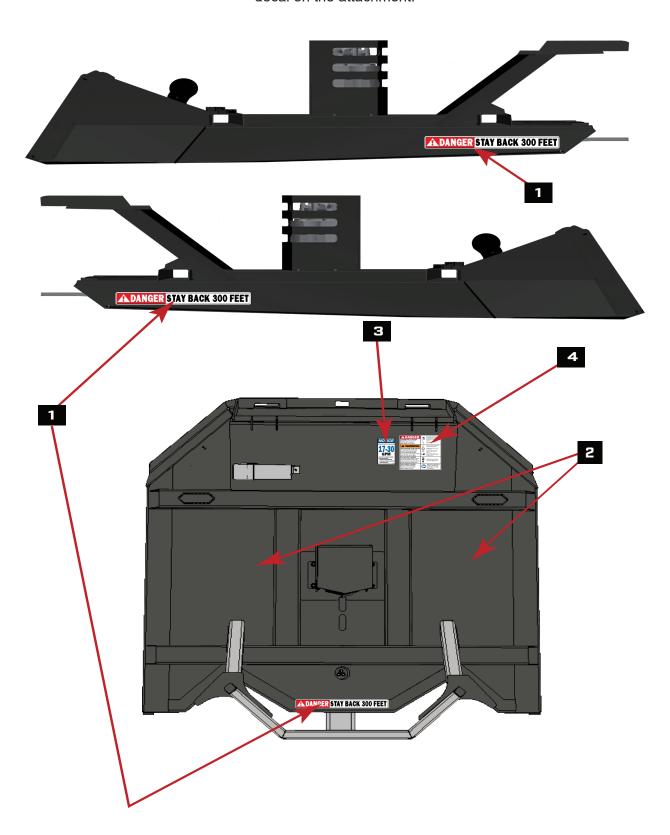
2.1 SAFETY SYMBOLS

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.
A //	CRUSH HAZARD: DO NOT place any part of the body under the
	attachment or machine arms to prevent death or serious injury from being
<u></u>	crushed .
	SAFETY CHAIN: We recommend installing to prevent the mower deck
Ď	from being raised more than 2 feet from ground level. We can supply
0	dimensions upon request.
\triangle	AMPUTATION HAZARD: Keep hands and feet away from cutting blades.
	Do not operate without guards in place. Turn off engine before servicing.

2.2 SAFETY DECALS

Safety warning decals are located on this attachment near immediate areas of potential hazards. Operators must learn the meaning of each decal and know where to find the decal on the attachment.



2.2 SAFETY DECALS

The safety decals affixed to this attachment are to keep you safe. DO NOT ignore these decals. Read and understand each decal's safety message. Follow these Safety Decal Instructions:

REF	DESCRIPTION	LABEL	QTY
1	DANGER STAY BACK 300 FEET (CID-12)	A DANGER STAY BACK 300 FEET	3
2	KIOTI BRAND LOGO (15" X 10") PRE-MASK (CID-18C)	(M) CID	2
3	AUXILIARY HYDRAULIC FLOW NOT TO EXCEED NOTICE LABEL (CID-13 or CID-40)	NOTICE WORLD WIDE ALVE MANDE 17-30 GPM FRAILE WORLD WIDE ALVE MANDE 16-26 GPM FRAILE WORLD WIDE ALVE MANDE FROM BANDE MAND FRAILE WORLD WIDE ALVE MANDE FROM BANDE MAND FRAILE WORLD WIDE FROM BANDE MAND FRAILE WORLD FROM *WHEN ORDERING, CHOOSE THE PROPER DECAL FOR YOUR MODEL	1
4	8X8 DANGER COMBO (CID-82)	PALLING OBJECT AND CRUSH HAZARD STORY OF THE PALLING OBJECT AND CRUSH HAZARD Supervise area more and region of the palling of the palling object object of the palling object obje	1

CONTACT YOUR LOCAL DEALER TO ORDER REPLACEMENT DECALS

A Decals must be kept clean and legible at all times.

 $oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{A}}}}$ Operators must inspect the attachment for safety decals.

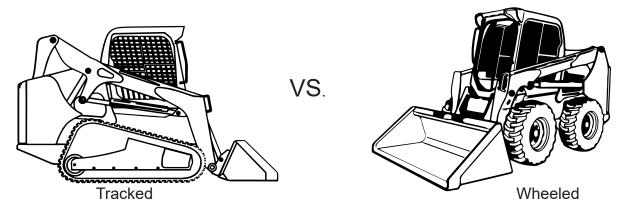
A Replace missing, worn or damaged decals immediately.

When using a hot pressure washer to clean this attachment make sure water jet is not too close to the decal as this may cause the decal to peel.

When replacing parts, be sure safety decals are in place prior to using the attachment.

Make sure metal surface is dry and free of dirt and grease before affixing decals to this attachment.

2.3 SKID STEER LOADER REQUIREMENTS

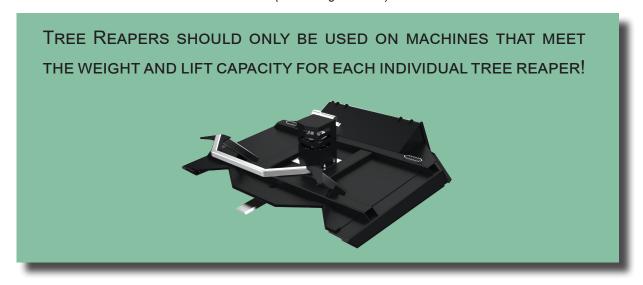


A Tracked Skid Steer or Compact Track Loader (CTL) will provide superior stability in this application.

Follow the operating instructions in your Skid Steer operator's manual.

Machines must have impact resistant polycarbonate windshield, door, and cab side windows.

(Excluding the Mini)



2.4 PERSONAL PROTECTIVE EQUIPMENT (PPE)

All operators should wear hearing protection, safety glasses, hand protection and dust mask while operating this attachment.









2.5 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.

alcoholic ALWAYS use eye protection while servicing operating or servicing this attachment.

ALWAYS operate this attachment during daylight or well-lit areas.

ALWAYS watch for overhead power lines.

MUST USE impact resistant polycarbonate windshield, door, and cab side windows on the machine.

DO NOT place hands or feet under mower deck while blades are spinning.

To prevent the machine and attachment from rolling forward, stop the engine and set the parking brake when exiting the machine.

NEVER operate this brush cutter when bystanders are within 300 feet of your work area. Flying debris could cause serious injury or death.

Inspect attachment for loose or missing hardware prior to using this machine.

NEVER position your body or limbs under an unsupported cutter deck.

DO NOT allow children to play on or around this attachment at any time. Store this attachment in an area not frequented by children.

DO NOT allow this attachment to contact buildings, utilities, large rocks or tree stumps or you may lose control of the machine.

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.

DO NOT operate this attachment during lightning or severe weather conditions.

ALWAYS wear work gloves when handling cutter blades as they are often very sharp.

DO NOT allow riders on the machine or on this attachment.

DO NOT speed! Keep your driving between 2 and 5 mph.



2.6 FEDERAL LAWS & REGULATIONS

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.

Child Labor Under 16 Years Old

Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your own area or situation. (Refer to U.S. Dept. of Labor, Employment Standard Administration, Wage & Home Division, Child Labor Bulletin # 102).

3.0 UNPACKING YOUR BRUSH CUTTER

SECTION 3

OPERATING PROCEDURES

Your attachment arrives from the factory strapped to a wood pallet and requires no final assembly.

Use a steel band cutting tool to remove the steel straps.

A CAUTION

Shipping straps are under great tension, and could lash out uncontrollably when cut causing injuries to your body or bystanders. Wear safety glasses and gloves while removing the steel straps.

B.1 NOMENCLATURE WOTOR COVER UNIVERSAL SKID STEER RITACHMENT BRACKET LEFT SIDE FRONT RIGHT SIDE SKID SHOES

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 and compact track loaders. 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. See figure 3.2a below.
- 3. Slightly tilt the skid steer Quick Attach Coupler up until the coupler and mounting bracket fully engage. See figure 3.2b below.
- 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 (when applicable) 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. See figure 3.2c below.



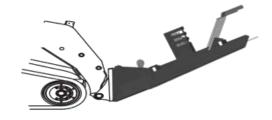


FIGURE 3.2A - BRUSH CUTTER MOUNTING

FIGURE 3.2B - COUPLER TO BRACKET

MARNING

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.

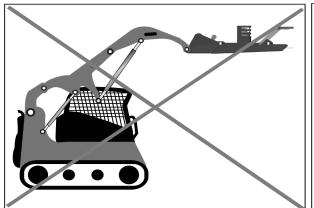
3.2 HOW TO MOUNT BRUSH CUTTER CONT.

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.



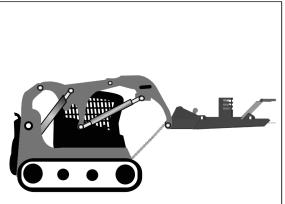


FIGURE 3.2C - SAFETY CHAIN

3.3 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.

3.4 HOW TO START BRUSH 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.

NOTICE

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

16-26

 \Box_{17-30} \Box_{30-48}

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 in Section 3.2.
- 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.

3.5 HOW TO STOP BRUSH CUTTER

STOPPING THE CUTTER

If brush cutter excessively 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.
- 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.

3.6 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 fluid if necessary.

AWARNING

(When applicable)

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

Warranty WILL BE 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.

3.6 FIRST TIME USE CONT.

- 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.

3.7 CUTTING OPERATIONS

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" on page 33.
- 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.

3.7 CUTTING OPERATIONS CONT.

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.

AWARNING

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

NOTICE

When cutting dense grass adjust the level of the cutter deck so the front of the cutter is lower than the back of the cutter. This will prevent material from "balling". When cutting dense wood, it is advised to tilt the front of the Tree Reaper 1"- 6" higher than the back.

A CAUTION

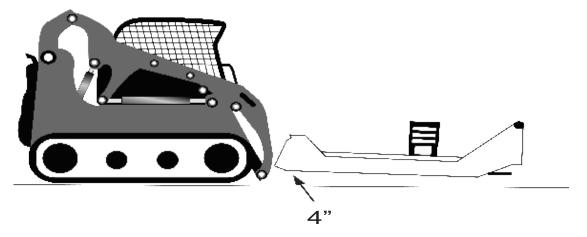
Use care when operating on uneven terrain or any type of sloped surface. Keep your cutter low to the ground when working in these conditions to avoid a roll over that could result in Minor or Serious Injury.

BEFORE CUTTING

- 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.
- Operate the machine at a safe speed that will allow you to watch the area ahead of the cutter & machine.
- 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 X-treme Tree Reaper Brush Cutter 16-26 is designed to cut trees up to 5 inches thick, the 17-27 cuts trees up to 7 inches thick, the 30-48 cuts trees up to 10 inches thick, and the mini cuts trees up to 4 inches thick. Use the push bar to push the tree while cutting.

A CAUTION

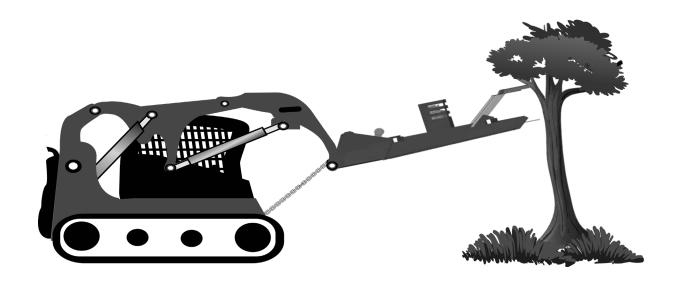
When cutting trees beware of the direction of fall to avoid the tree from crashing on to your machine.

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. **See Figure 3.7a** on the next page.
- 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. See Figure 3.7b on page 23.

3.7 CUTTING OPERATIONS CONT.

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



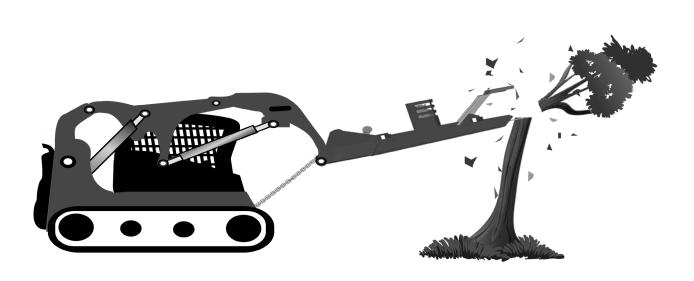


FIGURE 3.7A - TREE CUTTING

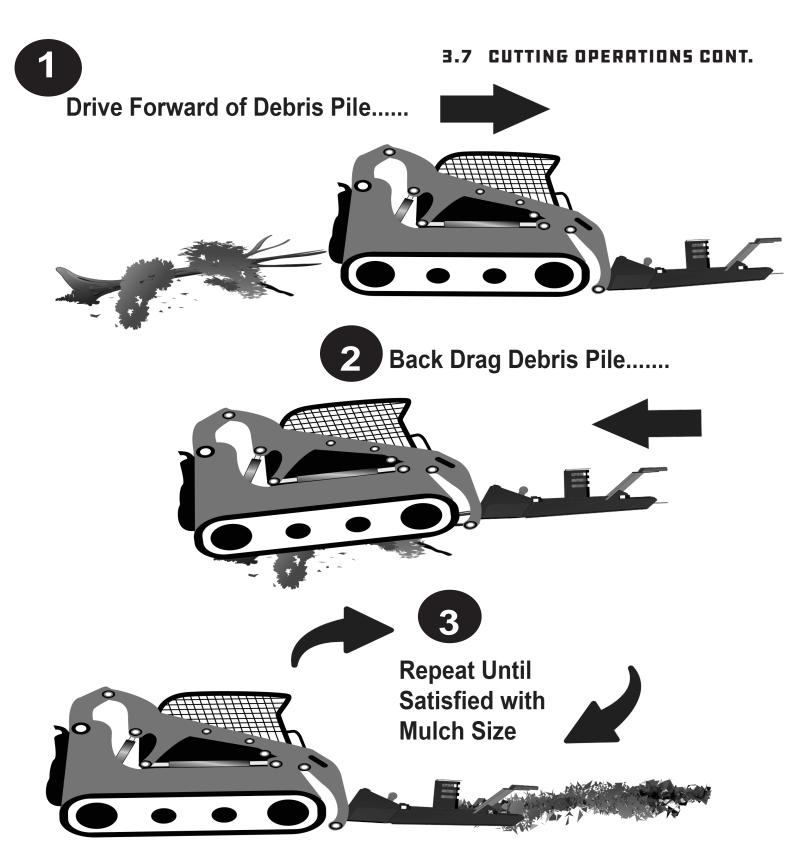


FIGURE 3.7B - MULCHING

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 Equipment Manufacturer (**OEM**) replacement parts. 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 have the rated load capacity to support the load.

4.0 MAINTENANCE OVERVIEW CONT.

AOnly perform service work in a well-lit area.

Allow the attachment to cool down before servicing this attachment.

ANEVER work under an unsupported cutter deck.

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

4.2 MAINTENANCE LOG INSTRUCTIONS

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



10. MAINTENANCE

MAINTENANCE LOG

DESCRIPTION OF MAINTENANCE/REPAIR	SERVICED BY:	DATE:
Replace Gutter Solades	Joe Smith	01/24/24
Inspect Acrebradic Clumbing	Soc Smith Soc Smith	02/25/24
Change Oil in Bearing Acousing	Soc Obmith	04/24/24

4.3 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 water, 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.

4.4 TORQUE SPECIFICATION TABLE AND INSTRUCTIONS

BOLT TORQUE INSTRUCTIONS

- 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 lbft.	LUBRICATED lbft.
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

4.5 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.

4.5 TORQUE EQUIPMENT REQUIREMENTS CONT.

MARNING

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









4.6 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 or eight 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 or eight 3/4 inch diameter grade 8 hex bolts with Loctite 635 or equivalent.
- 4. Install and torque bolts to the Torque Value listed on the Torque Chart on page 27.

4.8 BLADE REMOVAL



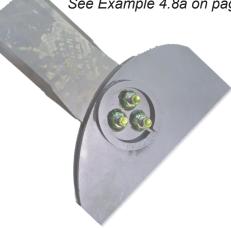
Cutter blades are sharp and could cut you if mishandled. ALWAYS wear protective gloves and footwear when handling cutter blades.

BLADE REMOVAL PROCEDURE

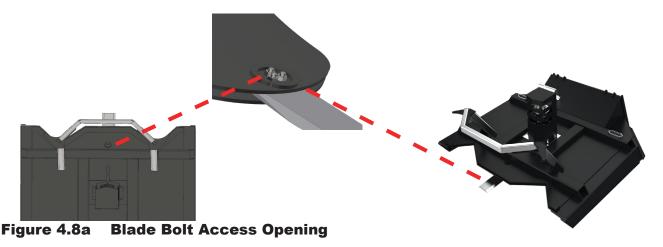
- 1. With the brush cutter on the ground:
- 2. Ensure the hydraulic hoses are disconnected from the machine couplers.
- 3. Rotate the blade holder until the 3/4" blade holder nuts are visible in the access opening.

4. Remove the hex nuts, washers and bolts. See Example 4.8a on page 30.

- Carefully pull the blade from the holder. 5.
- 6. Remove the blade retaining bushing.



4.8 BLADE REMOVAL CONT.



4.9 BLADE SHARPENING AND REPLACEMENT

SEE APPENDIX A FOR INSTRUCTIONS ON THE OPTIONAL MULCHING TEETH.

Blade Sharpening and Replacement Notes

- When sharpening the blades, be careful not to overheat the blade steel causing the blade material to become brittle and prone to early failure.
- Grind each blade to the similar shape and size so as to not create a set of mismatched blades. Mismatched blades or severe distortion of blade or blade holder may result in excess vibration or unbalancing which could result in damage to your attachment
- ALWAYS sharpen or replace cutter blades as set.
- NEVER mix and match used blades with new blades as they will cause the brush cutter to be unbalanced and result in a vibration that may cause damage to other brush cutter parts.
- Install blades in the same orientation they were in when removed.
- Opposing blades must be installed in the same orientation.
- Flip hydraulic lines going into the hydraulic motor if you wish to use the blades opposing edges.
- You MUST reinstall the bushing prior to re-bolting the bushing. DO NOT REPLACE with any other hardware!
- We recommend changing the bushing and bolts each time the blades are replaced.

NOTICE

Blades must be installed as a set to ensure proper balance of the blade holder.

Improper balance will cause vibrations that could result in component failure.

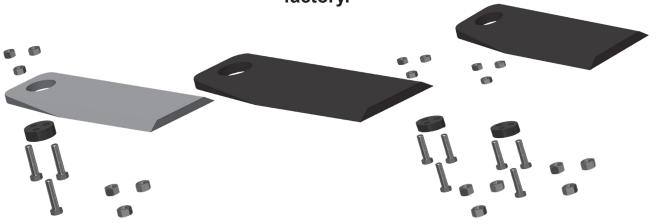
BLADE INSTALLATION PROCEDURE - BRUSH CUTTER ON THE GROUND

- 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 on page 27.

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



4.11 GEARBOX & BEARING HOUSING MAINTENANCE



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



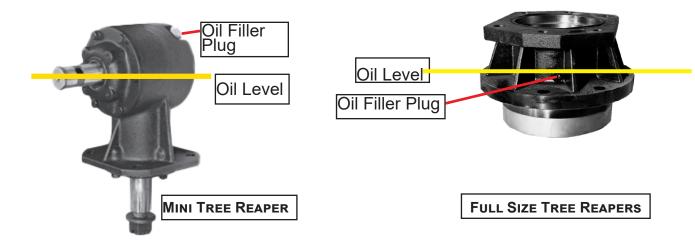
NOTICE

Disassembly 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 DIL LEVEL

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

4.11 GEARBOX & BEARING HOUSING MAINTENANCE CONT.



NOTICE

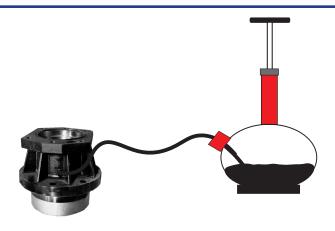
The initial oil should be changed after 50 hours of operation under load. Subsequent oil changes should take place after every 1000 hours of operation. More frequent oil changes may be necessary if operating this cutter in extreme hot conditions.

GEARBOX 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.



TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
	Deck is not leveled properly.	Refer to page 20 for leveling information.
	Material or debris is "balling" under deck.	Remove material or debris from under the deck.
Cutter bogs down, loses power, or doesn't get up to full RPM.	Bearing failure-(To diagnose, shut off hydraulic flow to cutter then slowly rotate the blade holder assembly & listen for bearing noise.)	See dealer for bearing housing service; replace bearing housing.
	Cutter speed too slow or ground speed too fast.	Increase engine throttle/RPMs and reduce ground speed.
	Hydraulic auxiliary flow too slow.	Look for hydraulic leaks & repair and or stuck check valve in hydraulic line H-Valve section. Repair or replace.
Evenesive Vibration	Missing, loose, damaged or stuck blades.	Replace damaged blades.
Excessive Vibration	Blade holder damaged.	Replace blade holder.
	Bearing failure.	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 and/or hose leak, or leaks in machine's hydraulic system.	Investigate and repair leaks.
	Hydraulic motor or bearing house failure.	Contact dealer for repair service.
Blades do not rotate when flow is activated.	Hydraulic lines disconnected or not fully connected.	Connect hydraulic lines to machine couplers. Ensure hoses are locked in place.
activated.	Problem with machine hydraulic auxiliary flow.	Contact machine dealer for diagnosis and repair.
	Flow is bypassing through check valve.	Check for stuck check valve in hydraulic line H-Valve section or reverse flow direction.

A DANGER

ONLY service the brush cutter on stable, even terrain. NEVER park on sloped

terrain to avoid being struck & killed or seriously injured by unexpected rolling or movement of machine.

SPECIFICATIONS

(MT) = Mulching Teeth are Optional

Model#	DESCRIPTION	RPM	TIP SPEED FT. MIN	TORQUE FT. LBS	Machine Pressure PSI	Est. Weight Lbs	Сит Width	Case Drain	CUT CAPACITY
TR3048-84MT TR3048-78MT TR3048-72MT	High Flow Bent Axis Piston (F12-152)	758- 1213	14282- 26661	485	6000	1640- 1947	84" 78" 72"	Yes	10"
TR1727-84 (MT) TR1727-78 (MT) TR1727-72 (MT) TR1727-60 (MT)	Parker Bent Axis Piston (F10-90)	692- 1099	10864- 24156	264	5000	1151- 1760	84" 78" 72" 60"	Yes	7"
TR1626-84 (MT) TR1626-78 (MT) TR1626-72 (MT) TR1626-60 (MT)	Parker Gerotor Motor (3ZG)	376- 611	5906- 13437	456	3000	1121- 1710	84" 78" 72" 60"	No	5"
TRD-48 TRD-40	Parker Gerotor Motor (TF)	379- 568	3962- 7132	243	3000	558- 663	48" 40"	No	4"

NOTICE

The lowest weight listed is without optional mulching teeth. The heaviest weight listed is with optional mulching teeth.

PARTS INFORMATION

Factory OEM parts specifically designed for your implement are readily available.

For hassle free service and to ensure you receive the correct parts for your implement, please provide your dealer with the following information:

Model Number	
Serial Number	
GPM Requirements	
Date of Owners Manual	
(Bottom Left Corner	
of Cover Page)	
Parts Diagram Page Number	
Part Description	
Reference #	
Quantity Desired	
Ship To Information	
Bill To / Payment Information	

WARRANTY INFORMATION

LIMITED WARRANTY

Construction Implements Depot, Inc. (CID) products are warranted to be free from defects in workmanship or materials for a period of 12 months from the initial sale.

WARRANTY EXCLUSIONS

This warranty does not cover normal wear items, including but not limited to: bearings, hoses, blade holders, ground engaging parts such as teeth, blades, cutting edges, pilot bits, auger teeth and broom bristles. This warranty does not cover maintenance, service or adjustments. This warranty does not cover damage due to improper application or installation, misuse, negligence, accidents or improper maintenance. Please note: Any modification or customization made to your attachment may void its warranty. This warranty is void if any components have been disassembled, i.e., pumps, gear boxes or motors or the attachment has been used without the case drain attached (if applicable). Be sure to follow all recommended Horsepower and GPM requirements as outlined in product specifications, in order to prevent the warranty from being void. This warranty is contingent upon the use of approved BRAND parts exclusively. Any use of non-approved parts may result in voiding the warranty. Please be advised that the warranty does not cover refurbished attachments. Specially modified attachments built by the manufacturer to meet your needs shall not be warranted by CID, Inc.

REPAIRS UNDER WARRANTY

Any repairs, including welding, on attachments must be performed by certified repair technicians who have requested and obtained written approval from an authorized representative of CID before repairs begin. If you are completing the repair, you must also have prior written approval to prevent the warranty from being voided.

WODDONTU STOTEMENT

Our obligation under this Limited Warranty shall be solely limited to repairing or replacing any part (see non-covered items above) that, according to our judgment, show evidence of a defect in quality of workmanship or materials for the stated 12 month warranty period. All defective parts must be routed directly to CID, Inc. with freight or delivery charges to be prepaid. This limited warranty shall not be interpreted to render CID, Inc. liable

8.0 WARRANTY INFORMATION CONT.

for any injury or damage to persons, businesses or property of any kind nor expenses or losses incurred for labor, supplies, substitute machinery rental or for any other reason. Repair or replacement parts are subject to the supply conditions at the time of repair or replacements, which may directly affect our ability to obtain material and/or replacement parts. CID, Inc. reserves the right to make improvements in design or changes in specifications at any time without incurring any obligations to owners of previously purchased products. No one but CID, Inc. is allowed to alter, modify or enlarge this warranty nor the exclusions, limitations and reservation at any time. CID, Inc. products are warranted to be free from defects in workmanship or materials for a period of 12 months from the initial sale.

Purchaser and Manufacturer hereby (a) submit to the non-exclusive jurisdiction of the courts of competent jurisdiction in North Carolina and Davidson County in which this company resides for resolution of any dispute concerning this Limited Warranty or the rights or obligations of Purchaser and/or Manufacturer; (b) agree that any litigation in connection with this Limited Warranty shall be venued in North Carolina and Davidson County in which the company resides and (c) waive any objection they may have as to any such action or proceeding brought in such court that such court is an inconvenient forum. Nothing herein shall limit the right of Purchaser or Manufacturer (or the right of any permitted successor or assign of either) to bring proceedings against the other in the courts of any other jurisdiction wherein any assets of such other party may be located.

8.1 WARRANTY RETURN AUTHORIZATION POLICY

WARRANTY RETURN AUTHORIZATION POLICY:

If repairs are required, a Return Material Authorization (RMA) number must be obtained for the defective part as well as proof of purchase. RMA and services are rendered by CID only. Any responsibility of shipping costs on any item returned for repair is at the discretion of CID, Inc.

All returned parts must have the following:

- 1. A legible RMA number written on the outside of the package.
 - 2. Warranty Claim Form (online)
 - 3. The defective part.

RMA numbers are only valid for 30 days from the date of issue. All shipped replacement parts will require a Parts Order (PO) number from the original CID, Inc dealer. Repairs not covered by the warranty, will be charged for parts and labor at the current pricing rate. Should you have any problems with your attachment, please follow the instructions listed on the following page.

8.2 WARRANTY PROCEDURE

WARRANTY RETURN AUTHORIZATION PROCEDURE:

- 1. Call the Warranty Department at (336) 859-2002 EXT 215. You will need to provide the model and serial number of the defective item(s) (see Appendix for where to find this information), a description of the problem, and have photographs available.
- 2. Upon a warranted issue, visit www.cidattachments.com, click on the warranty tab, and fill in the warranty information on the Warranty Claim Form.. CID, Inc will retain a Return Material Authorization (RMA) number of the defective part. If all the information above is completed CID, Inc will issue a RMA number via email..
- 3. Once you have an approved RMA number, a shipping label will be provided with CID's address and instructions for returning the defective part. Appropriate RMA's/PO's will be invoiced and payment received while the evaluation process is being completed to prevent delays in your normal business operations. In the event the defective part(s) is un-warranted and repairs are not covered by the warranty, the customer will be invoiced for any additional parts and labor at the current pricing rate. If the part is deemed under warranty, a credit of the invoice will be issued.
- 4. CID will ship a replacement part to the provided location or customer with a RMA identifier of some kind. **The customer is responsible for initial shipping charges until evaluation of the part has been completed.** If the part failure is covered by the warranty, the customer will be reimbursed for any paid shipping charges. In the event, the part is not covered by the warranty, the customer is responsible for return shipping.
- 5. Once the defective part is warranted by CID, the customer will be issued a credit and the PO number will no longer be active.
- 6. In the event CID decides that the attachment needs to be returned to them for repair, CID will make arrangements for pickup and return. Repairs will be performed by CID qualified technicians. Non-warranted issues will be discussed, and repairs will be performed upon the owner's agreement and receipt of payment for parts and labor.

SAFETY ACKNOWLEDGMENT

ATTENTION ALL OPERATORS: Print your name, sign and date in the boxes below to acknowledge that you have read and fully understand the safety instructions presented in this manual, and have been

ained on how to safely operate this attachment.				
DPERATOR NAME	SIGNATURE	DATE		

MAINTENANCE LOGSHEETS

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

Г	T	1
DESCRIPTION OF MAINTENANCE/REPAIR	SERVICED BY:	DATE:

APPENDIX A - MULCHING TEETH APPENDIX

A DANGER OBSERVE ALL SAFETY PRECAUTIONS OUTLINED IN THIS MANUAL.









BLADE HOLDER WITHOUT
MULCHING TEETH- EXAMPLE



Before attempting to begin mulching operation,ensure

that all personnel or bystanders are standing at least 300 feet away.

MAINTENANCE TASK	Daily / Every 10 Hrs	WEEKLY EVERY 50 HRS
BEFORE STARTING BRUSH CUTTER WITH TEETH:	x	
All mulching tooth mounting bolts are properly torqued and none missing. Instructions Pg 42	*	
Blades & Blade holder is in good condition. No cracks, gouges, or heat discoloration.	X	
All tooth holders are sitting flat with blade holder.	Х	
All teeth are still sharp and are not worn round at corners.	Х	
START UP: All protective devices are in place and secure.	Х	
Warning sign "Stay out of Reach" in place & visible.	Х	
No unusual noises or vibrations.	X	

MULCHING TEETH APPENDIX

How To Check Fastener Tightening Torques-See pg 27 for Torque Values

- 1. With brush cutter firmly on the ground, turn off host machine & make sure parking brake is applied and wheels are chocked.
- 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 mulching tooth fastener.

TEETH INSPECTION, ROTATION, &/OR 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 should sharp cutting edges for maximum productivity.
- 6. Loosen TOOTH NUT and tap on the nut while nut is still slightly engaged on the threads until tooth pops loose. the bolt until TOOTH pops loose.

- 7. Remove TOOTH NUT and BOLT.
- 8. Ensure that the mating surfaces of the TOOTH and TOOTH HOLDER are clean and free of burrs.
- 9. Apply Loctite 635 or equivalent to the TOOTH threads and insert into TOOTH HOLD-ER taking care to keep TOOTH cutting face in the direction of the BLADE HOLDER rotation. (NOTE: If swapping hydraulic hoses into motor to change blade holder rotation, mulching teeth will need turned to the new cutting direction.)
- 10. While holding TOOTH snugly into TOOTH HOLDER, thread on NUT and torque to the specifications.
- 11. Repeat this procedure for the opposite tooth and for all other teeth that have to be replaced. Always replace teeth in pairs to keep balance of the blade holder correct.

Signs of tooth wear that affect Quality & Performance:

- Material being mulched does not break down quickly into
 Cloud of fine sawdust. smaller pieces.
- Excessive smoke.

NOTICE

Damaged or worn teeth will decrease operating efficiency.

ALWAYS use sharp teeth.

REPLACE TEETH UNDER THE FOLLOWING CONDITIONS:

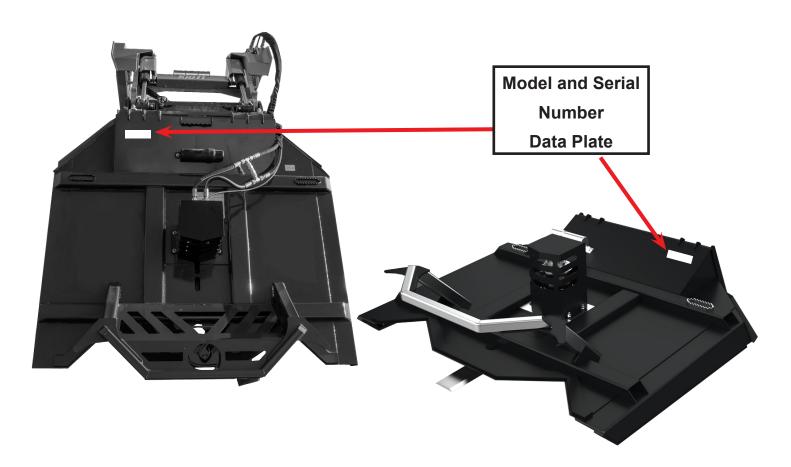
- Missing tooth
 - Damaged Teeth (fragmented)
- Worn cutting edges.
- Damaged threads.

APPENDIX B - FINDING YOUR MODEL & SERIAL NUMBER

The Model and Serial numbers will be in one of (4) places and will either be etched into the attachment or on a Data Plate.

Instructions: Stand at the back of the attachment facing the attachment mounting bracket and look in the following locations:

- 2) Top-left or right
- 3) Back-left or right



PLEASE NOTE: The Model and Serial number may be etched or on a Data Plate.

Disclaimer: Any critical changes made to this manual by individuals outside the manufacturer's authorized personnel are doing so at their own risk. The manufacturer cannot be held legally responsible for any consequences, damages, or liabilities resulting from such modifications. It is advised to adhere strictly to the original manual provided by the manufacturer for optimal performance, safety, and reliability.





CONSTRUCTION IMPLEMENT DEPOT
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