Operating Instructions and Parts Manual

Horizontal Band Saw

Model BS-128M

Baileigh Industrial
P.O. Box 531
Manitowoc, WI 54221-0531
Ph.: 920-684-4990
Fax: 920-684-3944
Baileigh-Sales@jpwindustries.com

BA9-1001095
Edition 2 08/2025

1.0 Table of Contents

Section **Page**

1.0 Table of Contents 2
2.0 Safety Instructions 4
3.0 About This Manual 5
4.0 Product Identification 6
4.1 Lift Handle 7
4.2 Vise 7
4.3 Angle Indicator 7
5.0 Specifications 8
6.0 Setup and Assembly 9
6.1 Unpacking and Checking Contents 9
6.2 Cleaning 9
6.3 Transporting and Lifting 9
6.4 Installation 9
6.5 Assembly 10
7.0 Electrical Connection 11
7.1 Power Specifications 11
7.2 Considerations 11
7.3 Extension Cord Safety 12
7.4 Power Cord Connection 12
8.0 Before Each Use 12
8.1 Whenever Saw is Running 12
8.2 Breaking in a Band Saw Blade 12
8.3 Metal Chip Indicators 13
8.4 Blade Terminology 13
8.5 Width of Blade 13
8.6 Length of Blade 13
8.7 Blade Structure 13
8.8 Blade Type 13
8.9 Sets 14
9.0 Blade Care 14
9.1 Choosing a Saw Blade 14
10.0 Blade Breakage 15
11.0 Material Selection 15
12.0 Operation 15
12.1 Setting the Blade Speed 15
12.2 Descent Cylinder 16
12.3 Cutting Operation 16
13.0 Maintenance 17
13.1 Daily Maintenance 17
13.2 Weekly Maintenance 17
13.3 Gearbox Oil 17

13.4 Storing Machine for Extended Period of Time 17
13.5 Saw Blade Replacement 17
13.6 Blade Guide Bearing Adjustment 18
13.7 Adjusting Blade Tension 19
13.8 Adjusting the Blade Tracking 19
14.0 Troubleshooting 20
15.0 Replacement Parts 22
15.1.1 Saw Bow Assembly – Exploded View 22
15.1.2 Saw Vise and Base Assembly – Exploded View 23
15.1.3 Horizontal Band Saw – Parts List 24
16.0 Wiring Diagram 27
17.0 Warranty and Service 28

2.0 Safety Instructions

⚠WARNING **Failure to follow these rules may result in serious personal injury**

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.
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.

Familiarize yourself with the following safety notices used in this manual:

⚠CAUTION This means that if precautions are not heeded, it may result in minor injury and/or machine damage.

⚠WARNING This means that if precautions are not heeded, it may result in serious injury or death.

⚠DANGER This means that if precautions are not heeded, it will result in serious or fatal, injury.

Save the Instructions

3.0 About This Manual

This manual is provided by Baileigh Industrial, covering the safe operation and maintenance procedures for a Baileigh Model BS-128M Horizontal Band Saw. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions as set forth in this document.

Technical Support handles questions on setup, operation, schematics, warranty issues, and individual parts needed. Our Technical Support department can be reached at 920-684-4990.

If there are questions or comments, please contact your local supplier or Baileigh Industrial. We can also be reached at our web site: www.baileigh.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

⚠WARNING **Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!**

Register your product online -

https://baileigh.com/product-registration

4.0 Product Identification

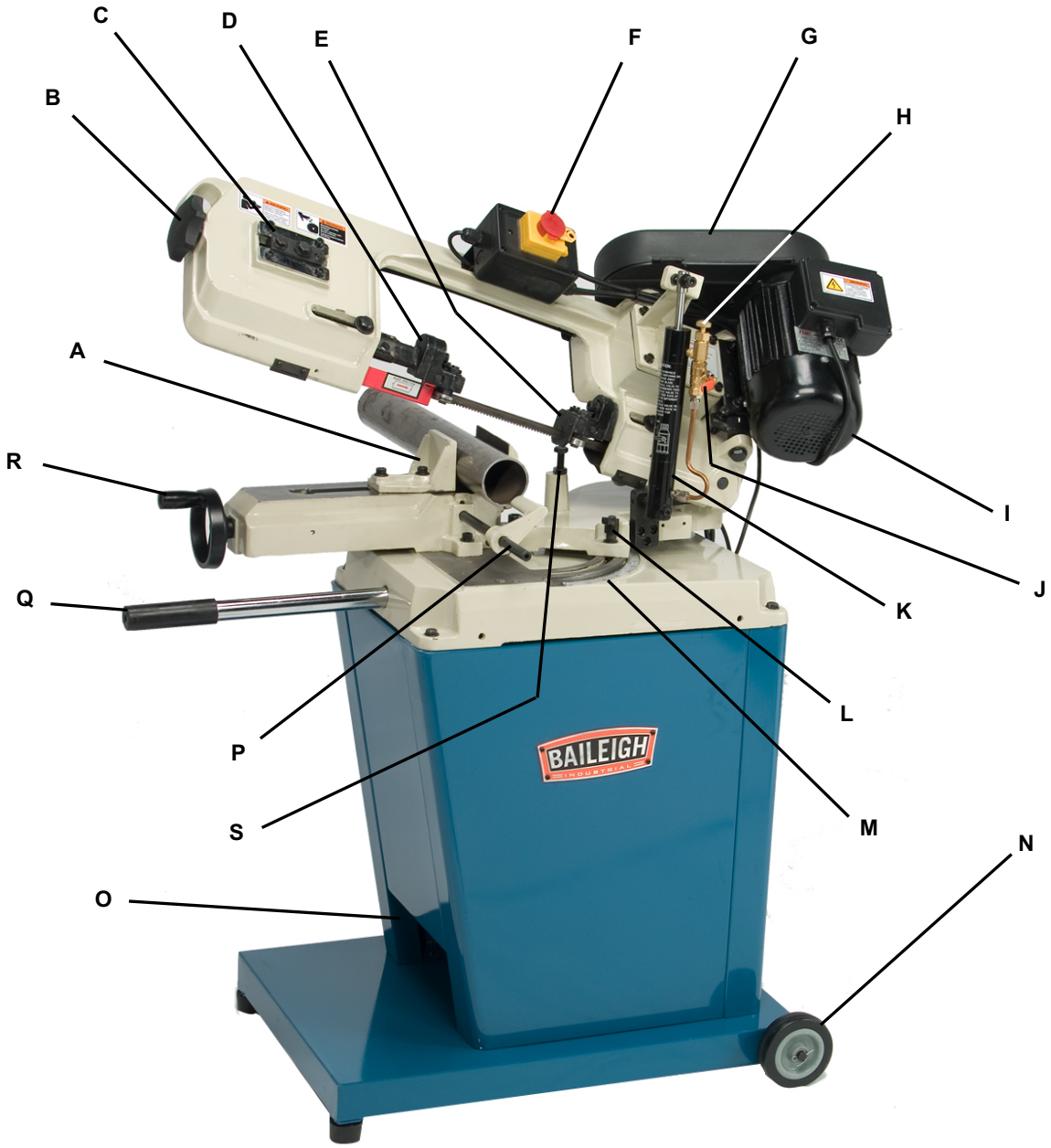


Figure 4-1

Table 4-1

Item	Description	Function
A	Front and Rear Jaw	For clamping material to be cut.
B	Blade Tension Knob	Used to apply and control blade tension.
C	Blade Tension Side Plate	Holds and adjusts driven blade pulley.
D	Front/Lead-in Blade Guide Assembly	Adjustably guide assembly to guide the blade straight into the cut.
E	Rear/Lead-out Blade Guide Assembly	Stationary guide assembly to guide the blade straight out of the cut.
F	On/Off /E-Stop Controls	Turns the motor on and off.
G	Belt Guard	Covers the drive belt and pullies. Open this cover to change blade speeds. Never operate the saw with cover opened or removed.
H	Needle Valve	Controls the saw bow descent. Turn (cw) to slow the descent or (ccw) to accelerate.
I	Motor	Supplies the power to drive the saw blade.
J	Ball Valve	The On/Off control for the blade descent.
K	Hydraulic Cylinder	Controls the raising and lowering of the saw bow.
L	Adjustment Handle	Locks and unlocks the head for pivoting.
M	Angle Indicator	Indicates the angle of cut.
N	Wheel	Allows the saw to be more portable.
O	Shelf	Place to store tools, etc.
P	Stop Rod Assembly	For setting length of cut for repeatability.
Q	Lift Handle	Used to lift and steer/guide the saw during movement.
R	Vise Hand-wheel	Turning the hand-wheel opens and closes the vise.
S	Adjustable Head Stop Bolt	Determines how far down the saw bow will travel.

4.1 Lift Handle

Handle slides out easily and is used to maneuver the band saw around. When finished using, it stores nicely back into the base casting.

Figure 4-2

⚠CAUTION

Make sure saw bow is in a down or horizontal position before moving or mitering to avoid tipping over machine.

4.2 Vise

Make sure saw bow is in a down or horizontal position before moving or mitering to avoid tipping over machine.

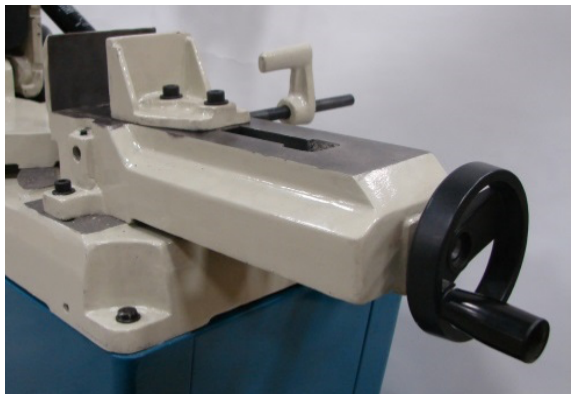


Figure 4-3

4.3 Angle Indicator

Pulling up on the adjustable handle (L) disengages it while the stud remains stationary. This allows you to adjust the handle to the desired position. Releasing the handle reengages it for tightening and loosening. Now rotate the disk head assembly to the correct miter angle. Check the angle on the indicator (M) and lock in the angle.

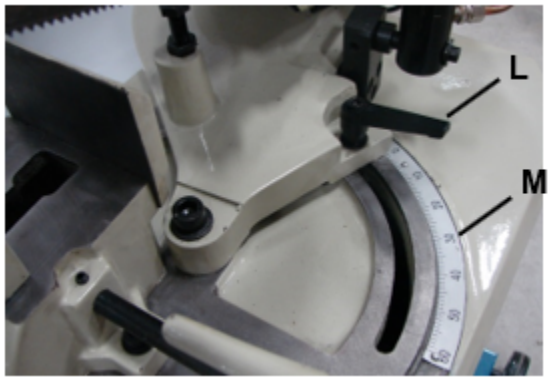


Figure 4-4

⚠CAUTION

Check that the saw blade clears all parts of the vise assembly before cutting. The blade can strike parts of the assembly (especially during miter cuts) if not properly adjusted.

5.0 Specifications

Table 5-1

Model Number	BS-128M
Stock Number	BA9-1001095
Motor and Power	
Power	110V, 60hz
Motor	.75hp (550w), 110V, 60hz, 10A
General Specifications	
Capacity Rectangular 90° / 60° / 45°	5" x 6" / 1.75" x 2.19" / 3" x 3.7" (128 x 150 / 44 x 56 / 75 x 95mm)
Capacity Round 90° / 60° / 45°	5" / 1.75" / 3.75" (128 / 44 / 95mm)
Vise Table Height	29" (740mm)
Miter Adjustment	Swivel Head
Miter Angle	45°R - 0° - 60°L
Return	Manual
Descent Control	Closed Circuit Hydraulic Cylinder with Control Valve
Blade Size (H x T x L)	.5" x .025" x 64.5" (13 x .65 x 1638mm)
Blade Speed (fpm)	78, 154, 200fpm (24, 47, 61mpm) Variable
Drive	Belt
Weights and Dimensions	
Shipping Weight	230lbs. (105kg)
Shipping Dimensions	38" x 22" x 25" (965 x 559 x 635mm)

⚠WARNING

Read and understand the entire contents of this manual before attempting assembly or operation. Failure to comply may cause serious injury.

6.0 Setup and Assembly

6.1 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.

⚠WARNING

If any parts are missing, DO NOT place the machine into service until the missing parts are obtained and installed correctly.

6.2 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.

6.3 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.

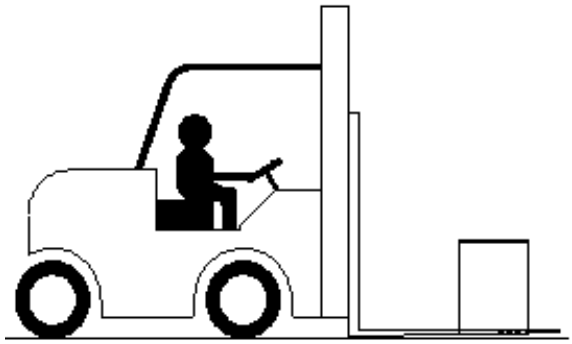


Figure 6-1

6.4 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.

6.5 Assembly

⚠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. Assemble stand as shown in the figure below using supplied hardware.

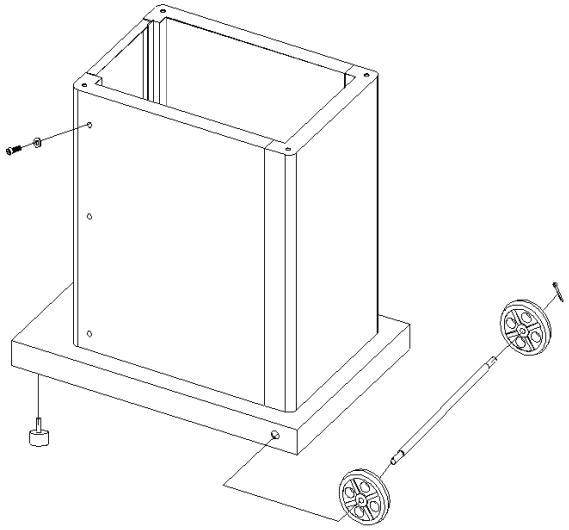


Figure 6-2

Two Person Lift. Use an assistant or lifting devise to support the weight of the saw.

2. Set the band saw onto the assembled stand, taking care to line up the holes.
3. Using (4) hex bolts secure the saw head to the stand.

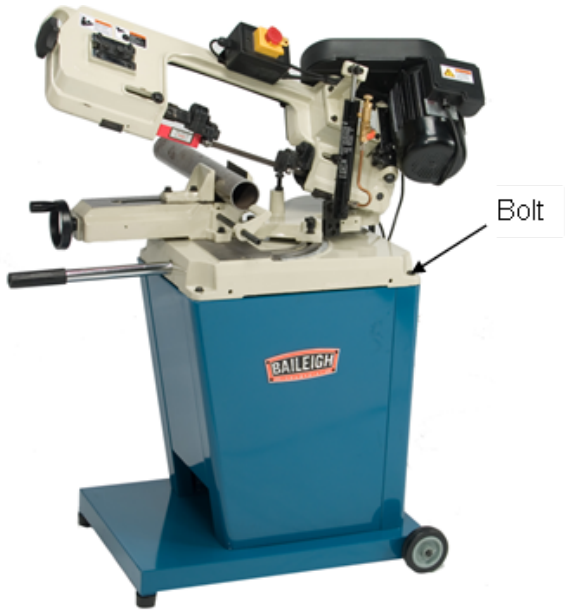


Figure 6-3

4. Attach the stop bar to the base as shown and tighten setscrew. (Can also be mounted on left hand side.)

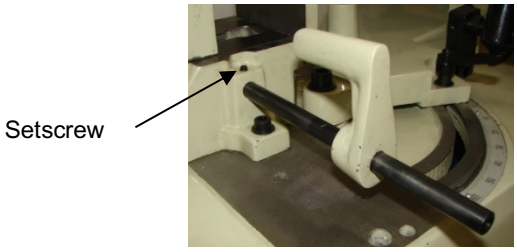


Figure 6-4

For vertical sawing:

5. Raise saw head to vertical position.
6. Loosen rear blade adjustment bolt and attach support bracket (T).
7. Unscrew and replace shoe plate (U) with table (V).
8. Attach table to bracket (T) with flat head bolt and nut (not supplied).
9. Tighten all bolts.

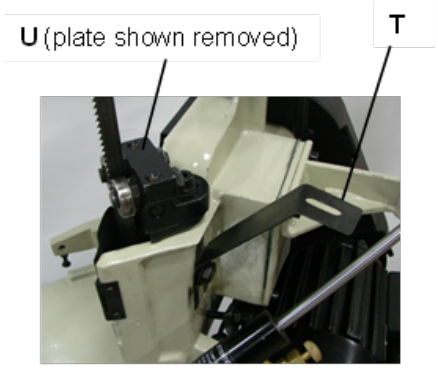


Figure 6-5

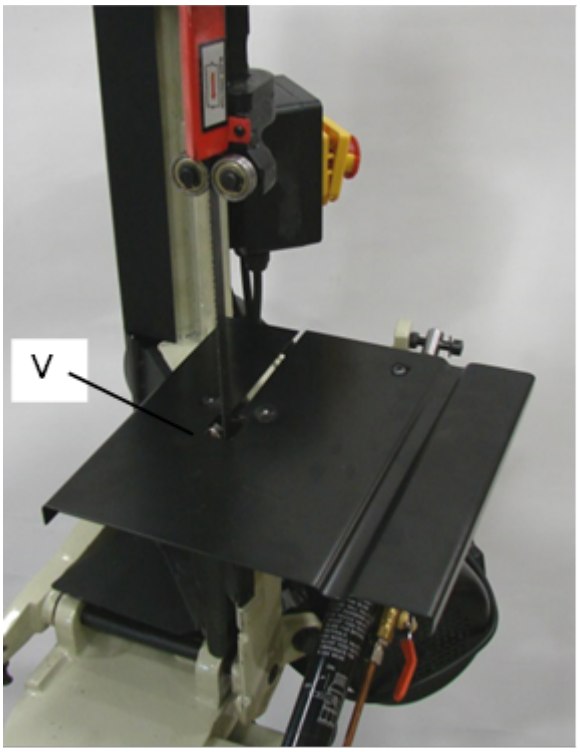


Figure 6-6

7.0 Electrical Connection

⚠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.

7.1 Power Specifications

Your machine is wired for 110 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%.

7.2 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.

7.3 Extension Cord Safety

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

Table 7-1

	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.

7.4 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 machine toward the power supply.
    a. Route the power cord so that it will NOT become entangled in the machine in any way.
    b. Route the cord to the power supply in a way that does NOT create a trip hazard.
3. Connect the power cord to the power supply and check that the power cord has not been damaged during installation.
4. When the machine is clear of any obstruction. The main power switch may be turn ON to test the operation. Turn the switch OFF when the machine is not in operation.

8.0 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.

8.1 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.

8.2 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.

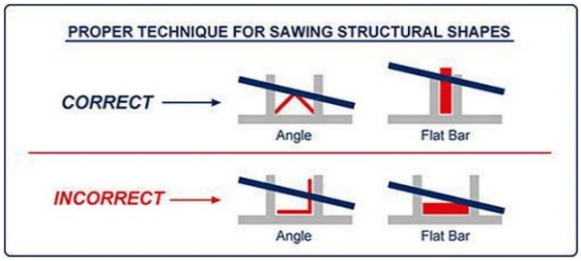


Figure 8-1

8.3 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.

8.4 Blade Terminology

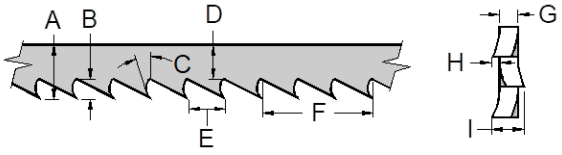


Figure 8-2

Table 8-1

Item	Description	Function
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.

8.5 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.

8.6 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.

8.7 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.

8.8 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.

Figure 8-3

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.

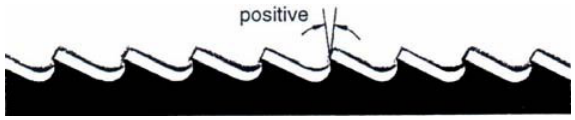


Figure 8-4

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.

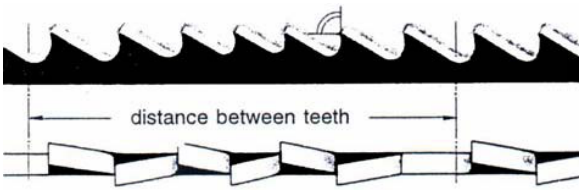


Figure 8-5

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.

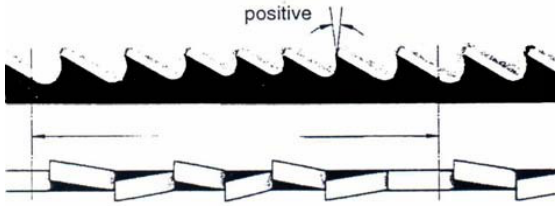


Figure 8-6

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.

8.9 Sets

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

Figure 8-7

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

Figure 8-8

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.

Figure 8-9

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.

Figure 8-10

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.

Figure 8-11

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

9.0 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.

9.1 Choosing a Saw Blade

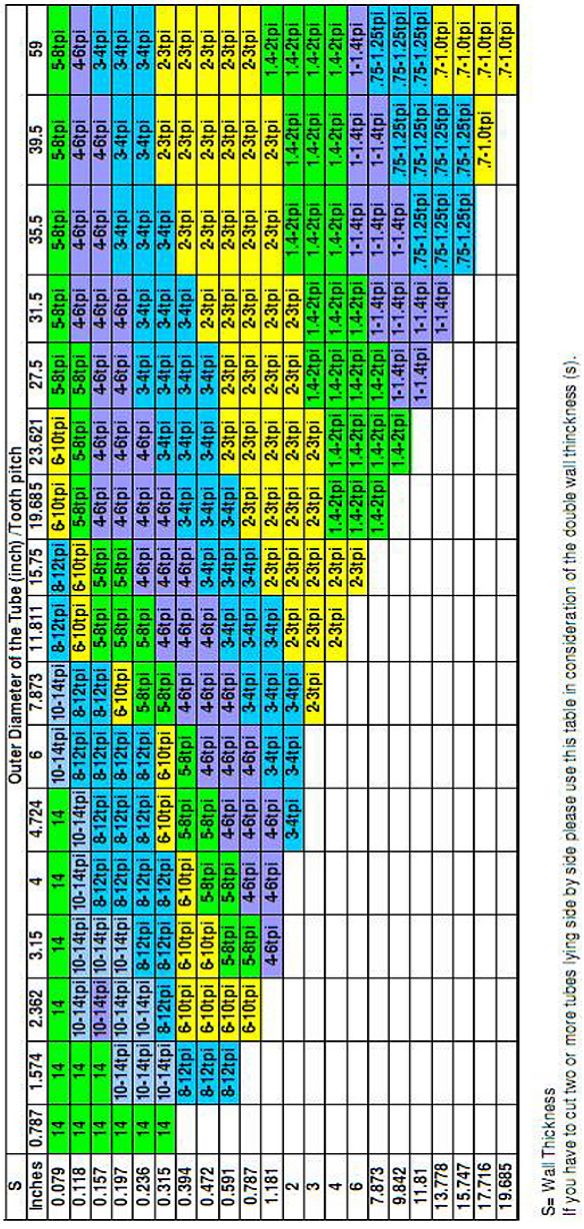
A general purpose blade is furnished with this band saw.

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	4-6tpi	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	2-3tpi	2-3tpi	2-3tpi
0.394		8-12tpi	6-10tpi	6-10tpi	6-10tpi	5-8tpi	5-8tpi	4-6tpi	4-6tpi	3-4tpi	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	1.4-2tpi
1.181				4-6tpi	4-6tpi	4-6tpi	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
2						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	1.4-2tpi
3								2-3tpi	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
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).

Figure 9-1

10.0 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.)

11.0 Material Selection

⚠CAUTION

It must be determined by the customer that materials being processed through the machine are NOT potentially hazardous to operator or personnel working nearby.

When selecting materials keep these instructions in mind:

- Material must be clean and dry. (without oil)
- Material should have a smooth surface so it processes easily.
- Dimensional properties of material must be consistent and not exceed the machine capacity values.
- Chemical structure of material must be consistent.
- Buy certificated steel from the same vendor when possible.

12.0 Operation

⚠CAUTION

Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges.

⚠CAUTION

NEVER operate saw without blade guards in place.

12.1 Setting the Blade Speed

1. Use the following chart to determine the blade speed.
2. Disconnect the saw from the power source.
3. Remove the pulley cover and set the belt into the correct set of grooves to match the recommended blade speed for the material to be cut.
4. Replace and secure the pulley cover.
5. Connect the saw into the power source.

12.1.1 Material Cutting Chart

Material	Speed (FPM)	Belt Groove Used	
	60hz	Motor Pulley	Saw Pulley
Tool Steel, Stainless Alloy Steels, Bearing Bronze	78	Small	Large
Mild Steel, Hard Brass or Bronze	154	Medium	Medium
Aluminum, Plastics	200	Large	Small

Motor Pulley **Saw Pulley**

Figure 12-1

12.2 Descent Cylinder

A hydraulic cylinder (K) is used to control the drop rate of the saw head. The use of a hydraulic cylinder is ideal for cutting thin walled or stainless steel section bars. They require a constant drop rate to achieve a fine quality cut surface.

- To increase the feed rate, turn the needle valve control knob (H) counterclockwise (ccw).
- To decrease the feed rate, turn knob (H) clockwise (cw).
- To turn off the flow of hydraulic fluid and stop the blade descent, turn ball valve (J) counterclockwise (ccw) 90°.

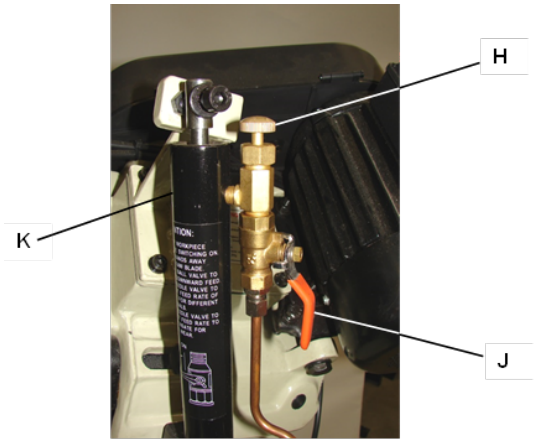


Figure 12-2

12.3 Cutting Operation

⚠CAUTION

Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges.

⚠CAUTION

NEVER operate saw without blade guards in place.

1. Make sure power is properly connected to saw and that all guards are in place.
2. With the saw OFF and NO material in the vise, raise the saw bow several inches and allow the bow to lower. Adjust the needle valve to increase or decrease the descent speed to controlled speed.
3. Raise saw head high enough to fully clear the material to be loaded into the vise and hold in place by closing ball valve on hydraulic cylinder.
4. Open vise and load material. (Provide additional support for longer material).
5. Be sure the blade is NOT in contact with the material when the motor is started.
6. Energize the motor by pressing the green start button.
7. Allow the saw to come to full speed and then begin the cut by opening the ball valve and letting the head down slowly onto the work. DO NOT DROP OR FORCE THE BLADE.
8. Adjust the needle valve on the cylinder to increase or decrease the descent speed to produce the desired cut. Allow the weight of the saw head provide the cutting force.
9. The saw should automatically shut off at the end of the cut. If not, stop the saw by pressing the Red stop button.
10. Remove the cut as well as the uncut material from the saw. Clean the chips from the vise, blade guides and blade.

13.0 Maintenance

⚠WARNING

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

⚠WARNING

Maintenance should be performed on a regular basis by qualified personnel.

⚠WARNING

Always follow proper safety precautions when working on or around any machinery.

- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- On a weekly basis clean the machine and the area around it.
- Lubricate threaded components and sliding devices.
- Apply rust inhibitive lubricant to all non-painted surfaces.

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

13.1 Daily Maintenance

- Do a general cleaning by removing dust and metal chips from the machine.
- Inspect the saw blade for wear.
- Check that the blade guards and emergency stop button are in good working order.
- When through using machine, lower the saw head to its rest position.

13.2 Weekly Maintenance

- Thoroughly clean the machine.
- Clean and grease the vise screw and sliding surfaces.
- Clean the guard housing for the saw blade.
- Driven pulley bearing should receive (6-8 drops of SAE-30 oil)

13.3 Gearbox Oil

The drive gears run in an oil bath and will not require a lubricant change more often than once a year. The exception to this is if the lubricant becomes accidentally contaminated or a leak occurs because of improper replacement of the gear box cover. During the first few days of operation, the worm gear drive will run hot. Unless the temperature exceeds 200° F, there is no cause for alarm.

The following lubricants may be used for the gear box:

- Atlantic Refinery Co. Mogul Cylinder Oil
- Gulf Refinery Co Medium gear oil
- Pure Oil Co. Park Clipper
- Cities Service Optimus No. 6

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

13.4 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. Detach the plug from the electrical supply panel.
2. Clean and grease the machine.
3. Release tension on the blade or remove blade.
4. Cover the machine

13.5 Saw Blade Replacement

Wear gloves when handling the saw blade!

1. Raise the saw head to a vertical position and remove the blade guard knob (W).
2. Carefully pull open the blade guard cover.

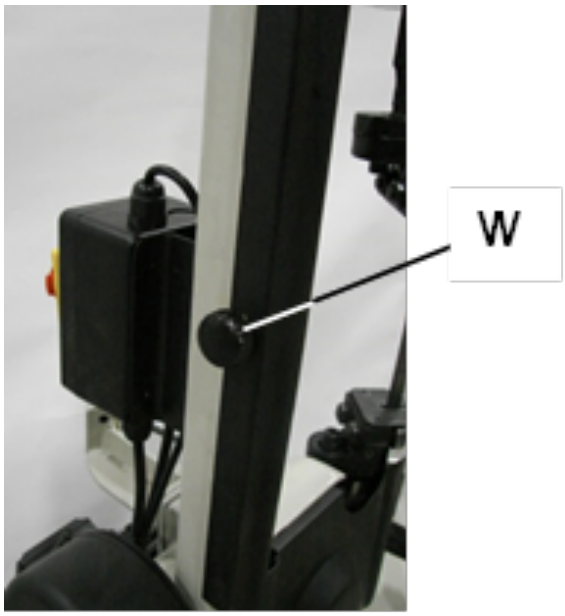


Figure 13-1

3. Remove guard (X) and loosen the tension screw knob (Y) sufficiently to allow saw blade to slip off the pulleys.

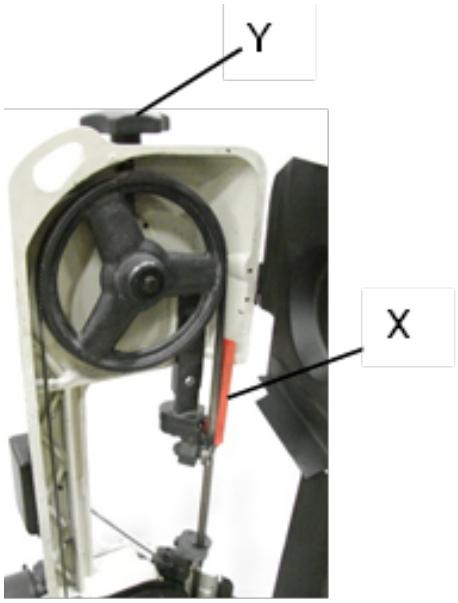


Figure 13-2

4. Install the new blade as follows with teeth slanting towards the motor.

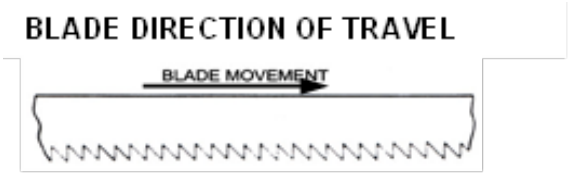


Figure 13-3

5. Place the blade in between each of the guide bearings.
6. Slip the blade around the motor pulley (bottom) with the left hand and hold in position.
7. Hold the blade taut against the motor pulley by pulling the blade upward with the right hand which is placed at the top of the blade.
8. Remove left hand from bottom pulley and place it at the top side of the blade to continue upward pull on the blade.
9. Remove right hand from blade and adjust the position of the top pulley to permit left hand to slip the blade around the pulley using the thumb and fingers as guides.
10. Adjust the blade tension knob (Y) clockwise (cw) until it is just tight enough so no blade slippage occurs. DO NOT overtighten.
11. Replace the blade guards.
12. Place 2-3 drops of SAE-30 oil on the blade.

13.6 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. This 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. Clearance should be from just touching to .001”.

The inner guide bearing is fixed and cannot be adjusted. The outer guide bearing is mounted to an eccentric bushing and can be adjusted.

1. Loosen the nut while holding the bolt with an allen wrench.
2. Position the eccentric by turning the bolt to the desired position of clearance.
3. Tighten the nut.
4. Adjust the second blade guide bearing in the same manner.

Figure 13-4

Rear bearing assembly

Figure 13-5

13.7 Adjusting Blade Tension

Disconnect power from saw before adjusting!

If available, use a blade tension gauge and follow manufacturer's instructions. Otherwise apply hand pressure to the blade as shown below. Adjust the blade tension knob accordingly.

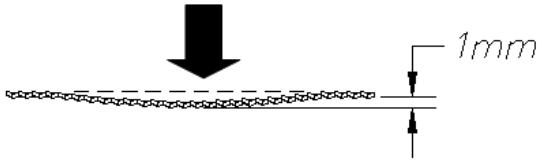


Figure 13-6

13.8 Adjusting the Blade Tracking

Disconnect power from saw before adjusting!

This adjustment has been completed and power tested at the factory. The need for adjusting should rarely occur with normal saw operation. If tracking does need modification, follow the procedure below:

1. Loosen hex bolt (Z)
2. Adjust hex setscrew (AA) to make the blade track as shown below.
3. Re-tighten hex bolt (Z) after adjustment.

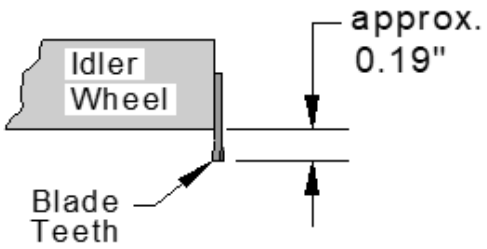


Figure 13-7

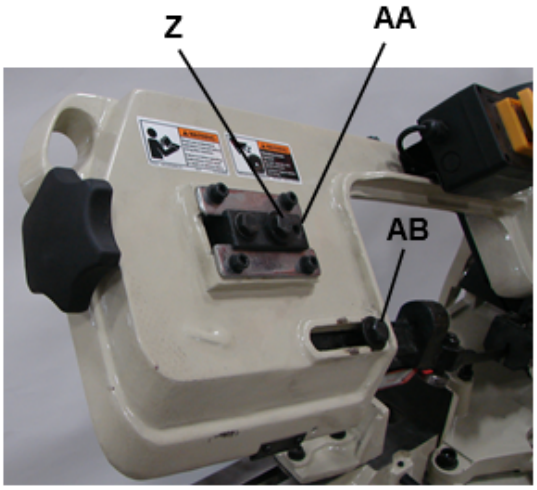


Figure 13-8

4. Loosen hex bolt (AB) to relocate the blade adjustment assembly for the size of material being cut.

14.0 Troubleshooting

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

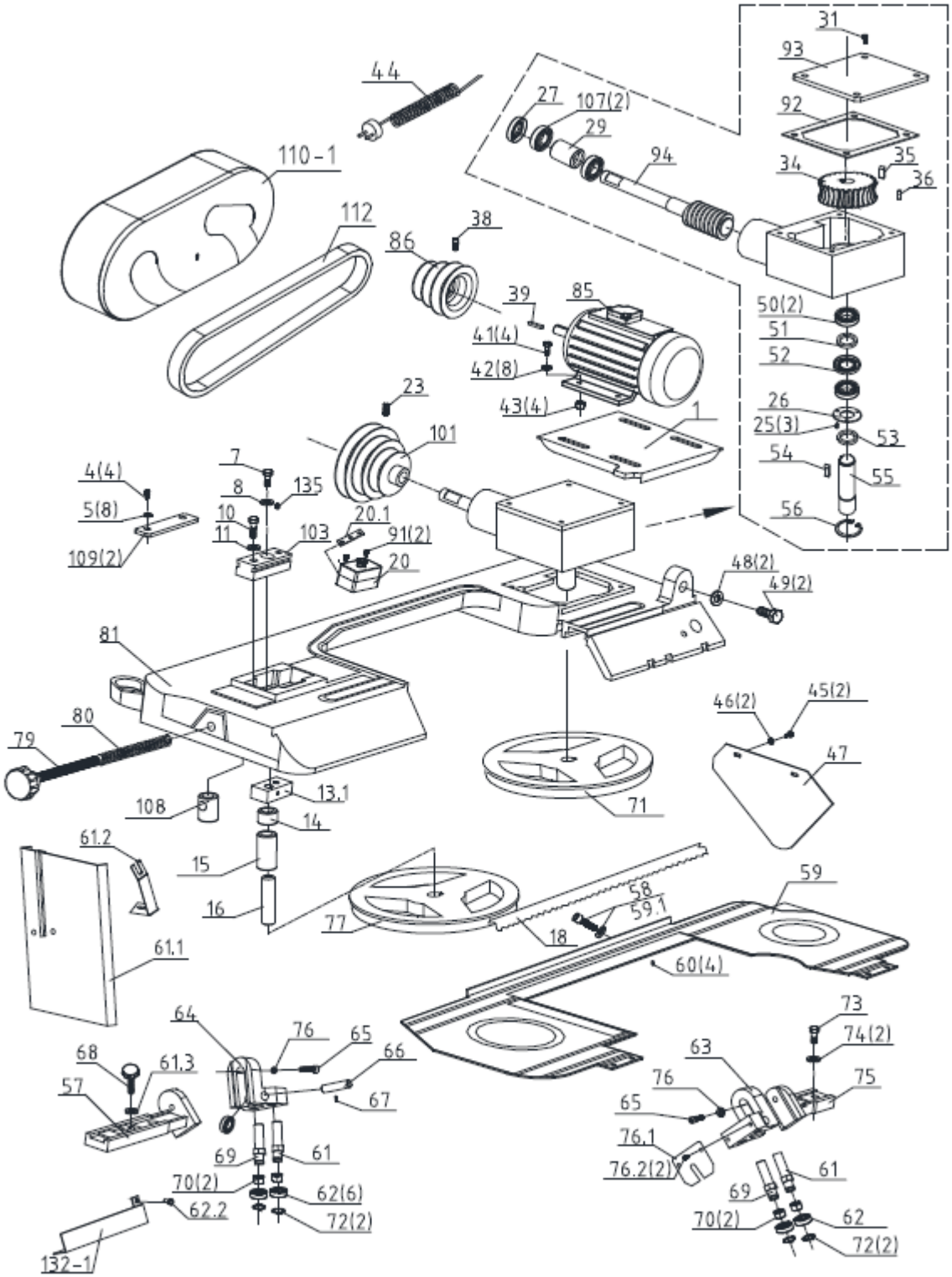
Table 14-1

Symptom	Possible Cause (S)	Corrective Action
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 an 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.
Premature Blade Dulling	Teeth too coarse.	Use finer teeth.
	Too much speed.	Decrease speed.
	Inadequate feed pressure.	Decrease spring tension on side of saw.
	Hard spots or scale on material.	Reduce speed, increase feed pressure.
	Work hardening of material.	Increase feed pressure by reducing spring tension.
	Blade twist.	Replace with a new blade, and adjust blade tension.
	Insufficient blade.	Tighten blade tension adjustable knob.
Unusual Wear on Side/Back of Blade	Blade guides worn.	Replace.
	Blade guide bearings not adjusted properly.	Adjust as per operators manual.
	Blade guide bearing bracket is loose.	Tighten.
Teeth Ripping From Blade	Teeth too coarse for work.	Use finer tooth blade.
	Too heavy pressure, too slow speed.	Decrease pressure, increase speed.
	Vibrating work piece.	Clamp work piece securely.
	Gullets loading.	Use coarse tooth blade or brush to remove chips.
Motor Running Too Hot	Blade tension too high.	Reduce tension on blade.
	Drive belt tension too high.	Reduce tension on drive belt.
	Gears need lubrication.	Check oil bath.
	Cut is binding blade.	Decrease feed and speed.
	Gears aligned improperly.	Adjust gears so that worm is in center.

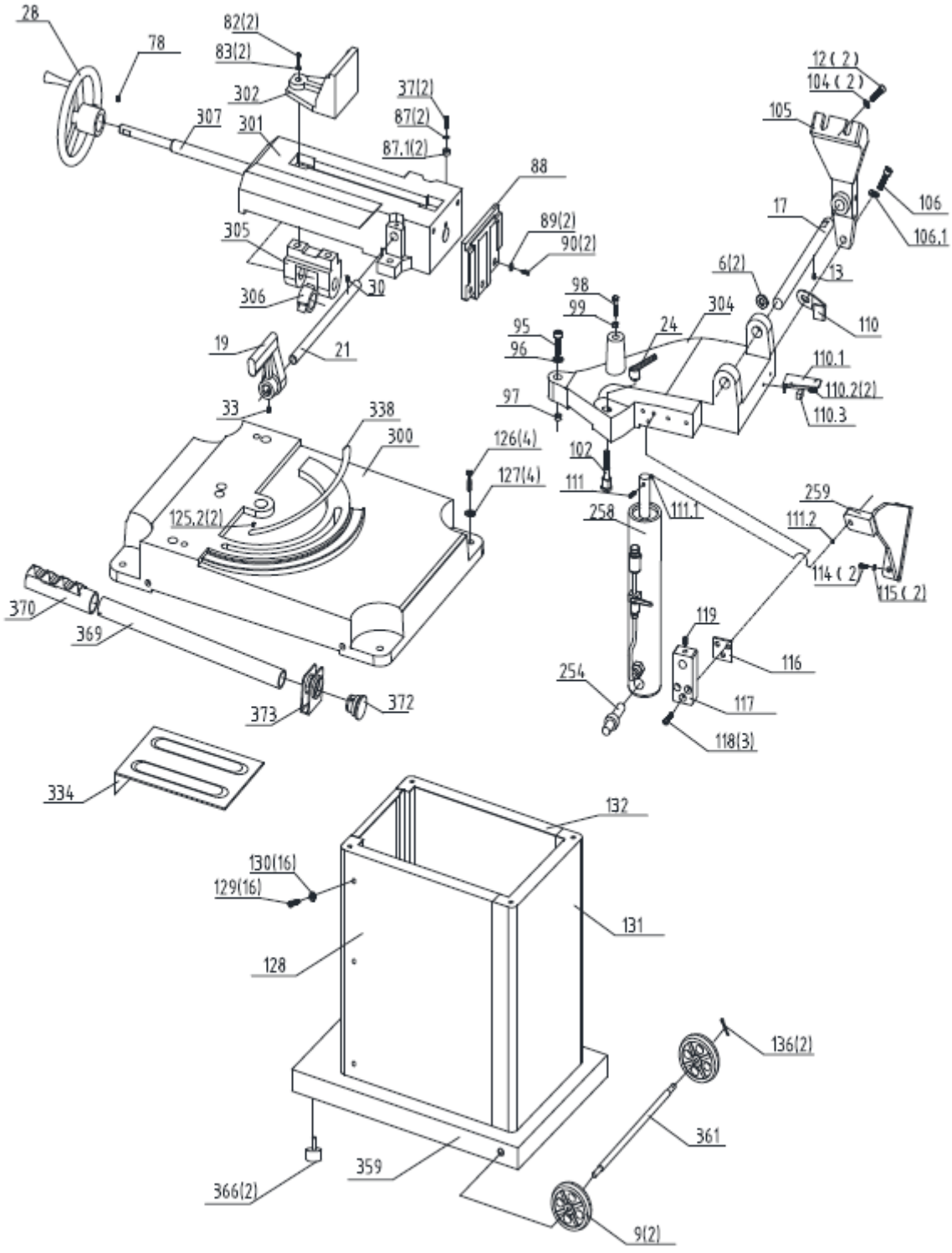
Symptom	Possible Cause (S)	Corrective Action
Bad Cuts	Feed pressure too great.	Reduce pressure by increasing spring tension on side of saw.
	Guide bearing not adjusted properly.	Adjust guide bearing, the clearance can not be greater than .001mm.
	Inadequate blade tension.	Increase blade tension with tension knob.
	Dull blade.	Replace blade.
	Speed incorrect.	Adjust speed.
	Blade guide spaced out too much.	Adjust guide space.
	Blade guide assembly loose.	Tighten blade guide assembly.
	Blade truck too far away from wheel flanges.	Re-track blade according to operating instructions.
Bad Cuts (Rough)	Too much speed or feed.	Decrease speed or feed.
	Blade is too coarse.	Replace with finer blade.
	Blade tension loose.	Adjust blade tension.
Blade is Twisting	Cut is binding blade.	Decrease feed pressure.
	Too much blade tension.	Decrease blade tension.

15.0 Replacement Parts

15.1.1 Saw Bow Assembly – Exploded View



15.1.2 Saw Vise and Base Assembly – Exploded View



15.1.3 Horizontal Band Saw Assembly – Parts List

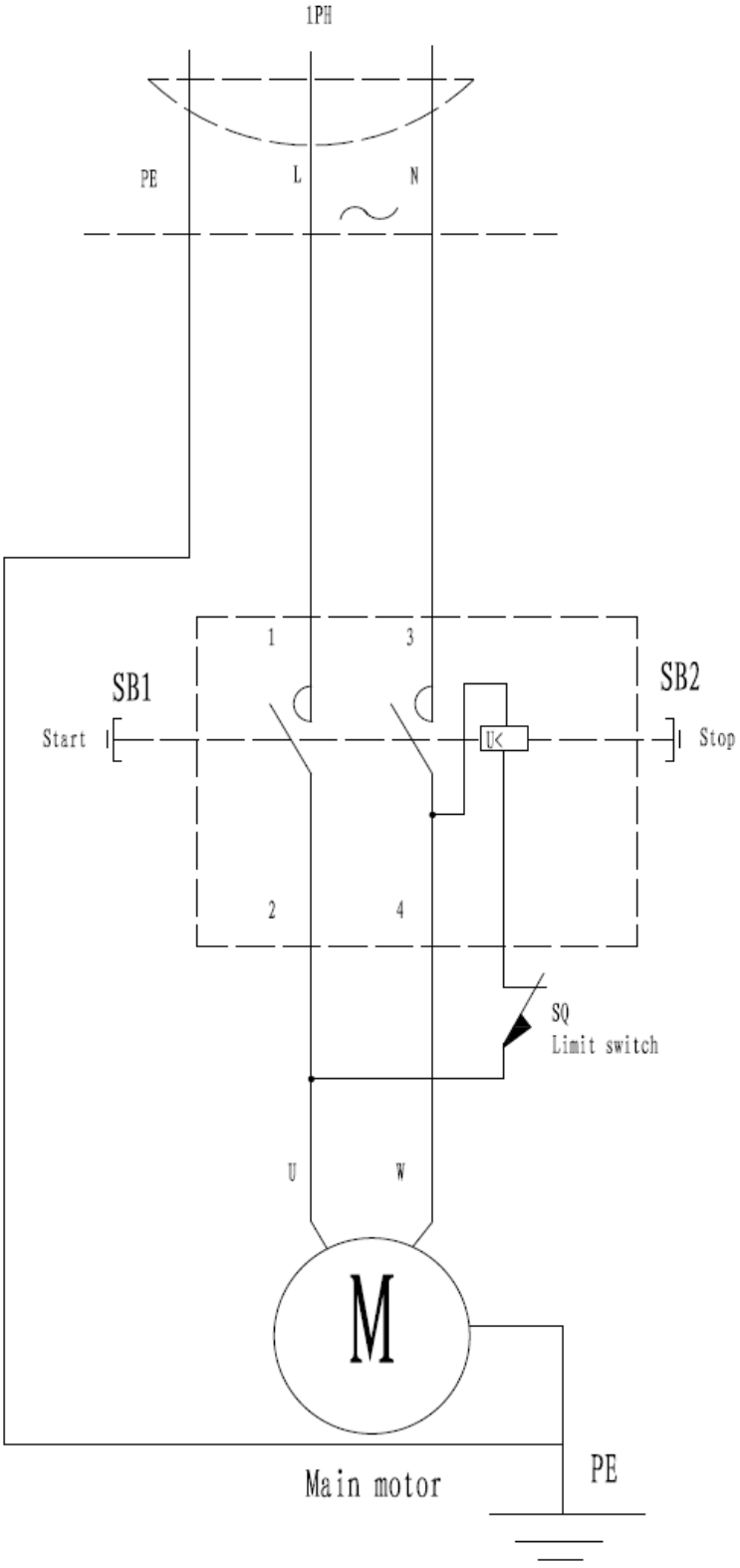
Index No.	Part No.	Description	Size	Qty.
1	BA1-10752	Motor Mounting Plate		1
4	CM9-TS-1503041	Socket Head Cap Screw	M6X16	4
5	**	Flat Washer	6	8
6	**	Flat Washer	16	2
7	**	Hex Cap Screw	M8X20	1
8	**	Fender Washer	8	1
9		Wheel		2
10	**	Hex Cap Screw	M8X30	1
11	**	Flat Washer	8	1
12	JT9-TS-1504061	Socket Head Cap Screw	M8X30	2
13	**	Socket Set Screw, Flat Point	M8X16	1
13.1	BA9-1227522	Idler Shaft Seat Block		1
14	BA9-1227523	Spacer Bushing		1
15	BA9-1227524	Bearing		1
16	BA9-1227525	Shaft		1
17	**	Pivot Rod		1
18	Mutliple Tpi Sku's Offered Already	Blade (Must specify tooth count)		1
19	BA1-2541	Distance Set Bracket		1
20	**	Switch Box		1
20.1	**	Mounting Strip		1
21	BA1-2943	Stock Stop Rod		1
23	**	Hex Socket Headless Screw	M8X16	1
24	**	Lock Handle		1
25	JT9-TS-2284121	MACH Screw, Flat HD	M4X12	3
26	**	Retaining Plate		1
27	**	Shaft Seal	B15X35X7	1
28	BA9-1008450	Hand Wheel	φ100Xφ12	1
29	**	Spacer		1
30	**	Socket Set Screw, Flat Point	M6X10	1
31	CM9-TS-1503041	Socket Head Cap Screw	M6X16	4
33	**	Socket Set Screw, Flat Point	M8X10	1
34	BA1-10753	Gear		1
35	**	Shaft Key	5X5X25	1
36	**	Spring-type straight pins	4X25	1
37	JT9-TS-1504081	Socket Head Cap Screw	M8X40	2
38	**	Socket Set Screw, Flat Point	M8X16	1
39	**	Key	5X5X25	1
41	**	Hex Cap Screw	M8X20	4
42	**	Flat Washer	M8	8
43	**	Hex Nut	M8P1.25	4
44	BA1-10754	Power Cord		1
45	JT9-TS-1503051	Socket Head Cap Screw	M6X20	2
46	**	Flat Washer	M6	2
47	**	Panel		1
48	**	Flat Washer	M12	2
49	**	Hex Cap Screw	M12X35	2
50	JT9-BB-6202ZZ	Bearing	6202-2Z	2
51	BA9-1020944	Spacer		1
52	**	Shaft Seal	B15X35X7	1
53	**	Spacer		1
54	**	Key	5X5X25	1
55	BA9-1013052	Shaft	D	1
56	**	Internal Retaining Ring	15	1
57	BA9-1021758	Blade Guide Mount		1
58	JT9-TS-1503021	Socket Head Cap Screw	M6X10	1
59	BA9-1013056	Blade Cover		1
59.1	**	Flat Washer	M6	1
60	JT9-TS-2284082	Socket Head Cap Screw	M4X8	4

Index No.	Part No.	Description	Size	Qty.
61	**	Eccentric Shaft	A	2
61.1	BA1-2945	Vertical Saw Table		1
61.2	BA1-9336	Table Supporting Plate		1
61.3	**	Flat Washer	10	2
62	JT9-BB-6000ZZ	Bearing	6000-2Z	6
62.2	JT9-TS-2235061	Socket Head Cap Screw	M5X6	1
63	BA9-1008447	Blade Adjustable Assembly (Rear)		1
64	BA9-1008443	Blade Adjustable Assembly (Front)		1
65	JT9-TS-1504061	Socket Head Cap Screw	M8X30	2
66	BA9-1020946	Bearing Axle Pin		2
67	**	Set Screw	M4X6	2
68	**	Socket Head Cap Screw	φ60(M10X35)	1
69	**	Eccentric Shaft		2
70	**	Nut	M10X1	4
71	BA9-1020947	Blade Driven Wheel		1
72	**	Retaining Rings, EXT	M10	4
73	**	Hex Cap Screw	M10X35	1
74	**	Flat Washer		2
75	BA9-1020948	Adjustable Bracket (Right)		1
76	**	Flat Washer	M8	2
76.1	**	Shield		1
76.2	**	Pan Head MACH Screw	M6X12	2
77	**	Blade Idler Wheel		1
78	**	Socket Set Screw, Flat Point	M6X10	1
79	BA9-1012744	Blade Tension Adjustable Knob	φ80(M10X98)	1
80	BA9-1020949	Blade Tension Spring		1
81	**	Saw Blade Bow		1
82	**	Socket Head Cap Screw	M8X30	2
83	**	Flat Washer	M8	2
85	BA9-1226676	Saw Motor		1
86	BA9-1010705	Drive Sheave Assembly		1
87	**	Flat Washer	M8	2
87.1	**	Nut		2
88	**	Vise Plate, Stationary		1
89	**	Flat Washer	M8	2
90	JT9-TS-2238251	Socket Head Cap Screw	M8X25	2
91	**	Pan Head MACH Screw	M5X12	2
92	BA9-1022168	Gasket		1
93	BA9-1022169	Cover		1
94	BA9-1001103	Worm Gear Shaft		1
95	JT9-TS-1506071	Socket Head Cap Screw	M12X50	1
96	**	Flat Washer	M12	1
97	**	Nut		1
98	**	Hex Cap Screw	M10X40	1
99	BA1-4401	Hex Nut	M10	1
101	BA9-1014091	Driven Sheave Assembly		1
102	BA9-1020951	T-Neck Pivot Bolt		1
103	BA9-1020951	Blade Tension Sliding Bracket		1
104	**	Flat Washer	M8	2
105	**	Pivot		1
106	JT9-TS-1504061	Socket Head Cap Screw	M8X30	1
106.1	**	Flat Washer	M8	1
107	JT9-BB-6202ZZ	Bearing	6202-2Z	2
108	BA9-1020954	Shaft Block		1
109	BA9-1020956	Blade Tension Sliding Guide		2
110	**	Anchor		1
110.1	**	Mounting Angle		1
110.2	CM9-TS-1503031	Socket Head Cap Screw	M6X12	2
110.3	**	Block		1
110-1	BA1-3586	Belt Cover		1
111	JT9-TS-1504081	Socket Head Cap Screw	M8X40	1

Index No.	Part No.	Description	Size	Qty.
111.1	**	Flat Washer	M8	1
111.2	**	Hex Nut	M8P1.25	1
112	BA9-1001098	Drive Belt	A-500	1
114	JT9-TS-1503051	Socket Head Cap Screw	M6X20	2
115	**	Flat Washer	M6	2
116	BA1-2542	Spacer Plate		1
117	BA1-2543	Cylinder Mounting Block		1
118	JT9-TS-1503051	Socket Head Cap Screw	M6X20	3
119	**	Socket Set Screw, Flat Point	M6X10	1
125.2	**	Rivet	2X5	2
126	**	Hex Cap Screw	M8X35	4
127	**	Flat Washer	M8	4
128	**	Base Panel, Material Outfeed Side		1
129	CM9-TS-1503031	Socket Head Cap Screw	M6X12	16
130	**	Flat Washer	M6	16
131	**	Base Panel, Wheel End		1
132	BA9-1022524	Base Panel, Material Infeed Side		1
132-1	BA9-1022525	Blade Guard, Infeed Side		1
135	**	Socket Set Screw, Cone Point	M8X16	1
136	**	Cotter Pin	3X30	2
254	BA9-1020961	Cylinder Mounting Pin		1
258	BA9-1226662	Bow Cylinder and Valve Assembly		1
259	**	Bow Cylinder Mount		1
300	BA9-1224992	Saw Base		1
301	BA9-1226801	Vise Body		1
302	**	Vise Plate, Movable		1
304	**	Saw Bow Swivel Casting		1
305	BA9-1224993	Acme Nut Bracket		1
306	BA9-1224994	Acme Nut		1
307	BA9-1224995	Acme Screw		1
334	**	Protect Plate		1
338	BA9-1231243	Scale		1
359	**	Cabinet Base		1
361	BA9-1013023	Axle Shaft		1
366	BA9-1022155	Rubber Head Screw		2
369	BA9-1012559	Knob W/Shaft		1
370	BA9-1012559	Knob		1
372	**	Handle Shaft Stopper		1
373	**	Screw Plate		1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

16.0 Wiring Diagram



17.0 Warranty and Service

Thank you for your purchase of a machine from Baileigh Industrial. 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 an 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 an 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 an 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, lightning, 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 Industrial issued RGA number PRIOR to returning any materials.
• Returned materials must be received at Baileigh Industrial 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 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 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

18.0 Notes

BAILEIGH INDUSTRIAL
1625 DUFEK DRIVE MANITOWOC, WI 54220
PHONE: 920.684.4990 FAX: 920.684.3944
www.baileigh.com