



DAKE VERTICAL BAND SAW

Model V-26

INSTRUCTION MANUAL



WARNING!

Read and understand all instructions and responsibilities before operating. Failure to follow safety instructions and labels could result in serious injury.

Please record your saws information

		VERTICAL BANDSAW	
MODEL	V-26	MOTOR	2.2 KW
WELDER	4.2 KVA	CONTROL VOLT	110 V
VOLTAGE	230 V	FREQUENCY	60 Hz
SER. NO	<input type="text"/>	DATE	<input type="text"/>
www.dakecorp.com			

DAKE

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Grand Haven, Michigan 49417

Phone 800-937-3253

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E-mail: customerservice@dakecorp.com

Revision: R02 V01 08/20/2026

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DAKE STANDARD LIMITED WARRANTY

Finished Machines

Dake warrants to the original purchaser the finished machine manufactured or distributed by it to be free from defects in material and workmanship under normal use and service within 1 year (12 months) from the delivery date to the end user.

Parts

Dake warrants to the original purchaser the component part manufactured or distributed by it to be free from defects in material and workmanship under normal use and service within 30 days from the delivery date to the end user.

The standard limited warranty includes the replacement of the defective component part at no cost to the end user.

Sale of Service (Repairs)

Dake warrants to the original purchaser the component part repaired by Dake Corporation at the manufacturing facility to be free from defects in material and workmanship under normal use and service within 90 days from the return date to the end user, as it pertains to the repair work completed. The standard limited warranty includes repair of the defective component part, at no cost to the end user.

Warranty Process

Subject to the conditions hereinafter set forth, the manufacturer will repair or replace any portion of the product that proves defective in materials or workmanship. The manufacturer retains the sole right and option, after inspection, to determine whether to repair or replace defective equipment, parts or components. The manufacturer will assume ownership of any defective parts replaced under this warranty.

All requested warranty claims must be communicated to the distributor or representative responsible for the sale. Once communication has been initiated, Dake Customer Service must be contacted for approval:

Phone: (800) 937-3253

Email: customerservice@dakecorp.com

When contacting Dake, please have the following information readily available:

- Model #
- Serial #
- Sales Order #

Purchasers who notify Dake within the warranty period will be issued a Case number and/or a Return Material Authorization (RMA) number. If the item is to be returned per Dake's request, the RMA number must be clearly written on the exterior packaging. Any item shipped to Dake without an RMA will not be processed.

SAFETY & WARNINGS

1. Read the operator's manual carefully. Learn the tools applications and limitations, as well as the specific potential hazards peculiar to it. Know your power tool.
2. Always wear approved safety glasses/face shields while using this machine.
3. Make certain the machine is properly grounded.
4. Before operating the machine, remove tie, rings, watches, other jewelry, and roll up sleeves above the elbows. Remove all loose clothing and confine long hair. DO NOT wear gloves when operating.
5. Keep the floor around the machine clean and free of scrap material, oil and grease.
6. Keep machine guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
7. DO NOT over reach. Maintain a balanced stance at all times so that you do not fall or lean against blades or other moving parts.
8. Use only sharp tools. Dull tools are dangerous.
9. Make all machine adjustments or maintenance with the machine unplugged from the power source.
10. Use the right tool. Don't force a tools or attachment to do a job which it was not designed for.
11. DO NOT make cuts requiring more power than is available on the machine.
12. Replace warning labels if they become obscured or removed.
13. Make certain the motor switch is in the OFF position before connecting the machine to power.
14. Give your work undivided attention. Looking around, carrying on a conversation. And "horse-play" is careless acts that can result in serious injury.
15. Make a habit of checking to see that keys and adjusting wrenches are removed before turning on the machine.
16. Keep visitors a safe distance from the work area.
17. Use recommended accessories; improper accessories may be hazardous.
18. Never place hands directly in line with the saw blade.
19. Always use push sticks when cutting small material.
20. Raise or lower the blade guide only when the machine has been turned off and the blade has stopped moving.
21. Read and understand warnings posted on the machine.
22. DO NOT use attachments for any other purpose than for what they were designed for.
23. Failure to comply with all of these warnings could lead to serious injury.

CALIFORNIA PROPOSITION



WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information: www.P65Warnings.ca.gov

FOREWORD

First of all, we would like to take this opportunity to thank you for selecting our Vertical Bandsaw.

As you know, the Vertical Bandsaw is a universal saw for contour cutting. Blade selection is important and by choosing the right blade, you can make most any pattern cutting on most any material with this machine. However, the most important thing is to know the construction of this machine, realize how to operate it in a safe and correct way, and how to maintain it.

We have tried to supply you all the information about these. Please be sure to look through all the contents in this manual so that you may obtain the maximum efficiency and the longest machine life with minimum expense.

The specifications and information contained herein were in effect at the time this manual was approved for printing. The supplier, whose policy is one of continuous improvement, reserves the right, however, to change specifications or design at any time without incurring obligations.

Always include the model number, parts number, and parts description, for parts orders or correspondence concerning your Bandsaw, so we can supply you a rapidly after-sales service.

INSTALLATION

HANDLING

1. Use a safety hook for the eye bolt that is equipped on the top of the machine. (or in the toolbox)
2. Make sure the eye bolt is tightly screwed.
3. Remove the machine from the skid and set in designated area. Please avoid installing at following places.
 - (A). Somewhere another machine is vibrated.
 - (B). Somewhere is uneven.
 - (C). Somewhere materials and finished goods come in and out frequently.
 - (D). Somewhere with not enough space to work or repair the machine.
4. To handle carefully if using a forklift truck.

CLEANING

1. Remove anti-rust oil.
2. Remove the coating with a clean brush applied with appropriate solvent.
3. When the coating has been softened, remove it with clean rag.

INITIAL SETTING

1. Adjust the table-tilting indicator to "O" position.
2. Use a 90° setsquare, make sure the table is square with the blade. Adjust it by putting shims between the table support and the table.
3. Check the table level in vertical and horizontal ways. Adjust it by putting shims under the base seat.

POWER SUPPLY

1. Shut off the main power switch before connecting cables.
2. Check motor voltage against supply.
3. Make sure the power supply is connected to comply with the local safety regulations.
4. Electric terminal is sited on the right down of the Electric Box.

The leads connect to L1, L2, and L3 and ground. The bandsaw must be grounded.

5. Please assure that the blade is running in clockwise direction. If it runs backwards, disconnect the power, then reverse any two of the three L1, L2, and L3 leads.

▲ WARNING

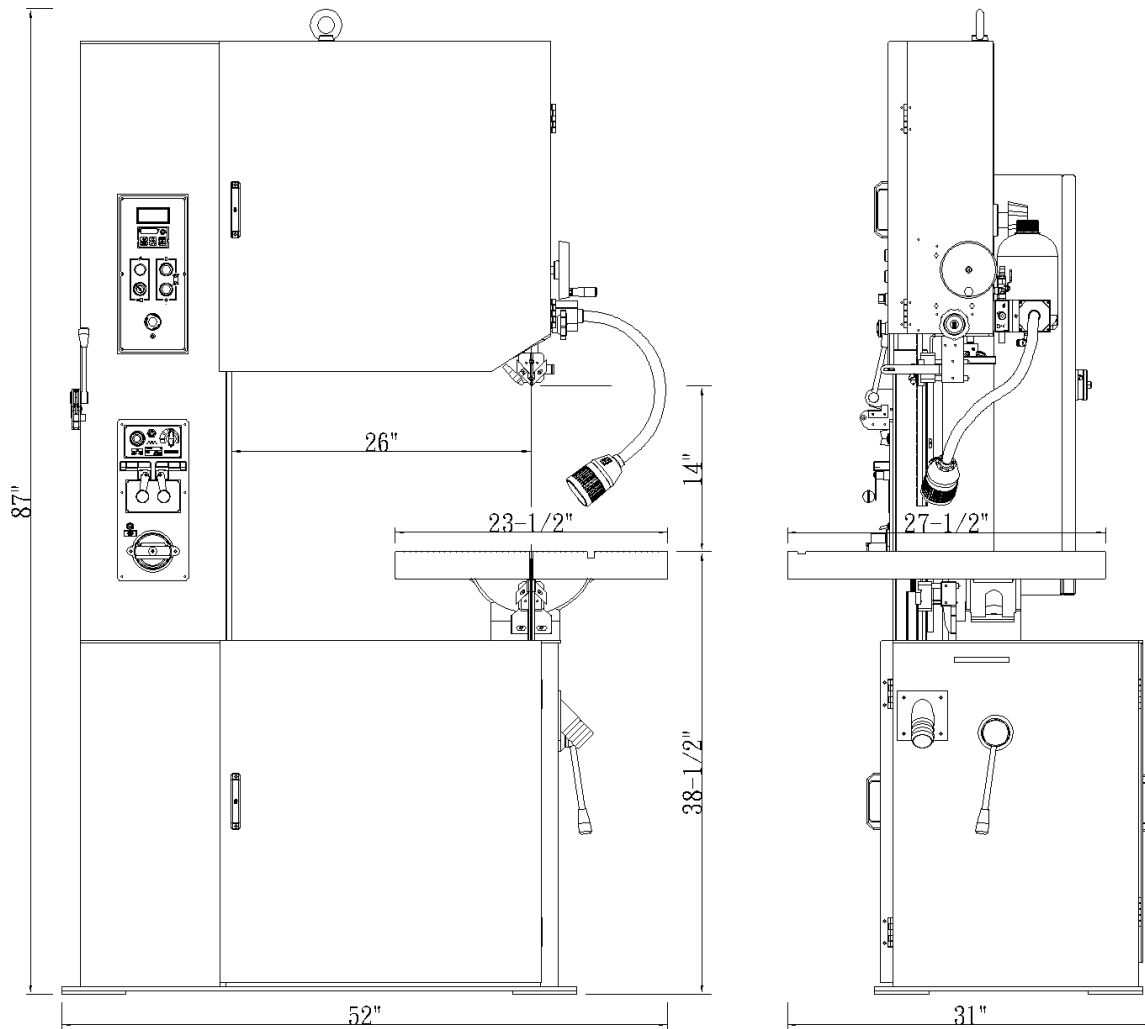
All electrical connections must be done by qualified electrician.

Failure to comply may cause serious injury!

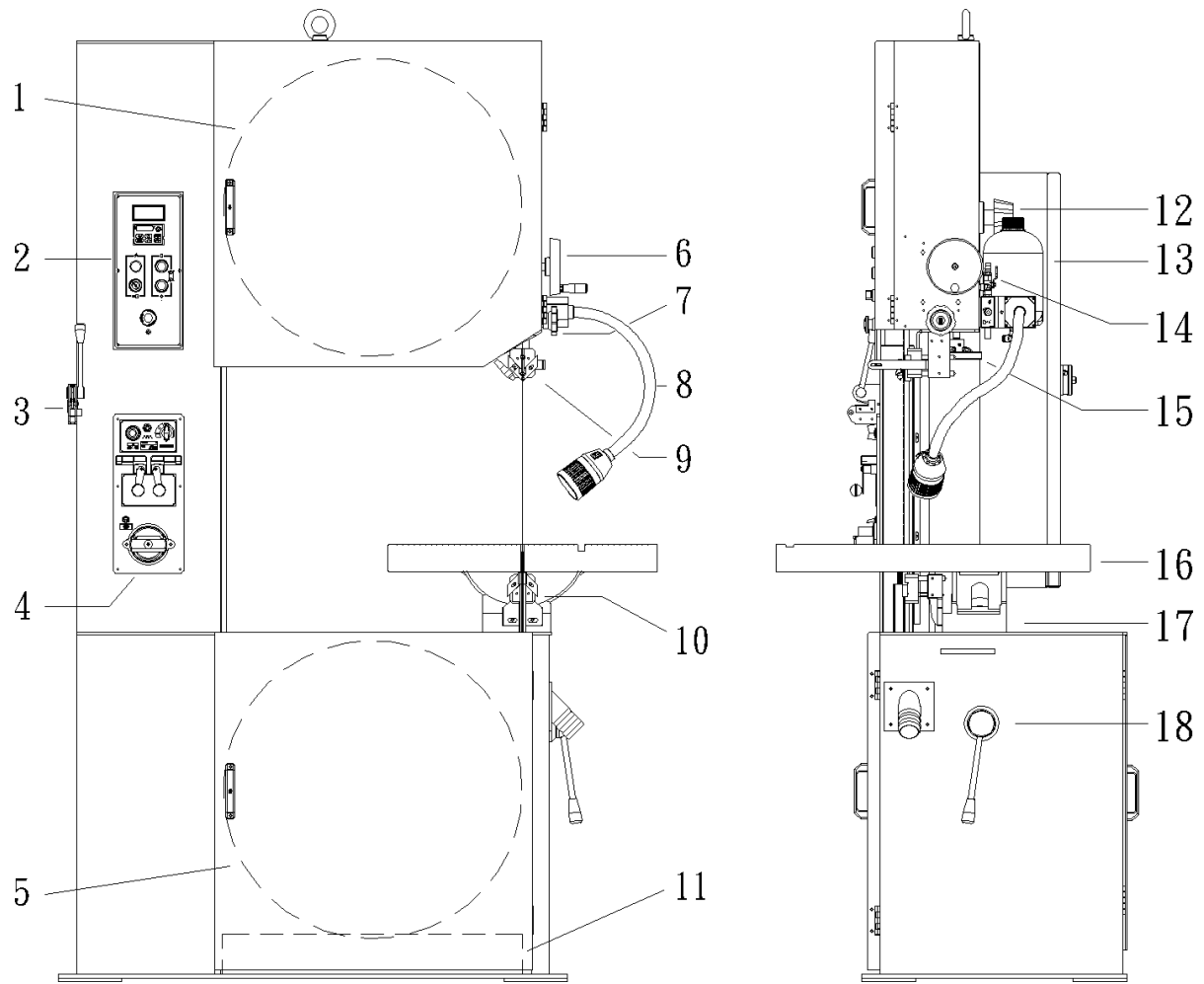
All adjustment or repairs must be done with the machine disconnected from the power source.

Failure to comply may result in serious injury!

SPECIFICATION



Model	VBS-2614 Inverter
Capacity	26 * 14 INCH
Blade Speed	50 ~ 5000 F/min
Blade Length	185 ³ / ₈ INCH
Blade Width Cap	1 INCH
Band Wheel Diameter	26 ¹ / ₄ INCH
Table Size	23 ¹ / ₂ * 27 ¹ / ₂ INCH
Table Tilt	R / L -12°
Table Height	38 ¹ / ₂ INCH
Main Drive Motor	220V±10%, 3PHASE, 60HZ, 2.25KW
Grinder Motor	110V±10%, 1PHASE, 50/60HZ, 0.04 KW
Blade Welder Cap	4.2 KVA, 6 ~ 19 mm
Dimension	52 (Length) * 31 (Width) * 87 (Height) INCH
Mach. Weight	1420 Lbs



1	Upper Wheel	11	Chip Collector
2	Control Panel	12	Upper Wheel Tilt Adjuster
3	Blade Shear	13	Spraying Bottle
4	Welder	14	Spraying Air Inlet
5	Lower Wheel	15	Blade Tension Hand Wheel
6	Post Elevating Hand Wheel	16	Work Table
7	Guide Post Locking Knob	17	Table Support Housing
8	Work Lamp	18	Low/High Range Shift Lever
9	Blade Guide Support, Upper		
10	Blade Guide Support, Lower		

▲CONTROL

Blade Speed –

Blade Speed: 50 ~ 5000 F/min.

The control knob is on the inverter panel, turn clockwise to increase the blade speed.

Blade speed shows in HZ on inverter panel, shows in F/min on digital readout.

Low/High Range Shift Lever –

Located on right side of machine base.

To shift into low-speed range: Open the lower door, slightly rotate the lower wheel clockwise by left hand, while shift the lever toward the front of machine by right hand.

To shift into high-speed range: Open the rear door, slightly rotate the pulley clockwise by right hand, while shift the lever toward the back of machine by left hand. It will be lock once successfully shift into the other range.

Caution: Adjust only when machine is turn off.

Digital Readout –

Located on the control panel. Indicates blade speed per minute. Note: When starting up or changing speed, allow time for the readout to stabilize to the new setting.

Guide Post Locking Knob –

Located on right side of upper frame. Turn counter-clockwise to loosen and clockwise to tighten.

Post Elevating Hand Wheel–

Located on the upper right side of the saw. Turn clockwise to raise the blade guide assembly. Turn counter-clockwise to lower.

Work Lamp Switch – Turn lamp on and off.

Blade Shear Lever –

Located on upper left-hand side of the column. Up position allows increase insertion of the blade into the shear. Pull lever downward to cut the blade.

Weld Button –

Located on blade welder panel. Depress and hold to start welding. Shuts off automatically when weld is done. Release when weld is completed.

Anneal Button –

Located on blade welder panel. Depress and hold to anneal blade, release to stop.

Blade Clamp Pressure Knob –

Located on blade welder panel found the front of the column. Sets pressure for different width of blades.

Blade Clamps –

Located on blade welder panel found the front of the column. DOWN position allows insertion of blade into clamp. Up position locks blade.

Blade Tension Hand Wheel –

Located on underside of upper frame. Turn clockwise to tension blade; counter-clockwise to release tension on blade.

Blade Tracking Hand Wheel –

Located at the upper rear of the saw. Turn clockwise to track blade toward front of the blade wheel Turn counter-clockwise to track blade toward rear of the blade wheel.

Table Tilt Mechanism –

Located under worktable. To tilt table left or right, loosen hex cap screws at rear of mechanism.

Key Lock Switch –

Turn to 12 o'clock position and remove key to lock out power from the control panel.

Power indicator Light –

Indicates that power to the control panel is on.

Main Motor Start Switch – Depress to start bandsaw.

Main Motor Stop Switch – Depress to stop bandsaw.

Grinder Toggle Switch –

Located on the blade welder panel found on columns front. Flip switch up to start grinder; flip down to stop grinder. This motor has temperature protection which will turn off the power automatically when the motor is over-heating. Motor will reset once it cools down.

Grinder Motor Start Switch – Depress to start grinder motor.

Grinder Motor Stop Switch – Depress to stop grinder motor.

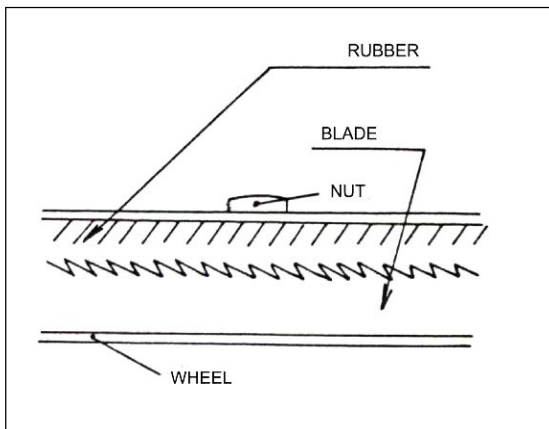
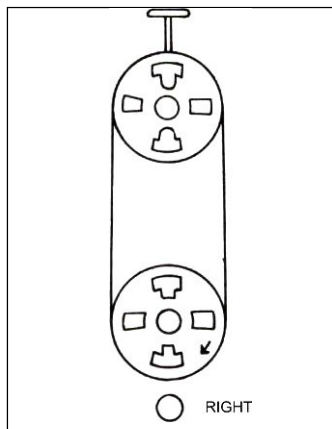
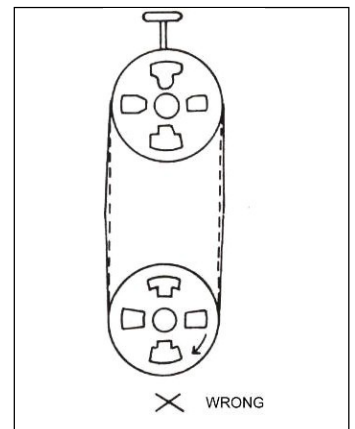
Emergency Stop Switch –

Press to stop machine. Turn knob 90° to reset.

OPERATION

BLADE SETTING

1. Install the blade as illustrated through the guides and onto the upper and lower wheels.
Replace any guarding that was removed after blade is installed.
2. Adjust blade tension according to the Tension Scale by turning the Blade Tension Adjust Hand Wheel. The scale is visible from the rear side.
3. Jog the machine to see if the blade tracks properly, adjust blade tracking by turning Wheel Tilting Adjuster when it is necessary.



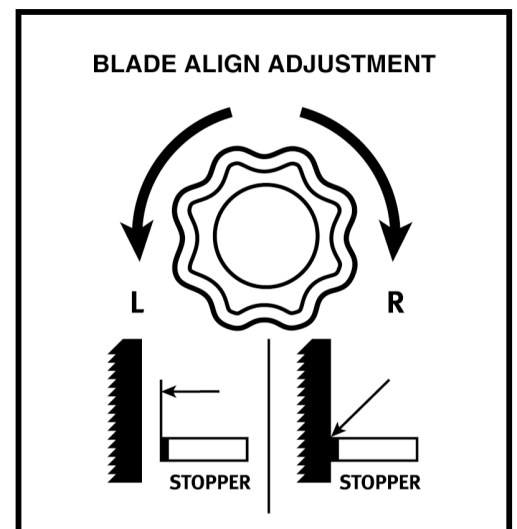
BLADE TRACKING

Blade tracking may be required from time to time depending on the blade size and tension. Disconnect the machine from the power source and open both blade wheel doors. Shift the high-low gearbox lever into the neutral position. Turn the upper blade wheel by hand while observing blade position on the upper blade wheel if adjustment is necessary:

- A. Turn blade tracking knob clockwise to track blade toward front of blade wheel.
- B. Turn counter-clockwise to track blade toward rear of blade wheel. Blade should be tracked as close of the center of the top blade wheel as possible. Do not allow blade to run on the wheel lip.

▲ NOTE:

Upper and lower blade guides should be moved away and left loose from the blade while tracking adjustments are being made.

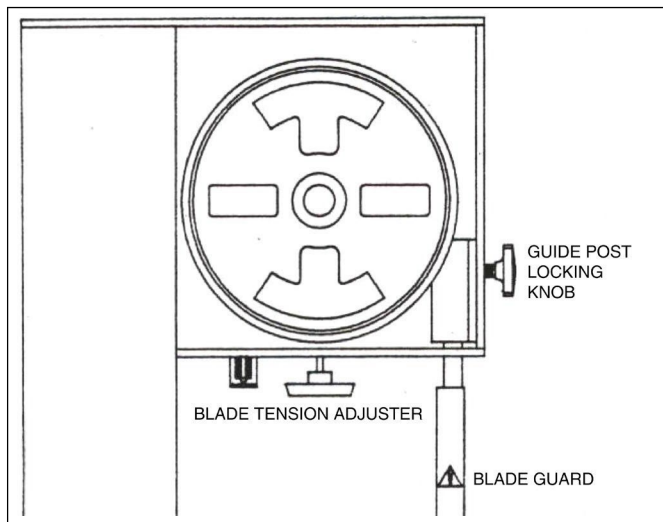
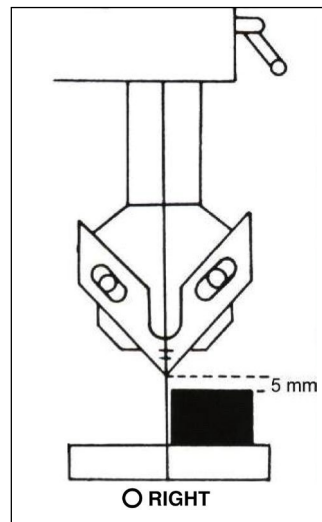
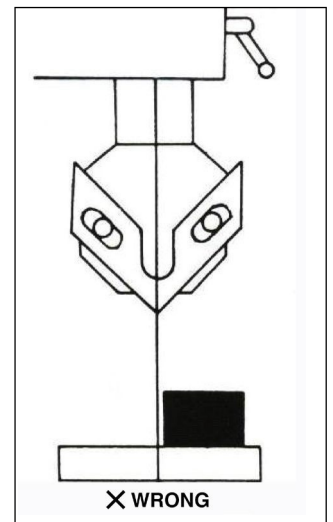


GUIDE POST ADJUSTING

1. Loose the Guide Post Locking Knob.
2. The height of the upper guide post setting is in relationship to the height of the material. The height between the object and the blade guide end is suggested to be about $\frac{1}{4}$ "
3. Lock the Guide Post tightly.

▲ WARNING

All adjustment or repairs to the machine must be done with the power off and the machine disconnected from the power source. Failure to comply may result in serious injury!

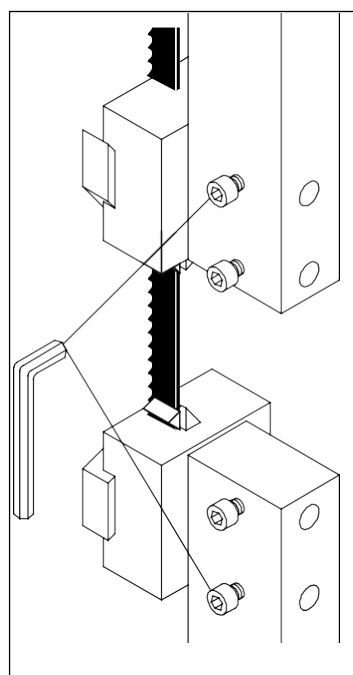
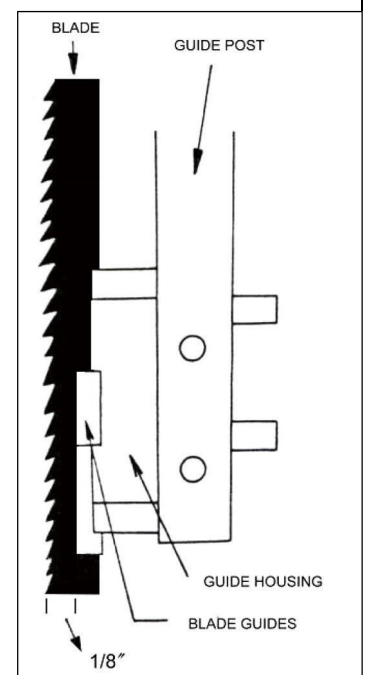


▲ NOTE:

It may be necessary to open the Blade Guides, before adjust the Guide Post to allow free movements.

GUIDE HOUSING ADJUSTMENT

1. Loose the inner hex screws located at the right lower side of guide post with an "L" shaped Allen wrench.
2. Adjust the Guide Housing forward or backward according to the blade width. The front edge of the Blade Guides must be adjusted about $\frac{1}{8}$ " behind the blade teeth.
3. Tighten the screws securely.

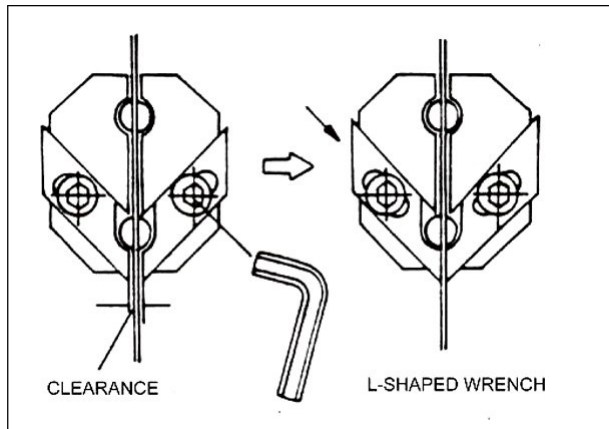
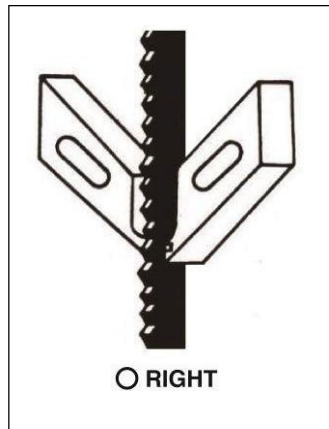
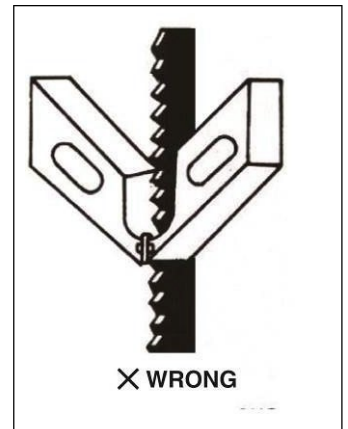


BLADE GUIDE ADJUSTING

1. Loose the inner hex screws of the Blade Guide with an "L" Allen wrench.
2. Adjust the Blade Guide to be very close to the blade but do not touching the guide faces.(approx. thickness of a business card)
3. With blade tight allow guides to ride up to the blade not forcing them off center. Tighten the Blade Guides securely.

▲ NOTE:

There are total four Blade Guides and two Guide Housings located above the table and under the table, all to be adjusted to the same position.

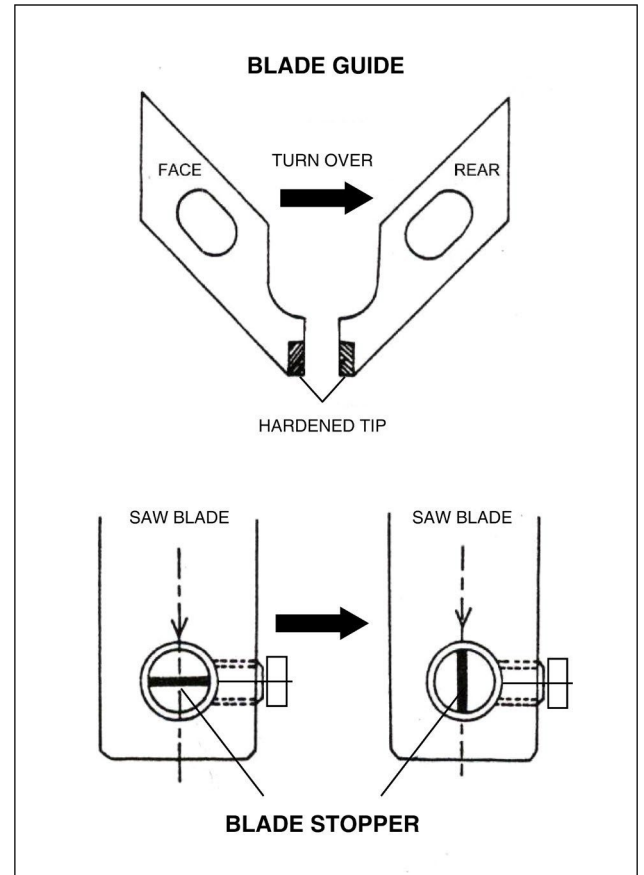


The Blade Guide will wear after time at the front faces. If the Blade Guide become hard to be properly adjusted, turn the left Blade Guide over to the right side, as illustrated in the right illustration, and turn the right-side Blade Guide over to the left side as well. The Blade Guide can thus be used on both sides.

The Blade Stopper will wear over time as friction from the saw blade may cause a worn line on its surface. If this is found to happen, loosen the lower guide holder bolt and rotate the Blade Stopper to either side to change the position on the saw blade.

▲ CAUTION

Blade guide must be properly adjusted or damage may occur to the blade and/or the guides.



BLADE SELECTION

To get the most satisfactory work from your saw, it is important to choose a blade that is correct for the work. Blade life, cut straightness, finishing quality and sawing efficiency is all related to the choice of blade. Blade breakage, teeth stripping, crooked cuts, and other common complaints are, in most instances, caused by using the wrong blades. Blades are classified by materials, tooth shapes, and types of set.

KINDS OF BLADE

Bandsaw blades are available in specific sizes, or in 100 feet coils. They are made from several different metals:

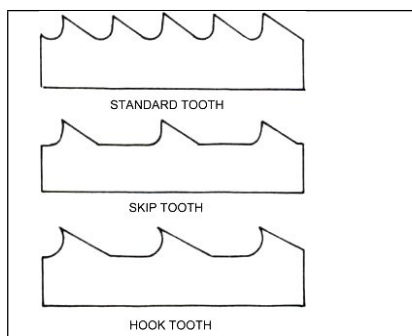
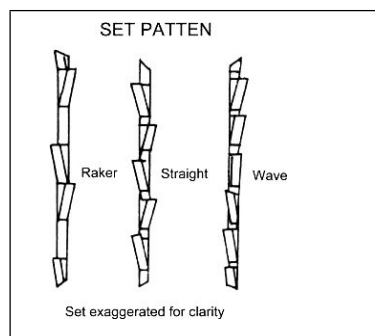
1. Carbon Steel Blade: which are widely used because of their general adaptability for all types of work and the low cost. They are excellent for cutting nonferrous metals and plastics.
2. High-Speed Steel Blade: which resist heat generated in cutting to far greater extent than carbon steel blades. They are best suited for cutting ferrous metals.
3. Alloy Steel Blade: which are tougher and more wear resistant than either of the above. They will cut faster and longer than blades of carbon or high-speed steel.
4. Carbide-Tipped Blade: which are best used for cutting unusual materials such as uranium, titanium, and beryllium. These metals are difficult to cut with other types of blades.

TOOTH SHAPES

The regular or standard tooth is preferred for all ferrous metals and general-purpose cutting. The skip-tooth blade has widely spaced teeth to provide the added chip clearance needed for cutting softer nonferrous materials. The hook, or saber tooth blades has a 10° undercut which permits better feed and chip removal, it is best for the harder nonferrous alloys.

SET TYPES

Regular or rake set is generally furnished on saws that have 2 to 24 teeth per inch. These blades have one tooth set to left, one to right, and one unset tooth called a rake. This set is used when material is to be contour cut. Wavy set is furnished on saws that have 8 to 32 teeth per inch. This set has groups of teeth bent alternately to left and right, which greatly reduce the strain on individual teeth. Saws with wavy set are used where tooth breakage is a problem, such as in cutting thin stock or where a variety of work is cut without changing blades.



Of the three common set patterns, only raker and wave are now used in metalworking.

➤ SET SELECTION

Always use rake set except:

1. For work of varying cross section use wave set.
2. When one blade must be used for a range of material sizes use wave set.

Available set:

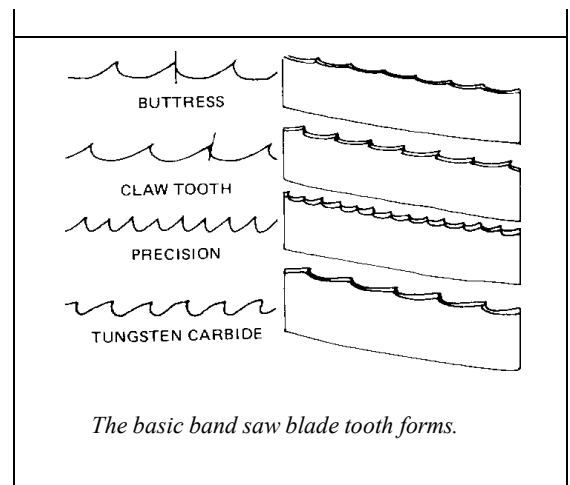
Standard

Carbon rake, wave

Dart rake, wave

Demon rake

Super Demon rake



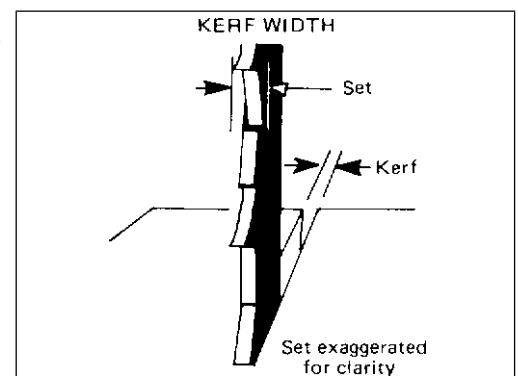
➤ TOOTH FORM SELECTION

1. For finer than 6 pitch, Precision is only choice.
2. For 6 pitch and coarser, Claw Tooth usually gives the best tool life and fastest cutting rate.
3. For best finish, Precision and Buttress are usually preferred.

➤ GAUGE SELECTION

Use standard gauge except when increased work thickness decreases accuracy and width cannot be increased to compensate. Example for heavy gage application:

1. When radius cutting in thick materials.
2. When maximum width usable on machine provides insufficient beam strength.



➤ PITCH SELECTION

Select best pitch from Sawing Recommendations Tables or Job Selector. If this pitch is not available in desired width:

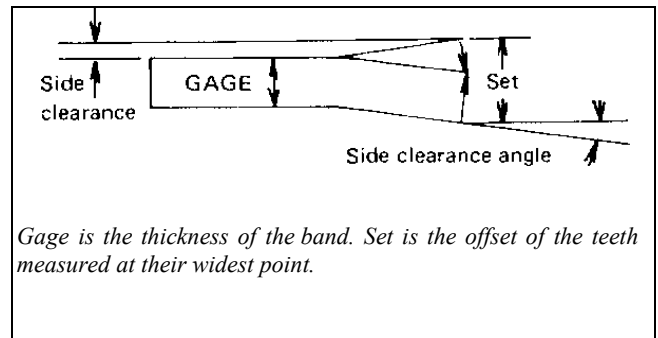
1. Thick material; choose the nearest pitch.
2. Thin material; reduce width until pitch is found.
3. Have at least two teeth in work at all times. Ten are preferable for hand feeding, 20 for power feeding.

PITCH			
Standard Carbon	32 max.	2 min.	
Dart	32 max.	3 min.	
Demon	10 max.	3 min.	
Super Demon	10 max.	3 min.	
Tungsten Carbide	2-1/2 max.	1-1/2 min.	
<i>Pitch is the number of teeth per inch.</i>			

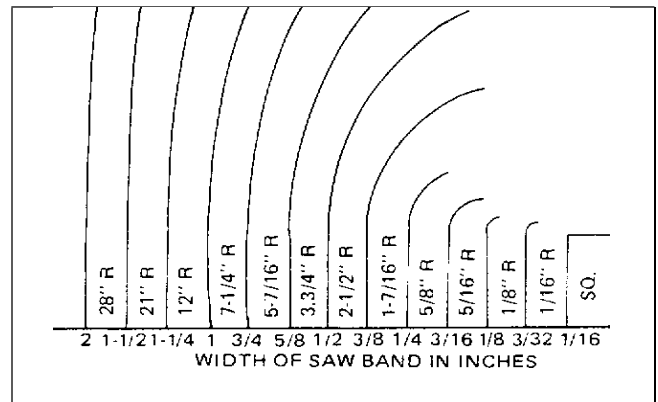
➤ WIDTH SELECTION

Always use widest blade:

1. Available in desired pitch (thin work only).
2. That will cut the smallest radius required.
3. That the machine can handle.



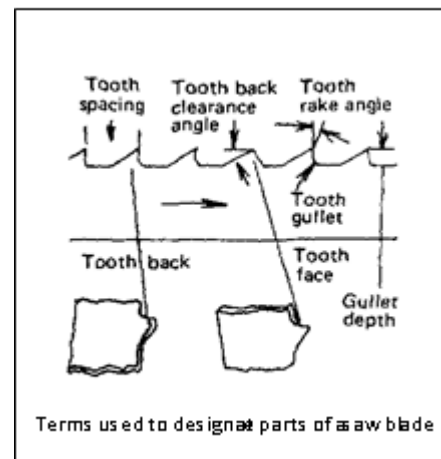
The radial in this chart are all based on cutting 1-inch thick mild steel and using manual feed. In order to cut a close tolerance radius the following factors, in addition to the blade width, must be considered: thickness, machine ability, feed force and the location of the pivot point. Heavy feed in thick work, for example, results in a barrel-shaped cut.



➤ BLADE SELECTION

1. Blade characteristics to meet job requirements:
 - Tooth form – three standard types
 - Width – from 1/16 to 2 inches
 - Pitch – from 2 to 32
 - Gage – standard as well as extra heavy
 - Set – for parting or slotting.
2. Recommended blade from work planning system.
3. Proper break-in method, if use a new blade.
4. Operating conditions for lowest cost per cut.
 - Band speed – adjusted for each job
 - Work feed – selected for productivity
 - Coolant application – properly mixed and properly placed.
5. Blade removal point for maximum useful life.

Among the band machinist's important decisions is the selection of saw blade with the best characteristics for each sawing job.



Select saw blade in comply with the thickness of materials. Following suggestion might be helpful to you:

- A. Select a larger pitch blade for a thicker material.
- B. Select a smaller pitch blade for a thicker material.
- C. Use a smaller pitch blade to obtain a smooth cutting surface.
- D. Use a larger pitch blade to obtain a faster cutting speed.
- E. It is important to prepare different blades for different works.

To prevent saw blade from being blunt in no time, please notice the following points.

- A. Set the speed faster.
- B. Adjust the feeding rate to ensure the cutting is continuously.

The sawing surface quality is affected by the blade sharpness.

- A. Use a smaller pitch blade.
- B. Increase blade speed slightly.
- C. Decrease feeding rate.
- D. Use a better blade.

Following are suggestions for preventing saw blade from being twisted.

- A. Put the blade correctly in the center of the upper guides and lower guides.
- B. Decrease feeding rate.
- C. Use a large pitch blade.
- D. Set the guides post as close to the work as possible.

To prevent from any vibration when cutting, please notice to the following instructions.

- A. Check the blade if it is welded straight.
- B. Adjust blade speed according to the thickness and material of the work.
- C. Increase the feeding rate.
- D. Increase blade tension.
- E. Use a smaller pitch blade.

▲ NOTE:

A CORRECT SELECTION OF SAW BLADE IS VERY IMPORTANT TO BANDSAW OPERATING. ALWAYS SELECT A BLADE ACCORDING TO THE MATERIAL AND THICKNESS OF THE WORK.

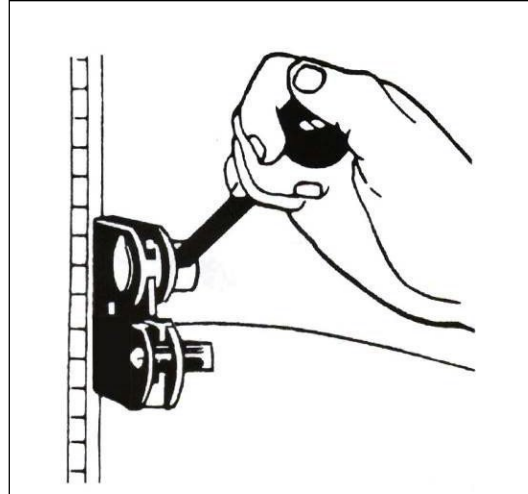
Material Thickness	Sawing speed (M/min) for specified Material & thickness					Pitch (No. of teeth / inch)				
	~1/4	1/4~1	1~3	3~6	6~	~1/4	1/4~1	1~3	3~6	6~
High carbon steel	70	60	60	45	45	18	14	10	6	4
Free cutting steel	60	45	40	30	30	18	14	12	6	4
Ordinary tool steel	40	30	30	25	20	24	18	14	8	4
High speed steel	30	25	20	20	20	24	14	12	8	4
Stainless steel	25	20	20	20	20	18	14	10	8	4
Thick iron plate	45	30	20	20	20	18	14	10	8	4
Cast iron	45	40	30	25	20	18	14	12	8	4
Aluminum 108,A108	365	275	180	120	60	18	10	6	3	3
A132, C133	365	275	180	120	60	18	10	6	3	3
13,43,85,4032,6151	550	425	245	150	90	18	10	6	3	3
113,138,152,B-195	550	380	275	180	90	18	10	6	3	3
B-214, 312,333	550	380	275	180	90	18	10	6	3	3
212,355,356,360,380	550	380	275	180	90	18	10	6	3	3
142,195,750	915	825	735	670	610	18	10	6	3	3
2014,2018,2025	915	825	735	670	610	18	10	6	3	3
6053,7075	915	825	735	670	610	18	10	6	3	3
6061,6063	1500	1220	1065	915	770	18	10	6	3	3
122,214,218,220	1500	1385	1220	1065	915	18	10	6	3	3
1100,2011,2017,3003,3004	1500	1500	1500	1385	1220	18	10	6	3	3
2024,5052	1500	1500	1500	1500	610	18	10	6	3	3
Magnesium bronze	125	75	40	25	20	14	8	6	3	3
Leaded commercial bronze	915	610	450	305	150	14	8	6	3	3
Commercial bronze	150	105	60	30	20	14	8	6	3	3
Free cutting brass	1220	915	610	450	300	14	8	6	3	3
Forging brass	610	460	335	245	150	14	8	6	3	3
High leaded brass	1065	825	565	410	260	14	8	6	3	3
Leaded brass	610	460	275	215	150	14	8	6	3	3
Low loaded brass	455	305	150	60	20	14	8	3	3	3
Leaded copper	765	550	360	240	120	14	8	3	3	3
Cadmium copper	90	60	30	25	20	14	8	3	3	3
Magnesium	1500	1385	1220	915	610	14	8	3	3	3
Cadmium	1220	1065	915	915	760	14	8	6	3	3
Manganese	60	45	30	25	20	24	14	6	3	3
Nickel	55	40	30	25	20	18	14	6	3	3
Bdellium	55	45	40	35	25	18	14	6	3	3
Chrome	50	40	25	20	20	18	14	6	3	3
Silicon	55	30	30	20	20	18	14	6	3	3
Carbon (8~35)	1220	1065	915	765	610	10	6	3	3	3
Carbon (35~65)	615	245	90	45	20	14	10	6	3	3
Carbon (1008~ 1095)	60	45	30	25	20	24	14	6	3	3
Rubber	460	155	90	60	45	18	14	10	8	6
Plastics	1500	1065	765	550	455	10	8	3	3	3
Resimene	1500	1375	1065	915	765	10	8	6	3	3
Leather	1220	1065	915	855	795	14	10	6	4	3
Corkboard	1500	1375	1220	1065	915	18	14	8	6	3
Corrugated asbestos	1220	1065	915	915	765	10	8	6	3	3
Raybestos	125	75	45	30	20	14	8	6	3	3
Linabestos	45	30	20	20	20	14	8	6	3	3
Dry ice	1500	1220	1065	915	760	14	10	6	3	3
Tortoise shell	550	450	365	245	215	32	24	14	8	4

WELDER OPERATION

WELDER OPERATING GUIDE

BLADE CUTTING

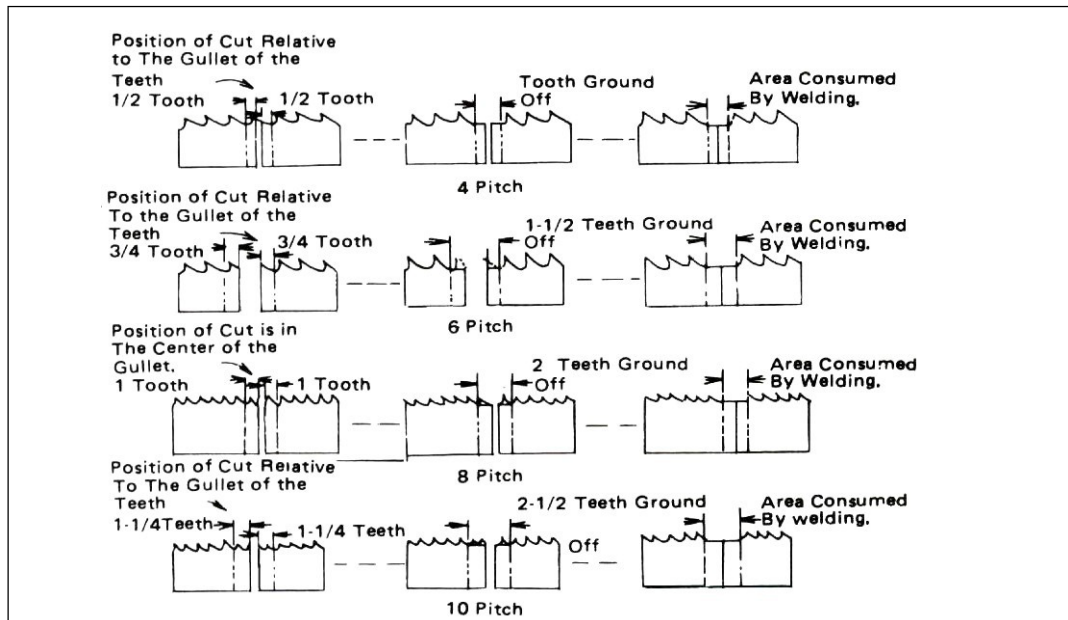
1. Cut the blade to the longest length for machine. Using the blade shear will ensure that the blade ends are cut flat, square and smooth.
2. Place the back edge of blade against the square cutting guide of the shear and firmly pull the cutting lever down to shear the blade. Both ends of the blade must be sheared to allow for a good butt weld.
3. Keep the shear blade clean and free from blade end pieces that can get trapped in the shear.



Using the Blade Shear.

TOOTH SPACING

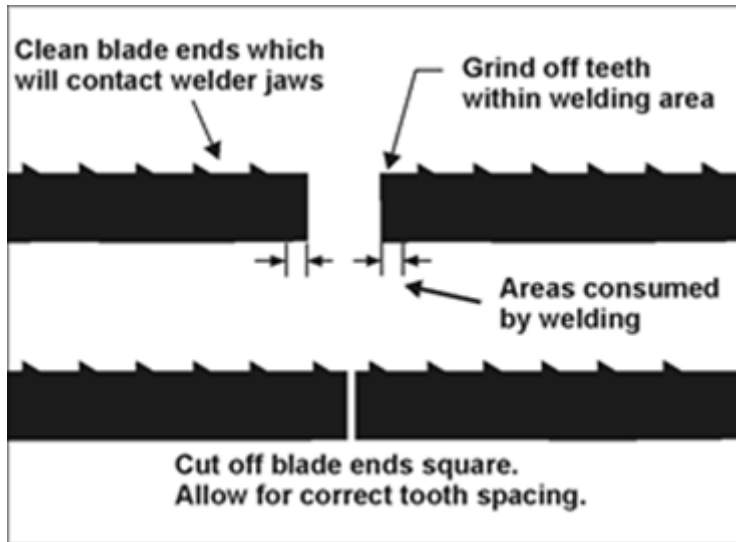
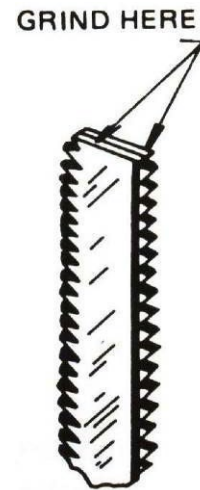
1. On fine-pitched bands, one or more teeth on each side of the cut must be removed by grinding so that the cross section of the weld area of the blade is uniform.
2. After finishing internal cutting. Cut 5mm left and right of the cross section of the welded area. Because the annealed area of the blade is cut, the using of the blade could be longer.



*Follow these cutting and grinding instructions
and the teeth will be uniformly spaced after the weld.*

WELDER PREPARING

BLADE CUTTING

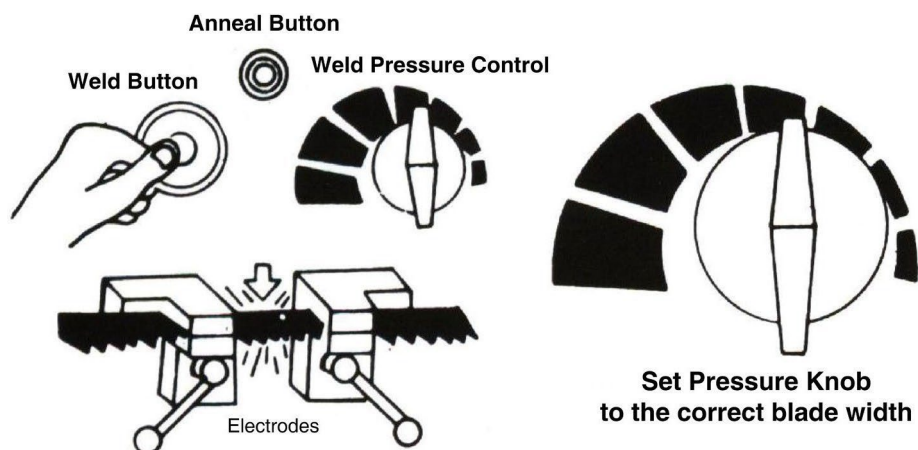


If snips are used to cut blade, grind ends square as shown.

▲ CAUTION: If the saw blade is rusty, the rust must be grounded off before the blade is welded.

WELDING

1. Turn pressure knob to "0" position.
2. Butt blade ends together and locate joint in the center between the two electrodes.
3. Set pressure knob to blade width.
4. Press and hold welder button. Do not release until the blade joint is "red" hot.
5. The switch is automatic and will shut welder off after a preset time of 3 or 4 seconds and the blade returns to original color. Note: The weld joint may throw sparks during welding so wear safety glasses and proper apparel.



Due to the different materials and thickness of blade, please pay special attention to the pressure adjustment.

ANNEALING

Annealing is a heat treatment process where metal is heated to a specific temperature and then cooled slowly. This process softens the metal, increases its flexibility (ductility), and removes internal stresses that build up during use.

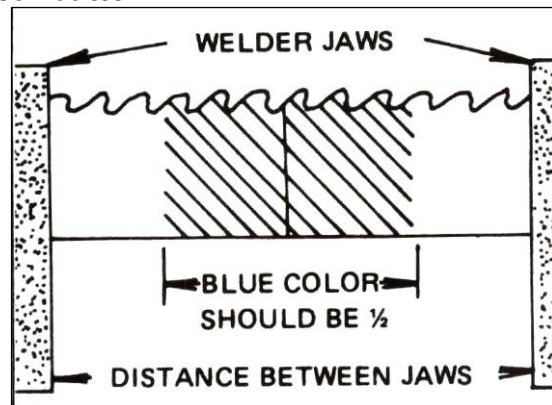
1. Turn pressure knob to "0" position.
2. Release blade and center the weld joint at the front of the electrodes. (At the wider part)
3. Press annealing button. Do not release until the blade joint becomes as "orange" color.
4. Anneal #3 operations 4 or 5 times, gradually reducing the heat each time.
5. Remove any welding dust or scale from the joint and anneal 2 or 3 more times, successively at lower temperatures. (quicker series of press and release of annealing button).
 - (a) For Carbon Blade: Press and jog the annealing switch button until the weld is a "dull cherry" to "cherry red" color. All the blades to cool slowly by decreasing the jogging frequency.
 - (b) For Dart Blade: Heat the blade slowly until the weld becomes a deep blue color. Continue to heat by jogging the anneal button until the width of the blue color is one-half the length of the band exposed between the jaws. Do not overheat or the temper of the band will be damaged.

6. **CAUTION:**

Do not heat beyond the "blue" stage – if the band begins to show any red color, it is too hot. Cool quickly by releasing the anneal button.

(c) For IMPERIAL BI-METAL Blade:

Heat the band slowly by jogging the annealing switch button until the weld just begins to emit light (this would be the dullest red color). The desired color may not be visible in normal room light. Always shade the weld area with your hand. Cool the weld quickly by releasing the annealing button. Repeat this operation 4 or 5 times.



Correct annealing of Dart Blade

▲ **NOTE:**

This procedure should be followed both before and after grinding IMPERIAL BI-METAL Blades.

GRINDING THE WELDED BLADE

▲ WARNING

Keep hands away from rotating grinding wheel.

When not in use, make sure grinding wheel is covered with built in cover

After welding, the blade must be dressed to remove excess metal or flash from the weld. Grind the welded area down to the same thickness as the rest of the band. With the teeth facing out, grind the weld as show in the drawing. Handle the blade carefully – the weld is brittle because it has not been annealed.

Grind Carefully: do not hit the teeth; or grind deeper than the thickness of the blade; or overheat the weld area. Be sure to remove flash from the back edge of the blade. Any flash or “stub” teeth that project beyond the normal set or height of the other teeth must be ground off.

CLEAN-UP WELDER JAWS AFTER WELDING

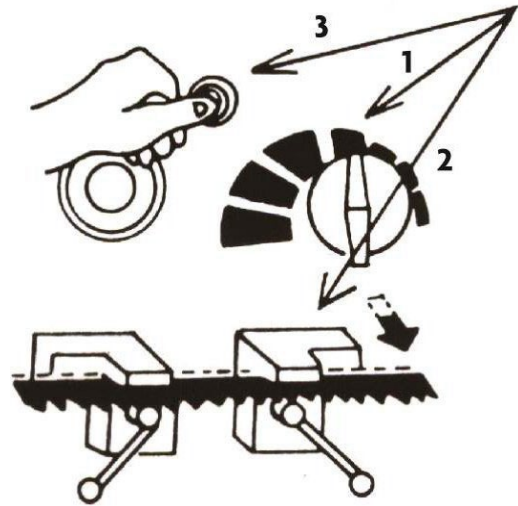
It is important that the welder jaws be kept clean at all times. The jaws and inserts must be wiped or scraped clean after every weld. Doing this will insure better welds by:

- (1) Holding proper alignment.
- (2) Preventing flash from becoming embedded in the blade.
- (3) Preventing shorts or poor electrical contact.

GOOD GRINDINGS	BAD GRINDINGS	
		
		
		

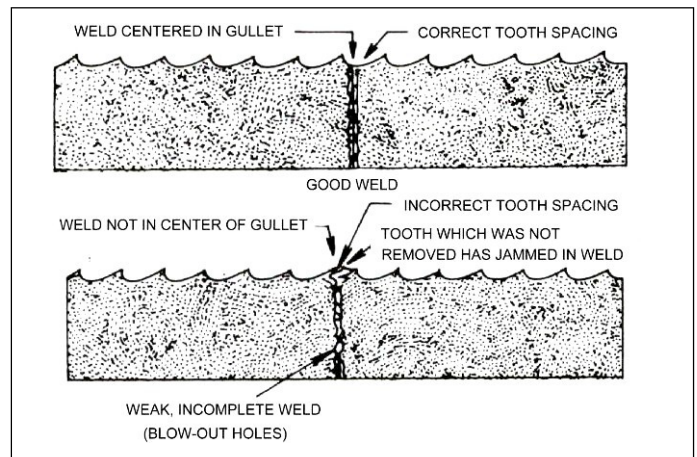
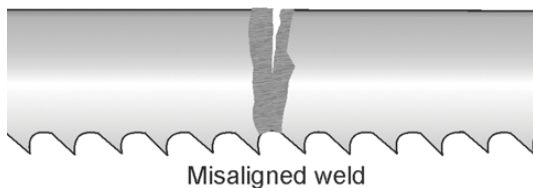
SECONDARY ANNEALING

Anneal the saw blade 2-3 times with lower temperatures.

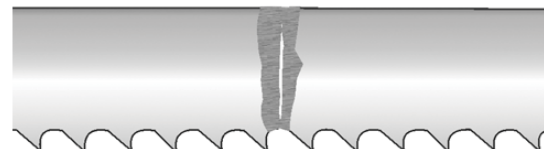


INSPECTION OF THE WELD

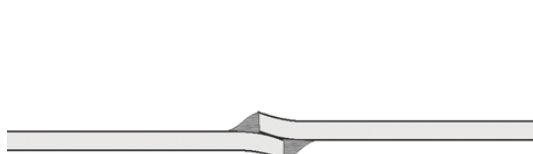
When the blade is removed from the welder it should be inspected carefully. The spacing of the teeth should be uniform and the weld should be located in the center of the gullet. Major jaw misalignment is easily noted at this time from the weld appearance. See the Trouble Shooting Chapter if the weld is imperfect.



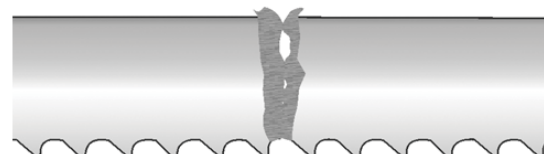
Misaligned weld



Incomplete weld



Overlapped weld



"Blown-out" weld

▲ CAUTION:

This welder is designed for intermittent use.

Repeated welding within a short period of time may cause the welder to overheat.

TROUBLESHOOTING

MISALIGNED WELD

- (1) Dirt or scale on jaws or blade.
- (2) Blade ends on cut off square.
- (3) Blade ends not correctly aligned when clamped in jaws.
- (4) Worn jaws or inserts.
- (5) Jaws are not aligned correctly.

MISALIGNED WELD-BLADE ENDS ARE OVERLAPPED

- (1) Jaw Upset Force Control set for wider blade than used, adjust correctly.
- (2) Blade ends or jaws not aligned correctly.

WELD BREAKS WHEN USED

(Joint is not complete, “blow holes” in joint)

- (1) Weld not annealed correctly.
- (2) Weld has been ground too thin.
- (3) Weak “Incomplete” Weld.

INCOMPLETE WELD

- (1) Incorrect Initial Set-Up:
 - (a) Initial jaw gap (weld lever position) not set correctly.
 - (b) Upset Force Control not set correctly.
- (2) Improper clamping procedures.
- (3) Defective cut-off switch may not break the circuit at end of welding operation.
- (4) Cut-off Switch not adjusted correctly.
- (5) Points of Cut-off Switch welded together.
- (6) Slide Rod sticking because of rust or dirt. Clean and oil the Rod.
- (7) Slide Rod movement obstructed because the Stop Screw too tight on the Rod.
- (8) Jaw movement obstructed by kindled jaw cable or tangled wires. Bend cable and untangle wires.

BRITTLE WELDS

Weld has not been annealed correctly; see “Annealing” in Operation Chapter. Poor annealing can be caused by:

- 1. Incorrect annealing heat. Bring weld up to correct color as described under “Annealing” in WELDER OPERATE chapter.
- 2. Scale or oil on weld can cause poor annealing.

TROUBLESHOOTING

TROUBLE	REASON	SOLUTION
The Weld could not be made, the Jaws do not move	<ul style="list-style-type: none"> A. The wire connection is poor, the connecting point of welding switch is bad B. The transformer is burnt out C. Some oil is on the blade D. Some rust is on the blade ends E. The adjustment of Welding Press Adjuster is poor 	<ul style="list-style-type: none"> A. Change the welding switch. B. Change the transformer or rewire it C. Remove the oil D. Grind off the rust E. Loosen the adjusting screw that is in center of it
The weld area melts the blade not welds it, when welding switch is pushed	<ul style="list-style-type: none"> A. The Welding Switch cut off too late B. The Welding Pressure is too weak C. The jaw movement is too slow 	<ul style="list-style-type: none"> A. Screw the Welding Switch Connecting Nut tight B. Turn the Welding Pressure Adjuster clockwise C. Put some oil on the rear side of the Welding lever jaws
The Annealing job can not be made when pushing the Anneal Button	<ul style="list-style-type: none"> A. The Connection of Annealing Switch is loose or broken B. The fuse is broken C. The Connection of the electrodes to blade is poor 	<ul style="list-style-type: none"> A. Change an Anneal Switch B. Change a fuse C. Clean electrode surfaces
The Grinder is not running when the Grinder Switch on	<ul style="list-style-type: none"> A. The Grinder Motor is defective B. The Grinder Switch is defective 	<ul style="list-style-type: none"> A. Replace the Grinder Motor or rewire it B. Replace the switch
The blade can not be tightly clamped with the Jaw Clampers	<ul style="list-style-type: none"> A. The Jaw Clampers are burnt or defective B. The Lower Jaw Inserts are defective C. The Jaws are burnt or eroded 	<ul style="list-style-type: none"> A. Change clampers B. Change Lower Jaw Inserts C. Change Jaws
The annealing button will not release to neutral position	Some dust or debris around the Anneal Button	<ul style="list-style-type: none"> A. Release the anneal button by gently pulling it to the neutral position Housing B. Clean out any dust or debris
Blade tooth broken	<ul style="list-style-type: none"> A. Incorrect pitch for the application B. Brittle blade improper annealing C. Inferior blade 	<ul style="list-style-type: none"> A. Select a right pitch blade B. Re-weld and anneal C. Decrease feeding rate D. Change to high quality blade

TROUBLESHOOTING

TROUBLE	REASON	SOLUTION
Blade damaged	<ul style="list-style-type: none"> A. Blade tension out of adjustment B. Brittle blade improper annealing C. Too Fast feeding D. Blade teeth hitting guides E. Cannot cut radius without blade twisting. 	<ul style="list-style-type: none"> A. Decrease the annealing temperature B. Adjust blade tension C. Adjust a proper gap between the blade and the guide insert D. Decrease feeding rate E. Change to use a narrower blade
Saw blade is twisted	<ul style="list-style-type: none"> A. Improper welded B. Blade installed in improper way C. Blade tension too loose D. The blade is being over fed 	<ul style="list-style-type: none"> A. Re-weld the blade again B. Set the guide inserts closer C. Increase blade tension D. Decrease feeding rate when start cutting E. Use a proper width blade for radius cutting
The sawing direction deviates	<ul style="list-style-type: none"> A. The blade tooth is not on even B. The blade tension is too loose C. The guide post was set too high 	<ul style="list-style-type: none"> A. Make sure a good blade is used without damaged teeth. B. Increase blade tension C. Set the guide post to be within a $\frac{1}{4}$" of the work D. Decrease feeding rate
Saw blade is walks off	<ul style="list-style-type: none"> A. Blade tension is too loose B. Blade is not tracked properly 	<ul style="list-style-type: none"> A. Increase blade tension B. Adjust the wheel alignment
The blade dulling prematurely	<ul style="list-style-type: none"> A. The blade speed is too fast B. The selection of blade is improper C. Feeding rate too fast 	<ul style="list-style-type: none"> A. Slow down the blade speed B. Use a proper blade for the application C. Decrease feeding rate
The blade is not cutting straight vertically	<ul style="list-style-type: none"> A. The blade is dull B. The guide post is not properly fixed C. The blade tension is too loose D. The blade is not exactly 90° to the table 	<ul style="list-style-type: none"> A. Change another new blade B. Fix the guide post properly $\frac{1}{4}$" above material C. Increase blade tension D. Adjust it to be 90°
Excessive noise when machine is running	<ul style="list-style-type: none"> A. The variable speed pulley is damaged B. The saw is not sitting flat on the floor 	<ul style="list-style-type: none"> A. Change a new pulley B. Reposition the machine on a flat even hard floor

MAINTENANCE

PART OR PLACE TO BE OILDED OR GREASED	KIND OF OIL OR GREASE	LUBRICATING PERIOD	REMARKS
Bearings	Mechanism oil	every 6 months	
Guide post sliding part	Grease	weekly	#1350 & #1360
Speed Change handle	Grease	every 6 months	#0600, # 0740, #7120 & #7290
Gear and thread	Grease	every 3 months	#7080 & 7110
Variable pulley	Grease	monthly	#9995: VBS-1408 & 1610 only
Table slide shaft	Mechanism oil	daily	#1250: E-type only (clean up every day)
Upper wheel slide block	Mechanism oil	monthly	#3100 & #3110
Blade Tension Screw	Grease	monthly	#3110 & #3120
Welder Jaw			(clean up every day)
Rubber Tire			(clean up every day)
Work Table Assembly			(clean up every day)

This exploded view diagram illustrates the assembly of a mechanical unit, possibly a washing machine or dryer. The central component is a rectangular main body (part 1310). To its right is a door assembly (parts 1310, 1311, 1312, 1313, 1314, 1315, 1316, 1317, 1318, 1319, 1320, 1321, 1322, 1323, 1324, 1325, 1326, 1327, 1328, 1329, 1330, 1331, 1332, 1333, 1334, 1335, 1336, 1337, 1338, 1339, 1340, 1341, 1342, 1343, 1344, 1345, 1346, 1347, 1348, 1349, 1350, 1351, 1352, 1353, 1354, 1355, 1356, 1357, 1358, 1359, 1360, 1361, 1362, 1363, 1364, 1365, 1366, 1367, 1368, 1369, 1370, 1371, 1372, 1373, 1374, 1375, 1376, 1377, 1378, 1379, 1380, 1381, 1382, 1383, 1384, 1385, 1386, 1387, 1388, 1389, 1390, 1391, 1392, 1393, 1394, 1395, 1396, 1397, 1398, 1399, 1400, 1401, 1402, 1403, 1404, 1405, 1406, 1407, 1408, 1409, 1410, 1411, 1412, 1413, 1414, 1415, 1416, 1417, 1418, 1419, 1420, 1421, 1422, 1423, 1424, 1425, 1426, 1427, 1428, 1429, 1430, 1431, 1432, 1433, 1434, 1435, 1436, 1437, 1438, 1439, 1440, 1441, 1442, 1443, 1444, 1445, 1446, 1447, 1448, 1449, 1450, 1451, 1452, 1453, 1454, 1455, 1456, 1457, 1458, 1459, 1460, 1461, 1462, 1463, 1464, 1465, 1466, 1467, 1468, 1469, 1470, 1471, 1472, 1473, 1474, 1475, 1476, 1477, 1478, 1479, 1480, 1481, 1482, 1483, 1484, 1485, 1486, 1487, 1488, 1489, 1490, 1491, 1492, 1493, 1494, 1495, 1496, 1497, 1498, 1499, 1500, 1501, 1502, 1503, 1504, 1505, 1506, 1507, 1508, 1509, 1510, 1511, 1512, 1513, 1514, 1515, 1516, 1517, 1518, 1519, 1520, 1521, 1522, 1523, 1524, 1525, 1526, 1527, 1528, 1529, 1530, 1531, 1532, 1533, 1534, 1535, 1536, 1537, 1538, 1539, 1540, 1541, 1542, 1543, 1544, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1552, 1553, 1554, 1555, 1556, 1557, 1558, 1559, 1560, 1561, 1562, 1563, 1564, 1565, 1566, 1567, 1568, 1569, 1570, 1571, 1572, 1573, 1574, 1575, 1576, 1577, 1578, 1579, 1580, 1581, 1582, 1583, 1584, 1585, 1586, 1587, 1588, 1589, 1590, 1591, 1592, 1593, 1594, 1595, 1596, 1597, 1598, 1599, 1600, 1601, 1602, 1603, 1604, 1605, 1606, 1607, 1608, 1609, 1610, 1611, 1612, 1613, 1614, 1615, 1616, 1617, 1618, 1619, 1620, 1621, 1622, 1623, 1624, 1625, 1626, 1627, 1628, 1629, 1630, 1631, 1632, 1633, 1634, 1635, 1636, 1637, 1638, 1639, 1640, 1641, 1642, 1643, 1644, 1645, 1646, 1647, 1648, 1649, 1650, 1651, 1652, 1653, 1654, 1655, 1656, 1657, 1658, 1659, 1660, 1661, 1662, 1663, 1664, 1665, 1666, 1667, 1668, 1669, 1670, 1671, 1672, 1673, 1674, 1675, 1676, 1677, 1678, 1679, 1680, 1681, 1682, 1683, 1684, 1685, 1686, 1687, 1688, 1689, 1690, 1691, 1692, 1693, 1694, 1695, 1696, 1697, 1698, 1699, 1700, 1701, 1702, 1703, 1704, 1705, 1706, 1707, 1708, 1709, 1710, 1711, 1712, 1713, 1714, 1715, 1716, 1717, 1718, 1719, 1720, 1721, 1722, 1723, 1724, 1725, 1726, 1727, 1728, 1729, 1730, 1731, 1732, 1733, 1734, 1735, 1736, 1737, 1738, 1739, 1740, 1741, 1742, 1743, 1744, 1745, 1746, 1747, 1748, 1749, 1750, 1751, 1752, 1753, 1754, 1755, 1756, 1757, 1758, 1759, 1760, 1761, 1762, 1763, 1764, 1765, 1766, 1767, 1768, 1769, 1770, 1771, 1772, 1773, 1774, 1775, 1776, 1777, 1778, 1779, 1780, 1781, 1782, 1783, 1784, 1785, 1786, 1787, 1788, 1789, 1790, 1791, 1792, 1793, 1794, 1795, 1796, 1797, 1798, 1799, 1800, 1801, 1802, 1803, 1804, 1805, 1806, 1807, 1808, 1809, 1810, 1811, 1812, 1813, 1814, 1815, 1816, 1817, 1818, 1819, 1820, 1821, 1822, 1823, 1824, 1825, 1826, 1827, 1828, 1829, 1830, 1831, 1832, 1833, 1834, 1835, 1836, 1837, 1838, 1839, 1840, 1841, 1842, 1843, 1844, 1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972,

GEAR BOX COMPONENT

0500	1	GEAR BOX
0510	1	GEAR BOX COVER
0520	1	GEAR
0521	1	GAER
0530	1	SCREW NUT
0531	1	SCREW NUT
0540	1	GEAR
0550	1	GEAR SHAFT
0560	1	SHAFT COVER
0570	1	GEAR
0580	1	MAIN SHAFT
0591	1	MAIN SHAFT COVER
0600	1	SPEED CHANGING SHAFT
0610	1	SPEED CHANGING ARM
0611	1	SHAFT STOPPER
0612	1	SPRING
0620	1	SLIDE BLOCK
0630	1	CRUTCH
0631	2	BRASS BRACKET
0632	1	BRASS BRACKET
0700	1	SPEED CHANGING LEVER
0740	1	SHAFT HOUSING
0790	1	SPEED LEVER RIGHT
9220	1	LEVER KNOB
G6008	1	BALL BEARING
G6206	1	BALL BEARING
G6303	1	BALL BEARING
G6304	1	BALL BEARING
L4030	1	OIL SEAL
L5230	1	OIL SEAL
L5840	1	OIL SEAL

WORK TABLE COMPONENT

1010	1	WORK TABLE
1015	1	FIXED BLOCK
1020	1	TABLE SUPPORT FRAME
1081	2	BLADE GUARD
1090	1	TABLE SUPPORT HOUSING
1100	1	GUIDE SUPPORT HOUSING
1140	1	SCREW
1150	1	SLIDER
1151	1	BUSHING
1500	1	METER GAUGE
1550	1	RIP FRENCE + LOCK
1800	1	FEED SCREW

GUIDE POST COMPONENT

1311	1	GUIDE SUPPORT, UPPER
1312	1	GUIDE SUPPORT, LOWER
1320	4	BLADE GUIDE
1331	1	BLADE STOPER, LONG
1332	1	BLADE STOPER, SHORT
1333	1	BEARING SEAT
1350	1	BLADE GUIDE POST
1351	1	GEAR BAR
1360	1	GUIDE POST HOUSING
1370	1	BLADE GUARD, LEFT
1382	1	BLADE GUARD, RIGHT
1400	2	SPRING
1410	1	SPRING HOUSING
1440	1	POST HOUSING SPRING
1450	1	POST ELEVATING GEAR
1650	1	CIRCLE CUTTING ATTACHMENT
9015	1	GUIDE POST LOCK
9033	1	POST ELEVATE HANDWHEEL
9230	1	HANDLE KNOB
G6201	1	BALL BEARING

WHEEL COMPONENT

3010	1	LOWER WHEEL
3020	2	RUBBER TIRE
3030	1	TAPER SLEEVE
3040	1	WHEEL LOCKING NUT
3050	1	UPPER WHEEL
3060	1	UPPER WHEEL LOCK
3080	1	SLIDE BLOCK HOUSING
3090	1	SLIDE BLOCK GUIDE
3100	2	SLIDE BLOCK GUIDE
3110A	1	UPPER WHEEL SLIDER
3116	1	SLIDER SCREW SHAFT
3120	1	WHEEL ELEVATE SHAFT
3121	1	SPRING
3150	1	WASHER
3180	3	INDICATOR RING
3190	1	TENSION INDICATOR
3200	1	WHEEL TILT ADJUSTER
3220	1	WHEEL TILT CONNECTER
3240	1	CONNECTER WASHER
3250	1	CONNECTER HOUSING
7310	1	SPEED READOUT DETECTOR
7330	1	DIGITAL TACHOMETER
8712	1	INDICATOR PLATE
9030	1	HANDWHEEL
9060	1	TILT ADJUST HANDWHEEL
G6305	2	BALL BEARING

MAIN DRIVE

2000	1	MAIN DRIVE MOTOR
2010	1	PULLEY (90 A ² x Ø28)
2020	2	MOTOR POTARY SEAT
2060	1	BELT ADJUSTING SEAT
2070	1	SCREW FOR ADJUSTING SEAT
7071	1	PULLEY (12" A ² x Ø38)
BA71	2	V-BELT, 2010+7071

SPRAYING SYSTEM COMPONENT

4180	1	AIR NOZZLE CLIPPER
9501	1	SPRAYING SYSTEM
9502	1	SPRAYING BOTTLE
9508	1	HOZZLE HEAD
9509	1	SPRAY NOZZLE HEAD FIXING

MAIN BODY & MISCELLANEOUS

5040	1	UPPER DOOR
5100	1	REAR DOOR, LARGER
5101	1	REAR DOOR, SMALLER
5120	1	LOWER DOOR
8111	1	CONTROL PLATE
8200	1	SPEED AND PITCH SELECTOR (1)
8201	1	SPEED AND PITCH SELECTOR (2)
8202	1	SPEED AND PITCH SELECTOR (3)
8203	1	BRASS BOLT
8204	1	BRASS HANDLE
8205	1	SELECTOR BUSHING
8422	1	GEAR BOX INSTRUCTION
8743	1	TILT INSTRUCTION, L & R
9300	2	UPPER DOOR HINGE
9310	6	LOWER DOOR HINGE
9500	6	SPRING PLATE
9590	3	HANDLE ARM
9602	1	CHIP REMOVAL TUBE
9700	1	INDICATE NEEDLE
9780	1	BRUSHER BRACKET
9790	1	CHIP BRUSHER
9880	1	CHIP COLLECTOR
9900	1	MAGNIFYING GLASS
9999	1	EYE BOLT

CONTROL SWITCH COMPONENT

6490	1	TIMER
6513	1	BRAKE RESISTOR
6530	1	INVERTER
6531	1	EXTRNSION CABLE
6532	1	INVERTER CONTROL PANEL
6540	1	FILTER
6600	1	PUSH BUTTON, ON, GREEN
6602	1	PUSH BUTTON, OFF, RED
6610	1	EMERGENCY SWITCH
6620	3	LIMIT SWITCH
6650	1	KEY SWITCH
6700	1	MAIN POWER SWITCH
6710	1	MAGNETIC SWITCH
6741	1	PILOT LAMP, GREEN
6745	1	VOLTAGE REDUCER
6752	1	1P FUSE SEAT
6753	2	2P FUSE SAET
6754	1	3P FUSE SAET
6765	1	POWER RELAY
6770	2	WIRE HOUSING
6771	1	GROUND SEAT
6775	1	22P TERMINAL BLOCK
6798	1	ELECTRIC BOX
6799	1	WIRING PLATE
6805	1	WORK LIGHT (LED)

WELDER COMPONENT

6010	1	LIMIT SWITCH
6011	1	INSULATOR
6020	1	GUIDE BLOCK
6021	1	SPRING BRACKET
6030	1	GUIDE CASTING
6040	1	HOUSING
6050	1	STATIONARY JAW
6051	1	INSULATOR
6052	4	INSULATING TUBE
6053	4	WASHER, INSULATE
6054	4	SPACER
6060	2	ECCENTRIC SHAFT
6070	1	CLAMP LEVER, RIGHT
6071	1	CLAMP LEVER, LEFT
6100	1	CLAMP SUPPORT, RIGHT
6101	1	CLAMP SUPPORT, LEFT
6110	1	CLAMP PLATE, RIGHT
6111	1	CLAMP PLATE, LEFT
6120	2	CAM
6130	1	MOVING JAW
6150	1	WELD BUTTON
6160	1	MICRO SWITCH
6161	1	SWITCH BRACKET
6170	1	PRESSURE ADJUST KNOB
6180	1	SHAFT
6200	1	CAM
6210	1	WELD TENSION ARM
6211	1	BUSHING
6220	1	SPRING, SHORTER
6230	1	SPRING, LONGER
6240	1	TRANSFORMER
6241	1	MOUNTING BRACKET
6250	1	SWITCH
6260	1	GRINDER MOTOR
6270	1	SPACER
6280	1	GRINDER WHEEL
6281	1	1/4" WASHER, FLAT
6282	1	6 mm-1.0 MEX NUT
6290	1	GRINDER GUARD
6291	1	GRINDER COVER
6330	1	WELDER NAME PLATE
6340	1	INSTRUCTION LABLE
6350	1	GRINDER LABLE
6420	1	ANNEAL SWITCH
6450	1	DEFLECTOR BRACKET, RIGHT
6451	1	DEFLECTOR BRACKET, LEFT
6460	1	SPARK DEFLECTOR
9290	2	KNOB

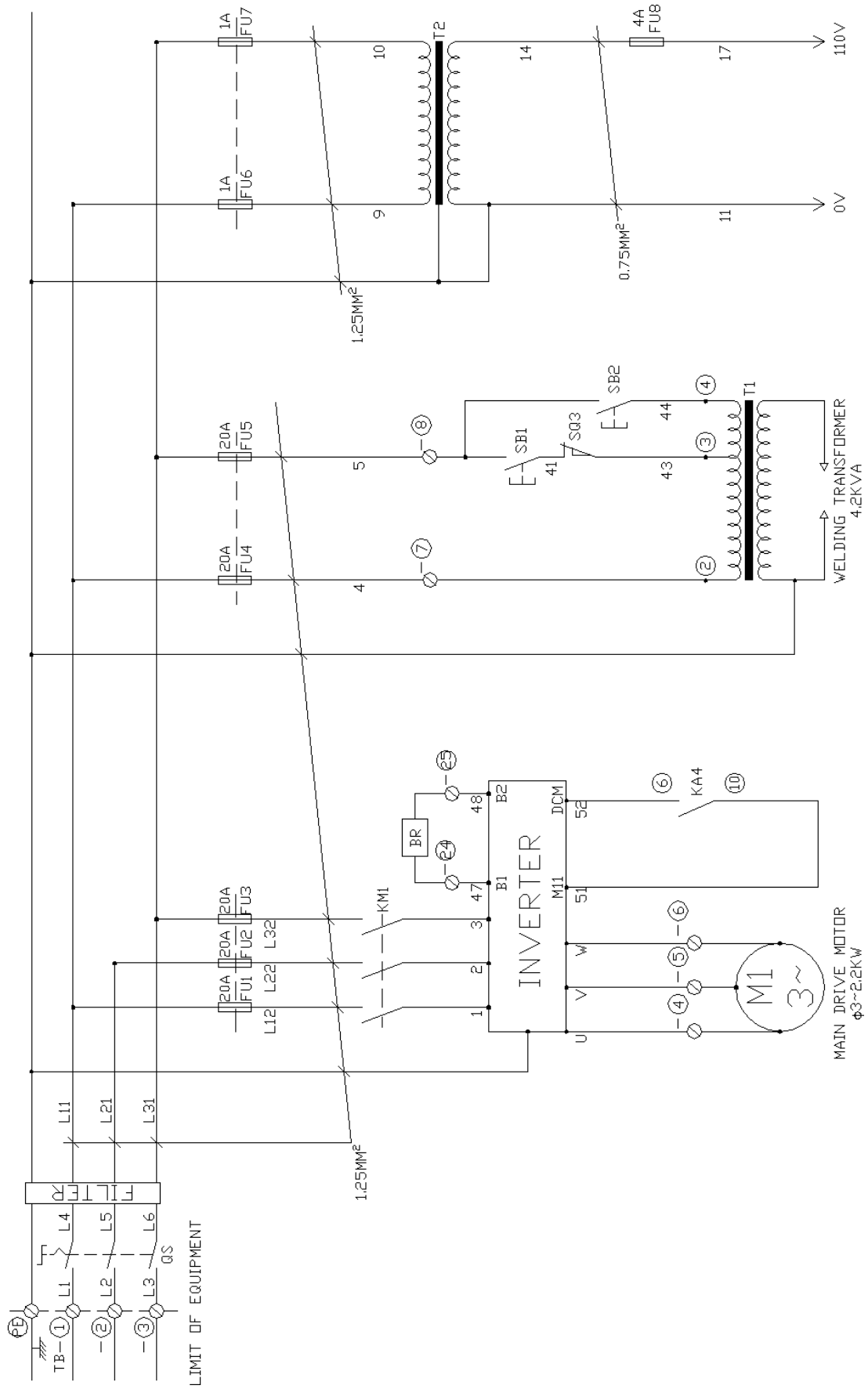
1900 SHEAR COMPONENT

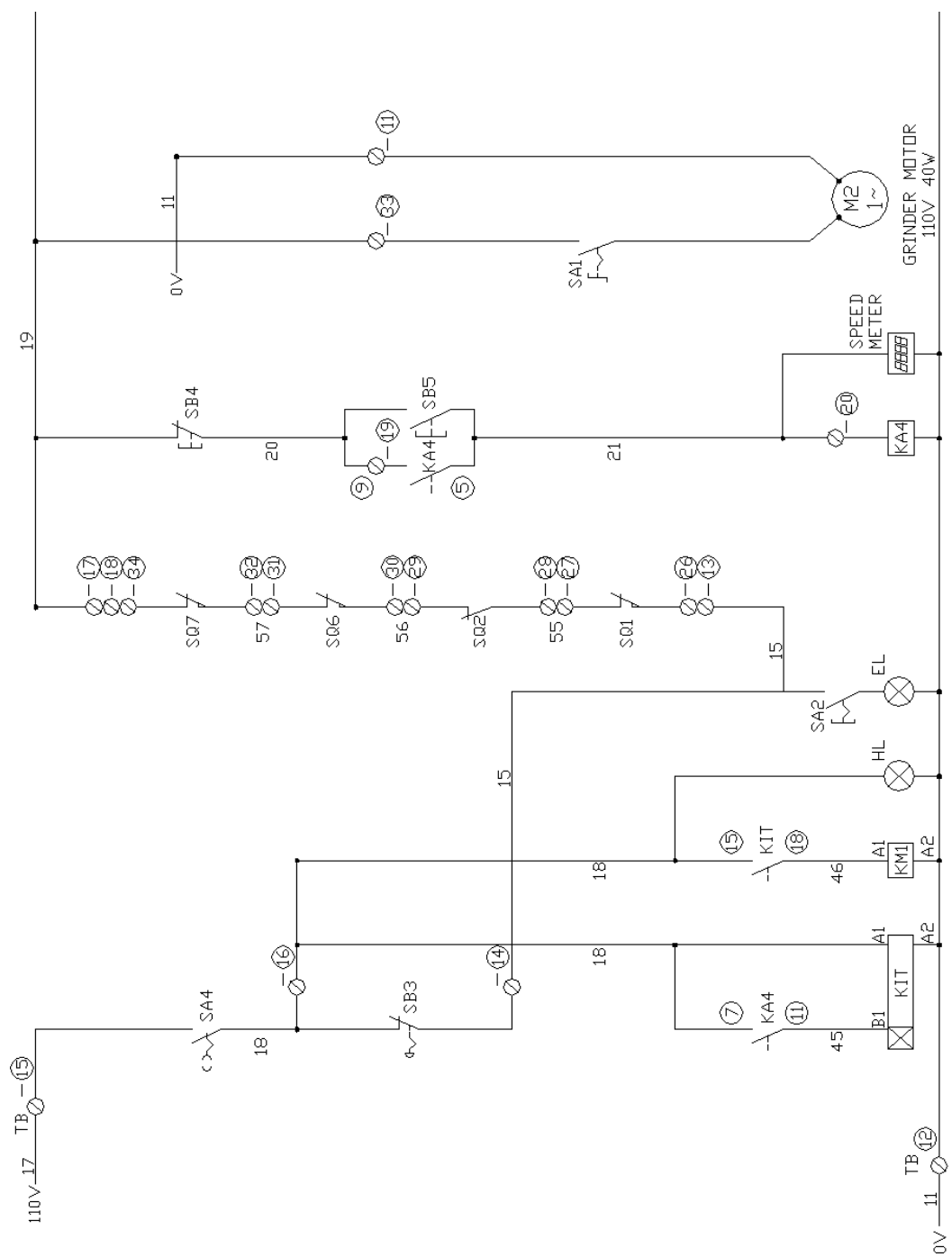
1910	3	SPINDLE BUSHING
1920	1	SPINDLE LIFT
1930	1	BLADE SHAFT
1940	2	VANED IRON PLATE
1950	2	LOWER BLADE
1960	1	UPPER BLADE
1970	1	JOINT PLATE, LEFT
1980	1	CHAIN JOINT, RIGHT
1990	1	HANDLE BRA
9210	1	KNOB

WIRING DIAGRAM

WIRING DIAGRAM

220V±10% / $\phi 3 \sim 60\text{HZ}$



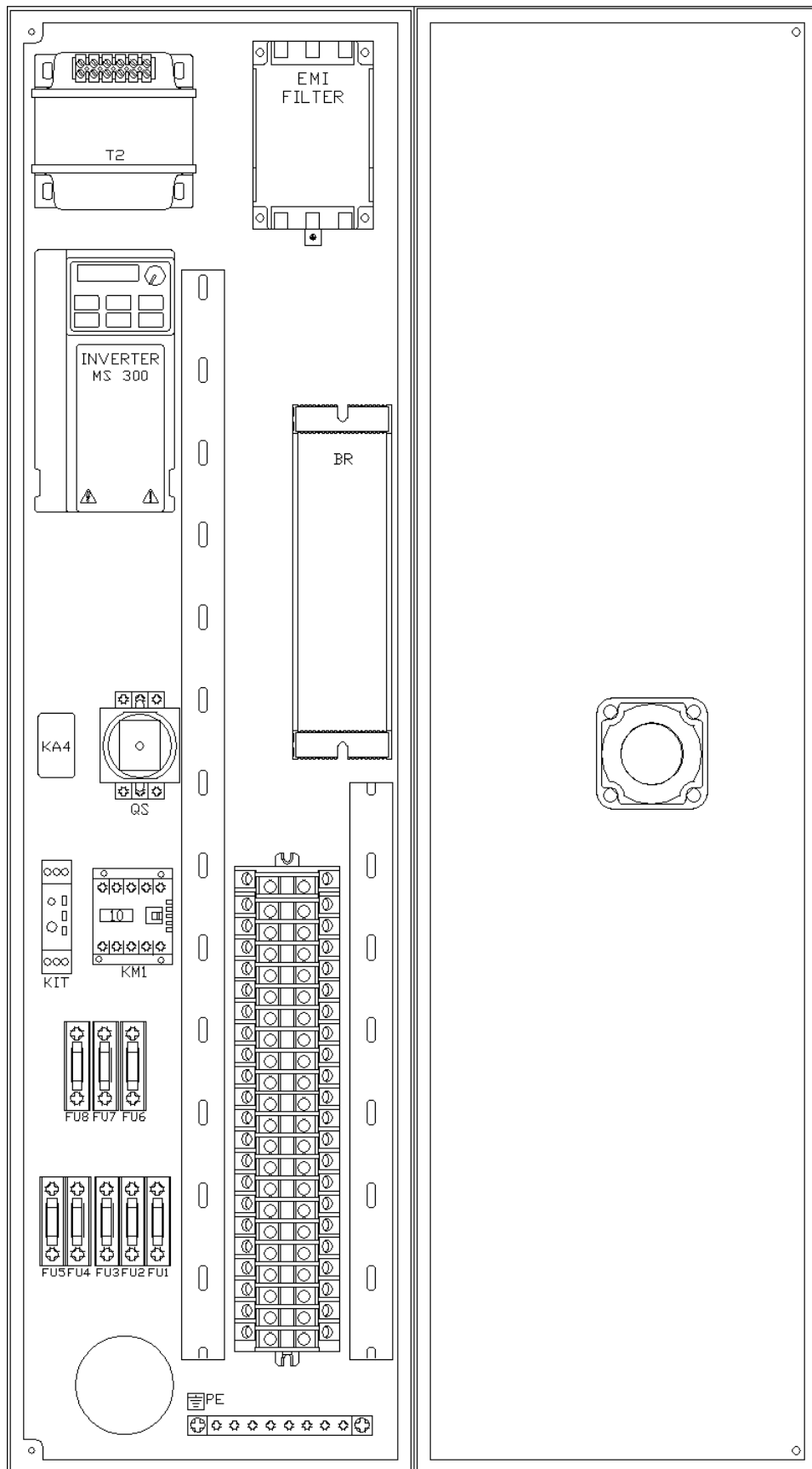


SCHEDULE OF ELECTRICAL EQUIPMENT

Item	Designation	Technical data
SB1	WELD ON	15A, 250VAC
SB2	ANNEAL ON	15A, 250VAC
SB3	EMERGENCY STOP	2<> RED
SB4	MAIN MOTOR OFF	1<<a> RED
SB5	MAIN MOTOR ON	1<<a>b> GREEN
SA4	KEY SWITCH	2<<a>>
HL	INDICATOR LIGHT	Ø22.2, 110V, GREEN
QS	MAIN SWITCH	Uimp=6KV Ue=690VAC
SQ1	LIMIT SWITCH	15A, 250VAC
SQ2	LIMIT SWITCH	15A, 250VAC
SQ3	LIMIT SWITCH	15A, 250VAC
SQ6	LIMIT SWITCH	15A, 250VAC
SQ7	LIMIT SWITCH	15A, 250VAC
T1	TRANSFORMER	4.2KVA
T2	TRANSFORMER	150W
KM1	CONTACTOR	Ue230V, Ith20A, 110V, 50/60HZ
M1	MAIN DRIVE MOTOR	230/460V, 2.25KW 3PHASE, 60HZ
M2	GRINDER MOTOR	110V, 0.04KW 1PHASE, 60HZ
KA4	POWER RELAY	6A, 110~120VAC
KIT	TIME RELAY	Ithe:5A UI:300V, Uimp:4KV

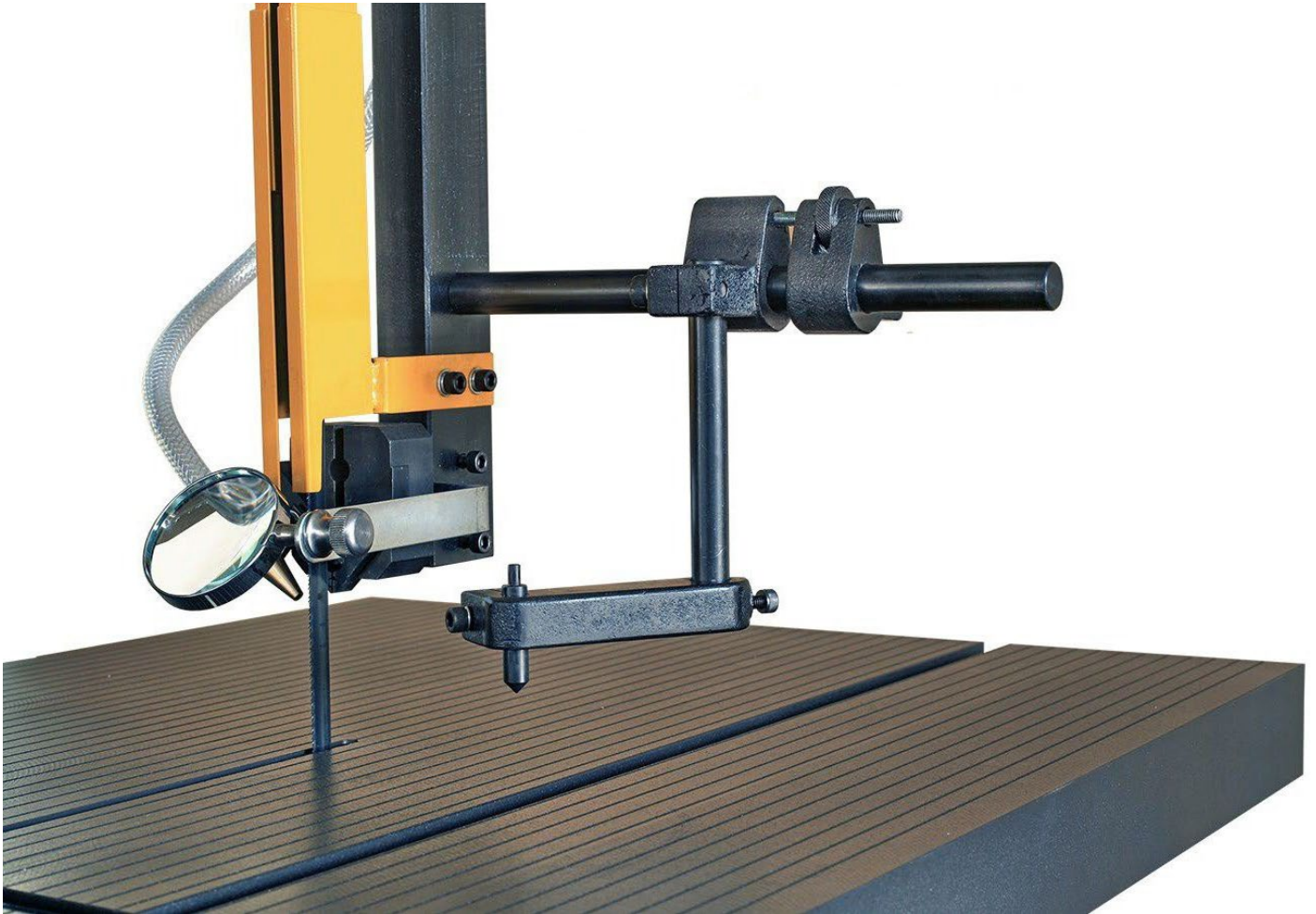
Item	Designation	Technical data
	INVERTER	3PH, 200-240V, 50/60HZ
	EMI FILTER	20A, 3PH, 520VAC, 50/60HZ
BR	BRAKE RESISTOR	0.3KW, 70Ω
EL	WORK LAMP	AC 100~240V, 6W LED
	SPEED METER	110V, 9999M/min
	PHOTO SENSOR	DC 12V
TB	TERMINAL BOARD	600V, 20A
FU1	FUSE 10 X 38	120KA/500V~
FU2	FUSE 10 X 38	120KA/500V~
FU3	FUSE 10 X 38	120KA/500V~
FU4	FUSE 10 X 38	120KA/500V~
FU5	FUSE 10 X 38	120KA/500V~
FU6	FUSE 10 X 38	120KA/500V~
FU7	FUSE 10 X 38	120KA/500V~
FU8	FUSE 10 X 38	120KA/500V~
CABLE	LIMIT SWITCH & GRINDER MOTOR	0.75 mm ² x 2C
	CONTROL PLATE	0.75 mm ² x 10C
	WELDER	2.00 mm ² x 3C
	MAIN DRIVE MOTOR	2.00 mm ² x 4C
WIRE	ELECTRICAL BOX	0.75 mm ² x 1C
	ELECTRICAL BOX	0.75 mm ² x 1C
	ELECTRICAL BOX	0.75 mm ² x 1C
	ELECTRICAL BOX	1.25 mm ² x 1C

ELECTRIC APPLIANCE ARRANGEMENT DIAGRAM



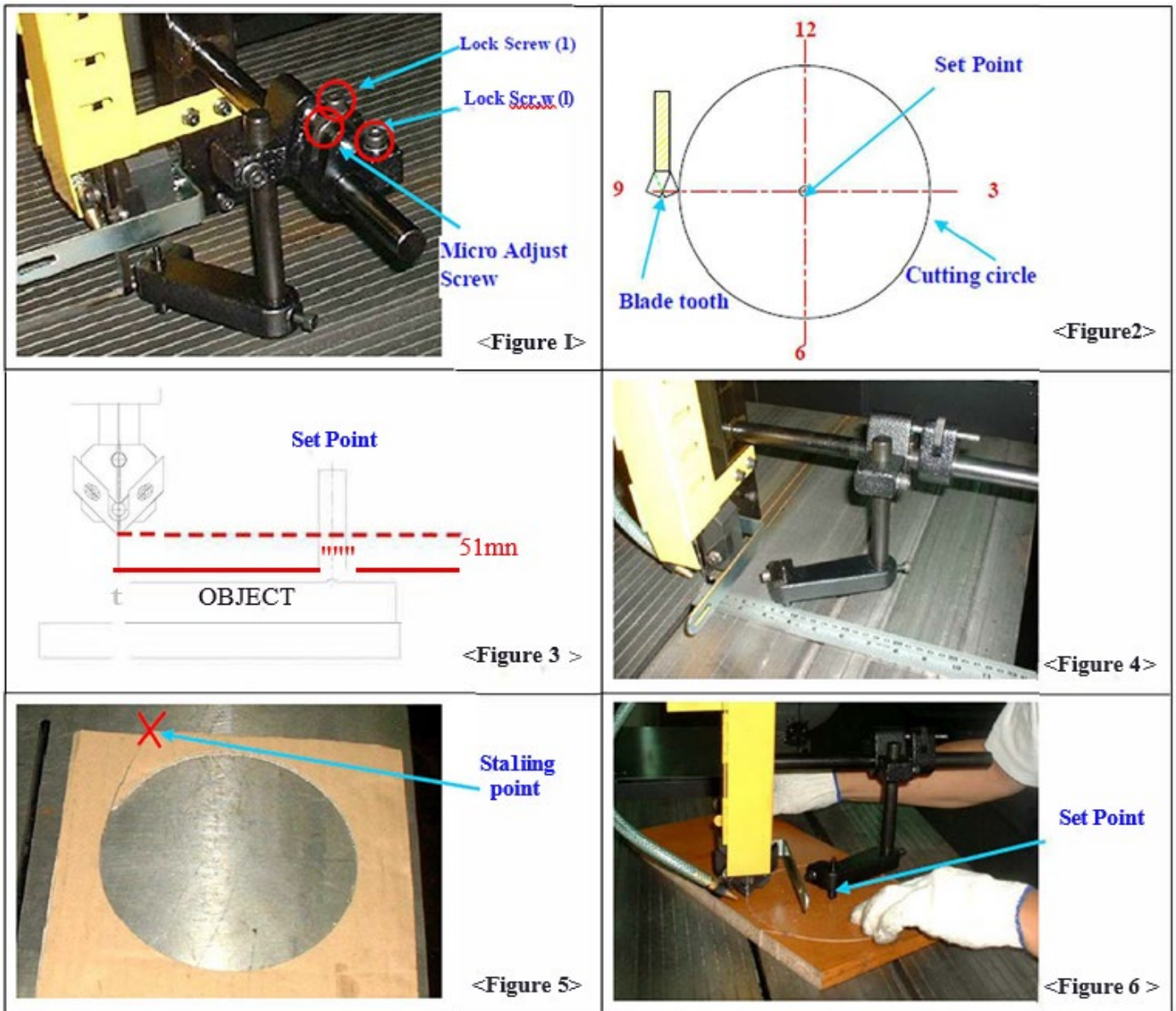
CIRCLE CUTTING ATTACHMENT

The circle cutting attachment is an accessory that is sold separately.



CIRCULAR CUTTING ATTACHMENT:

1. Install the Circular Cutting Attachment. <Figure 1>
2. A. The position of the blade tooth should be opposite to the cutting center at nine o'clock position. <Figure 2>
 B. The height between the object and the blade guide end is suggested to be about 5 mm. <Figure 3>
 C. Use the blade under 8mm width if possible, it will avoid interference. When cut smaller circle, use smaller width blade.
3. A. Measure the cutting radius, set the distance between the blade tooth and the Set Point by the Lock Screws. Loosen the Lock Screw (1) & (2) to adjust the cutting radius. Tighten the Lock Screw (1) & (2) after finish it. <Figure 1, 4 & 6>
 B. Use the Micro Adjust Screw to get the precise cutting radius. Loosen the Lock Screw (1), and then adjust the Micro Adjust Screw. Tighten the Lock Screw (1) after finish it. <Figure 1 & 4>
4. Mark a center point (or drill 5mm hole) and draw a circle on the object. Start to cut form the object nearby until touch the rim, and then fix the Set Point in the object. <Figure 5 & 6>
5. Rotate the object to finish it. <Figure 6>



Please contact factory for current prices.

ORDERING INFORMATION

Parts are available for direct purchase from Dake or through a distributor. When placing a parts order, you will need to provide the part number, name of part, and model number. All parts shipped F.O.B. Factory in Grand Haven, MI.

NOTES:

[illegible]