



OPERATOR'S MANUAL



VERTICAL BAND SAW

MODEL: BSV-24

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CERTIFIED

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STANDARD TERMS AND CONDITIONS OF SALE

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STANDARD TERMS AND CONDITIONS FOR THE SALE OF GOODS

1 INTERPRETATION

- 1.1 In these Conditions the following words have the following meanings:
- | Word | Meaning |
|---------------------|--|
| "Buyer" | the person(s), firm or company from whom an order to supply Goods is received by the Company; |
| "Buyer Materials" | any documents or other materials and any data or other information provided by the Buyer relating to the Goods; |
| "Company" | Baileigh Industrial Limited, a company incorporated in England and Wales (Company Number 05672861) whose registered office is at Unit D Swift Point, Swift Valley Industrial Estate, Rugby, West Midland, CV21 2QH |
| "Company Materials" | any documents or other materials, and any data or other information provided by the Company relating to the Goods; |
| "Conditions" | the standard terms and conditions of sale as set out in this document; |
| "Contract" | any contract between the Company and the Buyer for the sale and purchase of the Goods; |
| "Delivery Point" | the place where delivery of the Goods is to take place under Condition 4.1; |
| "Goods" | any goods agreed in the Contract to be supplied to the Buyer by the Company (including any part or parts of them). |
- 1.2 In these Conditions references to any statute or statutory provision shall, unless the context otherwise requires, be construed as a reference to that statute or statutory provision as from time to time amended, consolidated, modified, extended, re-enacted or replaced.
- 1.3 In these Conditions references to the masculine include the feminine and the neuter and to the singular include the plural and vice versa as the context admits or requires.
- 1.4 In these Conditions headings will not affect the construction of these Conditions.

2 APPLICATION OF TERMS

- 2.1 Subject to any variation under Condition 2.3 the Contract will be on these Conditions to the exclusion of all other terms and conditions (including any terms or conditions which the Buyer purports to apply under any purchase order, confirmation of order, specification or other document).
- 2.2 No terms or conditions endorsed upon, delivered with or contained in the Buyer's purchase order, confirmation of order, specification or other document will form part of the Contract simply as a result of such document being referred to in the Contract.
- 2.3 These Conditions apply to all the Company's sales of Goods and any variation to these Conditions and any representations about the Goods shall have no effect unless expressly agreed in writing and signed the designated agent/employee of the Company.
- 2.4 The Buyer must ensure that the terms of its order and any applicable specification are complete and accurate.
- 2.5 Any quotation given by the Company is an offer which is valid for a period of 30 days only, provided that the Company has not previously withdrawn it. The offer is accepted by the Buyer and a contract is formed when the Company receives a purchase order for the Goods, provided that such purchase order does not purport to contract on terms other than these Conditions.
- 2.6 If the Buyer requires an order confirmation providing the date of shipment this should be clearly stated in the Buyer's purchase order.

3 DESCRIPTION

- 3.1 The description of the Goods shall be as set out in the Company's quotation.
- 3.2 All drawings, descriptive matter, specifications and advertising issued by the Company on any packaging of the Goods or elsewhere and any descriptions or illustrations contained in the Company's catalogues or brochures are issued or published for the sole purpose of giving an approximate idea of the Goods described in them. They will not form part of this Contract and no warranty is given that the Goods will comply with or perform in accordance with any such description.

4 DELIVERY

- 4.1 Any dates specified by the Company for delivery of the Goods are intended to be an estimate and time for delivery shall not be made of the essence by notice. If no dates are so specified, delivery will be within a reasonable time.
- 4.2 Subject to the other provisions of these Conditions the Company will not be liable for any loss (including loss of profit), costs, damages, charges or expenses caused directly or indirectly by any delay in the delivery of the Goods (even if caused by the Company's negligence), nor will any delay entitle the Buyer to terminate or rescind the Contract unless such delay exceeds 180 days.
- 4.3 If for any reason the Buyer will not accept delivery of any of the Goods when they are ready for delivery, or the Company is unable to deliver the Goods on time because the Buyer has not provided appropriate instructions, documents, licenses or authorizations:
- 4.3.1 risk in the Goods will pass to the Buyer (including for loss or damage caused by the Company's negligence);
 - 4.3.2 the Goods will be deemed to have been delivered; and
 - 4.3.3 the Company may store the Goods until delivery whereupon the Buyer will be liable for all related costs and expenses (including without limitation storage and insurance).
- 4.4 The Buyer will provide at its expense at the Delivery Point adequate and appropriate equipment and manual labour for loading the Goods.



5 NON-DELIVERY

- 5.1 The quantity of any consignment of Goods as recorded by the Company upon dispatch from the Company's place of business shall be conclusive evidence of the quantity received by the Buyer on delivery unless the Buyer can provide conclusive evidence proving the contrary.
- 5.2 The Company shall not be liable for any non-delivery of Goods (even if caused by the Company's negligence) unless written notice is given to the Company within [7] days of the date when the Goods would in the ordinary course of events have been received.
- 5.3 Any liability of the Company for non-delivery of the Goods shall be limited to replacing the Goods within a reasonable time or issuing a credit note at the pro rata Contract rate against any invoice raised for such Goods.

6 RISK/TITLE

- 6.1 The Goods are at the risk of the Buyer from the time of delivery.
- 6.2 Ownership of the Goods shall not pass to the Buyer until the Company has received in full (in cash or cleared funds) all sums due to it in respect of:
 - 6.2.1 the Goods; and
 - 6.2.2 all other sums which are or which become due to the Company from the Buyer on any account.
- 6.3 Until ownership of the Goods has passed to the Buyer, the Buyer must:
 - 6.3.1 hold the Goods on a fiduciary basis as the Company's bailee;
 - 6.3.2 store the Goods (at no cost to the Company) separately from all other goods of the Buyer or any third party in such a way that they remain readily identifiable as the Company's property;
 - 6.3.3 not destroy, deface or obscure any identifying mark or packaging on or relating to the Goods;
 - 6.3.4 maintain the Goods in satisfactory condition insured on the Company's behalf for their full price against all risks to the reasonable satisfaction of the Company. On request the Buyer shall produce the policy of insurance to the Company; and
 - 6.3.5 hold the proceeds of the insurance referred to in Condition 6.3.4 on trust for the Company and not mix them with any other money, nor pay the proceeds into an overdrawn bank account.
- 6.4 The Buyer may resell the Goods before ownership has passed to it solely on the following conditions:
 - 6.4.1 any sale shall be effected in the ordinary course of the Buyer's business at full market value; and
 - 6.4.2 any such sale shall be a sale of the Company's property on the Buyer's own behalf and the Buyer shall deal as principal when making such a sale.
- 6.5 The Buyer's right to possession of the Goods shall terminate immediately if:
 - 6.5.1 the Buyer has a bankruptcy order made against him or makes an arrangement or composition with his creditors, or otherwise takes the benefit of any Act for the time being in force for the relief of insolvent debtors, or (being a body corporate) convenes a meeting of creditors (whether formal or informal), or enters into liquidation (whether voluntary or compulsory) except a solvent voluntary liquidation for the purpose only of reconstruction or amalgamation, or has a receiver and/or manager, administrator or administrative receiver appointed of its undertaking or any part thereof, or a resolution is passed or a petition presented to any court for the winding up of the Buyer or for the granting of an administration order in respect of the Buyer, or any proceedings are commenced relating to the insolvency or possible insolvency of the Buyer; or
 - 6.5.2 the Buyer suffers or allows any execution, whether legal or equitable, to be levied on his/its property or obtained against him/it, or fails to observe/perform any of his/its obligations under the Contract or any other contract between the Company and the Buyer, or is unable to pay its debts within the meaning of section 123 of the Insolvency Act 1986 or the Buyer ceases to trade; or
 - 6.5.3 the Buyer encumbers or in any way charges any of the Goods.
- 6.6 The Company shall be entitled to recover payment for the Goods notwithstanding that ownership of any of the Goods has not passed from the Company.
- 6.7 The Buyer grants the Company, its agents and employees an irrevocable license at any time to enter any premises where the Goods are or may be stored in order to inspect them, or, where the Buyer's right to possession has terminated, to recover them.

7 PRICE

- 7.1 The price for the Goods shall be the price set out in the Company's estimate/quotation. All estimates/quotes are good for 30 days from the date on the top of the estimate/quote.
- 7.2 The price for the Goods shall be exclusive of any value added tax and all costs or charges in relation to loading, unloading, carriage and insurance all of which amounts the Buyer will pay in addition when it is due to pay for the Goods.

8 PAYMENT

- 8.1 Payment of the price for the Goods is due and payable before shipment of the goods occurs unless otherwise negotiated by the Company and the customer.
- 8.2 Time for payment shall be of the essence.
- 8.3 No payment shall be deemed to have been received until the Company has received cleared funds.
- 8.4 All payments payable to the Company under the Contract shall become due immediately upon termination of this Contract despite any other provision.
- 8.5 The Buyer shall make all payments due under the Contract without any deduction whether by way of set-off, counterclaim, discount, abatement or otherwise unless the Buyer has a valid court order requiring an amount equal to such deduction to be paid by the Company to the Buyer.
- 8.6 If the Buyer fails to pay the Company any sum due pursuant to the Contract the Buyer will be liable to pay interest to the Company on such sum from the due date for payment at the annual rate of 10% above the base lending rate from time to time of LIBOR, accruing on a daily basis until payment is made, whether before or after any judgment.
- 8.7 The Company reserves the right to claim interest and fixed sum compensation under the Late Payment of Commercial Debts (Interest) Act 1998.



9 WARRANTY

- 9.1 The Company warrants that (subject to the other provisions of these Conditions) upon delivery, and for a period of 12 months from the date of delivery, the Goods will be of satisfactory quality within the meaning of the Sale of Goods Act 1994. Warranty provisions are strictly at the determination of the Company on a case by case basis. The Company's determinations regarding a warranty claim are final.
- 9.2 The Company shall not be liable for a breach of the warranty in Condition 9.1 unless:
- 9.2.1 the Buyer gives written notice of the defect to the Company, and (if the defect is as a result of damage in transit) to the carrier, within a reasonable amount of time when the Buyer discovers or ought to have discovered the defect; and
- 9.2.2 the Company is given a reasonable opportunity after receiving the notice to examine such Goods and the Buyer (if asked to do so by the Company) returns such Goods to the Company's place of business at the Buyer's expense for the examination to take place there.
- 9.3 The Company shall not be liable for a breach of the warranty in Condition 9.1 if:
- 9.3.1 the Buyer makes any further use of such Goods after giving such notice; or
- 9.3.2 the defect arises because the Buyer failed to follow the Company's oral or written instructions as to the storage, installation, commissioning, use or maintenance of the Goods; or
- 9.3.3 the defect arises as a result of ordinary wear and tear; or
- 9.3.4 the Buyer alters or repairs such Goods without the written consent of the Company.
- 9.4 The following are expressly excluded from the warranty in Condition 9.1:
- 9.4.1 die sets, tooling and saw blades; and
- 9.4.2 machine maintenance, adjustment and set ups.
- 9.5 Subject to Conditions 9.2 and 9.3, if any of the Goods do not conform with the warranty in Condition 9.1 the Company shall at its option repair or replace such Goods (or the defective part) or refund the price of such Goods at the pro rata Contract rate provided that, if the Company so requests, the Buyer shall, at the Buyer's expense, return the Goods or the part of such Goods which is defective to the Company.
- 9.6 If the Company complies with Condition 9.4 it shall have no further liability for a breach of the warranty in Condition 9.1 in respect of such Goods.
- 9.7 Any Goods which have been replaced will belong to the Company and any repaired or replacement Goods will be guaranteed on these terms for the unexpired portion of the 12 month period.
- 9.8 All work carried out under the warranty contained in Condition 9.1 must be approved by the Company.
- 9.9 All electrical components and gearboxes carry a one-year replacement warranty from the manufacturer. This warranty does not include labour or shipping costs.

10 RETURNS

- 10.1 The Buyer shall not be entitled to cancel any order or Contract or return any goods without the prior written approval of the Company.
- 10.2 Special orders cannot be cancelled under any circumstances.
- 10.3 If the Company agrees to accept the return of any Goods it shall be on terms that
- a) They are returned at the Buyer's expense to the Company within 30 days of delivery
- b) They are received by the Company in "as new" condition without any damage or use
- c) Any refund will be subject to a 15% "restocking charge"
- and such other terms as the Company may impose.

11 LIMITATION OF LIABILITY

- 11.1 Subject to Condition 9, the following provisions of this Condition 10 set out the entire financial liability of the Company (including any liability for the acts or omissions of its employees, agents and sub-contractors) to the Buyer in respect of:
- 11.1.1 any breach of these Conditions; and
- 11.1.2 any representation, statement or tortious act or omission including negligence arising under or in connection with the Contract.
- 11.2 All warranties, conditions and other terms implied by statute or common law (save for the conditions implied by section 12 of the Sale of Goods Act 1979) are, to the fullest extent permitted by law, excluded from the Contract.
- 11.3 Nothing in these Conditions excludes or limits the liability of the Company for death or personal injury caused by the Company's negligence or for fraudulent misrepresentation.

(THE BUYER'S ATTENTION IS DRAWN TO THE PROVISIONS OF CONDITION 11.4 BELOW)

- 11.4 Subject to Conditions 11.2 and 11.3:
- 11.4.1 the Company's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation or otherwise, arising in connection with the performance or contemplated performance of this Contract shall be limited to the invoiced amount per each and every individual transaction; and
- 11.4.2 the Company shall not be liable to the Buyer for any indirect or consequential loss or damage (whether for loss of profit, loss of business, depletion of goodwill or otherwise), costs, expenses or other claims for consequential compensation whatsoever (howsoever caused) which arise out of or in connection with the Contract.

12 INTELLECTUAL PROPERTY

- 12.1 The property and any copyright or other intellectual property rights in:
- 12.1.1 any Buyer Materials shall belong to the Buyer;
- 12.1.2 any Company Materials shall, unless otherwise agreed in writing between the Buyer and the Company, belong to the Company, subject only to a license in favor of the Buyer to use the Company Materials for the purposes of receiving the Goods.



13 ASSIGNMENT

- 13.1 The Buyer shall not be entitled to assign the Contract or any part of it without the prior written consent of the Company.
- 13.2 The Company may assign the Contract or any part of it to any person, firm or company.

14 FORCE MAJEURE

The Company reserves the right to defer the date of delivery or to cancel the Contract or reduce the volume of the Goods ordered by the Buyer (without liability to the Buyer) if it is prevented from or delayed in the carrying on of its business due to circumstances beyond the reasonable control of the Company including, without limitation, acts of God, governmental actions, war or national emergency, riot, civil commotion, fire, explosion, flood, epidemic, lock-outs, strikes or other labour disputes (whether or not relating to either party's workforce), or restraints or delays affecting carriers or inability or delay in obtaining supplies of adequate or suitable materials. Provided that, if the event in question continues for a continuous period in excess of [180] days, the Buyer shall be entitled to give [not less than [3] days] notice in writing to the Company to terminate the Contract.

15 GENERAL

- 15.1 Each right or remedy of the Company under the Contract is without prejudice to any other right or remedy of the Company whether under the Contract or not.
- 15.2 If any provision of the Contract is found by any court, tribunal or administrative body of competent jurisdiction to be wholly or partly illegal, invalid, void, voidable, unenforceable or unreasonable it shall to the extent of such illegality, invalidity, voidness, voidability, unenforceability or unreasonableness be deemed severable and the remaining provisions of the Contract and the remainder of such provision shall continue in full force and effect.
- 15.3 Failure or delay by the Company in enforcing or partially enforcing any provision of the Contract will not be construed as a waiver of any of its rights under the Contract.
- 15.4 Any waiver by the Company of any breach of, or any default under, any provision of the Contract by the Buyer will not be deemed a waiver of any subsequent breach or default and will in no way affect the other terms of the Contract.
- 15.5 The parties to this Contract do not intend that any term of this Contract will be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person that is not a party to it.
- 15.6 The formation, existence, construction, performance, validity and all aspects of the Contract shall be governed by English law and the parties submit to the exclusive jurisdiction of the English courts.

16 COMMUNICATIONS

- 16.1 All communications between the parties about this Contract must be in writing and delivered by hand or sent by pre-paid first class post or sent by facsimile transmission:
 - 16.1.1 (in case of communications to the Company) to its registered office or such changed address as shall be notified to the Buyer by the Company; or
 - 16.1.2 (in the case of the communications to the Buyer) to the registered office of the addressee (if it is a company) or (in any other case) to any address of the Buyer set out in any document which forms part of this Contract or such other address as shall be notified to the Company by the Buyer.
- 16.2 Communications shall be deemed to have been received:
 - 16.2.1 if sent by pre-paid first class post, 2 days (excluding Saturdays, Sundays and bank and public holidays within the UK) after posting (exclusive of the day of posting);
 - 16.2.2 if delivered by hand, on the day of delivery;
 - 16.2.3 if sent by facsimile transmission on a working day prior to 4.00 p.m., at the time of transmission and otherwise on the next working day. Communications addressed to the Company shall be marked for the attention of the designated purchasing agent for the buyer.

17 EXPORT

- 17.1 In these Conditions "Incoterms" means the international rules for the interpretation of trade terms of the International Chamber of Commerce as in force at the date when the Contract is made. Unless the context otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of Incoterms shall have the same meaning in these Conditions, but if there is any conflict between the provisions of Incoterms and these Conditions, the latter shall prevail.
- 17.2 Where the Goods are supplied for export from the United Kingdom, the provisions of this Condition 17 shall (subject to any special terms agreed in writing between the Buyer and the Company) apply notwithstanding any other provision of these Conditions.
- 17.3 The Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods into the country of destination and for the payment of any duties on them.
- 17.4 Unless otherwise agreed in writing between the Buyer and the Company, the Goods shall be delivered fob the air or sea port of shipment and the Company shall be under no obligation to give notice under section 32(3) of the Sale of Goods Act 1979.
- 17.5 The Buyer shall be responsible for arranging for testing and inspection of the Goods at the Company's premises before shipment. The Company shall have no liability for any claim in respect of any defect in the Goods which would be apparent on inspection and which is made after shipment, or in respect of any damage during transit.



INTRODUCTION

The quality and reliability of the components assembled on a Baileigh Industrial 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
- Set-up 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 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 unauthorized modifications.

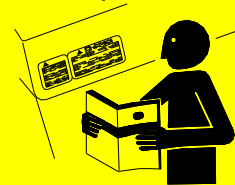


Note: This symbol refers to useful information throughout the manual.



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. **DANGER** identifies a hazard or unsafe practice that will result in severe **Injury or Death**.



Safety signs with signal word **DANGER** or **WARNING** are typically near specific hazards.



General precautions are listed on **CAUTION** safety signs. **CAUTION** also calls attention to safety messages in this manual.



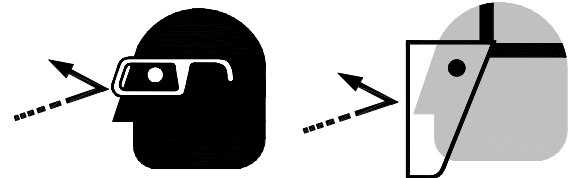


SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.



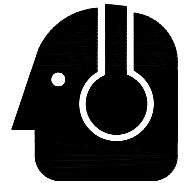
PROTECT EYES

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



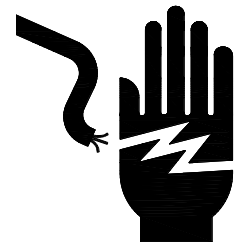
PROTECT AGAINST NOISE

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



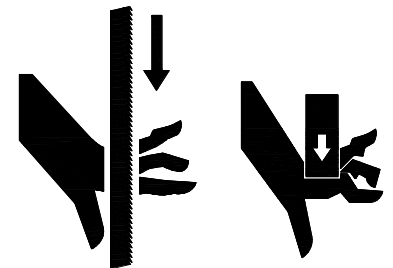
HIGH VOLTAGE

USE CAUTION IN HIGH VOLTAGE AREAS. DO NOT assume the power to be off.
FOLLOW PROPER LOCKOUT PROCEDURES.



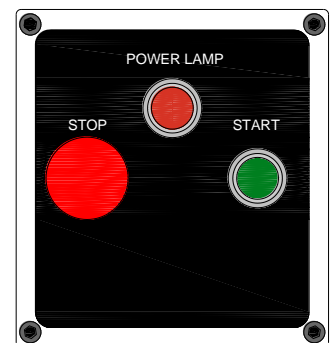
BEWARE OF CUT AND PINCH POINTS

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 saw can be stopped immediately by pressing the red **“STOP”** palm button. When ready to continue saw operation, press the green **“START”** push button to start the blade motor.





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 won't 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

1. **Only trained and qualified personnel can operate this machine.**
2. **Make sure guards are in place and in proper working order before operating machinery.**
3. **Remove any adjusting tools.** Before operating the machine, make sure any adjusting tools have been removed.
4. **Keep work area clean.** Cluttered areas invite injuries.
5. **Overloading machine.** By overloading the machine you may cause injury from flying parts. **DO NOT** exceed the specified machine capacities.
6. **Dressing material edges.** Before bending sheet metal, always chamfer and deburr all sharp edges.
7. **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 machines rated capacity.
8. **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.
9. **Dress appropriate. 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.
10. **Use eye and ear protection.** Always wear ISO approved impact safety goggles. Wear a full-face shield if you are producing metal filings.



11. **Do not overreach.** Maintain proper footing and balance at all times. **DO NOT** reach over or across a running machine.
12. **Stay alert.** Watch what you are doing and use common sense. **DO NOT** operate any tool or machine when you are tired.
13. **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.
14. **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.
15. **Blade adjustments and maintenance.** Always keep blades sharp and properly adjusted for optimum performance.
16. **Keep children away.** Children must never be allowed in the work area. **DO NOT** let them handle machines, tools, or extension cords.
17. **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.
18. **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.
19. **DO NOT** touch live electrical components or parts.
20. Be sure all equipment is properly installed and grounded according to national, state, and local codes.
21. Keep all cords dry, free from grease and oil, and protected from sparks and hot metal.
22. Inspect power and control cables periodically. Replace if damaged or bare wires are exposed. **Bare wiring can kill!**
23. **DO NOT** bypass or defeat any safety interlock systems.
24. Keep visitors a safe distance from the work area.



TECHNICAL SPECIFICATIONS

Table Size	24.4" x 22.8" (620x580mm)
Butt-Welder Capacity (Blade Width)	.74" (18.79mm)
Welder Capacity	.74" (18.79mm)
Slant of Table	10°Front/Rear, 15° Left/Right
Motor	2hp (1.5kw)
Maximum Thickness	13.25" (336.5mm)
Throat Depth	22.88" (581mm)
Blade Width	1/4" – 3/4" (6.35 – 19.05mm)
Blade Length	167.72" 4260mm)
Blade Speed	80 – 318 rpm
Blade Thickness	.032" (.812mm)
Power	220VAC, 1ph, 50hz
Shipping Weight	1,430 lbs. (649kg)
Shipping Dimensions	53" x 37" x 82" (1346x940x2083mm)

TECHNICAL SUPPORT

Our Technical Support department can be reached at **+44 (0)24 7661 9267**. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs.

For specific application needs or future machine purchases contact the Sales Department at: **+44 (0)24 7661 9267** or sales@baileighindustrial.co.uk.



Note: *The photos illustrations using 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 in one crate. 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: If any parts are missing, do not plug in the power cable, or turn the power switch on until the missing parts are obtained and installed correctly.

Cleaning

Your machine may be shipped with a rustproof waxy oil coating and grease on the exposed unpainted metal surfaces. To remove this protective coating, use a degreaser or solvent cleaner. 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.

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

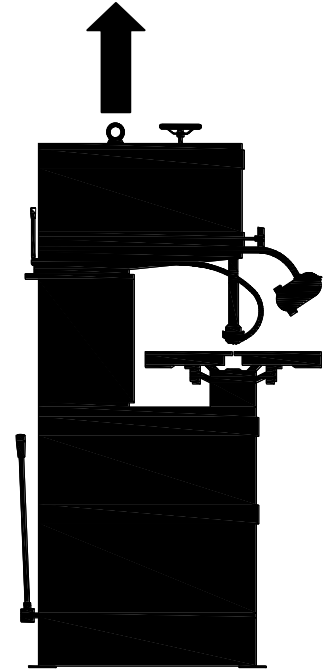
⚠ CAUTION: When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.





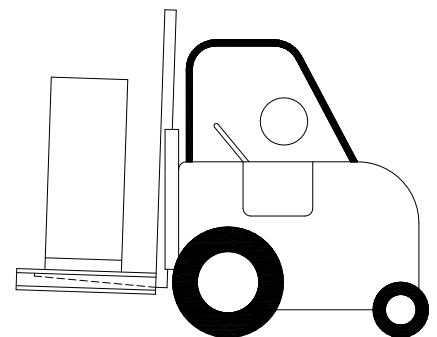
TRANSPORTING AND LIFTING

⚠ CAUTION: 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. Choose a location that will keep the machine free from vibration and dust from other machinery. Keep in mind that having a large clearance area around the machine is important for safe and efficient working conditions.



Follow these guidelines when lifting:

- Always lift and carry the machine with the lifting holes provided at the top of the machine.
- Use lift equipment such as straps, chains, capable of lifting 1.5 to 2 times the weight of the machine.
- Take proper precautions for handling and lifting.
- Check if the load is properly balanced by lifting it an inch or two.
- Lift the machine, avoiding sudden accelerations or quick changes of direction.
- Locate the machine where it is to be installed, and lower slowly until it touches the floor.
- 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 fork lift with sufficient lifting capacity and forks that are long enough to reach the complete width of the machine.
- Remove the 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:

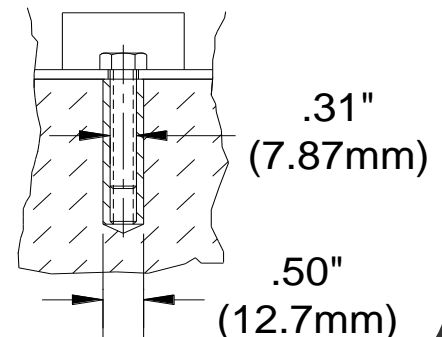
- Overall weight of the machine.
- Weight of material being processed.
- Sizes of material to be processed through the machine.
- Space needed for auxiliary stands, work tables, or other machinery.
- Clearance from walls and other obstacles.
- Maintain an adequate working area around the machine for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

Before beginning assembly, take note of the following precautions and suggestions.

- Is the machine is bolted to the pallet? Before attempting any of the assembly procedures remove all of the loose parts and hardware and unbolt the machine from the pallet.
- **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 tool 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

- Position the machine on a firm and level concrete floor.
- Maintain a safe operating distance around the machine.
- Anchor the machine to the floor, as shown in the diagram, using bolts and expansion plugs or sunken tie rods that connect through holes in the base of the stand.





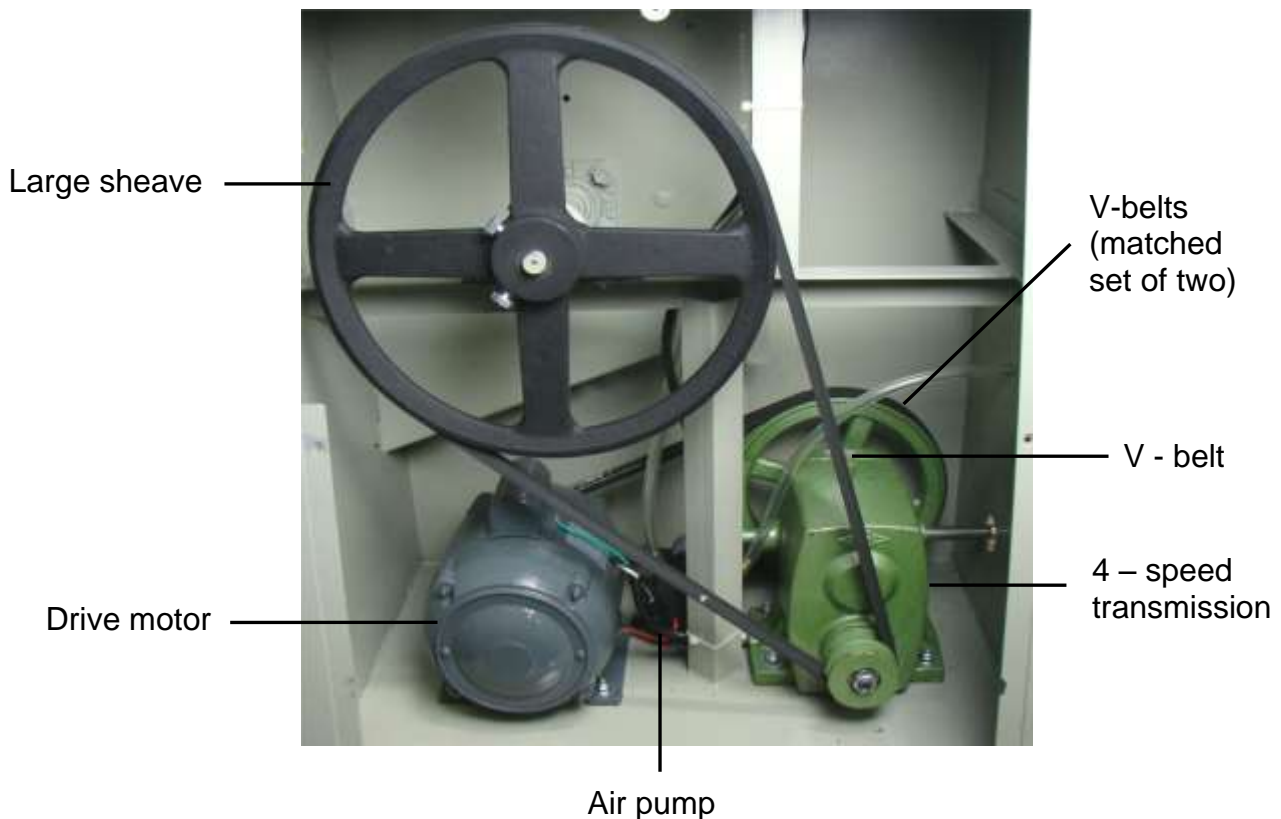
GETTING TO KNOW YOUR MACHINE





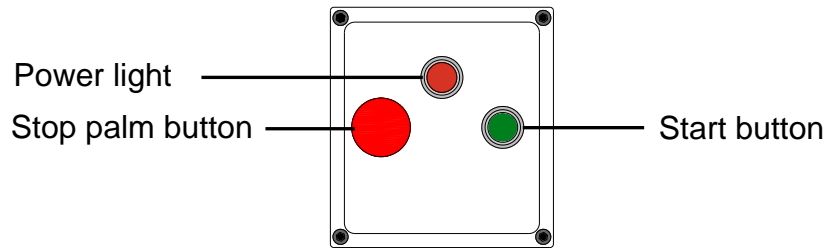
Item	Description	Function
A	Blow-off air and oil inlet	Supplies air and oil to blow-off pump
B	Transmission Speed Shift Handle	Used to change speed of blade
C	Electrical cord	Supplies power to band saw
D	Blade Shear	Trims blade ends prior to welding
E	Blade tension adjustment wheel	Turn clockwise (cw) to increase blade tension
F	Upper blade pulley access door	Access to upper pulley lubrication and adjustment
G	Guide post adjusting knob	Loosen knob to raise and lower the guide post
H	Flexible light fixture	Illuminates work area
I	Blade guide	Used to correctly position the blade
J	Viewing Light	Provides light for blade welding and grinding
K	Blow-off	Cools blade and removes dust and grit
L	Adjustable work table	Supports piece part for straight or miter cuts
M	Lower blade pulley access door	Access to lower pulley and blade brush

Drive Components



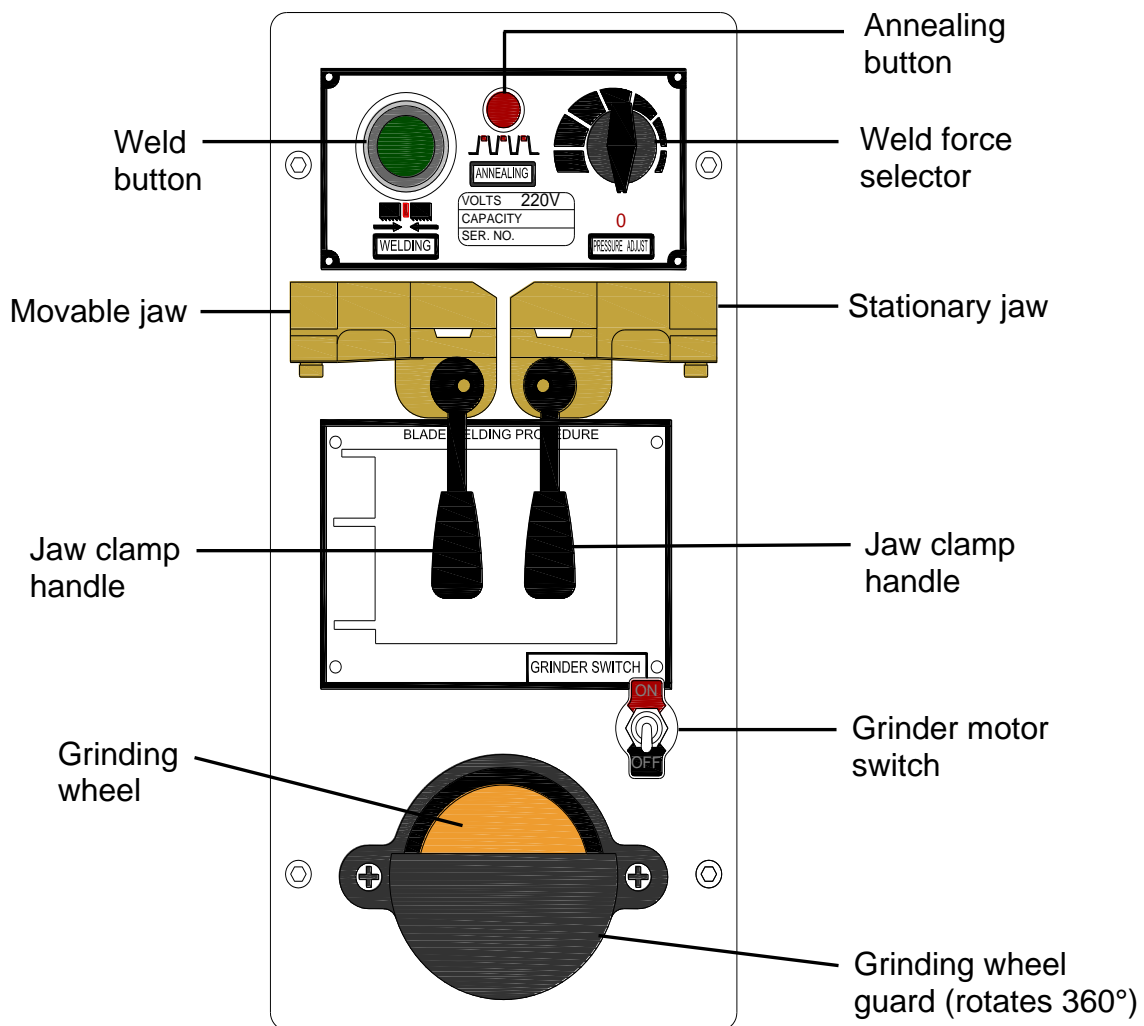


Control Panel



Pressing the green start button will energize the blade motor and turn on the red power light. (Make sure the blade is rotating downward towards the work table.) To stop the saw motor press the red palm button.

Weld Station





Lower Blade Pulley with Adjustable Brush

The brush is used to help control the amount of metal fillings and dirt between the blade and pulleys. Keep it clean and adjust as it wears. The bristles should have a slight pressure against the pulley at all times.



Transmission Speed Shift Lever

When changing speeds make sure the saw is running.

The speeds are as follows:

Speed 1 – 80 fpm (24mpm)

Speed 2 – 127 fpm (38mpm)

Speed 3 – 191 fpm (58mpm)

Speed 4 – 318 fpm (97mpm)



Blade Shear

The blade shear is attached to the saw, just left of the saw band weld station. It will cut saw bands ranging in width from 0.062" to 1" (1.6mm to 25.4mm) and thickness of 0.025" to 0.035" (0.63mm to 0.89mm).





Tilting Work Table

Located under the work table are the angle adjusting bolts. As the table is tilted the angles can be read on the graduated scales.



Upper and Lower Blade Guides

The blade guides provide side-to-side and back support for keeping the blade straight while cutting material. The blade guides are tungsten steel where they come in contact with the blade to reduce wear on the guides. The guides must be kept properly adjusted for accurate cuts.






ELECTRICAL

ATTENTION: HAVE ELECTRICAL UTILITIES CONNECTED TO MACHINE BY A CERTIFIED ELECTRICIAN!

Your Baileigh Machine is  Certified

Check if the available power supply is the same as required by the machine (consult nameplate on machine)


 **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.

Motor Specifications

Your tool is wired for 220 volt, 50Hz alternating current. Before connecting the tool to the power source, make sure the machine is cut off from power source.

Considerations

- Observe local electrical codes when connecting the machine.
- The circuit should be protected with a time delay fuse or circuit breaker with a amperage rating slightly higher than the full load current of machine.
- A separate electrical circuit should be used for your tools. 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 tool.
- 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 tool 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 a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool 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
0-6	16	16	16
7-10	16	16	14
11-12	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. Locate the power cord on the end of the saw.
2. Install the appropriate plug onto the end of the cord (supplied by customer).
3. Connect the two power wires terminals **L1** and **L2**. Connect the ground wire (typically green) to the **E** terminal.
4. Check that the power cord has not been damaged during installation.



SAW OPERATION

⚠ CAUTION: Always wear proper eye protection operating the saw. The bandsaw blade is sharp and will cut fingers and hands. Keep hands and fingers clear of the blade. Use a block of wood as a pusher for the material being cut. It is recommended to always wear leather gloves when working near the blade.

1. Verify the work area including the table is clear of obstructions.
2. Set the guide post to approximately .25" (6.35mm) above the piece part and tighten the guide post knob.
3. Set the table and/or fence, miter guide as needed to complete the cut. Have a push block within reach without crossing the blade path or vision of the cut area. Simulating the cut without power may be helpful.
4. Have proper support for the material to be cut. This should include both the finished piece and the excess material.
5. Place the transmission in the desired speed for the material to be cut.
6. Twist the emergency stop button to reset and supply power to the machine, the white power light should be lit.
7. Press the green start button to energize the motor starting the blade. The saw blade should now be moving. If any abnormal sounds or vibrations are noticed, press the red stop button immediately.
8. Carefully place the material on the table.
9. When positioned, feed the material into the blade using a steady smooth motion.
10. When the cut is complete, press the red stop button on the control panel and wait until the blade stops before removing any material near the blade.
11. Press the emergency stop button if the saw will not be used immediately.





SELECTING A SAW BLADE

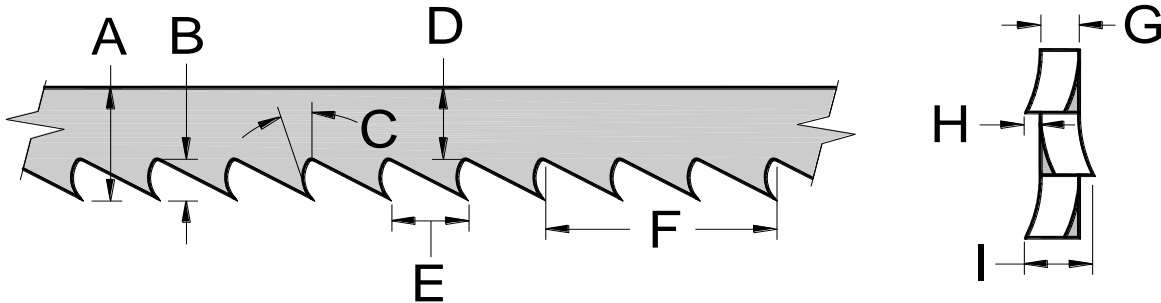
To achieve a quality, economical, and efficient saw cut, the following points must be taken into consideration:

- Type of material being cut (ferrous or non-ferrous)
- Material hardness and physical dimensions
- Feed rate pressure
- Speed of blade
- Blade tooth profile

Choose a tooth pitch that is suitable for the piece part. Thin wall profiles, including tubes and pipes, require close tothing. At least 3-6 teeth should be in contact with the material while cutting. Large solid or transverse sections require widely spaced tothing 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 tothing to avoid clogging. When choosing the right blade for the cut, knowledge of basic blade characteristics is important.



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 its circumference or by the formula below:

$$\text{Blade Length} = (2 \times A) + (3.14 \times B)$$

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 GUIDE

Outer Diameter of the Tube (inch) / Tooth pitch																	
S	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	8-12tpi	6-10tpi	5-8tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi
0.157	14	14	10-14tpi	10-14tpi	10-14tpi	10-14tpi	8-12tpi	8-12tpi	8-12tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi	4-6tpi
0.197	14	10-14tpi	10-14tpi	10-14tpi	10-14tpi	8-12tpi	8-12tpi	8-12tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	4-6tpi	3-4tpi	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	4-6tpi	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	2-3tpi	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	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi	2-3tpi
1.181				4-6tpi	4-6tpi	3-4tpi	3-4tpi	3-4tpi	2-3tpi	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	1.4-2tpi	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										1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi
7.873											1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi
9.842												1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi	1.4-2tpi
11.81													1-1.4tpi	1-1.4tpi	1-1.4tpi	1-1.4tpi	1-1.4tpi
13.778													1-1.4tpi	1-1.4tpi	1-1.4tpi	1-1.4tpi	1-1.4tpi
15.747																	
17.716																	
19.685																	

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 thickness (s).



Causes of Blade Breakage

- Blade guides are not aligned or adjusted properly.
- Blade has dull or damaged teeth.
- Feeding the piece part too quickly into the blade.
- Forcing or twisting a blade into a small radius.
- Having the wrong pitched blade for the thickness of the piece part.
- Too much tension on the blade.
- Top guide assembly is more than .25" (6.3mm) above the piece part.
- After welding, the blade has a bump, is misaligned, or not finished properly.

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 contact the Baileigh Industrial Sales department to have one of our technicians assist you in selecting the proper band saw blade for your cutting applications.



OPERATION OF BLADE WELDER

Overall Description

⚠ CAUTION: The bandsaw blade is sharp and can cut your hand or fingers. Always disconnect power to the saw and wear leather gloves when working near the blade.

The weld station on the Baileigh band saw can butt weld and anneal blades from 0.125" (3.1mm) to 0.625" (15.8mm) wide by 0.032" (0.8mm) thick. It is a resistance type welder with two jaws that secure the blade ends during the welding process. A selector knob is turned counterclockwise (**ccw**) to pre-load the left jaw, forcing the blade ends against one another. When the operator presses the weld button, electric current passes through the butted blade ends. The left jaw blade end is pushed into the molten puddle and welded to the right blade end. Remove the blade from the jaws if any weld flash is present and carefully grind it off. The blade joint must now be placed back into the jaws where annealing of the weld joint takes place. This procedure will reheat the weld area so it is not so brittle and should return it to its original condition.

It may become necessary to weld blades when:

1. They break unexpectedly and the teeth are still sharp enough to cut.
2. You need to make blades from a bulk saw blade coil.
3. When you need to weld a blade that was cut to make an internal contour cut on a piece part.



Preparing the Saw Band Prior to Welding

⚠ CAUTION: Shear Hazard – Keep Hands From Under Blade.

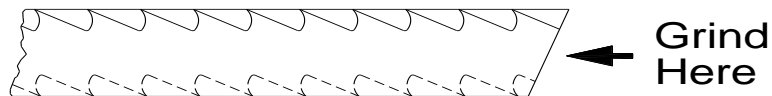
Blade Cutter To cut the band apart or to cut the band to a specified length, use the blade shear. The shear is capable of cutting saw bands from 0.06" to 1" (1.6mm to 25.4mm) in width and 0.025" to 0.035" (0.63mm to 0.89mm) in thickness. To use the blade cutter, raise the handle, lay the blade against the guide perpendicular to the cutting knife, and make the cut.



Blade Shear Guide

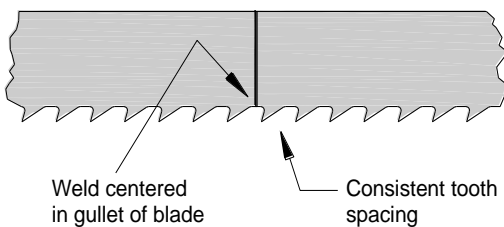
If the saw band is not square after shearing, use the grinding wheel to square it up. Take small cuts so as not to overheat the blade band. To get both ends of the band to match perfectly, twist it and hold the ends so that the teeth are on opposite sides and pointing in opposite directions. Now grind as shown below.

Grinding Wheel

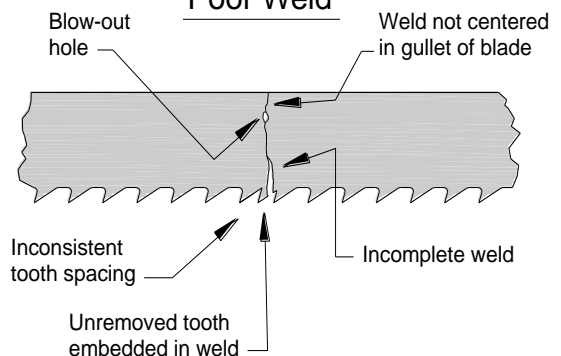


Tooth Spacing on Blade Band Occasionally one or more teeth may have to be ground off on either side of the cut to ensure blade tooth uniformity.

Good Weld



Poor Weld





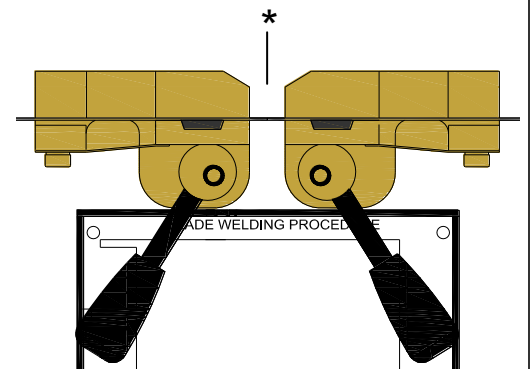
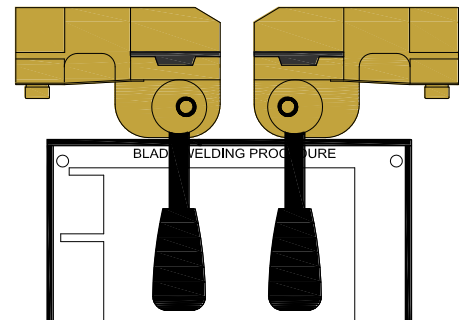
Preparing the Blade Welder

⚠ WARNING: The electrical current that flows through the blade welder when operating could cause Serious Personal Injury or Death. To avoid the risk of electrocution, never touch any metal part of the weld station during welding or annealing of the blade.

1. Make sure the jaws of the welder are clean to make good electrical contact.
2. Check that the jaws will adequately hold the thickness of blade you are using.
3. The left jaw should slide easily when turning the weld force selector knob.
4. Check over the grinding wheel and make sure it is in good condition.

Making the Weld

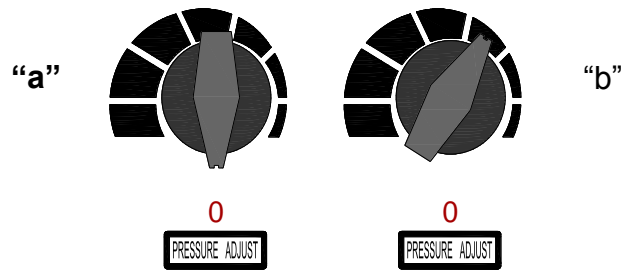
1. Before making a weld, turn off the band saw motor by pressing the red “stop” button. The white “power lamp” light should still be lit.
2. Turn on the viewing light that illuminates the weld station.
3. Turn the weld force selector knob clockwise (cw) to the start or “0” position.
4. After squaring the ends of the blade, insert each half until centered between the clamps.
5. Secure the blade by raising the handles. Check that the blade ends fit together with no gap. If a gap is noticed, remove and re-square the blade.
6. Turn the weld force selector knob from “0” to the third marker. This would be for a 0.25” (6.3mm wide blade. (Every 2mm of blade width = 1 marker approx.).



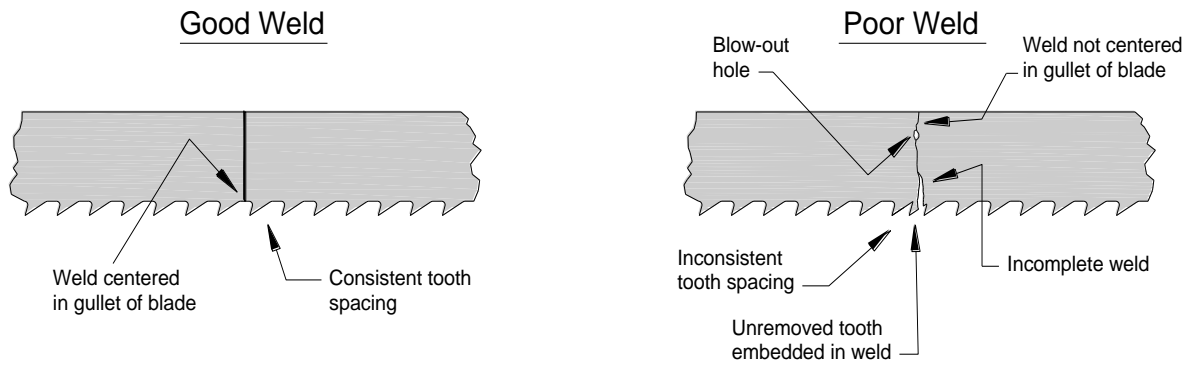


⚠ WARNING: Sparks from the blade welding operation can be thrown in all directions and can cause serious personal injury or fire. When using the blade welder, always protect yourself and others from flying sparks. Keep fire extinguisher equipment close by and **DO NOT** weld near flammables.

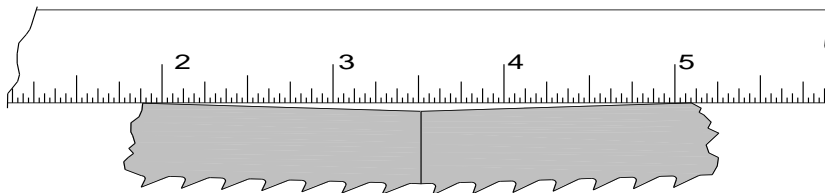
- 7. The selector knob pre-loads the left jaw forcing the blade ends against one another.
- 8. Press and release the red weld button. DO NOT hold it down. Electric current passes through the butted blade ends. The left jaw blade end is pushed into the molten puddle and welded to the right blade end. Inspect the weld carefully after removing from the welder.



- 9. If you see what appears to be an excessive amount of flashing you can try backing off on the weld force setting.



Check blade band misalignment with a straight edge

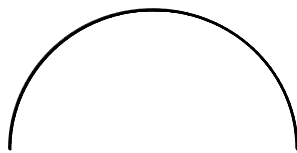




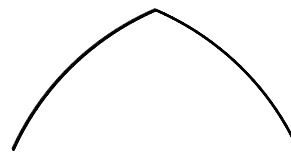
Annealing the Weld

⚠ CAUTION: The bandsaw blade is sharp and can cut your hand or fingers. Heat from the welding and annealing process can cause severe burns. Always wear leather gloves when working near the blade.

1. When a saw band is butt welded, the site of the weld “air hardens” and will become brittle. To return the metal to its approximate original state it must be gradually heated and cooled several times called annealing.
2. Turn the weld force selector knob to “0”.
3. Clamp the saw band in the jaws making sure to carefully center the weld. It is still brittle.
4. Press the yellow annealing button quickly with a few short bursts to make the weld area a dull orangish-red. (The wider the blade, the more bursts and time it will take.) After reaching a dull orangish-red, allow the area to cool 15-30 seconds and then repeat the heat twice more. **Too much heat can damage the temper or burn through and destroy the weld.**
5. After welding and tempering the blade, test the strength and flexibility of the saw band by bending it in an arc similar to the pulley on the saw.



Bend Like This



Not Like This



Grinding the Weld

⚠ CAUTION: The bandsaw blade is sharp and can cut your hand or fingers. Keep hands and fingers away from rotating grinding wheel. Wear proper eye protection. Always wear leather gloves when working near the blade.

1. The grinding wheel is used for both preparing the saw band for welding and removing flash after annealing. Flash must be removed from both sides of the weld to maintain the blades actual thickness. This will then allow the blade to pass through the guides without any obstructions.
2. **DO NOT** burn or overheat the weld area when grinding.





SAW ADJUSTMENTS

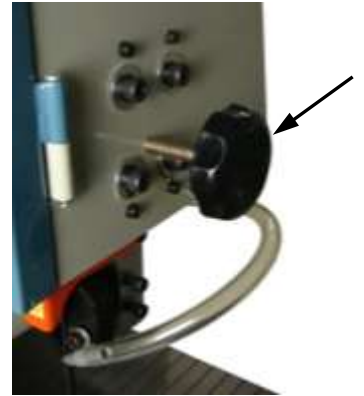
Guide Post

The guide post assembly serves two purposes.

- First, it positions the orange blade guard between the piece part and the upper pulley housing to protect the operator from the exposed blade.
- Second, it positions the upper blade guides close to the piece part for support of the blade.

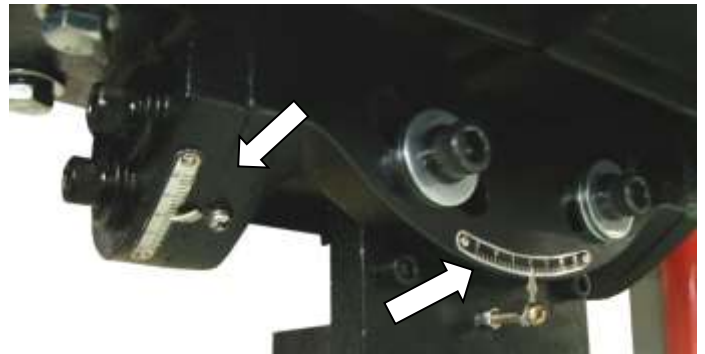
To properly position the guide post:

1. DISCONNECT POWER FROM THE BANDSAW.
2. Hold the guide post with one hand and loosen the guide post knob.
3. Locate the bottom of the blade guides .25" (6.35mm) above the piece part and tighten the guide post knob to hold it securely.



Graduated Scales to Show Tilt of Table

The table can be tilted 10° forward and 10° back or 15° left and 15° right as read on the scales.



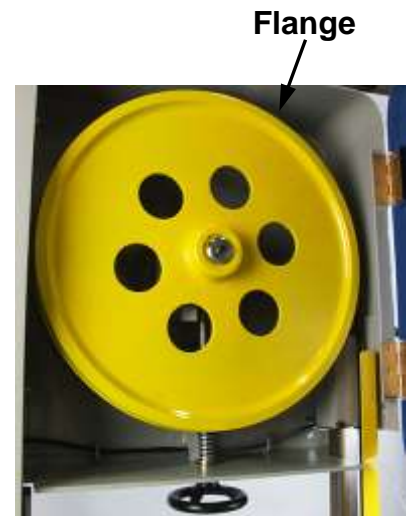


Blade Tension Adjustment Wheel

Without proper tension a bandsaw blade cannot deliver the necessary cutting efficiency. Not enough tension can lead to blade run out, increased wear, and poor finish on the piece part. Too much tension can cause the blade to break. To check the blade tension you can use a blade tensioner (if available) or by hand as explained below.

To properly tension the blade, follow the procedure below.

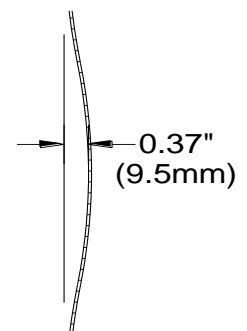
1. DISCONNECT POWER FROM THE BANDSAW.
2. Open the upper pulley access door.
3. Loosen the guide post adjusting knob raise the upper blade guide as high as it will go, and secure it.
4. Check the blade deflection at a point halfway between the table and the upper blade guide. It should be about 0.37" (9.5mm) when applying a moderate side pressure.
5. If a tension adjustment is necessary, make small adjustments to the handwheel. Turning the handwheel clockwise (cw) increases the tension and turning it counterclockwise (ccw) will decrease the blade tension. After adjusting the handwheel, rotate the top pulley several times by hand and then re-check the deflection.



Note: As the top pulley is rotated, make sure the blade does not touch the flange of the pulley.



IMPORTANT: To prolong the life of the blade, release the tension on the blade if the bandsaw will be idle for an extended period of time.



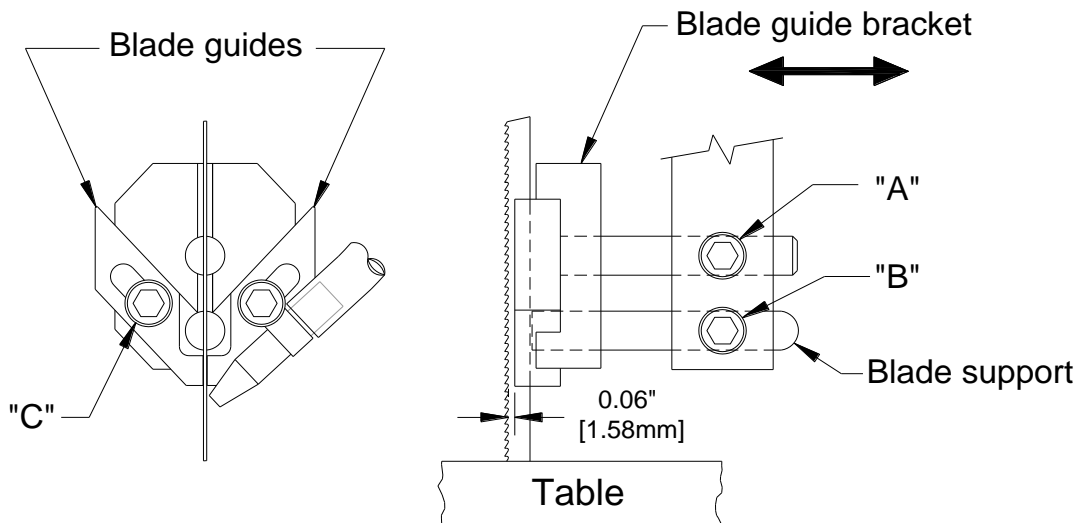


Adjusting the Blade Guides

1. DISCONNECT POWER FROM THE BAND SAW.
2. Check to make sure the guide post is secure and the blade has been properly tensioned.
3. Using a 5mm hex wrench you need to loosen the socket cap screws "A" and "B".
4. Slide the blade guide bracket so the blade guides are approximately 0.06" (1.58mm) behind the tooth gullets. Tighten socket cap screw "A" only.



Note: The blade guides need to be adjusted far enough back so they are behind the tooth gullets when the blade is pushed back against the blade support.



5. With socket capscrew "B" still loose, slide the blade support rod up to, but not touching the back end of the blade. Re-tighten socket capscrew "B".
6. Next the blade needs to be centered between the blade guides. To do this, first loosen the socket capscrews "C" using a 5mm hex wrench. Now slide a piece of copy machine paper or a dollar bill between each side of the blade guide and the blade. Either of them should be 0.004" (0.1mm) thick. Gently pinch the paper between the blade guides and the blade. Now tighten each socket capscrew "C". (Check the position of the air nozzle). The guides should now be positioned correctly without touching the blade.



Note: Over time the blade inserts will wear. When this happens, flip over and reverse the guides. If the blade wears a groove into the blade support, loosen and rotate it to a new spot.



Changing a Blade

⚠ CAUTION: The bandsaw blade is sharp and can cut your hand or fingers. Always disconnect power to the saw and wear leather gloves when working near the blade.

1. DISCONNECT POWER FROM THE BANDSAW.
2. Place the transmission in neutral.
3. Unlatch and swing open the upper and lower pulley access doors.
4. Release the blade tension by rotating the tension wheel "E" counterclockwise (**ccw**).
5. Put on gloves to protect your hands. Now slide the blade off of the upper and lower sheaves, around the blade guards, and through the slot in the table.
6. Install the new blade in the reverse order.
7. Make sure the back edge of the blade is next to, but not touching the flange of the top sheave. (If the blade band is allowed to make contact with the flange you could damage the band or the sheave.)
8. Turn the tension wheel to tighten the blade following the "Blade Tension Adjustment Wheel" procedure.
9. Carefully make a few rotations of the top sheave by hand to make sure the blade band is tracking evenly.





Blade Tracking

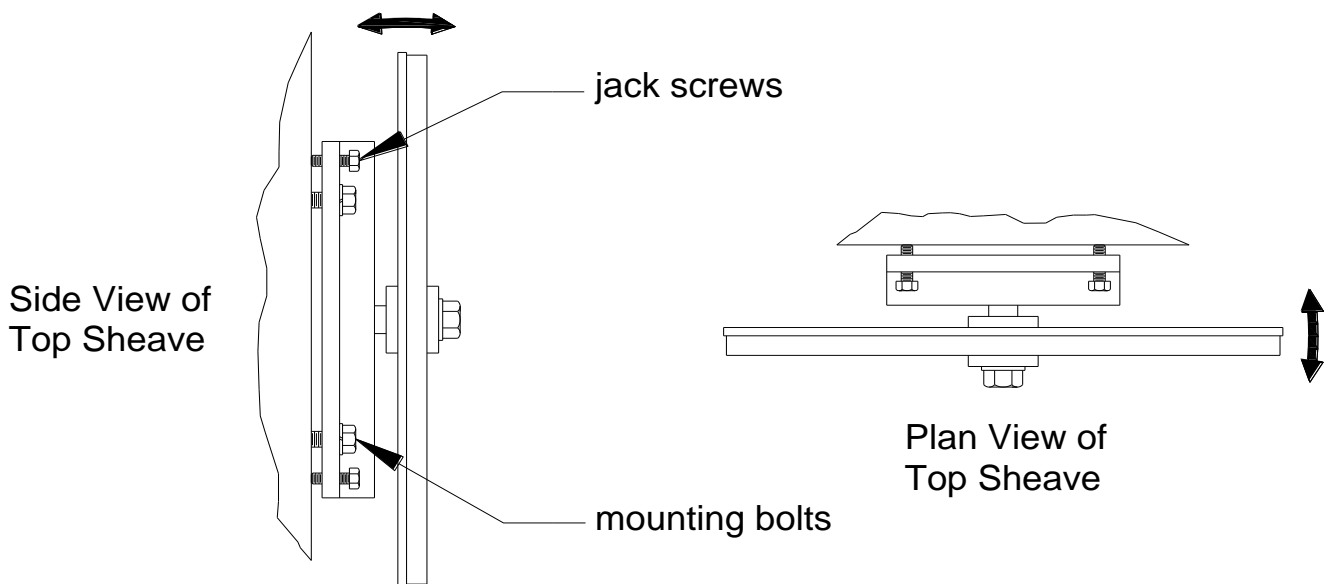


Note: Blade tracking has been set at the factory and should not require adjusting. Before making any tracking adjustments, try a new blade. Warped blades will not track properly.

If a tracking issue occurs, adjust the top sheave.

When the blade band is tracking towards the flange:

1. Loosen the (4) bearing plate mounting bolts.
2. Back out the top (2) jack screws a bit.
3. Re-tighten the (4) mounting bolts and check the tracking again.
4. Reverse the procedure to track the blade band away from the flange.

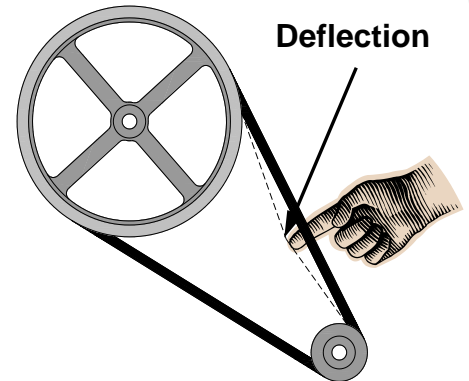




Tensioning and Replacing V-Belts

V-belts will stretch through usage. Check the tension of the belts every three months. More often if the band saw is used daily.

1. DISCONNECT POWER FROM THE BANDSAW.
2. Remove the drive access panel.
3. Make sure the pulleys are aligned to reduce side wear on the belts.
4. Push the center of each belt. When properly tensioned the amount of deflection should be approximately 0.75" (19mm).
5. If the belt tension needs adjusting or a belt needs replacing, loosen the capscrews on the motor, the transmission case, or the air pump and slide that component in the frame slots. Retighten the capscrews after adjusting or replacing a belt(s).
6. Replace the drive access panel.



Note: Replace the two belts between the motor pulley and the transmission pulley with a matched set.

Storing Machine for Extended Period of Time


If the Band Saw is to be inactive for a long period of time, prepare the machine as follows:

1. Shift gearbox into neutral (run motor when shifting)
2. Detach the plug from the electrical supply panel.
3. Clean and grease the machine.
4. Release tension on the blade or remove blade.
5. Cover the machine

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.



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.

Daily Maintenance

- Do a general cleaning by removing dust and metal chips from the machine.
- Clean the blade brush.
- Inspect the saw blade for wear.
- Check that the blade guards and emergency stop button are in good working order.
- If you did blade welding, clean the clamping pads.

Weekly Maintenance

- Thoroughly clean the machine.
- Remove chips from inside the guard housing for the saw blade.



Note: When cleaning chips and debris from the machine, use a brush and a shop vacuum. **DO NOT** blow off the machine with compressed air. The force of the compressed air may force chips into critical mechanisms or may inflict injury to yourself or others.

- Use compressed air to clean the blade guides.
- Inspect the grinding wheel for wear.

Monthly Maintenance

- Check the blade guides and blade support for wear. (rotate or replace if necessary)
- Tighten any loose bolts, nuts, or screws on the machine.
- Re-grease the drive bearings.
- Inspect the blade brush for wear. (Adjust or replace)
- Grease the pivot of the blade shear.
- Wipe shafts and threaded rods with a light lubricant.
- Inspect the V-belts for wear (every 3 months)



Note: Proper maintenance can increase the life expectancy of your machine.



Oil Disposal

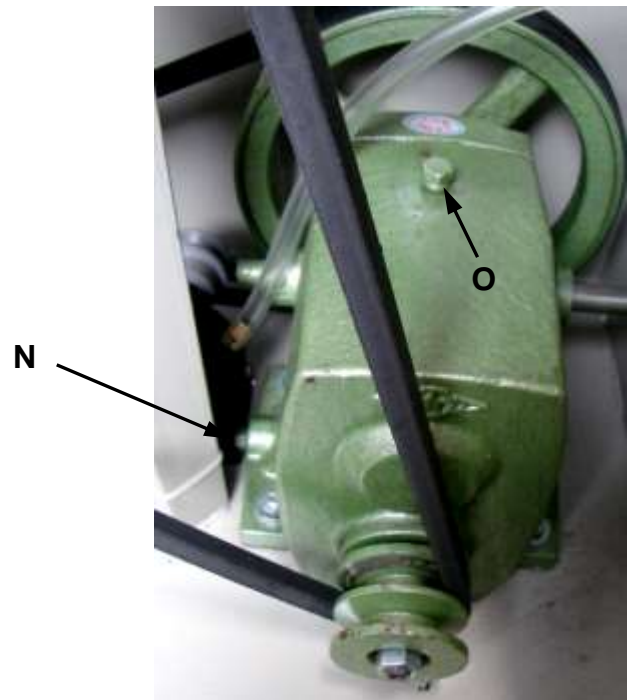
Used oil products must be disposed of in a proper manner following your local regulations.

Gearbox Maintenance

The gearbox requires periodic changing of the oil. Initially oil change is after 6 months and then every year thereafter. Follow the procedure below:

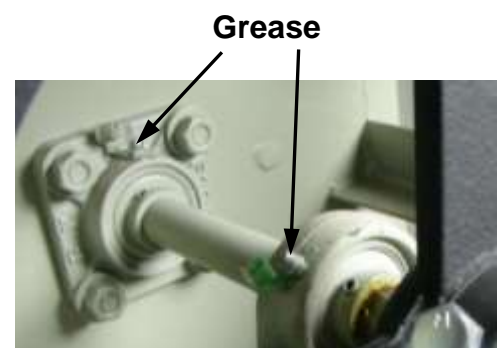
Disconnect Power from the Saw

1. Remove the drive access panel.
2. Remove the oil drain plug (**N**) and drain the oil into a catch basin. Loosening oil fill plug (**O**) will help oil to drain.
3. After draining, replace drain plug (**N**).
4. Remove the fill plug (**O**) and add gear oil. (For reference use SHELL type gear oil or Mobil gear oil #90).
5. Replace the drive access panel.



Grease Fitting Locations

Check and grease the pillow block and the flange bearing once a month (Close the plastic grease fitting cap when finished).





Blade Shear Lubrication

Apply a light coating of grease to the pivot mechanism as necessary.



Tension Block Slide

Apply grease to the sliding tension block as needed to keep it moving freely.

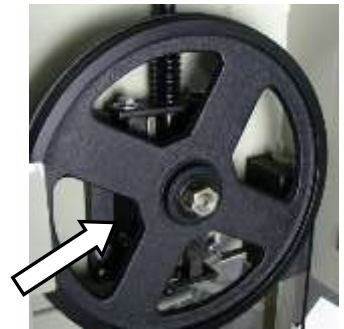


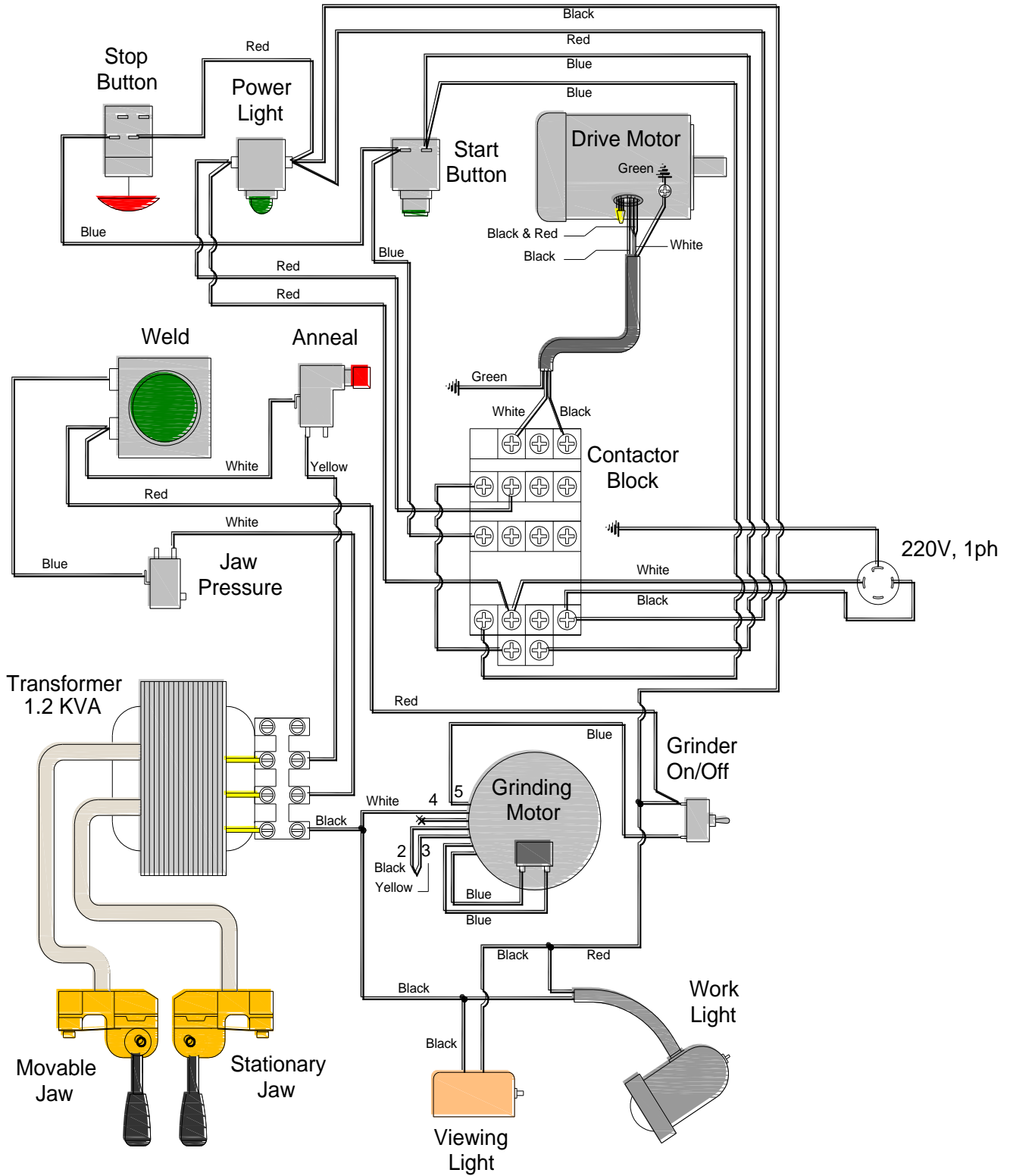
Table Support Lubrication

Grease the pivoting table support as often as needed.



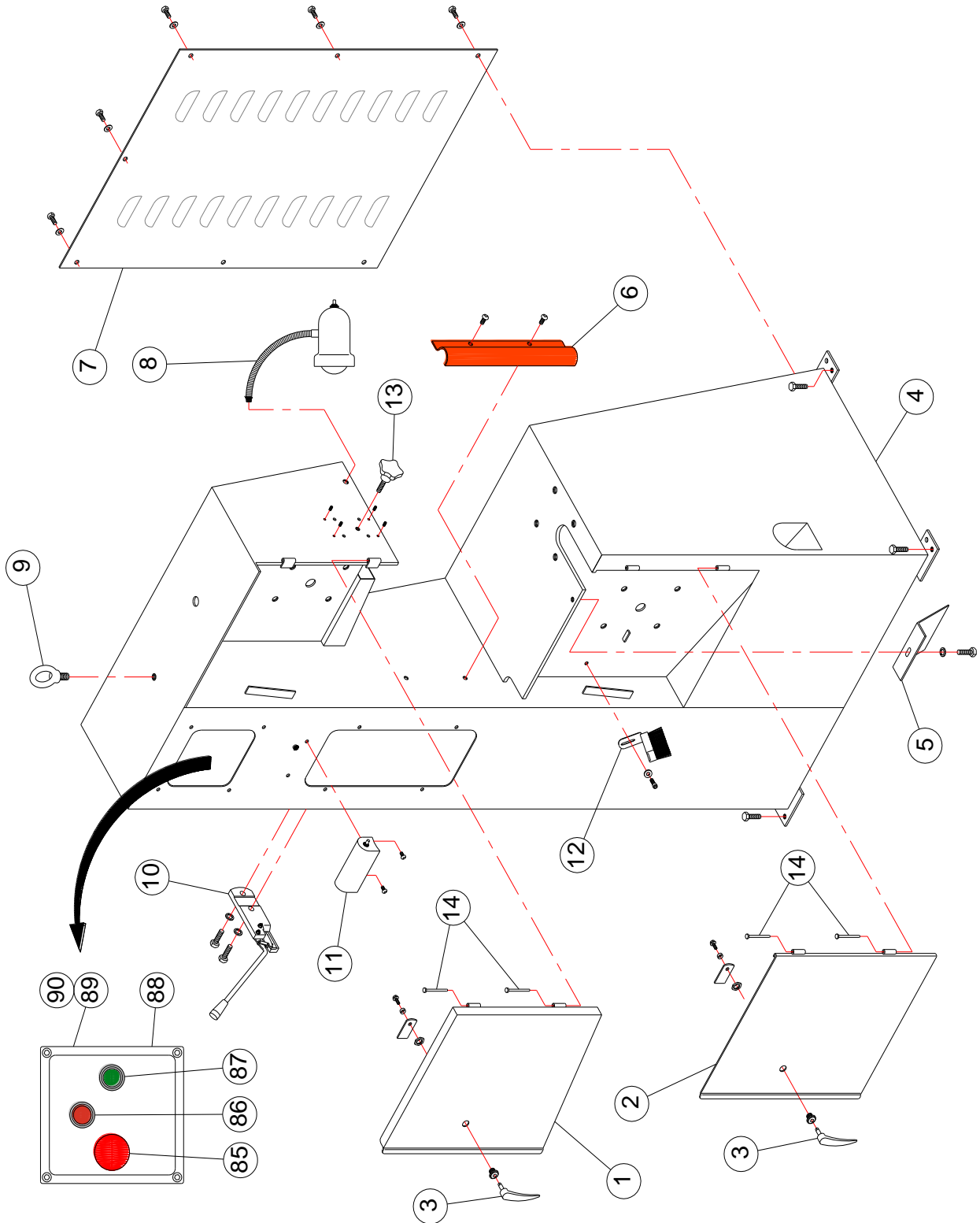


ELECTRICAL SCHEMATIC



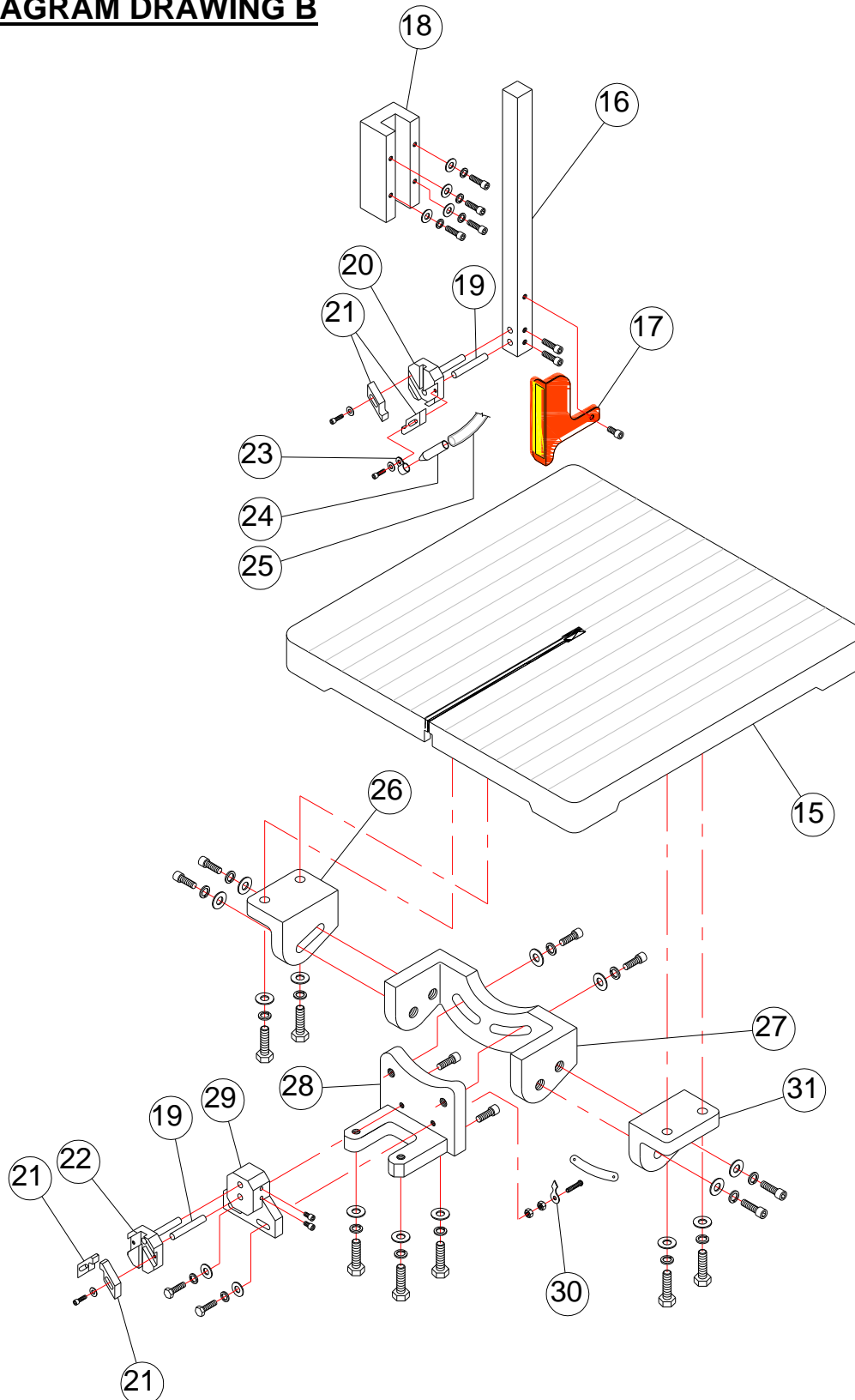


PARTS DIAGRAM DRAWING A



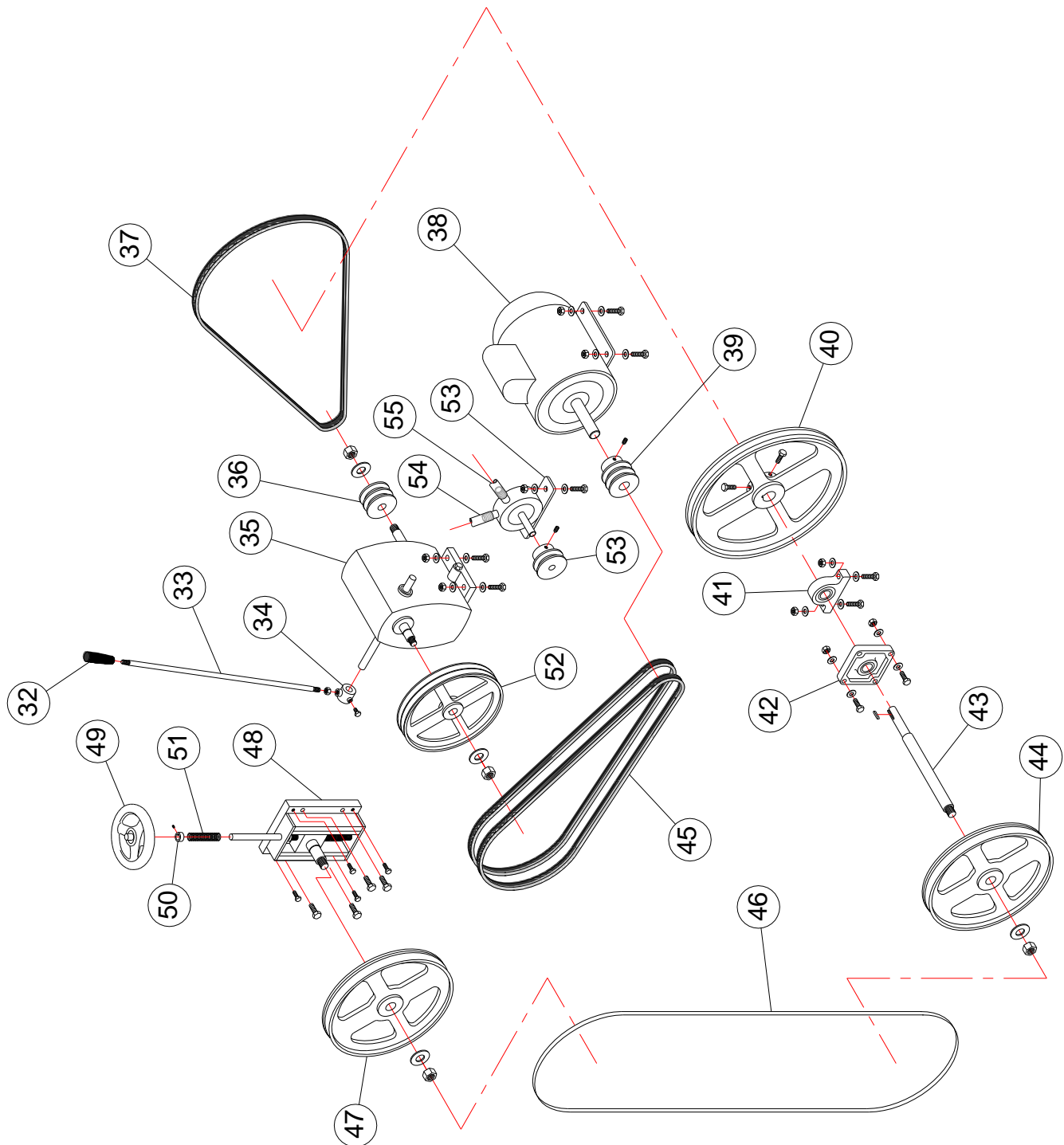


PARTS DIAGRAM DRAWING B



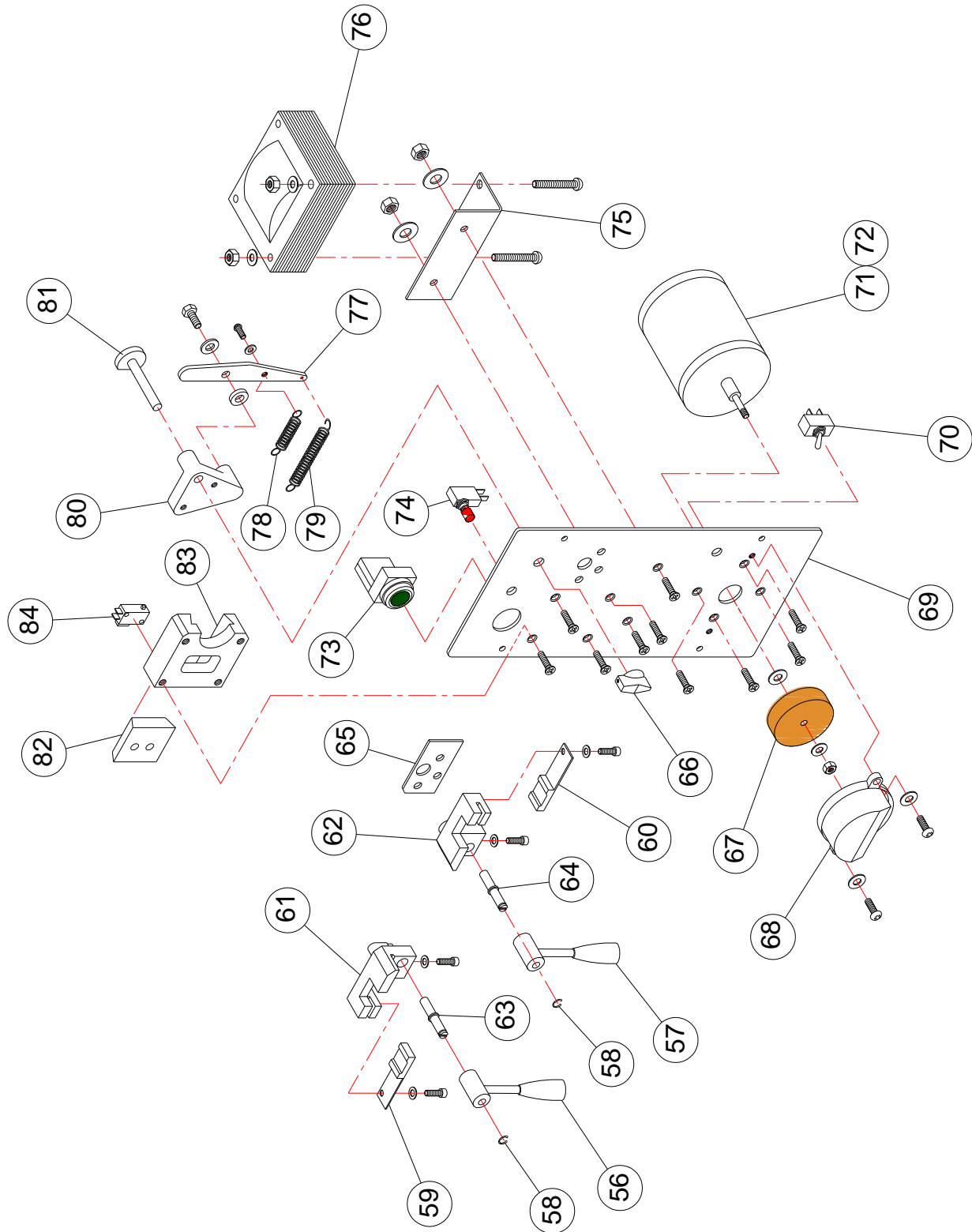


PARTS DIAGRAM DRAWING C





PARTS DIAGRAM DRAWING D





Parts List

Item	Description	Qty.
1	Upper Door Panel	1
2	Lower Door Panel	1
3	Handle Kit	2
4	Main Frame	1
5	Metal Dust Deflector	1
6	Blade Guard	1
7	Drive Access Panel	1
8	Work Light	1
9	Lifting Eye Bolt	1
10	Blade Shear	1
11	Panel Light	1
12	Blade Brush	1
13	Guide Post Lock Knob	1
14	Hinge Pins	4
15	Table	1
16	Guide Post	1
17	Blade Guard	1
18	Guide Post Slide	1
19	Blade Support	1
20	Upper Blade Guide Bracket	1
21	Blade Guide	1
22	Lower Blade Guide Bracket	1
23	Nozzle Clamp	1
24	Blow-Off Nozzle	1
25	Blow-Off Hose	1
26	Table Bracket (Rear)	1
27	Pivot Saddle	1
28	Saddle Support	1
29	Guide Support	1
30	Indicator Arrow	1
31	Table Bracket (Front)	1
32	Shift Handle Grip	1
33	Shift Handle	1



Item	Description	Qty.
34	Handle Joint	1
35	4-Speed Reducer	1
36	Reducer Output Sheave	1
37	Rear Belt	1
38	Drive Motor	1
39	Motor Sheave	1
40	Wheel Pulley	1
41	Pillow Block Bearing	1
42	Flange Bearing	1
43	Drive Shaft	1
44	Lower Wheel Sheave	1
45	Drive Belt (Matched Set Of 2)	1
46	Blade	1
47	Upper Wheel Sheave	1
48	Tensioning Way	1
49	Blade Tension Handle	1
50	Collar	1
51	Spring	1
52	Reducer Input Sheave	1
53	Air Pump Sheave	1
54	Inlet Hose	1
55	Outlet Hose	1
56	Clamp Lever	1
57	Clamp Lever	1
58	Snap Ring	2
59	Left Welding Jaw	1
60	Right Welding Jaw	1
61	Left Welding Clamp	1
62	Right Welding Clamp	1
63	Shaft	1
64	Shaft	1
65	Insulating Plate	1
66	Clamp Pressure Knob	1
67	Grinding Wheel	1
68	Grinder Cover	1



Item	Description	Qty.
69	Welding Panel	1
70	ON-OFF Toggle Switch	1
71	Grinder Motor	1
72	Motor Capacitor	1
73	Weld Push Button	1
74	Annealing Push Button	1
75	Transformer Bracket	1
76	Transformer	1
77	Pivot Arm	1
78	Slide Block Extension Spring	1
79	Arm Extension Spring	1
80	Pressure Cam Mount	1
81	Pressure Cam	1
82	Sliding Block	1
83	Sliding Block Base	1
84	Limit Switch	1
85	Stop Palm Button	1
86	Power Light	1
87	Start Button	1
88	Mounting Panel	1
89	Contact Block	1
90	Reset Block	1



TROUBLESHOOTING

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

SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
The Blade Drive Motor Does Not Work	Power plug or receptacle is faulty or wired incorrectly.	Test the contacts and correct the wiring.
	No power at the electrical outlet	Have electrician check breaker or fuses.
	Motor burned out.	Have motor repaired or replaced.
Excessive Blade Breakage	Incorrect blade tension.	Adjust to where blade just does not slip on wheel.
	Incorrect speed or feed.	Consult machine chart or handbook.
	Blade rubs on wheel flange.	Adjust the wheel alignment.
	Teeth too coarse for material.	Contact Baileigh Industrial for recommended blade type.
	Teeth in contact with the material before the saw is started.	Contact material after blade has been started.
	Misaligned guides.	Adjust as necessary.
Teeth Ripping From Blade	Cracking of blade weld.	Make longer annealing cycle
	Tooth too coarse for work.	Use a fine tooth blade.
	Too heavy feed / too slow feed.	Increase feed pressure and / or speed.
	Gullets loading with chips and debris.	Use coarser tooth blade or brush to remove chips and debris.



SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Premature Blade Dulling	Teeth too coarse. Too much speed. Hard spots in or on material. Blade installed backwards. Insufficient blade tension.	Use a finer tooth blade. Try next slower speed. <u>Scale</u> : Reduce speed, increase feed pressure. <u>Hard spots</u> : Increase feed pressure. Remove blade twist inside out and reinstall blade. Increase tension to proper setting.
Bad Cuts (Crooked)	Work not square. Feed pressure too great. Inadequate blade tension. Blade guides spaced out too far. Dull blade. Speed incorrect. Blade guide assembly loose. Blade tracks too far away from wheel flanges.	Adjust table to be square with blade. Reduce pressure Increase blade tension a little at a time. Move guide approx. .25" (6.3mm) to piece part. Replace blade. Check manual for recommended speeds. Tighten. Re-adjust tracking per instructions in this manual.
Machine is Noisy or Has Excessive Vibration	V-belt(s) loose or worn. Loose pulley. Motor mount loose or broken. Noisy motor bearings. Excessive blade noise.	Replace belt(s). Matched set as required. Tighten bolt, nut, or shaft key. Tighten or replace if broken. Replace bearings. Re-tension or replace blade. Poor Blade weld



SYMPTOM	POSSIBLE CAUSE (S)	CORRECTIVE ACTION
Machine Slows Down While Operating	Feeding piece part too quickly.	Reduce feed pressure / increase blade speed.
	Blade is dull.	Replace the blade.
Blade Wanders or Does Not Cut Straight	Blade is too narrow.	Replace with a wider blade.
	Buildup of metal chips on the wheels.	Clean chips from wheels. Adjust or replace chip brush.
Blade Cuts (Rough)	Too much speed or feed.	Reduce speed and feed.
	Blade is too coarse.	Replace with a finer blade.
Blade is Twisting	Cut is causing the blade to bind.	Decrease the feed pressure.
	Too much blade tension.	Decrease the blade tension.
Unusual Wear on Side/Back of Blade	Blade guides worn.	Replace blade guides.
	Blade guides not adjusted properly.	Adjust as per operator's manual.
	Blade guide bearing bracket is loose.	Tighten bracket
Motor Running too Hot	Blade tension is too high.	Reduce tension on blade.
	Blade is too coarse for work .(especially pipes).	Use finer blade.
	Blade is too fine for work. (Heavier, soft, materials).	Use coarser blade.
	V-belt(s) too tight.	Follow proper belt tightening procedure. (page 36)
No air at Nozzle	Idler wheel needs lubrication	Grease bearing / oil shaft
	Air pump damaged.	Replace air pump.
	Air inlet hose plugged.	Unplug air hose.
	V-belt not driving pump	Check belt or location of pump.



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