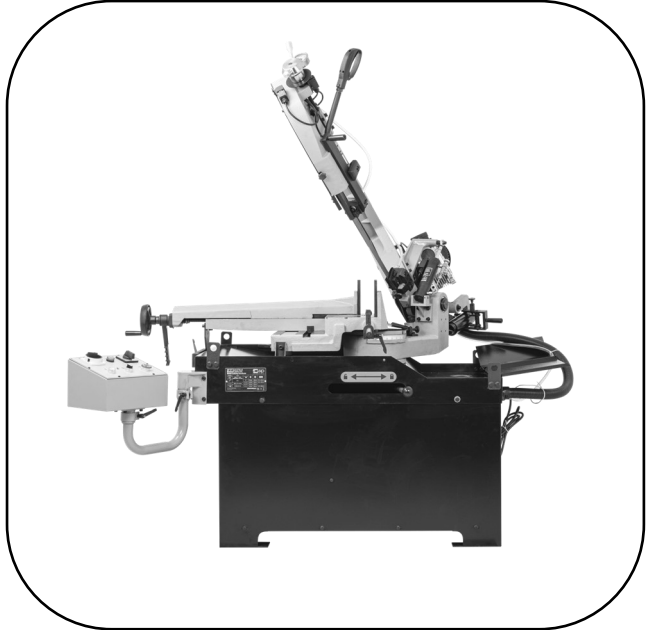


SIP Industrial Products Limited
Gelders Hall Road
Shepshed
Loughborough
Leicestershire
LE12 9NH
United Kingdom



SIP 15” Swivel Head Metal-Cutting Bandsaw

SIP Code 01530

For help or advice please contact
your distributor, or sip directly on:
Tel.: 01509 500400

Email:
sales@sip-group.com
or

customerservice@sip-group.com

www.sip-group.com

Please read and fully understand the instructions in this manual
before operation. Keep this manual safe for future reference.



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SAFETY SYMBOLS USED THROUGHOUT THIS MANUAL



Danger / Caution: Indicates risk of personal injury and/or the possibility of damage.



Warning: Risk of electrical injury or damage!



Note: Supplementary Information.

SAFETY INSTRUCTIONS



Important: Please read the following instructions carefully, failure to do so could lead to serious personal injury and / or damage to the saw.

When using your bandsaw, basic safety precautions should always be followed to reduce the risk of personal injury and/or damage to the bandsaw.

Read all of these instructions before operating the bandsaw and save this user manual for future reference.

The bandsaw should not be modified or used for any application other than that for which it was designed.

Do not use this bandsaw for anything other than its intended purpose; this bandsaw is designed for metal cutting work in engineering workshops, garages, metal fabricators, etc.

If you are unsure of its relative applications do not hesitate to contact us and we will be more than happy to advise you.

Before operating the bandsaw always check no parts are broken, and that no parts are missing.

Always operate the bandsaw safely and correctly.

KNOW YOUR BANDSAW: Read and understand the owner's manual and labels affixed to the bandsaw. Learn its applications and limitations, as well as the potential hazards specific to it.

SAFETY INSTRUCTIONS Cont...

KEEP CHILDREN AND UNTRAINED PERSONNEL AWAY FROM THE WORK AREA: All visitors should be kept at a safe distance from the work area; never allow untrained persons to operate the bandsaw.

STAY ALERT: Always watch what you are doing and use common sense.

NEVER LEAVE THE BANDSAW UNATTENDED: When in use, or connected to the mains supply.

KEEP WORK AREA CLEAN AND WELL LIT: Cluttered work areas and dark areas invite accidents. Floors must not be slippery due to oil, water or sawdust etc.

HAVE YOUR BANDSAW REPAIRED BY A QUALIFIED PERSON: The bandsaw is in accordance with the relevant safety requirements. Repairs should only be carried out by qualified persons using original spare parts, otherwise this may result in considerable danger to the user and void the warranty.

DANGER! Check that the bandsaw is in sound condition and good working order before each use; Take immediate action to repair or replace faulty / damaged parts.

WARNING! Only operate on a level and stable surface.

WARNING! RISK OF ELECTRIC SHOCK. Do not expose the bandsaw to water spray, rain, dripping water or moisture of any kind.

PROTECT YOURSELF FROM ELECTRIC SHOCK: When working with power tools, avoid contact with any earthed items (e.g. pipes, radiators, hobs and refrigerators, etc.). It is advisable wherever possible to use an RCD (residual current device) at the supply socket.

DO NOT ABUSE THE MAINS LEAD: Never pull the mains lead to remove the plug from the mains socket, or to move the bandsaw from place to place. Keep the mains lead away from heat, oil and sharp edges. If the mains lead is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid unwanted hazards.

ALWAYS check that the blade guards / guides are in place, adjusted correctly, undamaged and firmly attached.

NEVER STAND ON THE BANDSAW: The bandsaw is not designed for this purpose.

DO NOT dismantle, tamper with or modify the bandsaw, as this may be dangerous

SAFETY INSTRUCTIONS Cont...

and will invalidate the warranty.

SECURE THE WORKPIECE: Use the vice to hold the workpiece; this frees up both hands to operate the saw.

REMOVE ADJUSTING KEYS AND WRENCHES: Form a habit of checking to see that keys and adjusting tools are removed from the bandsaw before every use.

- If a problem with the bandsaw is experienced or suspected stop using the bandsaw immediately and contact your distributor for repair.
- Regularly inspect the bandsaw, ensuring that it is in good working order and condition.
- Always ensure that the work area is clean, tidy and free from unrelated materials.
- Operate away from flammable objects, materials & surfaces.
- Use in a location where accidental contact (particularly by children) is unlikely.
- Ensure on/off switches are switched to off position (0) before connecting the mains lead to the power supply.
- Keep the work area clean and clear of possible tripping hazards.
- Keep children and unauthorised persons away from the bandsaw, as it has a sharp blade!
- Disconnect from the mains before moving or attempting any cleaning or maintenance.
- Keep hands and all other body parts away from the blade.
- Turn the bandsaw off and disconnect it from the mains supply when moving from one location to another.
- Never operate the bandsaw without all guards in place.
- **DO NOT** get the bandsaw wet or use in damp or wet locations or areas where there is condensation.
- **DO NOT** move the bandsaw whilst in operation.
- **DO NOT** remove or adjust the blade guard / guides whilst the bandsaw is switched on.
- **DO NOT** allow unqualified persons to disassemble the bandsaw for any reason, the bandsaw must be checked and adjusted etc. by qualified personnel only.
- **DO NOT** use the bandsaw without the blade guard / guides correctly set, as

SAFETY INSTRUCTIONS Cont...

this could lead to personal injury to you or others!

- **ALWAYS** ensure a blown fuse is replaced with the correct fuse type and rating.
- **DO NOT** place any objects on the safety guard or on the covers at any time.
- When not in use, store the bandsaw carefully in a safe, dry, childproof location.
- **NEVER** cover the bandsaw during operation or whilst it cools after operation.
- Be aware of moving parts that occur during normal operation of this bandsaw.
- **NEVER** operate the bandsaw with damaged, broken or missing parts, or with any guards or covers removed.
- **DO NOT** operate the bandsaw or any electrical items with wet hands.
- Keep the floor around the machine clean and free of scrap material, oil and grease etc.
- **ALWAYS** keep the machine guards in place at all times when the machine is in operation, if removed for maintenance, use extreme caution, always refit the guards immediately after any maintenance.
- **DO NOT** over reach, always maintain a balanced stance so that you do not fall or lean into any moving parts.
- Keep all visitors at a safe distance.
- **ALWAYS** keep hands and fingers away from the blade when in operation.
- **ALWAYS** use the vice to secure your workpiece, never cut any workpiece without using the vice; this is extremely dangerous!
- **ALWAYS** have the blade cover correctly fitted and secure at all times when the machine is in operation, failure to do this can lead to personal injury.
- **ALWAYS** use adequate roller stands for supporting longer and heavier workpieces.
- **ALWAYS** use the correct blade, using the correct tpi blade for cutting the workpiece will make your job easier, and the blade last longer, using the wrong tpi blade will make a rough cut and will decrease the life of the blade.
- **NEVER** force the blade through the workpiece, this will decrease the life of the blade.
- **ALWAYS** keep the bandsaw as clean as possible and keep blades sharp for best and safest performance.
- **WARNING!** round bar and tubing have a tendency to roll whilst being cut and can cause the blade to slip, **DO NOT** cut such items without clamping or blocking the workpiece.

SAFETY INSTRUCTIONS Cont...

- **DO NOT** start the bandsaw until the workpiece is secure and the blade has been lowered to just above the workpiece.
- **NEVER** use damaged or deformed bandsaw blades.
- **ALWAYS** secure the workpiece that is to be cut in the vice.
- **NEVER** use the bandsaw with the blade guard or wheel cover removed.
- **DO NOT** use whilst under the influence of drugs, alcohol or other intoxicating medication.
- **NEVER** start the bandsaw with the blade in contact with the workpiece.
- **ALWAYS** allow the bandsaw to reach full speed before commencing the cutting operation.
- **NEVER** use this bandsaw for any application other than that specified by the manufacturer.
- **NEVER** operate this bandsaw under conditions not approved by the manufacturer.
- Before using or servicing your bandsaw, read and understand all instructions. Failure to follow safety precautions or instructions can cause equipment damage and/or serious personal injury.
- **WEAR THE CORRECT CLOTHING.** Do not wear loose clothing, neckties, rings, bracelets, or other jewellery, which may get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll long sleeves up above the elbow.
- If the bandsaw is used in a place of work all rules and laws etc. relating to the use of portable electrical appliances should be followed.
- Failure to follow the warnings in this manual, may result in personal injury and/or property damage.
- Understand the operating environment; Before each use the operator should assess, understand and where possible reduce the specific risks and dangers associated with the operating environment. Bystanders should also be made aware of any risks.

SAFETY INSTRUCTIONS Cont...



When using the saw, particularly during extended periods; ensure the operator as well as those in the area wear ear protection.



When using the saw always ensure the operator as well as those in the area wear eye protection.



Some materials have the potential to be highly toxic; always wear a face mask when operating the saw.



CAUTION: The warnings and cautions mentioned in this user manual can not cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product,

ELECTRICAL CONNECTION

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe.

You must inspect power cables, plugs, sockets and any other connectors for wear or damage

You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices; A residual current circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a residual current device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician.

Connecting to the power supply:

This SIP bandsaw requires 400v 50hz supply. Before each use, inspect the mains lead and plug (where applicable) to ensure that neither are damaged. If any damage is visible have the bandsaw inspected / repaired by a suitably qualified person.

ELECTRICAL CONNECTION Cont...

If it is necessary to replace the plug a heavy duty impact resistant plug would be preferable.

The wires for the plug are coloured the following way:-

Yellow / Green	Earth
Grey	Phase
Brown	Phase
Black	Phase

Always secure the wires in the plug terminal carefully and tightly. Secure the cable in the cord grip carefully.



Warning: Never connect live or neutral wires to the earth terminal of the plug. Only fit an approved plug with the correct rated fuse. If in doubt consult a qualified electrician.



Note: Always make sure the mains supply is of the correct voltage and the correct fuse protection is used. In the event of replacing the fuse always replace the fuse with the same value as the original.



Note: If an extension lead is necessary in order to reach the mains supply; The cross section should be checked so that it is of sufficient size so as to reduce the chances of voltage drops. Always fully unwind the lead during use.



Warning: Always use a qualified electrician to wire in the 3ph bandsaw, never wire the bandsaw without any knowledge of electrics, this is extremely dangerous and will cause personal injury or even death

GUARANTEE

This SIP bandsaw is covered by a 24 month parts and labour warranty covering failure due to manufacturers defects. This does not cover failure due to misuse or operating the bandsaw outside the scope of this manual - any claims deemed to be outside the scope of the warranty may be subject to charges Including, but not limited to parts, labour and carriage costs.

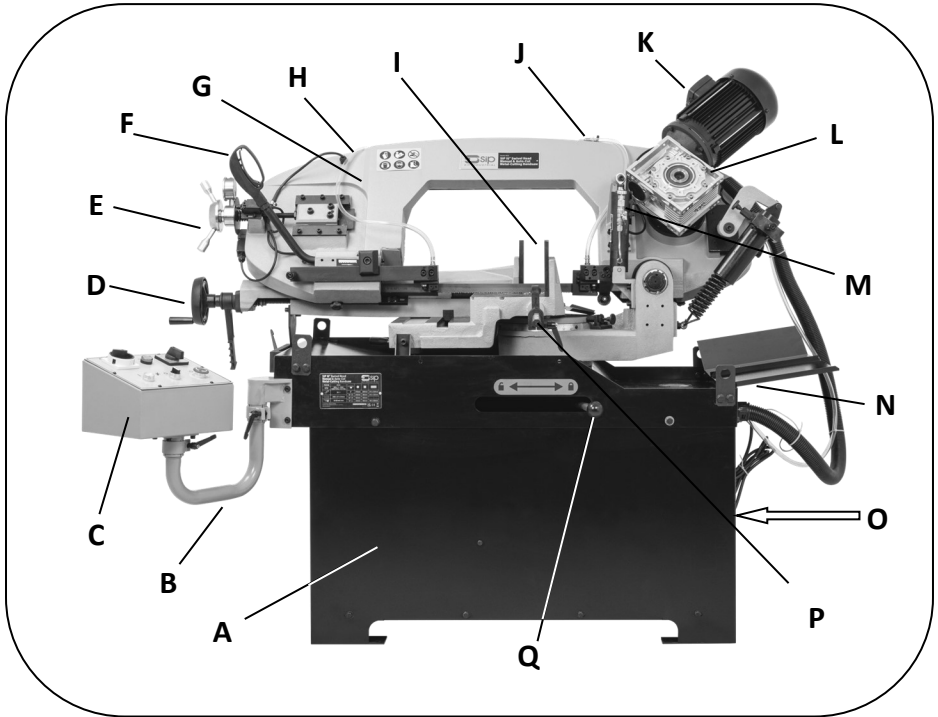
This guarantee does not cover consumables such as bearings, oil, blades etc.

In the unlikely event of warranty claims, contact your distributor as soon as possible.



Note: Proof of purchase will be required before any warranty can be honoured.

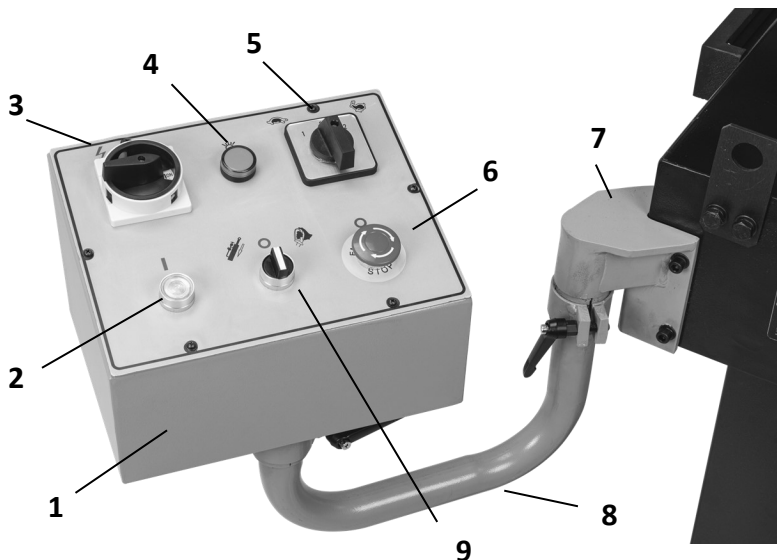
GETTING TO KNOW YOUR BANDSAW



<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
A	Machine Stand	G	Saw Bow	M	Hydraulic Cylinder
B	Adjustable Arm	H	Coolant Pipe	N	Coolant Drip Tray
C	Control Panel	I	Vice	O	Coolant Pump & Tank
D	Vice Hand Wheel	J	Coolant Tap	P	Material Stop
E	Blade Tensioner	K	Motor	Q	Swivel Hand Lever
F	Handle & Micro-Switch	L	Gearbox		

GETTING TO KNOW YOUR BANDSAW *Cont...*

CONTROL BOX



<i>Item</i>	<i>Description</i>	<i>Item</i>	<i>Description</i>
1	Enclosure	6	Emergency Stop
2	Mains Supply Power Light	7	Support Bracket
3	Mains Supply Isolator	8	Adjustable Arm
4	Saw Cutting "On" Light	9	Manual / Auto Switch
5	2 Speed Switch		

TECHNICAL SPECIFICATION

<i>Model</i>	<i>SIP 15" Swivel Head Metal-Cutting Bandsaw</i>
<i>Part Number</i>	01530
<i>Input Voltage</i>	400V 50Hz
<i>Motor Power</i>	1.5W / 2HP
<i>Circular 0°</i>	270 mm
<i>Circular 45°</i>	240mm
<i>Circular 60°</i>	160 mm
<i>Circular 45° (L)</i>	210 mm
<i>Square 0°</i>	260 mm
<i>Square 45°</i>	180 mm
<i>Square 60°</i>	160 mm
<i>Square 45°(L)</i>	180 mm
<i>Rectangle 0°</i>	220 x 370 mm
<i>Rectangle 45°</i>	160 x 240 mm
<i>Rectangle 45°(L)</i>	150 x 180 mm
<i>Blade Speed</i>	34 / 68 m/min
<i>Blade Size</i>	3160 x 27 x 0.9 mm
<i>Drive</i>	Gearbox
<i>Packed Dimensions</i>	1350H x 970L x 580wmm
<i>Product Dimensions</i>	1520H x 1765L x 760W mm
<i>Net Weight</i>	408 kg
<i>Gross Weight</i>	457 kg

ASSEMBLY INSTRUCTIONS

CONTENTS & ACCESSORIES

Main Saw Parts	
6 x Washers 10mm	Material Stop
5 x Hex Key Wrenches	10 - 13 Open Spanner
17 - 19 Open Spanner	6 x Hex Screws M10 x 20mm

Machine Stand Parts	
Right Panel	Left Panel
Base Plate	Door Frame with Door
Shelf (V & H)	16 x Hex Head Screws M8 x 16mm
20 Washers 8mm	4 x Nuts M8
5 x Hex Head Screws M6 x 12mm	Nuts M6
10 x Washer 6mm	



Note: *If any of the above are missing or damaged, contact your distributor immediately.*

UNPACKING



Caution: *All die-cut metal parts have a sharp edge (called "flashing") on them after they are formed. This is generally removed at the factory. Sometimes a bit of flashing might escape inspection, and the sharp edge may cause cuts or lacerations when handled, please examine the edges of all die-cut*

- The metal bandsaw is shipped from the factory in a carefully packed crate. If the machine is damaged on arrival, save the packaging and call the distributor.
- The metal bandsaw is a very heavy machine (457kg shipping weight) DO NOT over exert yourself while unpacking or moving your machine, get assistance. In the event that your machine must be moved up or down a flight of stairs, ensure that the stairs are capable of supporting the weight of the people and machine, as serious personal injury may occur.

ASSEMBLY INSTRUCTIONS Cont...

CLEANING



WARNING: Do not use gasoline or other petroleum-based solvents to remove this protective coating. These products generally have low flash points which makes them extremely flammable.

A risk of explosion and burning exists if these products are used. Serious personal injury may occur.



CAUTION: Many of the solvents commonly used to clean machinery can be highly flammable, and toxic when inhaled or ingested. Always work in well-ventilated areas far from potential ignition sources when dealing with solvents. Use care when disposing of waste rags and towels to be sure they do not create fire or environmental hazards. Keep children and animals safely away when cleaning and assembling this machine.

- The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser. Avoid chlorine-based solvents as they may damage painted surfaces should they come in contact. Always follow the usage instructions on the product you choose for clean up.

ASSEMBLING THE BASE

Machine base assembly Fig.1

- Join the left part, right part to bottom plate with 6 x hex head screws M8x16 with 6 x 8mm washers.
- Attach the H-shelf to assembled parts with 4 x hex head screws M8x16 with 4 x 8mm washers.
- Attach the V-shelf to assembled parts with 5 x hex head screws M6x12 with 10 x 6mm washers, 5 x hex nuts M6.
- Attach the door frame & door and fasten it with 4 x hex head screws M8x16 with 8 x 8mm washer, 4 x hex nuts M8.
- Mount the Coolant system assembly to bottom plate with 2 x Hex head screws M8x16 & 2 x 8mm washer.

ASSEMBLY INSTRUCTIONS Cont...

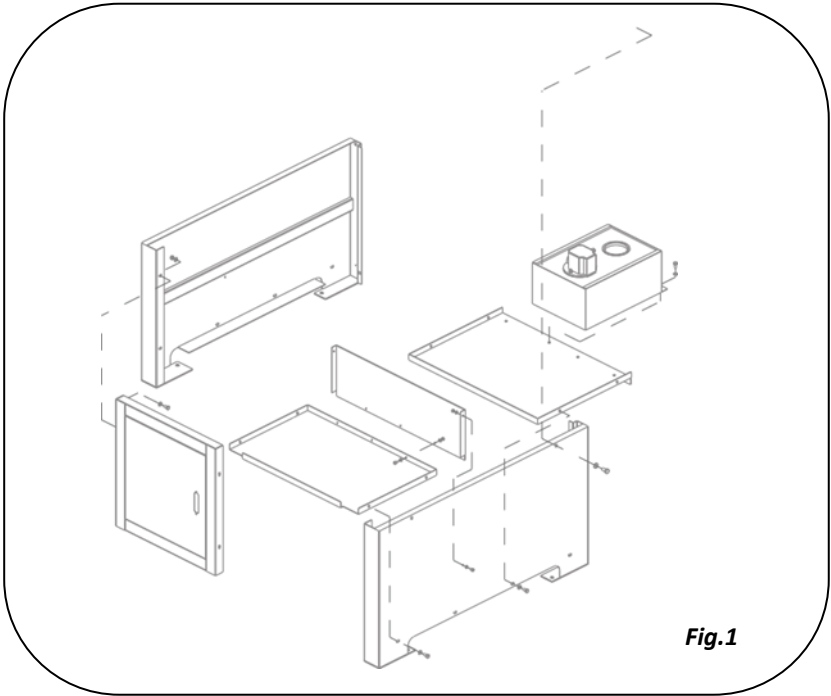


Fig.1

ASSEMBLING THE SAW



WARNING: Before starting to lift the machine make sure that all movable parts have been securely fastened. Ensure that the crane's lifting capacity is suitable for the machine. Lift the machine carefully and move it slowly, avoiding bumps or sudden movements.



CAUTION: The lifting and transporting operations can be extremely dangerous if not carried out with maximum caution. Move all unqualified personnel away from the area. Clean, clear and close off the installation area. Check the condition and suitability of the equipment available. Do not touch the suspended loads and remain at a safe distance from them.

- Carefully lift the saw head onto the base and fasten the machine main body with 6 x Hex screws M10 x 20 & 10mm washers

ASSEMBLY INSTRUCTIONS Cont...

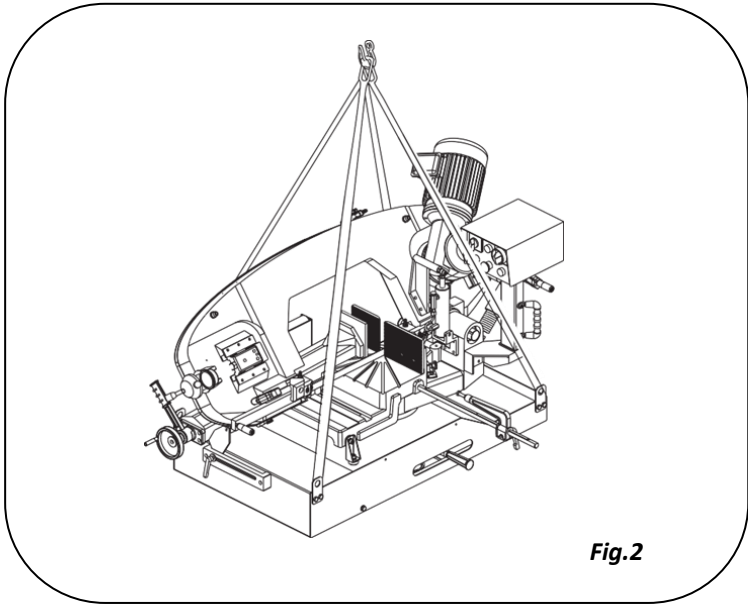


Fig.2

ASSEMBLING THE CONTROL PANEL



Note: Two people will be required to assembly the control panel.

- The control panel attaches to the corner of the saw.
- Align the support bracket Fig.3.
- Using the 4 x M8 cap head screws provided screw into the holes and tighten Fig.4.
- Take care not to trap the cables or cable loom.
- The assembled item will look like Fig.5.



Caution: Do not lean on the control box assembly .

ASSEMBLY INSTRUCTIONS Cont...



Fig.3



Fig.4

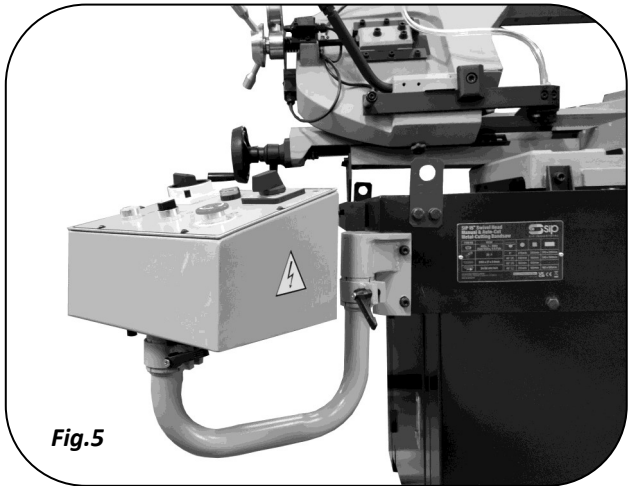
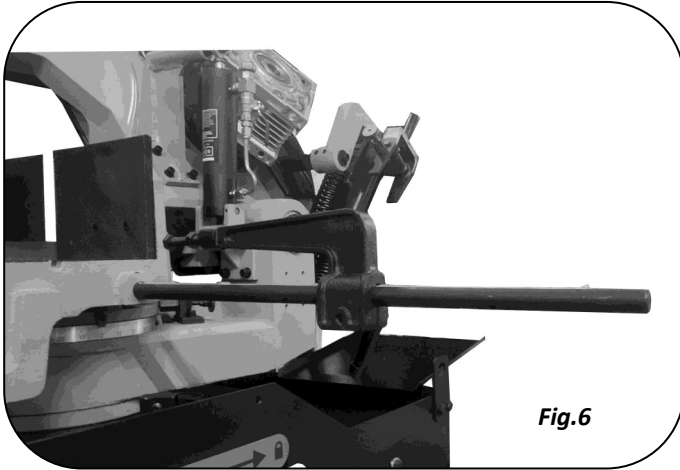


Fig.5

ASSEMBLY INSTRUCTIONS *Cont...*

ASSEMBLING THE MATERIAL STOP

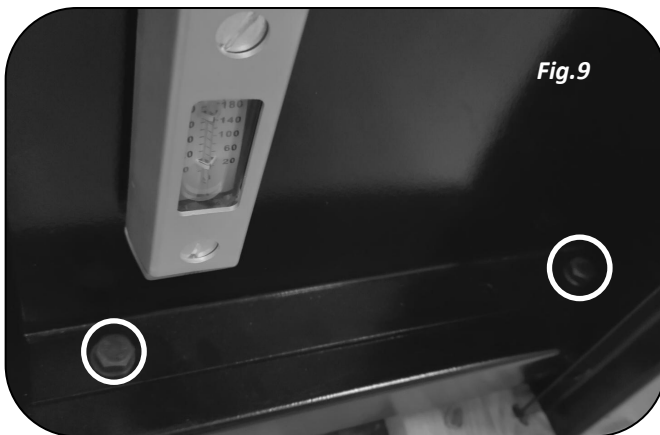
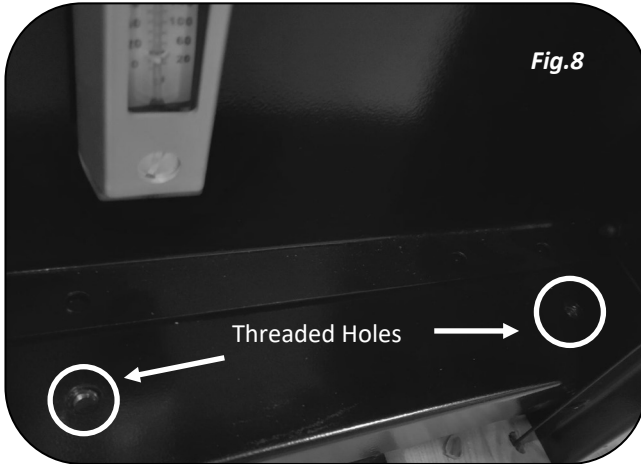
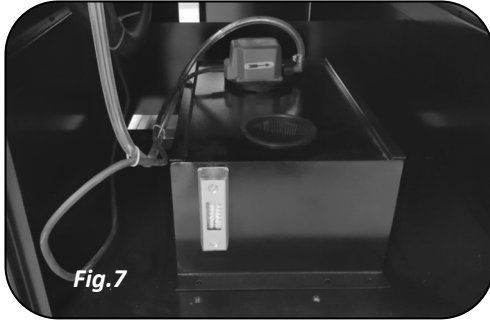
- Fit the material Stop as shown in Fig.6.



FITTING THE COOLANT SYSTEM

- The Coolant System is supplied already wired in.
- Place the coolant system into the rear of the machine stand. Fig.7.
- Secure in place using the bolts supplied Fig.8 & Fig.9.
- Connect the return hose Fig.10 & Fig.11 to the connector inside the saw.
- Place the hose into the coolant return filter. Fig.12.
- Fill the tank with soluble cutting oil and water mixture.
- The indicator on the side of the tank will show when it is full. Fig.13.

ASSEMBLY INSTRUCTIONS *Cont...*



ASSEMBLY INSTRUCTIONS Cont...

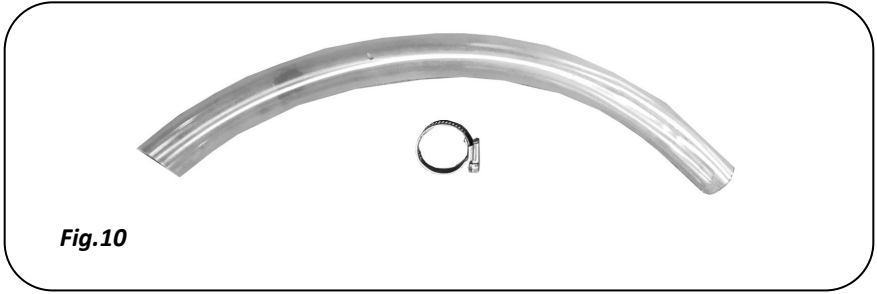


Fig.10

- Connect the hose and secure in place with the screw clamp from Fig.10

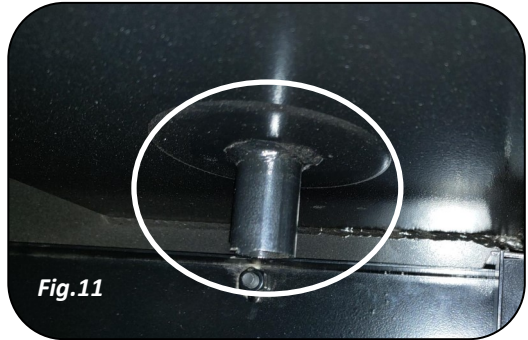


Fig.11



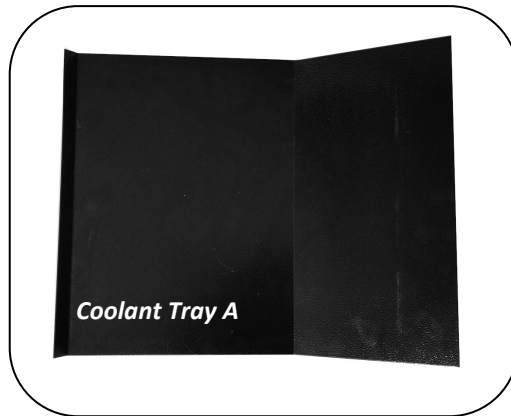
Fig.12

- Ensure the hose is located into the coolant at the filter. Fig.12

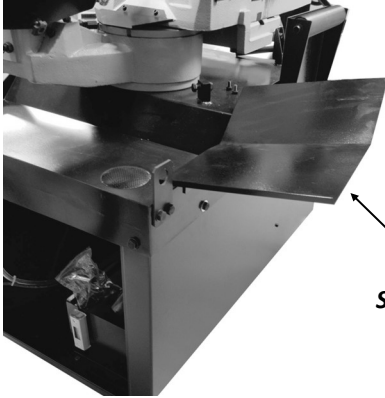
ASSEMBLY INSTRUCTIONS Cont...

COOLANT DRIP TRAYS

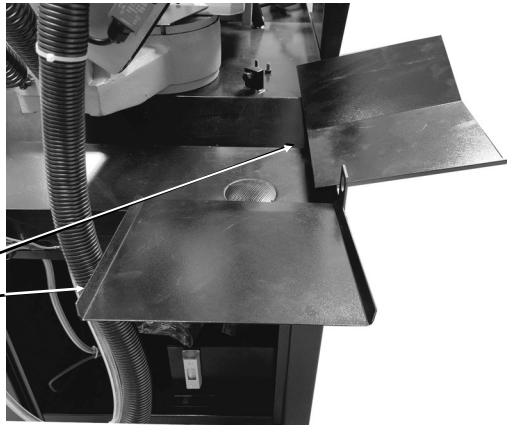
- The bandsaw is provided with 2 additional Coolant Drip Trays:-
 - ⇒ Shaped Left Side coolant tray (A)
 - ⇒ Flat Rear Drip Tray (B)
- This will help reduce the amount of coolant dripping onto the work area around the saw.



ASSEMBLY INSTRUCTIONS *Cont...*



Shaped Coolant Drip Tray



***Both Coolant Drip Trays
Fitted***

OPERATING INSTRUCTIONS

OPERATOR POSITION

- Only one operator is needed to use the machine, they must stand at the front of machine as shown Fig.14.

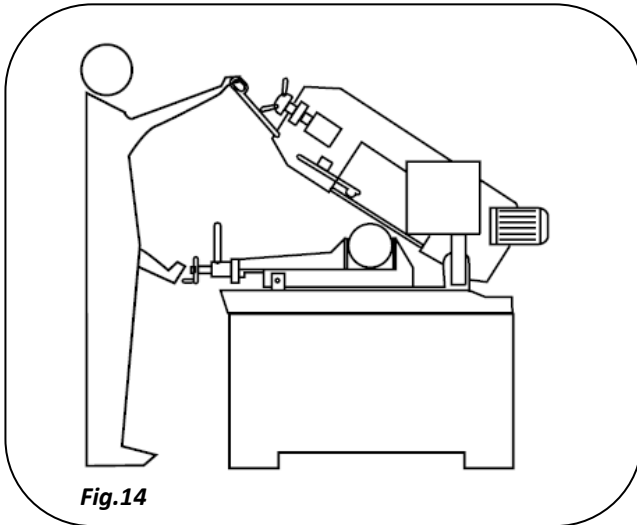
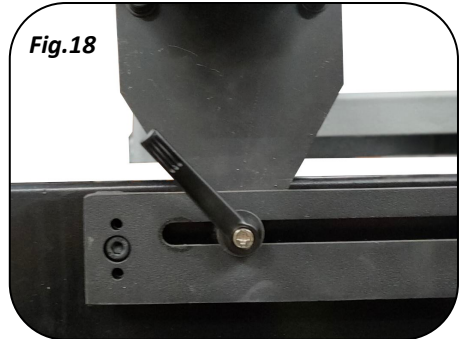
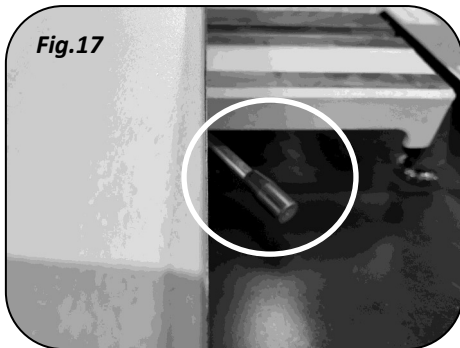
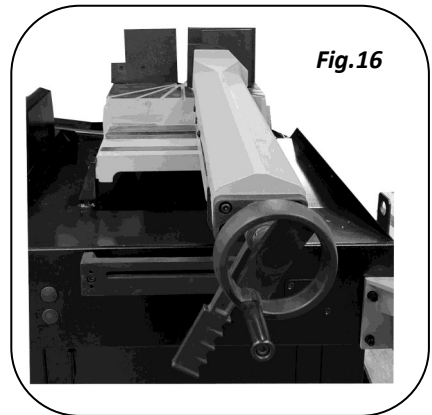
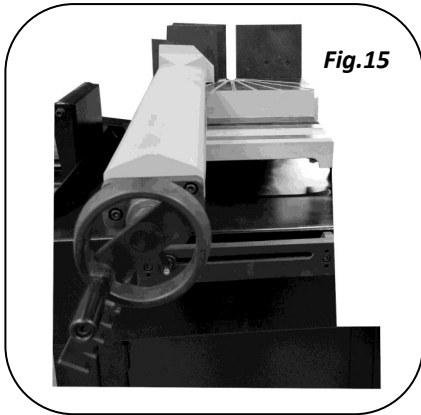


Fig.14

VICE ADJUSTMENT

- The vice can be used to clamp on the left (default) or alternatively on the right. Fig 15 & 16.
- To achieve this the vice mechanism must be unlocked at 2 points:
 - ⇒ The lock handle beneath the vice Fig.17.
 - ⇒ The small lock handle at the end of the saw Fig.18.
- Simply slide the vice to the required side.
- Lock off the Lock handle and small lever lock handle before commencing cutting
- With the vice in the Left position angles can be cut up to 60°.
- With the vice in the Right position angles can be up to 45°.

OPERATING INSTRUCTIONS Cont...



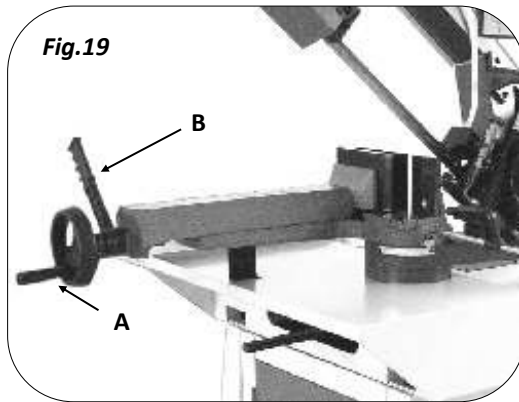
CLAMPING THE WORKPIECE



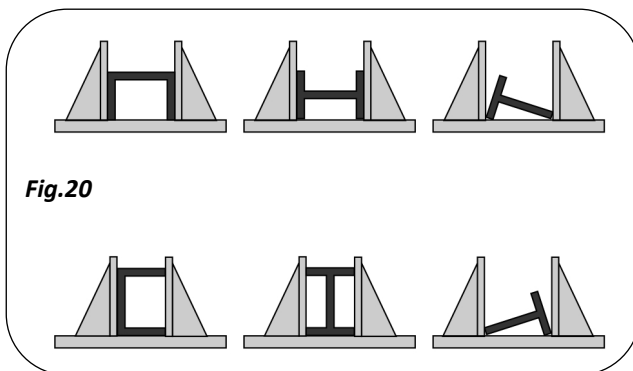
Caution: Always ensure the workpiece is fully locked in the vice before operating the saw.

OPERATING INSTRUCTIONS *Cont..*

- Place work piece between the jaws.
- As shown in Fig. 19 use the hand wheel (A) to approach the vice jaw to the work piece, leaving 3-4mm of space. Lock down work piece and lower the quick lock lever (B).
- When the cutting cycle is finished, release vice by raising the quick lock lever (B). Upon releasing the quick lock lever (B), the vice jaw will open to the same distance that was set initially. This allows for rapid loading of same size material.



- Fig. 20 shows examples of suitable clamping of different section bars, take note of the cutting capacities of the machine in order to achieve a good efficiency and blade durability.



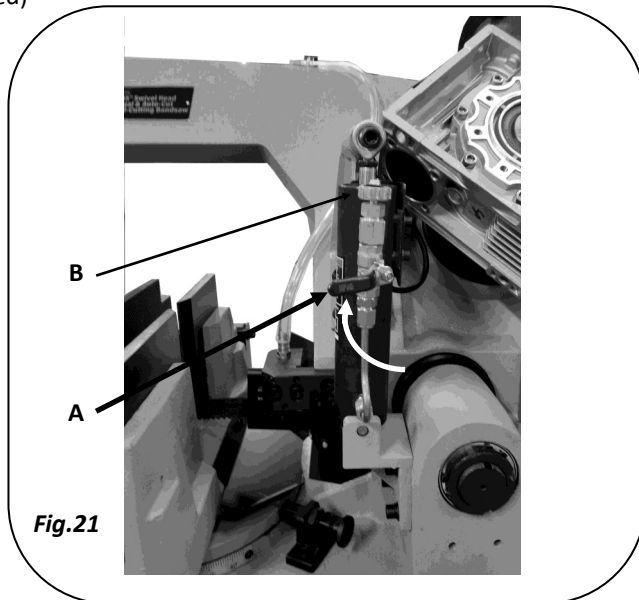
OPERATING INSTRUCTIONS Cont...

CUTTING

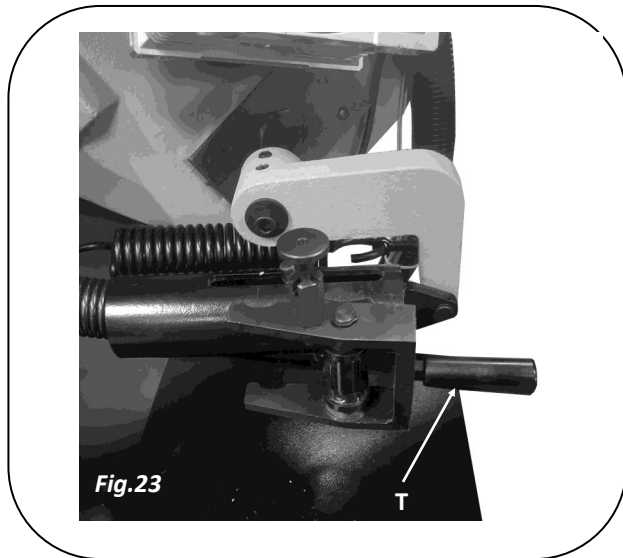
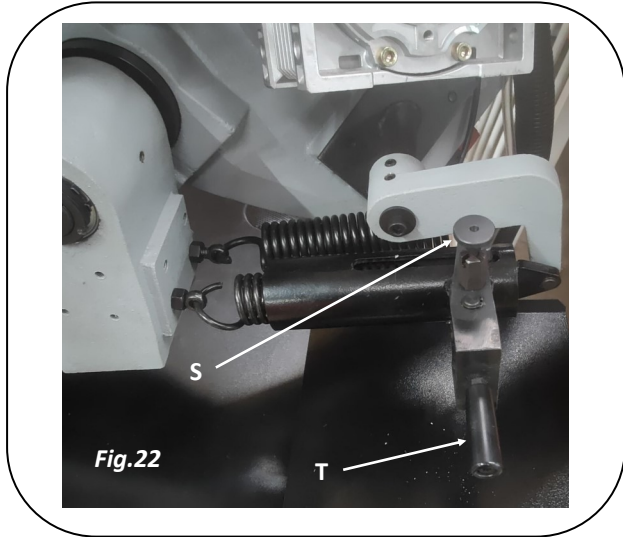
- The machine can cut in two modes:-
- Auto Cutting
- Manual Cutting

AUTO-CUTTING

- Close the Hydraulic Valve “Bow Lock” by lifting the lever arm up (A). Fig.21.
- Raise the Saw Bow arm.
- Adjust the tension spring Fig.22 by lifting Spring Locator (S) from it’s slot.
- This will release the Tensioning Fork (T).
- Place Handle (T) as shown in Fig.23 in the auto-cutting position. (one spring tensioned)

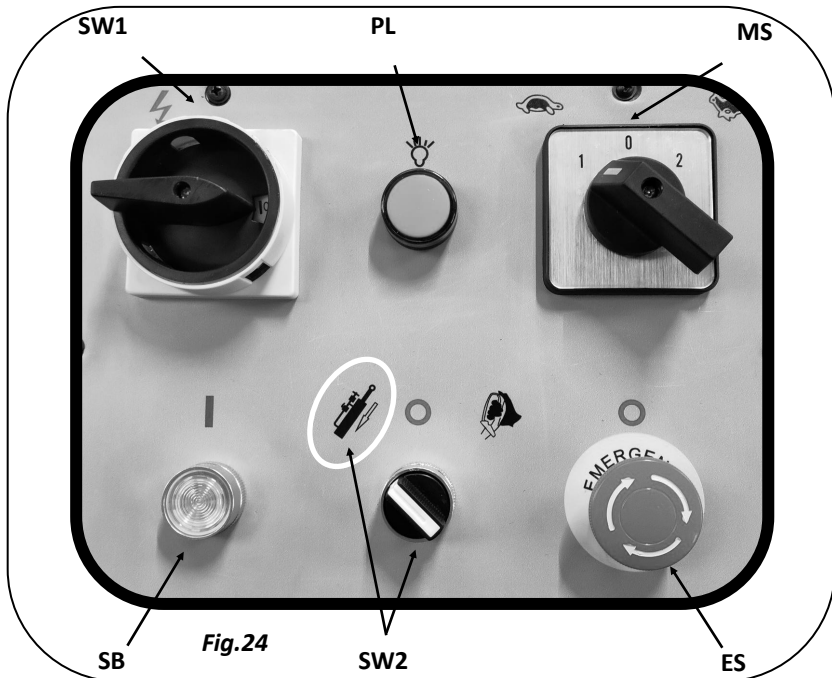


OPERATING INSTRUCTIONS *Cont..*

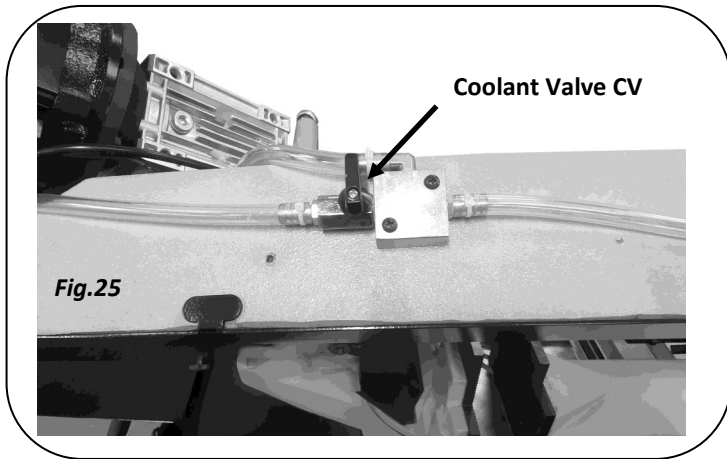


OPERATING INSTRUCTIONS Cont...

- On the Control Panel Fig.24, select the Auto-Cut position on the switch (SW2).
- Then select one of the 2 motor speeds (MS).
- Turn on the mains supply & Control Panel supply Switch (SW1).
- Power Light (PL) should now illuminate.
- Load workpiece into the vice and ensure it is clamped correctly.
- Press the Start Button (SB) and ensure that the blade is running in the correct direction.
- Close Hydraulic Speed Adjuster knob (B) Fig.21. Open the “Bow Lock” lever and slowly open Knob (B) ; set to your require cutting descent rate.
- Turn on the cutting / coolant fluid using Coolant Valve (CV) Fig.25.
- The saw will automatically stop once it has cut through the workpiece.



OPERATING INSTRUCTIONS *Cont..*

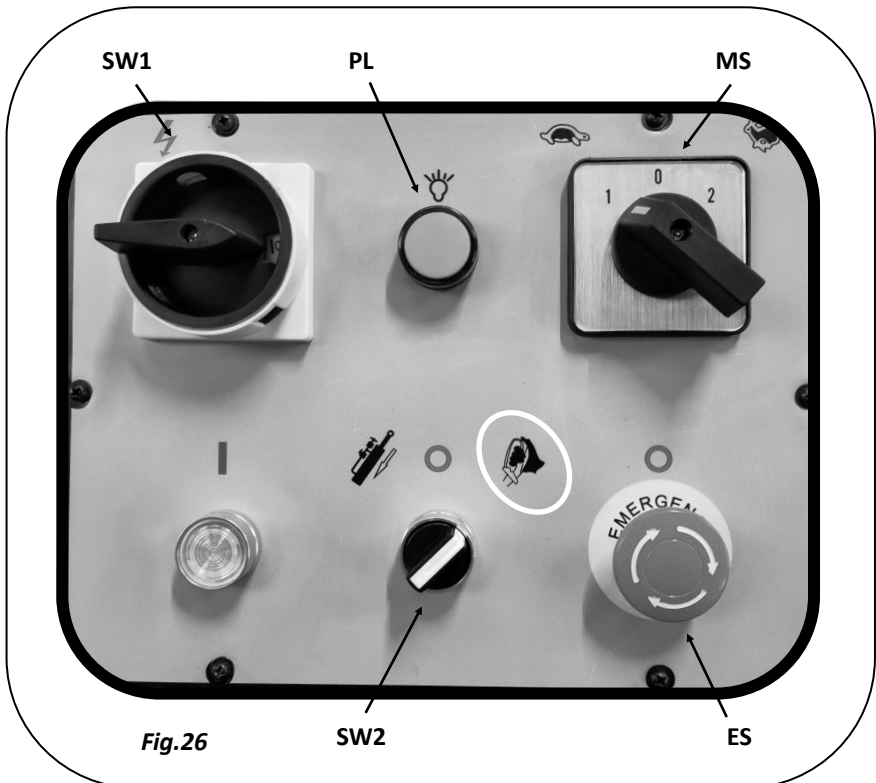


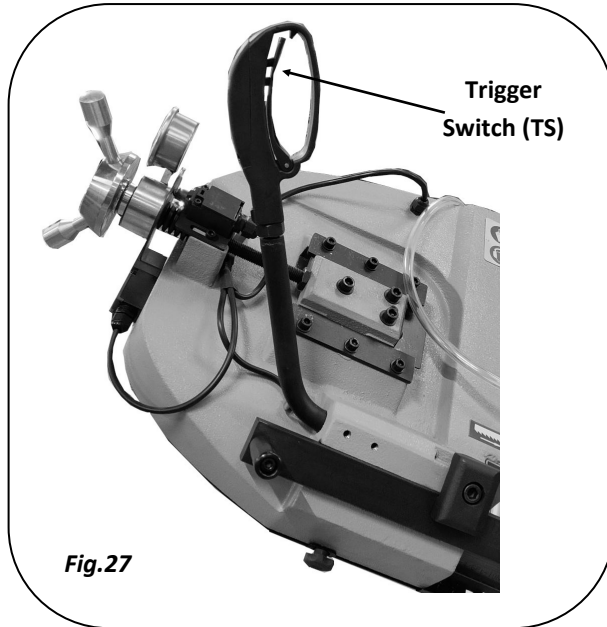
MANUAL CUTTING

- Close the Hydraulic Valve “Bow Lock” by lifting the lever arm up (A). Fig.21.
- Raise the Saw Bow arm.
- Adjust the tension spring Fig.22 by lifting Spring Locator (S) from it’s slot.
- This will release the Tensioning Fork (T).
- Place Handle (T) as shown in Fig.22 in the manual-cutting position. (both springs tensioned).
- On the Control Panel Fig.26, Select the Manual Cut position on the Switch (SW2)
- Then select one of the 2 motor speeds.
- Turn on the mains supply & Control Panel supply Switch (SW1).
- Power Light (PL) should now illuminate.
- Load workpiece into the vice and ensure it is clamped correctly.

OPERATING INSTRUCTIONS Cont...

- Press the Trigger Switch (TS) Fig. 27, and check if the blade is running in the correct direction.
- Fully open Hydraulic Speed Adjuster Knob (B).
- Open the Coolant Valve (CV).
- Holding the Trigger Handle, release the Bow Lock lever (A) Fig.21, press the Trigger Switch (TS) and begin your cut.
- Release the Trigger Switch (TS) when you have completed your cut.





Note: Press the Emergency Stop button (ES) to shut down all functions. Twist the Emergency Stop (ES) to re-set. It is advisable to test the ES button before cutting with the bandsaw.



Caution: A saw arm / bow dropping too quickly can cause the blade to stall on the workpiece. Press the Emergency Stop (ES) button. Lift the saw arm / bow and inspect the blade for damage. Continue to cut correctly if all parts are undamaged.



Caution: Always the correct PPE (Personal Protection Equipment) when working around saws & saw blades.

OPERATING INSTRUCTIONS Cont...

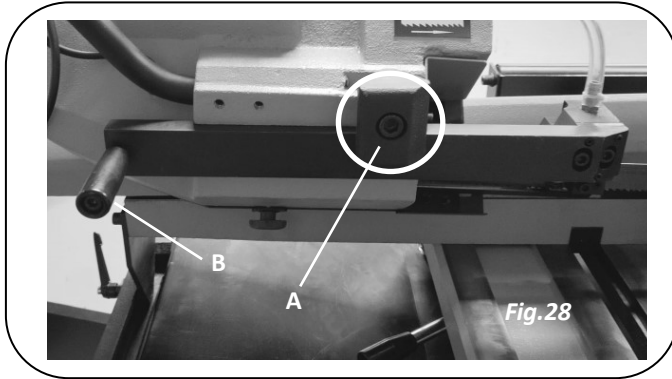
BLADE TENSION ADJUSTMENT

- The ideal tension of the blade is achieved by rotating the Blade Tension hand wheel until it touches the micro switch, which enables the operation of the machine.
- The position of this switch is factory set during inspection.
- When replacing the blade, if the thickness and the width of the replacement blade differ, it will be necessary to correct blade tension switch.
- This is not advisable and we recommend only purchasing blades to the size stated on page 14 in the Technical Specification table.
- Correct blade tension is 12 to 14 MPa as measured on a blade tension gauge.

ADJUSTING THE BLADE GUIDE BAR

- Disconnect the machine from the power source.
- Use a Cap Key wrench to loosen Cap Head screw (A) on the square lock plate.
- Hold the handle (B) and slide blade guide block as close as possible to the material without interfering with the cut.
- Tighten the Cap Head screw (A).
- Reconnect the machine to power source.

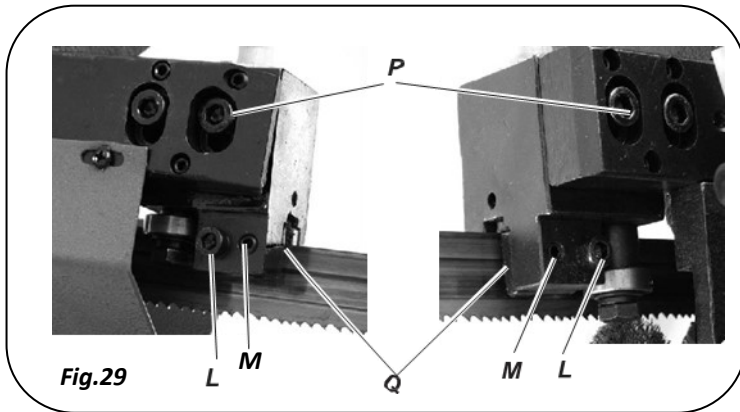
OPERATING INSTRUCTIONS *Cont..*



ADJUSTING THE BLADE GUIDES

- The blade is guided by means of adjustable pads pre-set during inspection .
- They are set to the thickness of the blade with minimum play as shown in the Fig.29.
- In case the blade needs to be replaced, make sure to always install 0.9mm thick blades for which the blades guide pads have been adjusted.
- Any adjustment should be carried out as follows:-
 - ⇒ Loosen Cap Head Screw (L), adjust the Set Screw (M), the Guides (Q) will move closer or further away from the blade. to the blade.
 - ⇒ Make sure that between the blade and two Guides (Q) there is 0.05mm of play.
 - ⇒ Then re-tighten Cap Head screw (L).
 - ⇒ Make sure that between top of the blade there is at least 0.2~0.3 mm of play; if necessary, loosen the Cap Head Screws (P) that fasten the block and adjust accordingly.

OPERATING INSTRUCTIONS *Cont..*



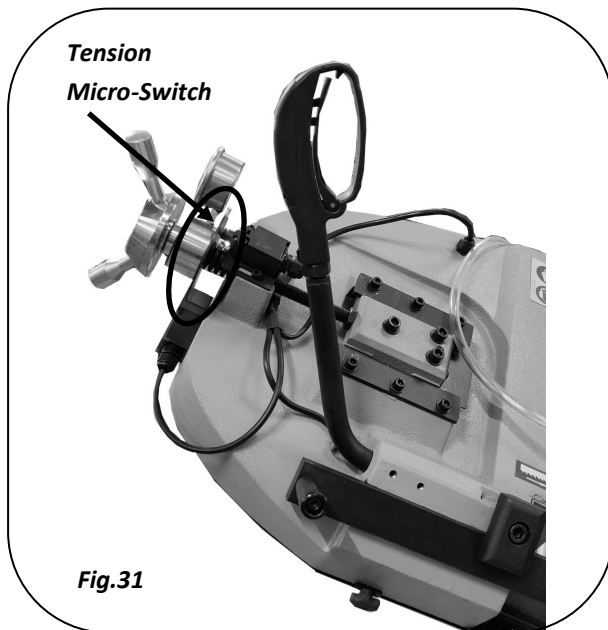
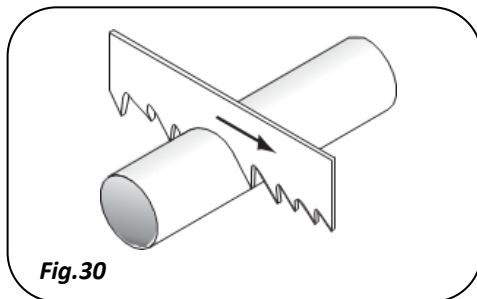
CHANGING THE BLADE



WARNING: Before changing the blade ensure the following:-
Saw is switched off & unplugged from the mains electrical supply.

- Lift the saw arm bow.
- Loosen the blade with the hand-wheel.
- Slide the mobile blade guide to far away as possible.
- Remove the blade guard lock knob.
- Remove the blade guard and remove the old blade from the flywheel and the blade guide block.
- Assemble a new blade by placing it first between the Guides (Q) and then on the rim of the flywheels, paying particular attention to the cutting direction of the teeth. Fig.30.
- Tension the blade and make sure it perfectly fits the flywheels.
- Assemble the blade guard, and secure it in place.
- Check the safety Tension Micro-switch Fig.31 is activated otherwise when electric connection is restored the machine will not start.

OPERATING INSTRUCTIONS *Cont..*



Note: Always use blade to the dimensions stated on page 14 of the Technical Specification table. Don't use blades that are more than 0.9mm thick.

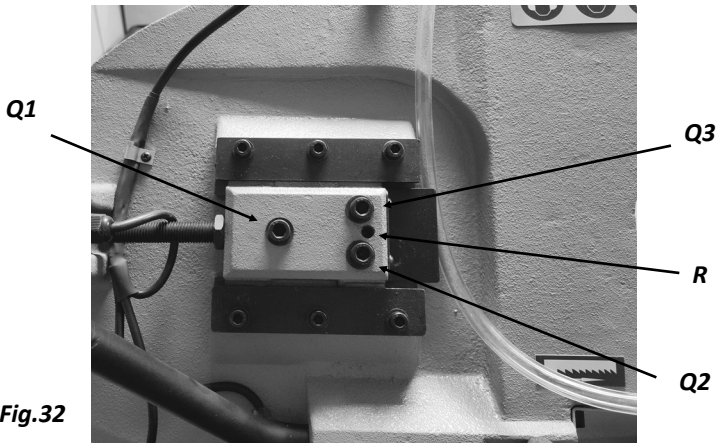


WARNING: Always use personal protective equipment when changing the blade.

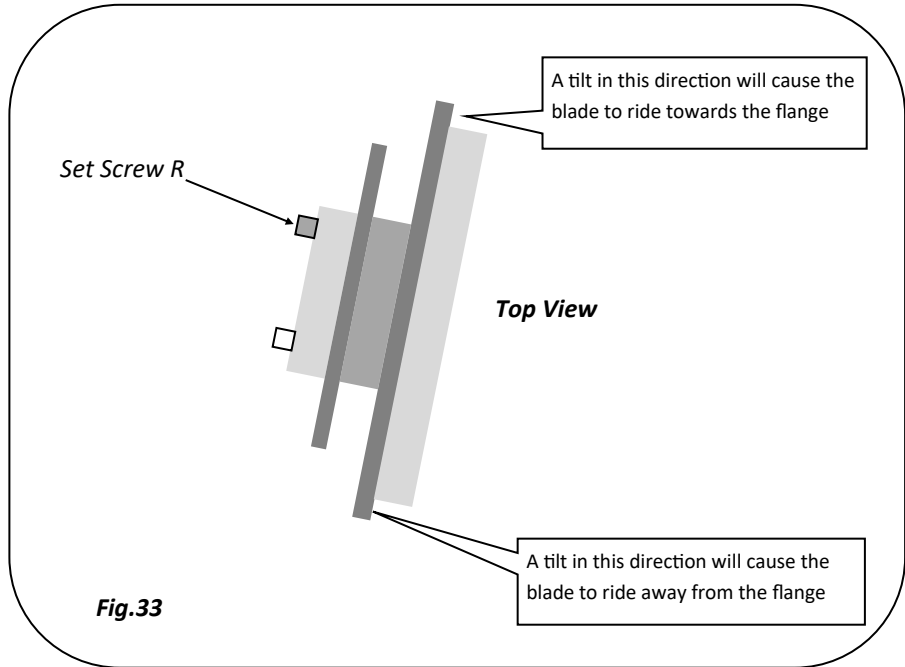
OPERATING INSTRUCTIONS *Cont..*

BLADE / FLYWHEEL ADJUSTMENT

- Loosen the Cap Head screws (Q1,Q2,Q3). Fig.32
- Use an Cap Head Wrench on the set screw (R) to adjust the tilt of the flywheel.
- Turning the set screw clockwise will tilt the flywheel so that the blade will ride closer to the flange. Fig.33
- Turning the set screw anti-clockwise will tilt the flywheel so that the blade will ride away from the flange. Fig 33
- After the adjustment is finished fasten the Cap Head Screws in this order: Q3, Q2, Q1.



OPERATING INSTRUCTIONS *Cont..*



MAINTENANCE

DAILY

- General cleaning of the machine to remove accumulated shavings.
- Clean the lubricating coolant drain hole to avoid excess fluid.
- Top up the level of lubricating coolant. Check blade for wear.
- Check functionality of the guards and emergency stops.

WEEKLY

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

MONTHLY

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

6 MONTHLY

Check all of the saws safety equipment visually, physically and electrically.

MAINTENANCE Cont...

GEARBOX

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

CHANGING THE GEARBOX OIL

- Disconnect the machine from the mains power supply. Raise the Saw Arm / Bow to vertical position.
- Draw off gear oil by loosening the Hex Head Screw (A) Fig.34
- Replace the screw after oil has completely drained.
- Place the Saw Arm / Bow back to horizontal position.
- Fill Gear box with approximately 0.6 litre of gear oil through the hole of the Vent Screw (B). Fig.34
- For reference, use SHELL type gear oil or Mobile gear oil #90.

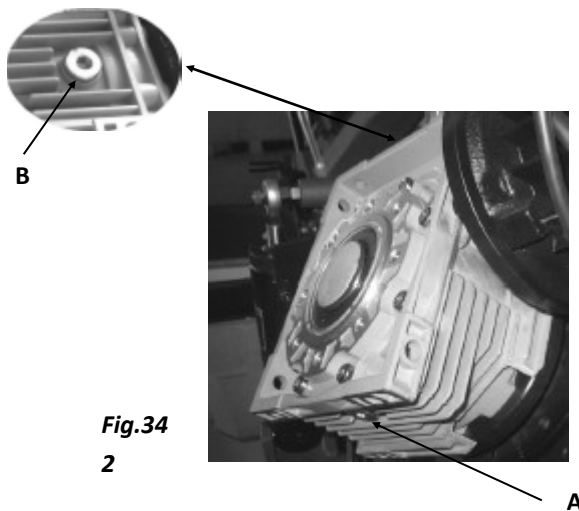


Fig.34
2

MAINTENANCE Cont...

BLADE CHOICE




Selecting the right blade for the job depends on a variety of factors, such as the type of material being cut, hardness of the material, material shape machine capability, and operator technique.

The chart is a basic starting point for choosing blade type based on teeth per inch (TPI) for variable tooth pitch blades and for standard raker type bi-metal blades/HSS blades. However, for exact specifications of bandsaw blades, contact the blade manufacturer.

To select the correct blade TPI:

1. Measure the material thickness. This measurement is the length of cut taken from where the tooth enters the workpiece, sweeps through, and exits the workpiece.
 2. Refer to the "Material Width/Diameter" row of the blade selection chart and read across to find your workpiece thickness you need to cut.
 3. Refer to the "Material Shapes" row and find the shape and material to be cut.
 4. In the applicable row, read across to the right and find the box where the row and column intersect. Listed in the box is the minimum TPI recommended for the variable tooth pitch blades.
 5. The "Cutting Speed Rate Recommendation" section of the charts offers guidelines for various metals, given in feet per minute (speed FPM) and meters per minute in parenthesis. Choose the speed closest to the number shown in the chart.
- (The next page "Blade Structure" is for reference only.)

MAINTENANCE Cont...

Material Width/Diameter		Material Shapes		Teeth Per Inch (TPI)																
TOOTH SELECTION																				
mm	50	75	100	150	200	250	300	350	400	450										
	5/8		4/6		3/4		1.4/2.5		2/3											
	4/6		3/4		2/3		1.4/2.5		1.5/.8											
	3/4		2/3		1.4/2.5		1.5/.8													
inch	2	2½	3	3½	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Material	Speed RPM (M/Min)	Material	Speed RPM (M/Min)	Material	Speed RPM (M/Min)	Material	Speed RPM (M/Min)													
Carbon Alloy	196~354 (60) (108)	Tool Steel	203 (62)	Alloy Steel	196~354 (60) (108)	Free-Machining Stainless Steel	150~203 (46) (62)													
Angle Steel	180~220 (54) (67)	High Speed Tool Steel	75-118 (25) (36)	Mold Steel	180~220 (54) (67)	Gray Cast Iron	108~225 (33) (75)													
Thin Tube	180~220 (54) (67)	Cold-Work Tool Steel	95-213 (29) (65)	Water Hardening Tool Steel	180~220 (54) (67)	Ductile Austenitic Cast Iron	65~85 (20) (26)													
Aluminum Alloy	220~534 (67) (163)	Hot-Work Tool Steel	203 (62)	Stainless Tool Steel	220~534 (67) (163)	Malleable Cast Iron	321 (98)													
Copper Alloy	229~482 (70) (147)	Oil-Hardening Tool Steel	203-413 (62) (65)	High-Speed Tool Steel	229~482 (70) (147)	Plastics	220 (67)													

BLADE CONSTRUCTION



Note: This section is for reference purposes.

Bi-metal blade are the most commonly used. They consist of a silicon-steel backing with a laser welded high speed steel (HSS) cutting edge.

The type of stock are classified in M2, M42, M51 and differ from each other because their major hardness due to increasing percentage of Cobalt (Cc) and molybdenum (Mo) contained in metal alloy.

There are several key factors to consider in choosing a blade

MAINTENANCE Cont...

- **Tooth Pitch** - The number of teeth per inch (TPI) on the blade.
Select a pitch which will assure that at least three teeth are contacting the workpiece while cutting.
This helps to distribute the cutting forces and avoids tooth breakage.
- **Tooth Form** - There are four common forms of teeth on the blade: Butress, Claw-tooth, Precision and Tungsten carbide.
Precision is the most common and is the type supplied with this saw.
- **Tooth Set** - Set is the degree to which the teeth are bent away from the blade.
Typical tooth set styles are *Raker*, *Wave* and *Straight set*.

Always select and use good-quality saw blades and choose the right blade for the job. Discuss your cutting requirements with your saw blade dealer to make sure you are getting the type of blade which best suits your need. Poor quality blades and improper use are often the cause of premature blade failure.

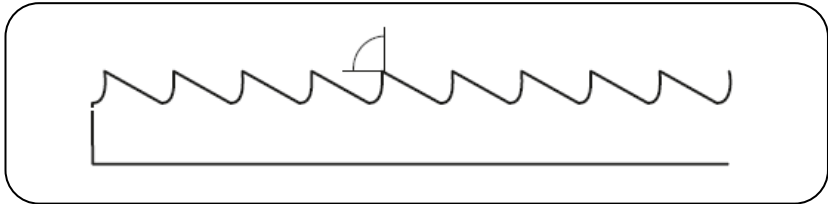
Many conditions can lead to breakage. Blade breakage is, in some cases, unavoidable, since it is the natural result of the peculiar stresses that bandsaw blades are subjected to. Blade breakage is also due to avoidable causes. Avoidable breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides. The most common causes of blade breakage are:

- (1) faulty alignment and adjustment of the guides;
- (2) insufficient number of teeth contacting the cut;
- (3) feeding too fast;
- (4) tooth dullness or absence of sufficient set;
- (5) excessive tension;
- (6) using a blade with a lumpy or improperly finished weld;
- (7) continuously running the bandsaw when not in use

MAINTENANCE Cont...

Regular Tooth:

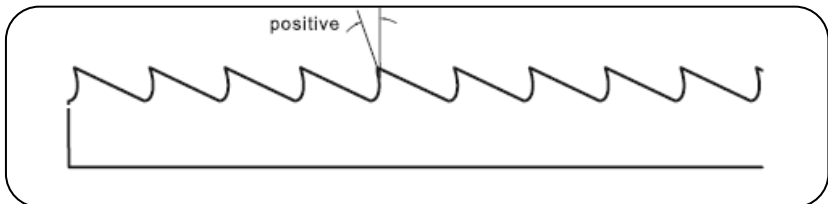
0° rake and constant pitch.



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

Positive Rake Tooth:

9°-10° positive rake and constant pitch.

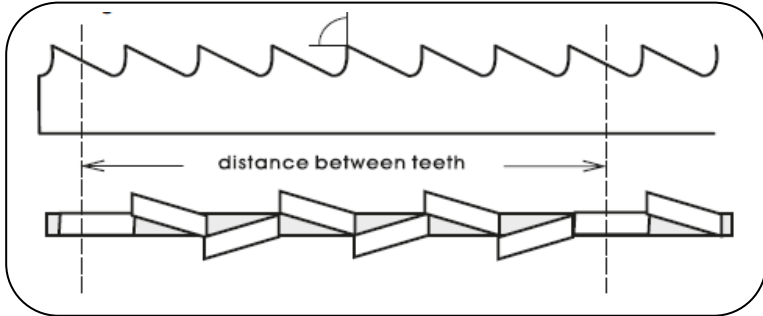


Particular use for crosswise or inclined cuts in solid sections or large pipes, but above all harder materials (highly alloyed and stainless steels, special bronze and forge pig iron).

MAINTENANCE Cont...

Combo Tooth:

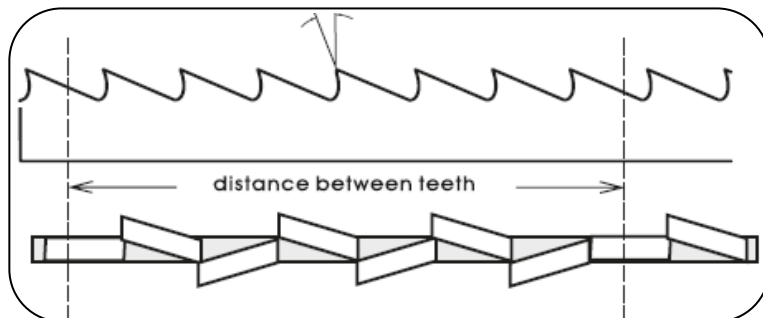
Pitch varies between teeth and consequently varying teeth size and varying gullet depths. Pitch varies between teeth, which ensures a smoother, quieter cut and longer blade life owing to the lack of vibration.



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

Combo Tooth:

9°-10° positive rake.



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

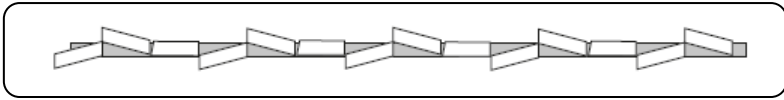
MAINTENANCE Cont...

Sets:

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

Regular or Raker Set:

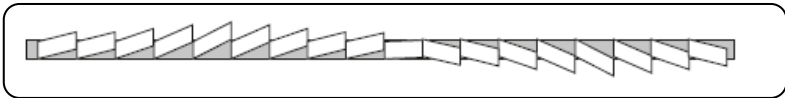
Cutting teeth right and left, alternated by a straight tooth.



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

Wavy Set:

Set in smooth waves.



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

Alternate Set (in groups):

Groups of cutting teeth right and left, alternated by a straight tooth.

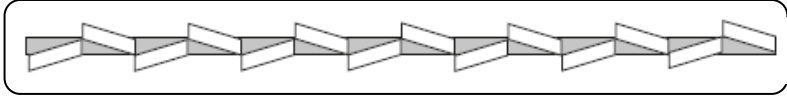


This set is associated with very fine teeth and it is used for extremely thin materials (less than 1mm).

MAINTENANCE

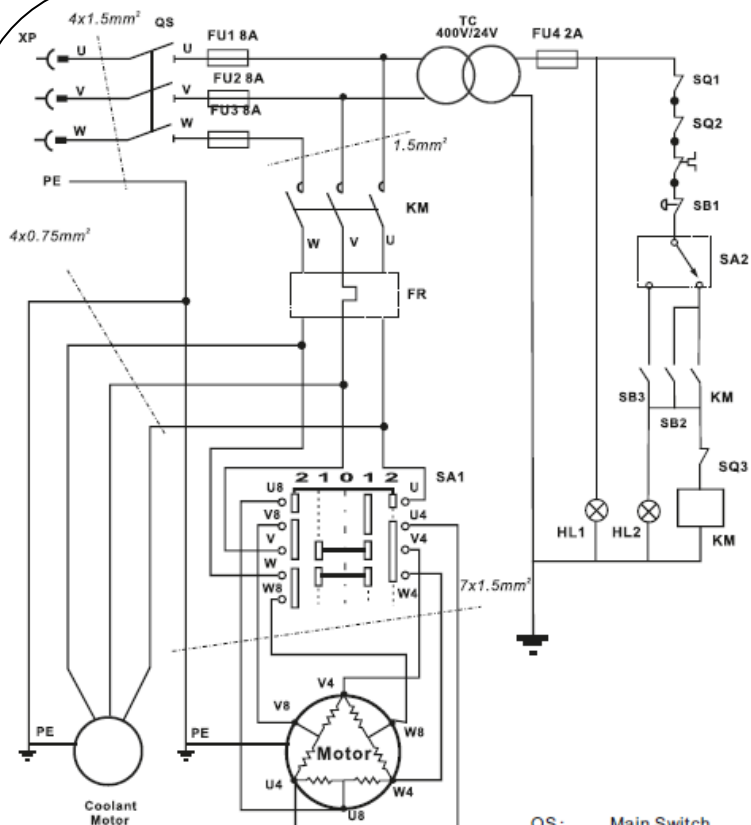
Alternate Set (individual Teeth):

Cutting teeth right and left.

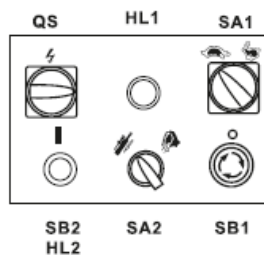


This set is used for the cutting of nonferrous soft materials, plastics and wood.

WIRING DIAGRAM





3~ Motor





- QS: Main Switch
- SA1: Hi/Low Speed Control
- SA2: Mode Switch
- KM: Contactor
- FR: Thermal protector
- TC: Transformer
- FU1-3: Fuse 8A
- FU4: Transformer Fuse 2A
- HL1: Power Light
- HL2: Run Light
- SB1: Emergency Stop Button
- SB2: **ON** Button
- SB3: Button on Grip-hand
- SQ1-3: Limit Switch


TROUBLESHOOTING

Fault	Probable Cause	Remedy
<p data-bbox="98 336 269 363">Tooth Breakage</p>  	<p data-bbox="389 344 505 363">Too fast advance</p> <p data-bbox="389 411 527 430">Wrong cutting speed</p> <p data-bbox="389 523 510 542">Wrong tooth pitch</p> <p data-bbox="389 590 622 632">Chips sticking onto teeth and in the gullets or material that gums</p> <p data-bbox="389 703 645 745">Defects on the material or material too hard</p> <p data-bbox="389 903 639 922">Ineffective gripping of the part in the vice</p> <p data-bbox="389 970 622 989">The blade gets stuck in the material</p> <p data-bbox="389 1013 656 1054">Starting cut on sharp or irregular section bars</p> <p data-bbox="389 1078 516 1098">Poor quality blades</p> <p data-bbox="389 1121 611 1141">Previously broken tooth left in cut</p> <p data-bbox="389 1165 622 1206">Cutting resumed on a groove made previously</p> <p data-bbox="389 1230 460 1249">Vibrations</p> <p data-bbox="389 1281 577 1300">Wrong tooth pitch or shapes</p> <p data-bbox="389 1388 645 1430">Insufficient lubricating, refrigerant, or wrong emulsion</p>	<p data-bbox="686 344 981 386">Decrease advance exerting less cutting pressure. Adjust the braking device.</p> <p data-bbox="686 408 981 491">Change speed and /or type of blade . See chapter on "Material classification and blade selection", in the section Blade selection table according to cutting and feed speed.</p> <p data-bbox="686 513 969 555">Choose a suitable blade. See Chapter "Material classification and blade selection".</p> <p data-bbox="686 577 969 660">Check for clogging of coolant drain holes on the blade-guide blocks and that flow is plentiful in order to facilitate the removal of chips from the blade.</p> <p data-bbox="686 683 992 884">Material surface can be oxidized or covered with impurities making them, at the beginning of the cut , harder than the blade itself , or have harder areas or inclusions inside the section due productive agents used as casting sand, welding wastes. etc. Avoid cutting these materials or in a situation a cut has to be made use extreme care, cleaning and remove any such impurities as quickly as possible.</p> <p data-bbox="686 906 869 925">Check the gripping of the part.</p> <p data-bbox="686 963 953 983">Reduce feed and exert less cutting pressure.</p> <p data-bbox="686 1005 941 1024">Pay more attention when you start cutting.</p> <p data-bbox="686 1062 857 1082">Use a superior quality blade.</p> <p data-bbox="686 1104 913 1123">Accurately remove all the parts left in.</p> <p data-bbox="686 1145 936 1165">Make the cut elsewhere, turning the part.</p> <p data-bbox="686 1225 846 1244">Check gripping of the part.</p> <p data-bbox="686 1267 981 1350">Replace blade with a more suitable one. See "Material classification and blade selection" in the Blade Types selection. Adjust blade guide pads.</p> <p data-bbox="686 1372 981 1455">Check level of liquid in the tank. Increase the flow of lubricating refrigerant, checking that the hole and the liquid outlet pipe are not blocked .Check the emulsion percentage.</p>


TROUBLESHOOTING Cont...

Fault	Probable Cause	Remedy
<p>Premature Blade Wear</p> 	<p>Faulty running-in of blade</p> <p>Teeth positioned in the direction opposite the cutting direction</p> <p>Poor quality blade</p> <p>Too fast advance</p> <p>Wrong cutting speed</p> <p>Defects on the material or material too hard</p> <p>Insufficient lubricating refrigerant or wrong emulsion</p>	<p>See "Material classification and blade selection" in the Blade running -in section.</p> <p>Turn teeth in correct direction.</p> <p>Use a superior quality blade.</p> <p>Decrease advance, exerting less cutting pressure. Adjust the braking device.</p> <p>Change speed and /or type of blade. See chapter on "Material classification and blade selection" . In the section Blade selection table according to cutting and feed speed.</p> <p>Material surface can be oxidized or covered with impurities making them, at the beginning of the cut, harder than the blade itself , or have hardened areas or inclusions inside the section due to productive agents used such as casting sand, welding wastes, etc. Avoid cutting these materials or perform cutting with extreme care, cleaning and remove such impurities as quickly as possible.</p> <p>Check level of liquid in the tank. Increase the flow of lubricating coolant, checking that the coolant nozzle and pipe are not blocked. Check the emulsion percentage.</p>
<p>Blade Breakage</p> 	<p>Faulty welding of blade</p> <p>Too fast advance</p> <p>wrong cutting speed</p> <p>Wrong tooth pitch</p> <p>Ineffective gripping of the part in the vice</p> <p>Blade touching material at beginning of cut</p> <p>Remedy</p>	<p>The welding of blade is of utmost importance. The meeting surfaces must perfectly match and once they are welded they must have no inclusion or bubbles; the welded part must be perfectly smooth and even. They must be evenly thick and have no bulges that can cause dents or instant breakage when sliding between the blade guide pads.</p> <p>Decrease advance, exerting less cutting pressure. Adjust the braking device.</p> <p>Change speed and /or type of blade.</p> <p>See chapter on "Material classification and blade selection" . In the section Blade selection table according to cutting and feed speed.</p> <p>Choose a suitable blade . See Chapter "Material classification and blade selection" .</p> <p>Check the gripping of the part.</p> <p>At the beginning of the cutting process, never lower the saw arm before starting the blade motor.</p>

TROUBLESHOOTING Cont...

Fault	Probable Cause	Remedy
	<p>Blade guide pads not regulated or dirty because of lack of maintenance.</p> <p>Blade guide block too far from material to be cut.</p> <p>Improper position of blade on flywheels.</p> <p>Insufficient lubricating coolant or wrong emulsion.</p>	<p>Check distance between pads (see "Machine adjustments" in the Blade Guide Blocks section); extremely accurate guiding may cause cracks and breakage of the tooth. Use extreme care when cleaning.</p> <p>Approach head as near as possible to material to be cut so that only the blade section employed in the cut is free, this will prevent deflections that would excessively stress the blade.</p> <p>The back of blade rubs against the support due to deformed or poorly welded bands (tapered), causing cracks and swelling of the back contour.</p> <p>Check level of liquid in the tank. Increase the flow of lubricating refrigerant, checking that the hose and the liquid outlet pipe are not blocked. Check the emulsion percentage.</p>
Streaked or etched bands	<p>Damaged or chipped blade guide pads.</p> <p>Tight or slackened blade guide bearings.</p>	<p>Replace them.</p> <p>Adjust them (see Chapter "Machine Adjustments" in Blade guide section).</p>
Cuts off the straight	<p>Blade not parallel as to the counter service.</p> <p>Blade not perpendicular due to the excessive play between the guide pads and maladjustment of the blocks.</p> <p>Too fast advance.</p> <p>Worm out blade</p> <p>Wrong tooth pitch</p>	<p>Check fastenings of the blade guide blocks as to the counter-vice so that they are not too loose and adjust blocks vertically; bring into line the position of the degrees and if necessary adjust the stop screws of the degree cuts.</p> <p>Check and vertically re-adjust the blade guide blocks; reset proper side guide play (see Chapter "Machine adjustments" in Blade guide section).</p> <p>Degree advance, exerting less cutting pressure. Adjust the braking device.</p> <p>Approach it as near as possible to material to be cut so that only the blade section employed in the cut is free, this will prevent deflection that would excessively stress the blade.</p> <p>Replace it. Blade with major density of teeth is being used, try using one with less teeth (see Chapter "Material classification and blade selection" in the Blade Types section).</p>

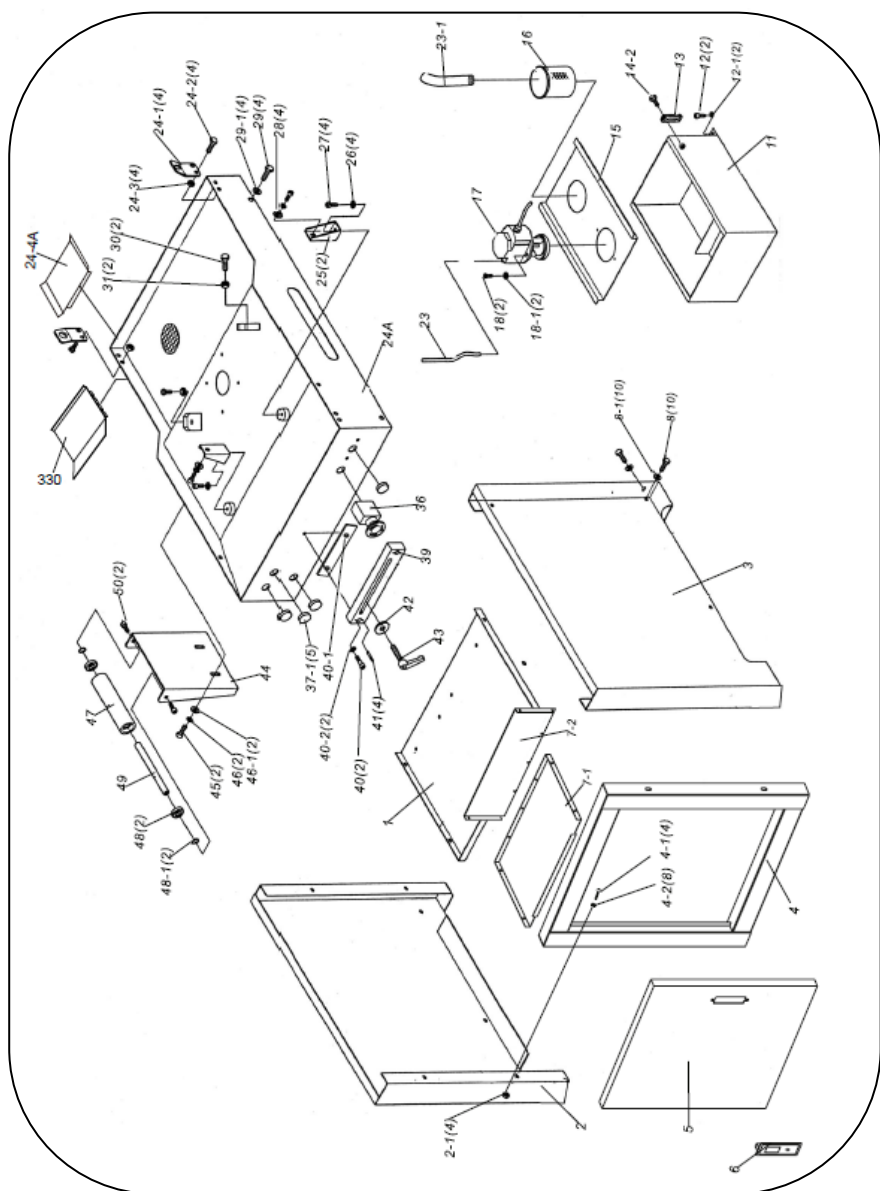
TROUBLESHOOTING Cont...

Fault	Probable Cause	Remedy
	<p>Broken teeth.</p> <p>Insufficient lubricating refrigerant or wrong emulsion.</p>	<p>Irregular work of the blade due to the lack of teeth can cause deflection in the cut; check blade and if necessary replace it.</p> <p>Check level of liquid in the tank. Increase the flow of lubricating coolant, checking that the hole and the liquid outlet pipe are not blocked. Check the emulsion percentage.</p>
Faulty cut	<p>Worn out flywheels Flywheel housing full of chips</p>	<p>The support and guide flange of the band are so worn out that they cannot ensure the alignment of the blade, causing faulty cutting; blade rolling and drawing tracks can have become tapered. Replace them. Clean with compressed air.</p>
Streaked cutting surface 	<p>Too fast advance</p> <p>Poor quality blade</p> <p>Worn out blade or with chipped and/or broken teeth</p> <p>Wrong tooth pitch</p> <p>Blade guide block too far from material to be cut</p> <p>Insufficient lubricating coolant or wrong emulsion</p>	<p>Decrease advance, exerting less cutting pressure. Adjust the breaking device.</p> <p>Use a superior quality blade.</p> <p>Replace it.</p> <p>Blade used probably has too large teeth, use one with more teeth (see "Material classification and blade selection" in the Blade Types section).</p> <p>Approach it as near as possible to material to be cut so that only the blade section employed in the cut is free, this will prevent deflections that would excessively stress the blade.</p> <p>Check level of liquid in the tank. Increase the flow of lubricating refrigerant, checking that the hole and the liquid outlet pipe are not blocked. Check the emulsion percentage.</p>
Noise on guide blocks	<p>Chipped bearings Worn out or damaged pads</p>	<p>Dirt and/or chips between blade and guide bearings. Replace them. Replace them.</p>

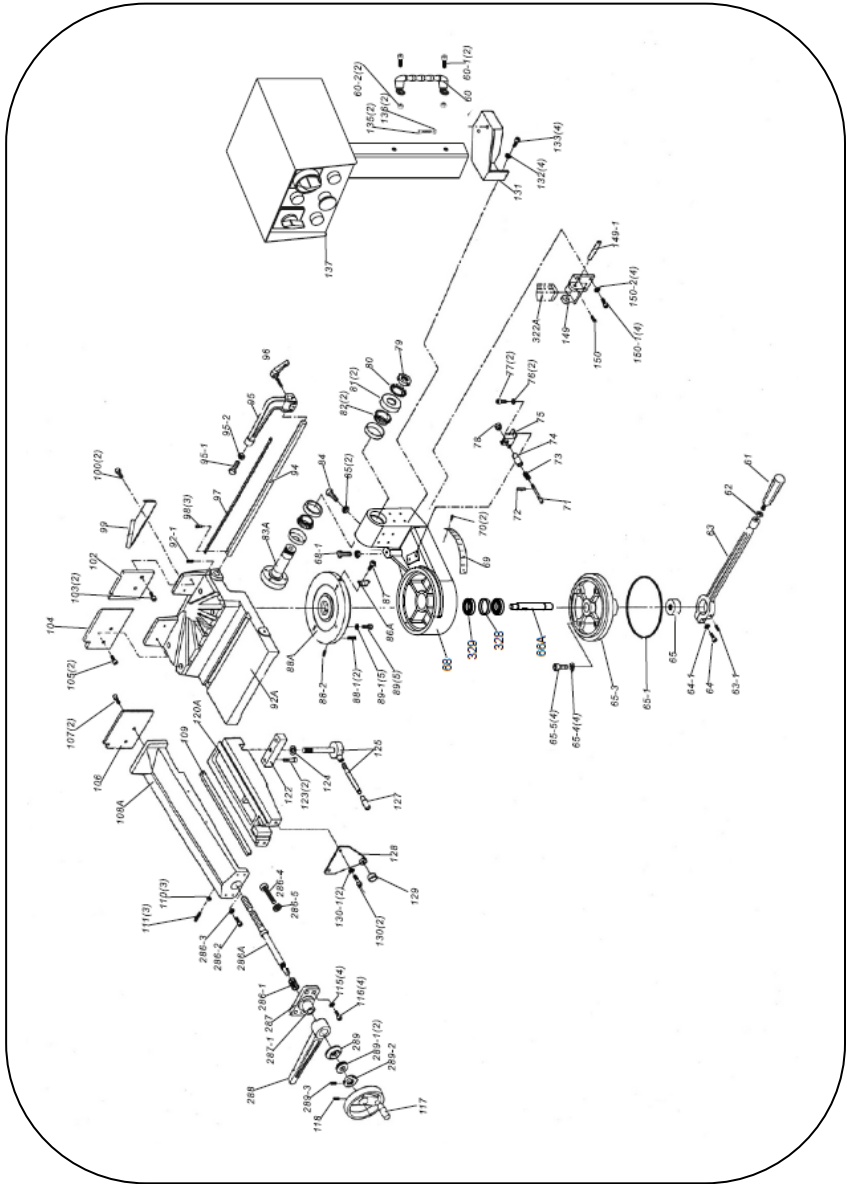
TROUBLESHOOTING Cont...

Fault	Probable Cause	Remedy
The band rotation doesn't work.	<p>"SA1" two speed switch</p> <p>Main motor over-load relay</p> <p>"SB1" emergency switch</p> <p>"SB2" start push button</p>	<p>It must be exactly turned towards Rabbit or Turtle sign.</p> <p>Push down FR1 red button. After a motor cooling time of 5 minutes, if there is no current continuity on these two wires, the motor must be replaced.</p> <p>Reset emergency switch (see operation procedure).</p> <p>Check the functioning and /or possible damage. If so, replace it.</p>
Machine does not work	<p>Fuses "FU"</p> <p>"SQ1" automatic shut-off limit switch</p> <p>"SQ2" blade cover limit switch</p> <p>"SQ3" blade broke limit switch</p> <p>Speed switch "SA1" in position "0"</p> <p>Emergency button "SB1" on</p> <p>"SB3" trigger switch</p> <p>Main motor</p>	<p>Check electrical efficiently. If not, replace the fuse.</p> <p>Refer to the operation procedure and adjust the switch if machine doesn't shut off after the material completely cuts. Replace it if it damaged.</p> <p>Check closing of the fly wheel cover. Check the efficiency of the device; replace it if damaged.</p> <p>Check the efficiency of the device; replace it if damaged.</p> <p>It must be exactly turned to the Rabbit or Turtle sign.</p> <p>Reset the emergency switch by following the steps of operation procedure. Check electrical efficiency, if not, replace it.</p> <p>Check the efficiency of the device; replace it.</p> <p>Check current continuity on the two wires in the prone. If not, replace the motor.</p>
Motor stopped with light "HL2" lit.	<p>"SB3" trigger switch</p> <p>Main motor</p>	<p>Check the efficiency of the device; replace it if it damaged.</p> <p>Check that it is burnt and that it turns freely. Replace it if it damaged.</p>

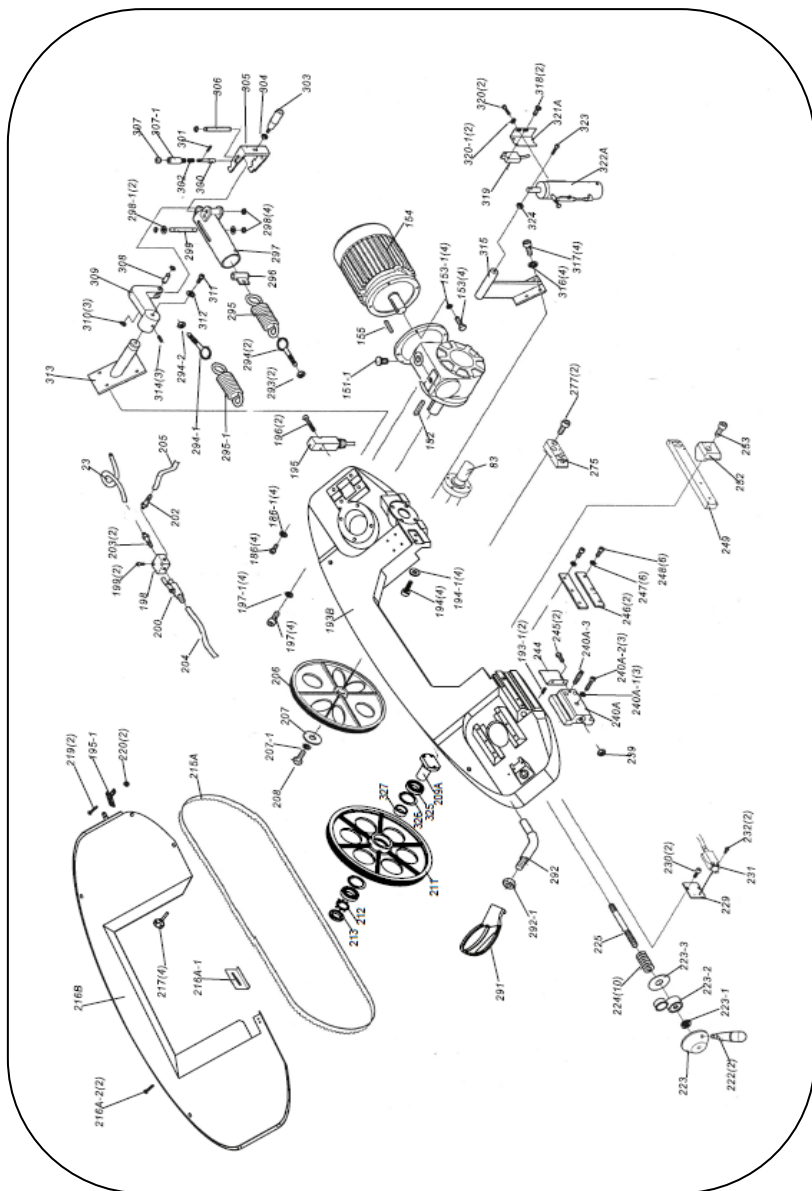
EXPLODED DRAWING



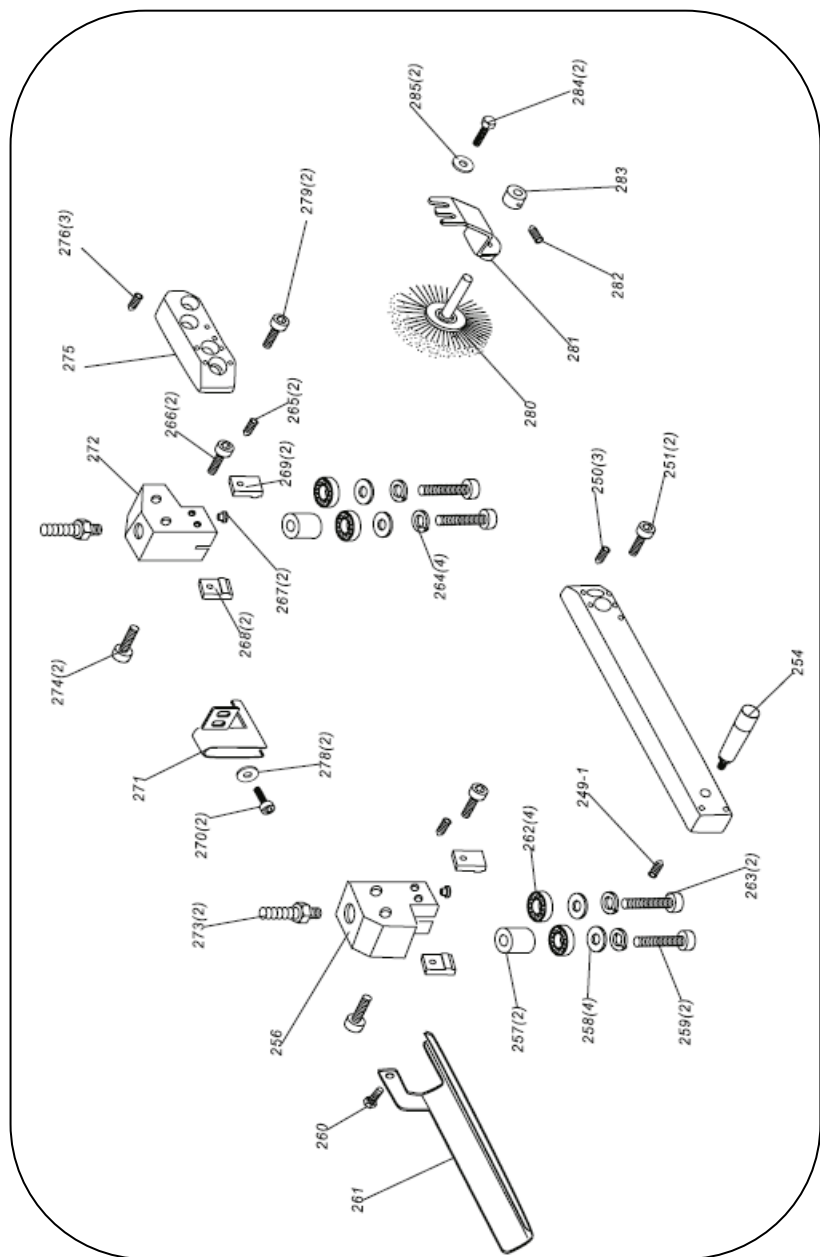
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EXPLODED DRAWING



EXPLODED DRAWING



PARTS LIST

<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Item</i>	<i>Description</i>	<i>Qty</i>
1	Base (Bottom Plate)	1	24-4A	Block Plate	1
2	Base (Left Part)	1	25	Mounting Bracket	2
2-1	Nut M8	4	26	Spring Washer 8mm	4
3	Base (Right Part)	1	27	Allen Screw M10 x 20	4
4	Door frame	1	28	Washer	4
4-1	Hex.Cap Bolt M8x 16	4	29	Hex.Cap Bolt M10 x 20	4
4-2	Washer 8mm	8	29-1	Washer 10mm	4
5	Door	1	30	Hex.Cap Bolt M12 x 40	2
6	Lock	1	31	Nut M12	2
7-1	H-shelf	1	36	Emergency Switch	1
7-2	V-shelf	1	37-1	Plug	5
8	Hex.Cap Bolt M8 x 16	10	39	Track	1
8-1	Washer 8mm	10	40	Allen Screw M8 x 35	2
11	Coolant Tank	1	40-1	Bolt Guide	1
12	Hex.Cap Bolt M8 x 16	2	40-2	Spring Washer 8mm	2
12-1	Washer	2	41	Set Screw M6 x 12	4
13	Coolant Gauge	1	42	Washer	1
14	Hex.Cap Bolt M10	2	43	Handle	1
15	Tank Cover	1	44	Roller Stand	1
16	Filter	1	45	Hex.Cap Bolt M12 x 25	2
17	Pump	1	46	Spring Washer	2
18	Allen Screw M6 x 25	2	46-1	Washer 12mm	2
18-1	Washer	2	47	Roller 12mm	1
23	Hose 5/16" x 2350mm	1	48	Ball Bearing	2
23-1	Hose 1" x 450mm	1	48-1	C-Ring	2
24A	Coolant and Chip Tray	1	49	Roller Shaft	1
24-1	Sling plate	4	50	Allen Screw M10 x 20	2
24-2	Hex.Cap Bolt M10 x 20	4	60	Handle	1
24-3	Nut M10	4	60-1	Allen Screw M8 x 20	2

PARTS LIST

<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Item</i>	<i>Description</i>	<i>Qty</i>
60-2	Nut M8	2	83A	Shaft	1
61	Handle	1	84	Hex.Cap Bolt M10 x 45	1
62	Nut M12	1	85	Nut M10	2
63	Locking Lever	1	86A	Pointer	1
63-1	Set Screw M10 x 16	1	87	Allen Screw M5 x 8	1
64	Allen Screw M10 x 35	1	88A	Cover	1
64-1	Spring Washer 10mm	1	88-1	Hollow Pin 6mm dia x 20	2
65	Shaft Nut	1	88-2	Set Screw M10 x 8	1
65-1	Oil Seal	1	89	Allen Screw M8 x 35	5
65-3	Disk	1	89-1	Spring Washer 8mm	5
65-4	Spring Washer 8mm	4	92A	Table	1
65-5	Allen Screw M8 x 35	4	92-1	Set Screw M6 x 12	1
66A	Shaft	1	94	Bar-Stop-Rod	1
68	Swivel Arm	1	95	Bar-Stop	1
68-1	Hex.Cap Bolt M10 x 35	1	95-1	Hex.Cap Bolt M10 x 50	1
69	Scale	1	95-2	Nut M10	1
70	Rivet 2.5 x 6mm	2	96	Handle	1
71	Pin	1	97	Scale	1
72	Hollow Pin 2.5mm dia x 16	1	98	Rivet	3
73	Spring	1	99	Chip Gutter	1
74	Bushing	1	100	Allen Screw M6 x 8	2
75	Bracket	1	102	No-Burr Jaw	1
76	Spring Washer 8mm	2	103	Allen Screw M6 x 15	2
77	Allen Screw M8 x 25	2	104	Counter Vise Jaw	1
78	Konb	1	105	Allen Screw M6 x 15	2
79	Jam Nut M40	1	106	Vise Jaw	1
80	Star Washer 40mm	1	107	Flat Head Machine Screw M6 x 15	2
81	Anti-Dust Cover	2	108A	Vise	1
82	Ball Bearing	2	109	Dovetail Plate	1

PARTS LIST

<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Item</i>	<i>Description</i>	<i>Qty</i>
110	Thin Nut M8	3	152	Key 8 x 7 x 30	1
111	Set Screw M8 x 25	3	153	Hex.Cap Bolt M8 x 25	4
115	Spring Washer 8mm	4	153-1	Spring Washer 8mm	4
116	Allen Screw M8 x 20	4	154	Motor	1
117	Hand Wheel	1	155	Key 8 x 7 x 30	1
118	Set Screw M6 x 10	1	186	Allen Screw M10 x 35	4
120A	Vise Seat	1	186-1	Spring Washer 10mm	4
122	Vise Setting Plate	1	193B	Saw Arm	1
123	Allen Screw M10 x 30	2	193-1	Set Screw M8 x 10	2
124	Setting Washer	1	194	Allen Screw M10 x 35	4
125	Lock Lever Device	1	194-1	Spring Washer 10mm	4
127	Handle	1	195	Limit Switch	1
128	Setting Plate	1	195-1	Switch Pin	1
129	Bushing	1	196	Allen Screw M4 x 35	2
130	Allen Screw M8 x 20	2	197	Allen Screw M10 X 35	4
130-1	Spring Washer 8mm	2	197-1	Spring Washer 10mm	4
131	Electric Box Holder	1	198	Pipe Fitting Seat	1
132	Spring Washer 8mm	4	199	Round Head Screw M6 x 10	2
133	Allen Screw M8 x20	4	200	Coolant Switch	1
135	Allen Screw M8 x 20	2	202	Pipe Fitting 1/4 x 5/16	1
136	Spring Washer 8mm	2	203	Pipe Fitting 1/4 x 5/16	2
137	Control Box	1	204	Hose 5/16 x 400mm	1
149	Supporting Bracket	1	205	Hose 5/16 x 900mm	1
149-1	Shaft	1	206	Drive Flywheel	1
150	Set Screw M8 x 10	1	207	Washer	1
150-1	Allen Screw M8 x 20	4	207-1	Spring Washer M10	1
150-2	Spring Washer 8mm	4	208	Hex.Cap Bolt M10 x 25	1
151	Reduction Unit	1	209A	Idle Flywheel Shaft	1
151-1	Vent Screw	1	210	Roller Bearing	2

PARTS LIST

Item	Description	Qty	Item	Description	Qty
211	Idle Flywheel	1	246	Gib	2
212	Star Washer 35mm	1	247	Spring Washer 8mm	6
212-1	Anti-Dust Cover 35mm	2	248	Allen Screw M8 x 20	6
213	Jam Nut M35	1	249	Blade Guide Movable Rod	1
215A	Saw Blade	1	249-1	Set Screw M8x10	1
216B	Blade Cover	1	250	Set Screw M6 x 12	3
216A-1	Extension	1	251	Allen Screw M8 x 20	2
216A-2	Ronud Head Screw M6 x 8	2	252	Setting Bracket	1
217	Plum Screw M6 x 10	4	253	Allen Screw M12 x 50	1
219	Round Head Screw M4 x 8	2	254	Handle	1
220	Nut M4	2	256	Guide Bracket	1
222	Handle	2	257	Spacer,Guide	2
223	Handle Wheel	1	258	Washer 8mm	4
223-1	Thrust Bearing	1	259	Hex Head Screw M8 x 35	2
223-2	Blade Tension Gauge	1	260	Allen Screw M6 x 8	1
223-3	Plate	1	261	Blade Guard	1
224	Special Spring Washer	10	262	Bearing	4
225	Tension Shaft	1	263	Hex Head Screw M8 x 20	2
229	Plate	1	264	Spring Washer 8mm	4
230	Allen Screw M6 x 12	2	265	Set Screw M6 x 16	2
231	Limit Switch	1	266	Allen Screw M6 x 25	2
232	Hex.Socket Cap Bolt M4 x 25	2	267	Upper Teeth	2
239	Nut M16	1	268	Fixed Teeth	2
240A	Slide Bracket	1	269	Adjustable Teeth	2
240A-1	Spring Washer 10mm	3	270	Allen Screw M5 x 8	2
240A-2	Allen Screw M10 x 45	3	271	Blade Guard	1
240A-3	Set Screw M10 x 25	1	272	Guide Bracket	1
244	Cover Plate	1	273	Pipe Fitting 1.5 x 5/16	2
245	Allen Screw M6 x 8	2	274	Allen Screw M6 x 12	2

PARTS LIST

<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Item</i>	<i>Description</i>	<i>Qty</i>
275	Ball Bearing Bracket	1	294-1	Spring Hook	1
276	Set Screw M6 x 12	3	294-2	Nut	1
277	Allen Screw M10 x 20	2	295	Spring	1
278	Washer 5mm	2	295-1	Spring	1
279	Allen Screw M8 x 20	2	296	Spring Seat	1
280	Brush	1	297	Spring Bushing	1
281	Brush Clamp	1	298	C-Ring	4
282	Set Screw M5 x 5	1	298-1	Washer	2
283	Set Bushing	1	299	Shaft	1
284	Hex.Cap Screw M6 x 12	2	300	Pin	1
285	Washer 6mm	2	301	Hollow Pin	1
286A	Lead Screw	1	302	Spring	1
286-1	Spring	1	303	Fork	1
286-2	Set Screw M6 x 25	1	304	Nut	1
286-3	Nut M6	1	305	Adjusting Bracket	1
286-4	Allen Screw M6 x 10	1	306	Shaft	1
286-5	Washer 6mm	1	307	Knob	1
287	Setting Seat	1	307-1	Bushing	1
287-1	Bushing	1	308	Shaft	1
288	Lead Screw Seat	1	309	Arm	1
289	Bearing Bushing	1	310	C-Ring	3
289-1	Ball Bearing	2	311	Allen Screw M10 x 25	1
289-2	Nut	1	312	Spring Washer 10mm	1
289-3	Hollow Pin	1	313	Post	1
291	Trigger Switch	1	314	Set Screw M10 x 16	3
292	Pipe	1	315	Hydraulic Cylinder Post	1
292-1	Nut	1	316	Spring Washer 8mm	4
293	Nut	2	317	Allen Screw M8 x 25	4
294	Spring Hook	2	318	Round Head Screw M5 x 10	2

PARTS LIST

<i>Item</i>	<i>Description</i>	<i>Qty</i>	<i>Item</i>	<i>Description</i>	<i>Qty</i>
319	Limit Switch	1	325	Ball bearing 6007	2
320	Allen Screw M6 x 8	2	326	C-ring 62	2
320-1	Washer 6mm	2	327	Spacer, bearing	1
321A	Adjusting Bracket	1	328	Sleeve,	1
322A	Hydraulic Cylinder	1	329	Ball bearing 6007	2
323	Allen Screw M10 x 40	1	330	Slap catcher	1
324	Nut M10	1			

NOTES

UK DECLARATION OF CONFORMITY

We

SIP (Industrial Products) Ltd
 Gelders Hall Road Shepshed
 Loughborough
 Leicestershire LE12 9NH
England

As the manufacturer within the UK, England, Scotland & Wales, declare that the :-

SIP 15" Swivel Head Bandsaw - SIP Part No. 01530

Conforms to the requirements of the following regulation(s), as indicated.

Supply of Machinery (Safety) Regulations 2008
 Electromagnetic Compatibility Regulations 2016
 Electrical Equipment Regulations 2016
 The Restriction of the Use of Certain Hazardous Substances in
 Electrical and Electronic Equipment Regulations 2012

And the relevant harmonised standard(s), includin20

BS EN IEC 55014-1:2021
BS EN IEC 55014-2:2021
BS EN IEC 61000-3-2:2019+A1
BS EN IEC 61000-3-3:2013+A1+A2

Signed.....	
Mr. Paul Ippaso	Managing Director
SIP (Industrial Products) Ltd	Date: 29July2023



EU DECLARATION OF CONFORMITY

We

SIP (Machinery Europe) Ltd
ASM Chartered Accountants
First Floor Block One
Quayside Business Park Dundalk
County Louth Republic of Ireland

As the manufacturer's authorised representative within the EC declare that the :-

SIP 15" Swivel Head Bandsaw - SIP Part No. 01530

Conforms to the requirements of the following directive(s), as indicated.

2006/42/EC - Machinery Directive

2014/35 - Low Voltage Directive

2014/30/EU - EMC Directive

2011/65/EU - RoHS Directive

And the relevant harmonised standard(s), including

EN IEC 55014-1:2021
EN IEC 55014-2:2021
EN IEC 61000-3-2:2019+A1
EN IEC 61000-3-3:2013+A1+A2

Signed.....	
Mr. Paul Ippaso	Managing Director
SIP (Machinery Europe) Ltd	Date: 29July2023



Please dispose of packaging for the product in a responsible manner.
It is suitable for recycling.

Help to protect the environment, take the packaging to the local amenity tip and place into the appropriate recycling bin.

Never dispose of electrical equipment or batteries in with your domestic waste.

If your supplier offers a disposal facility please use it or alternatively use a recognised recycling agent.

This will allow the recycling of raw materials and help protect the environment.

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FOR HELP OR ADVICE ON THIS
PRODUCT PLEASE CONTACT YOUR
DISTRIBUTOR, OR SIP

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EMAIL:

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www.sip-group.com