

SAFETY AND OPERATIONS INSTRUCTIONS FROM:



PLEASE READ THIS INFORMATION CAREFULLY PRIOR TO
OPERATING EQUIPMENT

FOR YOUR SAFETY AND SAFETY OF OTHERS!

Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the Safety Messages and Operating Instructions could result in injury to yourself and others.



NOTICE

This manual has been developed to provide complete instructions for the safe and efficient operation of this equipment.

Before using this equipment ensure that the operating individual has read and understood all instructions in this manual.

SAFETY MESSAGE ALERT SYMBOLS

The three Safety Messages shown below will inform you about potential hazards that could injure you or others. The Safety Messages specifically address the level of exposure to the operator, and are preceded by one of three words: **DANGER**, **WARNING**, or **CAUTION**.

DANGER

You **WILL** be **KILLED** or **SERIOUSLY INJURED** if you **DO NOT** follow these directions.

WARNING

You **CAN** be **KILLED** or **SERIOUSLY INJURED** if you **DO NOT** follow these directions.

CAUTION

You **CAN** be **INJURED** if you **DO NOT** follow these directions.

HAZARD SYMBOLS

Potential hazards associated with the operation of this equipment will be referenced with Hazard Symbols which appear throughout this manual, and will be referenced in conjunction with Safety Message Alert Symbols.

WARNING — Respiratory Hazards



ALWAYS wear approved respiratory protection when required.

CAUTION — Rotating Parts Hazards



NEVER operate equipment with covers or guards removed. Keep fingers, hands, hair and clothing away from all moving parts to prevent injury.

CAUTION — Accidental Starting Hazards



ALWAYS place the equipment ON/OFF switch in the OFF position when the equipment is not in use.

CAUTION — Eye and Hearing Hazards



ALWAYS wear approved eye and hearing protection.

CAUTION — Equipment Damage Hazards


Other important messages are provided throughout this manual to help prevent damage to your equipment, other property, or the surrounding environment.

RULES AND REGULATIONS


WARNING — Read This Manual

Failure to follow instructions in this manual may lead to serious injury or even **DEATH**. This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

GENERAL SAFETY

- **DO NOT** operate or service this equipment before reading this entire manual. 
- This equipment should not be operated by persons under 18 years of age.
- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.



- **NEVER** operate this equipment when not feeling well due to fatigue, illness or when under medication. 
- **NEVER** operate this equipment under the influence of drugs or alcohol.





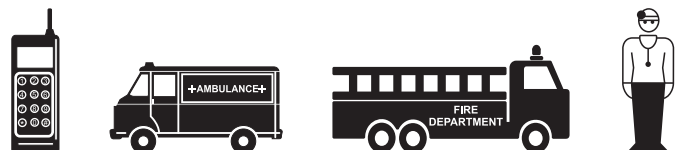
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult to read.
- **ALWAYS** check the equipment for loosened threads or bolts before starting.
- **MAINTAIN** equipment in a safe operating condition at all times.
- **KEEP** bystanders, children, and visitors away while operating the equipment. Distractions can cause loss of control.

- **DO NOT** wear loose clothing or jewelry. Contain long hair. Keep hair, clothing, and gloves away from moving parts. Rotating parts can cause injury if contacted.
- **ALWAYS** keep work area clean and free of foreign matter and debris. Also keep work area well lit.
- **NEVER** operate the equipment in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm or even death**. 
- **DO NOT** overreach. Keep proper footing and balance at all times.
- **NEVER** leave the equipment unattended. When not in use, before servicing, and when changing accessories, always unplug the equipment from the power source.
- **USE** this equipment for its intended purpose only.
- **KEEP** equipment clean for better and safer performance. Keep handles dry, clean, and free from oil and grease.
- **INSPECT** the equipment after each use. Replace any damaged or worn parts immediately. Do not use equipment if defective.
- If a malfunction occurs, immediately unplug the equipment from the power source and correct the problem. If problem cannot be corrected, contact the nearest MQ service center.

- **ALWAYS** store the equipment in a clean, dry location out of the reach of children.

EMERGENCIES

- **ALWAYS** know the location of the nearest **fire extinguisher**. 
- **ALWAYS** know the location of the nearest **first aid kit**. 
- In emergencies, **always** know the location of the nearest phone or **keep a phone on the job site**. Also know the phone numbers of the nearest **ambulance, doctor** and **fire department**. This information will be invaluable in case of emergency.



RULES AND REGULATIONS

ELECTRICAL SAFETY

- **ALWAYS** test the **POWER** switch on the equipment before operating. The purpose of this switch is to shut down the power.
- **NEVER** use an extension cord that is frayed or damaged where the insulation has been cut.
- **NEVER** carry the equipment by its power cord or disconnect it by yanking the cord from the power outlet.
- **ALWAYS** make certain that the proper extension cord has been selected for the job. See Extension Cord Gauge Selection Table.
- **NEVER** allow power cord to *lay in water*.
- **NEVER stand in water** while operating the equipment.
- When connecting the unit to a power receptacle, make sure the receptacle circuit is connected to either a GFCI receptacle or a receptacle protected by a 20 amp circuit breaker.
- When plugging the unit into a power receptacle, check the nameplate for the correct operating voltage. Operating the rebar bender at the wrong voltage will damage the electrical components. **ALWAYS** read the nameplate before applying power.
- This unit is equipped with a 3-prong male power plug. **DO NOT** use a 2-prong adapter when plugging into a wall outlet. This will defeat the purpose of the ground circuit. If the plug does not fit into the receptacle, contact a qualified electrician to install a 3-conductor wall receptacle (outlet).
- Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electrical shock if your body is grounded.
- **DO NOT** expose the hydraulic power unit to rain or wet conditions. Water entering the power unit will increase the risk of electrical shock.
- When operating the unit outdoors, be sure to use the appropriate outdoor extension cord. This type of extension cord reduces the risk of electrical shock.
- **ALWAYS** remove the AC power cord from the power source before performing any service or maintenance on the unit. This preventative safety measure reduces the possibility of accidental starting.
- When operating near an arc welder, it is important the both the unit and the welding equipment be connected to the same earth ground. If they are not, server damage to the unit, particularly to the power cord could occur. Personal injury may also occur.

Extension Cord Gauge Selection										
Ampere Rating Range	Volts	Length of Cord in Feet								
	115V	25 Ft.	50 Ft.	100 Ft.	150 Ft.	200 Ft.	250 Ft.	300 Ft.	400 Ft.	500 Ft.
	230V	50 Ft.	100 Ft.	200 Ft.	300 Ft.	400 Ft.	500 Ft.	600 Ft.	800 Ft.	1000 Ft.
0 - 2		18	18	18	16	16	14	14	12	12
2 - 3		18	18	16	14	14	12	12	10	10
3 - 4		18	18	16	14	12	12	10	10	8
4 - 5		18	18	14	12	12	10	10	8	8
5 - 6		18	16	14	12	10	10	8	8	6
6 - 8		18	16	12	10	10	8	6	6	6
8 - 10		18	14	12	10	8	8	6	6	4
10 - 12		16	14	10	8	8	6	6	4	4
12 - 14		16	12	10	8	6	6	6	4	2
14 - 16		16	12	10	8	6	6	4	4	2
16 - 18		14	12	8	8	6	4	4	2	2
18 - 20		14	12	8	6	6	4	4	2	2

SPECIFICATIONS

Table 1. Specifications		
Model	HBC19B	HBC25B
Maximum Cutting Capacity		
Intermediate Grade (40) 70,000 psi (45 kg/mm ²)	No. 6, Size 3/4 in (19 mm)	No. 8 Size 1 in (25 mm)
Hard Grade (50) 80,000 psi (55 kg/mm ²)	No. 6, Size 3/4 in (19 mm)	No. 8 Size 1 in (25 mm)
High Tensile Strength Grade (60) 90,000 psi (65 kg/mm ²)	No. 6, Size 3/4 in (19 mm)	No. 8, Size 1 in (25 mm)
Cutting Speed	2.5 sec	3.5 sec
Rated Power	1330 W	1430 W
Amps	11 A	13 A
Power Source	115 V single-phase AC	115 V single-phase AC
Weight	27 lb (12.25 kg)	48.5 lb (22 kg)
Dimensions		
Length	15.6 in (396.2 mm)	18.9 in (480 mm)
Width	4.4 in (111.8 mm)	5.4 in (137.2 mm)
Height	8.7 in (221 mm)	10.6 in (269.2 mm)
Standard Equipment		
Hydraulic Oil	5 oz (150 ml)	5 oz (150 ml)
Carrying Box	Wooden Box	Wooden Box
Allen Wrench	4 pieces (M3, 4, 5, 6)	4 pieces (M4, 5, 6, 8)
Open-End Wrench	0.67 x 0.75 in (17 x 19 mm)	0.55 x 0.67 in (14 x 17 mm) 0.94 in (24 mm)

GENERAL INFORMATION

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The **MQ HBC19B/HBC25B Rebar Cutters** are designed to be used as a portable on-site rebar cutter, capable of cutting in-place rebar safely and efficiently with the squeeze of a trigger. Labor time and injuries are greatly reduced from manually cutting rebar. The cutter can virtually handle any rebar cutting job, from slabs and masonry walls to large buildings and bridges.

The rebar cutter contains a built-in hydraulic pump with innovative magnetic particle filtering. All parts are machined to tight tolerances for maximum performance.

At approximately 27 to 49 pounds, the cutter is easily carried around job sites. Even overhead work takes minimum effort.

The cutting rod returns to the starting position when the operating switch is released after the rod makes its full cutting stroke. The cutting rod will not move if the cutting stroke is not finished. The operating switch must be held long enough for cutting rod to complete stroke.

The HC19B/HBC25B come with a return valve that allows the cutter rod to return to the starting position when the cutter blade jams and stops during cutting of a rebar.

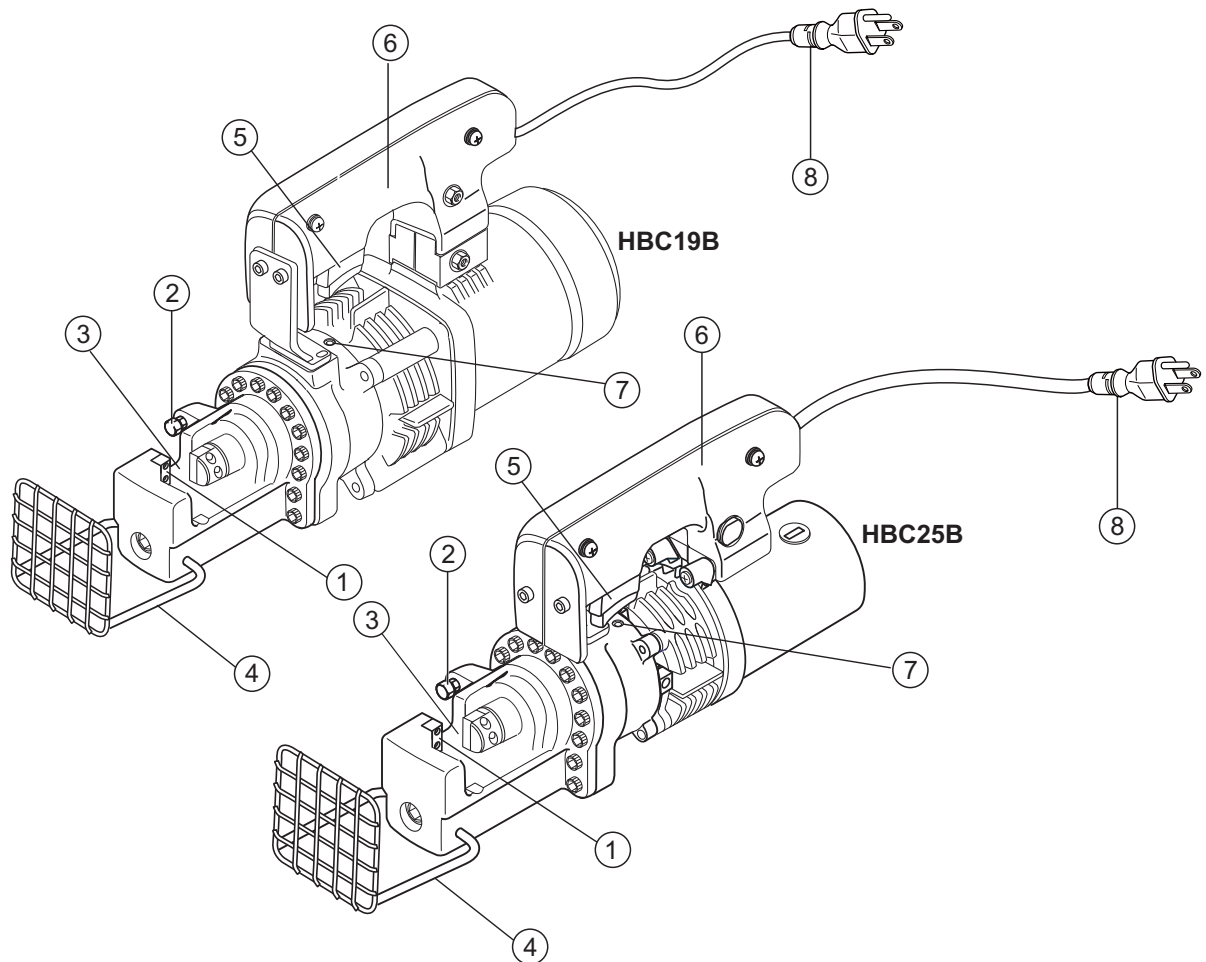


Figure 1. HBC19B/HBC25B Components

Figure 1 shows the components of the HBC19B/HBC25B Rebar Cutter. These components are described below.

1. **Blade** (set of two) - Cuts the rebar that is set on the holder between the blades.
2. **Spacing Bolt and Nut** - Allows rebar of different diameters to be cut by adjusting the space between the blades.
3. **Rebar Holder** - Holds the rebar to be cut.
4. **Protector** - Covers the rebar while cutting to prevent rebar fragments from flying out.
5. **ON/OFF Switch** - Starts the cutting of the rebar when the trigger switch is squeezed. When released, cutting is stopped. Do not release release switch until the rebar is completely cut.
6. **Handle** - Used to lift the rebar cutter.
7. **Return Valve** - Returns the cutter rod to the starting position when the cutter blade jams and stops the cutting of a rebar. This is done by rotating the return valve half a turn in a counterclockwise direction with the hexagonal wrench supplied with the unit.
8. **Power Plug** - Connects to a 150 V, 60 Hz power source.

CUTTING PROCEDURE

WARNING

Make sure that the bar is resting fully within the blades and protector is in the upright position. If the rebar is not properly set, the cutting piece or fragments of the rebar may scatter as soon as rebar is cut and the cutter can also be damaged.

1. Adjust the spacing bolt according to the diameter of the rebar being cut. Bolt must allow rebar to be flush, at 90° to the blades.
2. Connect the electric plug from the cutter to a proper power source (115 volts, 60 Hz).
3. Place the rebar in the rebar holder. Rebar must rest fully within the blades. See Figure 2. Position the protector over the surface to be cut.

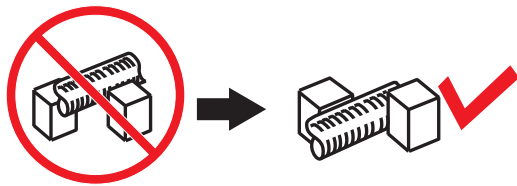
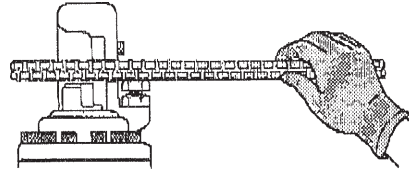


Figure 2. Rebar Placement

4. Tighten the spacing bolt and jam nut to hold the rebar in place.
5. Squeeze the ON/OFF switch to start cutting the rebar. Keep holding the ON/OFF switch until the cutting rod completes cutting cycle. Do not attempt to partially cut through the diameter of the rebar. This will cause damage to the blades and cause the rebar to fly out.
6. At the end of the cutting cycle, release the ON/OFF switch. The cutter rod will retract automatically.
7. If cutter reaches 158° F or higher, stop cutting operation and allow machine to cool before using again.
8. Periodically inspect oil level and electric motor brushes. Refer to Maintenance section for details.

WARNING

Do not cut rebar when it is not properly supported by the spacing bolt or if the spacing bolt is not properly adjusted. When cutting, hold the rebar on the spacing bolt side as shown below. If not, the cut piece may fly off and cause serious injury to the operator or bystanders.



CAUTION

NEVER use worn or damaged blades. Replace immediately before using cutter again.

WARNING

Replace damaged (broken and cracked edge) or deformed cutter as soon as possible. Damaged cutter could cause the rebar to get out of place or cracked during cutting. This may cause a serious accident. Do not cut rebar that is less than 8 inches (200 mm) in length as this may cause rebar to fly off and result to personal injury.

WARNING



Keep hands and face away from the blades and other rotating or sliding parts during operation.

RETURN VALVE OPERATION

The return valve is used when the cutter blade jams and stops during cutting of the rebar.

1. Rotate the return valve half a turn in the counterclockwise direction with the allen wrench (no. 4) supplied with the unit. See Figure 3 for location.

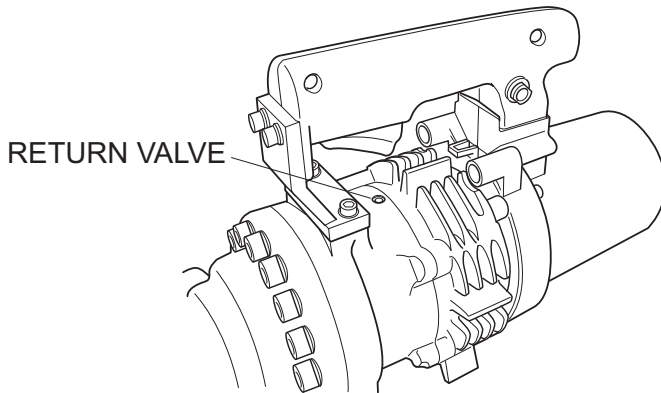


Figure 3. Return Valve

2. The cutter rod will retract and return to its starting position.
3. Once the cutter rod returns to its starting position, tighten the return valve before resuming rebar cutting.

⚠ DANGER

During operation of this rebar cutter, there exists the possibility of **electrocution, electrical shock or burn**, which can cause **severe bodily harm** or even **DEATH!**

To avoid these hazards:

- NEVER** use damaged or worn cables when plugging the rebar cutter into an AC power receptacle.
- NEVER** grab or touch a live power cord with wet hands.
- NEVER** stand in water and touch a live power cord.

⚠ WARNING

Unplug unit from power source before replacing carbon brushes.

REPLACING CARBON BRUSHES

When the carbon becomes less than 5 or 6 mm (1/4 inch) the motor force deteriorates because of low rectification (Figure 4). The carbon brushes need to be replaced at this time. It is also recommended that the brushes be replaced after 200 hours of use.

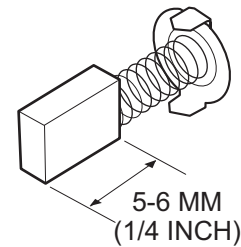


Figure 4. Carbon Brush Size

1. Make sure that the power plug is not connected to the power source.
2. For the HBC19B, remove the 2 bolts holding the cover using a 4mm allen-head wrench then remove the cover to access the two carbon brush caps (one on each side). See Figure 5.

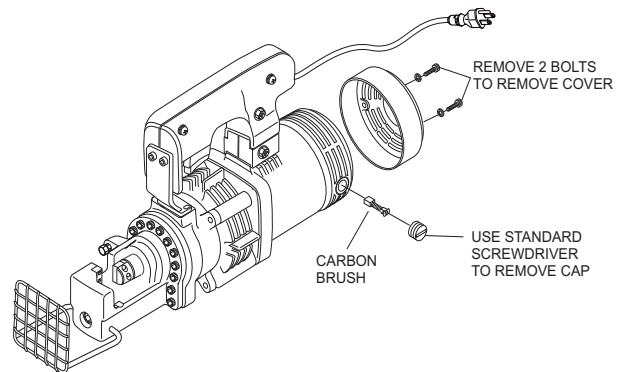


Figure 5. Replacing Carbon Brushes (HBC19B)

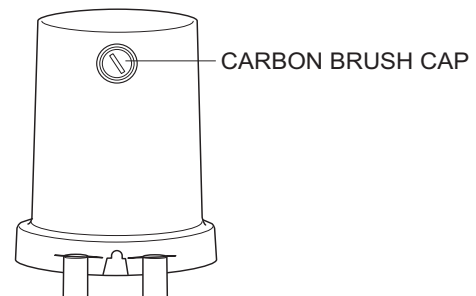


Figure 6. Replacing Carbon Brushes (HBC25B)

3. Remove the carbon brush cap of the motor outer frame using a standard screwdriver. See Figures 5 and 6.
4. Replace the carbon brushes with new ones (two for the HBC19B and one for the HBC25B).
5. Put back the cap after brush is installed.
6. For the HBC19B, replace cover and tighten 2 bolts.

REPLACING OIL

The rebar cutter uses hydraulic action to operate. If there is insufficient, dirty, or improper oil in the cutter, it will not operate at full capacity. If unit is not operating properly, check oil level and condition. If necessary, replace oil as follows:

1. Loosen oil fill bolt with the supplied open-end wrench. Remove oil fill bolt and lay cutter to allow oil to drain out. See Figure 7.

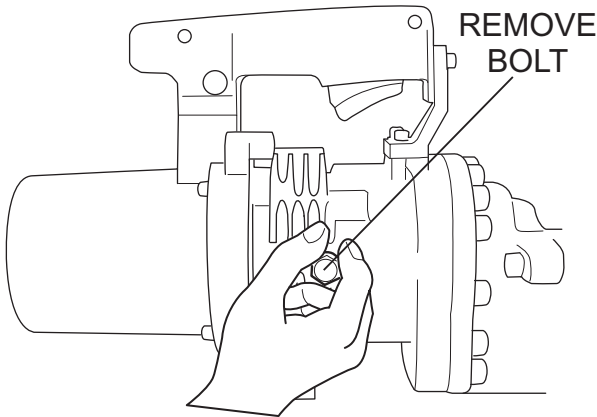


Figure 7. Removing Oil Fill Bolt

2. Turn cutter so that the oil fill port is on the top side. Fill with oil until it overflows. See Figure 8. See Table 2 for oil type and quantity.

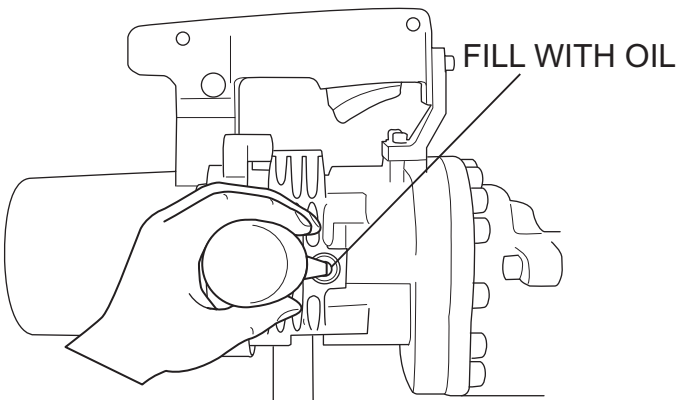


Figure 8. Oil Fill

Table 2. Oil Type

Model	HBC19B	HBC25B
Quantity	5 oz (150 ml)	5 oz (150 ml)
Oil Type	Shell Tellus Oil #46 Exxon Teresstic #46	Shell Tellus Oil #32 Exxon Teresstic #32

Above grades are blended to viscosity values that conform to the ISO (International Standards Organization) viscosity classification system.

3. Shake the cutter up and down to release any air bubble that may be present.
4. Overfill with oil again.
5. Replace bolt in fill port and wipe off any excess oil.
6. Connect the cutter power cord to the power source. Place a 3/16-inch diameter steel rod in bar holder. Squeeze ON/OFF switch to activate the cutter and allow the blade to touch the rod then turn off then release the ON/OFF switch.
7. Turn cutter so that the oil fill port is on the top side once again. Repeat oil fill procedure.
8. Squeeze ON/OFF switch again to continue and finish cutting operation started earlier.
9. When cutting is complete, filling procedure is done.

⚠ WARNING

Unplug unit from power source before troubleshooting.

Table 3. Troubleshooting

Symptom	Possible Problem	Solution
Cutter rod is stuck.	Oil is insufficient?	Add oil. See instructions in Maintenance section.
	Cutter rod did not retract completely due to reinforcement steel chips, iron powder and dirt present in the sliding portion of the cutter rod and the bar holder?	Push back cutter rod. Clean cutter rod.
	Cutter rod did not retract completely due to the distortion or swelling of cutter rod blade?	Tighten blade bolts. Replace cutter rod blade.
	Cutter rod did not retract completely due to a weak cutter rod return spring?	Replace return spring.
Cutter rod comes out but cutting power is too weak to cut rebar.	Oil is insufficient?	Add oil. See instructions in Maintenance section.
	Contact between cylinder and release valve (tip surface of projection in cylinder) is improper?	Make sure that there are no scratches at tip of surface of cylinder. Clean any stuck iron powder or dirt.
	Is release valve broken?	Replace release valve.
	Improper clearance between cylinder and piston?	Replace cylinder and piston.
	Improper contact between cylinder and valve?	Replace cylinder and valve.
	Broken cylinder rubber packing?	Replace rubber packing.
Oil is leaking.	Scratched or broken oil leveler sack?	Replace defective part.
	Scratched bar holder slider and cylinder?	Replace defective part.
	Broken cylinder joint liner and pump case?	Replace defective part.
	Insufficient tightening of oil fill bolt?	Tighten oil fill bolt.
Motor does not rotate or poor motor rotation.	Incorrect voltage?	Make sure unit is connect to proper power source.
	Abrasion of carbon brushes?	Replace carbon brushes.
	Broken or deformed bearings at both ends of armature.	Replace bearings.

NOTE: The internal components of the hydraulic pump and piston area have very close clearances are sensitive to damage from dust, dirt, contamination of the hydraulic fluid or improper handling. The disassembly of the pump must be done by properly trained personnel with the correct equipment. The improper servicing of electrical components can lead to conditions that could cause serious injury. The pump and piston components and all electrical components should be serviced by a factory authorized repair center. Any attempt by unauthorized personnel to service internal components of the rebar cutter will void the warranty.