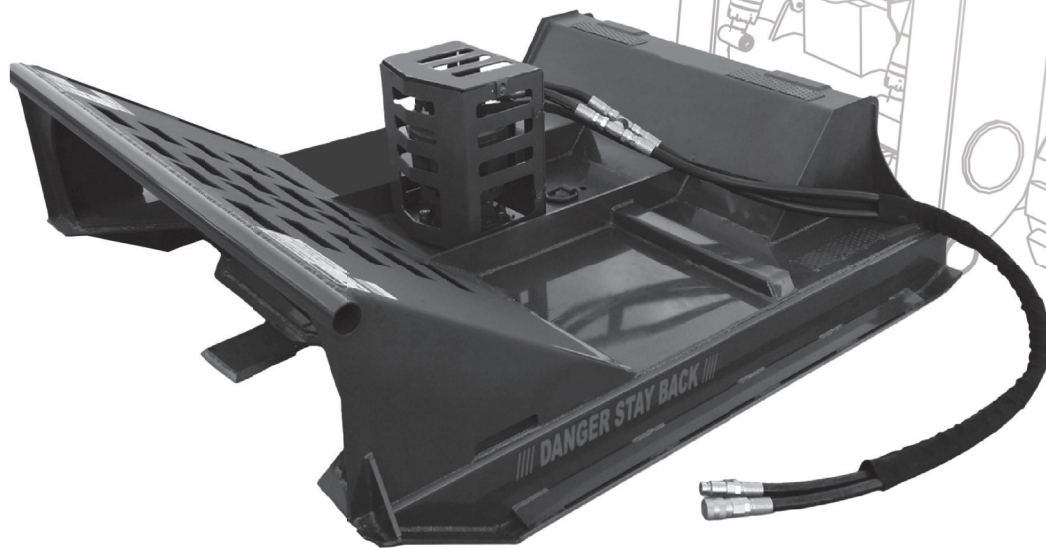




IRONCRAFT

X-TREME DUTY PISTON MOTOR BRUSH CUTTER



| 16-26 GPM | 17-27 GPM | 27-35 GPM | 30-48 GPM |
|-----------|-----------|-----------|-----------|
| XBC162660 | XBC173060 | XBC273560 | XBC304860 |
| XBC162672 | XBC173072 | XBC273572 | XBC304872 |
| XBC162678 | XBC173078 | XBC273578 | XBC304878 |
| XBC162684 | XBC173084 | XBC273584 | XBC304884 |

OPERATION AND PARTS MANUAL

Read and understand the manual. This manual provides information and procedures to safely operate and maintain the X-treme Duty Piston Motor Brush Cutter.



Scan QR code for a digital version of this manual



August 2023

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INTRODUCTION

1.1 WELCOME

Congratulations on your choice of an IronCraft Piston Motor Brush Cutter. This equipment has been designed and manufactured to meet the needs of discerning users. Many features incorporated into this brush cutter are the result of suggestions made by customers like you.

Read this manual carefully to learn how to operate the Piston Motor Brush Cutter safely and how to set it to provide maximum cutting efficiency. By following the operating instructions, in conjunction with a good maintenance program, your IronCraft brush cutter will provide many years of trouble-free service.

1.2 SAFE OPERATION

Safe, efficient, and trouble-free operation of your brush cutter requires that you, and anyone else who will be using or maintaining the unit, read and understand the information contained within the Owner's Manual. Use this manual for frequent reference and to pass on to new operators or owners.

Upon reading this manual, all users should sign the "Safety Acknowledgement Form" at the end of this manual. Please record your model and dealer information on page 5. 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.ironcraftusa.com.



WARNING **READ AND UNDERSTAND MANUAL.**

To prevent personal injury or even death, be sure you read and understand all of the instructions in this manual and other related OEM equipment manuals! The 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.**



1.3 SPECIFICATIONS

| MODEL | MODEL # | WEIGHT (LB) | MIN SKID STEER / CTL LIFT WEIGHT (LB)* | MIN SKID STEER / CTL LIFT CAPACITY (LB)* | MIN SKID STEER / CTL POWER | GEAR OIL | CUT CAPACITY (INCHES) | BLADE CONFIG. | DECK SIZES (IN) | MULCH TEETH OPTION |
|--|-----------|-------------|--|--|----------------------------|-------------|-----------------------|---------------|-----------------|--------------------|
| 16-26 GPM X-TREME PISTON MOTOR BRUSH CUTTER | | | | | | | | | | |
| 60" | XBC162660 | 1,450 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 6 | 3 | 3/16 or 1/4 | Y |
| 72" | XBC162672 | 1,550 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 6 | 3 | 3/16 or 1/4 | Y |
| 78" | XBC162678 | 1,660 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 6 | 3 | 3/16 or 1/4 | Y |
| 84" | XBC162684 | 1,760 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 6 | 3 | 3/16 or 1/4 | Y |
| 17-27 GPM X-TREME PISTON MOTOR BRUSH CUTTER | | | | | | | | | | |
| 60" | XBC173060 | 1,315 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 | 3/16 or 1/4 | Y |
| 72" | XBC173072 | 1,575 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 78" | XBC173078 | 1,660 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 84" | XBC173084 | 1,785 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 27-35 GPM X-TREME PISTON MOTOR BRUSH CUTTER | | | | | | | | | | |
| 60" | XBC273560 | 1,600 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 | 3/16 or 1/4 | Y |
| 72" | XBC273572 | 1,851 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 78" | XBC273578 | 1,964 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 84" | XBC273584 | 2,096 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 30-48 GPM X-TREME PISTON MOTOR BRUSH CUTTER | | | | | | | | | | |
| 60" | XBC304860 | 1,588 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 | 3/16 or 1/4 | Y |
| 72" | XBC304872 | 1,900 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 78" | XBC304878 | 2,024 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |
| 84" | XBC304884 | 2,241 | 6,500 | 2,200 | 65 HP | 85W-140 5EP | 7 | 3 or 4 | 3/16 or 1/4 | Y |

Specifications subject to change without notice.

1.4 REGISTER THIS PRODUCT

PURCHASE DATE

DEALER NAME

ADDRESS

PHONE NUMBER

MODEL

SERIAL



"WHY WOULD I WANT TO REGISTER MY MACHINE?" YOU ASK. IT'S A VALID QUESTION. WE USED TO ASK OURSELVES THE SAME THING...

You need to register your new product within 30 days of delivery. Without registration, your warranty claims will not be honored.

Registering your machine means you get the full benefits of the warranty terms we offer.

Scan this code for an easy-peasy registering process. You'll be glad you did.



<https://www.ironcraftusa.com/warranty/register-warranty/>


SAFETY INFORMATION

2.1 INTRODUCTION

The following terms are used interchangeably throughout this manual.

| X-TREME DUTY PISTON MOTOR BRUSH CUTTER | SKID STEER | OPERATOR |
|---|--|-----------------|
| implement, attachment, product, machine, brush cutter, cutter | skid steer loader, skid steer tractor, loader, prime mover | user, personnel |

The X-treme Duty Piston Motor 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 judgement, common sense, awareness and proper training!



BEFORE YOU OPERATE THIS BRUSH CUTTER:

1. KNOW how to safely operate your skid steer loader.
2. READ and UNDERSTAND the safety instructions and operating procedures contained in this manual.
3. ACKNOWLEDGE your understanding of all safety instructions presented in this manual by signing the “Safety Acknowledgement 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 safety warnings 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.

2.2 SAFETY ALERT SYMBOLS




This is the safety alert symbol and will be accompanied with a descriptive pictorial. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.


This manual contains DANGERS, SAFETY INSTRUCTIONS, CAUTIONS, IMPORTANT NOTICES, and NOTES which must be followed to prevent the possibility of improper service, damage to the equipment, personal injury, or death. The following key words call the readers’ attention to potential hazards. Hazards are identified by the “Safety Alert Symbol” and followed by a signal word such as “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 that equipment or property damage can result if instructions are not followed.

SAFETY INSTRUCTIONS
Safety instructions (or equivalent) signs indicate specific safety-related instructions or procedures.

Note: Contains additional information important to a procedure.

2.3 SAFETY PICTOGRAMS

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

| | |
|---|---|
|  | PINCH HAZARD: Keep clear of skid steer and brush cutter machine to prevent death or serious injury from pinching of moving parts. |
|  | FLYING DEBRIS HAZARD: ONLY operate this machine using a skid steer 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 machine near bystanders. Bystanders must stay back at least 300 feet from the machine to prevent death or injury from objects being thrown. |
|  | CRUSH HAZARD: DO NOT place any part of the body under the machine or skid steer arms to prevent death or serious injury from being crushed. |
|  | SAFETY CHAIN: Must be installed to prevent the mower deck from being raised more than 2 feet from ground level. |

2.4 GENERAL SAFETY INSTRUCTIONS

Below are general safety instructions that relate to the overall operation and maintenance of this machine. It is important that you read and understand each message to prevent serious injury or death.

| | | | |
|---|---|---|---|
|  | ALWAYS watch for overhead power lines. |  | INSTALL this brush cutter on a skid steer loader equipped with a thermoplastic polycarbonate door panel and side panels only. |
|  | DO NOT place hands or feet under mower deck while blades are spinning. |  | PREVENT the skid steer loader and implement from rolling forward, by stopping the engine and setting the parking brake when exiting the skid steer loader. |
|  | NEVER operate this brush cutter when bystanders are within 300 feet of your work area. Flying debris could cause serious injury or death. |  | INSPECT implement for 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 equipment at any time. Store this implement in an area not frequented by children. |
|  | DO NOT allow this machine to contact buildings, utilities, large rocks or tree stumps or you may lose control of the skid steer loader. |  | ALWAYS wear the proper personal protection equipment while operating or servicing this machine. NEVER operate or service this machine with bare feet, sandals, or other light footwear. |
|  | DO NOT allow riders on the skid steer loader or on this attachment. |  | ALWAYS use eye protection while operating or servicing this machine. |
|  | NEVER use drugs or alcoholic beverages while operating or servicing this machine. |  | ALWAYS use eye protection while operating or servicing this machine. |
|  | NEVER use drugs or alcoholic beverages while operating or servicing this machine. |  | DO NOT speed! Keep your driving speed between 2 and 5 mph. |
|  | ALWAYS operate this attachment during daylight or well-lit areas. |  | DO NOT operate this machine during lightning or severe weather conditions. |
|  | ALWAYS wear work gloves when handling cutter blades as they are often very sharp. | | |

SAFETY SIGNS AND LABELS

3.1 SAFETY DECALS

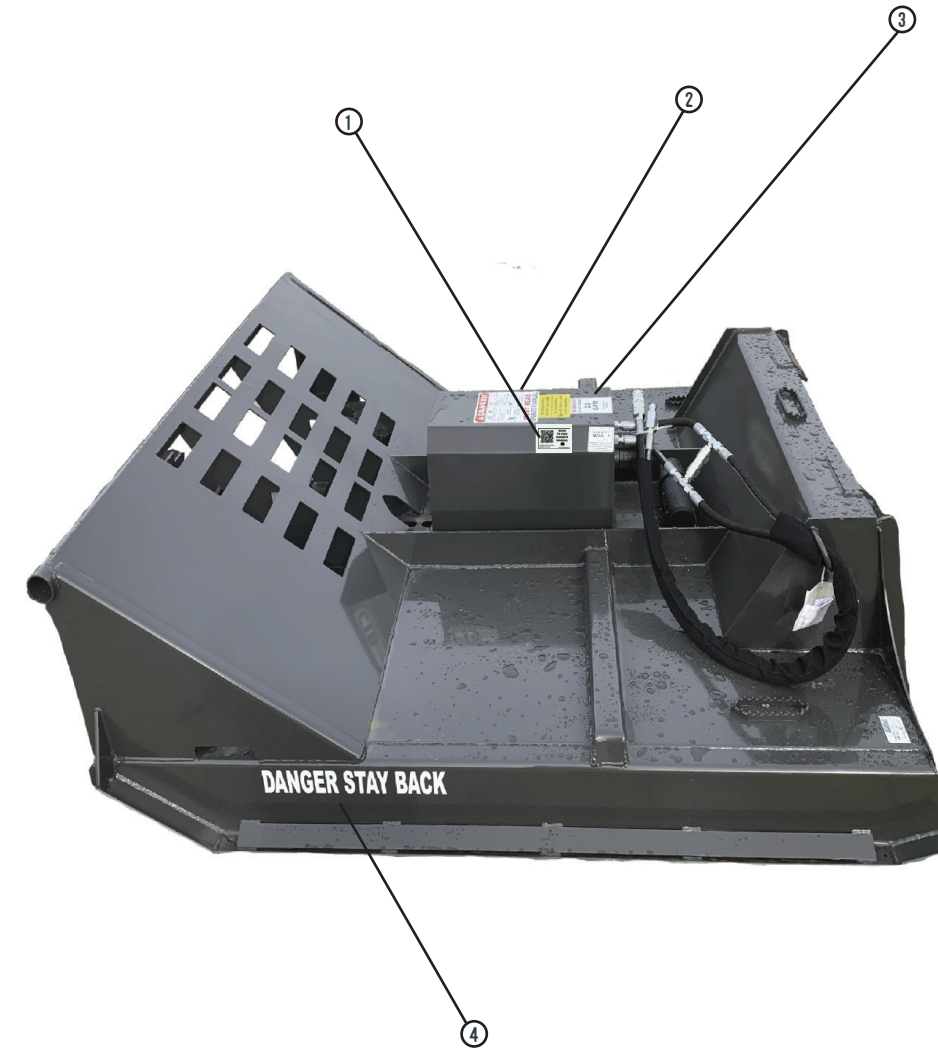
The safety decals affixed to this machine are in place to keep you safe. DO NOT ignore these decals. Read and understand each decal's safety message. The following safety decals are affixed to this machine:

1.  **SCAN TO VIEW OWNER'S MANUALS**
2.  **MUST READ OPERATOR MANUAL**
3.  
4. 

SAFETY INSTRUCTIONS

- Decals must be kept clean and legible at all times.
- Operators must inspect the machine for safety decals.
- Replace missing, worn or damaged decals immediately.
- Use care when cleaning the machine. When using a hot pressure washer 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 machine.
- Make sure metal surface is dry and free of dirt and grease before applying a new decal to this machine.
- Contact your local dealer to order replacement decals.

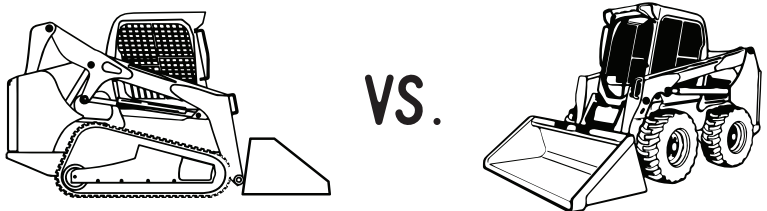
3.2 SAFETY SIGN LOCATIONS



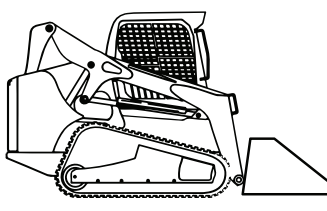
| ITEM | TYPE | DESCRIPTION | QTY. |
|------|---------------|--|------|
| 1 | INSTRUCTIONAL | Scan to View Owner's Manual | 1 |
| 2 | DANGER | Danger Combo Label | 1 |
| 3 | WARNING | Warning: Do Not Exceed GPM Label Note: When ordering, choose the proper decal for your model. | 1 |
| 4 | DANGER | Danger Stay Back Label | 2 |

3.3 SKID STEER LOADER REQUIREMENTS


NOTICE
A skid steer equipped with tracks (COMPACT TRACK LOADER) will provide superior stability in this application.



VS.



TRACKED



WHEELED

WARNING
Ensure your skid steer loader is in good operating condition. This brush cutter should only be used on skid steer loaders that meet the following requirements:

| REQUIREMENTS | |
|---|-----------|
| Minimum Lift Capacity | 2,200 lbs |
| Minimum Weight w/ Bucket Removed | 6,500 lbs |
| Impact Resistant Cab Enclosure | |
| High Flow Auxiliary System (All 27-35 gpm and 30-48 gpm models) | |
| Engine Horsepower Rating = 65 HP | |

Follow the operating instructions in your skid steer operator's manual.

PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS



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

OPERATING PROCEDURES

4.1 UNPACKING YOUR PISTON MOTOR BRUSH CUTTER

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

CAUTION
Careless removal of the shipping bands that secure the attachment to the shipping pallet could result in minor or serious injury. Clear the area of all bystanders and stand to the side when cutting the bands with a pair of sheet metal shears.

4.2 CONNECTING YOUR BRUSH CUTTER

Consult your skid steer operator's manual for specific instructions on how to connect your brush cutter to your skid steer loader.

GENERAL ATTACHMENT METHOD

DANGER
NEVER enter the area underneath the skid steer arms or any part of the attachment when it is in the raised position to avoid an accident that will result in Death or Serious Injury.

1. Ensure the hydraulic lines are clear from the front side of the brush cutter's attachment plate and that the levers on the skid steer quick attach mechanism are in the unlocked position (Figure 4.2a).
2. Drive the skid steer to the attachment plate and hook the top edge of the skid steer quick attach mechanism under the lip of the brush cutter's attachment plate (Figure 4.2b).
3. Slowly tilt the skid steer quick attach mechanism upward until the brush cutter attachment plate is flat against the skid steer quick attach mechanism (Figure 4.2b).

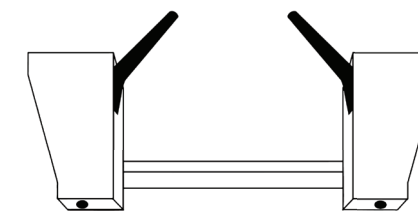


Figure 4.2a Quick Attach Mechanism - Levers Unlocked

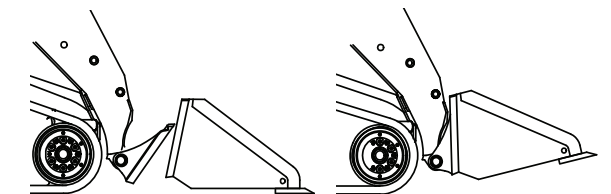


Figure 4.2b Quick Attach Mechanism Locked to Attachment

4.2 CONNECTING YOUR BRUSH CUTTER CONT.

4. Activate your skid steer's lever lock switch to lock the pins into the flange slots of the brush cutter's attachment plate. If your skid steer does not have this switch, manually lock the levers as shown in Figure 4.2b below.

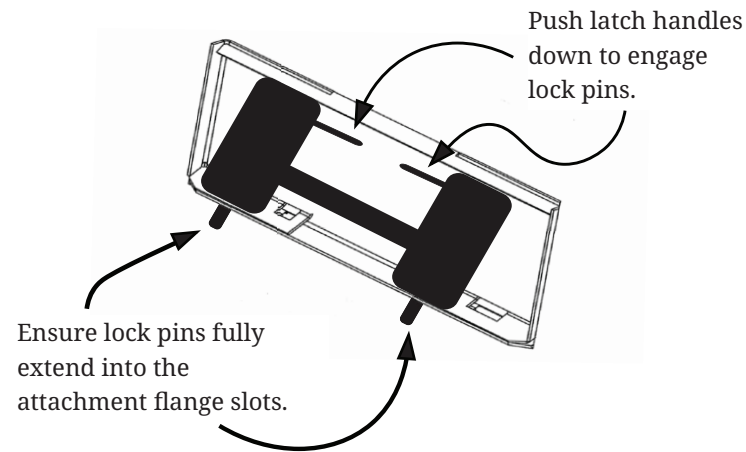


Figure 4.2b Quick Attach Mechanism Locked to Attachment Plate

NOTICE

To keep contaminants from entering the hydraulic system; wipe off any dirt or dust from the male or female hydraulic flat face couplers with a clean rag before attaching hoses.

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 skid steer couplers before starting the cutter.

6. Attach the safety chain to a secure place on the skid steer unit to limit the height that the cutter can be raised.



CAUTION

DO NOT operate this machine if you (the operator) can see the cutter blade from the sitting position. If the operator can see the cutter blade, the back of the cutter is raised TOO HIGH, lower the cutter deck to avoid debris from being thrown at the operator.

4.3 HOW TO START AND STOP THE BRUSH CUTTER

BRUSH CUTTER CONTROLS

Your brush cutter is designed to run off the skid steer loader'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 skid steer operator's manual for precise instructions regarding these functions.

HYDRAULIC FLOW REQUIREMENTS

When operating the cutter, set the skid steer throttle at a speed that will produce the required flow. Your skid steer 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 4 to see your specific models max GPM setting.



WARNING

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

NOTICE

If the brush cutter begins to vibrate while increasing the RPM's, deactivate the auxiliary hydraulic system and investigate the cause. Refer to the Troubleshooting Chart on page 32 of this manual.

NOTICE

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

STARTING THE BRUSH CUTTER

- 01 SECURE ATTACHMENT**
Ensure attachment is secure and lock pins are fully engaged.
- LOCK HOSES 02**
Ensure hydraulic hoses are locked to the skid steer's hydraulic couplers.
- 03 SET RPM**
Set skid steer engine RPM to slightly above idle.
- ACTIVATE 04**
Activate skid steer auxiliary hydraulic circuit.
- 05 FULL THROTTLE**
Once brush cutter is up to speed, increase skid steer engine to full throttle. Ensure cutter is running smoothly.

STOPPING THE BRUSH CUTTER

- 01 RAISE**
Raise the cutter slightly and set skid steer's engine to idle.
- SLOW DOWN 02**
Allow the cutter to slow down.
- 03 SHUT OFF**
Shut off hydraulic flow to the brush cutter.

4.4 INITIAL USE PROCEDURE

NOTICE

Before operating the brush cutter, check the skid steer's hydraulic oil level and add oil if necessary.

NOTICE

Ensure the case drain hose is properly attached to the prime mover's case drain connection. DO NOT operate this attachment WITHOUT the case drain hose attached. Excessive hydraulic pressure will blow out the seals.

Ensure that hydraulic hoses are securely locked to the skid steer hydraulic couplers before starting the brush cutter.

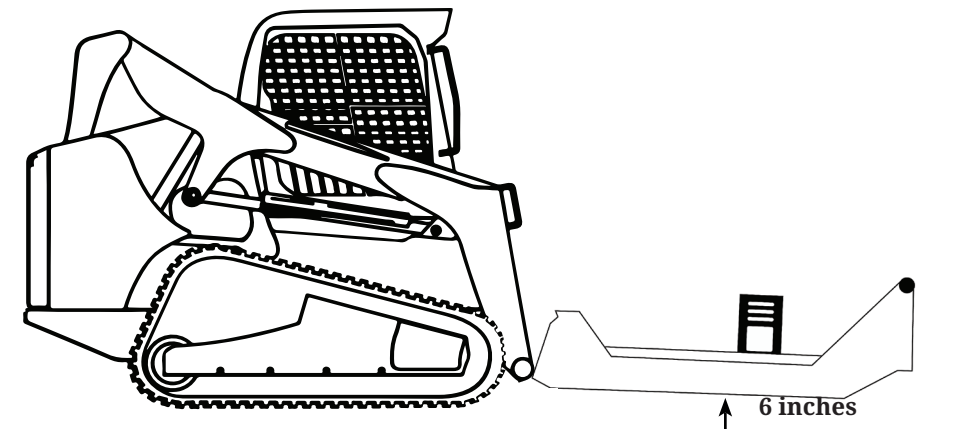


Figure 4.4: After starting skid steer, lift attachment 6 inches off the ground surface

4.5 INITIAL USE PROCEDURE

01

ACTIVATE

With the skid steer engine RPMs just above idle, activate the skid steer's auxiliary hydraulic system.

TURN OFF HYDRAULIC FLOW

Allow the cutter to run for 30 seconds to purge air from the system, then turn off hydraulic flow to the brush cutter and allow it to come to a complete stop.

02

03

LOWER & PARK

Lower the brush cutter to the ground, set parking brake, shut off the skid steer's engine and exit the operator's compartment.

CHECK OIL

Check the skid steer's hydraulic oil level, add oil if necessary.

04

05

INSPECT FOR LEAKS

Inspect the brush cutter hydraulic plumbing for any noticeable leaks. Fix leaks before continuing.



WARNING

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

RESTART

Restart the skid steer, then set engine to slightly above idle.

06

07

RAISE

Raise brush cutter off the ground and engage the hydraulic flow switch. Allow cutter to come up to speed before increasing engine speed.

4.6 GENERAL OPERATING TIPS

LEARN

what the cutter head looks like in a level position when you are seated in the skid steer. Knowing what a level cutter head looks like will prevent you from damaging the cutter blades if you cut too close to the ground.

SLOW

down the skid steer if the engine "bogs" down or if the cutter speed is too slow because of too much load.

LISTEN AND FEEL

for any strange vibrations or noises. If you feel a bad vibration when cutting, slow the skid steer down and see if the vibration stops. If not, stop the brush cutter and investigate the cause. Refer to the "Troubleshooting Chart" on page 32 of this manual.

ALWAYS

be aware of your surroundings and pay attention to what obstacles and terrain are in front of you.



CAUTION

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

ADJUSTING CUTTER HEIGHT & LEVEL

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

NOTICE

When cutting dense or heavy material, adjust the level of the cutter deck so the front of the cutter is approximately 1 inch lower than the back of the cutter. This will assist the processing of the material and will avoid material "balling" under the deck.



CAUTION

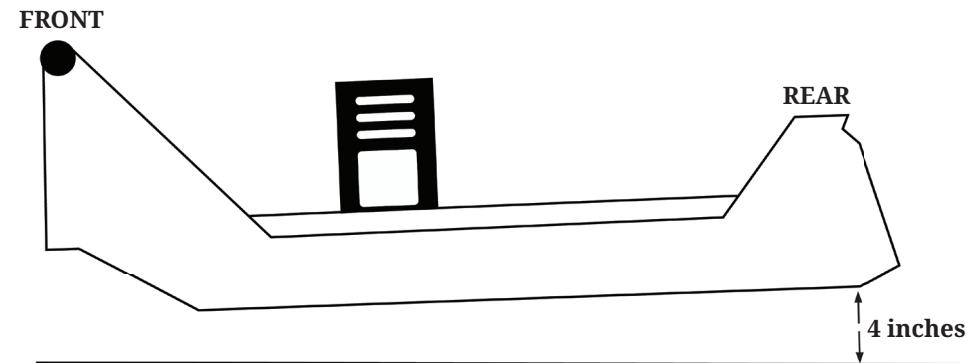
Use care when operating on uneven terrain or any type of sloped surface. Keep your cutter low to the ground when working in these conditions to avoid a roll over that could result in Minor or Serious Injury.

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 skid steer loader at a safe speed that will allow you to watch the area ahead of the cutter & loader.
3. Ensure skid steer 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

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



CAUTION

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 skid steer loader.

1. Tilt the front of the deck approximately 1 to 2 feet above ground level. DO NOT raise the rear of the deck.
2. Drive slowly into the vegetation and use the skid steer tilt function to push the vegetation forward. Allow the cutter blade to cut the vegetation.
3. Lower the front of the deck as you continue to mulch the vegetation.
4. Back drag the cutter to further minimize the size of the debris.

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.

MAINTENANCE PROCEDURES

5.1 MAINTENANCE OVERVIEW

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

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

NOTICE
 Improper maintenance or modifications to the design or performance of this machine will void the warranty. ONLY use genuine IronCraft replacement parts on this machine.

SAFETY INSTRUCTIONS

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



WEAR

proper Personal Protective Equipment (PPE) while working on this machine, 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.



SERVICE

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



ONLY

perform service work in a well-lit area.



ALLOW

the machine to cool down before servicing this machine. Hot oils can burn your skin.



NEVER

work under an unsupported cutter deck.

5.2 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 skid steer loader hydraulic fluid level. Add fluid as necessary. | ✓ | | |
| Check that all fasteners (nuts, bolts, washers, pins, keepers) are in place. Tighten as necessary. (See Bolt Torque Table on page 31) | ✓ | | |
| Inspect and replace any worn, torn, or missing safety decals. | ✓ | | |
| Inspect hydraulic plumbing (hoses and connectors) for damage or leakage. Repair or replace hydraulic items as necessary. | ✓ | | |
| Check condition of cutter blades. Sharpen or replace as necessary. | ✓ | ✓ | ✓ |
| Check oil level in bearing housing. Add fluid as necessary. | | ✓ | |
| Change oil in bearing housing. Change oil after 50 hours of first time use, then every 1,000 hrs or yearly. | | | ✓ |
| Wash Brush Cutter | | ✓ | |
| Check brush cutter for major scratches and dings. Sand and repaint these areas to prevent rust damage. Use a paint formulated for farm equipment which can be found at your local hardware store. | | | ✓ |

MAINTENANCE LOG

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

5.3 STORAGE TIPS

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



THOROUGHLY WASH

then dry your brush cutter. Ensure brush cutter is free of debris, dirt, grime and grease.



STORE

your brush cutter in a dry area such as in a shed or garage.



COVER

your brush cutter with a waterproof tarp if storing outside.

5.4 BLADE HOLDER REMOVAL



WARNING

To avoid an accident that could result in death or serious injury, NEVER place your body under an unsupported cutter deck when servicing this brush cutter.

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 skid steer.

NOTICE

ALWAYS release the hydraulic system pressure from the auxiliary hydraulic circuit prior to removing the blade holder.

REMOVAL PROCEDURE

1. Use the skid steer 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 skid steer engine, SET parking brake, and CHOCK skid steer tracks/tires to prevent skid steer from moving.
4. SECURE the front end of the cutter deck with an overhead hoist and chain. If you are performing this procedure in the field, lean the cutter head against a large, stable tree that has a diameter of at least 10 inches (see Figure 5.4).
5. REMOVE the six 3/4 inch cap screws that secure the holder to the gearbox shaft. If the blade holder fails to separate, use a wedge breaker tool to help separate the blade holder from the gearbox flange.

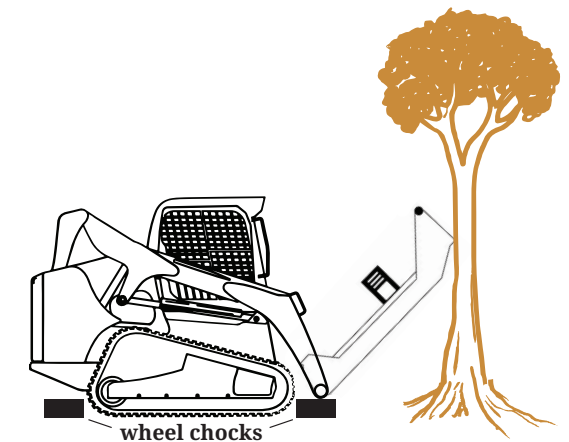


Figure 5.4 - Brush Cutter Deck Supported By Tree

NOTICE

Use a hoist, lift table or forklift to support the blade holder during removal.

5.5 BLADE HOLDER INSTALLATION

INSTALLATION PROCEDURE

NOTICE

Use a hoist, lift table or forklift to support the blade holder during installation.

1. Align the hole in the blade holder to the gearbox shaft and fully seat the holder onto 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 splines before proceeding to the next step.
3. Install the six 3/4 inch cap screws and torque to the value shown in the Torque Table on page 31.

5.6 BLADE REMOVAL



CAUTION

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

NOTICE

This procedure requires special tools and skills. DO NOT attempt to remove or sharpen blades if you do not have the tools or skills. Take your brush cutter to your local dealer for blade services.

BLADE REMOVAL PROCEDURE

1. Remove the blade holder as described in Section 5.4 of this manual.
2. Carefully cut the welded bead around the bolt head to allow the bolt to rotate. DO NOT cut into the blade holder (see Figure 5.6 on next page).
3. Drive the bolt shank from the blade and blade holder, being careful not to let the blade fall onto your feet (repeat steps 2 and 3 for each bolt).

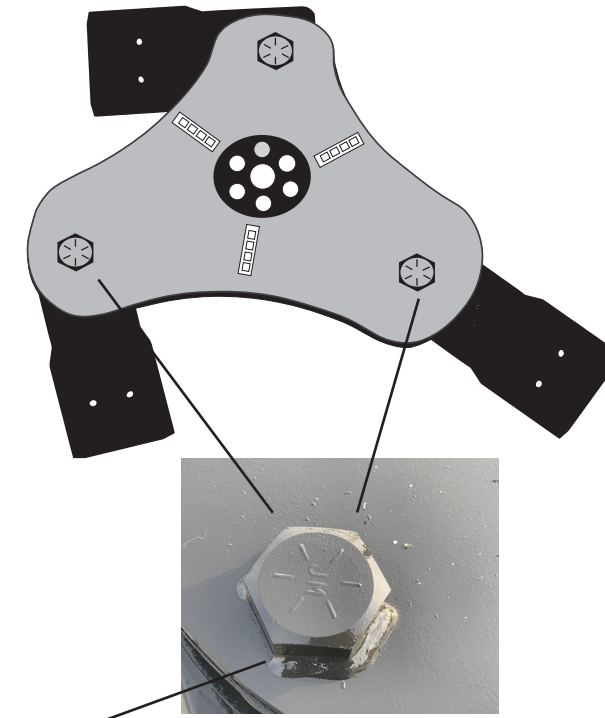


Figure 5.6 - Bolt Shank Removal from Blade Holder

BLADE SHARPENING NOTES

1. Sharpen cutter blades with the appropriate tool.
2. Be careful not to overheat the blade steel causing the blade material to become brittle and prone to early failure.
3. Grind each blade to the similar shape and size so as to not create a set of mismatched blades.
4. ALWAYS sharpen or replace cutter blades as set.
5. 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.

5.7 BLADE INSTALLATION

INSTALLATION PROCEDURE

NOTICE

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

1. Grind away the old weld bead to ensure a flat smooth surface for new bolt head to mate to.
2. Place nut in the recessed hole on top of blade holder.
3. Insert new blade bolt up through the hole in the blade holder and tighten into the nut.

NOTICE

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

4. Torque the blade bolt to the value shown in the torque table on page 31 of this manual.
5. Weld the outside of the bolt head as shown in Figure 5.6a left below.

NOTICE

DO NOT weld bolt head unless the nut is firmly seated into the recessed hole (see Figure 5.6b right below).

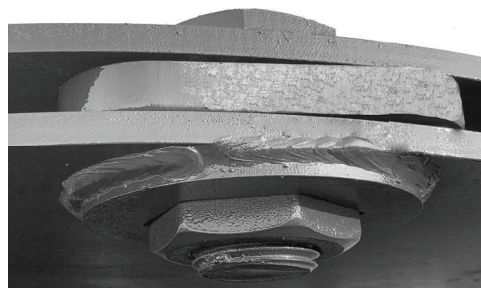


Figure 5.6a Bolt Head Bead Weld & Assembly

Figure 5.6b Bolt Thru Nut

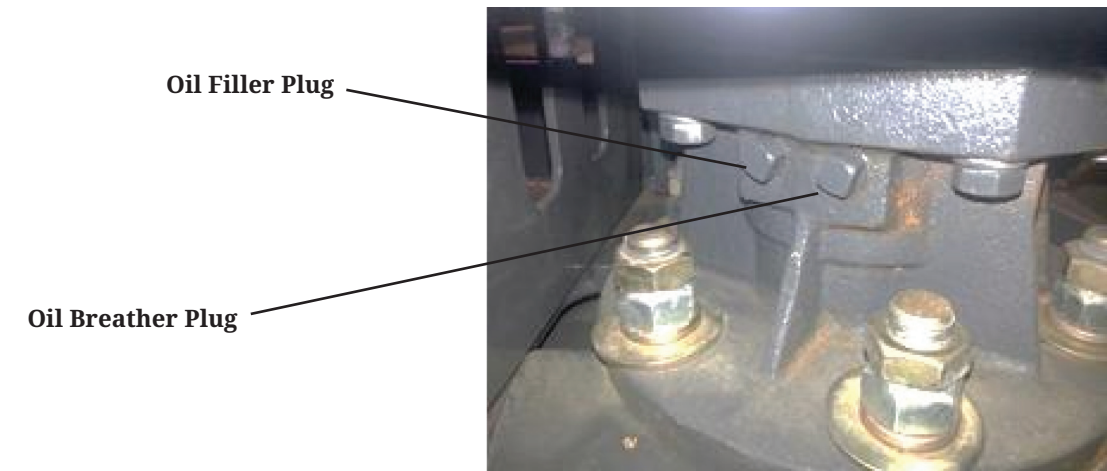
5.8 DRIVE BEARING HOUSING MAINTENANCE

NOTICE

Maintenance procedures for the drive bearing housing require special tools and skills. DO NOT attempt to service the drive bearing housing unless you have the tools and skills to do so. Take your brush cutter to your local dealer to have the drive bearing housing serviced.

CHECKING FLUID LEVEL

1. The oil level in the drive bearing housing must be checked weekly. Refill with 85W-140 5EP grade gear oil only.
2. Check the oil level by removing the oil filler plug and oil breather plug. The oil level should be at the bottom of the breather 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.

BEARING HOUSING OIL CHANGE PROCEDURE

1. Remove one of the plugs in the drive bearing housing and insert an extraction hose into the housing so that it reaches the bottom.
2. Insert a discharge hose into an approved waste oil container.
3. Pump all oil from the drive bearing housing.
4. Refill the housing with approximately 9 fluid ounces of 85W-140 5EP grade gear oil. Remove breather plug and check if oil is at bottom of hole.
5. Install breather plug.

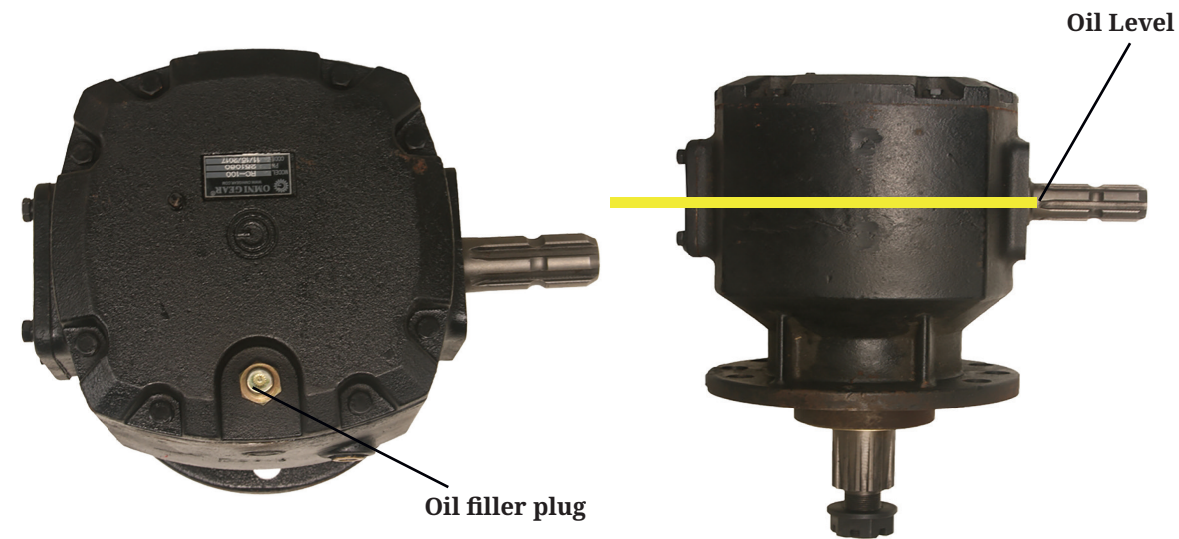
5.9 GEARBOX MOTOR MAINTENANCE

NOTICE

Maintenance procedures for the gear box motor require special tools and skills. DO NOT attempt to service the gear box motor unless you have the tools and skills to do so. Take your brush cutter to your local dealer to have the gear box motor serviced.

CHECKING FLUID LEVEL

1. Check the oil level by removing the oil filler plug. The oil level should be at mid height of the input spline.
2. If low, add 85W-140 5EP grade gear oil. Be sure to check the gear box oil weekly.




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.

GEAR BOX OIL CHANGE PROCEDURE

1. Remove oil filler plug.
2. Insert one end of a discharge hose into the gear box oil fill port and the other end into an approved waste oil container.
3. Pump the old oil from the gear box motor.
4. Refill the gear box with 85W-140 5EP grade gear oil to mid height of the input spline.
5. Reinstall oil filler plug.

5.10 TORQUE SPECIFICATION TABLE

| 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 |

TROUBLESHOOTING

| PROBLEM | CAUSE | RESOLUTION |
|---|---|--|
| Cutter bogs down | Deck is not leveled properly and material is balling under deck | Refer to leveling instructions found in this manual |
| | Dull blades | Remove and sharpen blades |
| | Ground speed too fast | Slow down ground speed |
| | Cutter speed too slow | Raise engine RPMs or investigate other low oil flow problem |
| Vibration felt when running cutter | Missing, loose, damaged or unbalanced cutter blades | Replace blades with new or re-sharpened and equally balanced blades |
| | Blade mount damaged | Replace blade mount |
| | Gearbox loose on deck | Tighten and torque gearbox mounting bolts. Replace damaged bolts. |
| | Cutting height too low for cutting in sandy or rocky soils | Raise cutter height |
| Blades get dull too quickly | Blades have contacted solid objects (rocks, steel, pipes, etc.) | Clear cutting area of solid objects before hitting them, or raise cutter height to clear exposed rock surfaces |
| Blades breaking | Excessive shock loads | Avoid hitting solid objects (rock, steel pipes, large tree stumps, etc.) |
| Hydraulic oil level drops during operation | Leak at cutter motor or other plumbing | Investigate and repair |
| | Leaks in skid steer hydraulic system | Investigate and repair |
| Blades do not rotate when flow is activated | Shear bolt between motor and gearbox is sheared | Replace with proper shear bolt specific for this unit |
| | Motor or gearbox have failed | Disconnect the drive chain between motor and gearbox. If blade holder can be turned by hand, motor failure is suspect. Call your dealer for further recommendations. |

PARTS INFORMATION

Factory fresh 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 | |
| SERIAL NUMBER | |
| GPM REQUIREMENTS | |
| DATE OF OWNERS MANUAL (Bottom Right Corner of Cover Page) | |
| PARTS DIAGRAM PAGE NUMBER | |
| PART DESCRIPTION | |
| REFERENCE NUMBER | |
| QUANTITY DESIRED | |
| SHIP TO INFORMATION | |
| BILL TO/PAYMENT INFORMATION | |

Use Genuine Parts from IronCraft.

LIMITED WARRANTY

IronCraft (the Manufacturer) warrants, only to the original Purchaser, this equipment will be free from defects in material and workmanship, under normal use and service, for one (1) year from the date of purchase providing this equipment is purchased for individual use only. **Commercial use of this equipment is not covered under any warranty.** This warranty does not apply to any equipment which has been damaged or which has been subjected to change, misuse, negligence, abnormal wear and tear, alterations, tampering, or failure to follow operating instructions. This warranty does not cover any product or parts not manufactured by IronCraft.

IronCraft brush cutters have a five (5) year Limited Warranty* on gearbox components provided they have been properly maintained** and have not been subjected to abuse or misuse except as limited below.

*** Gearbox warranty limitations:**

- i. Warranty is one (1) year for seals unless seals are damaged from debris wrapped around the input and or output shaft of the gearbox. After one year, seals are considered to be wearing parts, and the replacement is the owner's responsibility.
 - ii. Gearboxes that are subject to warranty may be replaced with new or rebuilt gearboxes at the discretion of IronCraft
 - iii. **Shearbolts must be approved Grade 2, 1/2" x 3" shearbolts.**
- **NOTE : "properly maintained" specifically includes, but is not limited to:**
- i. Running gearboxes with the proper amount of correct lubricant.
 - ii. Adjusting slip clutches correctly to provide proper protection for gearbox components and drive line.

Under this warranty, the Manufacturer will repair or replace any part which the Manufacturer determines has failed during the period of the warranty due to defects in material or workmanship. After written approval by the manufacturer, the equipment or defective part must be returned to IronCraft.

Warranty coverage and performance is expressly conditioned upon the return of the completed registration form to: IronCraft, 7 Rocky Mt Rd, Athens, Tennessee 37303. Registration can be found on our website www.ironcraftusa.com

IronCraft reserves the right to make improvements and changes in specifications without notice or obligation to modify previously sold units. The Owner's Manual describes the proper assembly procedures for your implement and furnishes operating and maintenance recommendations to help you obtain long and satisfactory service.

PURCHASER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY, OTHER DEFECT, OR CONDUCT GIVING RISE TO LIABILITY SHALL BE THE REPAIR OR REPLACEMENT OF THE PRODUCT SOLD, AND THE MANUFACTURER UNDER NO CIRCUMSTANCES SHALL BE LIABLE FOR ECONOMIC LOSS OR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE MANUFACTURER DISCLAIMS ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR PURPOSE.

Purchaser and IronCraft hereby (a) submit to the non-exclusive jurisdiction of the courts of competent jurisdiction in Meigs County, Tennessee, and the United State District Court for the Eastern District of Tennessee for resolution of any dispute concerning this Limited Warranty or the rights or obligations of Purchaser and/or IronCraft; (b) agree that any litigation commenced in Tennessee in connection with this Limited Warranty shall be venued in either the Meigs County, Tennessee District

Court, or the United States District Court, Eastern District of Tennessee, Southern Division, and (c) waive any objection it 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 IronCraft (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.

REGISTER

This registration form must be filled out within 30 days of delivery to the purchaser or future warranty claims will not be honored.

www.ironcraftusa.com/warranty/register-warranty/



MAKE CLAIM

This form is for dealer use only. Do not use for warranty labor or parts reimbursement.

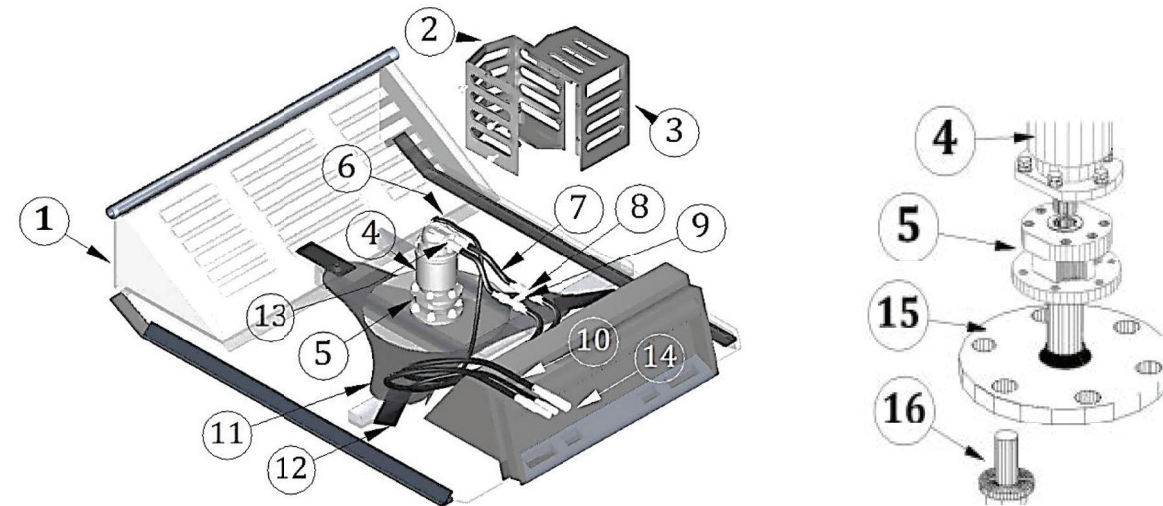
www.ironcraftusa.com/warranty/claim-warranty/



REIMBURSEMENT

This form is for dealer use only. Apply for warranty labor or parts reimbursement here.

<https://www.ironcraftusa.com/warranty/reimbursement-form/>



CUTTER PARTS

| REF | DESCRIPTION | QTY. | PART # |
|-----|---|------|--------|
| 1 | Cutter Deck Weldment | 1 | |
| 2 | Motor Guard | 1 | |
| 3 | Motor Cover | 1 | |
| 4 | Motor | 1 | |
| 5 | Bearing Housing | 1 | |
| 6 | Adapter - Motor to Case Drain Hose | 2 | |
| | Case Drain Hose (Motor to Quick Disconnect) | 1 | |
| 7 | Motor to Tee Hose | 2 | |
| 8 | Tee | 2 | |
| 9 | Check Valve | 1 | |
| 10 | Hose (Check Valve Tee to Quick Disconnect) | 2 | |
| 11 | Blade Holder Assy. (Twin 3/8" for 16-26 GPM and 17-27 GPM) (Twin 1/2" for 27-35 GPM, 30-48 GPM) | 1 | |
| 12 | Blade | 3 | |
| | Hardware Set (Blade to Blade Holder) | 3 | |
| 13 | Adapter (Motor to Hose) | 2 | |
| 14 | Main Quick Disconnect Set | 1 | |
| 15 | Output Shaft Assy. | 1 | |
| 16 | Hardware Set (Blade Holder to Output Shaft) | 6 | |



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