

REX

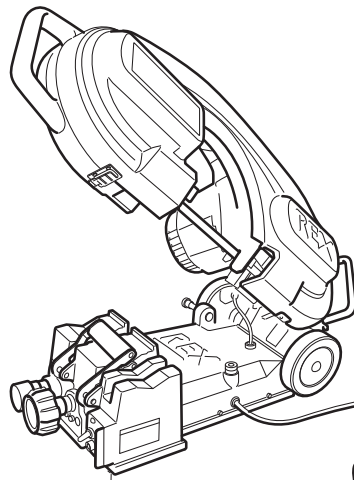
REX Band Saw

50/60Hz

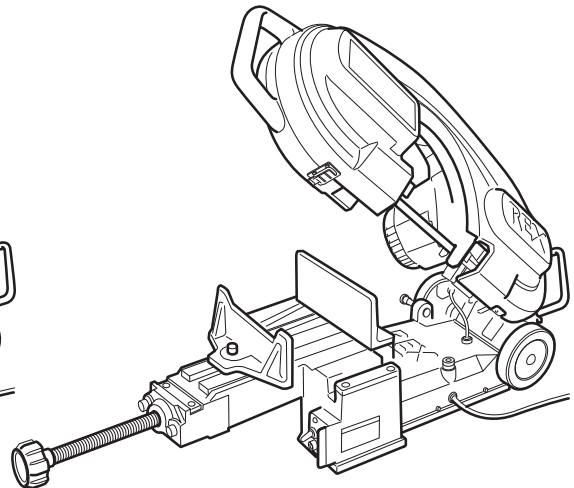
MANTIS 125 · 120 A

XB125 · 120A

Operation Manual



XB125
(Chain Vice)



XB120A
(Flat Vice)



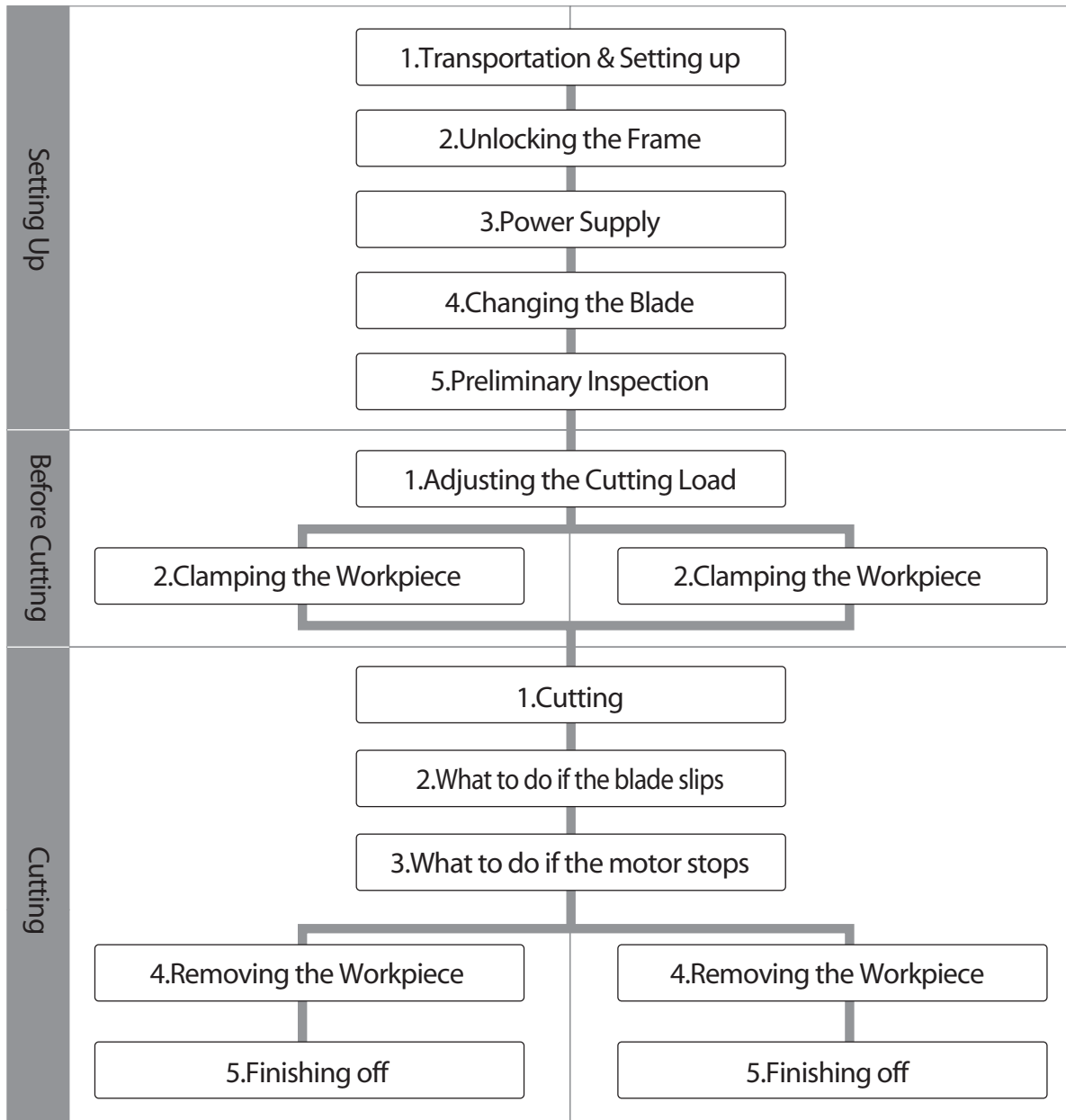
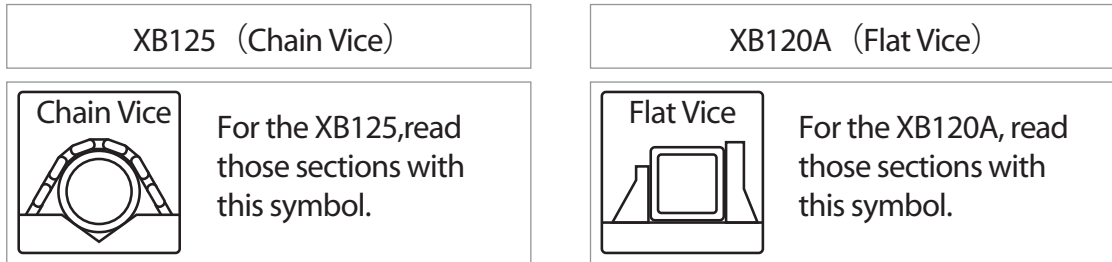
Be sure to read this manual before using the machine.

- Be sure to give this Operation Manual to the user.
- To ensure safe and effective use, read this Operation Manual carefully before use.
- Keep this manual handy so the user can refer to it when necessary.

Date of Purchase: Year Month

Sales Agent:

Thank you very much for purchasing a REX MANTIS Series Band Saw.
 The contents of this manual apply to both the XB125 (Chain Vice) and the XB120A (Flat Vice). However, some operations differ and you should therefore refer to the diagram below and follow the instructions according to the model you purchased.



- To prevent fire and electric shock or other injury, be sure to observe the Safety Considerations on pages 1 - 2.
- Before use, read all Safety Considerations carefully and follow the instructions given.
- Do not use the machine for purposes other than those noted in this Operation Manual.

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Definitions of WARNING and CAUTION

In this Operation Manual, warnings are divided into WARNING and CAUTION.

WARNING: indicates actions that could possibly result in death or severe injury to the user if the machine is used incorrectly

CAUTION: indicates actions that could possibly result in injury to the user, or physical damage to property or to the machine or if the machine is used incorrectly.

Even items described as CAUTION could have serious results under certain conditions.

Be sure to observe these warnings carefully as they greatly affect safety.

- If this Operation Manual is lost or damaged, promptly order a replacement from our sales office or distributor.
 - Due to improvements in quality, performance or safety regulations, parts and specifications are subject to change without prior notice. In such cases, the contents, photographs, illustrations etc. in this manual may differ from the product you have purchased.
-

Safety Considerations

(1) Make sure the voltage is correct.

- Be sure to use the rated voltage displayed on the label on the unit or in the Operation Manual. Using other voltages may produce heat, smoke or fire.

(2) Check to make sure the ON/OFF switch is in the "OFF" position before plugging in the unit.

- Plugging in the unit with the ON/OFF switch in the "ON" position will cause the unit to begin operating unexpectedly, possibly resulting in accident or injury. Always check to make sure that the ON/OFF switch is in the "OFF" position before plugging in the unit.

(3) Be careful of electrical shock.

- Do not touch the plug with wet hands.
- Do not use the unit in the rain or in other situations in which water may get inside the machine.
- Be sure to ground the unit. Failure to do so may result in electric shock.

(4) Check to make sure the workplace is safe.

- Do not use this product in the rain or in humid or wet locations, or in any other situation in which water may get inside the unit. Exposure to humidity may also degrade the motor insulation and lead to electrical shock.
- Do not use this product near gasoline, paint thinner or other flammable liquids or gases. Failure to observe this precaution may result in fire or explosion.

(5) Use only the recommended accessories and attachments.

- Do not use accessories and attachments other than the recommended ones listed in the Operation Manual and REX catalogues as doing so may result in accident or injury.

(6) In the event of any of the following, turn the ON/OFF switch to the "OFF" position and unplug the unit.

- When the unit is not in use, or when replacing parts, performing repairs, cleaning or inspection.
- When changing accessories.
- In other potentially dangerous situations (including a power outage)
If the unit is left plugged in, it may operate unexpectedly, leading to accident or injury.

(7) Turn the unit off in the event of any abnormality.

- Turn off the unit immediately if it seems to be operating strangely or vibrates, or if you detect an unusual noise or odor.
- Use the table in the "Troubleshooting" section of this manual to determine the cause of the problem and then take the appropriate action. Continuing to use the unit when it is operating abnormally may result in heat, smoke or fire and may lead to accident or injury.
- In the event that the unit heats up or produces smoke, do not attempt to disassemble it yourself. Have it inspected and repaired by an authorized repair technician.

(8) Maintain safety by keeping the workplace neat and clean.

- Make every effort to keep the workbench and work area neat and clean, and make sure the area is well lit.
A messy work area and workbench may lead to accidents.

(9) Keep unauthorized personnel away from the work area.

- Do not allow unauthorized personnel to touch the unit or cord, or operate the machine.
- Make sure only authorized work personnel are allowed to enter the work area. Be particularly careful of children entering the area during work operations. Failure to observe these precautions may result in injury.

(10) Use the tool properly.

- Do not use this tool for anything other than its intended purpose. Using it for other purposes, or for jobs that exceed its capacity, may result in damage to the tool and/or accident or injury.
- Do not use the tool for operations beyond its capacity that may cause the motor to lock. This may result in smoke or fire.

(11) Wear proper clothing.

- Do not wear neckties, clothing with open sleeves, baggy clothing or necklaces or other accessories when operating the unit. Fasten all buttons, zip fasteners etc. on your clothing before beginning any operation. Failure to observe these precautions may result in clothing getting caught in the unit's moving parts, resulting in accident and serious injury.
- When working outdoors, the use of rubber gloves and slip-proof footwear is recommended. Wearing slippery gloves and footwear may result in injury.
- Put long hair inside a cap or hair cover. Do not wear a muffler, etc. during work operations. Long hair, mufflers and the like may get caught in the unit's moving parts, leading to accident and serious injury.
- Depending on the work environment, it may also be necessary to wear a safety helmet and work boots.

Safety Considerations

(12) Work in a safe place and in a stable position.

- Always keep both feet firmly on the ground and be sure to maintain a proper balance while working. Failure to do so may result in falling over and injuring yourself.

(13) Be sure to remove wrenches and other tools.

- Before turning on the unit, check to make sure that all tools used for inspection and adjustment have been removed. Operating the unit with tools still attached may result in accident or injury

(14) Exercise proper caution during use.

- Operate the unit carefully and pay careful attention to handling methods, operating methods, your surroundings and so on. Failure to exercise proper caution during operation may result in accident or injury
- Do not operate the unit if you are tired, if you are sick and taking medications, if you have consumed alcoholic beverages, or if for any other reason you are unable to concentrate on operating the unit properly. Failure to observe this precaution may result in accident or injury

(15) Treat the cord with respect.

- Never carry the unit by its cord or pull on the cord to remove it from the outlet.
- Keep the cord away from hot items, oil and grease, blades and sharp corners.
- Plug in the cord at an appropriate location, making sure that the cord will not be stepped on, will not become caught on anything, and will not be subjected to excessive force and damaged. Failure to observe these precautions may cause electric shock or short-circuit resulting in fire.

(16) Maintain the unit with care on a regular basis.

- When replacing accessories and parts, do so in accordance with the instructions in the Operation Manual.
- Inspect the power cord and plug regularly. In the event of damage, request repair from your dealer or a REX sales office. Failure to observe this precaution may cause electric shock or short-circuit resulting in fire.
- When using an extension cord, inspect it regularly and replace it in the event of damage. When using the unit outdoors, use an extension cord designed for outdoor use. Failure to observe this precaution may cause electric shock or short-circuit resulting in fire.
- Keep the handles clean and dry, and do not get oil or grease on them, as this may cause it to slip, resulting in injury

(17) Inspect the unit to make sure none of the parts is damaged.

- Prior to use, inspect the unit carefully to make sure that protective covers and other parts are not damaged, and check to make sure that it operates properly and performs the prescribed functions.
- Check for proper positioning and tightening of moving parts, the presence of damaged parts, correct installation, and all other points that may affect operation.
- Do not use the unit if the cord or plug is damaged. Failure to observe this precaution may cause electric shock or short-circuit resulting in fire.
- Do not use the unit if it cannot be turned on and off using the ON/OFF switch.
- Follow the instructions in the Operation Manual for repair or replacement of damaged protective covers or other parts. If such operations are not specified in the Operation Manual, ask your dealer or a REX sales office to repair or replace the affected parts.

(18) Store the unit properly when not in use.

- This product should be stored in a dry place that can be locked and is out of the reach of children.

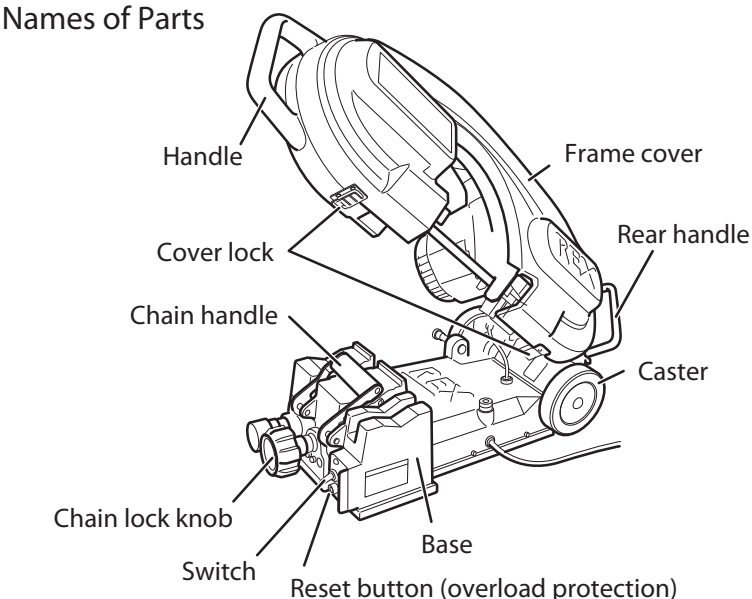
(19) Always have the unit disassembled and repaired at an authorized service center

- REX products are designed to meet applicable safety standards. Do not attempt to modify the machine yourself.
- Always have the unit repaired by your dealer or a REX sales office. If this product is repaired by a person who does not have the proper knowledge or technical skill to do so, the product may not operate properly, or accident or injury may result.

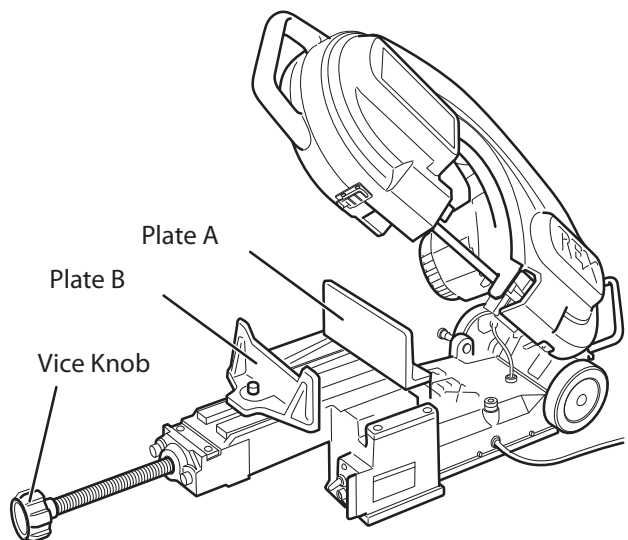
- (1) **Keep away from the blade when it is rotating.**
 - Even after the unit has been turned off, the blade will continue to turn due to inertia. NEVER TOUCH THE BLADE OR MOVING PARTS WHILE THEY ARE IN MOTION. You may get caught in the mechanism, resulting in accident or serious injury.
- (2) **Do not wear gloves while operating the unit.**
 - If gloves are worn during the cutting operation, they may become caught in the moving parts, leading to accident or injury. Avoid wearing gloves while operating the unit.
- (3) **Do not touch the workpiece or blade with bare hands immediately after it has been cut.**
 - Immediately after the cutting process, the workpiece and blade will be very hot. You may be burned if you touch them with bare hands.
- (4) **Turn off the unit immediately in the event of an abnormality**
 - Turn off the unit immediately and unplug it if it starts acting strangely, or if you notice any other abnormality during operation.
- (5) **Make sure the frame cover is in place.**
 - To ensure safety during the cutting operation, always make sure the frame cover is in place when cutting. If the frame cover is not in place, you may get caught in the blade or rotating parts, leading to accident or serious injury
- (6) **Install the unit on level ground and in a stable position.**
 - Avoid installing the unit on an incline. Always install it on level ground. Failure to observe this precaution may result in the unit toppling during operation, resulting in accident or injury
 - Be particularly careful of the unit toppling over when performing contour cutting. Check to make sure the frame will not topple forward.
- (7) **Check to make sure the unit is turned OFF before changing the blade or clamping the workpiece.**
 - Particularly when changing the blade, set the ON/OFF switch to the "OFF" position and unplug the unit before changing the blade.
- (8) **Make sure the frame does not drop down unexpectedly**
 - Make sure the frame does not drop down unexpectedly, as this may damage the blade.
- (9) **Do not subject the unit to violent shocks.**
 - This product contains precision parts that may be damaged if the unit is dropped, hit or otherwise subjected to shock.
 - Be particularly careful not to drop the unit during transport. This may result in damage to the machine or injury if it should land on your foot, etc.
- (10) **Make sure that the voltage is correct.**
 - Be sure to use a power supply with the proper voltage shown on the label. Using a power supply of a different voltage may not only damage the motor but could also lead to injury
- (11) **Clamp the workpiece securely**
 - If the workpiece is not fastened securely in place, it may move during the cutting process. This may cause the tool to vibrate or place excessive stress on the blade, resulting in breakage.
 - When cutting several workpieces at the same time, check to make sure that none of them move before beginning the cutting process.
- (12) **Use a blade of the recommended type that matches the material to be cut.**
 - Select a blade that is appropriate for the material to be cut.
 - Use only the recommended blades.
- (13) **Use a cutting load setting that matches the workpiece.**
 - Do not use a load setting that is too high or press the frame against the workpiece while cutting. This may cause slanted cutting or result in blade chipping / breakage, or the motor locking or the like.
- (14) **Make sure the blade is attached securely**
 - If the blade is not attached securely, it may come off during the cutting operation, resulting in accident or injury.
- (15) **Wipe off any oil from the blade or workpiece before cutting.**
 - Before shipment from the factory, blades are coated with oil to prevent rust. Be sure to wipe away the oil before attaching blades. Failure to do so may cause the blade to slip or come loose.
 - If there is any oil on the workpiece, be sure to wipe it off as well.
 - Do not apply cutting oil or the like to the blade during use.

Names of Parts, Standard Specifications and Standard Accessories

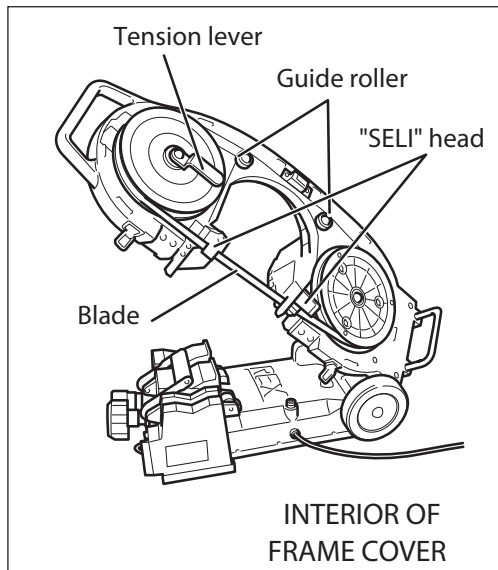
• Names of Parts



XB125 (Chain Vice)



XB120A (Flat Vice)



INTERIOR OF FRAME COVER

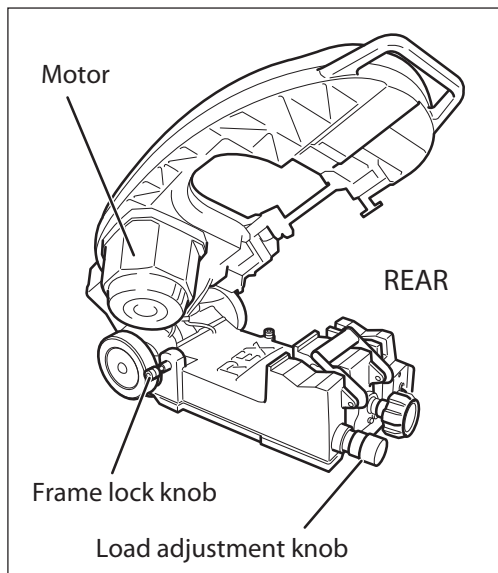


Fig. 1

• Standard Specifications and Standard Accessories

Model	XB125	XB120A
Vice type	Chain Vice	Flat Vice
Cutting capacity	Pipes	\varnothing 125mm □ 100mm
	Round bar (Soft steel bar)	\varnothing 60mm
	45°	\varnothing 50mm □ 50mm
Power	Single-phase alternating current 220V (50/60Hz)	
Motor	Split-phase induction motor 200W (Output)	
Pully rotation	70 rpm (50Hz), 84 rpm (60Hz)	
Unit size (mm)	780 (l) × 340 (w) × 335 (h) mm	
Weight	33kg	35kg
Standard accessories	Blade for high-speed band saw (14-tooth; Product No. 475312): 1	
	Hex key wrench (5mm): 1	Socket wrench (17mm): 1
		Hex key wrench (5mm) ×: 1

Table 1

Types of Blades (Optional extras)

Be sure to use only recommended blades.

Code no.	Material	No. of teeth (teeth /inch)	Suitable for cutting				No. of blades included
			Steel pipe	Stainless steel pipe	Steel	Conduit	
475302	Alloy	14	$\geq 15A$	-	Wall thickness ≥ 6 mm	-	10
475303		18	$\geq 6A$	-	Wall thickness ≥ 4 mm	Thick steel	
475312	High-speed steel (Bimetal)	14	$\geq 15A$	Wall thickness ≥ 4 mm	Wall thickness ≥ 6 mm	-	5
475313		18	$\geq 6A$	Wall thickness ≥ 2 mm	Wall thickness ≥ 4 mm	Thick steel	
475314		24	-	Wall thickness ≤ 2 mm	Wall thickness ≤ 2 mm	Thin steel	

Table 2

Selecting the Cutting Load and Blade

Use the table below to select the blade and cutting load that are appropriate for the type, diameter, wall thickness etc. of the material to be cut.

Material	Diameter / Wall thickness	Alloy		High-speed steel		
		14-tooth	18-tooth	14-tooth	18-tooth	24-tooth
Steel pipe	$\leq 1"$	L	L	L	L	
	$1\frac{1}{4}" \sim 2"$	M	M	M	M	
	$2\frac{1}{2}" \sim 4"$	H	H	H	H	
Conduit	Thick steel		M		M	
	Thin steel		L		L	L
Steel (round bar / section steel)	≥ 1.9 mm				LL	
	$2 \sim 3.4$ mm		M		M	
	$3.5 \sim 4.9$ mm		M		M	
	≥ 5 mm	H		H		
Stainless steel	≥ 1.2 mm					LL
	$1.3 \sim 2$ mm				L	L
	$2.1 \sim 3.9$ mm				M	M
	≥ 4 mm			H		
Resin pipe		LL	LL	LL	LL	
Cast-iron pipe		H		H		

Table 3

LL = ultra-light load L = light load M = medium load H = heavy load

Notes:

- The figures in the table are examples only . Select the blade and cutting load to match the actual material to be cut.
- When selecting the proper number of teeth in the blade, use the following guideline: thickness of material = 2 teeth.

Use

- Cutting various mild steel materials such as a steel pipes, steel bars, etc.
Note: Do not use to cut hard materials such as quenched steel etc. or the blade will become extremely worn.
- Cutting stainless steel and resin pipes .
Note: Do not use heat-sensitive plastic materials. The heat generated when cutting may melt such materials, which may clog the blade and cause the motor to burn.

Getting ready

1. Transport and Installation (Figs. 2 & 3)

WARNING

Be particularly careful not to drop the unit during transport. This may result in damage to the machine or injury if it should land on your foot, etc.

Transport

(1) The frame is locked before the product is packed. Hold up the handle. The casters will contact the ground, allowing you to roll the unit along the ground. (Fig. 2)

(2) When moving the unit by carrying it, lift it from both the front and rear handles. DO NOT TRY TO LIFT IT BY YOURSELF. The unit should always be carried by two or more people. (Fig. 3)

Setting up

(1) Place the unit on level ground.

CAUTION

Place the unit on level ground and in a stable position. If it is placed on an incline, it may topple during operation, resulting in accident or injury.

2. Unlocking the Frame (Figs. 4 & 5)

(1) Pull the frame lock knob on the bottom left hand side of the motor and, at the same time, turn it 90°; either clockwise or counterclockwise. (Fig. 4)

(2) When the frame lock knob is protruding, the frame is unlocked. When transporting the unit, use the same process in reverse to lock the frame prior to transport.

WARNING

Frame Lock Precautions (Fig. 5)
When the frame is locked, check to make sure that the frame lock knob is tightly against the end of the collar. If there is a gap and the lock pin is not completely inserted into the hole, the unit may become unlocked during transport, resulting in accident or injury.

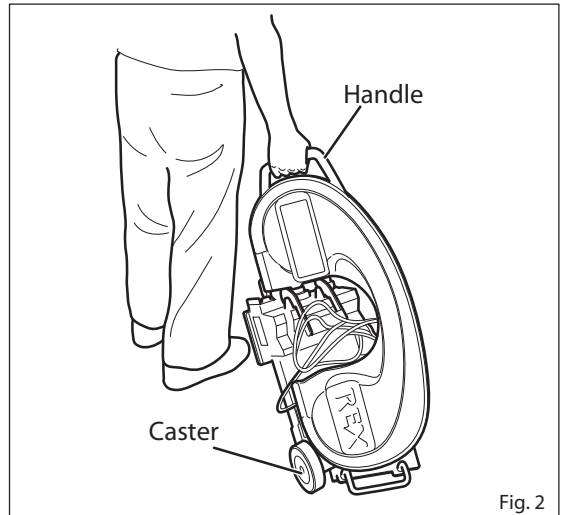


Fig. 2

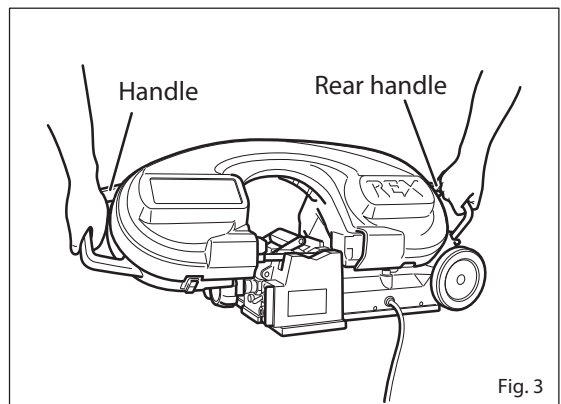


Fig. 3

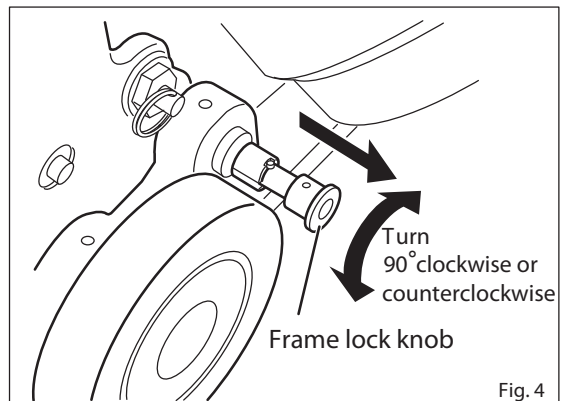


Fig. 4

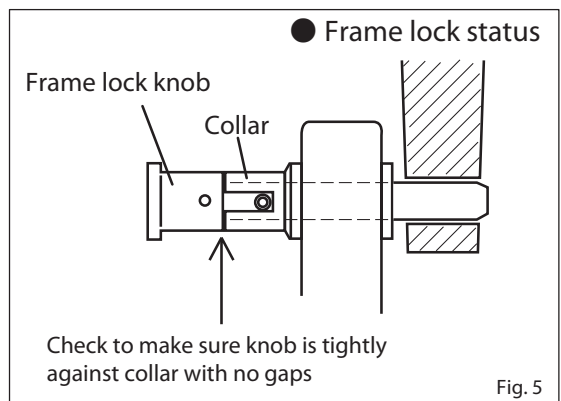


Fig. 5

3. Power Supply (Fig. 6)

Use a 220V AC power supply. Also check the following:

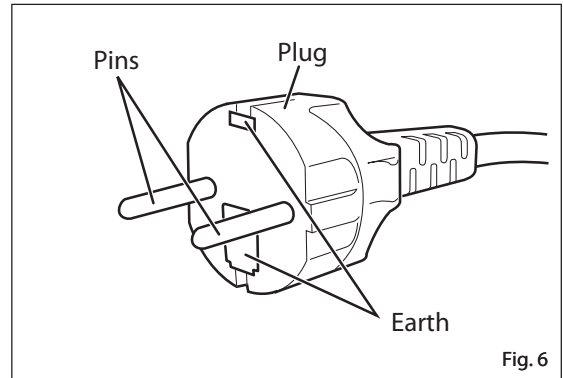
Leakage breaker

To prevent electric shock, check to make sure that the power supply connected to the unit is equipped with a leakage breaker as specified by local regulations governing standards for electrical equipment, workers safety, etc.

Grounding

Be sure to ground the unit prior to use.

To ensure safety be sure to ground the unit even if the power supply is equipped with a leakage breaker.



WARNING

NEVER GROUND THE UNIT BY CONNECTING IT TO A GAS PIPE. This may result in an explosion.

Before grounding, check the plug to make sure there are no abnormalities. Use a tester, insulation resistance tester or the like to check for current between the plug and the metal part of the unit base.

Always follow local laws and regulations relating to earth leakage breakers and grounding.

When using an extension cord

When the power outlet is at a distance and an extension cord must be used, use one of sufficient thickness that is as short as possible.

If the power supply is not equipped with a leakage breaker, be sure to use a 3-wire cable with one ground wire that can be grounded.

WARNING

Be sure to use an extension cord that is not damaged.

Getting ready

4. Changing the Blade (Figs. 7 ~ 12)

Check to make sure the blade matches the material to be cut (see Page 5). If it does not, replace the blade.

WARNING

- Be sure to unplug the unit from the power supply before changing the blade. If the unit is left plugged in, it may start up unexpectedly, leading to injury.
- Do not touch the blade directly with bare hands. This may result in injury. When changing the blade, wear gloves and protective goggles.

When attaching new blades

- (1) To prevent the blade from slipping, wipe away all rustproofing oil from the blade before attaching the blade. Also wipe away any oil sticking to the pulley and bearings.
- (2) New blades tend to be chipped easily or make slanted cuts, so be sure to perform trial cutting. Trial cutting: set the load to Light (L) and make one or two cuts in a gas pipe measuring 50A or larger.

Removing the frame cover

- (1) Open the frame and release the two cover locks on the bottom of the frame. (Fig. 7)
- (2) Hold the frame cover and slide it upward to remove. (Fig. 8)

Note: There is a hook on the top of the frame cover. Slide it upwards to unhook it. (Fig. 9)

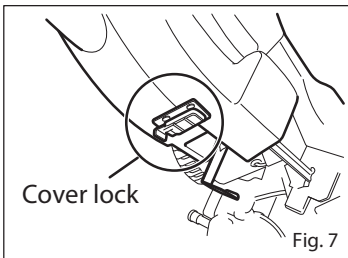


Fig. 7

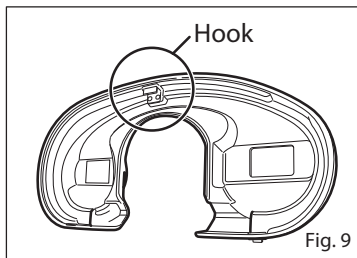


Fig. 9

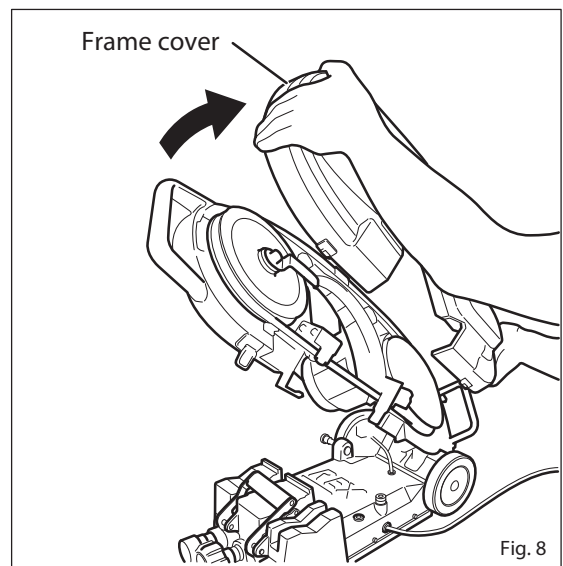


Fig. 8

WARNING

When removing the frame cover, make sure the blade does not pop out unexpectedly which could result in accident or injury. This is particularly likely to happen when replacing broken blades, so remove the frame cover slowly and carefully.

Removing the blade (Fig. 10)

- (1) Turn the pulley tension lever on the handle side anti-clockwise to release the blade tension.
- (2) Remove the blade from the pulley
- (3) Remove the blade from the "SELI."

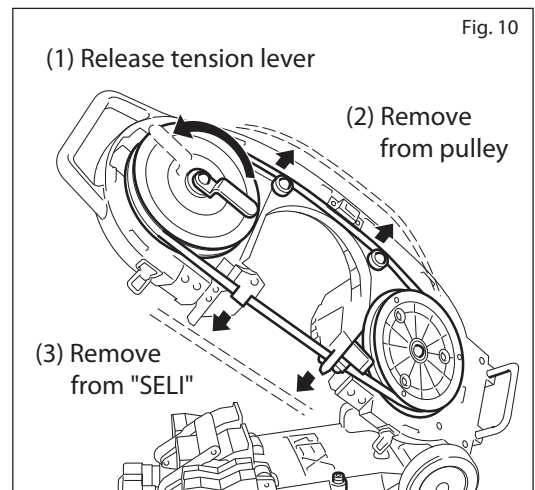


Fig. 10

Attaching the blade (Fig. 11)

- Attach the blade, using steps (1) through (5) in Fig. 10. Then turn the tension lever clockwise (6) to apply tension to the blade.

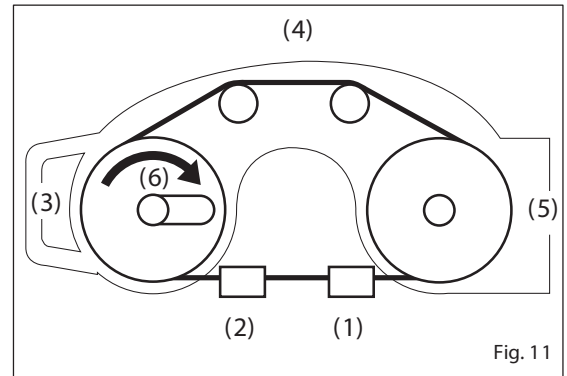


Fig. 11

Checking the blade attachment (Fig. 12)

- Check to make sure the blade is properly attached.
 - Make sure the "SELI" bearings are inserted all the way.
 - Make sure the blade has not climbed up on the pulley flange.
- By hand, turn pulley A (on the wheel side) slowly anti-clockwise and check to make sure the blade does not become misaligned or come loose.
- When blade attachment is complete, be sure to replace the frame cover.

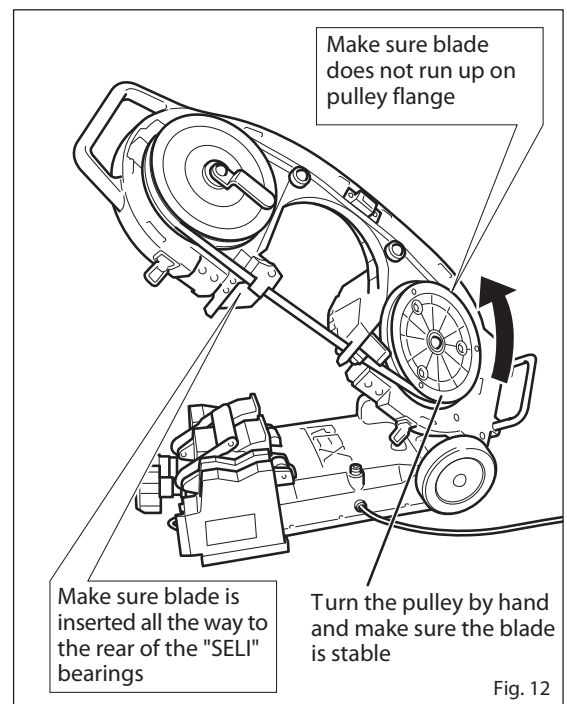


Fig. 12

5. Preliminary Inspection (Fig. 13)

- (1) Insert the power plug into the outlet.
- (2) With the frame open, set the ON/OFF switch on the right front section of the base to the "ON" position.
- (3) Check the following:
 - Make sure there is no abnormal noise coming from the motor or moving parts.
 - Make sure the blade does not become misaligned or come loose.
 - Lower the frame and make sure the switch moves to the "OFF" position.
- (4) When all of the above have been checked, remove the plug from the outlet.

WARNING

Be sure to inspect the unit with the frame cover attached. If the blade should come loose during inspection, it may fly out and strike you in the face or otherwise lead to accident or injury.

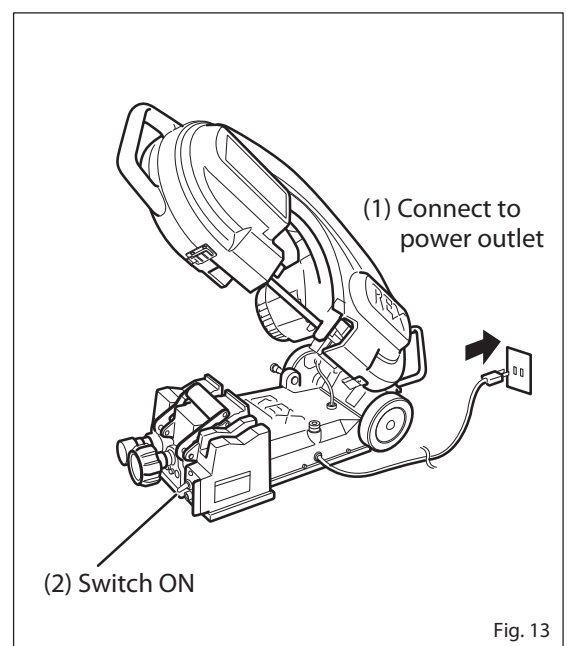


Fig. 13

Preparing for Cutting

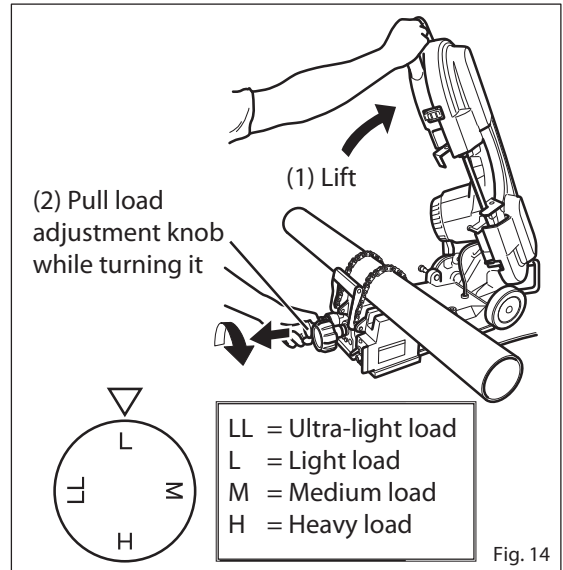
1. Preparing for Cutting (Fig.14)

1. Adjusting the Cutting Load (Fig. 14)

Referring to the table on Page 5, adjust the cutting load to match the material being cut.

- (1) Lift up the frame to its highest point.
- (2) Pull the load adjustment knob while turning it, and set it to a load setting that matches the material to be cut.
- (3) Slowly lower the frame.

Note: The frame stopper may be disengaged, so lower the frame carefully



2. Clamping the Workpiece (Figs. 15 - 22)



XB125 Chain Vice (Figs. 15~17)

- (1) Turn the chain lock knob anti-clockwise and release the chain lock (Fig. 15)
- (2) Unhook the chain handle and place at the rear of the vice. (Fig. 15)

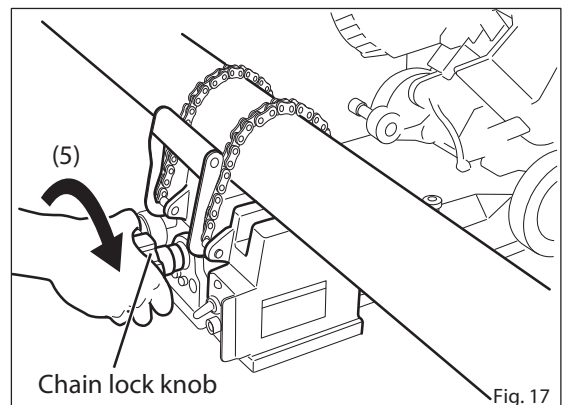
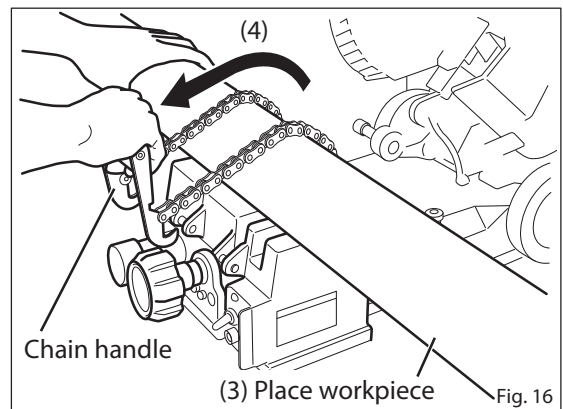
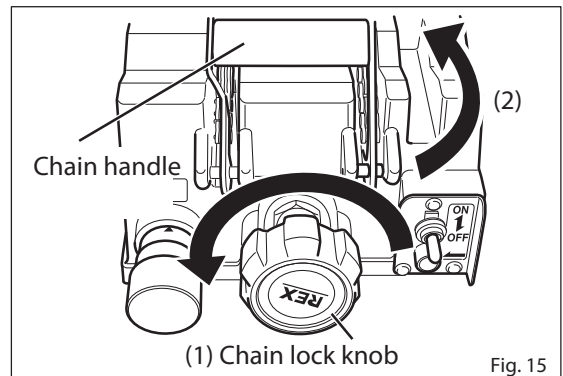
- (3) Place the workpiece in the V-shaped groove on the vice. (Fig. 16)

Note: For longer workpieces place one end on a support.

- (4) Pull the chain handle back over the workpiece and hook to the base of the vice (Fig. 16)

Note: If you cannot pull the chain out properly, turn the chain lock knob anti-clockwise to release the lock.

- (5) Turn the chain lock knob clockwise to tighten the chain (Fig. 17)



CAUTION

Make sure the workpiece is clamped securely. If the workpiece is not fastened securely in place, cutting will be unstable, resulting in damage to the machine or in accident or injury.

Preparing for Cutting



XB120A Flat Vice (Figs.18 - 22)

How to move Plate B (Fig.18)

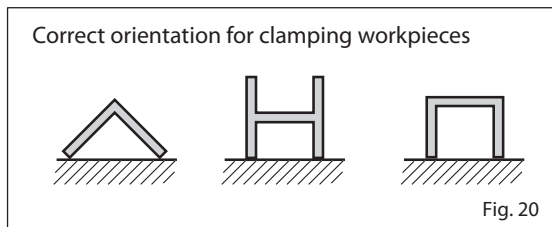
- ☒ Turn the vice knob anti-clockwise to release the lock.
- ☒ Move the vice knob back and forth and you can quickly move Plate B.

Right angle cuts (90°)

- ☒ Place the workpiece in the vice carefully aligning it with Plate A. (Fig.19)

Note: Position the workpiece so that there is no abrupt change in the thickness of the material being cut. (Fig.20)

If there is a sudden change in the thickness of the material while cutting, the blade may be damaged, the cut may not be straight or the motor may lock.



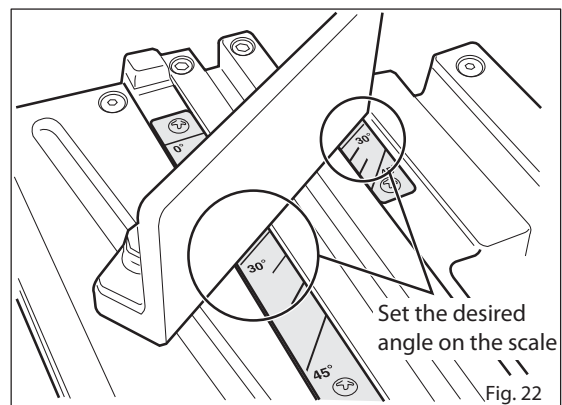
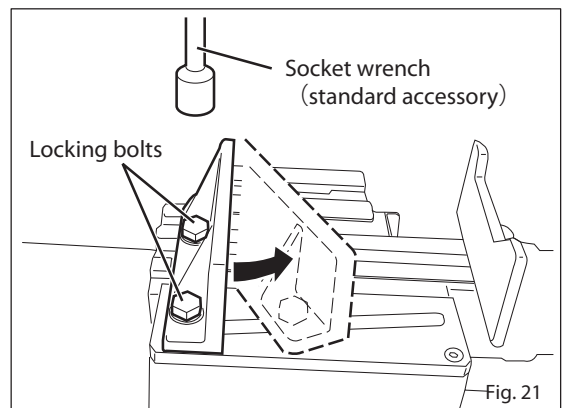
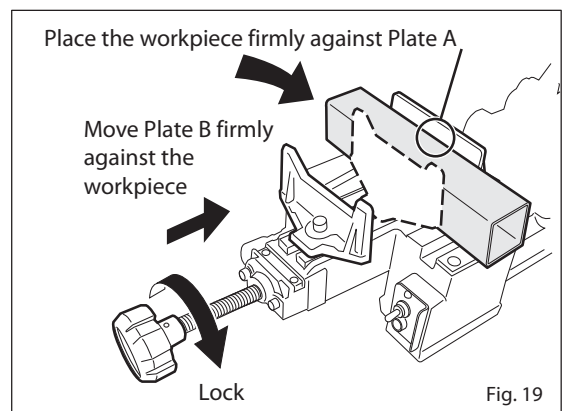
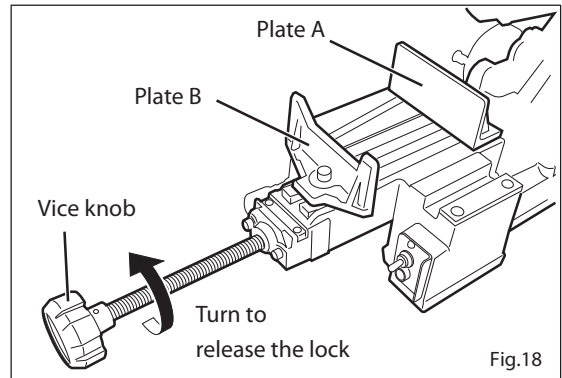
- ☒ Push in the vice knob and move Plate B up against the workpiece. (Fig.19)
- ☒ Turn the vice knob clockwise and fix the workpiece securely in position.

Note: Make sure the workpiece is flush with the base of the vice or the cut will not be straight.

Cutting at an angle (0~45°)

- ☒ Loosen the 2 bolts on Plate A with the socket wrench supplied with the machine. (Fig. 21)
- ☒ Set Plate A at the desired angle on the scale and tighten the bolts firmly. (Fig. 22)

- ☒ Fasten the workpiece in the same way as making 90° cuts.



Cutting

1. Cutting (Figs. 23 - 25)

(1) Insert the plug into the outlet. (Fig 23)

CAUTION

Always check to make sure that the ON/OFF switch is in the "OFF" position before plugging in the unit. If the unit is plugged in with the switch in the "ON" position, the unit will operate unexpectedly, possibly resulting in accident or injury. Do not wear gloves while operating the unit. They may become caught in the moving parts, leading to accident or injury.

(2) Hold the handle and lift the frame to its highest point and release the stopper. (Fig. 23)

(3) Set the ON/OFF switch on the front right section of the base to the "ON" position. The blade will start turning. (Fig. 24)

(4) When the blade has reached the proper speed of rotation, slowly place the blade against the top of the workpiece. (Fig. 25)

Notes:

- Do not place the blade against the top of the workpiece and then set the ON/OFF switch to the "ON" position. This may damage the blade or result in slanted cutting.
- Do not lower the blade on the workpiece too suddenly. This may damage the blade or result in slanted cutting.

(5) From this point on, the unit will cut automatically. When cutting is complete, the switch will shift to the "OFF" position and the motor will stop. (Fig. 25)

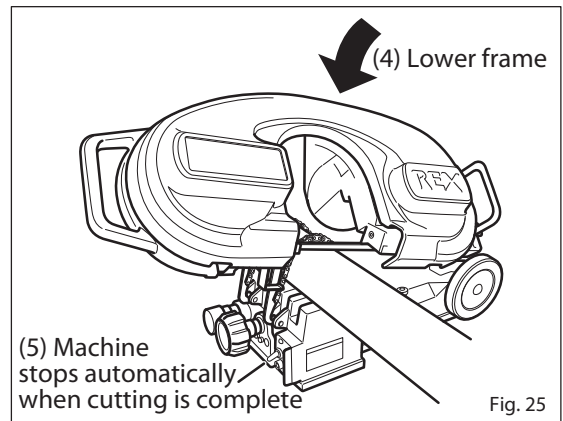
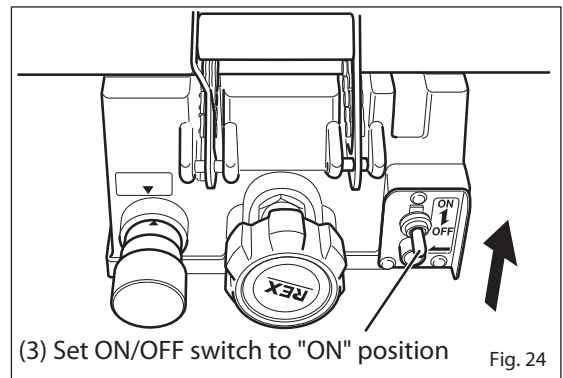
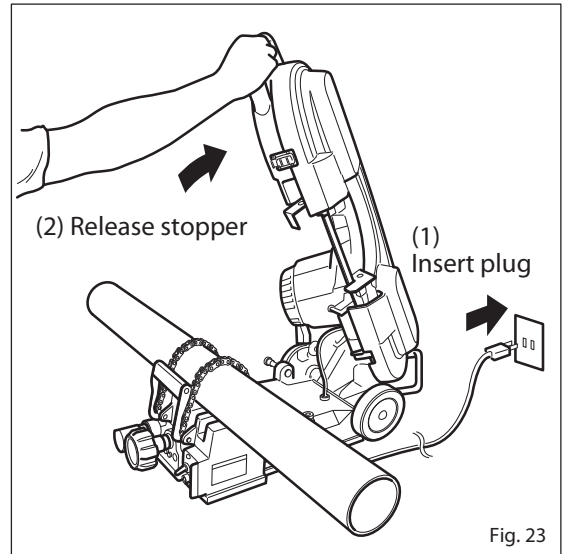
CAUTION

Immediately after being cut, the workpiece and blade will be very hot. You may be burned if you touch them with bare hands.

2. If the Blade Slips While Cutting

- If there is oil, grease or similar on the workpiece or the machine parts (blade, pulley or bearings), the blade and pulley may slip during the cutting process and the pulley may begin simply idling. If this happens, immediately turn the ON/OFF switch to the "OFF" position and remove the plug from the outlet. Then use a rag to wipe the oil from the workpiece and machine parts.

Note: Continuing to operate the unit after the blade has slipped may burn out the rubber ring on the pulley or damage the pulley.



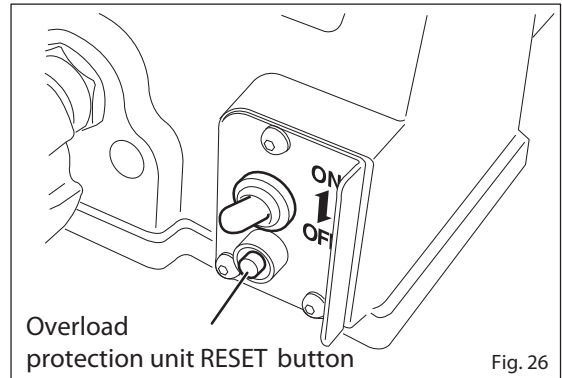
3. What to do if the motor stops (Fig.26)

- If an excessive load is applied during cutting or if the blade gets caught in the workpiece and locks, the overload protection unit will be activated and the motor will stop.

If the overload protection unit has been activated, reset the unit as follows:

- (1) Set the ON/OFF switch to the "OFF" position.
- (2) Eliminate the cause.
- (3) Press the RESET button below the ON/OFF switch (Fig. 26).

Note: If the motor has overheated, it may not be possible to reset the unit immediately. In such a case, wait a few minutes and then press the RESET button again.



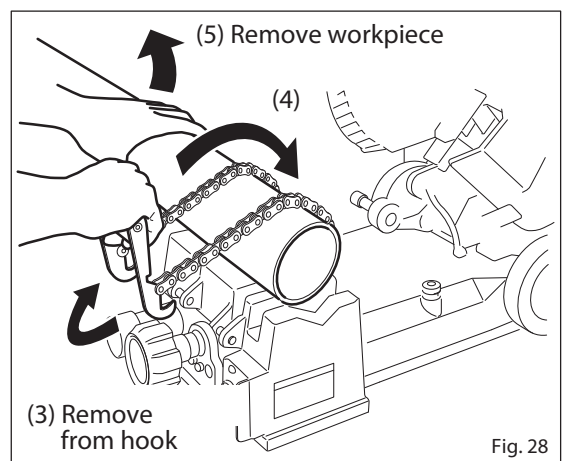
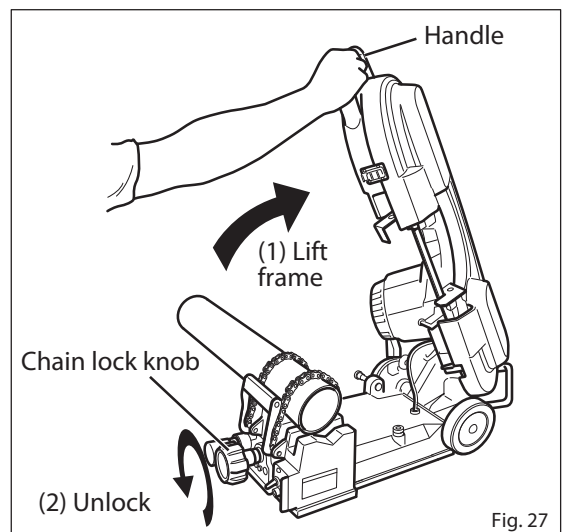
4. Removing the Workpiece (Figs.27 - 29)



XB125 Chain Vice

(Fig. 27, Fig. 28)

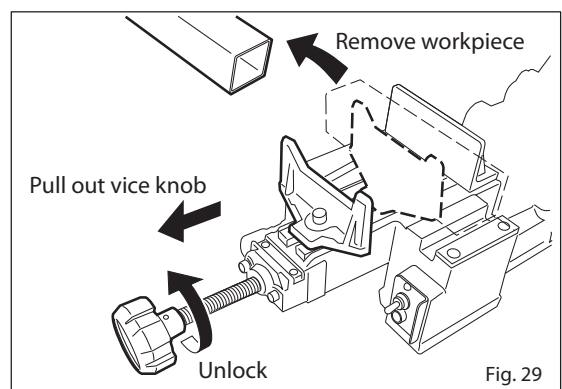
- (1) Hold the handle and lift the frame to its highest point. Check to make sure the frame has been stopped by the stopper (Fig. 27).
- (2) Turn the chain lock knob counterclockwise to unlock the chain (Fig. 27).
- (3) Unhook the chain handle hook from the base (Fig. 28).
- (4) The chain will be coiled automatically by the autocoil mechanism (Fig. 28).
- (5) Remove the workpiece (Fig. 28).



XB120A Flat Vice

(Fig. 27, Fig. 29)

- Hold the handle and raise the frame to its highest point, making sure the stopper is engaged (Fig. 27).
- Turn the vice knob anti-clockwise and release the lock (Fig. 29).
- Pull the vice knob and remove the workpiece (Fig. 29).



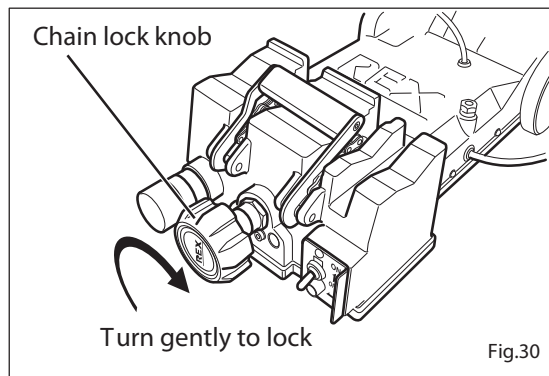
Cutting

5. Finishing the Cutting Process (Figs.30 & 31)



XB125 Chain Vice (Fig.30)

- (1) Hook the chain handle hook onto the base and gently turn the chain lock knob clockwise to lock the chain.

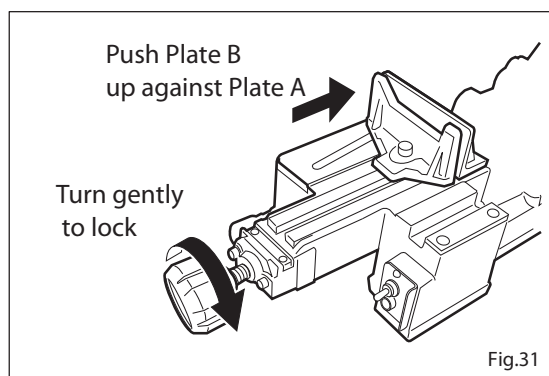


XB120A Flat Vice (Fig.31)

- (1) Push in the vice knob until Plate B comes into contact with Plate A, and then lightly turn the knob clockwise to fix the plate in place.

- Clean away any chips that have been produced during cutting.

Note: When cladding tubes, etc. have been cut, resin chips or the like may stick to the pulley inside the frame and cause the blade to slip. Be sure to wipe away these chips, etc.



1. Contour Cutting (Figs. 32 - 34)

This tool can be used for contour cutting. Use the following procedure to perform contour cutting, while observing the warnings noted below

WARNING

- Always perform contour cutting on level ground and in a stable position. If contour cutting is done with the machine tilted or in an unstable position, the frame may topple during operation, resulting in accident or injury.
- Do not wear gloves while operating the unit. They may become caught in the moving parts, leading to accident or injury.
- Do not perform contour cutting on round workpieces. The workpiece may turn during the cutting operation, resulting in accident or injury.
- When performing contour cutting, make sure the workpiece is supported securely with both ends of the workpiece at least 10cm from the blade. If the workpiece is too close, it may get caught in the blade, resulting in accident or injury.

- (1) Pull the stopper pin ring to the left of the motor, while simultaneously grasping the handle and lifting the frame so it is vertical. (Figs. 32 & 33)
- (2) Set the ON/OFF switch to the "ON" position. The blade will start rotating.
- (3) Place the workpiece on a contour table and cut it slowly. (Fig. 34)

Notes:

- Cut particularly slowly when cutting inward or downward.
 - When cutting downward, press the blade against the workpiece with less force and make sure your body does not lunge forward.
- (4) When cutting is complete, immediately turn the ON/OFF switch to the "OFF" position. If you are not going to continue to use the unit, remove the power plug from the outlet as a fail-safe procedure.
 - (5) Pull the stopper pin, while simultaneously grasping the handle and lowering the frame. This will return the unit to the normal cutting position.

Notes:

- The blade is for straight line cutting only. It cannot be used for curved cutting. Forcing the blade to cut in a curve may chip it or make it able to cut only in a curve.
- Blades used for contour cutting tend to become able to cut only in a curve. To perform normal cutting, replace the blade with a new one.

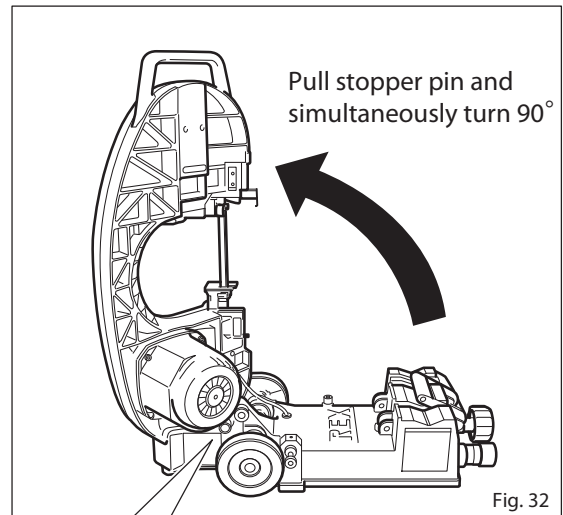


Fig. 32

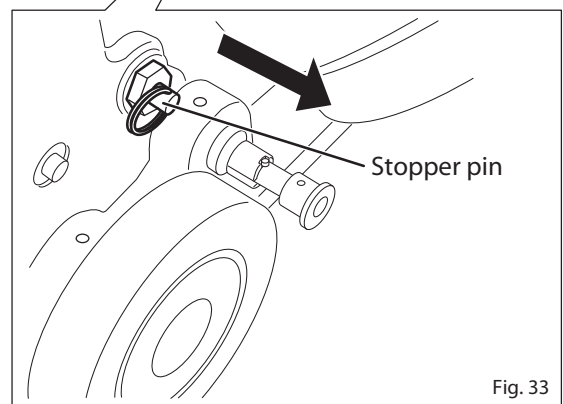


Fig. 33

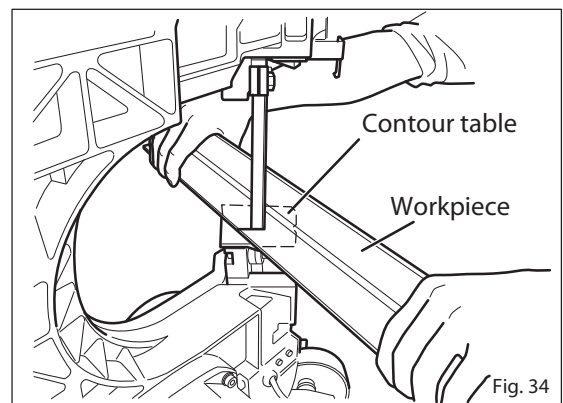


Fig. 34

Maintenance

WARNING

- Before inspecting the unit or carrying out maintenance work, be sure to set the ON/OFF switch to the "OFF" position, and remove the plug from the outlet. If the unit is left plugged in during inspections or maintenance, it may start up unexpectedly, leading to injury.
- If a problem is discovered during inspection or maintenance, check the Troubleshooting table and take the appropriate action. Continued use of the unit without correcting the problem may result in heat, smoke or fire, leading to accident or injury.

1. Adjusting the "SELI" head angle (Fig. 35)

In the event of vertical slanted cuts, the problem can be corrected by adjusting the angle of the "SELI" heads. Be sure to adjust both "SELI" in the same manner.

Before adjusting the "SELI" heads:

Diagonal cutting may be due to one of the causes listed below. Before adjusting the "SELI" heads, check them and correct if necessary. (It may not be necessary to adjust the "SELI" heads.)

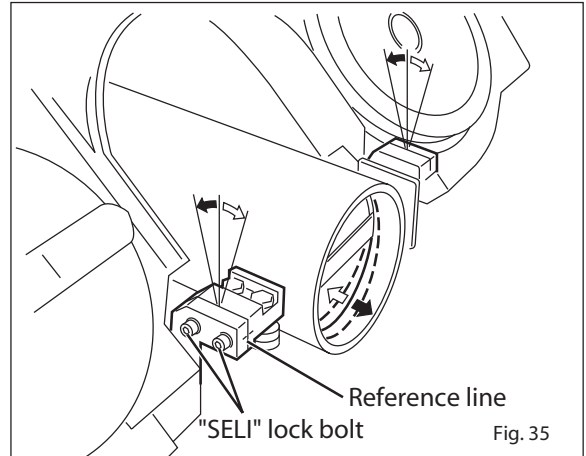
• Worn blade and wear caused by blade misalignment	→	Replace blade
• Workpiece moved during cutting	→	Clamp workpiece properly
• Cutting load is not adjusted properly	→	Adjust load to match workpiece
• Number of blade teeth does not match material being cut	→	Use a blade with a number of teeth that matches the material being cut.
• "SELI" bearings are worn	→	Replace bearings

- (1) Remove the blade, using the procedure on Page 8.
- (2) Loosen the "SELI" head fastening bolt and turn the head to match the slanted cut.
 - There is a reference line on the side of the "SELI" head. Using this line as a reference, adjust the position of the "SELI" head.
 - When the "SELI" head is moved in the direction of the white arrow (Fig. 35), the pipe will be cut in the direction of the white arrow.
 - When the "SELI" head is moved in the direction of the black arrow (Fig. 35), the pipe will be cut in the direction of the black arrow.

Note: In the case of a 100 A pipe, moving the "SELI" head 0.5 mm from the reference line will adjust the slanted cut approximately 1 mm. However, this is ultimately only a general guide and will change depending on various conditions, so be sure to conduct a test cut after adjustment.

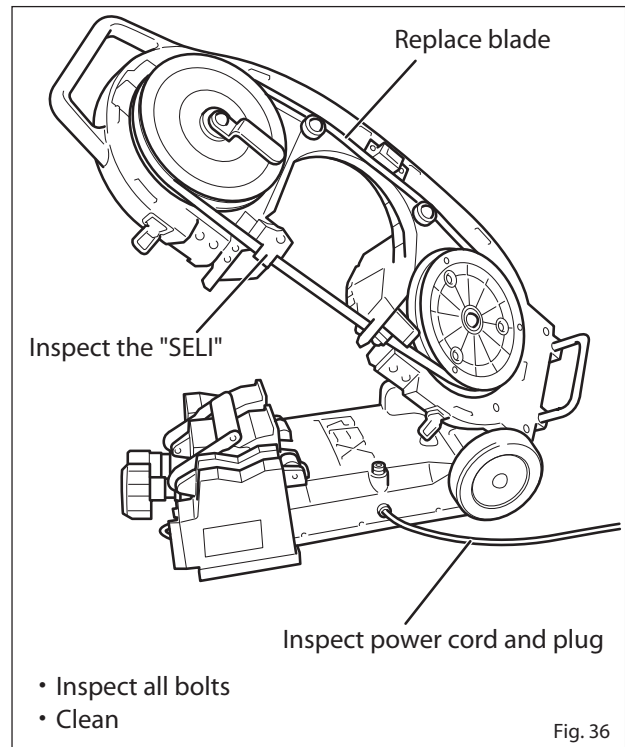
- (4) Fasten the "SELI" head fastening bolt securely.
- (5) Replace the blade, using the procedure described on Page 9.

Note: When the blade has been replaced, move the adjusted "SELI" head back to the reference position before cutting.



2. Maintenance of Parts (Fig. 36)

- Check the blade.
 - Check to make sure the blade is not chipped or otherwise damaged. If it is, replace it.
 - If the blade becomes worn, replace it as soon as possible. Continued use of a worn blade may result in slanted cutting.
- Check all bolts.
 - Make sure all bolts are fastened tightly. Tighten any that need it.
- Check the power cord and plug.
 - Check the power cord and plug for damage. If the cord is damaged, replace it.
- Inspect the "SELI" heads.
 - Check to make sure that both "SELI" heads are adjusted properly.
 - Check to see if the "SELI" head bearings are worn. If they are, replace them.
- Keep the unit clean.
 - Using a cloth or rag, periodically wipe away any chips, dust and so on from the frame and pulley sections.



Note: Be careful not to get the motor wet.

Servicing & repair

This unit is a precision instrument. If it fails to function properly do not try to repair it yourself. Contact your local REX dealer , sales office or distributor

If you have questions or need parts or other supplies, feel free to contact REX Industries Co., Ltd .

Troubleshooting

WARNING

- If the problem you have and the appropriate remedy are not shown in the table below, do not attempt to disassemble or repair the unit yourself.
- If the problem and remedy are not shown in the table, or if the table indicates that you should have the unit repaired or serviced, consult your dealer or REX.
- If this product is repaired by someone who does not have the proper knowledge or technical skill to do so, the product may not operate properly, or an accident or injury may occur. In the event of a problem, always check the table before contacting REX Industries or your dealer.

Problem	Cause	Remedy
Saw cuts at an angle.	Cutting load is not adjusted properly.	Adjust the cutting load to match the material being cut. (Page 5)
	Blade is not installed correctly.	Place blade firmly on the "SELI" heads, guide roller and pulley.
	Blade is lowered too suddenly.	Move blade down gently.
	Blade was being used improperly or is worn.	Replace blade.
	Number of blade teeth does not match material being cut.	Use a blade that matches the material being cut.
	"SELI" head bearings are worn.	Replace bearings (have the unit repaired or serviced).
	Workpiece moved during cutting.	Make sure workpiece is fastened securely in the V-shaped groove.
	Workpiece is not clamped properly.	Clamp oblong workpieces so their height is as low as possible.
	Tension lever is not set properly.	Set tension lever firmly to the "LOCKED" side.
	Blade is not one of the recommended type.	Use blades of the recommended type.
Cutting takes a long time	Cutting load is set too light.	Set the load to match the material being cut (Page 5).
	Number of blade teeth does not match material being cut.	Replace blade with one that matches the material being cut (Page 5).
	Blade is worn.	Replace blade.
Saw vibrates during cutting	Tension lever is not set to the "LOCKED" side.	Set tension lever to "LOCKED" side.
	Workpiece is not clamped securely.	Clamp workpiece securely.
	Blade is chipped or cracked.	Replace blade.

Table 4

Troubleshooting

Problem	Cause	Remedy
Blade slips or comes loose	Blade is not installed properly	Install blade properly on "SELI" heads, guide rollers and pulley.
	There is oil on blade.	Wipe away oil from blade and reinstall.
	There is oil on workpiece.	Wipe away oil from workpiece.
	There is oil on pulleys, guide rollers or "SELI" head bearings.	Wipe away oil.
	Tension lever is not set firmly in place.	Turn tension lever to proper position.
	Rubber ring on pulley is worn.	Replace rubber ring on pulley. (Have unit repaired or serviced.)
	There is resin or chips sticking to rubber ring on pulley.	Wipe rubber ring with a rag.
Motor does not work	Overload protection unit has been activated.	Use the procedure on Page 12 to reset.
	Power plug has come out of electric outlet.	Insert plug into outlet.
	There is a short in the power cord.	Have unit repaired or serviced.
	Switch is faulty.	Have unit repaired or serviced.
	Motor is faulty.	Have unit repaired or serviced.
Motor stops when cutting	Overload protection unit has been activated.	Use the procedure on Page 12 to reset.
	Line voltage is too low.	Reconnect to a 220V power supply.
	Blade does not match material being cut.	Replace blade with one that matches the material being cut. (Page 5)
	Cutting load is not adjusted properly.	Adjust the cutting load to match the material being cut. (Page 5)
	Workpiece moved during cutting.	Make sure workpiece is fastened securely in the V-shaped groove.

Table 5



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