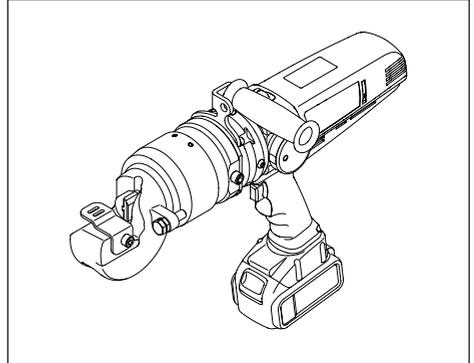


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Safety Alert Symbols are used in conjunction with certain Signal Words that call attention to safety messages or property damage messages and designate a degree or level of hazard seriousness. The Signal Words used in this manual are DANGER, WARNING, CAUTION and NOTICE.

1.0 SAFETY**1.1 Introduction**

Read all instructions carefully. Follow all recommended safety precautions to avoid personal injury as well as damage to the product and/or damage to other property. Enerpac cannot be responsible for any damage or injury from unsafe use, lack of maintenance or incorrect operation. Do not remove warning labels, tags, or decals. In the event any questions or concerns arise, contact Enerpac or a local Enerpac distributor for clarification.

If you have never been trained on cutting tool safety, consult your distributor or service center for information about an Enerpac safety course.

This manual follows a system of safety alert symbols, signal words and safety messages to warn the user of specific hazards. Failure to comply with these warnings could result in death or serious personal injury, as well as damage to the equipment or other property.



The Safety Alert Symbol appears throughout this manual. It is used to alert you to potential physical injury hazards.

Pay close attention to Safety Alert Symbols and obey all safety messages that follow this symbol to avoid the possibility of death or serious personal injury.



DANGER Indicates a hazardous situation that, if not avoided, will result in death or serious personal injury.



WARNING Indicates a hazardous situation that, if not avoided, could result in death or serious personal injury.



CAUTION Indicates a hazardous situation that, if not avoided, could result in minor or moderate personal injury.



NOTICE Indicates information considered important, but not hazard related (e.g. messages relating to property damage). Please note that the Safety Alert symbol will not be used with this signal word.

1.2 Hydraulic Cutter Safety Precautions

⚠ WARNING Failure to observe and comply with the following precautions and instructions may result in death or serious personal injury. Property damage could also occur.

- Read and completely understand the safety precautions and instructions in this manual. Always follow all safety precautions and instructions, including those that are contained within the procedures of this manual.
- Read this manual before operating the cutter, or before performing any adjustments, inspections, maintenance or repairs.
- Follow all instructions and heed all precautions stated in this manual.
- Keep this manual for future reference in a place that is accessible to all persons operating or servicing the cutter.
- Always perform a visual inspection of the cutter before placing it into operation. If any problems are found, do not use the tool. Make repairs before using the cutter.
- Do not use the cutter if it is leaking oil. Do not use the cutter if damaged, altered or in need of repair.
- Do not remove or disable cutter safety devices. Before using the cutter, make sure that all the safety devices (guards, etc.) are in place and in good condition.
- Do not remove the guards installed on the cutter or on any accessories. Replace any guards immediately if they develop faults or become damaged.
- Do not alter the calibration of the safety devices, such as maximum pressure valves (if equipped).
- Allow only authorized, trained, and experienced personnel to operate the cutter and supervise its use.
- Ensure that all users are trained and qualified to operate the cutter. Operators must be aware of all applicable occupational safety laws and must operate the cutter in accordance with all such laws.
- Keep the work area clean and well illuminated.
- When operating the cutter, do not wear loose clothing or jewelry that could get caught up in the cutter during operation. Tie up long hair.
- Always wear and use appropriate personal protective equipment (PPE) such as non-skid safety shoes, hard-hat, hearing protection and face and eye protection. Use of these and other PPE items (used as appropriate for conditions) will reduce the chance of personal injuries. The use of these items may also be required by local regulations or laws.
- Consult your employer concerning specific safety requirements and the safety equipment required for use in your country or region.
- Be certain that the cutter blade safety guard is installed before starting the cutter. Never operate the cutter with the safety guard removed, or if the safety guard is loose or damaged.
- Before reaching inside the cutting area for any reason, always stop the cutter and remove the battery.
- Keep others clear of the work area while the tool is in use. Be sure that all personnel not operating the cutter remain at a safe distance when the cutter is in operation.
- Stop the cutter if people and/or animals enter the work area.
- Ensure that the operator is alert, observant of the task being performed and that the work is being done with care.
- Do not allow use of the cutter by persons that are tired, or under the influence of drugs, alcohol or medication.
- Do not allow children to operate the cutter or to assist with its use. Keep children out of the work area.
- Place the tool horizontally on a substantial work surface. The work surface must have a rated weight capacity that exceeds the weight of the cutter and of the material being cut.
- Fragments and splinters may be ejected from the cutter during normal use. The end of the material being cut may become a projectile as it separates during cutting. Stay clear of the cutting head and surrounding area during operation. Always wear face and eye protection.
- As needed, remove any foreign objects from the cutting head that could damage the cutter and/or injure the operator. Before removing any foreign objects, always stop the cutter and remove the battery.
- Avoid touching the cutter's metal surfaces during operation and after the cutter has been in use. Be aware of the risk of burns if the cutter becomes hot.
- Do not use the cutter for activities other than those it was approved and designed to perform. Refer to Section 9.1 of this manual for additional information regarding foreseen use.
- Use the cutter's built-in handles when lifting or moving the cutter. Use the cutter lifting eye and appropriately rated lifting equipment if it is necessary to lift or suspend the tool by mechanical means.
- Do not exceed equipment ratings. Never attempt to cut an item that is above the maximum allowable diameter, tensile strength or hardness for your cutter model. For additional information, refer to Section 2.1 of this manual. Overloading may cause equipment failure and possible personal injury.
- Do not use the cutter in explosive atmospheres (for example, in the presence of flammable liquids, gasses or powders).
- Do not use the cutter on live electric lines, on pressure vessels or ducts, or on vessels containing corrosive and/or toxic substances.
- If the cutter malfunctions, stop use immediately. Check for misaligned or jammed moving parts, broken components and any other condition that could make the tool operate incorrectly. Place the

cutter back into operation only after the fault has been identified and the identified repairs and/or adjustments have been performed.

- Ensure that any repairs are performed only by trained, qualified and authorized staff using original equipment replacement parts. For repair service, contact the Enerpac authorized service center in your area.
- Use only original equipment Enerpac parts. Enerpac parts are designed to fit properly and to withstand high loads. Non-Enerpac parts may break or cause the product to malfunction.
- Keep cutting tools clean and replace blades when they become dull. Suitably maintained cutting tools with sharp edges are less likely to jam and are easier to control.

⚠ CAUTION Failure to observe and comply with the following precautions and instructions could result in minor or moderate personal injury. Property damage could also occur.

- To help ensure proper operation and best performance, use only Enerpac HF hydraulic oil. Use of any other oil may result in unsafe operation and/or damage to tool. The Enerpac product warranty may also be invalidated.
- Keep the tool away from flames and heat. Excessive heat will soften packings and seals, resulting in possible hydraulic fluid leaks.
- Protect all hydraulic equipment from weld spatter.

1.3 Cordless Electric Tool Safety Precautions

⚠ WARNING Failure to observe and comply with the following precautions and instructions may result in death or serious personal injury. Property damage could also occur.

- Refer to the separate instruction manual (published by DEWALT) for detailed battery and charger safety information, operating instructions and care information. Observe all warnings and other stated precautions. Failure to observe these precautions may lead to fire, electrocution and/or serious personal injury.
- Always be certain that tool is stopped and battery is removed before reaching inside the cutting head or performing any tool cleaning, maintenance or repair procedures.
- Do not leave the tool unattended in the workplace. Remove battery and take all reasonable precautions to avoid unauthorized use.
- Take precautions to ensure that the tool is not switched on accidentally. Be sure that the on-off trigger is not depressed when installing the battery, or when picking up or transporting the tool. Accidents can occur if power tools are lifted or transported while the operator's finger is on the trigger, or if the battery is installed while the operator's finger is on the trigger.

- Do not use the tool if it cannot be switched on and off using the trigger. Any tool that cannot be controlled with the trigger on-off switch is dangerous and must be repaired.
- Remove the battery from the tool before making adjustments, before changing accessories or before performing any maintenance or repairs. These preventative safety measures reduce the risk of the tool being operated accidentally.
- Remove all wrenches and adjustment tools (if present) before switching on the tool. A wrench or adjustment tool attached to a rotating element of a power tool can cause personal injury.
- Make sure the cooling vents are unobstructed and that the cooling surfaces are clean in order to avoid dangerous overheating.
- The tool is designed for noncontinuous use. Allow sufficiently long pauses to allow the oil to cool. Consult Enerpac if prolonged and/or uninterrupted use is required.
- Keep the tool away from rain and wet conditions. Water entering a battery powered tool will increase the risk of electric shock.
- Do not expose the tool to heat sources in excess of 158°F [70°C] as this could cause irreversible damage to cable insulation and other electrical components, possibly leading to a fire.
- Do not service or clean the tool, or replace blades or guards, while the tool is operating and/or if the battery is installed.
- Keep the tool out of the reach of children. Do not allow inexperienced users or users who have not read the instructions to operate the tool. Power tools are dangerous in the hands of non-expert users.
- In accordance with the standards indicated and followed by the manufacturer, the equipment components that also perform a safety function (insulators, guards, etc.) must not be repaired, but must instead be replaced with original spare parts.
- Ensure that the tool is serviced by a qualified technician using original equipment spare parts. This will help ensure that the tool remains safe to operate.

1.4 Rechargeable Battery Safety

⚠ WARNING Failure to observe and comply with the following precautions could result in death or serious personal injury. Property damage could also occur.

- Do not charge or use the battery in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.
- Never force the battery into the tool or the charger.
- Never attempt to open the battery case for any reason.
- If the battery case is cracked or damaged, do not insert into tool or charger.
- Do not crush, drop or damage the battery.
- Do not use a battery that has received a sharp blow,

been dropped, run over, or damaged in any way (e.g., pierced with a nail, hit with a hammer, stepped on, etc.). Damaged batteries should be properly recycled or disposed of, in accordance with all applicable laws and regulations in your country or region.

- Do not store or carry the battery so that metal objects can contact exposed battery terminals.
- Refer to manufacturer's battery and charger manual for complete safety precautions, use and disposal instructions, and transport instructions.
- Use the cutter only with a compatible battery of original equipment specifications. Use of a non-compatible battery may result in erratic and/or unsafe operation.

1.5 Lithium-ion Batteries - Additional Safety Information

⚠ DANGER Failure to observe and comply with the following precautions will result in death or serious personal injury. Property damage could also occur.

- Do not incinerate the battery even if it is severely damaged or completely worn out. The battery can explode in a fire. Toxic fumes and materials are created when lithium-ion batteries are burned.
- If battery contents come into contact with the skin, immediately wash area with mild soap and water. If battery liquid gets into the eye, rinse water over the open eye for 15 minutes or until irritation ceases. If medical attention is needed, note that the battery electrolyte is composed of a mixture of liquid organic carbonates and lithium salts.
- Contents of opened battery cells may cause respiratory irritation. Provide fresh air. If symptoms persist, seek medical attention.

1.6 Safety Symbols (on cutter)

⚠ WARNING Failure to observe and comply with the safety symbols affixed to the cutter housing could result in death or serious personal injury.

⚠ WARNING Make sure the safety symbols (decals, labels, etc.) are securely affixed to the tool and that they are legible. If not, obtain replacements from Enerpac. Refer to tool repair parts sheet for locations and part numbers. Failure to maintain safety symbols on tool could result in death or serious personal injury.

The following safety symbols are affixed to the cutter housing:



Crush hazard: Keep hands, fingers and other body parts away from the cutting head.



Projectile hazard: Objects may be ejected from the cutter during operation. Stay clear of cutting area. Wear eye and face protection.



Max Diameter Alert: Cutting diameter must not exceed 20 mm [0.79 inch].



PPE Alert: Wear personal protective equipment (PPE) when using or servicing equipment



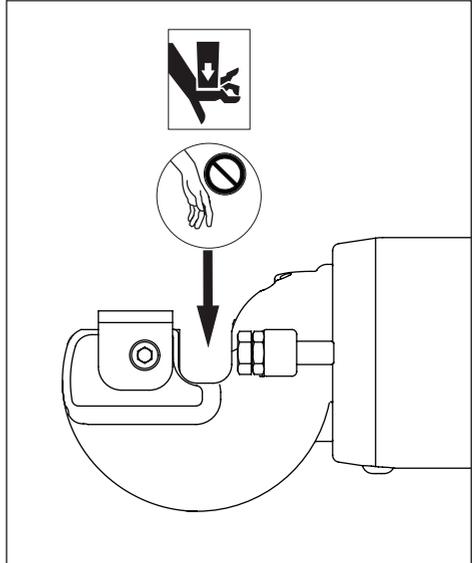
Instruction Manual Alert: Read the instruction manual before using or servicing equipment.

1.7 Crush Hazard

⚠ DANGER Cutter will start immediately when battery is installed on cutter and on-off trigger is depressed.

DO NOT place hands, fingers or other parts of your body inside the cutting head unless battery is removed from cutter. Death or serious personal injury will result if cutter is started while persons are working inside the cutting head.

- Never reach into the cutting head while cutter is in operation.
- Before reaching inside the cutting head for any reason, always stop the cutter and remove battery.



1.8 General Power Tool Safety Warnings

⚠ WARNING Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1) Work area safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2) Electrical safety

- a) **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

3) Personal safety

- a) **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while

operating power tools may result in serious personal injury.

- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts.** Loose clothes, jewelry or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- h) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

4) Power tool use and care

- a) **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- b) **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- d) **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.

- e) **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.**
 - f) **Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.**
 - g) **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.**
 - h) **Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.**
- 5) **BATTERY tool use and care**
- a) **Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of BATTERY pack may create a risk of fire when used with another BATTERY pack.**
 - b) **Use power tools only with specifically designated BATTERY packs. Use of any other BATTERY packs may create a risk of injury and fire.**
 - c) **When BATTERY pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the BATTERY terminals together may cause burns or a fire.**
 - d) **Under abusive conditions, liquid may be ejected from the BATTERY; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the BATTERY may cause irritation or burns.**
 - e) **Do not use a BATTERY pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behavior resulting in fire, EXPLOSION or risk of injury.**
 - f) **Do not expose a BATTERY pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.**
 - g) **Follow all charging instructions and do not charge the BATTERY pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the BATTERY and increase the risk of fire.**
- 6) **Service**
- a) **Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.**
 - b) **Never service damaged BATTERY packs. Service of BATTERY packs should only be performed by the manufacturer or authorized service providers.**

2.0 PRODUCT DATA

2.1 Cutter Maximum Capacities

Material to be Cut	Cutter Model No.	Material Maximum Diameter		Material Maximum Tensile Strength		Material Maximum Hardness
		in	mm	psi	daN/mm ²	Rockwell C
Round, square or flat metal bars	EBC20B EBC20E	0.79	20	94,275	65	43

NOTICE Material to be cut must not exceed any of the stated maximum limits shown in this table. Cutter may stall during operation if one or more of the maximum limits is exceeded.

2.2 General Specifications

Cutter Model Number	Max. Cutting Force		Weight (without battery)		Max. Hydraulic Operating Pressure		Ambient Operating Temp		Hyd. Pump
	Tons	kN	lb	Kg	psi	bar	°F	°C	Type
EBC20B EBC20E	21.2	188.3	19.2	8.7	7977	550	-40 to +122	-40 to +50	Internal, Battery Powered

2.3 Power and Noise Level Specifications

Cutter Model Number	Input Voltage (Volts)	Current Type	Rated Input Current (Amps)	Electrical Power (Watts)	Insulation Class	Noise Level (typical)	
						No Load L_{WA} †	No Load Operator L_{PA} †‡
EBC20B EBC20E	18 - 20	Direct (DC)	46	830	III	93	82

Notes: † Per EN 62841-1 and EN 62841-2-8. ‡ Per EN 62841-1 and EN ISO 5349.

2.4 Battery Specifications

Manufacturer	DeWALT Industrial Tool Co.	
Region	Americas	Europe and Asia
Battery Type	Lithium-Ion	Lithium-Ion
DeWALT Model No.	DCB205	DCB184-XJ
Energpac Part No.	B205	B185
Rated Voltage	20 Volts Max. DC	18 Volts DC
Rated Capacity	5.0 Amp Hours	5.0 Amp Hours
Weight	1.4 lb [0.62 Kg]	1.4 lb [0.62 Kg]

Energpac EBC-Series cutters are designed to operate exclusively with the specified DEWALT[®] batteries.

DeWALT[®] is a registered trademark of DeWALT Industrial Tool Company (a division of Stanley Black & Decker, Inc.), 701 East Joppa Road, Towson, MD 21286 USA.

DeWALT[®] has not manufactured, licensed, approved, or endorsed the Energpac EBC Series cutters.

⚠ WARNING Use only a genuine DeWALT battery of the stated specifications indicated for your region. Do not use batteries of different brands and/or specifications. Use of incorrect battery may result in improper tool operation and risk of burns and/or electric shock. Death or serious personal injury could occur.

2.5 Charger Specifications

Manufacturer	DeWALT Industrial Tool Co.	
Region	Americas	Europe and Asia
DeWALT Model No.	DCB115	DCB115-QW
Energpac Part No.	BC1220B	BC1220E
Input Voltage	120 Volts AC, 60Hz	230 Volts AC, 50Hz
Rated Capacity	5.0 Amp Hours	5.0 Amp Hours
Charging Voltage	12-20 Volts DC	12-20 Volts DC
Charging Time	60-90 Minutes	60-90 Minutes
Weight	1.3 lb [0.49 Kg]	1.3 lb [0.49 Kg]

NOTICE Use only a genuine DeWALT battery charger of the stated specifications indicated for your region.

NOTICE Refer to the DeWALT battery and charger instruction manuals for complete specifications and additional information. Battery and charger specifications are subject to change without notice.

2.6 Dimensions

Dimension	in	mm
A	19.8	504
B	6.9	176
C	13.9	354

Product specifications are subject to change without notice.

3.0 CONFORMANCE TO NATIONAL AND INTERNATIONAL STANDARDS



Enerpac declares that this product has been tested and conforms to applicable standards and is compatible with all CE requirements.

A copy of an EU Declaration of Conformity is enclosed with each shipment of this product.

4.0 DESCRIPTION

The Enerpac cordless bar cutters, models EBC20B and EBC20E, are designed to cut round, square or flat metal bars and other similar items.

These cutters contain two blades, one fixed and one moving. The moving blade is actuated by a hydraulic cylinder.

Power is supplied by an 18 or 20 volt lithium-ion battery (varies by region). The battery powers a DC electric motor, which drives a small hydraulic gear pump. The pump provides oil flow to the hydraulic cylinder, which advances the cylinder piston.

A hydraulic reservoir with built-in rubber diaphragm provides a constant supply of oil to the pump, regardless of tool orientation or the amount of piston extension.

A trigger-style on-off switch, mounted on the cutter grip, starts and stops the electric motor. The trigger must remain pressed during the cutting process.

An automatic retract feature moves the piston to the fully retracted “home” position when the piston reaches its full stroke and the trigger is released.

A built-in blade safety guard provides protection from splintered material during cutting and helps prevent contact with the blades.

The rotatable cutting head can be turned 360 degrees, allowing it to be positioned as needed for added convenience.

See Figure 1 for a description of cutter major features and components. Refer to Sections 2.1 through 2.6 of this manual for maximum cutting capacities, specifications and dimensions.

5.0 RECEIVING INSTRUCTIONS

Visually inspect all components for shipping damage. Shipping damage is not covered by warranty. If shipping damage is found, notify carrier at once. The carrier is responsible for all repair and replacement costs resulting from damage in shipment.

5.1 Documents and Accessories

The following documents and accessories are included with the cutter:

- Instruction Sheet
- Declaration of Conformity
- Protective Storage Case
- Allen Wrench – 8 mm
- 2 x Battery 20V-5Ah (Model EBC20B only)
- 2 x Battery 18V-5Ah (Model EBC20E only)
- Charger, 115V (Model EBC20B only)
- Charger, 230V (Model EBC20E only)

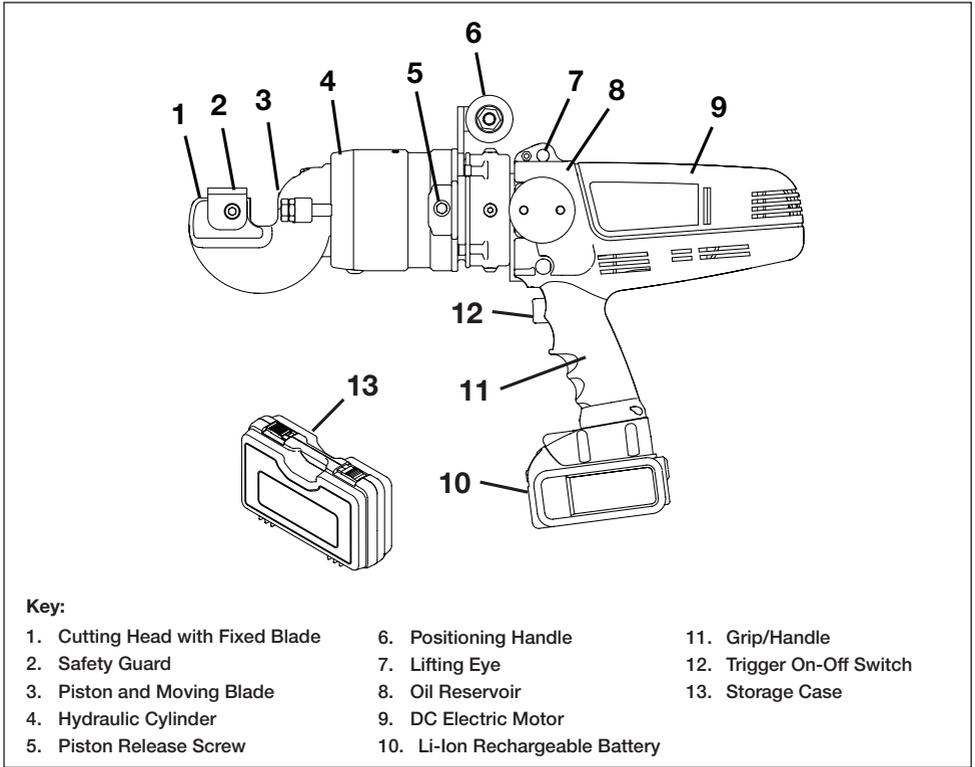


Figure 1, Features and Components

6.0 SET-UP

6.1 Delivery and Handling

The cutter is housed inside a protective storage case which contains additional room for two batteries. If ordered with the cutter, the batteries and battery charger will be included in a separate package.

NOTICE Always remove the battery from the cutter before placing the cutter in the case. Always store the cutter and batteries inside the case when not in use.

The cutter is designed for handheld operation. During periods when cutting is not in progress, place the cutter on a stable and level surface capable of supporting the combined weight of the cutter and battery. Refer to Sections 2.2 and 2.4 for weights.

6.2 Before Startup

- Be sure that the shipment includes all components and that there is no obvious damage.
- Read the following sections of this manual to become familiar with cutter features and safety devices.

- Fully charge the battery and install it on the tool. Refer to Section 7.0 for battery information. For charger operating instructions, refer to the separate battery and charger manual (published by DeWALT).

NOTICE Be sure that cutter piston is advanced as far as possible before removing oil reservoir cap in the next step. Oil leakage and improper operation may result if this instruction is not followed.

- Advance the piston as far as possible, remove battery from cutter and check the cutter hydraulic oil level. Add oil if oil level is low. Refer to Section 10.5.2 for detailed instructions.
- Be sure that the piston release screw is fully tightened. Refer to Section 8.3.
- Before first use, remove air from the cutter hydraulic system. Refer to procedure in Section 9.3.

7.0 BATTERY

7.1 General Information

The cutter is powered by a lithium-ion battery manufactured by DEWALT. The battery should be fully charged before the tool is used.

Batteries and chargers are available from Enerpac and from selected DEWALT distributors and retailers.

To ensure optimum performance and safe operation, use only the DEWALT batteries and chargers of the proper specifications. Refer to Sections 2.4 and 2.5 of this manual for additional information.

NOTICE A separate battery and charger instruction manual is published by DEWALT. Refer to this manual for detailed use and care information and important safety precautions. Be sure this manual is read and understood by all persons operating the cutter.

7.2 Battery Charge Indicator

To check the approximate battery charge level, push the battery test button and observe the green lights. See Figure 2.

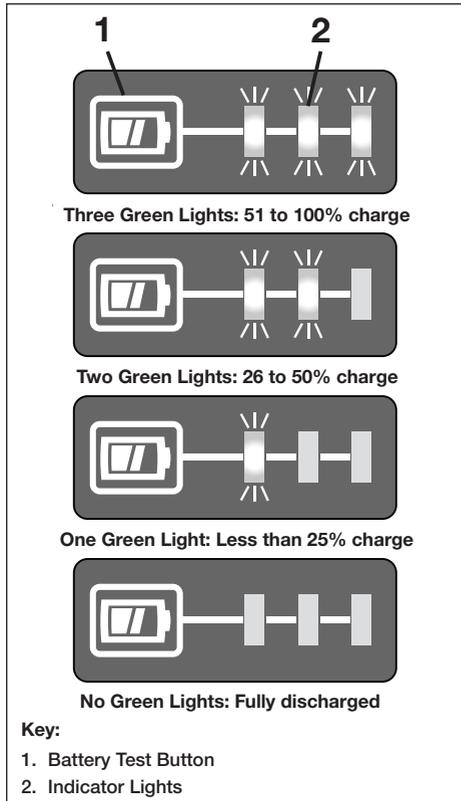


Figure 2, Battery Charge Indicator

Before operating the cutter, always check the charge level to be certain that you have sufficient battery charge available to complete the cutting operation.

If the battery charge is low, place the battery on the charger and wait until it is fully charged before reinstalling it on the cutter.

7.3 Battery Temperature

- If possible, avoid using or storing the battery in locations where the ambient temperature may reach or exceed 104°F [40°C]. For best service life, store batteries in a cool, dry location.
- To prevent serious damage to the battery, do not charge the battery at ambient temperatures of below 40°F [4.5°C] or above 104°F [40°C].

7.4 Battery Installation and Removal

WARNING DO NOT press the on-off trigger while installing the battery. Serious personal injury could occur if cutter starts unexpectedly as battery is being installed.

Refer to Figures 3 and 4.

To install the battery: Place the cutter on a stable work surface. Align grooves and slide the battery fully onto the bracket at the bottom of the tool grip. You should hear a “click” when the battery is fully installed.

To remove the battery: Place the tool on a stable work surface. While depressing the release button, grasp the battery firmly and slide it out of the bracket.

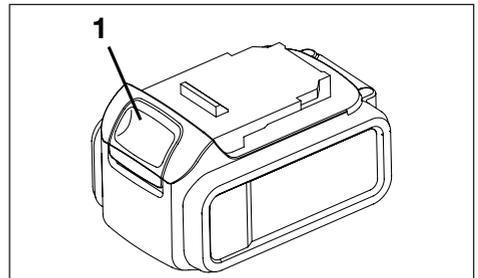


Figure 3, Battery Release Button (1)

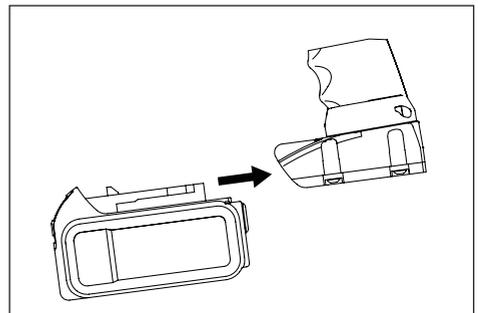


Figure 4, Battery Installation

8.0 FEATURES AND CONTROLS

8.1 Cutting Head Position

The cutting head can be rotated 360 degrees to aid in the positioning of the cutting blades and to allow greater flexibility and safety for the operator.

Adjust the cutting head as described in the following steps. Refer to Figures 5 and 6.

1. To prevent accidental startup, be sure that battery is removed from tool.
2. Firmly grasp the grip/handle with one hand.
3. With your other hand, firmly grasp the positioning handle and rotate the cutting head, twisting it in either direction, until the desired cutting head position is achieved.

Always position the cutting head so that the blades are at a right angle (90 degrees) to the bar or other item being cut. Refer to Section 9.5 for additional information.

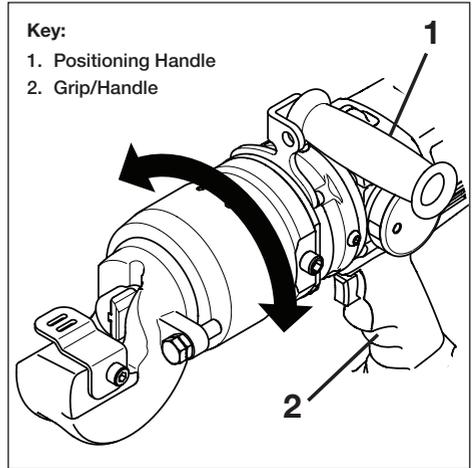


Figure 5, Cutting Head Rotation

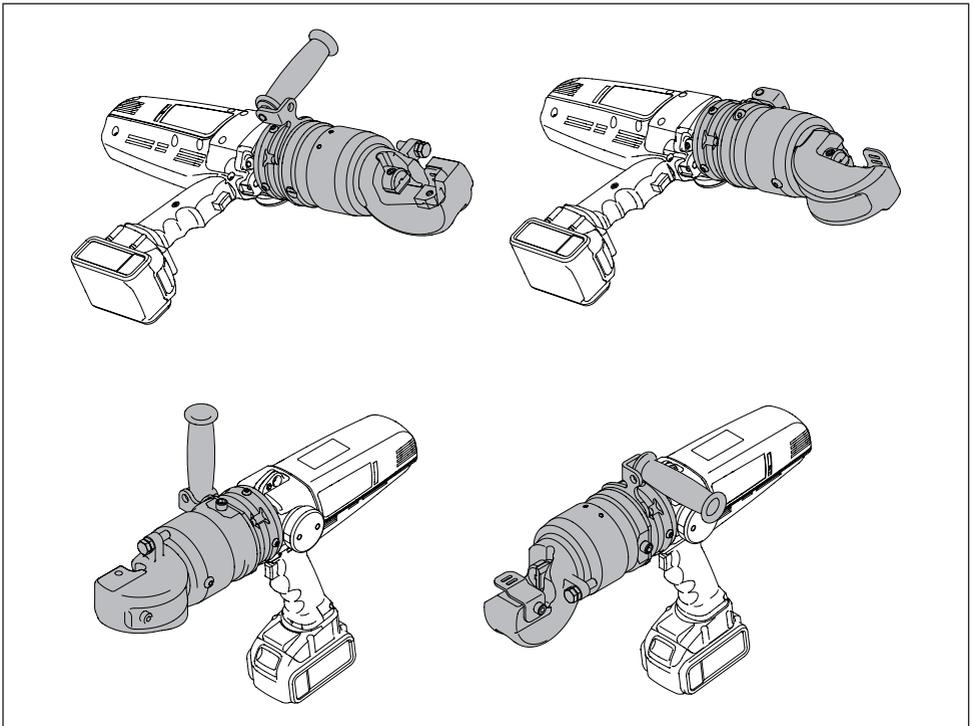


Figure 6, Cutting Head Positions

8.2 Trigger On-Off Switch

⚠ WARNING To prevent serious personal injury, be certain that hands, fingers and other body parts are away from the cutting area before depressing the cutter trigger.

A trigger mounted in the cutter grip controls cutter operation. Pressing the trigger automatically starts the cutter electric motor. See Figure 7.

- Press and hold the trigger to advance the piston and slide the moving blade forward. After the cut is completed, release the trigger to retract the piston.
- Release the trigger at any time to stop the piston and moving blade. Be advised that there may be a brief delay until the piston comes to a complete stop.
- Retraction of the piston can occur only after the piston has been fully advanced. If the trigger is released before the piston is fully advanced, the piston will stop and remain stopped.

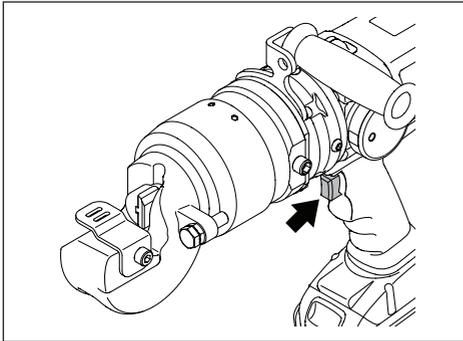


Figure 7, Trigger On-Off Switch

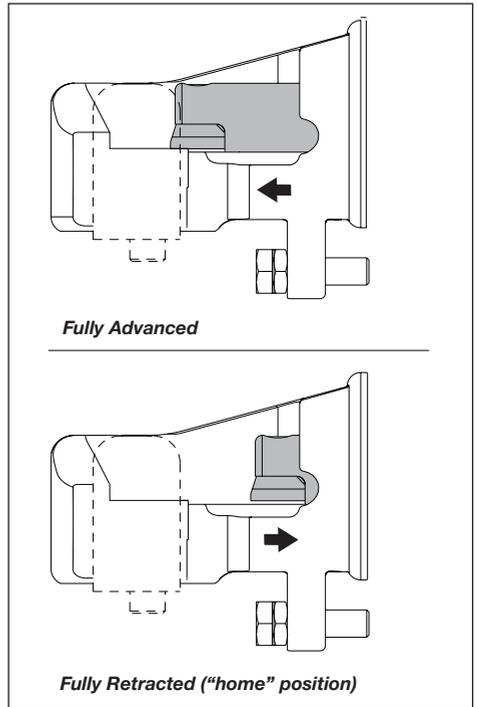


Figure 8, Piston Positions (viewed from top)

8.3 Piston Release Screw

Before using the cutter, check that the piston release screw is turned fully clockwise and securely tightened. Use an 8 mm Allen wrench. See Figure 9.

In the event that the blade becomes stuck during cutting, loosen the piston release screw one full turn counterclockwise to manually release the piston. When the screw is loosened, the piston will retract immediately, assuming that no dirt or debris is preventing its return.

⚠ CAUTION To prevent possible oil leakage, do not loosen the piston release screw more than one full turn counterclockwise.

NOTICE Refer to the procedures in Section 11.0 of this manual if the blade is not returning due to accumulated dirt or debris.

Tighten the piston release screw to resume normal operation. Note that the piston will not advance when the screw is loosened.

Be advised that the piston release screw is intended for occasional use only. If the piston repeatedly fails to retract automatically after it is fully extended, have the tool inspected by an Enerpac Authorized Service Center.

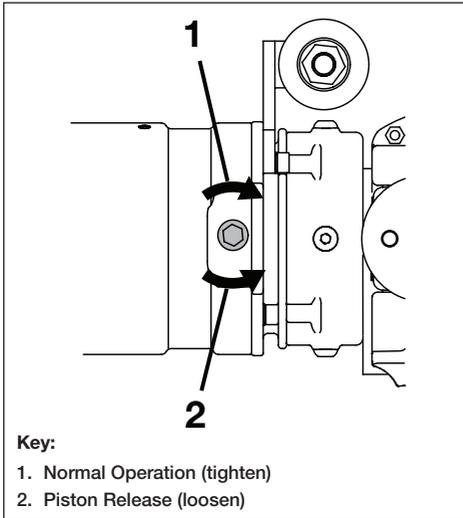


Figure 9, Piston Release Screw

8.4 Cutter Blade Safety Guard

The cutter is equipped with a blade safety guard to prevent contact with the upper part of the fixed blade. See Figure 10.

The blade safety guard is manufactured of stainless steel and is secured to the cutting head with one screw.

⚠ WARNING Failure to observe and comply with the following precautions and instructions could result in death or serious personal injury.

- Never operate the cutter with safety guard removed.
- Be certain that safety guard is in good condition and tightly secured. Replace guard if worn, damaged or missing. Tighten or replace screws if loose or missing.
- Always reinstall safety guard after performing any adjustments, maintenance or repairs.

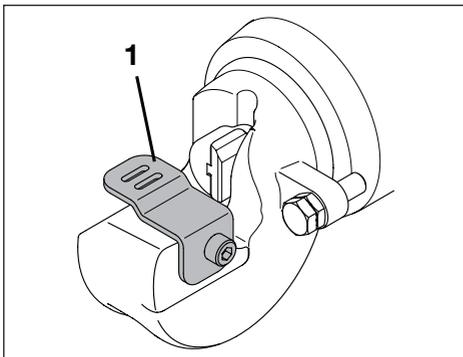


Figure 10, Blade Safety Guard (1)

9.0 CUTTER OPERATION

9.1 Foreseen Use and Residual Risks

⚠ WARNING Failure to observe and comply with the instructions and precautions contained in the following paragraphs could result in death or serious personal injury.

1. The cutter must be used only to cut round, square or flat metal bars and other similar items. Material diameter, tensile strength and hardness must not exceed the maximum allowable values shown in Section 2.1 of this manual.
2. The cutter must be operated only with a battery specified for use with the cutter. Refer to Section 2.4 of this manual.
3. Operators must observe the instructions in this manual in order to minimize the risk of accidents. In particular, operators must pay attention when working in conditions that could cause:
 - Possible burns from overheated metal parts.
 - Injury due to incorrect positioning or inadequate lifting or moving.
 - Injury caused by splinters discharged from the bar or other workpiece.

⚠ WARNING People remaining in the vicinity of the cutter while it is working are subject to the risk of flying debris (dangerous objects, etc.). Serious personal injury could result.

4. Mechanical vibrations transmitted to the hands and arms can pose a risk to the health and safety of workers. The user and/or employer is responsible for assessing the risk generated by mechanical vibrations from the cutter, and minimizing the possibility of injury.
5. Incorrect use:
 - The cutter must not be used for purposes other than indicated in this manual.
 - The cutter must not be used in areas subject to the risk of explosion.

9.2 Operating Precautions

⚠ WARNING Failure to observe the following precautions and instructions could result in death or serious personal injury.

- Keep fingers, hands and other body parts clear of the cutting head. Do not reach into the cutting area during cutter operation.
- Do not attempt to reposition the item being cut while the cutter is in operation. If repositioning is required, stop the cutter and loosen the piston release screw to retract the piston. Then, tighten the piston release screw and repeat the cutting process.
- Dangerous projectiles could occur at any time during cutting. Always wear face and eye protection. Keep persons away from cutting area.

• Cutter surfaces can become very hot. To prevent burns, avoid contact with cutter components and wear appropriate personal protective equipment.

• Refer to additional safety precautions in Section 1.0 of this manual before using the cutter or performing any maintenance or repair activities.

9.3 Trapped Air Removal

Before placing a new cutter into operation, cycle the piston several times without load to remove any trapped air in the hydraulic circuit.

Air is completely purged when the piston advances and retracts smoothly in both directions, from fully advanced to fully retracted.

This procedure should be performed after the oil in the cutter is changed, and after any maintenance or repair activity in which the oil is drained and replaced.

9.4 Locating and Positioning the Cutter

- Before inserting material to be cut inside the cutting head, be certain that the cutter is placed on a solid and stable work surface of sufficient weight rating capacity. Refer to Section 2.2 for cutter weight.
- Position the cutter as needed using the positioning handle.
- If it is desired to lift or support the cutter by mechanical means, use only the lifting eye mounted at the top of the cutter housing.
- See Figure 11.

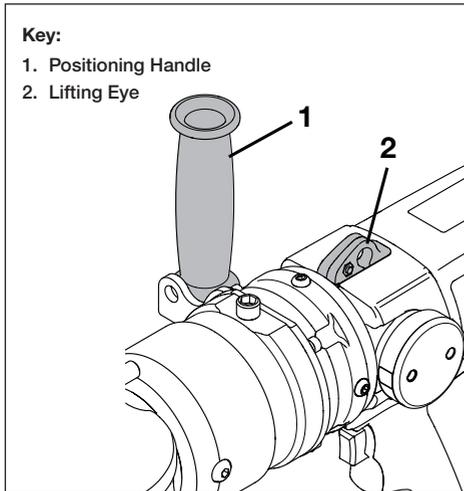


Figure 11, Positioning Handle and Lifting Eye

⚠ WARNING Because the cutter components are very heavy, there is a risk of cuts, crushing or broken bones. To avoid accidents, use care when working with the cutter. Serious personal injury may result if the cutter is not properly supported and handled in an appropriate way.

9.5 Positioning Material Inside the Cutting Head

Be sure that the piston and moving blade are located in the fully retracted “home” position before placing any material inside the cutting head. See Figure 8.

Position the material to be cut between the cutter blades, so that it is perpendicular to the piston axis, as shown in Figure 12. This will provide the best quality cut while placing the least amount of load on the cutter.

Adjust the support bolt as needed. The head of the support bolt should just touch the surface of the material to be cut, when the item is positioned against the fixed blade of the cutter.

After adjusting the support bolt, be sure that the support bolt retaining nut is snug tight against the support bolt mounting ear. This will help prevent support bolt movement during cutting.

NOTICE Be certain that the hardness, tensile strength and diameter of the material do not exceed any of the stated maximum limits. Refer to Section 2.1 of this manual for additional information. Failure to observe this instruction may result in poor cutting performance and/or damage to the cutter.

9.6 Cutting Procedure (typical)

1. Be certain that a battery is installed on the cutter and that the battery has sufficient charge to complete the cutting operation.
2. Be sure that the piston is in the “home” (fully retracted) position. See Figure 8.
3. Be sure that the piston release screw is turned fully clockwise. See Figure 9.
4. Place the material to be cut between the fixed and moving blades. Refer to instructions in Section 9.5 for additional information.

NOTICE Position the item to be cut so that it is as perpendicular as possible to the blades, as described in Section 9.5. Positioning the material at an angle will side-load the piston. Jamming and/or damage to the cutter may result.

5. Be certain that hands, fingers or other body parts are not inside the cutting head.
6. Press and hold the on-off trigger to start the motor and begin cutting.
7. After cutting is completed, wait until the piston reaches the end of its stroke and then release the on-off trigger. Verify that the moving blade reverses direction and moves fully into the “home” (fully retracted) position.

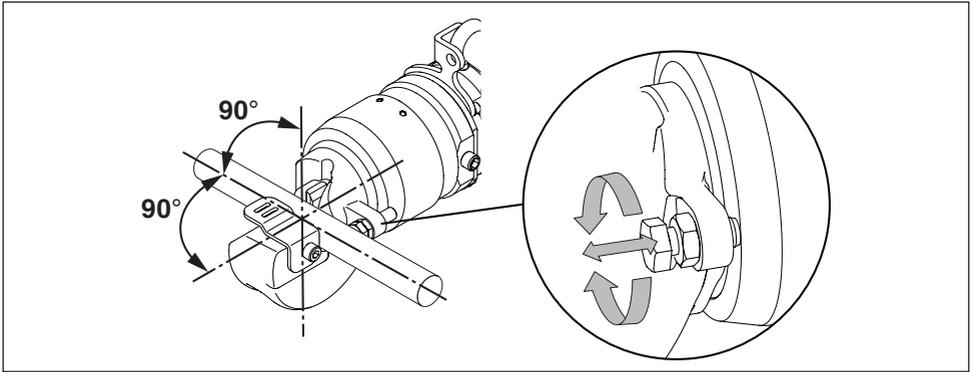


Figure 12, Positioning Material Inside the Cutting Head

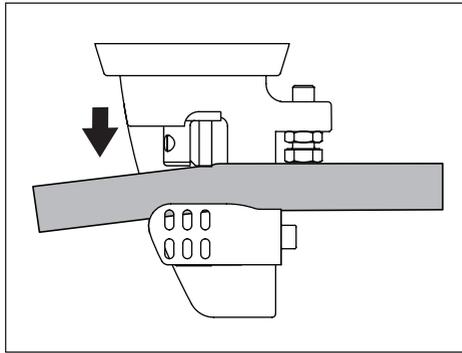


Figure 13, Material Being Cut (typical - top view)

9.7 Additional Information

- Stop using the cutter when a noticeable decrease in motor performance occurs. Continuing to operate the cutter with a low battery charge increases the possibility that the cutter may stop as a cutting procedure is in progress.
- The cutter is designed with an electronic protection system that will protect the battery against overloading, overheating or deep discharge.
- The cutter will automatically turn off if the electronic protection system engages. If this occurs, place the lithium-ion battery on the charger until it is fully charged.
- Refer to the battery and charger manual (published by DEWALT) for complete battery charging instructions and important safety precautions.

10.0 MAINTENANCE

10.1 Preparation for Maintenance

All cutter maintenance procedures must be performed under the following conditions:

- Material must be removed from the cutting head.
- The battery must be removed from the cutter.
- The cutter must be given time to cool to prevent burns.
- Procedures must be performed in a suitable work environment in accordance with all current safety regulations and/or laws in your country or region.
- The cutter must be cleaned thoroughly before maintenance procedures are performed.
- Suitable personal protective equipment (PPE) must be used and/or worn while performing any work.

⚠ WARNING The cutter must sometimes be operated in order to complete a maintenance or repair procedure being performed, or to prepare it for a procedure that is about to be performed.

However, to prevent startup while persons are working on the cutter, always remove the battery from the cutter before beginning any procedure steps that require use of tools and/or physical contact with the cutter. Failure to observe this precaution may result in death or serious personal injury.

⚠ WARNING Ensure that cutter blade safety guard has been correctly reinstalled before placing the cutter back into service after maintenance procedures are completed. Failure to reinstall this guard could result in serious personal injury.

10.2 Periodic Maintenance Chart

Refer to the Periodic Maintenance Chart (Table 1) for a list of various routine checks and procedures.

10.3 Cleaning

- Clean the cutter using a dry cloth or compressed air. For plastic surfaces, use a cloth slightly dampened with water.

⚠ CAUTION To prevent possible injury, always wear safety glasses or face mask when using compressed air.

- Be sure there are no traces of oil, grease or corrosive substances on the tool, especially on the grips.
- Use a damp cloth and soapy water to clean plastic components.
- Do not use gasoline or thinner to clean the tool.

10.4 Fasteners

Periodically check all screws, nuts and other fasteners for proper tightness. Tighten any loose fasteners. Replace any worn or damaged fasteners. This should be performed periodically or every day in the event of frequent or prolonged cutter operation.

NOTICE Failure to check and tighten fasteners as required may result in serious damage to the cutter.

10.5 Cutter Hydraulic System

The cutter contains a small hydraulic pump and oil reservoir with rubber diaphragm. The oil level must be periodically checked and additional oil must be added if the oil level is low. In addition, the oil must be completely changed at the specified interval. Refer to the Periodic Maintenance Chart (Table 1).

Table 1, Periodic Maintenance Chart

Time Interval	Maintenance Operation	Method	Maint. Level
Every 8 hours of operation:	Check the cutter for loose, damaged or worn parts. Check for oil leaks. Tighten, replace or repair as required.	Visual	Operator
	Check the tightening torque of screws and bolts. Replace any missing screws or bolts.	(Refer to instructions in Section 10.4)	Operator
	Check fixed and moving blades for wear.	(Refer to instructions in Section 10.6.1)	Operator
Every 1600 hours of operation:	Change the hydraulic oil.	(Refer to instructions in Section 10.5.3)	Service Center
As required:	Clean the cutter piston.	(Refer to instructions in Section 11.0)	Operator
	Replace fixed and moving blades.	(Refer to instructions in Section 10.6.2 and 10.6.3)	Operator

10.5.1 Hydraulic System Maintenance Precautions

⚠ WARNING

Always remove battery from cutter before performing hydraulic system maintenance. Failure to observe this precaution could result in accidental startup while maintenance procedures are being performed. Serious personal injury and damage to cutter may result.

Wait for cutter to cool before performing hydraulic system maintenance. Hot oil can cause burns.

Be sure that oil reservoir cap is securely tightened after checking oil level or changing the oil. Leaking oil can cause short circuits, fire and explosions.

Additional Precautions:

- Do not check oil level or change the oil in dusty areas.
- Be sure that all tools (wrench, screwdriver, etc.) used to perform maintenance procedures are clean.
- When adding oil and performing oil changes, take every precaution to prevent impurities from contaminating the oil or entering the cutter. Impurities can cause permanent damage to the hydraulic components.
- The hydraulic reservoir contains a diaphragm that slightly pressurizes the oil. Some oil spillage may occur when checking the oil level or when changing the oil. Wear and/or use appropriate personal protective equipment (PPE) to prevent exposure to hydraulic oil.
- Use only new Enerpac HF hydraulic oil poured from a clean container. Use of other oil brands and/or used oil may damage the cutter and may void the Enerpac product warranty.

10.5.2 Checking Oil Level and Adding Oil

NOTICE The reservoir contains a flexible rubber diaphragm that slightly pressurizes the oil. To help prevent excessive oil leakage when the reservoir cap is removed, be certain that the piston is advanced until there is a gap of about 1/8 inch [3-4 mm] between the fixed and moving blades (as described in step 1) before loosening the cap.

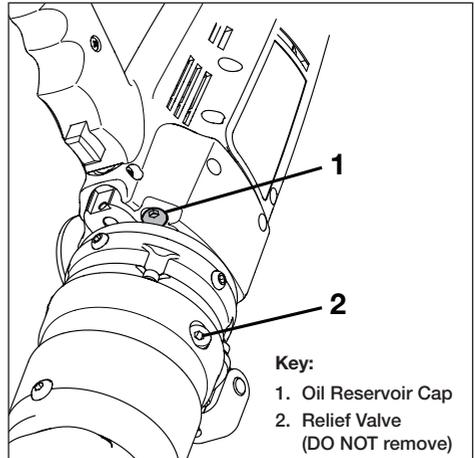
The gap between the blades should not be less than 1/8 inch [3-4 mm]. A smaller gap may result in the piston retracting unexpectedly while the oil level is being checked.

Refer to Figure 14 and Figures 15A through 15C during the following steps:

1. Operate the cutter and advance the piston until there is a 1/8-inch [3-4 mm] gap between the fixed and moving blades (until just before the piston automatically returns).
2. Remove the battery to prevent accidental motor startup during the following steps.
3. Place the cutter on a stable and level work surface, with the oil reservoir cap facing straight up. Note that the cap does not face straight up when the tool is

laid on a flat surface, so positioning aids are required. Place a pan or suitable container under the cutter to catch any spilled oil.

NOTICE The oil reservoir cap is located just below the on-off trigger when the cutter is positioned in the inverted (upside-down) position. Be certain to remove only this cap in the next step. DO NOT remove the relief valve by mistake. See Figure 14.



**Figure 14, Oil Drain/Fill Cap
(cutter shown in inverted position)**

4. To prevent contamination, remove any built-up dust and dirt from the oil reservoir cap and surrounding area.

NOTICE A small amount of hydraulic oil may leak from the drain/fill hole when cap is loosened in the next step. Be prepared to catch this oil in a pan or with a clean rag. Dispose of spilled oil in accordance with all applicable laws and regulations.

5. Slowly loosen the oil reservoir cap while watching for oil flow:
 - If oil starts flowing from the oil drain/fill hole as the cap is loosened, the reservoir is full. Tighten the cap immediately. To avoid excessive oil spillage, do not continue loosening the cap if oil flow occurs. Skip steps 6 through 8 and go on to step 9.
 - If no oil flow occurs when the cap is loosened, fully loosen and remove the cap. Then, check oil level and add oil (if needed) as described in steps 6 through 8.
6. Check the oil level in the drain/fill hole. Oil level will be up to the top of the hole when reservoir is full.
7. If oil level is low, slowly add new Enerpac HF oil through the oil drain/fill hole, until the oil level is up to the top of the hole.
8. Remove any residue or metal particles from the oil reservoir cap (it is magnetic).

9. Install and securely tighten the oil reservoir cap.
10. Using a clean rag, wipe the cutter housing, grip and motor so that these surfaces are free of oil residue.

11. Insert the battery. Cycle the piston several times to test for proper operation before placing the cutter back into service.

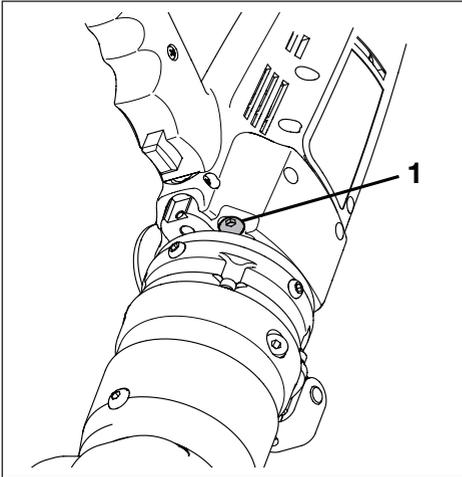


Figure 15A, Oil Reservoir Cap (1)

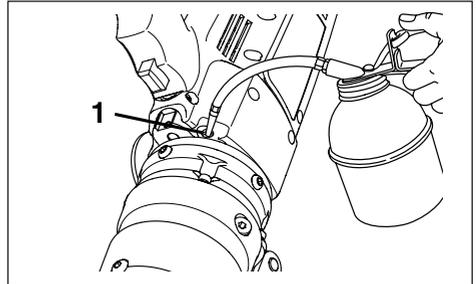


Figure 15C, Adding Oil to Reservoir Fill Hole (1)

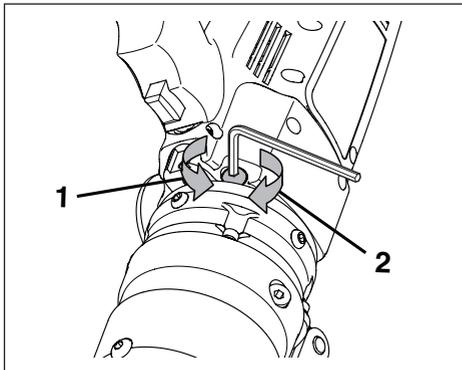


Figure 15B, Oil Reservoir Cap - Loosen (1) and Tighten (2)

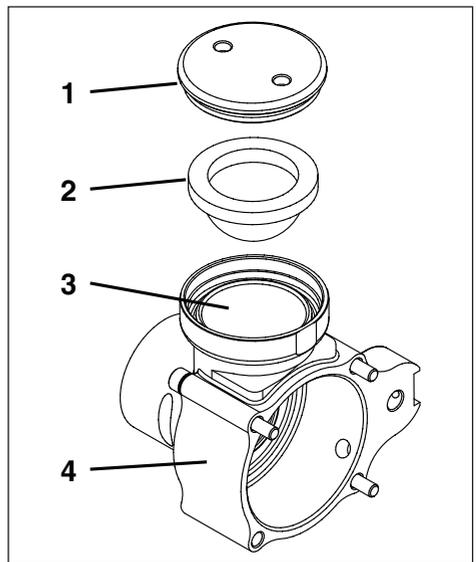


Figure 15D, Diaphragm Cover (1), Diaphragm (2), Diaphragm Opening (3) and Oil Reservoir (4)

Figure 15, Hydraulic System Maintenance

10.5.3 Changing the Oil

NOTICE The oil change procedure is very detailed and will take a considerable amount of time. It should only be performed by a trained technician at an Enerpac authorized service center. Failure to properly perform the procedure may result in incomplete filling of the cutter oil reservoir, which could lead to cavitation, air entrainment, reduced performance, and pump damage.

Change the oil in the cutter reservoir as described in the following steps. Refer to Figure 14 and Figures 15A through 15D:

1. Fill a clean oil dispenser with new Enerpac HF oil. Put the dispenser aside for later use.
2. Procure a thick, soft metal bar (about 1/4 inch [6.4 mm] minimum thickness). Put the bar aside for later use.

NOTICE The bar selected should be easy to cut, but not brittle. The bar material must be soft enough so that the bar will not break into two pieces before it is fully cut. Later in this procedure, the bar will be partially cut so that it becomes lodged in between the jaws of the cutter without being cut through completely, as the piston is extended to slightly less than maximum travel.

3. Ensure the piston is completely retracted.
4. Remove the battery to prevent accidental motor startup during the following steps.
5. Place the cutter in the horizontal position, on a stable and level work surface, with the oil reservoir cap facing up. It is not critical that it face straight up, as in the oil check procedure. Place a pan or suitable container under the cutter to catch any spilled oil.
6. To prevent contamination, remove any built-up dust and dirt from the oil reservoir cap, diaphragm cover, and surrounding area.

NOTICE A small amount of hydraulic oil leakage may occur when the diaphragm cover is removed in the next step. Be prepared to catch this oil in a pan or with a clean rag. Dispose of spilled oil in accordance with all applicable laws and regulations.

7. Loosen and remove the oil reservoir cap.
8. Using an adjustable face spanner wrench, loosen and remove the diaphragm cover.
9. Remove the diaphragm from the diaphragm opening.
10. Completely drain all old oil from the cutter, turning it upside down and using a suitable oil extraction system (used oil extraction pump) if necessary, so that no oil remains in the cutter reservoir.

NOTICE Dispose of all used oil in accordance with all applicable regulations and laws.

11. After all oil is evacuated, position the cutter with the diaphragm opening facing up.
12. Install the oil reservoir cap.

NOTICE Use only new Enerpac HF oil in the following step. Use of other oils may damage the cutter and may invalidate the Enerpac product warranty.

13. Using the oil dispenser prepared in step 1, slowly add new Enerpac HF oil through the diaphragm opening until oil level is up near the top.

⚠ WARNING To avoid serious personal injury, stay clear of cutting head and blades during the following procedures. Wear rubber gloves to prevent contact with oil. Wear eye and face protection to avoid injury due to splashing oil.

14. Insert the battery.
15. Cover the diaphragm opening with a rubber-gloved hand to help prevent oil splashing.
16. Prime the pump by pressing and releasing the trigger in short bursts. During this process, check the oil level in the diaphragm opening and add oil

(as needed) to keep the reservoir filled. Failure to keep reservoir full may result in cavitation and pump failure. Pump is primed when piston starts extending.

NOTICE During priming, the oil may become entrained with air and may develop a foamy appearance. This is normal.

17. Continue pressing and releasing the trigger in short bursts as the piston extends. During this process, do not add oil, but verify that the pump has ample oil supply. Continue until piston is extended to approximately half stroke.

NOTICE During the following steps, refer to Figure 9 for piston release screw details.

18. While covering the diaphragm opening with a rubber-gloved hand, retract the piston gently by slowly loosening the piston release screw.
19. Tighten the piston release screw.
20. Place the soft metal bar (refer to step 2) into the cutting head.
21. Press and release the trigger in short bursts until the piston is extended as far as possible, but before it makes a full cut and retracts. The moving blade will become lodged in the bar, preventing the piston from retracting. This procedure is necessary because the cutter mechanism alone may fail to hold the piston in the partially extended position as oil is being added in the following steps.

NOTICE If you cut completely through the bar, try again, cutting as far as you can without making a full cut.

22. Remove the battery to prevent accidental motor startup during the following steps.
23. Add oil through the diaphragm opening until the diaphragm opening is nearly full.
24. Slowly install the diaphragm in the diaphragm opening. This should result in some oil leakage from around the diaphragm.
25. Install and securely tighten the diaphragm cover.
26. Loosen the piston release screw to retract the piston. If piston is stuck, use the bar to manually push the piston back until it retracts.
27. Remove the soft metal bar from the cutting head. Do not discard the bar. It will be used again later in this procedure.
28. Tighten the piston release screw.
29. Insert the battery.

⚠ WARNING To avoid serious personal injury, stay clear of cutting head and blades during the following procedures.

30. Start the cutter and cycle the piston through several advance and return strokes. Ensure that piston is fully retracted when done.

31. Be sure cutter is positioned so that the oil reservoir cap is facing straight up. Do not operate cutter for several hours (preferably overnight) to allow any remaining air to separate from the oil.
32. Place the soft metal bar (refer to step 2) into the cutting head.
33. Press and release the trigger in short bursts until the piston is extended as far as possible, but before it makes a full cut and retracts. The moving blade will become lodged in the bar, preventing the piston from retracting. This procedure is necessary because the cutter mechanism alone may fail to hold the piston in the partially extended position as oil level is being checked in step 35.

NOTICE If you cut completely through the bar, try again, cutting as far as you can without making a full cut.

34. Remove the battery to prevent accidental motor startup during the following steps.
35. Loosen and remove the oil reservoir cap. Recheck the oil level in the oil drain/fill hole. If oil level has dropped, add additional Enerpac HF oil until the oil level is up to the top of the hole.
36. Install and securely tighten the oil reservoir cap.
37. Loosen the piston release screw to retract the piston. If the piston is stuck, use the bar to manually push the piston back until it retracts.
38. Using a clean rag, wipe the cutter housing, grip and motor so that surfaces are free of oil residue.
39. Insert the battery. Cycle the piston several times to test for proper operation before placing the cutter back into service.

10.6 Cutter Blade Replacement

⚠ WARNING

- Always remove battery from cutter before beginning blade replacement procedures. Failure to observe this precaution could result in accidental startup during blade replacement. Serious personal injury could result.
- Use extreme caution when removing and installing blades. Blades may be sharp even when worn. To avoid hand injury, wear appropriate personal protective equipment (PPE) and avoid contact with blade cutting edges.

10.6.1 Blade Wear

The use of worn blades decreases the effectiveness of the cutter and can also side load the cylinder, resulting in possible damage to the tool. Motor overheating can also occur.

Replace blades immediately if they are worn and/or damaged or if there has been a noticeable decrease in cutting performance.

NOTICE Blades are not sharpenable and must be replaced when worn. To help ensure optimum cutting performance, replace both the fixed blade and the moving blade at the same time.

10.6.2 Blade Replacement - Fixed Blade

Replace the fixed blade as described in the following steps. Refer to Figure 16, items 3, 4 and 5.

1. Be sure that the cutter piston is fully retracted. If not, start the cutter and cycle the piston until it is fully retracted.

NOTICE If battery is fully discharged and the piston is extended, loosen the piston release screw to retract the piston, as described in Section 8.3.

2. Remove battery from cutter to prevent accidental motor startup during the following steps.
3. Place the cutter horizontally on a stable work surface.
4. Remove the fixed blade screw.
5. Remove the safety guard.
6. Remove the worn fixed blade and replace it with the new fixed blade.
7. Secure the safety guard and new fixed blade using the new fixed blade screw included with the new fixed blade. Apply Loctite 243 thread sealant (or equivalent) to threads. Torque to 18 ft-lb [25 Nm].
8. Test cutter for proper operation before placing it back into service.

10.6.3 Blade Replacement - Moving Blade

Replace the moving blade as described in the following steps. Refer to Figure 16, items 1 and 2.

1. Be sure that the cutter piston is fully retracted. If not, start the cutter and cycle the piston until it is fully retracted. If battery is fully discharged, loosen the piston release screw as described in Section 8.3.
2. Remove battery from cutter to prevent accidental motor startup during the following steps.
3. Place the cutter horizontally on a stable work surface.
4. Remove the moving blade screw.
5. Remove the worn moving blade and replace it with the new moving blade.
6. Secure the new moving blade using the new moving blade screw included with the new moving blade. Apply Loctite 243 thread sealant (or equivalent) to threads. Torque to 91.2 in-lb [10.3 Nm].
7. Test cutter for proper operation before placing it back into service.

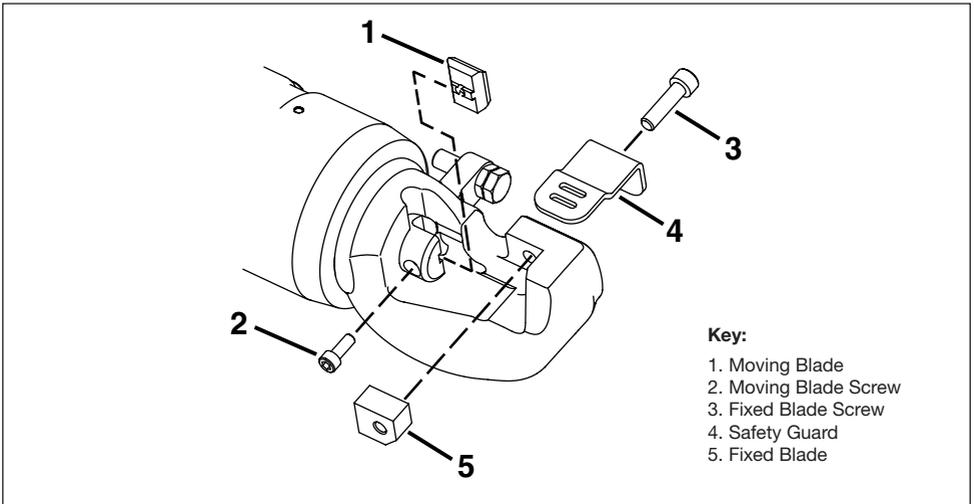


Figure 16, Fixed and Moving Blade Replacement

11.0 CLEANING THE PISTON AREA

⚠ WARNING Always remove battery from cutter before cleaning the piston head area or before manually retracting the piston. Failure to observe this precaution could result in accidental startup during cleaning procedures. Serious personal injury could result.

11.1 Cleaning and Inspection

- Keep the piston area clean to ensure that the piston fully returns after it advances to maximum stroke.
- Remove any built-up dirt or debris from the cutting head, the piston and moving blade.

11.2 Manually Retracting the Piston

The piston may fail to fully retract if debris is wedged under or beside the piston and moving blade.

If this condition occurs, it may be necessary to manually retract the piston into the cylinder to fully return the piston to the “home” position.

Refer to the following steps. See Figure 17:

1. Remove battery from cutter to prevent accidental motor startup during the following steps.
2. Place the cutter horizontally on a stable work surface.
3. Loosen the piston release screw one full turn counterclockwise to manually release the piston. Refer to Section 8.3 for additional information.

4. Using a rigid piece of steel bar, manually push the piston inside the cutter until it is returned to the home position. See Figure 17, item 3. This should dislodge any dirt or other material that had prevented the piston from returning during normal operation.
5. Tighten the piston release screw to enable the automatic retract function (normal operation). Refer to Section 8.3 for additional information.
6. Reinstall battery on cutter. Quickly depress and release the on-off trigger repeatedly until the piston is advanced about 3/4 inch [19 mm].
7. Remove battery from cutter to prevent accidental motor startup during cleaning procedures in the following step.
8. Clean the exposed portion of the piston. Remove any debris, chips or dirt from this area. See Figure 17, item 2.
9. Reinstall battery on cutter and test cutter for proper operation. Verify that piston automatically returns to the “home” position after it is fully advanced and the on-off trigger is released.

NOTICE If the piston still does not fully retract after performing the previously described cleaning procedure, the cutter should be inspected and serviced by an Enerpac Authorized Service Center.

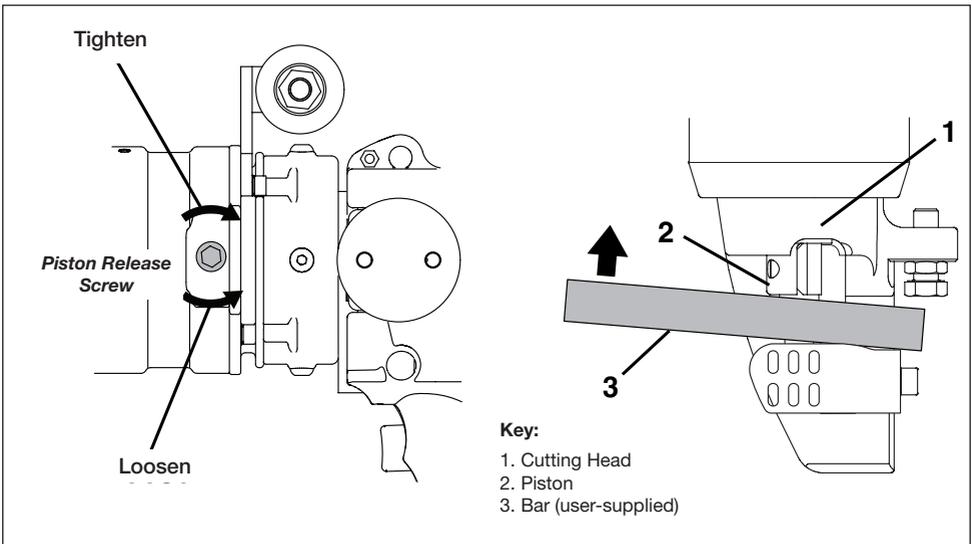


Figure 17, Piston Manual Retract Procedure

12.0 STORAGE

⚠ CAUTION Do not use conductive or flammable liquids to clean internal electrical parts.

12.1 Preparation for Storage

If the cutter will be stored for an extended period of time, perform the following steps:

1. Check the hydraulic oil level. Add oil if low. Refer to instructions in Sections 10.5.1 through 10.5.3. Reservoir should be full prior to storage.

2. Remove the battery (if not already removed).

NOTICE Batteries should not be stored completely depleted of charge. The batteries will need to be recharged before use.

3. Clean the cutter exterior with a cloth dampened in soapy water. Dry thoroughly after cleaning.

4. Clean the cooling vents and fan with compressed air.

⚠ CAUTION To prevent possible injury, always wear safety glasses or face mask when using compressed air.

5. Check for oil leaks. Tighten, repair or replace (as required) any leaking components or fittings.

6. Tighten any loose screws or other fasteners.

7. Store the cutter in a cool, clean and dry location, accessible only to authorized personnel.

12.2 Return to Use (after storage)

Before using the cutter after an extended period of storage or inactivity, perform the following steps:

1. Check for oil leaks. If any leaks are found, make repairs as required.

2. Check the hydraulic oil level. Add oil if low. For instructions, refer to Sections 10.5.1 through 10.5.3.

3. Clean the cutter exterior. Remove any oil or dirt, especially on parts that can be gripped.

4. Check for any loose, missing, worn or improperly installed parts. Tighten, install or replace parts as required.

5. Check that all screws and other fasteners are tight. Verify that the piston release screw is turned fully clockwise. Refer to Section 8.3.

6. Check that the battery is in good condition and not damaged. Be sure that the battery is fully charged before installing it on the cutter. Refer to Section 7.0.

7. Before cutting any objects, operate the cutter for several cycles (with cutting head empty) to verify proper operation.

13.0 TROUBLESHOOTING

Refer to the troubleshooting charts (Tables 2 and 3) for a list of common symptoms, possible causes and solutions.

For repair service, contact an Enerpac Authorized Service Center. Inspection and repairs should be performed only by an Enerpac Authorized Service Center or other qualified hydraulic tool service facility.

Table 2, Troubleshooting Chart, Cutter Electrical Components

Symptom	Possible Cause	Solution	Maint. Level
1. Motor will not start.	Battery not installed on cutter.	Install battery on cutter.	Operator
	Battery not charged.	Charge battery.	Operator
	Battery overheated.	Wait for battery to cool down.	Operator
	Trigger on-off switch worn or defective.	Replace switch.	Service Center
	Motor worn or damaged.	Replace motor.	Service Center
2. Motor overheats.	Motor ventilation slots obstructed.	Clean any dirt or other obstructions from motor ventilation slots.	Operator
	Worn fixed and/or moving blade.	Replace blades if worn or damaged.	Operator
	Motor worn or damaged.	Replace motor.	Service Center
3. Motor does not stop when trigger is released.	Trigger on-off switch defective.	Replace switch.	Service Center
	Other electrical problem.	Troubleshoot and repair electrical circuit.	Service Center

(Refer to Table 3 for hydraulic component troubleshooting)

Table 3, Troubleshooting Chart, Cutter Hydraulic Components			
Symptom	Possible Cause	Solution	Maint. Level
1. Piston does not advance.	Piston release screw loosened.	Tighten piston release screw.	Operator
	Low hydraulic oil level.	Check oil level. Add oil if low.	Operator
	Return stroke incomplete.	Manually return the piston. Refer to procedure in Section 11.2. Remove any built-up dirt or debris that may be preventing the piston from fully retracting.	Operator
	Automatic retract valve remains open due to built-up dirt.	Remove built-up dirt from automatic retract valve.	Service Center
	Max. pressure valve dirty or requires replacement.	Clean or replace max. pressure valve.	Service Center
2. Piston does not fully advance and/or movement is jerky.	Low hydraulic oil level.	Check oil level. Add oil if low.	Operator
	Air bubbles in the hydraulic circuit.	Operate tool through several full cycles to bleed air.	Operator
	Max. pressure valve open.	Clean or replace max. pressure valve.	Service Center
	Hydraulic pump dirty or defective.	Replace hydraulic pump.	Service Center
	Piston gasket worn.	Replace piston gasket.	Service Center
	Pump O-ring worn or missing.	Replace pump O-ring.	Service Center
3. Tool operates with insufficient force.	Dirt inside hydraulic pump control valve.	Replace valve.	Service Center
	Max. pressure valve open.	Replace pressure valve.	Service Center
	Hydraulic pump dirty or defective.	Replace hydraulic pump.	Service Center
	Piston gasket worn.	Replace piston gasket.	Service Center
	Pump O-ring worn or missing.	Replace pump O-ring.	Service Center
4. Piston does not automatically retract.	Piston has not reached full extension.	Fully extend piston and check if it reverses.	Operator
	Automatic retract valve faulty.	Replace automatic retract valve.	Service Center
	Return spring broken.	Replace return spring.	Service Center
5. Oil leaks from tank cover.	Diaphragm faulty.	Replace diaphragm.	Operator

(Refer to Table 2 for electrical component troubleshooting)

ENERPAC 

199 Gateway Ct.
Columbus WI, 53925, USA
www.enerpac.com

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