## WARNING ELECTRIC REBAR CUTTER BENDER SAFETY

Any piece of equipment can be dangerous if not operated properly. <u>YOU</u> are responsible for the safe operation of this equipment. The operator must carefully read and follow any warnings, safety signs and instructions provided with or located on the equipment. Do not remove, defeat, deface or render inoperable any of the safety devices or warnings on this equipment. <u>IF</u> any safety devices or warnings have been removed, defeated, defaced or rendered inoperable, <u>DO NOT USE THIS EQUIPMENT!!!</u>

# IMPORTANT SAFETY RULES TO FOLLOW

Please note: This tool rated maximum is for #5 (5/8"/16mm) Grade 60 Rebar Only. Do not try to bend or cut material larger in size or rebar harder than grade 60 or you will cause tool damage or machine failure

Danger: This tool has & creates multiple pinch points. Keep hands, feet & other body parts clear at all times.

Always wear eye protection and a face shield whenever using this equipment!

**Danger:** There is a chance of pieces of rebar being shot off at high speeds. This could cause serious injury or death to the operator or bystanders. Keep bystanders, hands, feet and all other body parts clear of the cutting area at all times.

**Note:** This tool is for bending and cutting rebar only. Cutting or bending any other materials or using the tool in wet concrete is considered misuse. The Equipment Protection Plan does not cover damages caused by misuse.

## **MEANINGS OF SIGNAL WORDS**

**WARNING** indicates a potentially hazardous situation which, if ignored, could result in serious personal injury.

**CAUTION** indicates a hazardous situation which, if ignored, could result in moderate personal injury, or could cause machine damage.

**NOTE** emphasizes essential information.

# IMPORTANT SAFETY INSTRUCTIONS FOR USING ALL POWER TOOLS READ ALL OF THE WARNINGS AND OPERATING INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING OR MAINTAINING THIS TOOL:

WARNING: When using this electric tool, take all necessary precautions to minimize the risk of electric shock or other personal injury. In particular, always comply with the following safety rules:

- 1. ALWAYS KEEP GUARDS IN PLACE and in working order.
- **2.** ALWAYS REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING TOOL. Always confirm that all keys and adjusting wrenches have been removed from the tool before it is turned on.
- **3.** ALWAYS KEEP WORK AREA CLEAN. Avoid injuries by not cluttering the work areas and work benches.
- **4. NEVER USE TOOL IN HAZARDOUS ENVIRONMENTS.** Never use the power tool in damp or wet places and never expose it to rain. Always keep the work area well lighted.
- **5. NEVER PERMIT CHILDREN OR OTHERS TO LOITER NEAR THE WORK AREA.** Keep all people (especially children) away from the work area. Always unplug unattended tools and keep the work place tamper-proof by installing locks on the doors and on the master switches. Always remove the lock-off button from the tool and store it in a secure place, when the tool is not in use.
- **6. NEVER FORCE THE TOOL.** It will do the job better and more safely if it is operated at the rate for which it was designed.
- **7. ALWAYS USE THE RIGHT TOOLS.** Never force a tool or an attachment to do a job for which it was not designed.
- **8.** ALWAYS WEAR PROPER APPAREL WHEN WORKING WITH THE TOOL. Never wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in the moving parts. Always wear non-slip footwear, preferably with steel toes. Wear protective hair covering to contain long hair.
- **9.** ALWAYS USE EYE PROTECTION WHEN WORKING WITH THE TOOL TO PREVENT EYE INJURY. Ordinary eyeglasses do not provide adequate protection because the lenses are not made of safety glass. Also, use a face mask for additional safety and wear a dust mask if the cutting/bending operation produces dust. Wear ear plugs when using the tool for extended periods

- 10. ALWAYS SECURE THE WORKPIECE TO THE FENCE OR THE TABLE. Use clamps or a vise to hold the workpiece in place. It is safer than using your hand and it frees both hands to operate the tool.
- 11. NEVER OVERREACH. Always keep proper footing and balance when working with the tool.
- 12. ALWAYS DISCONNECT THE TOOL before servicing and before changing blades or other accessories.
- 13. NEVER RISK UNINTENTIONAL STARTING WHEN PLUGGING IN THE TOOL. Always confirm that the switch is in the OFF position before inserting the power plug into the outlet.
- **14.** ALWAYS USE RECOMMENDED ACCESSORIES ONLY WHEN OPERATING THIS TOOL. Consult this instruction manual for descriptions of recommended accessories. To avoid personal injuries, use only recommended accessories in conjunction with this tool.
- **15. NEVER STAND ON THE TOOL.** Prevent serious injury by not tipping the tool and by not risking unintentional contact with the cutter.
- **16.** ALWAYS CHECK FOR DAMAGED PARTS BEFORE USING THE TOOL. Always check the guard and all other components for damage before using the tool to assure that they will function properly. Check all moving parts for proper alignment, freedom from binding and other conditions that might affect proper operation. Always repair or replace any damaged guards or other damaged components before using the tool.
- 17. ALWAYS CONFIRM THE ROTATION DIRECTION OF THE BLADE BEFORE USING THE TOOL. Always feed work into the tool against the moving direction of the cutter in order to prevent possible injury.
- **18. NEVER LEAVE THE TOOL RUNNING WHILE UNATTENDED. TURN POWER OFF.** Do not leave tool until it comes to a complete stop. Always turn the power off when the tool is not in use. Always unplug the power cord when the tool is not in use.
- **19.** Apply 120 volts AC only to this tool. Applying the wrong voltage or applying DC power can cause the POWER TOOL to operate improperly and cause serious personal injury or damage to the tool.
- **20. POLARIZED PLUGS** To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.
- 21. Hold tools by insulated gripping surfaces when performing an operation where the tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- **22**. **Never touch moving parts.** Never place your hands, fingers or other body parts near the tool's moving parts.
- **23. Keep all screws, bolts and covers tightly in place.** Keep all screws, bolts, and plates tightly mounted. Check their condition periodically.
- **24**. **Do not use power tools if the plastic housing or handle is cracked.** Cracks in the tool's housing or handle can lead to electric shock. Such tools should not be used until repaired.
- **25.** Cutters and accessories must be securely mounted to the tool. Prevent potential injuries to yourself or others. Cutters, cutting implements and accessories which have been mounted to the tool should be secure and tight.
- **26. Keep motor air vent clean.** The tool's motor air vent must be kept clean so that air can freely flow at all times. Check for dust build-up frequently.
- **27.** Never use a tool which is defective or operating abnormally. If the tool appears to be operating unusually, making strange noises, or otherwise appears defective, stop using it immediately.
- **USE PROPER EXTENSION CORD** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

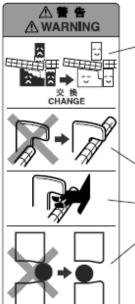
WARNING: Avoid electrical shock hazard. Never use this tool with a damaged or frayed electrical cord or extension cord.

Inspect all electrical cords regularly. Never use in or near water or in any environment where electric shock is possible.

Pg. 2



• If you bend the rebar with a large angle while placing your hand onto it, there is a fear of getting your hand caught in by the fold-back reaction of the rebar. Never place your hand onto the position where the rebar may fold back.



- The cutter blade can get worn out by repeated rebar cutting. Continued use of a worn-out cutter can result in the damage and the broken pieces flying around. Replace it with a new cutter after approximately 8,000 times of cutting as a rough quide.
- The machine is so designed that the upper cutter and the grip rubber can support a rebar.

If the grip rubber gets worn out, there is a fear that it cannot sufficiently hold the rebar and gets broken down with its parts flying around, etc.

If the grip rubber cannot hold the rebar much longer, replace it with a new grip rubber.

- During cutting work, securely hook the rebar to the reaction stopper B.
   Furthermore, secure enough length of a rebar to be hooked to the reaction stopper B.
- Avoid bringing your hand near to the reaction stopper B during operation; otherwise, you may get your finger caught in or may run the hazard of other injuries.
- Set the rebar in the center or the recess of the cutter during cutting work. Any
  cutting work with the rebar set on corners or ends of the cutter can result in the
  pieces of broken rebar flying around or the damage to the cutter and the machine.

#### HOW TO USE (CUTTING)

#### WARNING!

- Note that the unit is not a hand held tool. Be absolutely sure to use the unit only after placing it on stable spots such as floor, ground, etc.
- Never bring your hand close to the cutter during operation.
- Never bring your hand close to the reaction stoppers A and B during operation.
- Do not cut any materials other than the rebars. If you attempt to do so, the material can splinter into pieces and scatter.
- Do not cut any rebar exceeding the maximum capacities of the unit described in the specifications.
- The rebar you are cutting may have a hard spot in it.
   Quality may vary within each rebar. Do not attempt to cut NON-GRADE rebar.

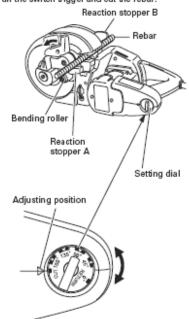
- The bending roller moves even during cutting operation. Never bring your hand close to the bending roller.
- The cutter blade can get worn out by repeated cutting of the rebar. Continued use of a worn-out cutter can result in the damage and the broken pieces flying around. Replace it with a new cutter after approximately 8,000 times of cutting as a rough guide.
- The machine is so designed that the upper cutter and the grip rubber can support a rebar.
  - If the grip rubber gets worn out, there is a fear that it cannot sufficiently hold the rebar and gets broken down with its parts flying around, etc.

If the grip rubber cannot hold the rebar much longer, replace it with a new grip rubber. (For replacing the grip rubber and repairing, ask the store where you purchased it or the Hitachi Koki Power Tool Center.)

- During cutting work, securely hook the rebar to the reaction stopper B. Furthermore, secure enough length of the rebar to be hooked to the reaction stopper B.
- Set the rebar in the center or the recess of the cutter during cutting work. Any cutting work with the rebar set on comers or ends of the cutter can result in the pieces of broken rebar flying around or the damage to the cutter and the machine.

1. Cutting (Fig. 2)

- Turn the lever in the direction of the arrow mark and open the cover.
- (2) Set the setting dial at the "cut" position. (Turn the setting dial all the way clockwise.) (Fig. 2)
- (3) Set the unit in the position shown in Fig. 2.
- (4) Set the rebar to be cut on the lower cutter.
- (5) When the rebar is set, make sure that either the reaction stopper A or B is hitched to the rebar.
- (6) Pull the switch trigger and cut the rebar.



#### CAUTION:

For the sake of safe operation, this unit is designed so that the switch cannot be inadvertently switched on. When switching the tool on, press the lock button and then pull the switch trigger (Fig. 3). If the switch trigger is pulled without pressing the lock button first, the switch may be damaged. Please use care when switching the tool on.

Fig. 2

Even after the cutting has been completed, continue pulling the switch trigger until the motor starts to run in the reverse direction and the cutter starts to return. If the switch trigger is released too early, the cutter will not return and the trigger will have to be pulled again.

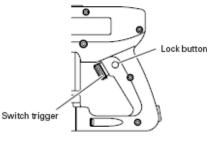


Fig. 3

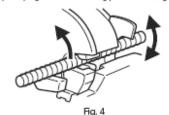
- If the switch is turned off and then immediately turned on again, the motor may not start. Wait for at least one full second before attempting to turn the motor on again after it has been switched off.
- A slip dutch is built in the machine to protect the mechanism.

If you process the material with the diameter or quality beyond the capacity, the slip clutch can sometimes function. In such a case, stop processing immediately and check the material.

When the slip clutch works, a big slip noise occurs, but it's not a malfunction.

Removing the rebar during cutting operation (Fig. 4) If the switch trigger is released in the middle of cutting, the cutter can come to a stop at a halfway position, jumming the rebar in the unit.

When this occurs, you can either pull the switch trigger again and cut off the rebar, or you can free the rebar by bringing the upper cutter back up to the home position by carrying out the following procedure. (Fig. 4)



 Removing (Fig. 5)
 Set the setting dial to the "RETURN" position as shown in Fig. 5 and pull the switch trigger again.

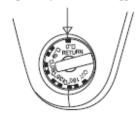


Fig. 5

# PICTGRAPH ILLUSTRATION AND EXPLANATION

Read handling instructions before use. Do not this electric power tools in wet wether conditions. If the switch is turned off and then immediately turned on again, the motor may not start. Wait for at least one full second before attempting to turn the motor on again after it has been switched off.



Begin operation only after ensuring that there are no people within the turning range of the material to be bent.

Never bring your hand close to the cutter during operation. Avoid any work exceeding the maximum capacities. (Rebar diameter: #5 (5/8"))

(Returning Halfway)

- 1 Select RETURN with the dial.
- Pull the trigger.



(Selecting the rebar size) Select the rebar size and the bending angle.



# HOW TO USE (BENDING)

Setting bending angles by setting dial
 The bar can be bent according to the angles indicated on the setting dial, as shown in Fig. 12.

Dial indication	45°	90°	135°	180°
Condition of rebar	459	90 <u>/</u>	135°	180°

Fig. 12

In bending the rebar of #3(3/8"), #4(1/2"), and #5(5/8") diameters, a difference takes place in the bending angle even in the same dial position depending upon the difference of rebar's thickness. Slightly change a position of the setting dial depending upon the rebar's diameter even with the same bending angle as shown in Fig. 13.



Fig. 13

Size of rebar	Colors of indicated marks		
#3(3/8")	White		
#4(1/2")	Red		
#5(5/8")	Yellow		

NOTE: Even at the same dial setting position, the bending angle can sometimes differ if the diameter or hardness of the rebar is different. Use the angle marks merely as a rough guideline.

#### 2. Ordinary bending

- Set the unit in the position with the turntable up as shown in Fig. 14.
- (2) Make sure that the cover is closed.
- (3) Set the setting dial at the desired angle. (Fig. 13)
- (4) Place the rebar on the center plate and set it correctly as shown in Fig. 14.
- (5) Pull the switch trigger and bent the rebar.
- (6) Continue pulling the switch trigger untill the motor makes reverse rotation and the bending roller starts to return. (Once the bending roller starts to return, it will automatically return all the way to the home position even if the switch trigger is released.)(Fig. 15)

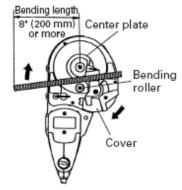


Fig. 14

## ⚠ WARNING:

- Make absolutely sure that the cutter cover is closed when you don't carry out the cutting work.
   If the cover is kept open, the cutter can jam on foreign objects and cause serious accidents. (Fig. 16)
- If you bend the rebar with a large angle while placing your hand onto it, there is a fear of getting your hand caught in by the fold-back reaction of the rebar. Never place your hand onto the position where the rebar may fold back.
- Do not bend any rebar exceeding the maximum capacities of the unit described in the specifications. Never bend any hard materials such as PC(Precast concrete) steel. Materials of this type are likely to scatter into pieces and cause injuries.
- The rebar you are bending may have a hard spot in it. Quality may vary within each bar. Do not attempt to bend NON-GRADE Rebar.

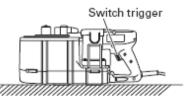


Fig. 15

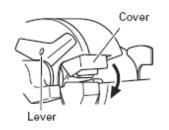
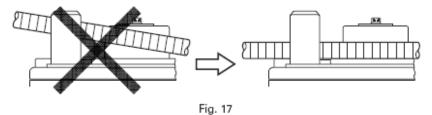


Fig. 16

- Never place your hand onto the bending side of the rebar. If you do so, your hand may be caught in the mechanical parts.
- Install the deflection guard for operation with the bending length of a rebar 20" (inside dimension of the deflection guard) or less to protect the persons around the rebar cutter/bender in case rebar splinters into pieces and deflects during bending. (Fig. 21)
- Remove the deflection guard when bending a rebar whose bending length and the fixed length are more than 20" to prevent damage to the deflection guard.
- Replace the deflection guard with new one if it is damaged. Damaged deflection guard cannot protect the persons around the rebar cutter/bender in case a rebar splinters into pieces and deflects during bending.
- Note that the unit is not a hand-held tool. Be absolutely sure to use the unit only after placing it on a stable spots such as floor, ground, etc.
- Begin operation only after marking sure that there are no people within the turning range of the material to be bent.
- The minimum required bending length is 8" (200 mm).
  - If the bending length is not long enough, the rebar can come off during bending operation, or it can break into fragments and scatter dangerously. (Fig. 14)
- Place the rebar on the center plate and set it so that it is horizontal with the turntable surface.

If the side that is to be bent is set inclined upward, the rebar can come loose from the bending roller while bending causing it to fly off. (Fig. 17)



- When bending multiple rebars at one time, some may come off the bending roller and guide, etc., and therefore exercise caution and set them horizontally.
- Bend less than every 3 pieces of rebar with a #3(3/8") diameter, less than every 2 pieces with a #4(1/2") diameter, and every 1 piece with a #5(5/8") diameter.
- Remember that the cutter moves even during the bending operation, thereby, close the cutter cover without fail.

#### 3. How to install deflection guard

The deflection guard is provided to protect the persons around the rebar cutter/bender in case a rebar splinters into pieces and deflects during bending. Install the deflection guard to the VB16Y for operation with the bending length of a rebar 20" (inside dimension of the deflection guard) or less.

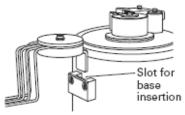


Fig. 18

- (1) Insert the base of the deflection guard into the slot of the rebar cutter/bender, (Fig. 18)
- (2) Open the guard fully by pulling the arms as shown below until a click is heard. (Fig. 19)
- 4. How to remove deflection guard
  - Reverse the installation procedure to remove the deflection quard.
- How to use deflection guard
  - (1) Be sure to install the deflection guard when bending a rebar whose bending length and the fixed length are 20' (inside dimensin of deflection guard) or less (Fig. 20)

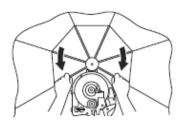
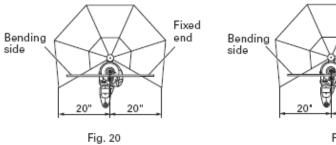


Fig. 19

(2) Be sure to install the deflection guard when bending a rebar whose bending length is 20" (inside dimensin of diffection guard) or less and the fixed length is more than 20", In this case, move the arm at the fixed end, (Fig. 21)



Fixed end Fig. 21

(3) Remove the deflection guard when bending a rebar whose bending length and the fixed length are more than 20" (inside dimension of the deflection guard).

# CAUTION:

- Set a rebar on the rebar cutter/bender so that the bending length is equal to or shorter than the fixed length.
- Bending by eye measurement

Since the unit uses a variable-speed switch, you can bend the rebar to your desired angle by eye measurement in addition to the dial setting.

- Set the setting dial to a larger angle than you desire.
- (2) Pull the switch trigger lightly and bend the rebar slowly.
- (3) When the rebar is bent to the desired angle, stop pulling the switch, If the bar is still small of the desired angle, pull the switch again.
- (4) Remove the rebar after bending has been finished. Then, pull the switch once more and return the bending roller to the home position. (Continue pulling the switch until the bending roller begins reverse rotation.)

- 7. Removing rebar during bending operation When bending out at a low speed in "bending by eye measurement", the rebar can sometimes get caught in the bending roller due to its own flexure. If this occurs, you can return the bending roller to the home position by pulling the switch again after setting the setting dial to the "return" position. This is the same method used to remove the rebar when it gets caught during cutting operation. (Fig. 22)
- 8. Using hole to fix unit in place A hole is provided at the center of the unit to fix and stabilize it. This hole comes in quite handy when used in the following manner. (Fig. 23)
  - For bending operation when the unit is fixed to a work bench. This hole will prove very convenient when the

unit is bolted to a suitable work bench. (Bolt size M10, less than W3/8.)

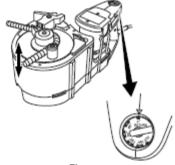


Fig. 22

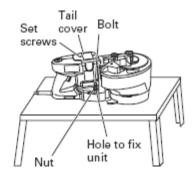


Fig. 23

WARNING: This product can expose you to chemicals including Chromium from steel products, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov

If the person receiving this handout will not be the user of the equipment, forward these instructions to the operator. If there is any doubt as to the operation or safety of the equipment. DO NOT USE!!! CALL A TOOL SHED IMMEDIATELY!!! FAILURE TO FOLLOW THESE