OPERATOR'S MANUAL

Metal Working

SEMI-AUTOMATIC BANDSAW

MODEL: BS-260SA

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THANK YOU & WARRANTY

Thank you for your purchase of a machine from Baileigh Industrial Holdings LLC. We hope that you find it productive and useful to you for a long time to come.

Inspection & Acceptance. Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to goods, or any other costs or liabilities pertaining to goods returned without a RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

Specifications. Seller may, at its option, make changes in the designs, specifications or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

Limited Warranty. Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain a RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without a RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (f) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

EXCLUSION OF OTHER WARRANTIES. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

Limitation of Liability. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTIAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.

Force Majeure. Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightening, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

Installation. If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

Work By Others; Safety Devices. Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

Remedies. Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

Attorney's Fees. In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

Governing Law/Venue. This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

Summary of Return Policy.

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial Holdings LLC makes every effort to ensure that our posted specifications, images, pricing and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial Holdings LLC reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

For Customer Service & Technical Support:
Please contact one of our knowledgeable Sales and Service team members at:
(920) 684-4990 or e-mail us at Baileigh-Service@jpwindustries.com

INTRODUCTION

The quality and reliability of the components assembled on a Baileigh Industrial Holdings LLC machine guarantee near perfect functioning, free from problems, even under the most demanding working conditions. However, if a situation arises, refer to the manual first. If a solution cannot be found, contact the distributor where you purchased our product. Make sure you have the serial number and production year of the machine (stamped on the nameplate). For replacement parts refer to the assembly numbers on the parts list drawings.

Our technical staff will do their best to help you get your machine back in working order.

In this manual you will find: (when applicable)

- Safety procedures
- Correct installation guidelines
- Description of the functional parts of the machine
- Capacity charts
- Setup and start-up instructions
- Machine operation
- Scheduled maintenance
- Parts lists

GENERAL NOTES

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial Holdings LLC and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any modifications.

Note: *This symbol refers to useful information throughout the manual.*

IMPORTANT

PLEASE READ THIS OPERATORS MANUAL CAREFULLY

It contains important safety information, instructions, and necessary operating procedures. The continual observance of these procedures will help increase your production and extend the life of the equipment.

SAFETY INSTRUCTIONS

LEARN TO RECOGNIZE SAFETY INFORMATION

This is the safety alert symbol. When you see this symbol on your machine or in this manual, **BE ALERT TO THE POTENTIAL FOR PERSONAL INJURY!**

Follow recommended precautions and safe operating practices.

UNDERSTAND SIGNAL WORDS

A signal word – **DANGER**, **WARNING**, or **CAUTION** – is used with the safety alert symbol. **NOTICE**, which is not related to personal injury, is used without a symbol.

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

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

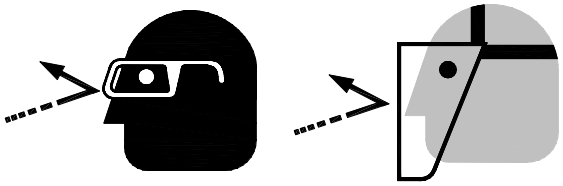
CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE: Indicates a situation which, if not avoided, could result in property damage.

SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.

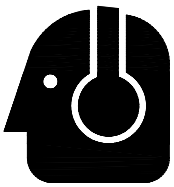
PROTECT EYES

Wear safety glasses or suitable eye protection when working on or around machinery.



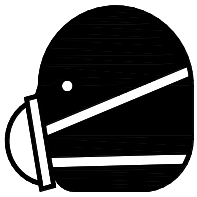
PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear suitable hearing protective devices such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



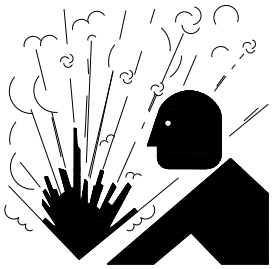
DUST HAZARD

Wear appropriate dust mask. Dust created while using machinery can cause cancer, birth defects, and long-term respiratory damage. Be aware of the dust hazards associated with all types of materials.



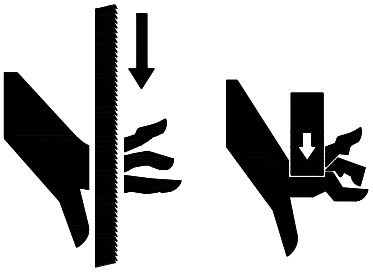
HYDRAULIC HOSE FAILURE

Exercise **CAUTION** around hydraulic hoses in case of a hose or fitting failure.



BEWARE OF CUT AND PINCH POINTS

Moving saw blade may result in loss of fingers or limb. **DO NOT** operate with guard removed. **Follow lockout/tagout procedures before servicing.**



EMERGENCY STOP BUTTON

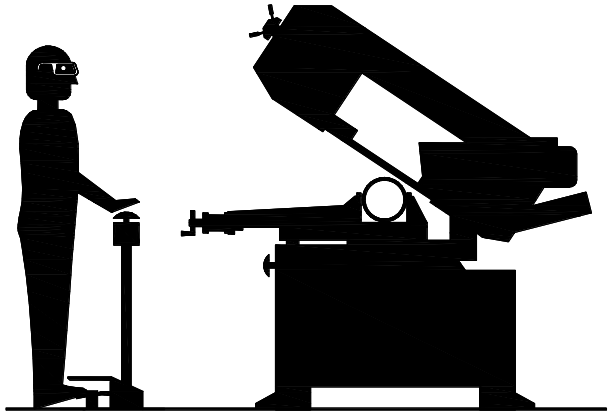
In the event of incorrect operation or dangerous conditions, the machine can be stopped immediately by pressing the **E-STOP** button. Twist the emergency stop button clockwise (cw) to reset. Note: Resetting the E-Stop will not start the machine.

CALIFORNIA PROPOSITION 65

WARNING: Cancer and Reproductive Harm.
www.P65Warnings.ca.gov

OPERATOR POSITIONING

The operator should stand in front of the machine while the saw is cutting.



SAFETY PRECAUTIONS

Metal working can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.
Safety equipment such as guards, hold-downs, safety glasses, dust masks and hearing protection can reduce your potential for injury. But even the best guard will not make up for poor judgment, carelessness or inattention. **Always use common sense** and exercise **caution** in the workshop. If a procedure feels dangerous, don't try it.
REMEMBER: Your personal safety is your responsibility.

WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

Dear Valued Customer:

- All Baileigh machines should be used only for their intended use.
- Baileigh does not recommend or endorse making any modifications or alterations to a Baileigh machine. Modifications or alterations to a machine may pose a substantial risk of injury to the operator or others and may do substantial damage to the machine.
- Any modifications or alterations to a Baileigh machine will invalidate the machine's warranty.

PLEASE ENJOY YOUR BAILEIGH MACHINE! ....PLEASE ENJOY IT SAFELY!

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learn the machine's application and limitations as well as the specific hazards.
2. **Only trained and qualified personnel can operate this machine.**
3. **Make sure guards are in place and in proper working order before operating machinery.**
4. **Remove any adjusting tools.** Before operating the machine, make sure any adjusting tools have been removed.
5. **Keep work area clean.** Cluttered areas invite injuries.
6. **Overloading machine.** By overloading the machine, you may cause injury from flying parts. **DO NOT** exceed the specified machine capacities.
7. **Dressing material edges.** Always chamfer and deburr all sharp edges.
8. **Do not force tool.** Your machine will do a better and safer job if used as intended. **DO NOT** use inappropriate attachments in an attempt to exceed the machine's rated capacity.
9. **Use the right tool for the job. DO NOT** attempt to force a small tool or attachment to do the work of a large industrial tool. **DO NOT** use a tool for a purpose for which it was not intended.
10. **Dress appropriately. DO NOT** wear loose fitting clothing or jewelry as they can be caught in moving machine parts. Protective clothing and steel toe shoes are recommended when using machinery. Wear a restrictive hair covering to contain long hair.
11. **Use eye protection**. Always wear ISO approved protective eye wear when operating machinery. Wear a full-face shield if you are producing metal filings. Eye wear shall be impact resistant, protective safety glasses with side shields which comply with ANSI Z87.1 specification. Use of eye wear which does not comply with ANSI Z87.1 specification could result in severe injury from breakage of eye protection.
12. **Do not overreach**. Maintain proper footing and balance at all times. **DO NOT** reach over or across a running machine.
13. **Stay alert**. Watch what you are doing and use common sense. **DO NOT** operate any tool or machine when you are tired.
14. **Check for damaged parts**. Before using any tool or machine, carefully check any part that appears damaged. Check for alignment and binding of moving parts that may affect proper machine operation.
15. **Observe work area conditions**. **DO NOT** use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted. **DO NOT** use electrically powered tools in the presence of flammable gases or liquids.
16. **Blade adjustments and maintenance**. Always keep blades sharp and properly adjusted for optimum performance.

17. **Keep children away**. Children must never be allowed in the work area. **DO NOT** let them handle machines, tools, or extension cords.
18. Keep visitors a safe distance from the work area.
19. **Store idle equipment**. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep them out of reach of children.
20. **DO NOT operate machine if under the influence of alcohol or drugs**. Read warning labels on prescriptions. If there is any doubt, **DO NOT** operate the machine.
21. **Turn off** power before checking, cleaning, or replacing any parts.
22. Be sure **all** equipment is properly installed and grounded according to national, state, and local codes.
23. Keep **all** cords dry, free from grease and oil, and protected from sparks and hot metal.
24. Inspect power and control cables periodically. Replace if damaged or bare wires are exposed. **Bare wiring can kill! DO NOT** touch live electrical components or parts.
25. **DO NOT** bypass or defeat any safety interlock systems.

WARNING: This product can expose you to chemicals including titanium dioxide which is known to the State of California to cause cancer, and lead which is known to the State of California to cause cancer and birth defects or other reproductive harm.
For more information go to http://www.p65warnings.ca.gov.

WARNING: Some dust, fumes and gases created by power sanding, sawing, grinding, drilling, welding, and other construction activities contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

- **lead from lead-based paint.**
- **crystalline silica from bricks, cement, and other masonry products.**
- **arsenic and chromium from chemically treated lumber.**

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks that are specifically designed to filter out microscopic particles.
For more information go to http://www.p65warnings.ca.gov/ and http:// www. p65warnings. ca.gov/ wood.

TECHNICAL SPECIFICATIONS

Capacity Round 90° / 45° / 60° / 45°L	9" / 6" / 3.5" / 4.25" (227 x 150 x 90 x 110mm)
Capacity Rectangular 90° / 45° / 45°L	10.5" x 4.25" / 7.9" x 4.92" / 6.3" x 4.25" (266 x 110 / 200 x 125 / 160 x 110mm)
Capacity Square 90° / 45° / 60° / 45°L	8.5” x 8.5” / 5.8” x 5.8” / 3.3” x 3.3” / 4.25” x 4.25” (220 x 220 / 145 x 145 / 85 x 85 / 110 x 110mm)
Miter Adjustment	Dual Swivel Head
Miter Angle	0 – 60°, 45°L
Table Height	35" (889mm)
Blade Guide	Carbide x Roller
Blade Speed (fpm)	66–280 Variable
Blade Size	1” x .035” x 96.875” (27 x .9 x 2460mm)
Descent Control	Pressure Assist Hydraulic
Lift Control	Hydraulic
Drive	Gear
Power Input	220V, 60Hz, 1-Phase
Blade Motor	2hp (1.5kw), 220V, 60hz, 3Ph, 6.2A, 1720rpm
Hydraulic Pump Motor	.5hp (.37kw), 220V, 60hz, 1Ph, 4.5A, 1720rpm
Coolant Pump	1/16hp (40W), 220V, 60Hz, 1Ph, .42A
Shipping Weight	890 lbs. (405kg)
Shipping Dimensions	62" x 44" x 63" (1575 x 1118 x 1600mm)

TECHNICAL SUPPORT

Our technical support department can be reached at 920.684.4990 and asking for the support desk for purchased machines. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs: (other than die sets and blades).

For specific application needs or future machine purchases contact the Sales Department at: Baileigh-Service@jpwindustries.com, Phone: 920.684.4990, or Fax: 920.684.3944.

***Note**: The photos and illustrations used in this manual are representative only and may not depict the actual color, labeling or accessories and may be intended to illustrate technique only.*

***Note:** The specifications and dimensions presented here are subject to change without prior notice due to improvements of our products.*

UNPACKING AND CHECKING CONTENTS

Your Baileigh machine is shipped complete. Separate all parts from the packing material and check each item carefully. Make certain all items are accounted for before discarding any packing material.

WARNING: SUFFOCATION HAZARD! Immediately discard any plastic bags and packing materials to eliminate choking and suffocation hazards to children and animals.
If any parts are missing, DO NOT place the machine into service until the missing parts are obtained and installed correctly.

Cleaning

WARNING: DO NOT USE gasoline or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

CAUTION: When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.

Your machine may be shipped with a rustproof waxy coating and/or grease on the exposed unpainted metal surfaces. Fully and completely remove this protective coating using a degreaser or solvent cleaner. Moving items will need to be moved along their travel path to allow for cleaning the entire surface. For a more thorough cleaning, some parts will occasionally have to be removed. **DO NOT USE** acetone or brake cleaner as they may damage painted surfaces.
Follow manufacturer's label instructions when using any type of cleaning product. After cleaning, wipe unpainted metal surfaces with a light coating of quality oil or grease for protection.

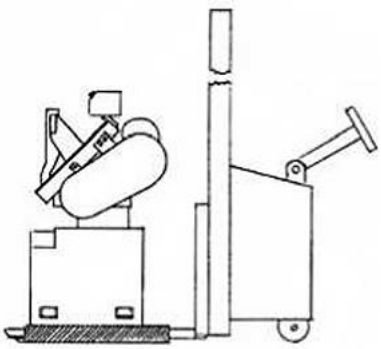
Important: *This waxy coating is **NOT** a lubricant and will cause the machine to stick and lose performance as the coating continues to dry.*

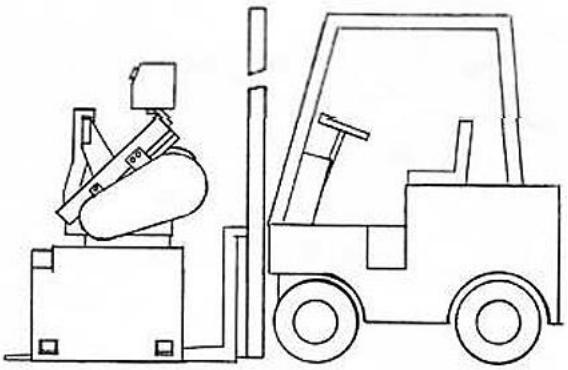
TRANSPORTING AND LIFTING

NOTICE: *Lifting and carrying operations should be carried out by skilled workers, such as a truck operator, crane operator, etc. If a crane is used to lift the machine, attach the lifting chain carefully, making sure the machine is well balanced.*

Follow these guidelines when lifting with truck or trolley:

- The lift truck must be able to lift at least 1.5 – 2 times the machines gross weight.
- Make sure the machine is balanced. While transporting, avoid rough or jerky motion, and maintain a safe clearance zone around the transport area.
- Use a forklift with sufficient lifting capacity and forks that are long enough to reach the complete width of the machine.
- Remove the securing bolts that attach the machine to the pallet.
- Approaching the machine from the side, lift the machine on the frame taking care that there are no cables or pipes in the area of the forks.
- Move the machine to the required position and lower gently to the floor.
- Level the machine so that all the supporting feet are taking the weight of the machine and no rocking is taking place.





INSTALLATION

IMPORTANT:

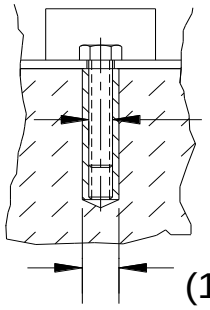
Consider the following when looking for a suitable location to place the machine:

- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, worktables, or other machinery.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for safety.

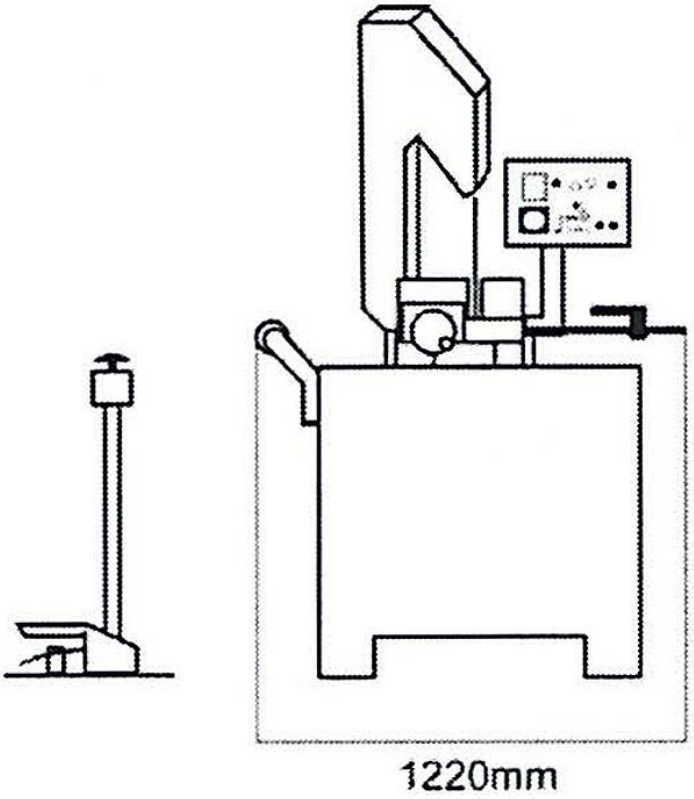
- Have the work area well illuminated with proper lighting.
- Keep the floor free of oil and make sure it is not slippery.
- Remove scrap and waste materials regularly, and make sure the work area is free from obstructing objects.
- If long lengths of material are to be fed into the machine, make sure that they will not extend into any aisles.
- **LEVELING:** The machine should be sited on a level, concrete floor. Provisions for securing it should be in position prior to placing the machine. The accuracy of any machine depends on the precise placement of it to the mounting surface.
- **FLOOR:** This machine distributes a large amount of weight over a small area. Make certain that the floor is capable of supporting the weight of the machine, work stock, and the operator. The floor should also be a level surface. If the unit wobbles or rocks once in place, be sure to eliminate by using shims.
- **WORKING CLEARANCES:** Take into consideration the size of the material to be processed. Make sure that you allow enough space for you to operate the machine freely.
- **POWER SUPPLY PLACEMENT:** The power supply should be located close enough to the machine so that the power cord is not in an area where it would cause a tripping hazard. Be sure to observe all electrical codes if installing new circuits and/or outlets.

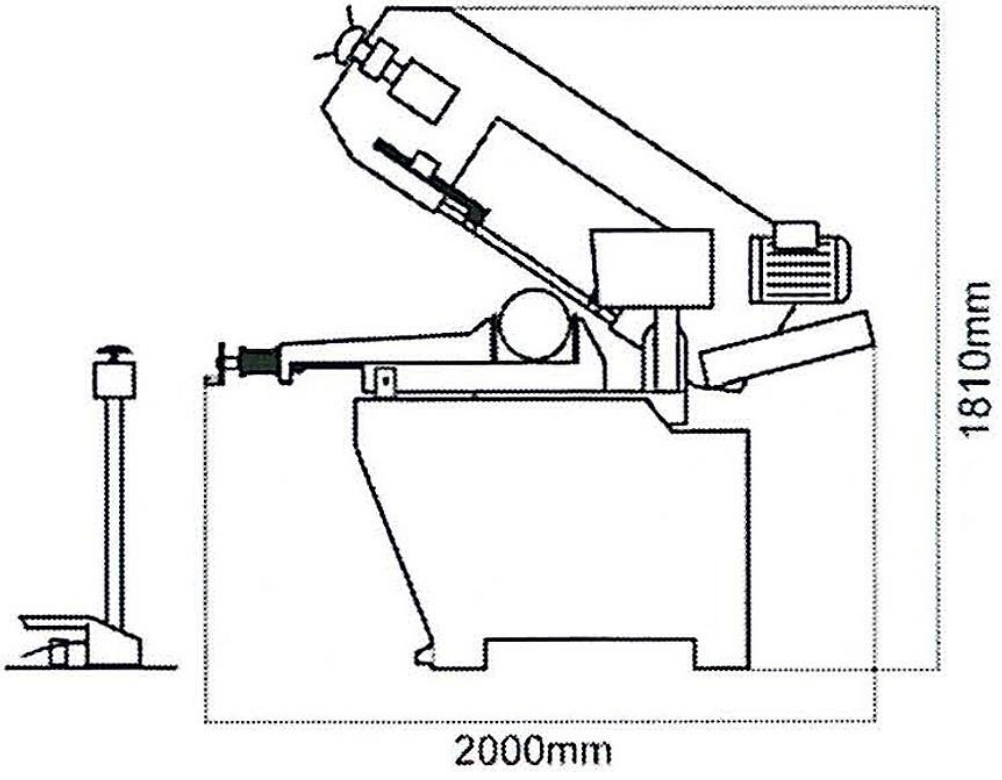
Anchoring the Machine

- Once positioned, anchor the machine to the floor, as shown in the diagram. Use bolts and expansion plugs or sunken tie rods that connect through and are sized for the holes in the base of the stand.
- This machine requires a solid floor such as concrete at a minimum of 4” (102mm) thick. 6” (153mm) minimum is preferred.



OVERALL DIMENSIONS

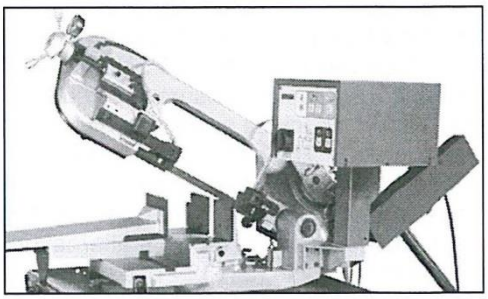




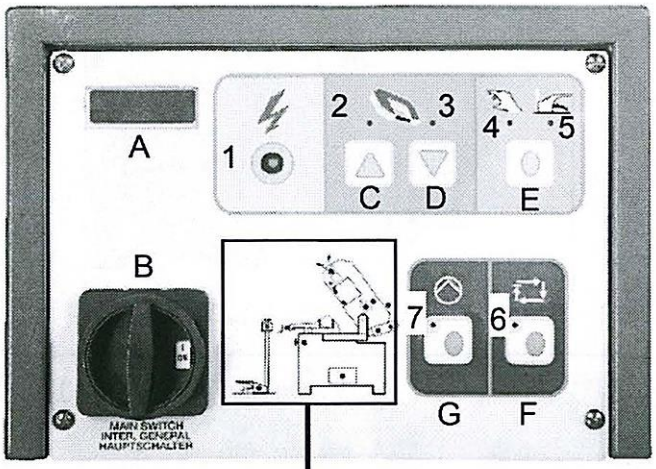
GETTING TO KNOW YOUR MACHINE

Saw Arm

Machine parts consisting of drive members (gear motor or variable speed motor, flywheels), tension and guides (blade guide slide, blade guide blocks) of blade.

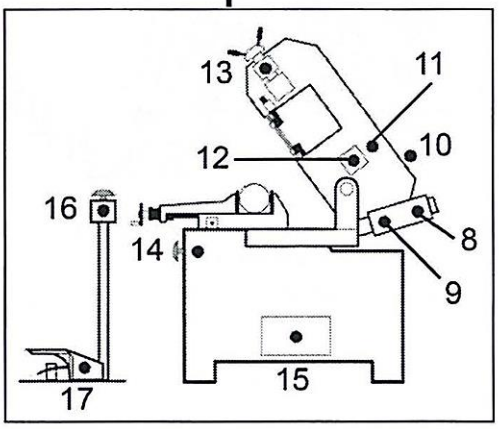


Control Panel



A-K Control Switches

A. Blade speed display
A1 Bow down flow regulator
B. Main connect switch
C. Saw bow up switch
D. Saw bow down switch
E. Hand/foot pedal operation selector
F. Cycle start switch
G. Hydraulic Start switch
H. Emergency button
I. Footpad emergency button
J. Footpad switch
K. Blade speed adjusting knob

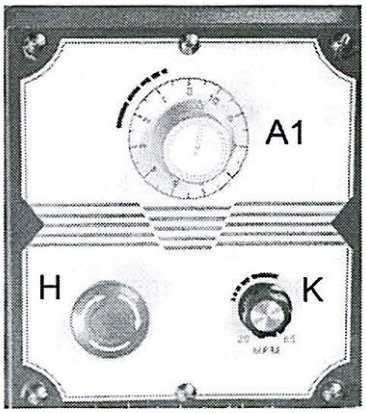


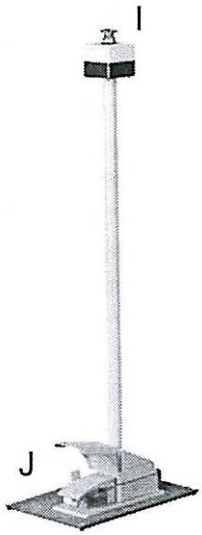
Indicator lights

Red - Warning indicator
Yellow - Selection indicator
Green - Operation indicator

1. Power supply ON, indicator lights
2. Saw bow up, indicator light
3. Saw bow down, indicator light
4. Hand operation, indicator light
5. Foot pedal operation, indicator light
6. Cycle start switch indicator light
7. Start switch (hydraulic flow control), indicator light
8. Saw bow maximum height, indicator light
9. Saw bow lowest height, indicator light
10. Open blade cover, warning indicator light
11. Improper speed selection, warning indicator light
12. Motor overload, warning indicator light
13. Broken blade, warning indicator light

14. Emergency button indicator light
15. Hydraulic motor overload, warning indicator light
16. Foot pad's emergency button indicator light
17. Foot pad, operation indicator light





Vise Adjustment

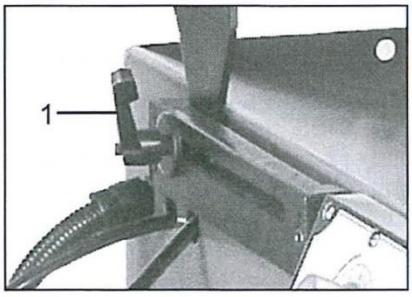
Clamping the Work Piece

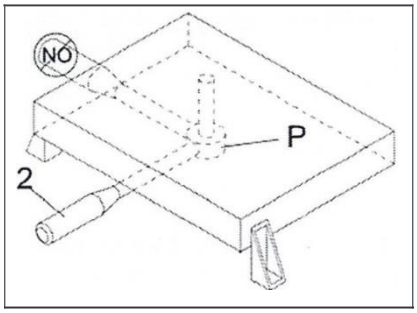
1. Place work piece between the jaws.
2. Use the hand wheel to close the vise jaw.
3. For multiple cuts of a same size material, leave a small gap between the work piece and vise jaw.
4. Push cycle start button (F). The vise will automatically clamp the work piece while going through the operation cycle.
5. When the operation cycle is finished, the vise will open and the work piece can be adjusted or replaced.

Operation of the Vise

When cutting angles, it may require the adjustment of the vise jaw's position so that the saw blade's path is not impeded. Follow the procedures below.

1. Release the track support by turning handle (1) counter-clockwise.
2. Release the vise by moving the lever (2) to the left.
3. The vise may now be moved to right position or left position by pushing with one hand on the adjustable vise jaw and the other hand on the track handle (1).
4. Once in position, move the lever (2) to the right to lock it into position. If the lever (2) is not between the vise/bed mounts and facing the user, then the vise will not be able to lock. If the vise lever (2) has gone beyond or is obstructed by a vise/bed mount, then use the following procedures.



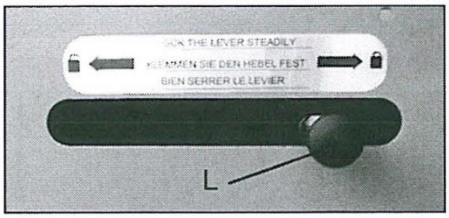


5. Adjust the lever (2) by grasping at the pivot point (P) and lowering it, which may assist in the adjustment. The lever can now be freely rotated into a more convenient position. Some movement of the vise jaw may be required. Raise the lever (2) then move to the right to lock.
6. Lock the track support (1) by turning handle clockwise.

Cutting Angle Adjustment

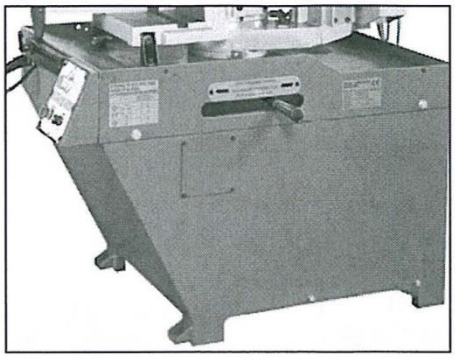
Cutting at angles

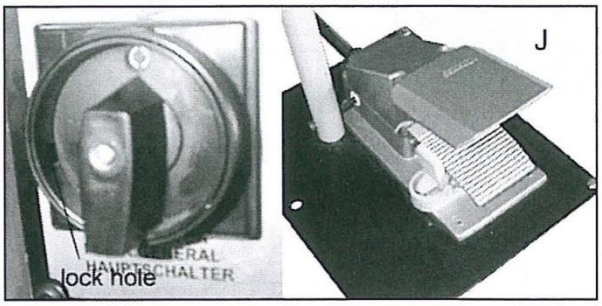
1. Angle can be cut up to 60°.
2. Unlock lever (L) by pushing it to the left side.
3. Rotate the saw arm to the desired angle by following the index on the scale.
4. Lock lever (L) by pushing to the right side.



The Base

- The base is the structure supporting the saw arm (revolving arm for gradual cutting and respective blocking system), the vise, the bar stop, the roller for the support of the material.
- The base houses the cooling liquid tank, pump, and the device controlling the automatic hydraulic lowering and rising of the saw frame.
- The main connect switch is designed with a lock hole. A lock can be attached to the lock hole to prevent machine operation for safety and security purposes.
- To use the footpad switch (J), first use the side of the foot to push aside the plastic clip that blocks the foot pad. Be careful not to damage the clip by using excessive force or stomping on the footpad. Next, step down on the footpad to start operation.





ASSEMBLY AND SET UP

WARNING: For your own safety, DO NOT connect the machine to the power source until the machine is completely assembled and you read and understand the entire instruction manual.

1. Make sure all nuts and bolts are properly tightened.
2. Attach electrical control box (**J**) to the pedestal (**S**) with (4) hex socket capscrews.

ELECTRICAL

CAUTION: HAVE ELECTRICAL UTILITIES CONNECTED TO MACHINE BY A CERTIFIED ELECTRICIAN!
Check if the available power supply is the same as listed on the machine nameplate.

WARNING: Make sure the grounding wire (green) is properly connected to avoid electric shock. DO NOT switch the position of the green grounding wire if any electrical plug wires are switched during hookup.

Power Specifications

Your machine is wired for 220 volts, 60hz alternating current. Before connecting the machine to the power source, make sure the power source is OFF.
Before switching on the power, you must check the voltage and frequency of the power to see if they meet with the requirement, the allowed range for the voltage is ±5%, and for the frequency is ±1%.

Considerations

- Observe local electrical codes when connecting the machine.
- The circuit should be protected with a time delay fuse or circuit breaker with an amperage rating slightly higher than the full load current of machine.
- A separate electrical circuit should be used for your machines. Before connecting the motor to the power line, make sure the switch is in the “OFF” position and be sure that the electric current is of the same characteristics as indicated on the machine.
- All line connections should make good contact. Running on low voltage will damage the motor.
- In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: In all cases, make certain the receptacle in question is properly grounded. If you are not sure, have a qualified electrician check the receptacle.

- Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.
- Check with qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.
- Repair or replace damaged or worn cord immediately.

Extension Cord Safety

Extension cord should be in good condition and meet the minimum wire gauge requirements listed below:

	LENGTH		
AMP RATING	25ft	50ft	100ft
1-12	16	16	14
13-16	14	12	12
17-20	12	12	10
21-30	10	10	No
	WIRE GAUGE		

An undersized cord decreases line voltage, causing loss of power and overheating. All cords should use a ground wire and plug pin. Replace any damaged cords immediately.

Power cord connection:

1. Turn the main disconnect switch on the control panel to the OFF position.
2. Unwrap the power cord and route the cord away from the table toward the power supply.
    a. Route the power cord so that it will NOT become entangled in the saw bow, saw blade, or counterbalance assembly in any way.
    b. Route the cord to the power supply is a way that does NOT create a trip hazard.
3. Install a properly rated plug (customer supplied) onto the end of the power cord.
4. Connect the power cord to the power supply and check that the power cord has not been damaged during installation.
5. When the saw blade is clear of any obstruction and raised up off of the limit switch. The main disconnect may be turn ON to test the saw operation. Turn the main disconnect to OFF when the saw is not in operation.

ADJUSTING THE MACHINE

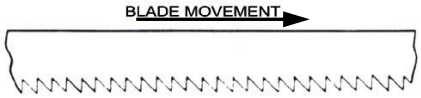
⚠ WARNING: Make sure the electrical disconnect is OFF before working on the machine.
Always follow proper safety precautions when working on or around any machinery.

Replacing the Saw Blade

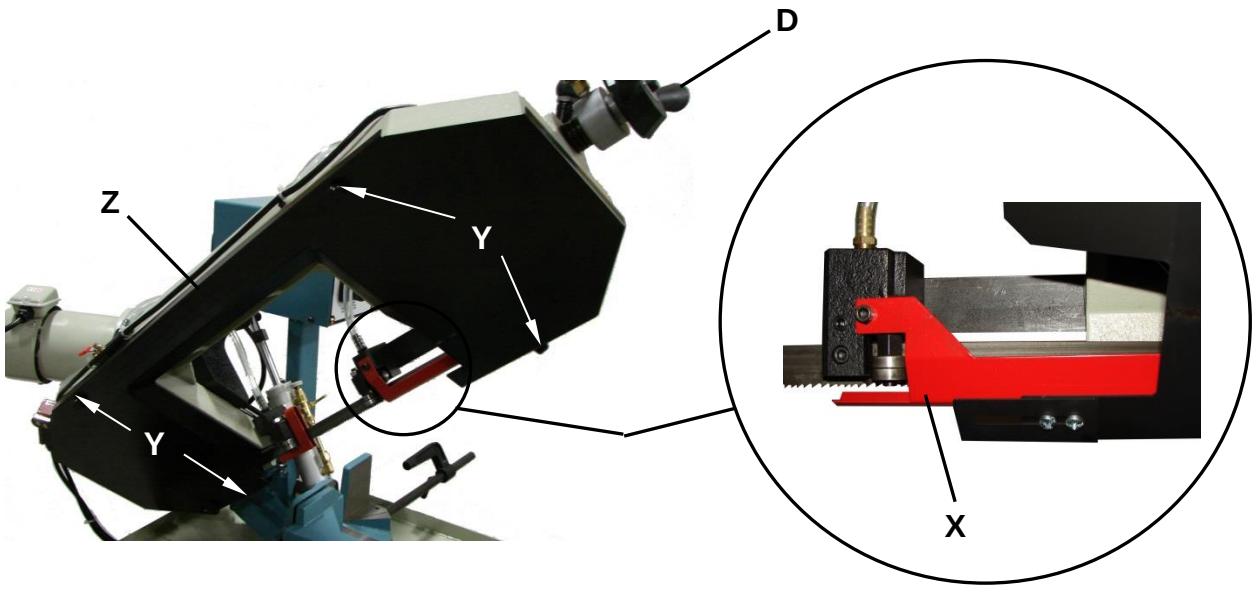
Wear gloves when handling the saw blade.

1. Raise the saw bow.
2. Remove the front blade guard (**X**) and the (4) knobs (**Y**) holding on the main blade guard. (Carefully pull out the tongue from the safety interlock switch)
3. Loosen the saw blade with the tension hand wheel (**D**) and remove it from the flywheels and the blade guide blocks.
4. Assemble the new blade by placing it first between the guide blocks and then on the face of the flywheels. (note blade direction)

BLADE DIRECTION OF TRAVEL



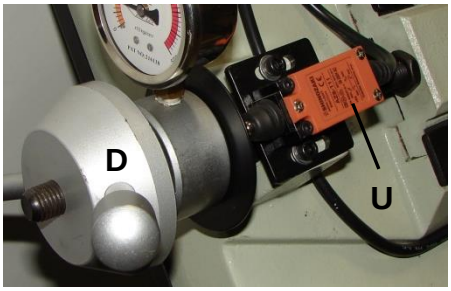
5. Tension the blade, making sure it seats properly on the flywheels.
6. Reassemble the front blade guide (**X**) and the main blade guard (**Z**), making sure the switch tongue engages the switch or the saw will not start.



Setting Blade Tension

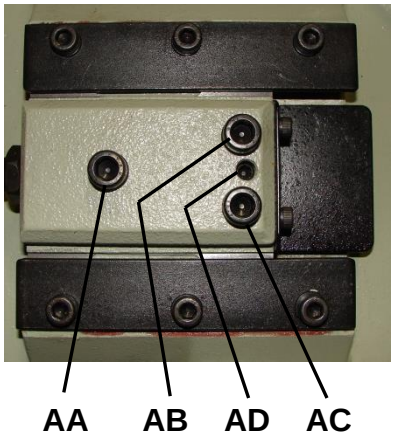
Blade tension is important to the proper operation of the saw.
Correct blade tension is 140 kg/cm² as measured on the saws pressure tension gauge.
Turning the handwheel (**D**) clockwise (**cw**) will increase the tension.
Counterclockwise (**ccw**) will decrease tension of the saw blade.

Blade Breakage



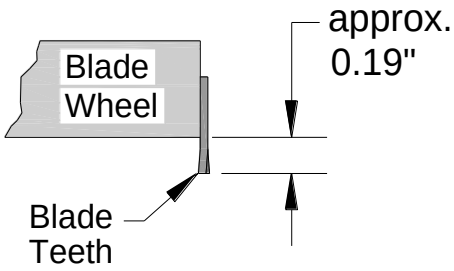
If the saw is running and the blade breaks, the micro-switch (**U**) will trip and shut down all machine functions. As long as the replacement blade duplicates the saws original blade specifications the switch should not have to be adjusted.

Adjusting the Blade Tracking

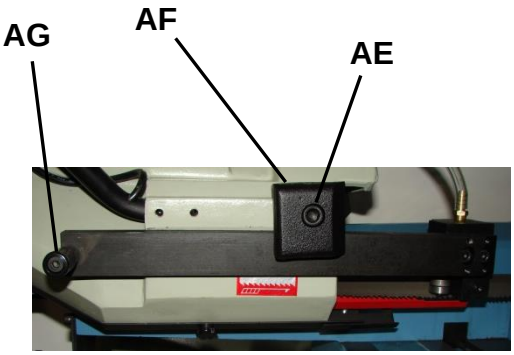


The flywheels alignment may need some adjustment to allow the saw blade to track correctly. Improper flywheel alignment can cause damage to the saw blade or cause it to ride off the blade wheel bearings.

1. Disconnect power from the saw.
2. Raise the saw bow to a usable work height.
3. Loosen the hex socket cap screws (AA, AB, & AC).
4. Use an allen wrench on setscrew (AD) to adjust the blade tracking to obtain 0.19” (4.8mm) of the blade (teeth) off of the blade wheel.
5. Turning the setscrew (AD) clockwise (cw) will tilt flywheel so that the blade will ride closer to the flange.
6. Turning the setscrew (AD) counterclockwise (ccw) will tilt the flywheel so that the blade will ride away from the flange. (If it rides too far away it will come off).
7. After the adjustment is finished, tighten the socket cap screws in this order: **(AA**, **AB**, & **AC**).



Adjusting the Blade Guide



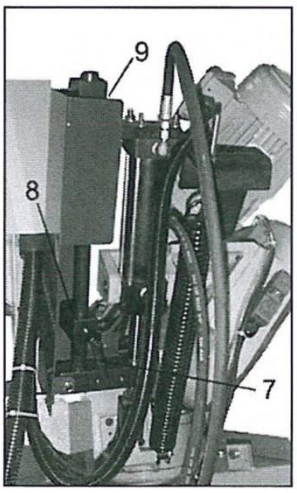
1. Disconnect Power From the Saw
2. Release the extension bar for the blade guide block by loosening socket capscrew (AE) counterclockwise (ccw) and freeing up the clamping block (AF).
3. Hold the handle (AG) and slide the blade guide block as close as possible to the piece part without interfering with the cut.
4. Tighten socket screw (AE) clockwise (cw).

Adjusting the angle stops

Check the travel limits of the saw head. Verify that the left limit is set to give a cut of 45° and the right limit is set to give a cut of 60°. If not, adjust the stop bolt.

Saw frame return stroke-limiting device

It consists in a mechanical adjustment system, mounted parallel to the saw frame rise cylinder, to reduce the passive phases of the operating cycle.
In other words it eliminates the idle stroke that takes place when the size of the part to be cut is much smaller than the maximum cutting capacity. Practically, you adjust the starting position of the blade in proximity of the part, independently of its dimensions.



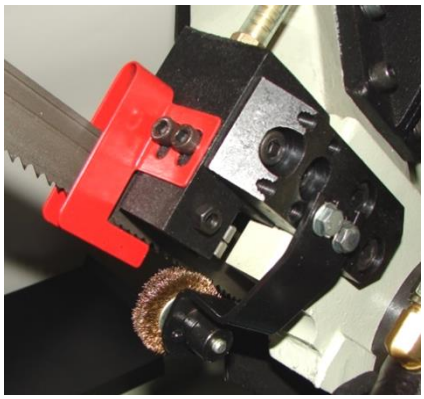
Operate as follows:

1. Slightly open the flow regulation valve (H).
2. Bring the blade as near as 10mm from the work piece with the bow up/bow down switches (C and D).
3. Loosen handle (7) to release the adjustable stop (8) against the limit switch (9).
4. Lock the handle (7)

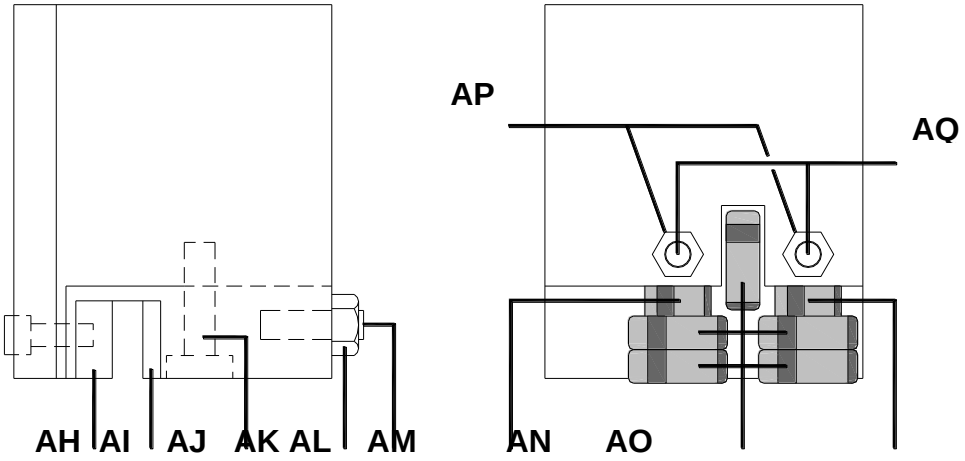
Note: It is not necessary to adjust the mechanical stop (8) every time; bring the blade near the workpiece by means of bow switch (D) and then start the automatic cutting cycle (F), which will begin operation from this position of the blade. The bow will return to the upper end stroke.

Blade Guide Bearing Adjustment

IMPORTANT: *This is the most important adjustment on your saw. It is impossible to get satisfactory work from your saw if the blade guides are not properly adjusted. Your Baileigh Band Saw has been adjusted and power tested before leaving the factory to insure proper setting. If the guides do get out of adjustment, it is extremely important to re-adjust immediately. An improperly adjusted blade will not cut straight and serious blade damage may result. It is always best to try a new blade to see if this will correct poor cutting before beginning to adjust the blade guide bearings. If the blade becomes dull on one side and not the other, for example, it will begin cutting crooked. A blade change will correct this problem; the guide adjustment will not. If a new blade does not correct the problem, check the clearance between the blade and guides.*



1. Disconnect power from the saw.
2. Loosen nut (AK), screw (AJ), and loosen dowel (AL) which widens the gap between the pads.
3. Loosen the nuts (AP) and the dowels (AQ) and then rotate the pins (AM) and (AO) to widen the gap between the bearings (AN).
4. To mount the new blade, place the pad (AI) on the blade. Loosen the dowel and allow a distance of .001” for the sliding of the blade. Lock the nut and screw (AJ). Rotate the pins (AM) and (AO) until the bearings rest against the blade as indicated in (figure 14) and then secure the dowels (AQ) and nuts (AP).
5. Make sure that between the blade and the upper teeth of the pad (AH) there is at least .008” - .011” (2-3mm) of play. If necessary, loosen the screws that fasten the blocks and adjust accordingly.



BEFORE EACH USE

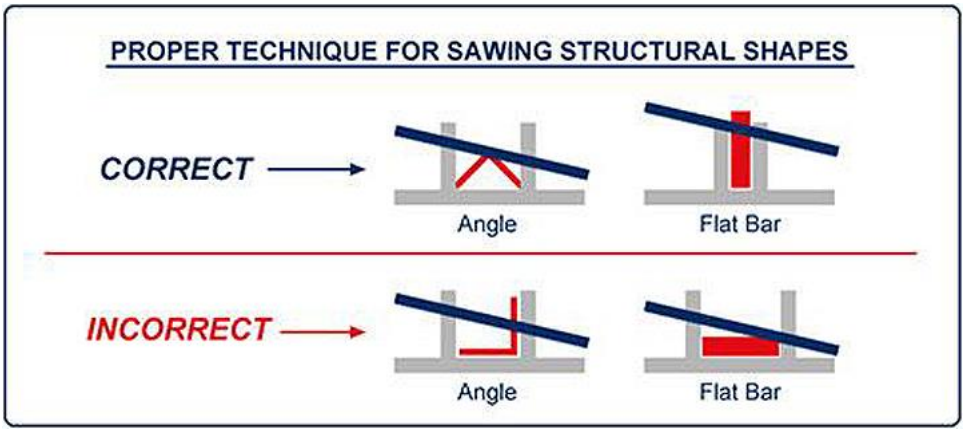
- For dusty operations, wear a face shield along with safety goggles.
- It is important to choose the right blade for the material and the type of cutting you plan to do. This saw is equipped with a bi-metallic blade which can be used to cut stainless steel, steel, iron, brass, aluminum, wood, plastic.
- Make sure the direction of rotation arrow on the blade matches the direction arrow on the saw. The blade teeth should always point downward at the front of the saw.
- Make sure the blade is sharp, undamaged and properly aligned. With the saw unplugged, push the power-head all the way down. Rotate the blade by hand checking for clearance. If the blade hits anything, make the adjustments shown in the Maintaining Maximum Cutting Capacity section.
- Never cut freehand.
- Make sure the cut-off piece can move sideways after it is cut off. Otherwise, it could get wedged against the blade and thrown violently.
- Never turn the saw "ON" before clearing everything except the work piece beneath the blade.
- Never put lubricants on the blade while it is spinning.

Whenever Saw is Running

- Never confine the piece being cut out.
- Never hold it, clamp it, touch it, or use length stops against it. It must be free to move sideways. If confined, it could get wedged against the blade and thrown violently.
- Avoid awkward hand positions where a sudden slip could cause a hand to move into the blade.
- Let the blade reach full speed before cutting.
- Feed the saw into the work piece only fast enough to let the blade cut without bogging down or binding.
- Before freeing jammed material, turn the switch off and unplug the saw. Wait for all moving parts to stop.
- After finishing a cut, keep holding the saw bow down, release the switch, and wait for all moving parts to stop before moving your hands.

Breaking in a Band Saw Blade

Sharp cutting edges with extremely small edge radii are required for high cutting capacity. To achieve the optimal tool life we recommend breaking-in the blade accordingly. The correct cutting speed is determined by the material being cut and its dimensions. It is very important that the new blade is first used with only 50% of the determined feed rate. This will avoid micro-breakages of the blade because of too large chip thicknesses. New band saw blades may tend toward vibrations and vibration sounds. In this case a slight reduction of the cutting speed is helpful. With small workpiece dimensions approximately 300cm² of the material should be cut for breaking-in. If large work piece dimensions are to be cut we recommend a breaking-in period of about 15 minutes. After breaking-in you may slowly increase the feed rate up to the determined value.



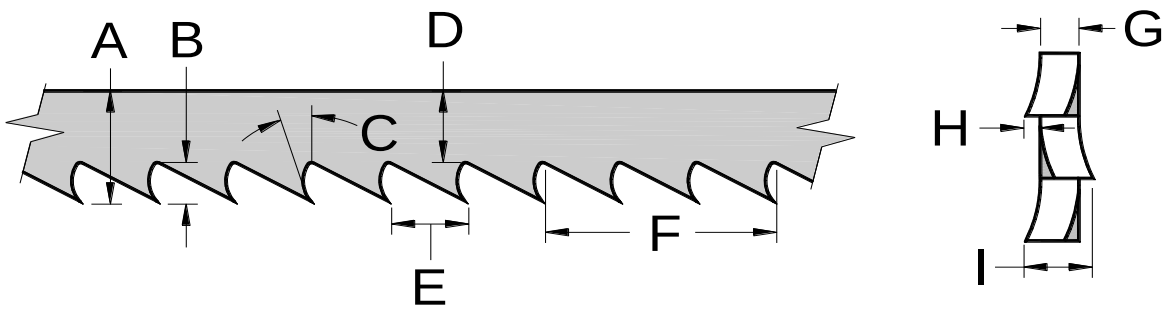
Metal Chip Indicators

Chips are the best indicator of correct material feed force. Monitor chip information and adjust feed accordingly.

- Thin or Powdered Chips – increase feed rate or reduce saw speed
- Burned Chips – reduce feed rate and / or saw speed
- Curly Silvery and Warm Chips – optimum feed rate and saw speed

Baileigh Industrial offers a wide selection of tooth styles for various cutting applications. Please phone Baileigh Industrial at (920.684.4990) or fax to (920.684.3944) to have one of our technicians assist you in selecting the proper band saw blade for your cutting applications.

Blade Terminology



A	BLADE WIDTH	The widest part of the blade measured from the back edge of the blade to the tip of the tooth.
B	GULLET DEPTH	The distance from the tooth tip to the bottom of the curved area.
C	TOOTH RAKE	The angle of the tooth face from a line perpendicular to the length of the blade.
D	BLADE BACK	The distance between the back edge of the blade and the bottom of the gullet.
E	TOOTH PITCH	The distance between tooth tips.
F	TPI	The number of teeth per inch when measured from gullet to gullet.
G	GAUGE	The thickness of the blade.
H	TOOTH SET	The distance a tooth is bent from the blade.
I	KERF	The width of material that is removed by the blade when cutting.

Width of Blade

The blade width determines the largest and the smallest curve that can be cut. Usually the wider a blade is, the more accurate and straighter it will cut.

Length of Blade

The length of the band saw blade can be measured with a tape measure at it's circumference or by the formula below:

Blade Length = (2 x A) + (3.14 x B)

A = the distance in inches between the band saw pulley centers (when the upper pulley is midway in its adjustment range).

B = the band saw pulley diameter.

Blade structure

Bi-metal blades are the most commonly used. They consist of a silicon-steel blade backing by a laser welded high speed steel (HHS) cutting edge. The type of stocks are classified in M2, M42, M51 and differ from each other because of their major hardness due to the increasing percentage of Cobalt (Cc) and molybdenum (Mo) contained in the metal alloy.

Blade type

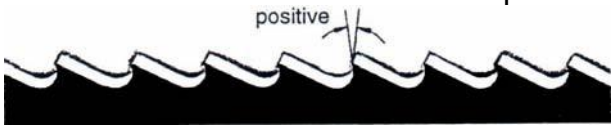
They differ essentially in their constructive characteristics, such as:

- Shape and cutting angle of tooth
- Pitch
- Set

Shape and angle of tooth
REGULAR TOOTH: O° rake and constant pitch.

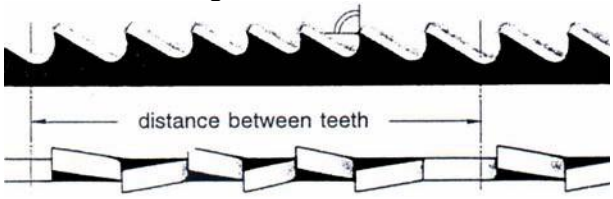
Most common form for transversal or inclined cutting of solid small and average cross-sections or pipes, in laminated mild steel and gray iron or general metal.

POSITIVE RAKE TOOTH: 9° - 10° positive rake and constant pitch.



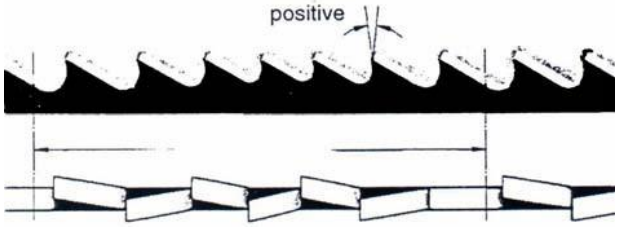
Particular use for crosswise or inclined cuts in solid sections or large pipes, but above all harder materials (highly alloyed and stainless steels, special bronze and forge pig iron).

COMBO TOOTH: pitch varies between teeth and consequently varying teeth size and varying gullet depths. Pitch varies between teeth, which ensures a smoother, quieter cut and longer blade life owing to the lack of vibration.



Another advantage offered in the use of this type of blade in the fact that with an only blade it is possible to cut a wide range of different materials in size and type.

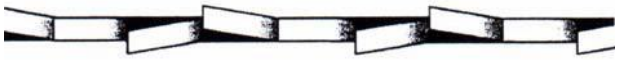
COMBO TOOTH: 9° - 10° positive rake.



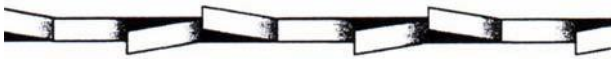
This type of blade is the most suitable for the cutting of section bars and large and thick pipes as well as for the cutting of solid bars at maximum machine capacity. Available pitches: 3-4/4-6.

SETS

Saw teeth bent out of the plane of the saw body, resulting in a wide cut in the workpiece.



REGULAR OR RAKER SET: Cutting teeth right and left, alternated by a straight tooth.



Of general use for materials with dimensions superior to 5 mm. Used for the cutting of steel, castings and hard nonferrous materials.

WAVY SET: Set in smooth waves.

This set is associated with very fine teeth and it is mainly used for the cutting of pipes and thin section bars (from 1 to 3 mm).

ALTERNATE SET (IN GROUPS): Groups of cutting teeth right and left, alternated by a straight tooth.

This set is associated with very fine teeth and it is used for extremely thin materials (less than 1mm).

ALTERNATE SET (INDIVIDUAL TEETH): Cutting teeth right and left.

This set is used for the cutting of nonferrous soft materials, plastics and wood.

BLADE CARE

The bandsaw blade is subjected to a tremendous amount of strain. Make sure to always use the appropriate feed rate for the type material you are cutting.

Be sure to select a blade of the proper width, style, and pitch that will produce the best cut in your material. Choosing the wrong blade can produce excess heat that can adversely affect the life of the blade.

A clean blade performs much better than one that is dirty. Blades that are gummed up and dirty offer more resistance when cutting through the material. This in turn creates unnecessary heat in the blade.

CHOOSING A SAW BLADE

A general purpose blade is furnished with this band saw.

To achieve a quality, economical, and efficient saw cut, the following points must be taken into consideration:

- Type of material being cut (ferrous or non ferrous)
- Material hardness and physical dimensions
- Blade descent rate
- Longitudinal speed of blade
- Blade tooth profile

Choose a tooth pitch that is suitable for the workpiece. Thin walled profiles, including tubes and pipes require close toothing. At least 3-6 teeth should be in contact with the material while cutting. Large solid or transverse sections require widely spaced toothing to allow for greater volume of chips and better tooth penetration. Soft materials such as plastics, light alloys, mild bronze, Teflon, etc. require widely spaced toothing to avoid clogging.

S	Outer Diameter of the Tube (inch) /Tooth pitch															
Inches	0.787	1.574	2.362	3.15	4	4.724	6	7.873	11.811	15.75	19.685	23.621	27.5	31.5	35.5	39.5	59
0.079	14	14	14	14	14	14	10-14tpi	10-14tpi	8-12tpi	8-12tpi	6-10tpi	6-10tpi	5-8tpi	5-8tpi	5-8tpi	5-8tpi	5-8tpi
0.118	14	14	10-14tpi	10-14tpi	10-14tpi	10-14tpi	8-12tpi	8-12tpi	6-10tpi	6-10tpi	5-8tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi
0.157	14	14	10-14tpi	10-14tpi	8-12tpi	8-12tpi	8-12tpi	8-12tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi
0.197	14	10-14tpi	10-14tpi	10-14tpi	8-12tpi	8-12tpi	8-12tpi	6-10tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi
0.236	14	10-14tpi	10-14tpi	8-12tpi	8-12tpi	8-12tpi	8-12tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	3-4tpi	3-4tpi
0.315	14	10-14tpi	8-12tpi	8-12tpi	8-12tpi	6-10tpi	6-10tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	3-4tpi	2-3tpi	2-3tpi
0.394		8-12tpi	6-10tpi	6-10tpi	6-10tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	3-4tpi	2-3tpi	2-3tpi	2-3tpi
0.472		8-12tpi	6-10tpi	6-10tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	3-4tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi
0.591		8-12tpi	6-10tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi
0.787			6-10tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi
1.181				4-6tpi	4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	1.4-2tpi
2						3-4tpi	3-4tpi	3-4tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi
3								2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi
4									2-3tpi	2-3tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi
6										2-3tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1-1.4tpi	1-1.4tpi	1-1.4tpi
7.873											1.4-2tpi	1.4-2tpi	1.4-2tpi	1-1.4tpi	1-1.4tpi	1-1.4tpi	.75-1.25tpi
9.842												1.4-2tpi	1-1.4tpi	1-1.4tpi	1-1.4tpi	.75-1.25tpi	.75-1.25tpi
11.81													1-1.4tpi	1-1.4tpi	.75-1.25tpi	.75-1.25tpi	.75-1.25tpi
13.778														1-1.4tpi	.75-1.25tpi	.75-1.25tpi	.7-1.0tpi
15.747															.75-1.25tpi	.75-1.25tpi	.7-1.0tpi
17.716																.7-1.0tpi	.7-1.0tpi
19.685																	.7-1.0tpi

S= Wall Thickness
If you have to cut two or more tubes lying side by side please use this table in consideration of the double wall thinckness (s).

BLADE BREAKAGE

In some cases blade breakage is unavoidable due to the stresses that are imparted on the blade. Avoidable breakage is often the result of poor care, or poor operator judgment when it comes to adjusting or mounting the blade or blade guides.

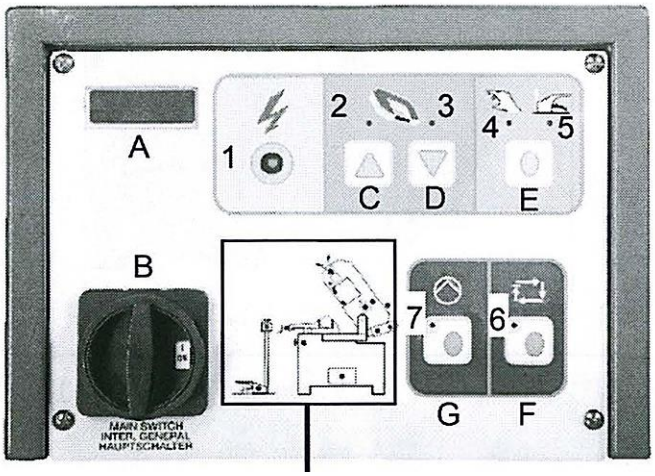
Listed below are some of the more common reasons for blade breakage.

- Top blade guide assembly is set too high above the piece part.
- The blade is tensioned incorrectly.
- Piece part is fed into the blade too quickly.
- Blade teeth are dull or broken.
- Blade is not properly aligned with the guides.
- Forcing a large width blade to cut a small radius.
- Using a blade with an improperly finished weld joint.
- Allowing the blade to run when not in use. (**NEVER** leave an unattended blade running.)

OPERATION

⚠ CAUTION: Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges.
When handling large heavy material, make sure they are properly supported.

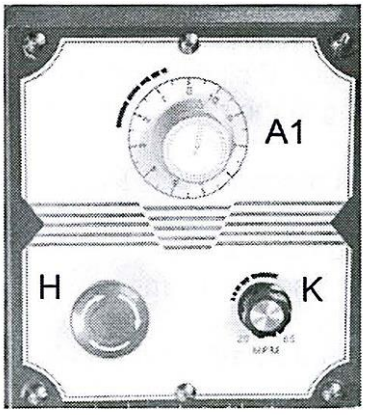
- Make sure the voltage indicated on machine motor is the same as power source voltage. Connect the machine to the power source, and turn ON the main connect switch (B). If power indicator light (1) is on, it means the voltages are okay.
- Select the cutting speed on switch (K).

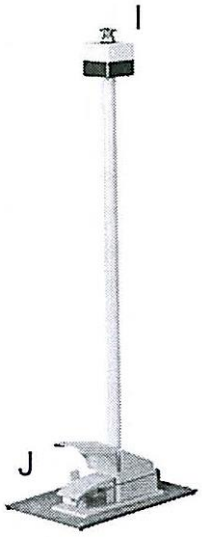


Note: *While selecting the cutting speed indicator light will blink.*

- Press hydraulic flow control start switch (G).

Note: *If the hydraulic flow control fails to activate, then functions (C), (D), and (F) will not operate. Indicator light (7) will blink if any are pressed, indicating that start switch (G) has failed to activate.*





- Check the hydraulic oil level. If oil rises up, it means the motor is running in the right direction. If not, rewire the plug.
- Check that the saw arm is properly set. Press saw bow switches (C) or (D) to adjust the bow height to help when setting the workpiece.
- Place the workpiece in the vise and clamp securely.
- Select the speed using speed selector switch (K). The turtle indicates low speed and the rabbit indicates high speed. "0" is for neutral.
- Be sure to stand in a safe location while operating. There are two ways to start the machine. Press the switch (C) to let the saw bow return to the highest position and then using the first method, select hand operation on selector (E) and press cycle start switch (F) to start

operation. Using the second method, Select footpad operation on selector (E) and step on start footpad (J) to start operation.

- In general, start cuts by turning hydraulic flow regulation knob (A1) to the 2 to 3 position to control the saw arm descent rate. If the arm descends too quickly, turn hydraulic flow regulation knob (A1) clockwise all the way back to stop its descent - when cutting different material use the hydraulic flow regulation knob (K) to control saw arm's rate of descent.

Note: *A saw arm dropping too quickly can cause the blade to stall on the work piece and the machine will shut off. If so, push down on either emergency push buttons (H or I) to immediately stop all machine functions.*

- During the operation cycle, the hydraulic vise will automatically close on the work piece for a distance up to 8mm. The hydraulic vise will then open maximum 8mm on end of operation. Now it is ready for the next operation. Therefore, it is not necessary to manually lock down the vise jaws on the work piece for every operation. Allowing a gap of 4-5mm between jaws and the work piece will suffice.
- The saw bow will return to the bow's maximum height upon completion of operation.
- In case of Emergency or problem during the operation cycle, press the emergency push button (H or I) down to shut off all functions.
- To release the emergency push button (H or I), rotate the mushroom shaped button clock-wise. The button will pop up and then the cutting cycle can be restarted.
- The hydraulic flow control (G) will automatically shut-off after 5 minutes of non-operation.

Note: *If the hydraulic flow control fails to activate, then switch (C), (D), and (F) cannot operate. Indicator light (7) will blink if any are pressed, indicating that start switch (G) has failed to activate.*

- If the hand operation is selected and the footpad is used, then the hand operation indicator light (4) will blink. If the footpad operation is selected and the hand switches are used, then the foot operation indicator light (5) will blink. This indicates improper selection.
- The appropriate indicator light will blink to indicate which part of the machine has gone out of order.
    - Indicator light 14 indicates the emergency button is pressed.
    - Indicator light 16 indicates the emergency button on foot pad is pressed.
    - Indicator light 13 indicates the band saw blade has broken.
    - Indicator light 10 indicates the blade cover is open.
    - Indicator light 12 indicates the motor has overloaded.
    - Indicator light 15 indicates the hydraulic motor has overloaded.

- Indicator light 11 indicates the speed is not properly selected.

- If the saw bow up/down switches are out of order then indicator lights 2 and 3 will blink at the same time.

LUBRICATION AND MAINTENANCE

⚠ WARNING: Make sure the electrical disconnect is OFF before working on the machine.
Maintenance should be performed on a regular basis by qualified personnel.
Always follow proper safety precautions when working on or around any machinery.

The maintenance jobs are listed below, divided into daily. Weekly. Monthly and Six-month intervals. If the following operations are neglected, the result will be premature wear of the machine and poor performance.

Daily Maintenance

- General cleaning of the machine to remove accumulated shavings.
- Clean the lubricating coolant drain hole to avoid excess fluid.
- Top off the level of lubricating coolant.
- Check blade for wear.
- Rise of saw frame to top position and partial slackening of the blade to avoid useless yield stress.
- Check functionality of the shields and emergency stops.

Weekly Maintenance

- Thorough cleaning of the machine to remove shavings, especially from the lubricant fluid tank.
- Removal of pump from its housing, cleaning of the suction filter and suction zone.
- Clean the filter of the pump suction head and the suction area.
- Use compressed air to clean the blade guides (guide bearings and drain hole of the lubricating cooling).
- Cleaning flywheel housings and blade sliding surfaces on flywheels.

Monthly Maintenance

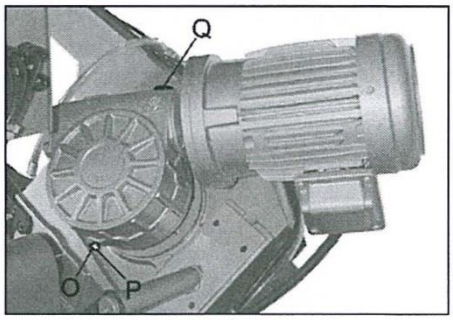
- Check the tightening of the motor flywheel screws.
- Check that the blade guide bearings on the heads are perfect running condition.
- Check the tightening of the screws of the gear motor, pump, and accident protection guarding.

Six-Monthly Maintenance

- Continuity test of the equipment potential protection circuit.

Gearbox

The gear box requires periodic changing of oil. The oil must be changed by the first 6 months of a new machine and every year thereafter.
To change the gear box oil



6. Disconnect the machine from the power source.
7. Raise the saw arm to vertical position.
8. Release the drain hold (0) to draw off gear oil by loosening the hex socket screw (P).
9. Replace the screw (P) after oil completely flows off.
10. Place the saw arm back to horizontal position.
11. Fill Gear box with approximately .3 liter of gear oil through the hole of the vent screw (Q)
12. For reference, use SHELL type gear oil or Mobile gear oil #90.

Oil Disposal

Used oil products must be disposed of in a proper manner following your local regulations.

Accessing and Cleaning the Coolant System

- Clean the drain screens on the machine base and the drains on the ends of the table.
- Drain and wash out the dirt and debris from the reservoir
- Thoroughly clean the pump and pump inlet
- Re-fill tank with coolant solution.

Oils for Lubricating Coolant

Any 10:1 (water to coolant) solution will work, however we recommend Baileigh B-Cool 20:1 (water to coolant) biodegradable metal cutting fluid. It has excellent cooling and heat transfer characteristics, is non-flammable, and extends tool and machine life. Each gallon of concentrate makes 21 gallons of coolant.

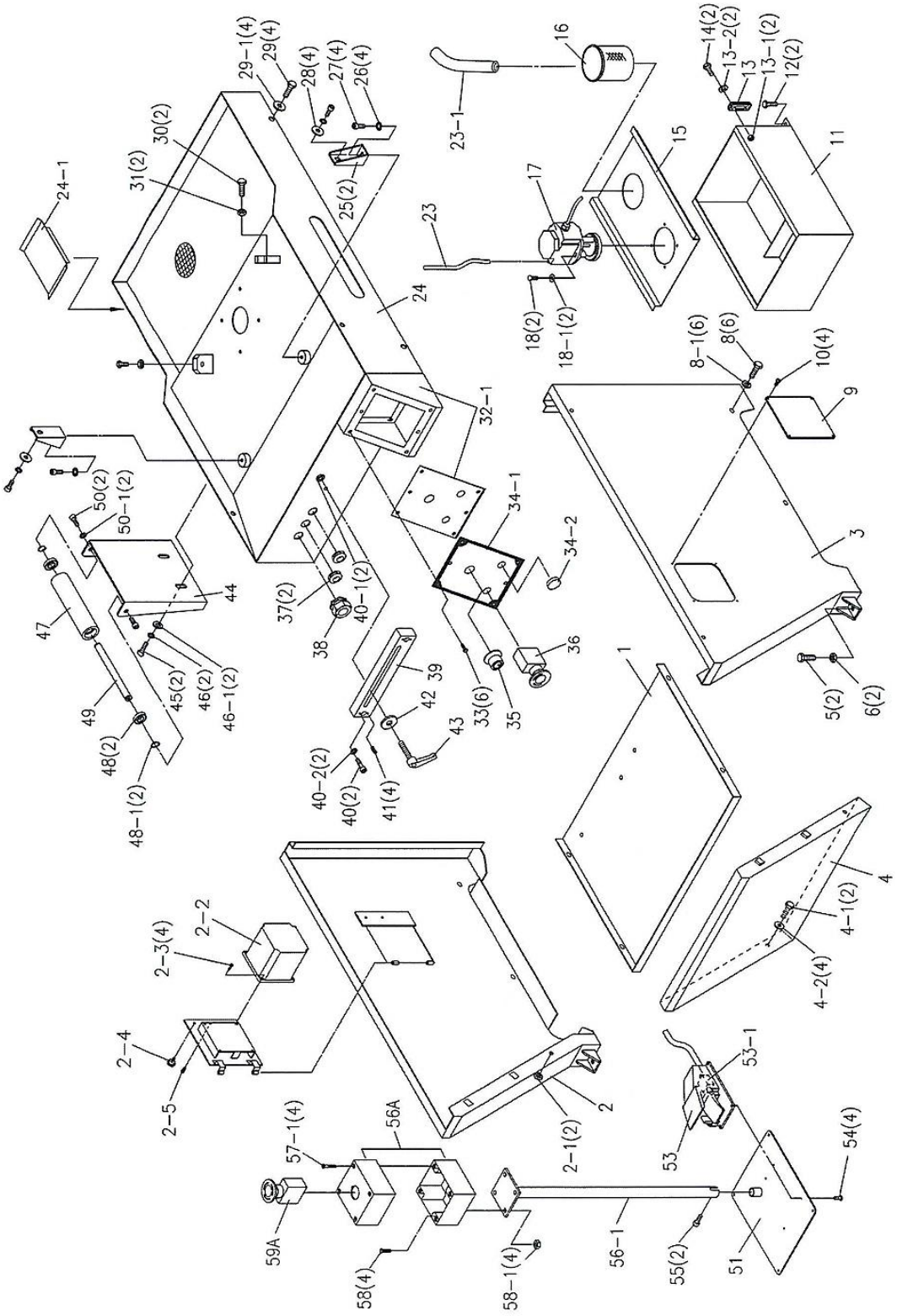
Storing Machine for Extended Period of Time

If the Vertical Milling Machine is to be inactive for a long period of time, prepare the machine as follows:

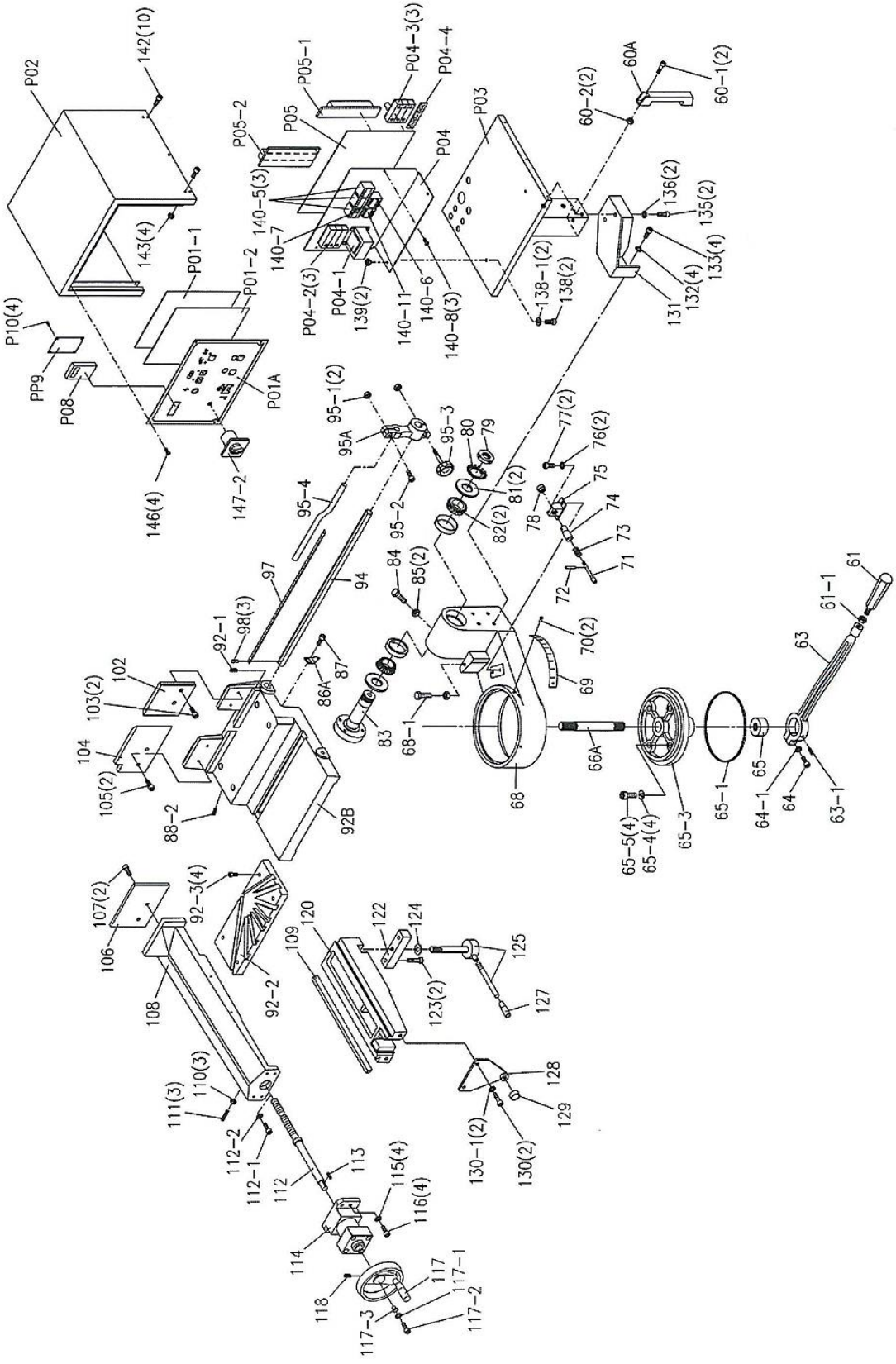
- Disconnect the electrical supply from the power panel.
- Empty and clean the coolant reservoir.
- Clean and grease the machine.
- Cover the machine.

PARTS DIAGRAM AND PARTS LIST

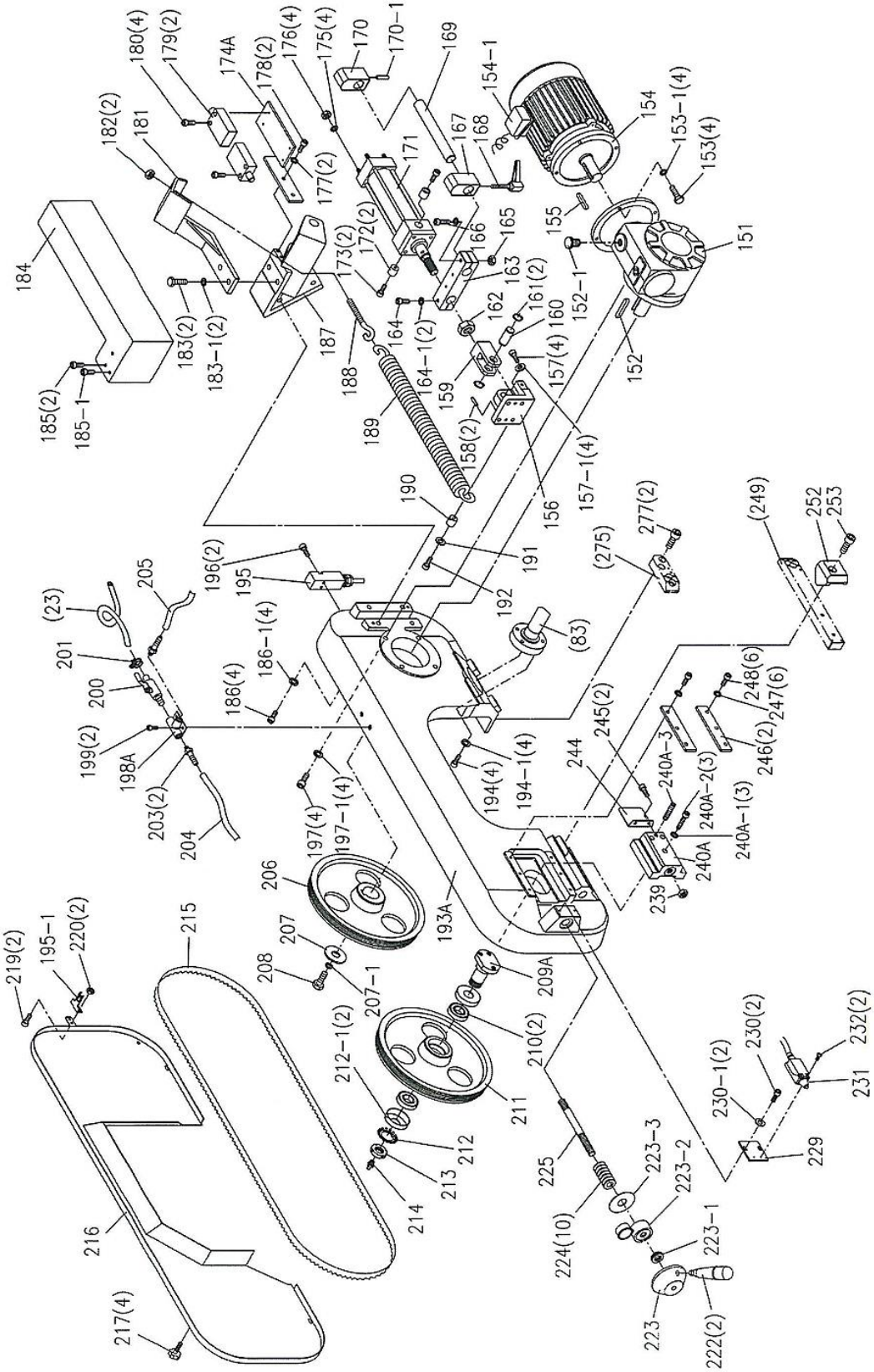
Parts Diagram A



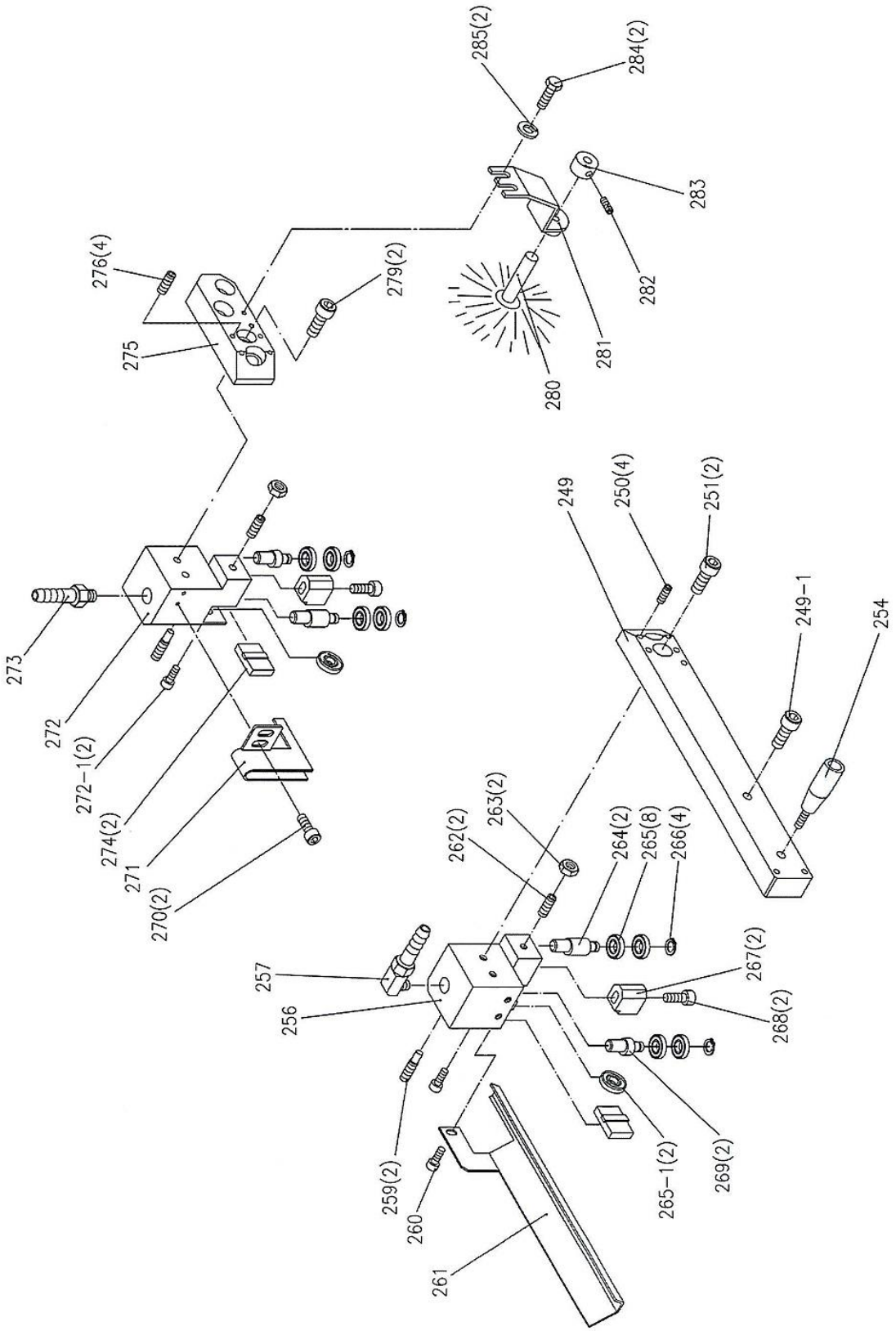
Parts Diagram B



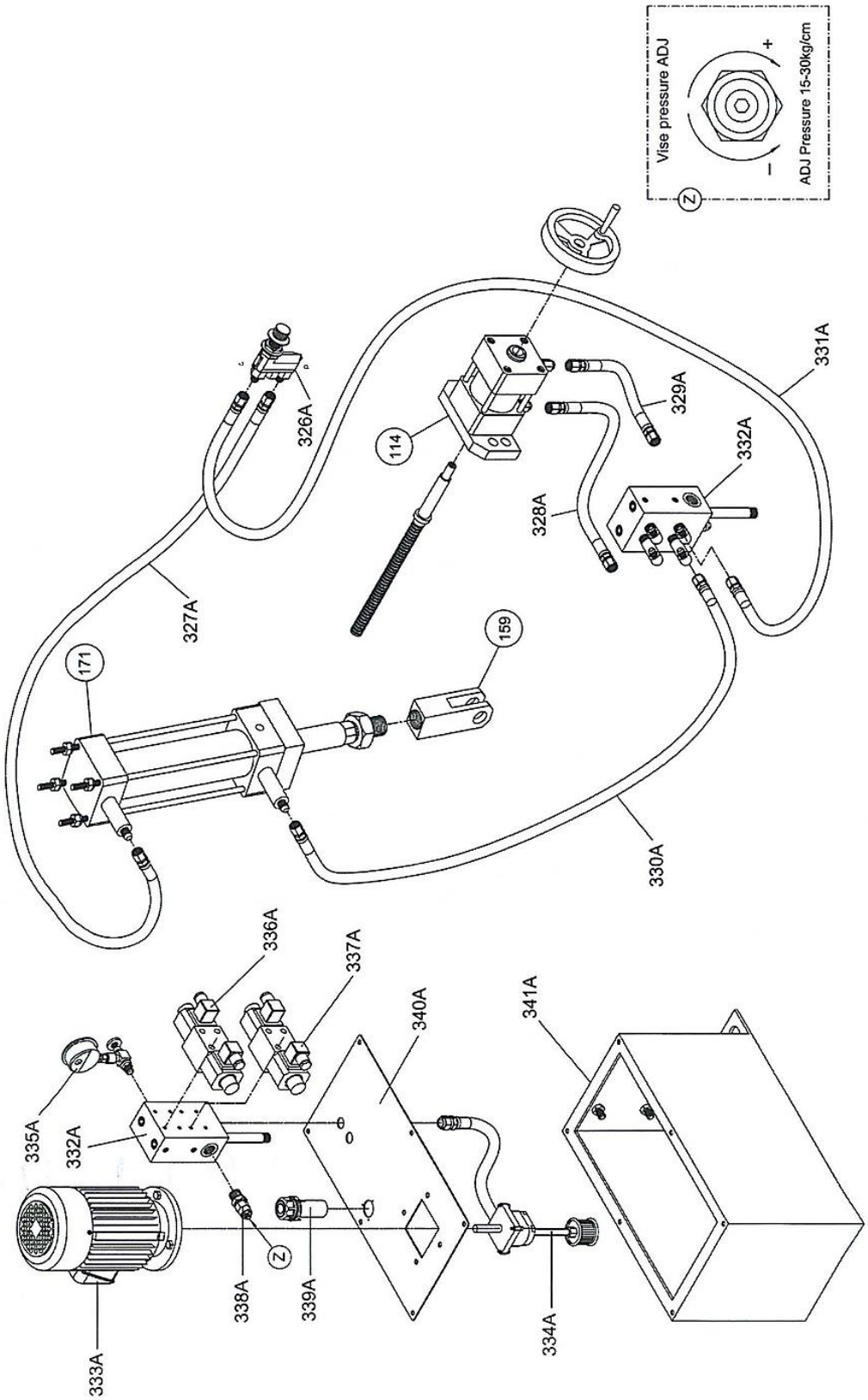
Parts Diagram C



Parts Diagram D



Parts Diagram E



Parts List A – E

Item	Part No.	Description	Size No.	Qty.
1	BS260SA-1	Base (Bottom Plate)		1
2	BS260SA-2	Base (Left Part)		1
2-1	BS260SA-2-1	Nut	M8	2
2-2	BS260SA-2-2	Inverter		1
2-3	BS260SA-2-3	Hex. Socket Cap Screw	M5x12	4
2-4	BS260SA-2-4	Thumb Screw		1
2-5	BS260SA-2-5	Hex. Socket Cap Screw	M5x8	1
3	BS260SA-3	Base (Right Part)		1
4	BS260SA-4	Base (Front Part)		1
4-1	BS260SA-4-1	Hex. Cap Bolt	M8x16	2
4-2	BS260SA-4-2	Washer	M8	4
5	BS260SA-5	Hex. Cap Bolt	M12x40	2
6	BS260SA-6	Nut	M12	2
8	BS260SA-8	Hex. Cap Bolt	M8x16	6
8-1	BS260SA-8-1	Washer	M8	6
9	BS260SA-9	Plate		1
10	BS260SA-10	Hex. Socket Cap Screw	M5x8	4
11	BS260SA-11	Coolant Tank		1
12	BS260SA-12	Hex. Cap Bolt	M8x16	2
13	BS260SA-13	Coolant Gauge		1
13-1	BS260SA-13-1	Nut	M10	2
13-2	BS260SA-13-2	Washer	M10	2
14	BS260SA-14	Hex. Cap Bolt	3/16"	2
15	BS260SA-15	Tank Cover		1
16	BS260SA-16	Filter		1
17	BS260SA-17	Pump		1
18	BS260SA-18	Hex. Socket Cap Screw	M6x25	2
18-1	BS260SA-18-1	Washer	M6	2
23	BS260SA-23	Hose	5/16"x235cm	1
23-1	BS260SA-23-1	Hose	1"x45cm	1
24	BS260SA-24	Coolant and Chip Tray		1
24-1	BS260SA-24-1	Block Plate		1
25	BS260SA-25	Mounting Bracket		2

Item	Part No.	Description	Size No.	Qty.
26	BS260SA-26	Spring Washer	M10	4
27	BS260SA-27	Hex. Socket Cap Screw	M10x20	4
28	BS260SA-28	Washer	M10	4
29	BS260SA-29	Hex. Cap Bolt	M10x20	4
29-1	BS260SA-29-1	Washer	M10	4
30	BS260SA-30	Hex. Cap Bolt	M12x40	2
31	BS260SA-31	Nut	M12	2
32-1	BS260SA-32-1	Inverter Control Box Set		1
33	BS260SA-33	Round Head Screw	M5x10	6
34-1	BS260SA-34-1	Control Box Panel		1
34-2	BS260SA-34-2	Flow Regulator		1
35	BS260SA-35	Blade Speed Knob		1
36	BS260SA-36	Emergency Switch		1
37	BS260SA-37	Grommet		2
38	BS260SA-38	Grommet		1
39	BS260SA-39	Track		1
40	BS260SA-40	Hex. Socket Cap Screw	M8x35	2
40-1	BS260SA-40-1	Nut	M8	2
40-2	BS260SA-40-2	Spring Washer	M8	2
41	BS260SA-41	Set Screw	M6x12	4
42	BS260SA-42	Washer		1
43	BS260SA-43	Handle	M8x25	1
44	BS260SA-44	Roller Stand		1
45	BS260SA-45	Hex. Cap Bolt	M12x25	2
46	BS260SA-46	Spring Washer	M12	2
46-1	BS260SA-46-1	Washer	M12	2
47	BS260SA-47	Roller		1
48	BS260SA-48	Ball Bearing	6004ZZ	2
48-1	BS260SA-48-1	C-Ring	S-20	2
49	BS260SA-49	Roller Shaft		1
50	BS260SA-50	Hex. Socket Cap Screw	M10x20	2
50-1	BS260SA-50-1	Spring Washer	M10	2
51	BS260SA-51	Pedal Plate		1
53	BS260SA-53	Pedal Switch		1
53-1	BS260SA-53-1	Micro Switch		1

Item	Part No.	Description	Size No.	Qty.
54	BS260SA-54	Round Head Screw	M4x10	4
55	BS260SA-55	Hex. Socket Cap Screw	M6x8	1
56A	BS260SA-56A	Emergency Switch Box		1
56-1	BS260SA-56-1	Pipe		1
57-1	BS260SA-57-1	Flat Head Cross Screw		4
58	BS260SA-58	Hex. Socket Cap Screw	M5x8	4
58-1	BS260SA-58-1	Nut	M4	4
59A	BS260SA-59A	Emergency Switch		1
60A	BS260SA-60A	Handle		1
60-1	BS260SA-60-1	Hex. Socket Cap Screw	M8x20	2
60-2	BS260SA-60-2	Nut	M8	2
61	BS260SA-61	Handle		1
61-1	BS260SA-61-1	Nut	M12	1
63	BS260SA-63	Locking Lever		1
63-1	BS260SA-63-1	Set Screw	M8x10	1
64	BS260SA-64	Hex. Socket Cap Screw	M10x35	1
64-1	BS260SA-64-1	Spring Washer	M10	1
65	BS260SA-65	Shaft Nut		1
65-1	BS260SA-65-1	Oil Seal		1
65-3	BS260SA-65-3	Disk		1
65-4	BS260SA-65-4	Spring Washer	M8	4
65-5	BS260SA-65-5	Hex. Socket Cap Screw	M8x30	4
66A	BS260SA-66A	Shaft		1
68	BS260SA-68	Swivel Arm		1
68-1	BS260SA-68-1	Hex. Cap Bolt	M10x35	1
69	BS260SA-69	Scale		1
70	BS260SA-70	Rivet	2.3x4	2
71	BS260SA-71	Pin		1
72	BS260SA-72	Hollow Pin	0 2.5x16	1
73	BS260SA-73	Spring		1
74	BS260SA-74	Bushing		1
75	BS260SA-75	Bracket		1
76	BS260SA-76	Spring Washer	M8	2
77	BS260SA-77	Hex. Socket Cap Screw	M8x25	2
78	BS260SA-78	Knob		1

Item	Part No.	Description	Size No.	Qty.
79	BS260SA-79	Jam Nut	M35	1
80	BS260SA-80	Star Washer	M35	1
81	BS260SA-81	Anti-Dust Cover	M35	2
82	BS260SA-82	Ball Bearing	32007	2
83	BS260SA-83	Shaft		1
84	BS260SA-84	Hex. Cap Bolt	M10x45	1
85	BS260SA-85	Nut	M10	2
86A	BS260SA-86A	Pointer		1
87	BS260SA-87	Hex. Socket Cap Screw	M5x8	1
88-2	BS260SA-88-2	Set Screw	M8x10	1
928	BS260SA-928	Table		1
92-1	BS260SA-92-1	Set Screw	M6x12	1
92-2	BS260SA-92-2	Changeable Plate		1
92-3	BS260SA-92-3	Hex. Socket Cap Screw	M8x16	4
94	BS260SA-94	Bar-Stop-Rod		1
95A	BS260SA-95A	Bar Bracket		1
95-1	BS260SA-95-1	Nut	M8	2
95-2	BS260SA-95-2	Hex. Socket Cap Screw	M8x25	1
95-3	BS260SA-95-3	Knob	M8x30	1
95-4	BS260SA-95-4	Stop Bar		1
97	BS260SA-97	Scale		1
98	BS260SA-98	Rivet		3
102	BS260SA-102	No-Burr Jaw		1
103	BS260SA-103	Hex. Socket Cap Screw	M6x20	2
104	BS260SA-104	Counter Vise Jaw		1
105	BS260SA-105	Hex. Socket Cap Screw	M6x15	2
106	BS260SA-106	Vise Jaw		1
107	BS260SA-107	Flat Head Machine Screw	M6x15	2
108	BS260SA-108	Vise		1
109	BS260SA-109	Dovetail Plate		1
110	BS260SA-110	Nut	MS	3
111	BS260SA-111	Set Screw	M5x25	3
112	BS260SA-112	Vise Screw for Hydraulic Drive		1
112-1	BS260SA-112-1	Hex. Socket Cap Screw	M8x16	1
112-2	BS260SA-112-2	Washer	M8	1

Item	Part No.	Description	Size No.	Qty.
113	BS260SA-113	Key	5x5x15	1
114	BS260SA-114	Hydraulic Cylinder (Vise)		1
115	BS260SA-115	Spring Washer	M8	4
116	BS260SA-116	Hex. Socket Cap Screw	M8x25	4
117	BS260SA-117	Hand Wheel		1
117-1	BS260SA-117-1	Spring Washer	M6	1
117-2	BS260SA-117-2	Hex. Socket Cap Screw	M6x25	1
117-3	BS260SA-117-3	Bushing		1
118	BS260SA-118	Set Screw	M8x10	1
120	BS260SA-120	Vise Seat		1
122	BS260SA-122	Vise Setting Plate		1
123	BS260SA-123	Hex. Socket Cap Screw	M10x35	2
124	BS260SA-124	Washer	3/4"x37x3	1
125	BS260SA-125	Lock Lever Device		1
127	BS260SA-127	Handle		1
128	BS260SA-128	Setting Plate		1
129	BS260SA-129	Bushing		1
130	BS260SA-130	Hex. Socket Cap Screw	M8x20	2
130-1	BS260SA-130-1	Spring Washer	M8	2
131	BS260SA-131	Electric Box Holder		1
132	BS260SA-132	Spring Washer	M8	4
133	BS260SA-133	Hex. Socket Cap Screw	M8x20	4
135	BS260SA-135	Hex. Socket Cap Screw	M10x25	2
136	BS260SA-136	Spring Washer	M10	2
138	BS260SA-138	Hex. Socket Cap Screw	M6x25	2
138-1	BS260SA-138-1	Washer	M6	2
139	BS260SA-139	Nut	M6	2
140-5	BS260SA-140-5	Magnetic Switch		3
140-6	BS260SA-140-6	Overload Relay		1
140-7	BS260SA-140-7	Sub-Connector		
140-8	BS260SA-140-8	Hex. Cap Bolt	M6x15	3
140-11	BS260SA-140-11	Overload Relay		1
142	BS260SA-142	Hex. Socket Cap Screw	M5x8	10
143	BS260SA-143	Nut	M5	4
146	BS260SA-146	Round Head Screw	M5x10	4

Item	Part No.	Description	Size No.	Qty.
147-2	BS260SA-147-2	Main Connect Switch		1
151	BS260SA-151	Reduction Unit		1
152	BS260SA-152	Key	8x8x30	1
152-1	BS260SA-152-1	Vent Screw		1
153	BS260SA-153	Hex. Cap Bolt	M8x30	4
153-1	BS260SA-153-1	Spring Washer	M8	4
154	BS260SA-154	Motor		1
154-1	BS260SA-154-1	Junction Box		1
155	BS260SA-155	Key	8x7x35	1
156	BS260SA-156	Anchoring Dowel		1
157	BS260SA-157	Hex. Socket Cap Screw	M8x25	4
157-1	BS260SA-157-1	Spring Washer	M8	4
158	BS260SA-158	Hollow Pin	06x20	2
159	BS260SA-159	Coupling Fork		1
160	BS260SA-160	Pin on Fork		1
161	BS260SA-161	C-Ring	S-20	2
162	BS260SA-162	Nut		1
163	BS260SA-163	Rod Support Block		1
164	BS260SA-164	Hex. Socket Cap Screw	M10x30	1
164-1	BS260SA-164-1	Spring Washer	M10	2
165	BS260SA-165	Nut	M10	1
166	BS260SA-166	Hex. Socket Cap Screw	M10x40	1
167	BS260SA-167	Adjustable Stop		1
168	BS260SA-168	Handle	M8x25	1
169	BS260SA-169	Stop Bar		1
170	BS260SA-170	Adjustable Stop		1
170-1	BS260SA-170-1	Set Screw	M8x10	1
171	BS260SA-171	Hydraulic Cylinder (Arm)		1
172	BS260SA-172	Bushing		2
173	BS260SA-173	Hex. Socket Cap Screw	M12x20	2
174A	BS260SA-174A	Limit Switch Plate		1
175	BS260SA-175	Spring Washer	M8	4
176	BS260SA-176	Nut	M8	4
177	BS260SA-177	Spring Washer	M6	2
178	BS260SA-178	Hex. Socket Cap Screw	M6x12	2

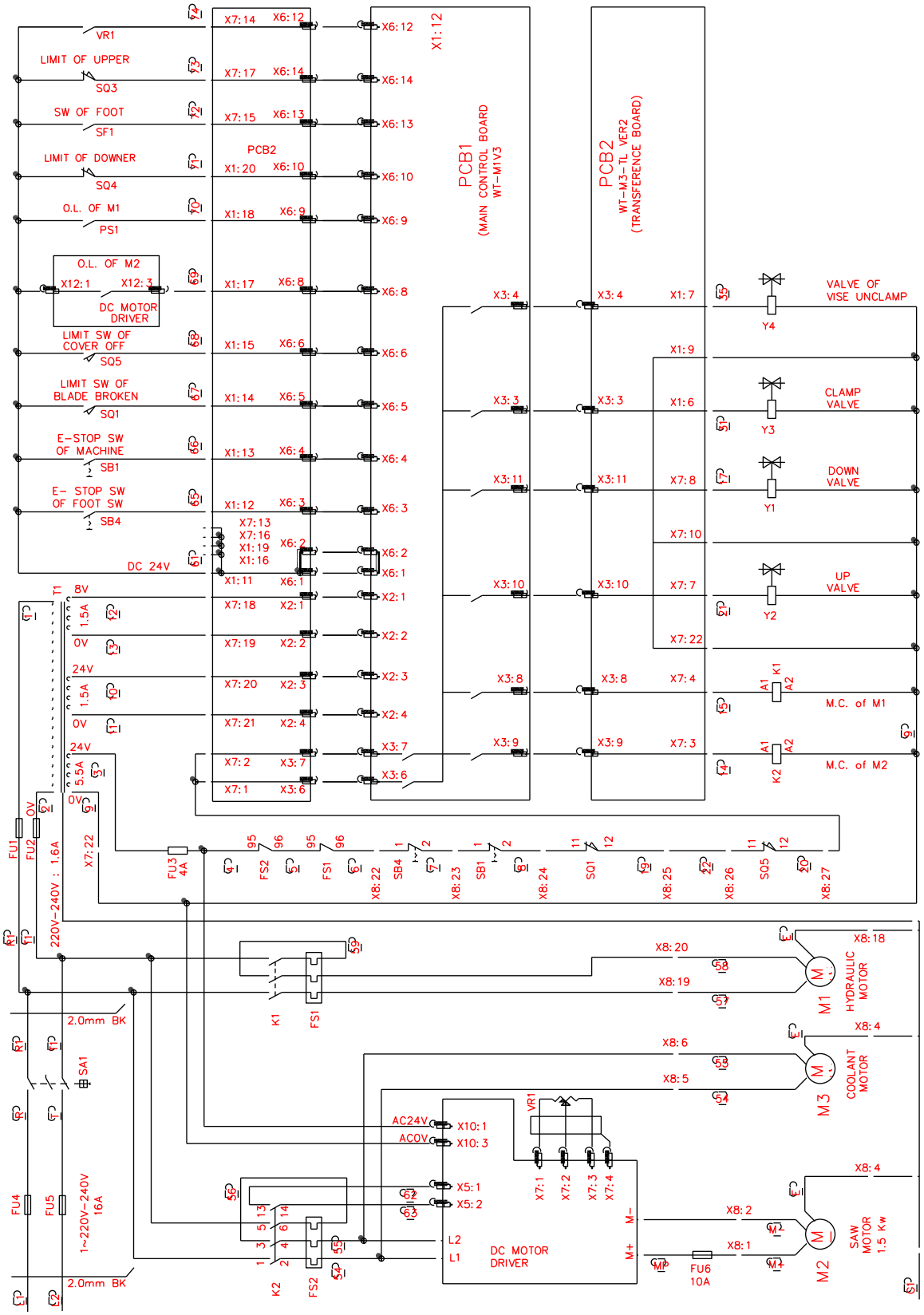
Item	Part No.	Description	Size No.	Qty.
179	BS260SA-179	Limit Switch		2
180	BS260SA-180	Hex. Socket Cap Screw	M6x25	4
181	BS260SA-181	Spring Holder		1
182	BS260SA-182	Nut	M8	2
183	BS260SA-183	Hex. Cap Bolt	M12x30	2
183-1	BS260SA-183-1	Spring Washer	M12	2
184	BS260SA-184	Cylinder Guard		1
185	BS260SA-185	Hex. Socket Cap Screw	M6x60	2
185-1	BS260SA-185-1	Hex. Socket Cap Screw	M5x8	1
186	BS260SA-186	Hex. Socket Cap Screw	M10x35	4
186-1	BS260SA-186-1	Spring Washer	M10	4
187	BS260SA-187	Cylinder Coupling		1
188	BS260SA-188	Spring Hook	3/8"	1
189	BS260SA-189	Spring		1
190	BS260SA-190	Setting Bushing		1
191	BS260SA-191	Washer	M8	1
192	BS260SA-192	Hex. Socket Cap Screw	M8x35	1
193A	BS260SA-193A	Saw Arm		1
194	BS260SA-194	Hex. Socket Cap Screw	M10x30	4
194-1	BS260SA-194-1	Spring Washer	M10	4
195	BS260SA-195	Limit Switch		1
195-1	BS260SA-195-1	Switch Pin		1
196	BS260SA-196	Hex. Socket Cap Screw	M4x35	2
197	BS260SA-197	Hex. Socket Cap Screw	M10x35	4
197-1	BS260SA-197-1	Spring Washer	M10	4
198A	BS260SA-198A	T Connecter		1
199	BS260SA-199	Hex. Socket Cap Screw	M5x16	2
200	BS260SA-200	Coolant Switch		1
201	BS260SA-201	Hose Clamp	13mm	1
203	BS260SA-203	Pipe Fitting	1/4Px5/16	2
204	BS260SA-204	Hose	5/16"x40cm	1
205	BS260SA-205	Hose	5/16"x90cm	1
206	BS260SA-206	Drive Flywheel		1
207	BS260SA-207	Washer		1
207-1	BS260SA-207-1	Spring Washer	M10	1

Item	Part No.	Description	Size No.	Qty.
208	BS260SA-208	Hex. Cap Bolt	M10x25	1
209A	BS260SA-209A	Idle Flywheel Shaft		1
210	BS260SA-210	Roller Bearing	32006	2
211	BS260SA-211	Idle Flywheel		1
212	BS260SA-212	Star Washer	M30	1
212-1	BS260SA-212-1	Anti-dust Cover	M30	2
213	BS260SA-213	Jam Nut	M30	1
214	BS260SA-214	Oil Inlet	1/16	1
215	BS260SA-215	Saw Blade		1
216	BS260SA-216	Blade Cover		1
217	BS260SA-217	Plum Screw	M6x10	4
219	BS260SA-219	Round Head Screw	M4x8	2
220	BS260SA-220	Nut	M4	2
222	BS260SA-222	Handle		2
223	BS260SA-223	Handle Wheel		1
223-1	BS260SA-223-1	Thrust Bearing	51103	1
223-2	BS260SA-223-2	Blade Tension Gauge		1
223-3	BS260SA-223-3	Plate		1
224	BS260SA-224	Special Spring Washer		10
225	BS260SA-225	Tension Shaft		1
229	BS260SA-229	Plate		1
230	BS260SA-230	Hex. Socket Cap Screw	M6x12	2
230-1	BS260SA-230-1	Washer	M6	2
231	BS260SA-231	Limit Switch		1
232	BS260SA-232	Hex. Socket Cap Screw	M4x25	2
239	BS260SA-239	Nut	M16	1
240A	BS260SA-240A	Slide Bracket		1
240A-1	BS260SA-240A-1	Spring Washer	M10	3
240A-2	BS260SA-240A-2	Hex. Socket Cap Screw	M10x45	3
240A-3	BS260SA-240A-3	Set Screw	M10x25	1
244	BS260SA-244	Cover Plate		1
245	BS260SA-245	Hex. Socket Cap Screw	M6x8	2
246	BS260SA-246	Gib		2
247	BS260SA-247	Spring Washer	M8	6
248	BS260SA-248	Hex. Socket Cap Screw	M8x20	6

Item	Part No.	Description	Size No.	Qty.
249	BS260SA-249	Blade Guide Movable Rod		1
249-1	BS260SA-249-1	Hex. Socket Cap Screw	M6x8	1
250	BS260SA-250	Set Screw	M6x12	4
251	BS260SA-251	Hex. Socket Cap Screw	M8x20	2
252	BS260SA-252	Setting Bracket		1
253	BS260SA-253	Hex. Socket Cap Screw	M12x50	1
254	BS260SA-254	Handle		1
256	BS260SA-256	Guide Bracket		1
257	BS260SA-257	Nozzle		1
259	BS260SA-259	Bolt		2
260	BS260SA-260	Hex. Socket Cap Screw	M6x8	1
261	BS260SA-261	Blade Guard		1
262	BS260SA-262	Set Screw	M6x20	2
263	BS260SA-263	Nut	M6	2
264	BS260SA-264	Centric Shaft		2
265	BS260SA-265	Ball Bearing	608ZZ	8
265-1	BS260SA-265-1	Ball Bearing	608ZZ	2
266	BS260SA-266	E-Ring	E-7	4
267	BS260SA-267	Blade Guide		2
268	BS260SA-268	Hex. Socket Cap Screw	M6x25	2
269	BS260SA-269	Eccentric Shaft		2
270	BS260SA-270	Hex. Socket Cap Screw	M6x8	2
271	BS260SA-271	Blade Guard		1
272	BS260SA-272	Guide Bracket		1
272-1	BS260SA-272-1	Hex. Socket Cap Screw	M6x8	2
273	BS260SA-273	Pipe Fitting		1
274	BS260SA-274	Blade Guide		2
275	BS260SA-275	Ball Bearing Bracket		1
276	BS260SA-276	Set Screw	M6x12	4
277	BS260SA-277	Hex. Socket Cap Screw	M10x20	2
279	BS260SA-279	Hex. Socket Cap Screw	M8x20	2
280	BS260SA-280	Brush		1
281	BS260SA-281	Brush Clamp		1
282	BS260SA-282	Set Screw	M5x5	1
283	BS260SA-283	Set Bushing		1

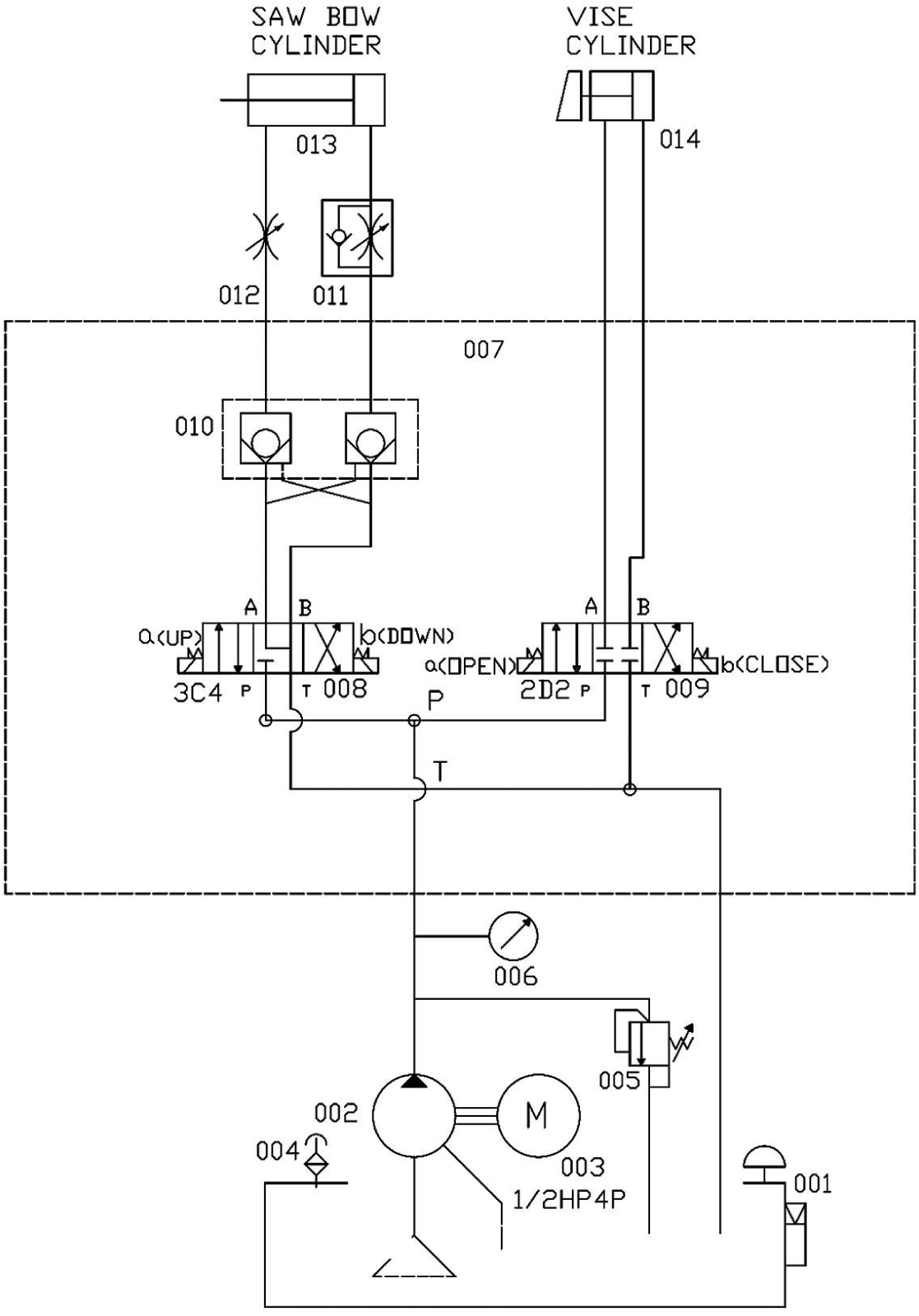
Item	Part No.	Description	Size No.	Qty.
284	BS260SA-284	Hex. Cap Bolt	M6x12	2
285	BS260SA-285	Washer	M6	2
326A	BS260SA-326A	Flow Control		1
327A	BS260SA-327A	Hose	2.5 meters	1
328A	BS260SA-328A	Hose	2.0 meters	1
329A	BS260SA-329A	Hose	2.0 meters	1
330A	BS260SA-330A	Hose	2.0 meters	1
331A	BS260SA-331A	Hose	1.5 meters	1
332A	BS260SA-332A	Manifold		1
333A	BS260SA-333A	Motor		1
334A	BS260SA-334A	Pump		1
335A	BS260SA-335A	Oil Gauge		1
336A	BS260SA-336A	Solenoid	2D2	1
337A	BS260SA-337A	Solenoid	3C2	1
338A	BS260SA-338A	Pressure Regulator		1
339A	BS260SA-339A	Oil Fill Port		1
340A	BS260SA-340A	Tank Cover		1
341A	BS260SA-341A	Tank		1
P01A	BS260SA-P01A	Control Panel		1
P01-1	BS260SA-P01-1	Main Board		1
P01-2	BS260SA-P01-2	Display Board		1
P02	BS260SA-P02	Electrical Box Cover		1
P03	BS260SA-P03	Electric Box Platform		1
P04	BS260SA-P04	Electric Parts Plate		1
P04-1	BS260SA-P04-1	Transformer		1
P04-2	BS260SA-P04-2	Fuse Block		3
P04-3	BS260SA-P04-3	Power in Fuses		3
P04-4	BS260SA-P04-4	Grounding Plate		1
P05	BS260SA-P05	Electric Parts Plate (Rear)		1
P05-1	BS260SA-P05-1	Dual Terminal Connector		1
P05-2	BS260SA-P05-2	Connector PC Board		1
P08	BS260SA-P08	Blade Speed Indicator		1
P09	BS260SA-P09	Indicator Plate		1
P10	BS260SA-P10	Hex. Socket Cap Screw	M3	4

ELECTRICAL SCHEMATIC



HYDRAULIC SCHEMATIC

Item 005, Relief Valve (15 – 30Bar [217 – 435psi]) maximum.



TROUBLESHOOTING

⚠ WARNING: Make sure the electrical disconnect is OFF before working on the machine.

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Saw Motor Does Not Stop When Cut is Finished	Actuator on cylinder does not contact switch properly.	Re-adjust actuator or switch.
	Bow down limit switch SQ3 damaged.	Replace SQ3.
Coolant Motor Does Not Run with Band Saw Motor	Coolant switch not turned ON.	Turn on coolant switch.
	Coolant motor M2 damaged.	Replace M2 motor.
No Power Indicator Light When Main Power Turned On	Fuse may have burned out.	Switch off main power. Replace defective fuse.
	Transformer T1 damaged.	Replace Transformer.
	Power LED HL1 damaged.	Replace (white) power LED.
Excessive Blade Breakage	Material loose in vise.	Clamp work securely.
	Incorrect speed or feed.	Adjust speed or feed.
	Blade tooth spacing too large.	Replace with a small tooth spacing blade.
	Material too coarse.	Use a slow speed blade and small tooth spacing.
	Incorrect blade tension.	Adjust to where blade does not slip-on wheel.
	Teeth in contact with material before saw is started.	Start saw and lower into work piece.
	Blade rubs on wheel flange.	Adjust wheel alignment.
	Misaligned guide bearings.	Adjust guide bearings.
	Cracking at weld.	Weld again, note quality of weld.

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Premature Blade Dulling	Teeth too coarse. Too much speed. Inadequate feed pressure. Hard spots or scale on material. Work hardening of material. Blade twist. Insufficient blade.	Use finer teeth. Decrease speed. Decrease spring tension on side of saw. Reduce speed, increase feed pressure. Increase feed pressure by reducing spring tension. Replace with a new blade and adjust blade tension. Tighten blade tension adjustable knob.
Unusual Wear on Side/Back of Blade	Blade guides worn. Blade guide bearings not adjusted properly. Blade guide bearing bracket is loose.	Replace Adjust as per operator's manual. Tighten.
Teeth Ripping from Blade	Teeth too coarse for work. Too heavy pressure, too slow speed. Vibrating work piece. Gullets loading.	Use finer tooth blade. Decrease pressure, increase speed. Clamp work piece securely. Use coarse tooth blade or brush to remove chips.
Poor Cuts	Feed pressure too great. Guide bearing not adjusted properly. Inadequate blade tension.	Reduce pressure by increasing spring tension on side of saw. Adjust guide bearing, the clearance cannot be greater than .001mm. Increase blade tension with tension knob.

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
	Dull blade. Speed incorrect. Blade guide spaced out too much. Blade guide assembly loose. Blade track too far away from wheel flanges.	Replace blade. Adjust speed. Adjust guide space. Tighten blade guide assembly. Re-track blade according to operating instructions.
Poor Cuts (Rough)	Too much speed or feed. Blade is too coarse. Blade tension loose.	Decrease speed or feed. Replace with finer blade. Adjust blade tension.
Blade is Twisting	Cut is binding blade. Too much blade tension.	Decrease feed pressure. Decrease blade tension.

NOTES

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