CID ATTACHMENTS

BRUSH CUTTERS

MINI

OPEN FRONT STANDARD DUTY

STANDARD DUTY

HEAVY DUTY

X-TREME DUTY

SEVERE DUTY &

X-TREME PISTON CUTTERS

OWNER'S MANUAL

HEAVY DUTY

SEP
2024

OPERATING INSTRUCTIONS| SAFETY RULES | MAINTENANCE PROCEDURES

REGISTER YOUR PRODUCT

CID

336-859-2002

MODEL		WEIGHT	
PART		HP RANGE	
SERIAL			
HYDRAULIC 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.

⚠WARNING

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

Thank 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

TABLE OF CONTENTS

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.

SECTION 2

SAFETY INFORMATION

The following terms may be used interchangeably throughout this manual.

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

This 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.

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

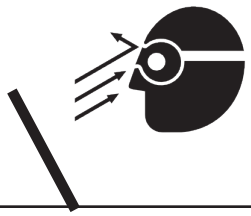
Indicates a situation which may cause damage to equipment or property.
Messages are not related to personal injury.

Safety Instructions

Indicates specific safety-related instructions or procedures.

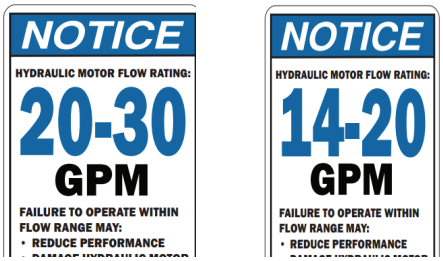
2.2 SAFETY SYMBOLS

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 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.

2.3 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 Instructions:

REF	DESCRIPTION	LABEL	QTY
1	SCAN TO VIEW OWNER'S MANUAL QR CODE STICKER		1
2	COMBO DANGER WARNING LABEL Pinch Hazard, High Pressure Fluid Hazard, Flying Debris Hazard, Safety Chain Required.		1
3	WARNING DO NOT EXCEED GPM LABEL *WHEN ORDERING, CHOOSE THE PROPER DECAL FOR YOUR MODEL		1
4	DANGER STAY BACK LABEL **There are TWO decals left side front and right side front.		2

CONTACT YOUR LOCAL DEALER TO ORDER REPLACEMENT DECALS

⚠ **Decals must be kept clean and legible at all times.**

⚠ **Operators must inspect the attachment for safety decals.**

⚠ **Replace missing, worn or damaged decals immediately.**

⚠ **Use care when cleaning the attachment. 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.**

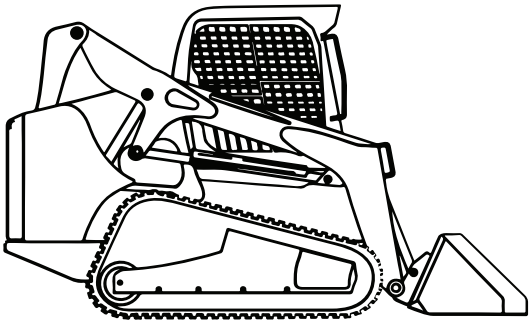
2.3 SAFETY DECALS

OPEN FRONT STANDARD DUTY

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.

2.4 SKID STEER LOADER REQUIREMENTS



Tracked

VS.

Wheeled

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

The machine must have impact resistant windshields and cab side windows.

THE Brush Cutters should only be used on machines that meet the following requirements:

MACHINE	STANDARD DUTY	HEAVY DUTY	SEVERE DUTY & X-TREME
Min. Lift Capacity	1,200 lbs	1,500 lbs	2,200 lbs
Min. lbs. with Cutter Removed	5,500 lbs	5,500 lbs	6,500 lbs
Engine HP	45	>50	>75

2.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

2.6 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.
- ALWAYS operate this attachment during daylight or well-lit areas.
- We recommend using a high strength clear protective door panel when using with this attachment.
- To prevent the machine and attachment from rolling forward, stop the engine and set the parking brake when exiting the machine.
- Inspect attachment for loose or missing hardware prior to using this machine.
- ALWAYS watch for overhead power lines.
- DO NOT place hands or feet under mower deck while blades are spinning.
- NEVER operate this brush cutter when bystanders are within 300 feet of your work area. Flying debris could cause serious injury or death.
- 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.
- 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.
- ALWAYS wear work gloves when handling cutter blades as they are often very sharp.
- ALWAYS use eye protection while operating or servicing this attachment.
- DO NOT allow this attachment to contact buildings, utilities, large rocks or tree stumps or you may loose control of the machine.
- DO NOT operate this attachment during lightning or severe weather conditions.
- DO NOT allow riders on the machine or on this attachment.
- 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.

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).

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.

⚠ CAUTION

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

3.1 HOW TO CONNECT BRUSH CUTTER ATTACHMENT

GENERAL ATTACHMENT METHOD

Refer to your machine operator's manual for specific instructions on how to connect and disconnect 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. Ensure the hydraulic lines are clear from the front side of the brush cutter's attachment bracket and that the levers on the skid steer Quick Attach Coupler are in the unlocked position.
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 hooks under the lip of the attachment bracket. See figure 3.1a below.
3. Slightly tilt the skid steer Quick Attach Coupler upward until the brush cutter attachment bracket is flat against the skid steer Quick Attach Coupler. See figure 3.1a below.

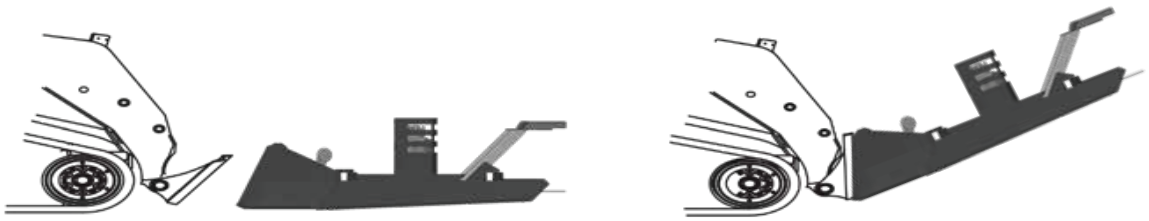


FIGURE 3.1A – QUICK ATTACH COUPLER LOCKED TO ATTACHMENT

4. Activate your skid steer's lever lock switch to lock the pins into the brush cutter's attachment bracket. If your skid steer does not have this switch, manually lock the pins as shown in Figure 3.1b below.

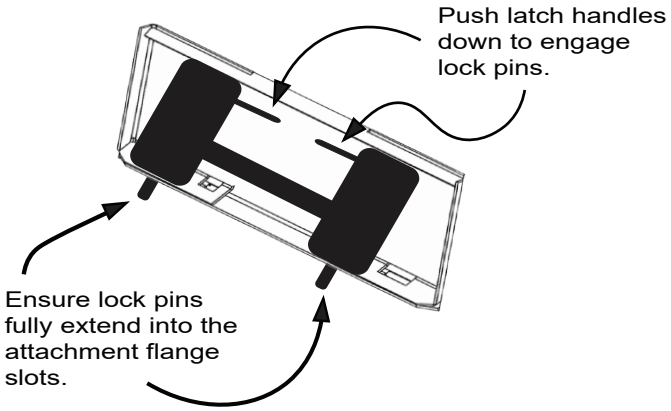


FIGURE 3.1B QUICK ATTACH COUPLER LOCKED TO ATTACHMENT BRACKET

⚠ 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 skid steer.

NOTICE

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

5. Connect the attachment hydraulic hoses and the case drain hose to the auxiliary supply couplers located on your skid steer loader lift arm.

NOTICE

Check that hydraulic hoses are locked into the machine couplers before starting the cutter.

⚠ CAUTION

DO NOT operate this attachment if you can see the cutter blade while seated in the operator's seat. If the operator can see the cutter blade, the back of the cutter is raised TOO HIGH!

Lower the cutter deck to avoid debris being thrown at the operator.

3.1 HOW TO CONNECT BRUSH CUTTER ATTACHMENT CONT.

⚠WARNING

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

6. Attach 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 3.1c below.

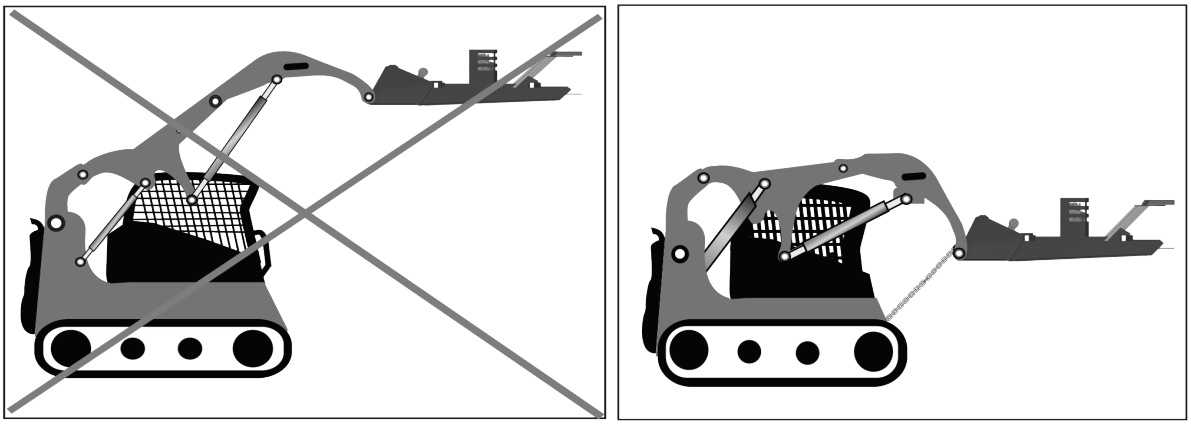


FIGURE 3.1C - SAFETY CHAIN

3.2 HOW TO DISCONNECT BRUSH CUTTER

DISCONNECTING 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 host 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. Check the specifications table on page 33 and 34 for your specific model's max GPM.

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. Verify attachment is secure with coupler levers in the locked position and locking pins fully engaged into attachment bracket..
2. Ensure hydraulic hoses are locked to the machine's hydraulic couplers.
3. Set machine engine RPM to slightly above idle.
4. Activate machine auxiliary hydraulic circuit.
5. Once brush cutter is up to speed, increase machine engine to full throttle. Ensure cutter is running smoothly.

3.4 HOW TO STOP BRUSH CUTTER

Stopping the Cutter

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

NOTICE

If the brush cutter vibrates while increasing RPM's, switch off the auxiliary hydraulic circuit and investigate the cause. Refer to the Troubleshooting Chart on page 32 of this manual.

⚠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.

NOTICE

ALWAYS release the hydraulic system pressure from the auxiliary hydraulic circuit prior to removing the attachment or performing any hydraulic service work.

3.5 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 machine and add manufacturer recommended fluid if necessary.

NOTICE

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

DO NOT operate this attachment WITHOUT the case drain hose attached.

Excessive hydraulic pressure will blow out seals and damage the motor.

Verify that hydraulic hoses are securely locked to the machine's 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 and flip the auxiliary hydraulic switch to the ON position.

2. .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. Lower the brush cutter to the ground, then shut off machine engine and exit the cab.

4. Check the hydraulic fluid level in the machine, add manufacturer recommended fluid if necessary.

5. Inspect the brush cutter hydraulic plumbing 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.

6. Restart machine, set engine RPM to slightly above idle

7. Raise brush cutter off the ground and switch on the auxiliary hydraulic circuit.

8. Once brush cutter ramps up to speed, increase machine engine to full throttle.

3.6 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. LISTEN and FEEL for any strange vibrations or noises. If you feel a strong vibration while cutting, slow the machine down and see if the vibration stops. If not, stop the brush cutter, lower the attachment, turn off the machine engine and investigate the cause. Refer to the “Troubleshooting Chart” on page 32 of this manual.
4. ALWAYS be aware of your surroundings and pay attention to obstacles and terrain in front of you.

DANGER

Cutting tree branches with the cutter in an elevated position could result in Death or Serious Injury if the host machine becomes unstable. Never raise the cutter more than a few feet off the ground when working on slopes or uneven terrain. 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's operator 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.

NOTICE

When cutting dense or heavy material, 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 assist the processing of the material and will prevent material from "balling" under the deck.

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

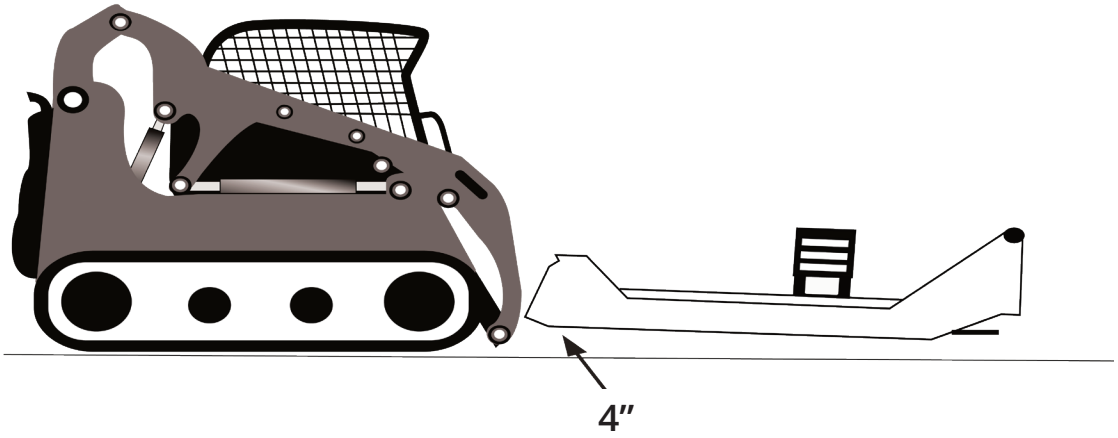
1. ALWAYS inspect work area before starting the cutter. Locate and mark any utilities, steel posts, rocks or any other objects that could damage the brush cutter during operation. NEVER assume the work area is safe.

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.



CUTTING ABOVE GROUND LEVEL VEGETATION

⚠ WARNING

DO NOT operate the brush cutter if you (the operator) can see the cutter blade. If the operator can see the cutter blade, the back of the cutter is raised TOO HIGH. Lower the cutter deck to avoid being hit by flying debris

⚠ CAUTION

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

1. Tilt the front of the deck 1 to 2 feet above ground level. *DO NOT raise the rear of the deck. Note: Safety chain will limit height of the cutter deck.*

2. Drive slowly into the vegetation and use the machine tilt function to push the vegetation forward. Allow the cutter blade to cut the vegetation. *See example 3.6b on page 22 of this manual.*

3. Lower the front of the deck as you continue to mulch the vegetation.

4. Drag the cutter to further minimize the size of the debris. *See example 3.6b on page 22 of this manual.*

3.6 CUTTING OPERATIONS CONT.

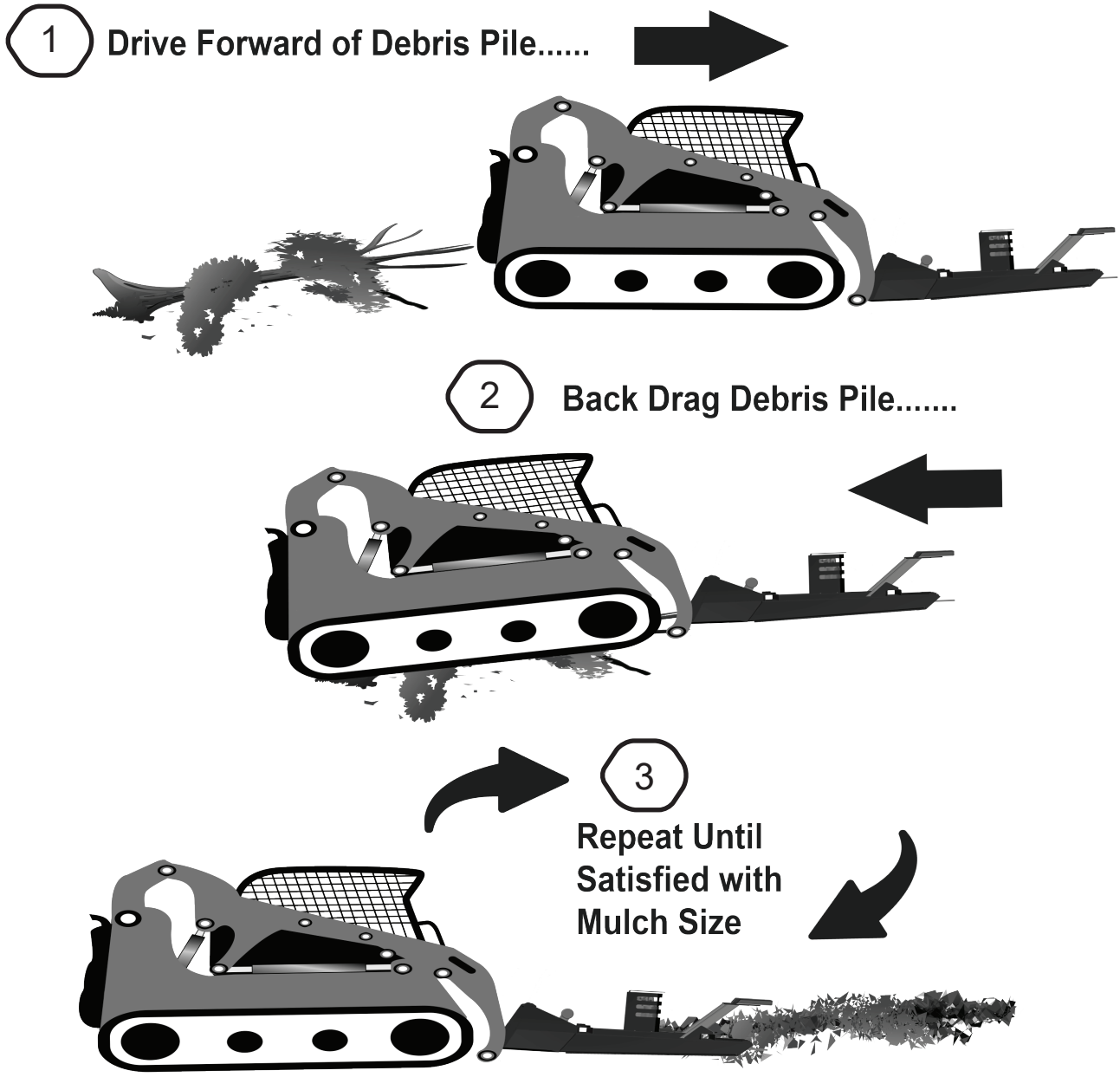


FIGURE 3.6B - MULCHING

NOTICE

If the cutter speed slows down, reduce your travel speed and allow the cutter to reach the proper rotating speed. Mowing TOO fast in thick vegetation could result in “balling” of the material underneath the cutter deck resulting in a loss of cutting efficiency.

⚠ CAUTION

NEVER use your brush cutter to push, pull, lift or move any type of object or vehicle. DO NOT use this brush cutter to “push” down trees without using the cutter blades.

SECTION 4

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 MANUFACTURER 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. ONLY use genuine replacement parts on this attachment.

Obey the following safety instructions when servicing or repairing this machine.

Wear proper Personal Protective Equipment (PPE) while working on this attachment, which may include safety glasses, hard hats, steel toe boots, gloves, etc.

If servicing is performed while the brush cutter is attached to the machine, turn engine off, set parking brake and chock wheels to prevent machine from moving.

Ensure all jack stands, lifts and hoists are in good working condition and have the rated load capacity to support the load.

Wear a welding helmet when welding to protect your eyes, face and neck from flash burn, ultra-violet radiation and heat.

4.0 MAINTENANCE OVERVIEW CONT.

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

⚠ **Allow the attachment to cool down before servicing this machine. Hot oils can burn your skin.**

⚠ **NEVER work under an unsupported cutter deck.**

4.1 MAINTENANCE SCHEDULE

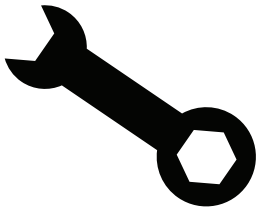
This Brush Cutter attachment will provide years of dependable service if routine maintenance procedures are performed. The maintenance tasks listed below are based on normal operating conditions. More frequent maintenance may be necessary with intense use or when operating in adverse environmental conditions.

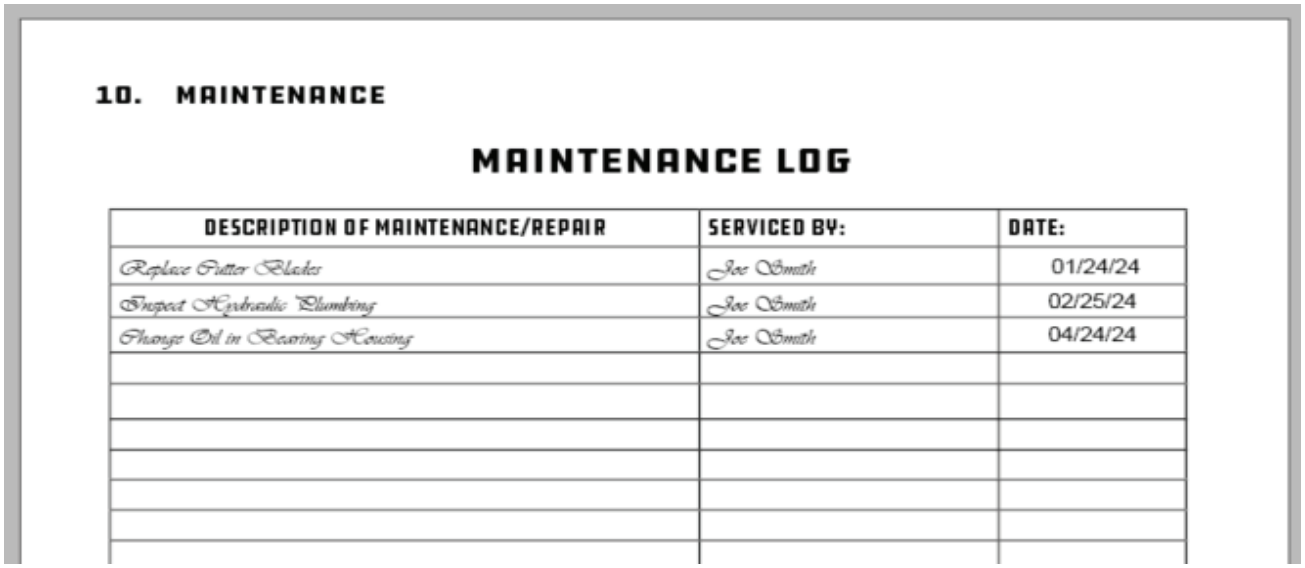
MAINTENANCE TASK	BEFORE EACH USE	WEEKLY	YEARLY
Check host machine's hydraulic fluid level. Add manufacturer recommended fluid as necessary. *Please refer to our "Hydraulic Fluid and Oil Statement" on Page 5 for gear oil or hydraulic fluid instructions.*	X		
Check that all fasteners (nuts, bolts, washers, 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. *We recommend replacing the bushing & bolts with the blades.	X	X	
Check oil level in bearing house. Add fluid 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

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





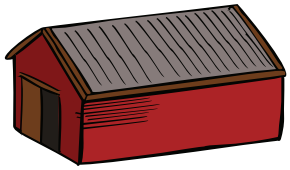
10. MAINTENANCE

MAINTENANCE LOG

DESCRIPTION OF MAINTENANCE/REPAIR	SERVICED BY:	DATE:
Replace Cutter Blades	Joe Smith	01/24/24
Inspect Hydraulic Plumbing	Joe Smith	02/25/24
Change Oil in Bearing Housing	Joe Smith	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 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

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

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.

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

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

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. Use the machine tilt function to place the attachment in a near vertical position.
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. If you are performing this in the field, lean the cutter head against a large stable tree that is at least 10 inches in diameter.
5. Place a rated lift under the blade holder.
6. REMOVE the **six** (Low Flow) or **eight** (Heavy Duty & High Flow) **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.*
7. **STANDARD:** Remove the Cotter Pin and Castle Nut. NOTE: If the stump jumper fails to separate, use a wedge breaker tool to separate the blade holder from the gearbox flange.

4.7 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 hole in the blade holder to the gearbox shaft and fully seat the holder into the shaft.
2. Tap the blade holder with a rubber hammer to ensure full engagement. The blade holder must be properly aligned and seated on the gearbox shaft spline before proceeding to the next step..
3. **STANDARD DUTY:** Install castle nut and cotter pin.
4. **HEAVY DUTY & X-TREME: Lubricate the six 3/4 inch diameter Grade 8 hex bolts with Loctite 635 or equivalent.** Torque to the lubricated value shown in the Torque Table on page 26 in this manual.

4.8 BLADE REMOVAL

⚠ CAUTION

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

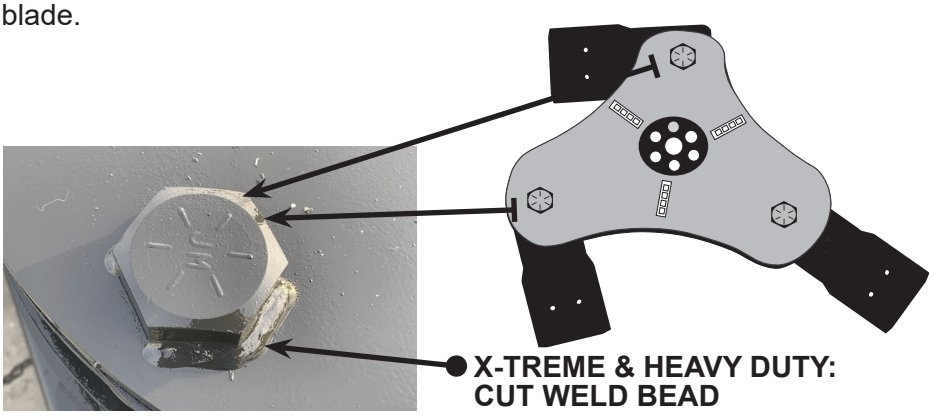
1. With the brush cutter on the ground, ensure the hydraulic hoses are disconnected from the machine couplers.

2. SLOWLY rotate the blade holder until a blade holder nut is visible in the access opening at the top of the deck..

3. **STANDARD & SEVERE DUTY:** Loosen the blade holder nut with a socket wrench. DO NOT let bolt fall from holder. Repeat this step for the other blade holder nuts. See Figure 4.8a on page 29 of this manual for Severe Duty Example.

4. **HEAVY DUTY, X-TREME, & MINI:** Carefully cut the welded bead around the bolt head to allow the bolt to rotate. DO NOT cut into the blade holder. *See example below*

5. Repeat steps 2-3 for each blade.



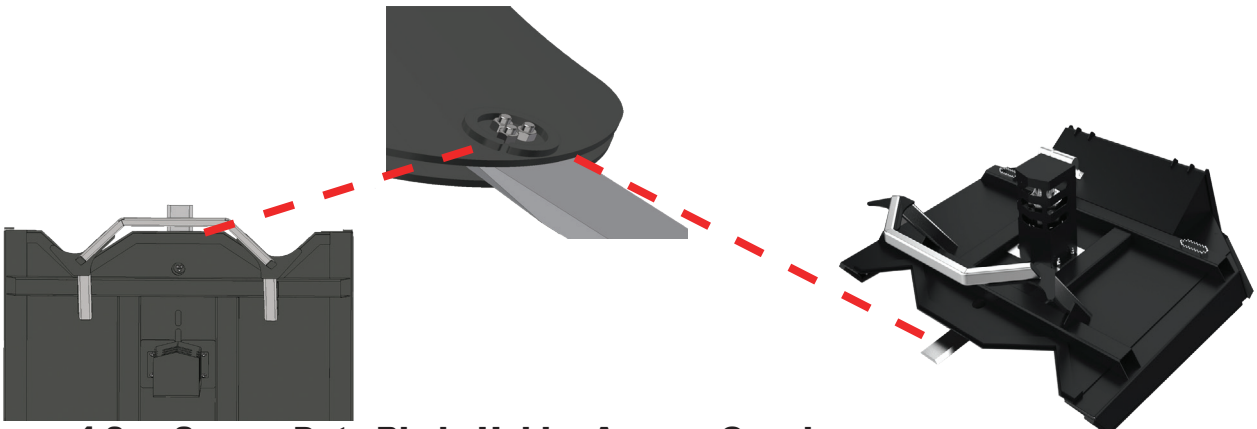


Figure 4.8a Severe Duty Blade Holder Access Opening

4.9 BLADE SHARPENING AND REPLACEMENT

SEE APPENDIX B FOR INFORMATION ABOUT 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 all blades at the same time 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.

4.10 BLADE INSTALLATION

BLADE INSTALLATION PROCEDURE-WILL VARY PER BLADE HOLDER

SEE APPENDIX A FOR X-TREME BLADE INSTALLATION INSTRUCTIONS

SEE APPENDIX B FOR CARE OF OPTIONAL MULCHING TEETH

1. Place blade into position on the blade holder. (*These instructions will vary per blade holder.)*
2. Lubricate with Loctite 635 or equivalent, install the blade bolts, lock washer and hand tighten the blade nuts. *Note: Blade bolts are installed from the bottom up, with the blade nuts visible in the access opening.*
3. Repeat steps #1 thru #2 for the remaining blades. Standard has two (2) blades, Heavy Duty has four (4) blades.
4. Using a torque wrench, torque the blade nuts and blade holder nuts to correct Torque Value on the Torque Chart on page 26.

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

STANDARD DUTY

MULCHING TEETH (OPTIONAL)

ALL X-TREME CUTTERS

4.11 SHEAR BOLT REPLACEMENT

NOTICE

Only use a Grade 5 Zinc shear bolt as a replacement part. Using a hardened bolt may result in damage to the gearbox motor.

1/2-13 X 3-1/2 HEX C/S GR 5 ZNC

1. Remove the motor cover.
2. Remove the damaged shear bolt from the gearbox input spline.
3. Align the holes in the input spline with the motor coupler & insert new shear bolt. Torque to the Torque Values listed on the Torque Chart on page 26.

4.12 GEAR BOX MOTOR MAINTENANCE

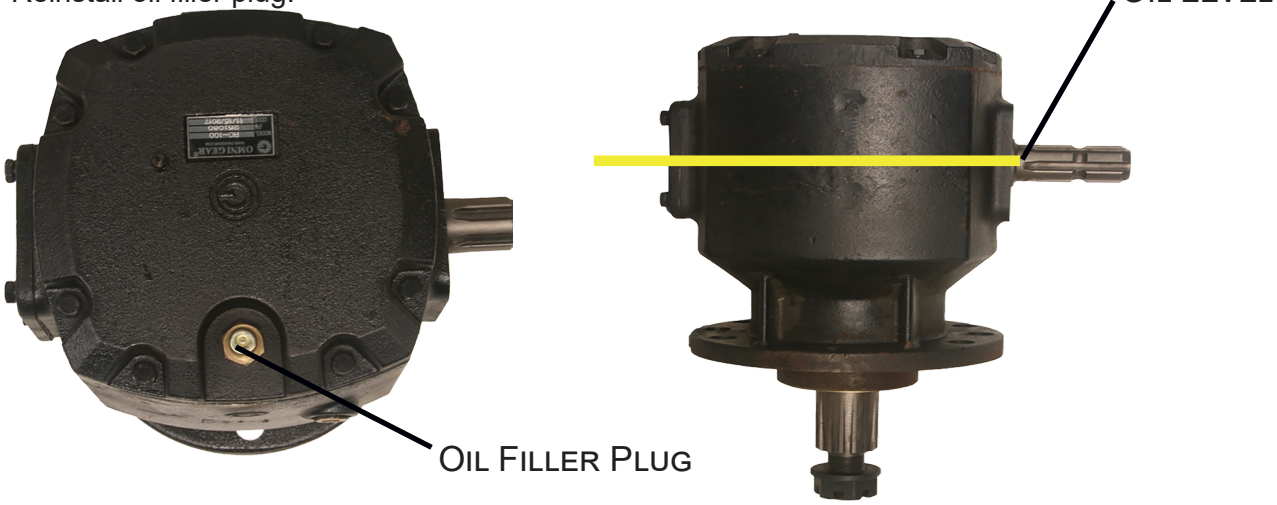
⚠WARNING

Maintenance procedures for the drive bearing housing require special tools and skills. Contact your dealer for any gearbox repair work. **DO NOT** disassemble or modify the gearbox as this will void the warranty.

CHECKING FLUID LEVEL

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

1. Locate the oil filler plug and remove it. The oil level should be at the mid height of the input spline.
2. If low, refill with 85-140 grade gear oil. Check the oil level every week.
3. Reinstall 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 heat conditions.

GEARBOX OIL CHANGE PROCEDURE

1. Remove oil filler plug and insert one end of a discharge hose into the gearbox 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 gearbox motor.
3. Refill with 85-140 grade gear oil to mid height of the input spline.
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 host machine.

SECTION 6

SPECIFICATIONS

Horse Power Requirements (HP)

STANDARD MINI
4 HP

HEAVY DUTY
>50 HP

OPEN FRONT STANDARD DUTY
>45 HP

X-TREME DUTY
>65 HP

STANDARD DUTY
>45 HP

SEVERE DUTY
>75 HP

MODEL SERIES	Standard Duty Low Flow	Heavy Duty	X-Treme Low Flow	X-Treme Mid Flow	X-Treme Piston Cutter	Severe Duty Piston Cutter
GPM	11-20	14-20 16-26 (upgrade)	14-20 16-26	20-30	17-27 27-35 30-48	13-50 20-30
Gear Box	40 HP Right Angle	RC100	100HP Right Angle	100HP Right Angle	Bearing Housing	Bearing Housing
Motor Style	Gear Motor	Gear Motor	Gear Motor	Gear Motor	Piston	Piston
Case Drain	N/A	N/A	N/A	N/A	Required	Required
Design	Closed & Open Front	Closed Front	Closed Front	Closed Front	Closed Front	Closed Front
Blades	2	2 or 3	3 or 4	3 or 4	3 or 4	4
Blade Holder	Stump Jumper	Fabricated	Fabricated	Fabricated	Fabricated	Fabricated
Cut Capacity	3”	4”	7”	7”	8”	10”
Sizes	60”, 72”, 78”	60”, 72”, 78”	60”, 72”, 78”, 84”	60”, 72”, 78”, 84”	60”, 72”, 78”, 84”	72”, 78”
Mulching Teeth	N/A	N/A	Optional	Optional	Optional	Always

SECTION 7

PARTS INFORMATION

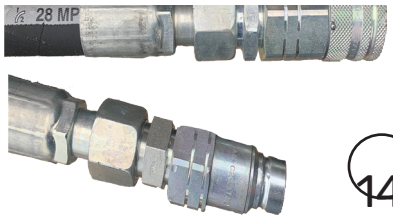
Factory fresh parts specifically designed for your attachment are readily available.

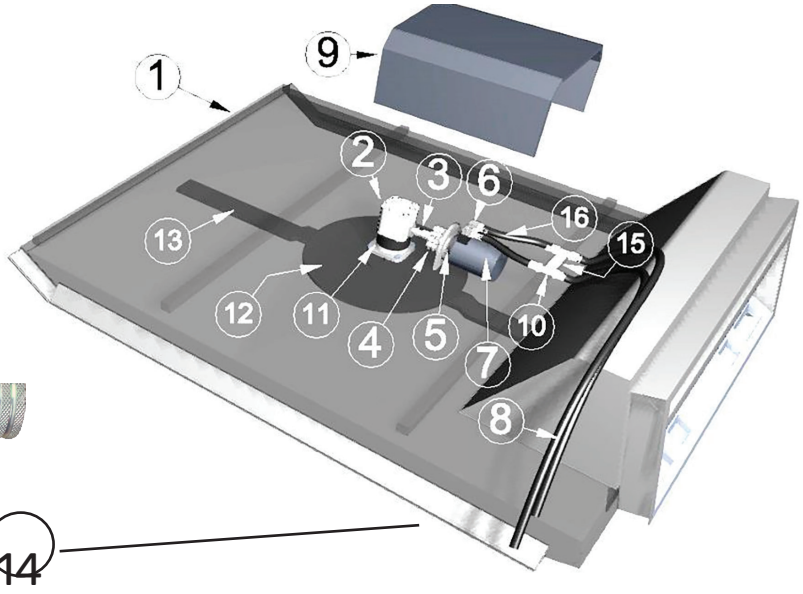
For hassle free service and to ensure you receive the correct parts for your attachment, please provide your dealer with the following information:

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	

7.1 PARTS DIAGRAM- STANDARD DUTY

Standard Duty





Ref. No	Part Description	Qty
1	Cutter Deck - Standard; open front (optional)	1
2	Gear Box	1
3	Shear Bolt & Nut	1
4	Chain & Sprocket Set	1
5	Bolt & Nut (secures motor to cutter mounting plate)	2
6	Elbow	2
7	Hydraulic Motor	1
8	Hose	2
9	Motor Cover	1
10	Tee	2
11	Bolt & Nut Set (Secures Gearbox to cutter deck)	3
12	Blade Holder (stump jumper)	1
	Castle Nut	1
	Protective Cap	1
13	Blade Set	1
	Blade Hardware Set	1
14	Quick Disconnect Set	1
15	One-way Check Valve	1
16	Hose	2

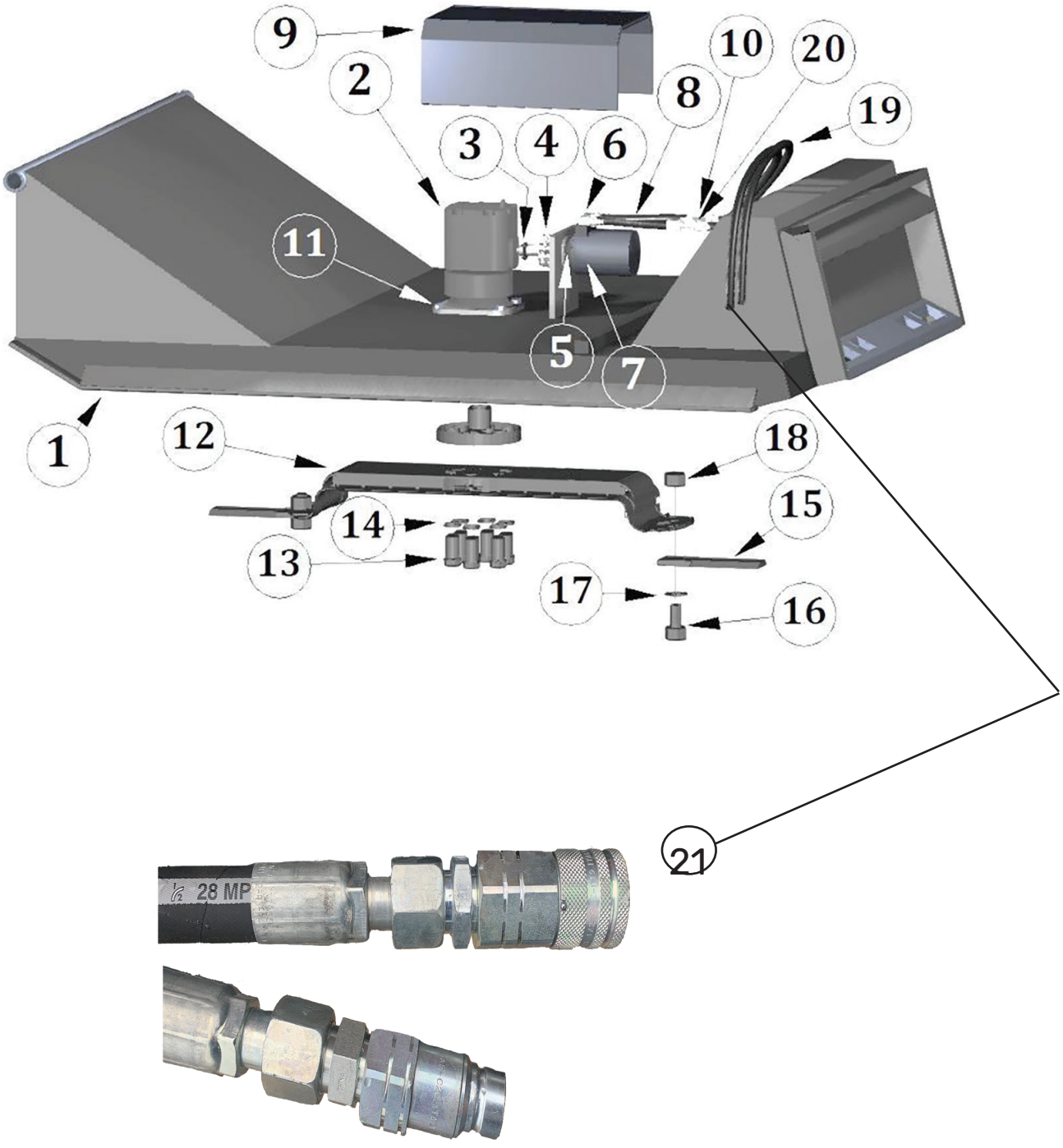
Heavy Duty

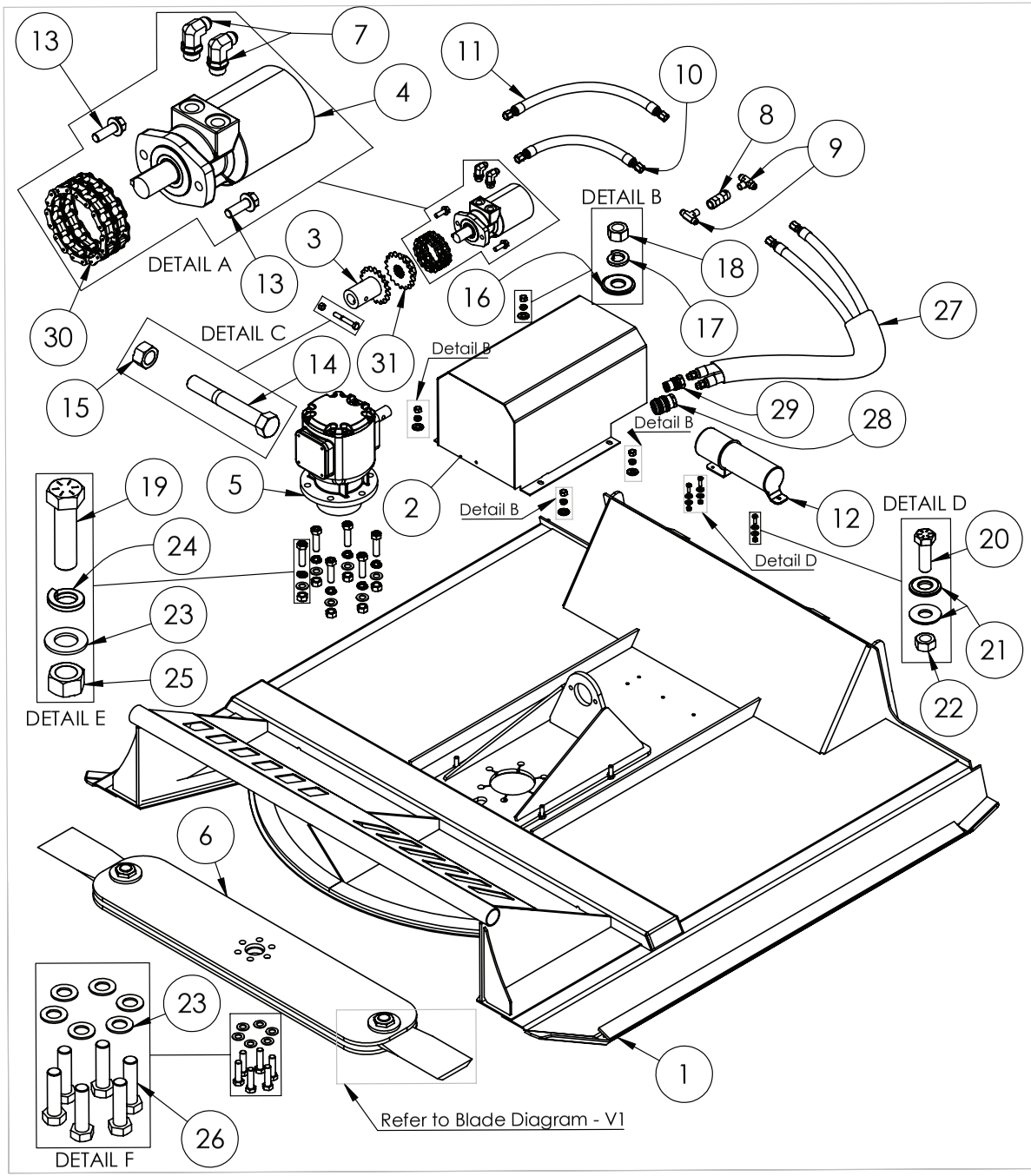
SEE NEXT PAGE FOR NUMBERED DIAGRAM

Ref. No	Part Description	Qty
1	Cutter Deck Weldment	1
2	Gear Box	1
3	Shear Bolt & Nut	1
4	Chain & Sprocket Set	1
5	Bolt & Nut (Gearbox to Deck)	2
6	Elbow	2
7	Hydraulic Motor	1
8	Hose (Motor to Tee)	2
9	Cover	1
10	Tee	2
11	Bolt & Nut Set (secures gearbox to cutter deck)	4
12	Blade Holder	1
13	Bolt	6
14	Washer	6
15	Blade	2
16	Bolt (Blade Retaining)	2
17	Spacer Washer	2
18	Nut	2
19	Hose (Tees to Quick Disconnect)	2
20	H-Valve (one way check)	1
21	Quick Disconnect Set	1

7.2 PARTS DIAGRAMS- HEAVY DUTY

Heavy Duty Parts Diagram



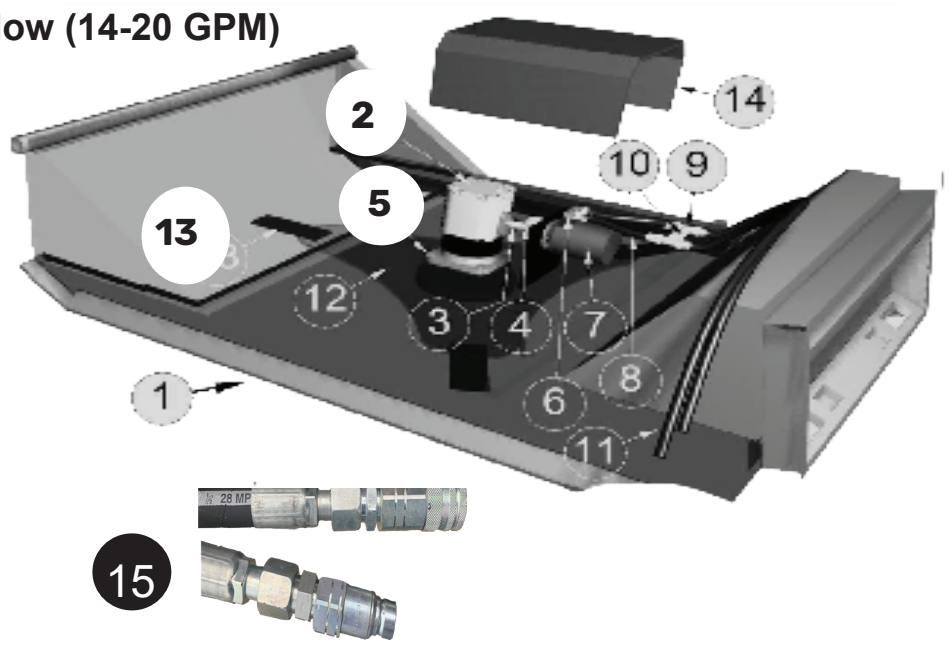


ITEM	Part #	DESCRIPTION	QTY.
1	81400066	Deck Weldment	1
2	50400066	Motor Cover	1
3	40800016	Gearbox Welded Sprocket	1
4	40100076	Motor	1
5	40200056	Gear Box	1
6	50100066	Blade Holder	1
7	41000186	1/2" - 5/8" 90° Fitting	2
8	40600066	Check Valve	1
9	41000216	1/2" Tee Fitting	2
10	51900026	1/2" D X 8" L Hose Kit	1
11	51900036	1/2" D X 11" L Hose Kit	1
12	41100016	Manual Holder	1
13	11200566	1/2"-20 X 1 1/2" Hex Bolt GR 8	2
14	11200476	1/2"-13 X 3 1/2" Hex Bolt GR 2	1
15	11200446	1/2"-13 Lock Nut GR C	1
16	11200186	1/2" USS Flat Washer	4
17	11200176	1/2" Split Lock Washer GR 8	4
18	11200166	1/2"-13 Hex FIN Nut	4
19	11200206	3/4"-10 X 2 3/4" Hex Bolt GR 8	6
20	11200586	5/16"-18 X 1" Hex Bolt GR 8	3
21	11200256	5/16"-18 USS Flat Washer GR 8	6
22	11200106	5/16"-18 Lock Nut GR C	3
23	11200236	3/4" SAE Flat Washer GR 8	12
24	11200226	3/4" Split Lock Washer GR 8	6
25	11200216	3/4"-10 Lock Nut GR C	6
26	11200576	3/4"-16 X 2 3/4" Hex Bolt GR 8	6
27	53000046	1/2" D X 66" Machine Hose	1
28	41000116	1/2" Flat Coupler FE - Changeable	1
29	41000106	1/2" Flat Coupler M - Changeable	1
30	40800026	Chain Coupler Chain	1
31	40800036	Motor Sprocket	1

7.3 PARTS DIAGRAMS- X-TREME LOW FLOW

X-Treme

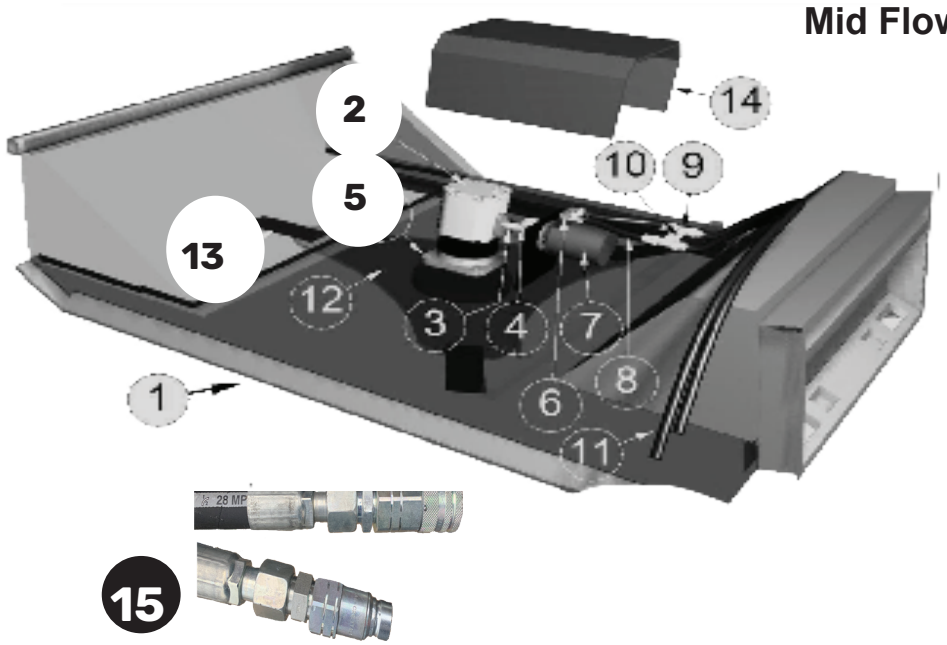
Low Flow (14-20 GPM)



Ref. No	Part Description	Qty
1	Cutter Deck Weldment	1
2	Gear Box - 100 HP	1
3	Shear Bolt & Nut Set	1
4	Chain Coupling & Gear Set	1
5	Bolt Set (Gearbox to Deck)	1
6	Elbow (Motor Hydraulic)	1
7	Hydraulic Motor	1
8	Hose (Motor to Tee)	1
9	Tee	2
10	H-Valve	1
11	Hose (Tee to Quick Disconnect)	2
12	Blade Holder	1
12	Mounting Hardware (Blade Holder to Gearbox Flange)	3
13	Blade Set (3 blades)	3
13	Blade Hardware	2
14	Cover	1
15	Quick Disconnect Set	1

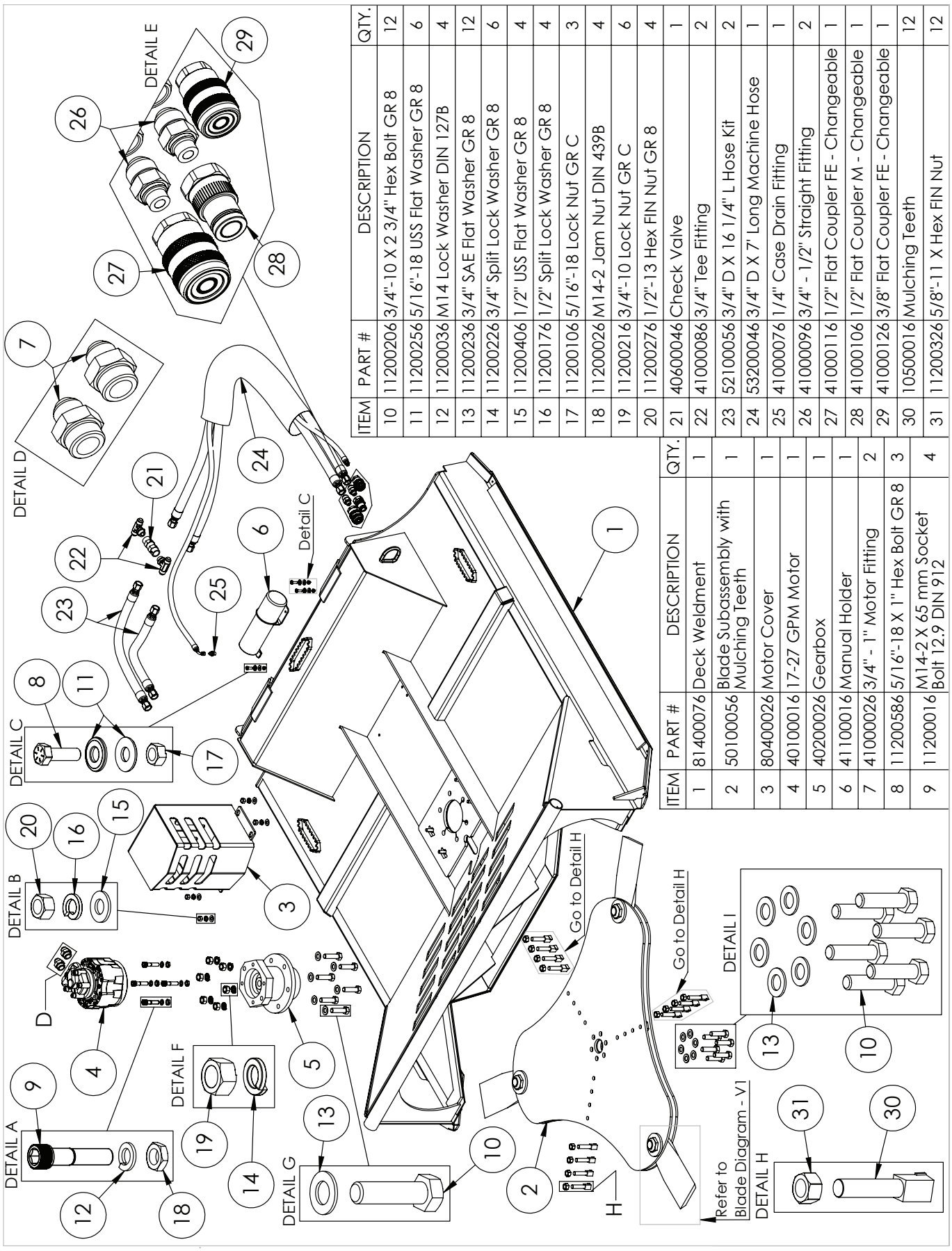
X-TREME

Mid Flow (20-30 GPM)



Ref. No	Part Description	Qty
1	Cutter Deck Weldment	1
2	Gear Box - 100 HP	1
3	Shear Bolt & Nut Set	1
4	Chain Coupling & Gear Set	1
5	Bolt Set (Gearbox to Deck)	1
6	Elbow (Motor Hydraulic)	1
7	Hydraulic Motor	1
8	Hose (Motor to Tee)	1
9	Tee	2
10	H-Valve	1
11	Hose (Tee to Quick Disconnect)	2
12	Blade Holder	1
12	Mounting Hardware (Blade Holder to Gearbox Flange)	3
13	Blade Set (3 blades)	3
13	Blade Hardware	2
14	Cover	1
15	Quick Disconnect Set	1

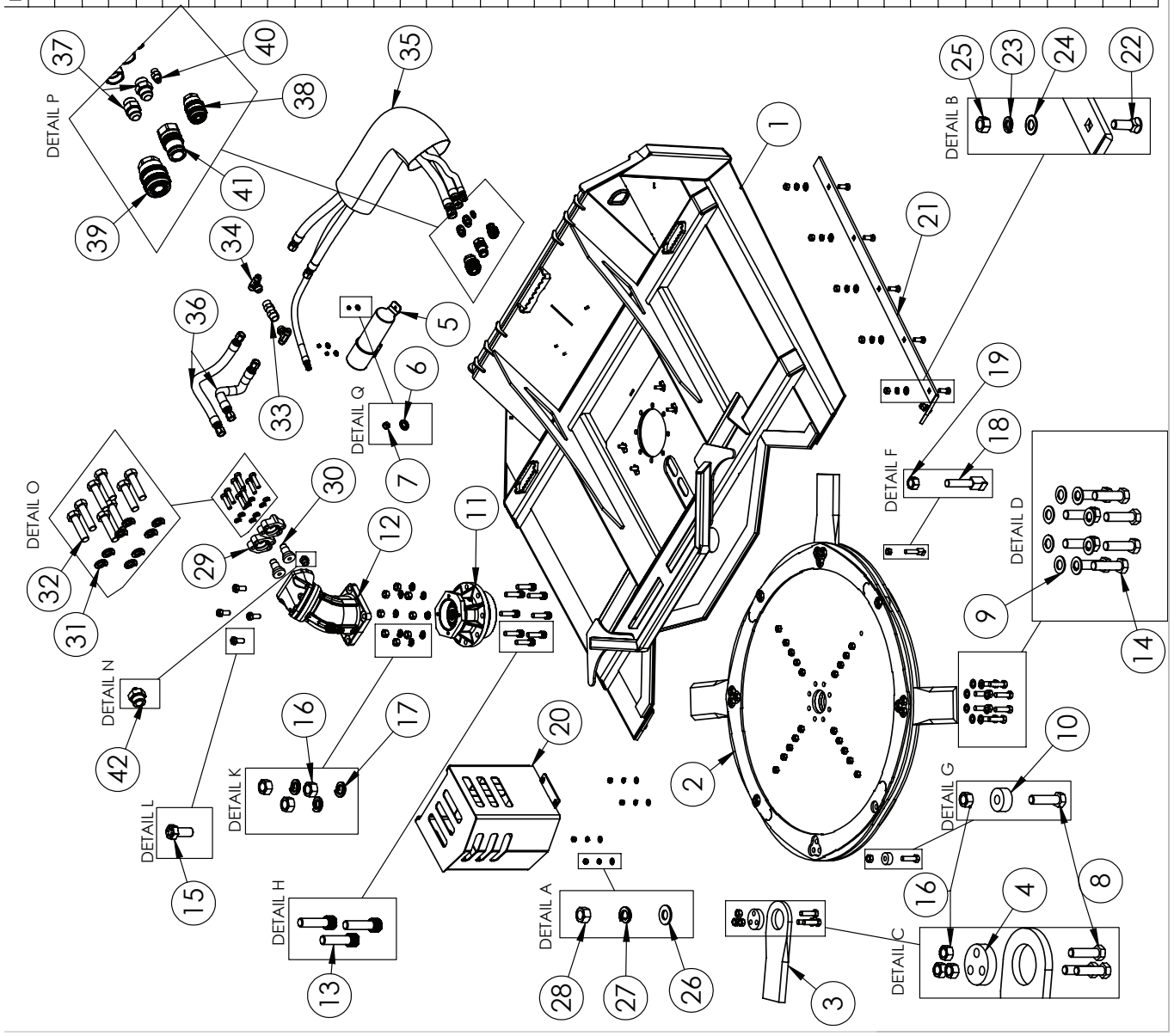
7.4 PARTS DIAGRAMS- X-TREME MID FLOW



ITEM	PART #	DESCRIPTION	QTY.
1	81400076	Deck Weldment	1
2	50100056	Blade Subassembly with Mulching Teeth	1
3	80400026	Motor Cover	1
4	40100016	17-27 GPM Motor	1
5	40200026	Gearbox	1
6	41100016	Manual Holder	1
7	41000026	3/4" - 1" Motor Fitting	2
8	11200586	5/16"-18 X 1" Hex Bolt GR 8	3
9	11200016	M14-2 X 65 mm Socket Bolt 12.9 DIN 912	4

ITEM	PART #	DESCRIPTION	QTY.
10	11200206	3/4"-10 X 2 3/4" Hex Bolt GR 8	12
11	11200256	5/16"-18 USS Flat Washer GR 8	6
12	11200036	M14 Lock Washer DIN 127B	4
13	11200236	3/4" SAE Flat Washer GR 8	12
14	11200226	3/4" Split Lock Washer GR 8	6
15	11200406	1/2" USS Flat Washer GR 8	4
16	11200176	1/2" Split Lock Washer GR 8	4
17	11200106	5/16"-18 Lock Nut GR C	3
18	11200026	M14-2 Jam Nut DIN 439B	4
19	11200216	3/4"-10 Lock Nut GR C	6
20	11200276	1/2"-13 Hex FIN Nut GR 8	4
21	40600046	Check Valve	1
22	41000086	3/4" Tee Fitting	2
23	52100056	3/4" D X 16 1/4" L Hose Kit	2
24	53200046	3/4" D X 7' Long Machine Hose	1
25	41000076	1/4" Case Drain Fitting	1
26	41000096	3/4" - 1/2" Straight Fitting	2
27	41000116	1/2" Flat Coupler FE - Changeable	1
28	41000106	1/2" Flat Coupler M - Changeable	1
29	41000126	3/8" Flat Coupler FE - Changeable	1
30	10500016	Mulching Teeth	12
31	11200326	5/8"-11 X Hex FIN Nut	12

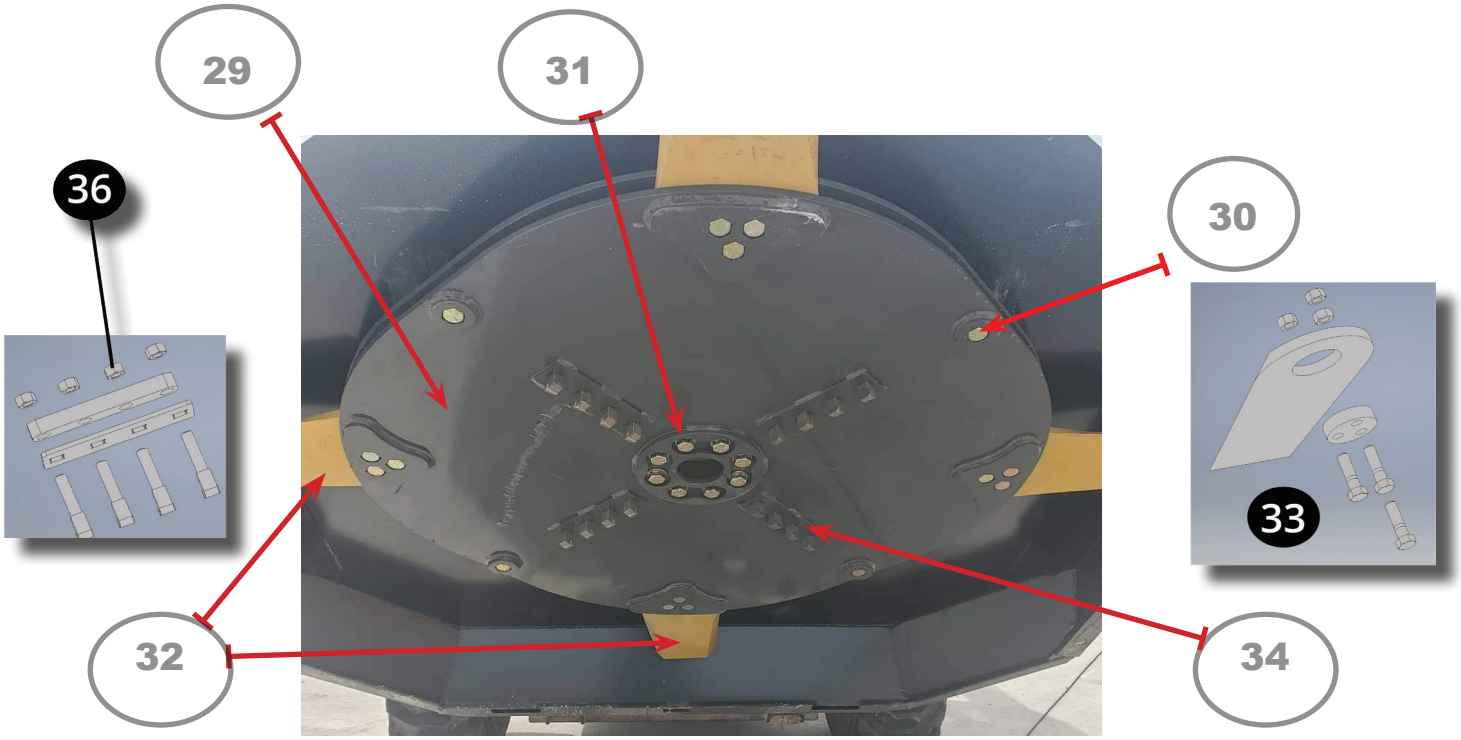
7.5 PARTS DIAGRAMS- SEVERE DUTY BENT AXIS PISTON

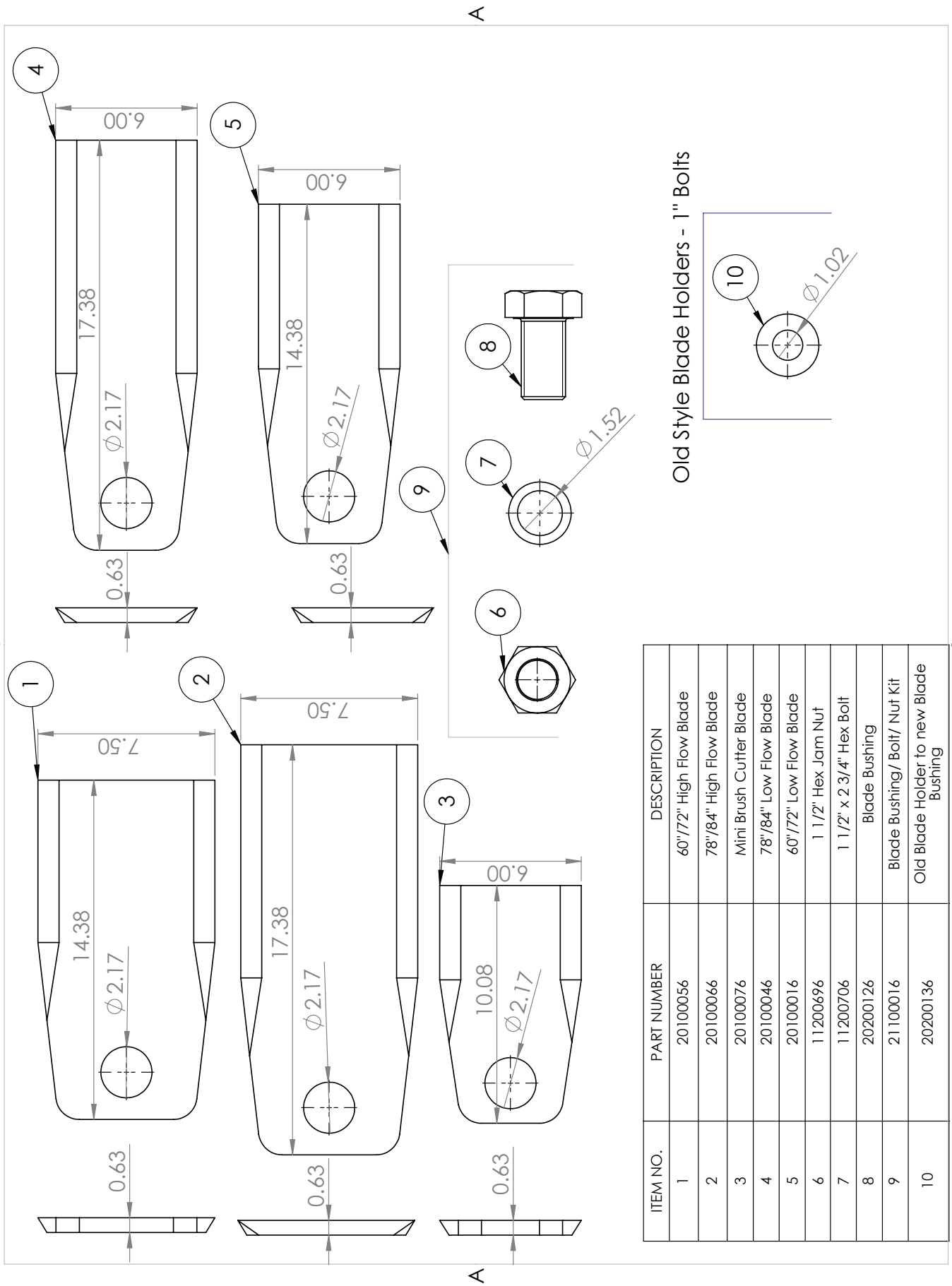


ITEM	Part #	DESCRIPTION	QTY.
1	81400086	Deck Weldment	1
2	80100016	BladeHolder Subassembly	1
3	20100086	Blade	4
4	10400016	Blade Bushing	4
5	41100016	Manual Holder	1
6	11200256	5/16"-18 USS Flat Washer GR 8	3
7	11200106	5/16"-18 Lock Nut GR C	3
8	11200206	3/4"-10 X 2 3/4" Hex Bolt GR 8	16
9	11200236	3/4" SAE Flat Washer GR 8	8
10	20200146	Bolt Bushing	4
11	40200066	Gearbox	1
12	40100086	Motor	1
13	11200716	3/4"X 2 3/4" Socket Head Coarse Bolt	8
14	11200576	3/4"-16 X 2 3/4" Hex Bolt GR 8	8
15	11200726	3/4"-10 X 1 3/4" Hex Bolt GR 8	4
16	11200216	3/4"-10 Lock Nut GR C	24
17	11200226	3/4" Split Lock Washer GR 8	8
18	10500016	Mulching Teeth	20
19	11200736	5/8"-18 HEX FIN NUT GR 8	20
20	80400036	Motor Cover	1
21	20000026	Replaceable Wear Shoes	2
22	11200316	5/8"-11 X 2" PLOW BOLT GR 8	12
23	11200336	5/8" Split Lock Washer GR 8	12
24	11200196	5/8" SAE Flat Washer GR 8	12
25	11200746	5/8"-11 HEX FIN NUT GR 8	12
26	11200406	1/2" USS Flat Washer GR 8	4
27	11200176	1/2" Split Lock Washer GR 8	4
28	11200276	1/2"-13 Hex FIN Nut GR 8	4
29	41000256	Motor Flange	4
30	41000266	Motor Adapter	2
31	41100036	5/8" Split LockWasher	8
32	41100046	5/8"-18 2 3/8" Hex Bolt	8
33	40600046	Check Valve	1
34	41000086	3/4" Tee Fitting	2
35	53200026	3/4" - 7' Long Machine Hose	1
36	52100056	3/4" D X 16 1/4" L Hose Kit	2
37	41000046	3/4" Straight Fitting	2
38	41000126	3/8" Flat Coupler FE - Changeable	1
39	41000226	3/4" Flat Coupler FE - Changeable	1
40	41000136	3/8" Straight Fitting	1
41	41000236	3/4" Flat Coupler M - Changeable	1
42	41000276	3/8" Case Drain Fitting	1

7.5 PARTS DIAGRAMS- SEVERE DUTY BENT AXIS PISTON

BLADE HOLDER & BLADES		
Ref. No	**Part Description**	**Qty**
29	Blade holder assembly: Bottom blade holder weldment, top blade holder weldment	1
30	Blade holder hardware: [(4) 3/4” - 10 UNC - 2.75 blade holder bolts, (4) 3/4” lock nuts, (4) spacer bushings (single bolt)]	1
31	Blade holder mount hardware: [(8) 3/4” - 16 UNF - 2.75 bolts, (8) 3/4” washers)]	1
32	Blades (double beveled)	4
33	Blade Hardware: [(12) 3/4” - 10 UNC-2.75 hex bolts, (4) bushings (3-Bolt), (12) 3/4” lock nuts]	1
34	Mulching teeth (5/8”) - 72” deck	16
35	Mulching teeth (5/8”) - 78” deck	20
36	Mulching teeth nuts (5/8”) - 72” deck	16
37	Mulching teeth nuts (5/8”) - 78” deck	20





ITEM NO.	PART NUMBER	DESCRIPTION
1	20100056	60"/72" High Flow Blade
2	20100066	78"/84" High Flow Blade
3	20100076	Mini Brush Cutter Blade
4	20100046	78"/84" Low Flow Blade
5	20100016	60"/72" Low Flow Blade
6	11200696	1 1/2" Hex Jam Nut
7	11200706	1 1/2" x 2 3/4" Hex Bolt
8	20200126	Blade Bushing
9	21100016	Blade Bushing/ Bolt/ Nut Kit
10	20200136	Old Blade Holder to new Blade Bushing

SECTION 8

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.

WARRANTY STATEMENT

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

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.

SECTION 9

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 trained on how to safely operate this attachment.

OPERATOR NAME	SIGNATURE	DATE

SECTION 10

MAINTENANCE LOGSHEETS

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

DESCRIPTION OF MAINTENANCE/REPAIR	SERVICED BY:	DATE:

MAINTENANCE LOG

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

DESCRIPTION OF MAINTENANCE/REPAIR	SERVICED BY:	DATE:

APPENDIX

⚠WARNING

Disconnect the negative ground cable from your machine's battery when performing this procedure with the brush cutter attached to the machine.

1. Grind away the old weld bead to ensure a flat smooth surface for new bolt head to attach.
2. Place nut in the recessed hole on top of the blade holder. *See Figure A.1a below.*
3. Insert the new blade bolt from the bottom side and tighten into the nut.
4. Torque the blade bolt to the value shown in the torque table on page 26 of this manual.
5. Weld the outside of the bold head as shown in *Figure A.1b below*.

NOTICE

The blade bolt threads MUST extend beyond the nut, with the nut seated flush in the recessed hole.

⚠WARNING

DO NOT weld the bolt head unless the nut is firmly seated into the recessed hole. ***See Figure A.1a below*.**

Figure A.1a Bolt Thru Nut

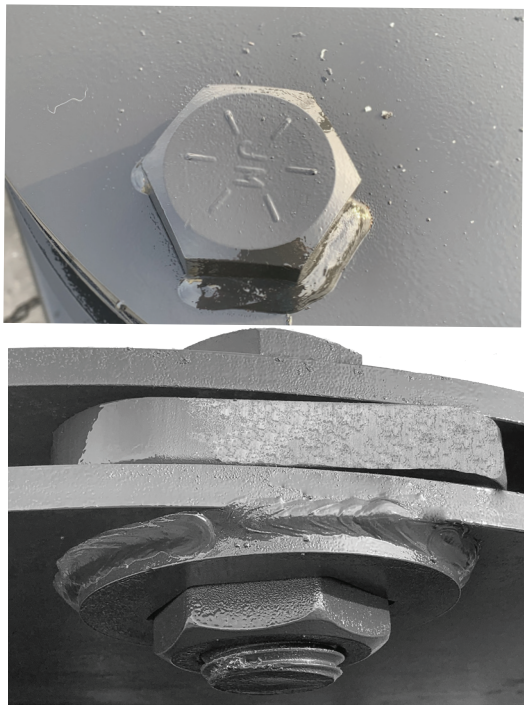
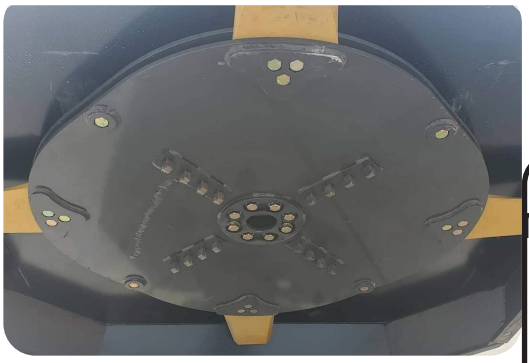


Figure A.1b Bolt Head Bead Weld & Assembly

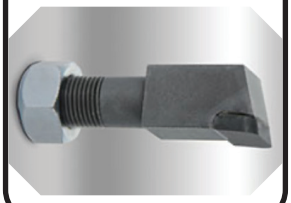
MULCHING TEETH APPENDIX

DANGER OBSERVE ALL SAFETY PRECAUTIONS OUTLINED IN THIS MANUAL.



BLADE HOLDER WITH MULCHING TEETH- EXAMPLE

MULCHING TOOTH: MAY BE REPLACED



BLADE HOLDER WITHOUT MULCHING TEETH- EXAMPLE

DANGER 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: All mulching tooth mounting bolts are property torqued and none missing.	X	
Blades & Blade holder is in good condition. No cracks, gouges, or heat discoloration.	X	
All tooth holders are sitting flat with blade holder.	X	
All teeth are still sharp and are not worn round at corners.	X	
START UP: All protective devices are in place and secure.	X	
Warning sign “Stay out of Reach” in place & visible.	X	
No unusual noises or vibrations.	X	
Check Fastener Tightening Torques. *Instructions Pg 54*		X

MULCHING TEETH APPENDIX

How To Check Fastener Tightening Torques-See pg 26 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 fastner 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 should 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.

APPENDIX C FINDING YOUR MODEL AND SERIAL NUMBER

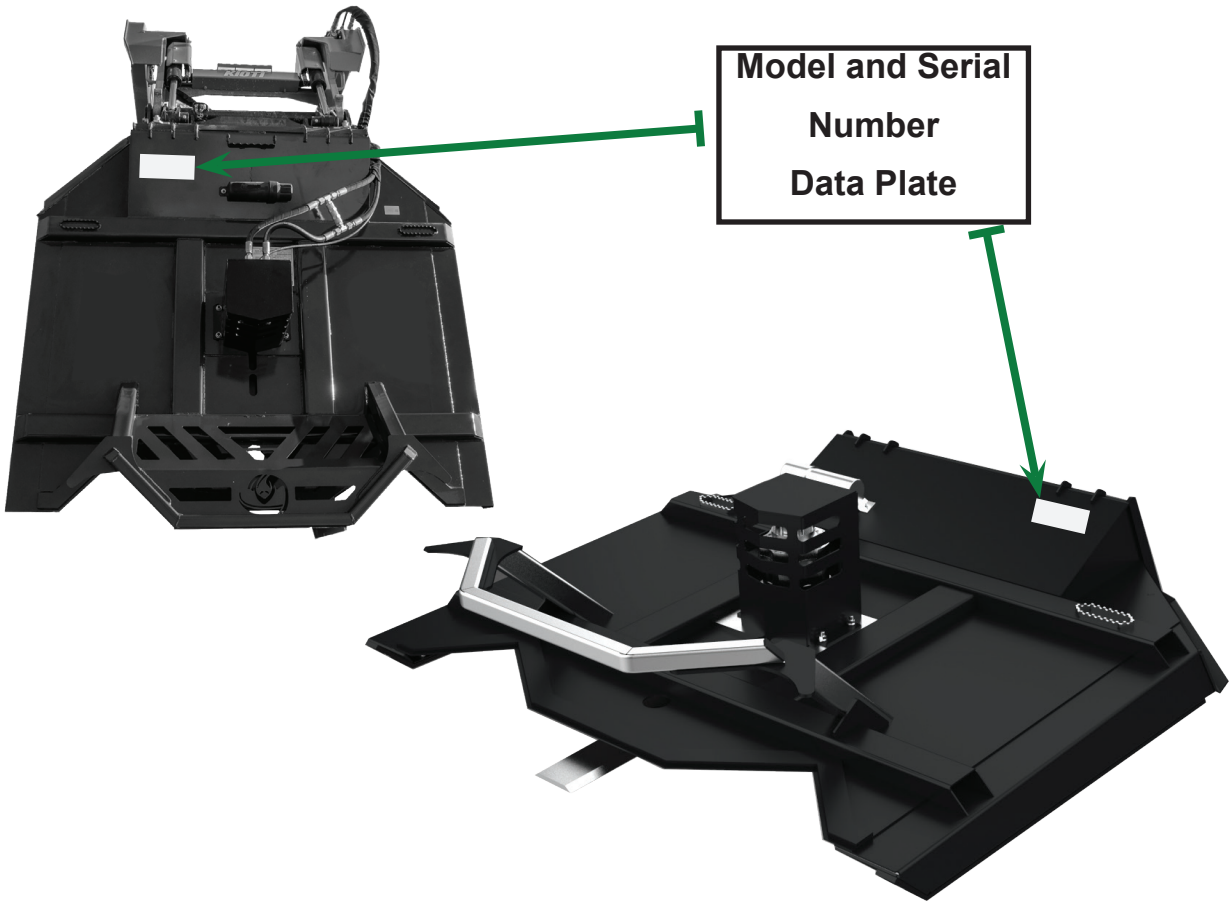
The Model and Serial numbers will be in one of (4) places and will either be etched into the attachment or on a Data Plate.

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.

TRUSTED ATTACHMENTS

EST. CID 2003

INDUSTRIAL QUALITY

MADE IN THE USA
WITH U.S. AND IMPORTED PARTS

CONSTRUCTION IMPLEMENT DEPOT
DENTON-USA, LLC
1248 N. MAIN ST
DENTON, NC 27239

WWW.CIDATTACHMENTS.COM

CIDALLBC-MANU-V2M0924