



METAL CUTTING BAND SAW

Model **BS260**

INSTRUCTION MANUAL



For your safety, read all instructions carefully.

**** This product carries the following approvals. CE, GS, CSA, and CU-L**

ISO-9001:2008 Certified

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SECTION 1 DESCRIPTION AND MAIN FEATURES

1.1 FOREWORD

This manual provides all the information necessary for a full understanding, effective use and routine maintenance of this band saw.

The information featured in this manual does not represent a complete description of the different machine parts nor a detailed explanation of their function: the user however is given the normal information required for using the machine safely and for keeping it in good condition.

The correct function, durability and cost-effectiveness of the machine depend on the observance of these regulations, negligence, incorrect or unsuitable use of the machine and the execution of unauthorized modifications can result in cancellation by the manufacturing company of the guarantee it provided with the machine.



WARNING!

The manufacture declines all responsibility for damage caused by negligence and/or the non-observance of the instructions described this manual.

For any repairs or revisions of a complex nature, contact the authorized assistance centers, where specialized personnel are available, or the manufacturing company directly.

The manufacturing company is however at the customer's complete disposal for ensuring quick and accurate technical assistance and all the measures necessary for ensuring ideal function and major productivity of the machine.



DANGER!

This manual is an integral part of the machine and must accompany the machine whenever it is resold or moved. It must be stored in a safe place which is easily accessible to all personnel involved in running the machine. It is the responsibility of the personnel involved in running the machine to ensure that the manual is kept intact for the entire life of the machine. If it is damaged or lost contact the manufacturer for a new copy immediately.

1.1.1 WHO SHOULD USE THIS MANUAL

This manual is the basic tool for the personnel involved in using the machine, whatever their duties:

- operators involved in transporting and handling and handling the machine.
- operators involved in running the machine.
- operators involved in maintenance.
- operators involved in demolishing the machine.

1.2 PIECE INVENTORY

THE BAND SAW IS SUPPLIED COMPLETE WITH:

- Sheet pedestal
- quick lock vice
- bar-stop with rod
- splash guard
- spanners supplied for routine interventions
- instructions manual for use and maintenance

1.3 MACHINE DESCRIPTION AND USE

1.3.1 MACHINE DESCRIPTION

The machine basically consists of a metal bearing structure, to which is mounted an electrically driven motor and two flywheels, one of which is driven by a reduction unit, which is in turn activated by an electric motor.

The other flywheel is free-rotating and only starts rotating when the band saw blade is mounted.

The machine must be fixed to a base which is capable of bearing its weight and any unbalancing movements caused by the use of the machine.

1.3.2 USE

The band saw has been exclusively designed and manufactured for cutting ferrous materials with tubular, open or filled sections.

Use of the machine for cutting other materials or for other processes not in compliance with the uses described in this manual is not only to be considered improper and prohibited, but also releases the manufacturing company from any responsibility.

1.4 UNINTENDED USE OF THE MACHINE



DANGER!

The operator must use the machine in accordance with the guidelines set forth in this manual, specifically the regulations in force relating to accident prevention, the conditions for use and technical characteristics of the machine itself.

USE OF THE MACHINE FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS INTENDED AS SET FORTH IN THIS MANUAL RELEASE THE MANUFACTURED FROM ANY AND ALL RESPONSIBILITY FOR INJURY TO PERSONS OR ANIMALS AND/OR DAMAGE TO THINGS.

1.5 SOUND LEVEL

The noise level was determined in accordance with the standard "EN ISO 3746-acoustics" with the following results:

Average equivalent level determined by sound pressure: $L_{pAm} = \text{dB(A)}67.8$

Sound power level: $L_{wA} = \text{dB(A)}84.7$

Continuous average equivalent level of sound pressure at operator's station $L_{pA} \text{ dB (A)}68.9$

1.6 TECHNICAL CHARACTERISTICS

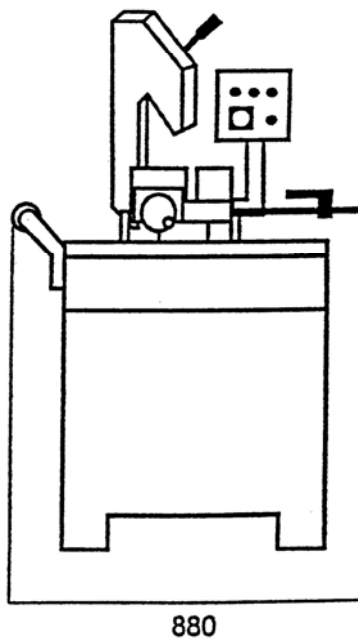
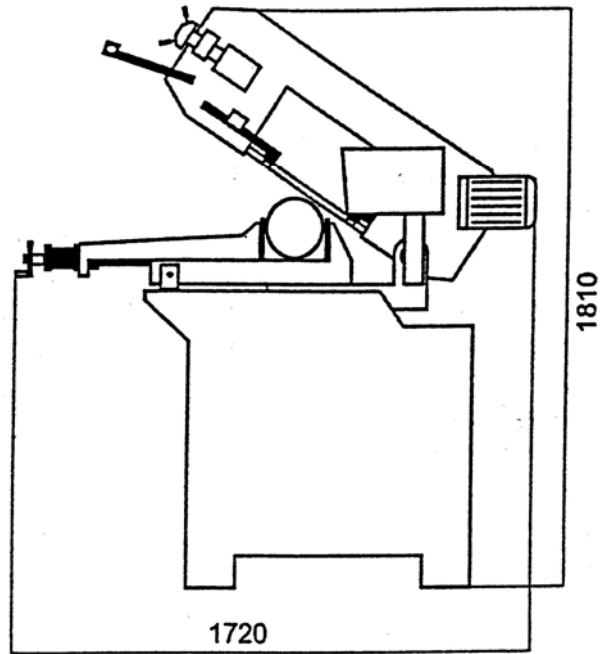
Saw band size	mm	2460 x 27 x 0.9
Two-speed motor	RPM	1400/700 50Hz
One-speed motor	RPM	1400 50Hz 1700 60Hz
Motor power	KW	1.1/0.59 * * 1.1 *
Coolant pump power	W	25
Band rotating speed	m/min	72/36 50Hz * * 72 50Hz * 88 60Hz
Flywheel diameter	mm	295
Vice max opening	mm	260
Total machine weight	kg	210
Pivoting bandholder bow		0° – 60°

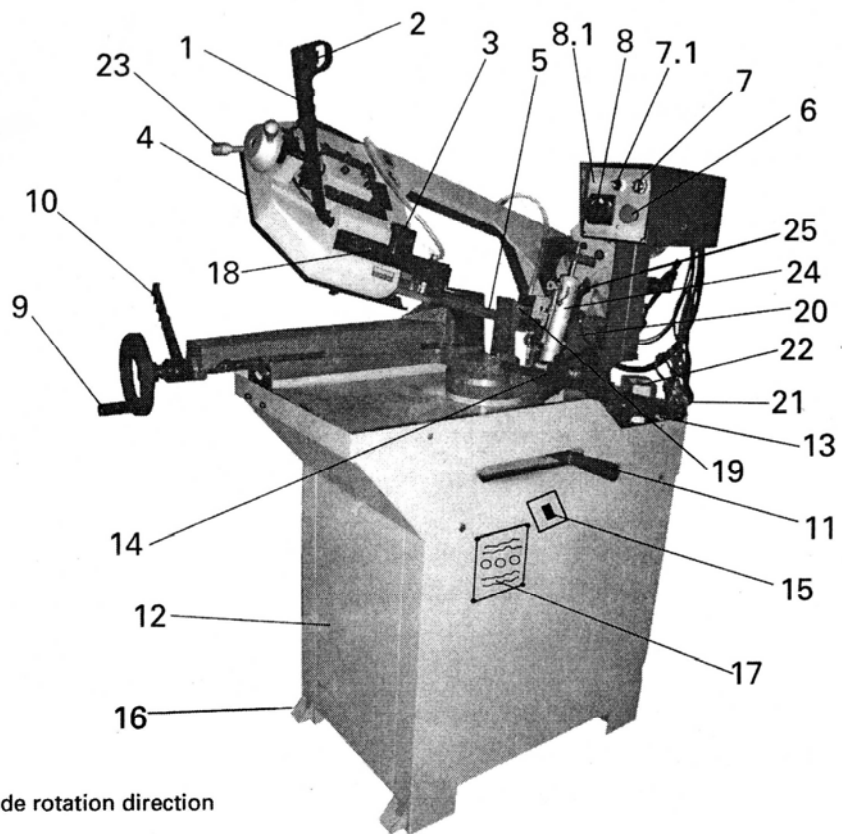
Hard metal adjusting sawblade guides

Adjustable band tension

Note: * Single speed machine

**** Two-speed machine**





- 1.Handgrip control
- 2.Microswitch
- 3.Arrow indicating blade rotation direction
- 4.Safety guard
- 5.Blade(saws band)
- 6.Emergency(red mushroom)
- 7.Main switch
- 7.1 Option switch
8. Total switch
- 8.1 Designation light
- 9.Vice handwheel
- 10.Quick lock lever
- 11.Vice lock lever
- 12.Machine base
- 13.Tank for introduction of emulsifiable
- 14.Bar-stop rod saet
- 15.Fixing machine to base
- 16.Fixing base to ground
- 17.ID plate
- 18.Adjusting the mobile blade-guide
- 19.Fixed blade-guide
- 20.Bow return adjustment stop
- 21.Coolant drain cap(not in illustration)
- 22.Coolant pump
- 23.Band tension adjustment handwheel
- 24.Cylinder
- 25.limit switch

SECTION 2 SAFETY REGULATIONS

2.1 SAFETY

The user must provide instruction for the personnel involved in running the machine regarding accident hazards, the safety devices provided for the operator and the general accident prevention guideline set out in the directives and legislations of the country in which the machine is used.

Operator safety is one of the main concerns of machine designers and manufacturers. During the conception of a new machine, the aim is to foresee all possible hazardous situations and, of course, to adopt the suitable protective measures. The number of accidents caused by careless and clumsy use of the various machines however remains extremely high.

Lack of concentration, carelessness and over-confidence, as well as tiredness and sleepiness, are often the direct causes of accidents.

It is therefore recommended to read this manual, and particularly the safety regulations, extremely carefully, paying specific attention to the particularly dangerous operations.



DANGER!

The Manufacturer declines all responsibility for failure to observe the safety and accident prevention regulations set out by the legislation in the country where the machine is used and described in the following pages.



Pay attention to the danger sign used in this manual. It always precedes warnings of potential danger.

THESE DANGERS CAN BE OF THREE LEVELS:



DANGER!

Signals maximum danger and warns that the operations concerned, if not correctly performed, Cause serious injuries, death or long term health risks.



WARNING!

The "WARNING" signal indicates that the operations

Concerned, if not correctly performed, may cause serious injuries, death or long term health risks.



CAUTION!

This sign warns that the operations concerned, if not correctly performed, may result in damage to the machine or to persons.

2.1.1 TERMINOLOGY USE

For a more detailed description of the various danger levels, there follows a description of a number of situations, and specific definitions, which could directly involve the machine and /or persons.

- **USER:** The user is the person, body or company that has bought or rented the machine and intends using it for those purposes for which it was designed. The user is responsible for the machine and the training of all the personnel involved in running the machine.
- **DANGER ZONE:** Any area inside and/or close to the machine in which the presence of an exposed person represents a danger for the safety and health of that person.
- **Exposed person:** Any person found entirely or partially in a danger zone.
- **OPERATOR:** The person or appointed to install, operate, adjust, maintain, clean, repair and transport the machine.
- **SPECIALIZED PERSONNEL:** Understood to be those persons specifically trained and able to perform maintenance or repair interventions which require a particular knowledge of the machine, its function, the safety elements, the intervention procedures and who are able to recognize and avoid the dangers resulting from use of the machine.
- **AUTHORIZED ASSISTANCE CENTRE:** The authorized assistance centre is the structure, legally authorized by the manufacturing company, which has specialized and able personnel available for carrying out all the necessary assistance operations, maintenance and repairs, even of a complex nature, for maintaining the machine in perfect working order.

2.2 SAFETY SIGNS

The machine has been designed to incorporate all possible safety devices for the health and safety of the operators. However, any residual risks which cannot be avoided are signaled on the machine by means of adhesive signs.

The safety signs (pictogram) described in Fig.3 are positioned on the machine and signal the various hazardous situations.

Keep them clean and replace them should they come away or are illegible or damaged.

Refer to Fig.3, read the following information carefully and memorize it.

1. **Wear safety glasses.** When using the machine safety eyewear must be used.
2. **Before starting operation,** carefully read the instructions manual.
3. **Use protective gloves.**
4. **Use ear muffs.**
5. **Before carrying out any maintenance operation,** stop the machine and consult the instructions manual.
6. **Safety footwear must be worn.** When using the machine safety footwear must be worn.
7. **High voltage.** Before any maintenance operation, disconnect the electrical feed.

2.3 CLOTHING



DANGER!

- Wear suitable clothing. Do not wear loose-fitting clothes, they could get caught in the rotating parts. Long hair must be protected by hairnets.
- When carrying out maintenance and repairs, protective clothing, cut-proof gloves, and slip and crush resistant footwear must be worn.

2.4 ECOLOGY AND POLLUTION



CAUTION!

- Observe noise pollution guideline and regulations.
- Observe the laws in force and the specific manufacturer's directions for the use and disposal of

products used for cleaning and maintaining the machine.

- Keep the labels and the instructions for the products used; if fuel oils or other chemical substances are swallowed contact Emergency Services immediately, and consult the relevant labels and/or instructions.
- Dispose of any remaining packaging in the appropriate waste recycling or disposal containers.
- When the machine is dismantled follow the anti-pollution guidelines of the country in which the machine is used, particularly for the lubricants and electrical parts.

2.5 SAFE USE

When using electrical tools or equipment, suitable safety precautions must be adopted in order to reduce the risks of fore, electric shocks, and injuries to persons. Before using the machine, it is therefore recommended to read the following safety rules carefully and to memorize them. After having read this manual, keep it carefully.

- Keep the work area clean and tidy. Untidy areas and environments increase the risks of accidents.
- Before starting working, check that the band saw and its relevant protections are in perfect working order. Ensure that the moving parts work correctly, that there are no damaged or broken elements and that the machine is free of obstructions. Damaged or broken parts should be repaired or replaced by authorized and skilled staff.
- Repairing or having parts repaired by personnel not authorized by the Manufacturing Company, in addition to risking cancellation of the guarantee, means operating with unsafe and potentially dangerous equipment.
- While the band saw is in use, do not touch its moving parts.
- All checks, controls, cleaning and maintenance operations, changing or replacement of parts must be carried out with the machine off and unplugged.
- It is absolutely forbidden to allow children, unauthorized personnel, inexperienced persons or persons not in good health to touch or use the machine.
- While using the machine, it is recommended to wear suitable clothing. It is imperative to avoid wearing jewellery or baggy clothing with loose parts that could become entangled in the rotating or moving parts resulting in injuries to the operator. Long hair should be

- kept under a suitable protective cap. If the floor is particularly slippery, wear non-slip shoes.
- Ensure the power supply system complies with the standards.
 - Check that the outlet is suitable, complies with the standards and is equipped with an in-built automatic protection switch.
 - If the extension lead for the electrical cable is used, this must feature plug/socket and cable with earthing, as stipulated by the standards.
 - Never leave the machine unattended while it is in motion.
 - Never stop the machine by unplugging it.
 - Do not unplug the machine by pulling the cable.
 - Periodically check the condition of the cable. Replace it if damaged, this operation must be carried out by authorized and skilled staff only.
 - Use authorized and coded extension cables only.
 - Protect the cables against high temperatures, lubricants and sharp edges. Also avoid twisting and knotting the cable.
 - Do not allow children and strangers to touch the cable with the plug connected.

- Should the machine exceed the acoustic pressure level of 85 dB, suitable protections such as headphones must be used to protect the hearing.
- Do not expose the machine to rain or use it in damp or wet environments. Ensure that cables do not come into contact with damp or wet areas.
- During operation of the machine, do not allow children, people or domestic animals near the machine. Ensure a safe distance is always kept from the machine.
- Do not use the machine or its tools for any other uses than those for which they were designed.
- On finishing work, thoroughly clean the machine and its working area.
- Do not tamper with or try to remove the protections.
- Only the interventions described in this manual can be performed on the machine.
- Only authorized tools and those described in these operating instructions or included in the Manufacturing Company's catalogues must be used. Failure to observe this advice means operating with unsafe and potentially dangerous equipment.
- Operate only in suitably lit environments, in a safe and stable position, free from any obstructions.

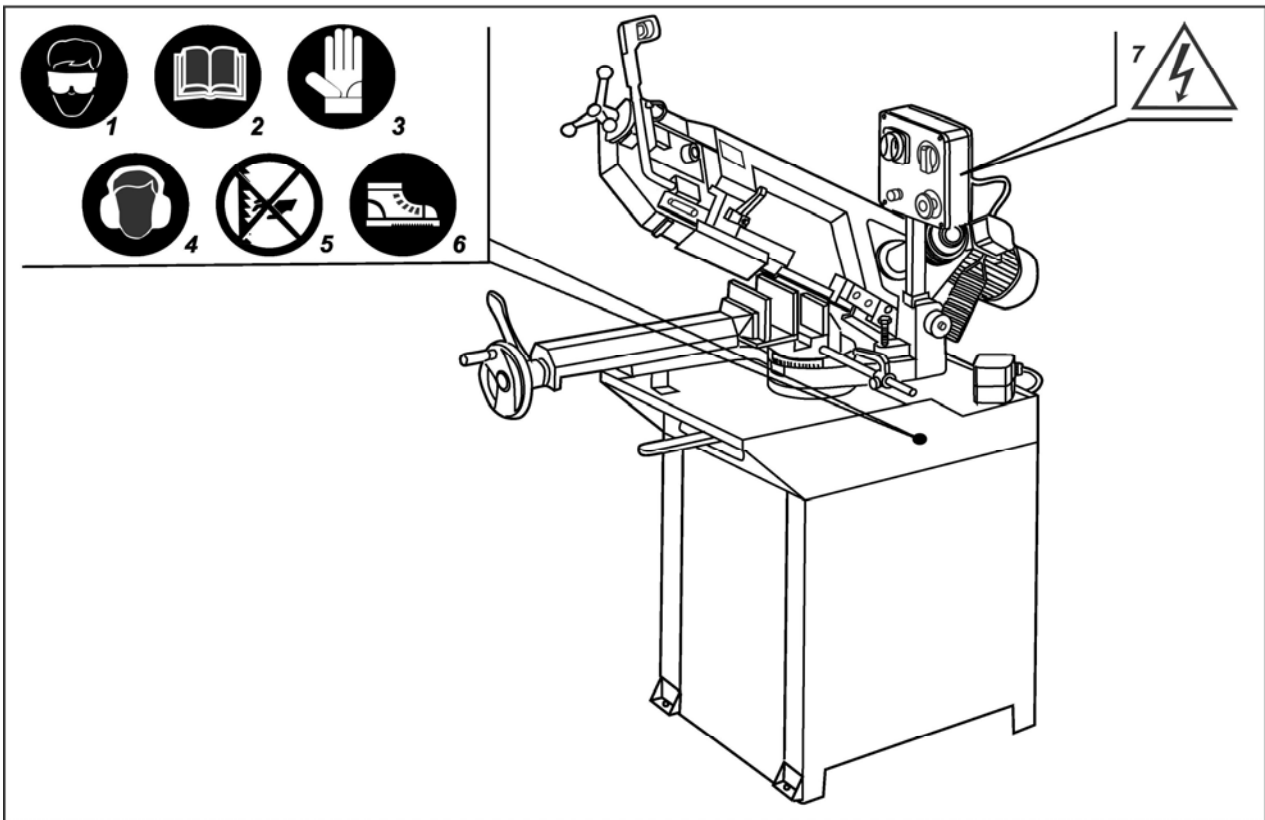


Fig 3-Position of the safety signs (pictograms) on the machine.

SECTION 3 HANDLING AND INSTALLATION

3.1 HANDLING

For long distance the machine may be transported on lorries or train wagons.

See "1.7 Technical Characteristics" for the weight and size of the machine.

The saw is usually supplied packaged in plastic or strapped, and palletized. If so, the machine can be easily moved, loaded or unloaded with a normal lift truck of suitable lifting capacity (Fig. 5).

If , on the other hand, the machine is shipped without being palletized then it must be lifted using a crane and ropes or chains with a suitable capacity and marked as such. The ropes or chains must be attached to bade of vise. (Fig. 4)



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.

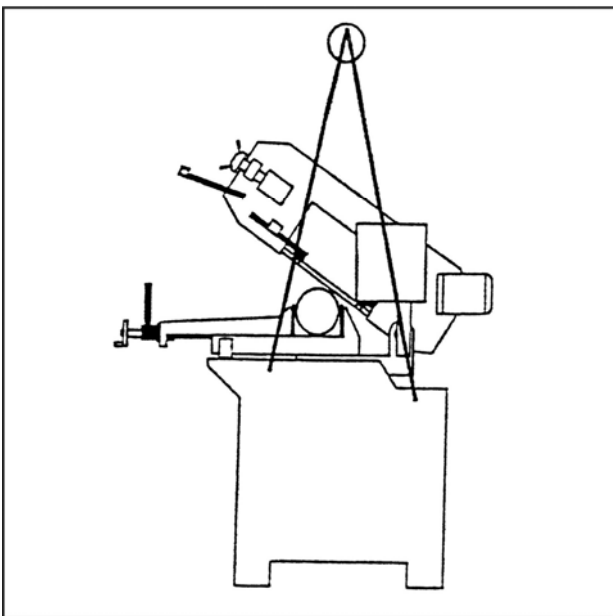


Fig.4-Lift ropes for lifting the machine



DANGER!

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. During transportation, the loads must not be lifted more than 20 centimeters from the ground. Finally, prepare an adequate space as an escape route in the event that the load should fall.



WARNING!

The surface onto which the machine is to be placed must be perfectly level in order to prevent any possible shifting of the load.

Once the machine has been lifted onto the lorry or train wagon make sure that it is locked into position, by securing it firmly to the base by means of ropes or chains.

When it has reached its destination, before releasing the machine from its constraints check that the condition and position of the machine are not hazardous. Then remove the ropes or chains and unload the machine using the same means and methods used to load it.

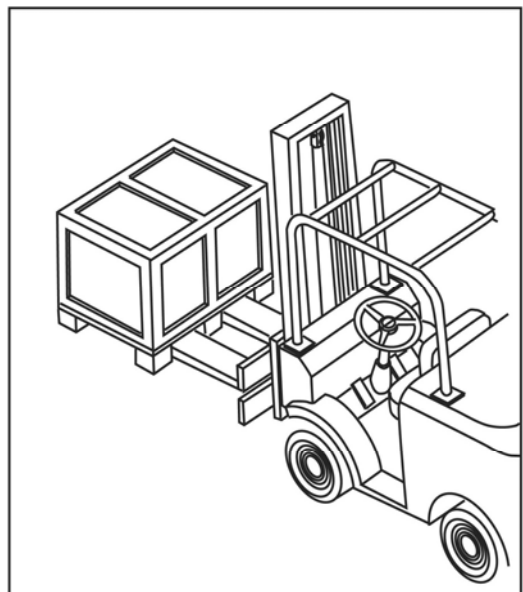


Fig.5

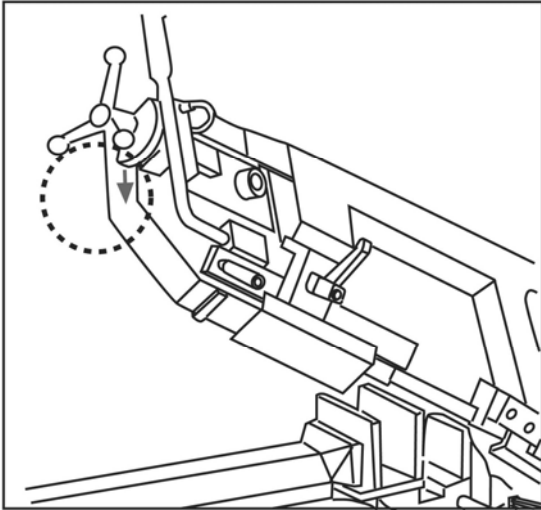


Fig.6

3.2 INSTALLATION

Inspect the machine to ensure that it is not damaged and proceed with its positioning.

When choosing the machine position it is recommended to consider:

- That the chosen position is not humid and that it is sheltered from atmospheric agents;
- That the surface is perfectly level, it is a non-slip surface and that its bearing capacity is suitable for the weight of the machine;
- That there is adequate, free space around the machine;
- That the location in which the machine is installed is guarded or enclosed, to prevent children or unauthorized persons from accessing the machine;
- That suitable, approved lighting is provided;
- That it is located near a main switch equipped with an overload cutout;
- That the power supply system is equipped with earthing which complies with the relevant standards;
- That the ambient temperature ranges between 0°C and 45°C;
- That the workplace is not in an explosive atmosphere.

After positioning the machine proceed as follows:

- Make the position of the fixing holes (16 fig.1);
- Lift the machine and place it to the side;
- Use an appropriate size bit to drill the holes in the ground and insert the threaded screw anchors;

- Reposition the machine with its base in its position then secure the base with the screws provided.

If the machine is supplied without a base, then it must be secured by means of the two holes (15 Fig.1) to a special structure capable of supporting the weight of the machine and any unbalancing created when using it.

WARNING!

The Manufacturing Company declines any responsibility for damages caused by incorrect installation and the use of unsuitable bases.

3.2.1 CLEANING THE MACHINE

After positioning the machine (with the work bench level, and before making the connections) clean off all the protective oils on the painted and unpainted surfaces with detergent or mineral naphtha.

These liquids must not be sprayed on; use a cloth dampened with the liquid, then dispose of the cloth in accordance with the relevant antipollution regulations.

3.2.2 CONNECTIONS

- Ensure that the mains voltage corresponds to that of the machine motor indicated on the identification plate (17 Fig.1)
- Connect the line cable of the machine to an electrical board equipped with an automatic main switch (magneto thermal type), with earth connection as stipulated by the safety standards in force, capable of protecting the machine from overloading and short-circuiting.
- Ensure that the cutting band rotates in the direction of the arrow on the safety guard which covers it and that the saw teeth are facing the correct direction (Fig.6).

Remove the handgrip control and the rod with bar-stop from the supplied accessories and proceed as follows:

Rod with bar-stop

- Insert the threaded rod into its seat (14 Fig.1) and lock it.

Coolant

- Pour the coolant, which consists of water and emulsifiable oil (13 l.) into the recovery tank (13 Fig.1). Dilute the

emulsifiable oil as directed by the manufacturer (normally approx. 10% oil).

- Make sure that the quantity of coolant which is distributed during the cutting operation is sufficient. The blade must be well lubricated.
- Before operating the machine, check its general efficiency and familiarize yourself with the control devices and their functions.

3.3 GENERAL CONTROLS



WARNING!

Before starting the saw check that the machine is working correctly, that the safety devices are perfectly operational and that the blade slides smoothly.

Check that there are no damaged elements, that all the parts have been assembled correctly and that they are on perfect working order. Doubtful safety devices and damaged parts must be repaired or replaced by specialized personnel or through a service centre authorized by the Manufacturer.



DANGER!

If the operator has any doubts whatsoever about the safety of the machine, he must stop the machine immediately, determine the cause for the problem and, if necessary, contact the manufacturer's assistance service.

SECTION 4

INSTRUCTIONS FOR USE

4.1 BEFORE USE



WARNING!

Before starting up the machine the operator must read and assimilate this entire manual, particularly Section 2 which deals with safety.

Furthermore, before starting work, check that the machine is in order and that all the parts subject to wear and deterioration are in perfect condition.

4.2 USE

The band saw has been exclusively designed and manufactured for cutting ferrous materials with tubular, open or filled sections.

Use of the machine for cutting other materials or for different processing that do not comply with the uses described in this manual, is not only to be considered improper and prohibited, but also release the Manufacturing Company from any responsibility, both direct and indirect.

Before inserting the plug into the socket, ensure that the voltage corresponds to that marked on the identification plate (17 Fig.1).

4.3 OPERATION

- Connect the machine plug and switch on the machine.
- Turn the total switch (8 Fig.1). A pilot light switches (8.1 Fig.1) on to signal that the machine is energized.
- Check that the band tensioning microswitch is pressed down, otherwise the machine will not work(1 Fig.7).
- Raise the saw bow, ensure setting bracket is disconnected from limit switch.

Start

1. Turn Emergency (red mushroom) (6 Fig.1).
2. Start the band saw.
 - Turning the option switch to position "handgrip control" (7.1 Fig.1), press the button (2 Fig.1).
 - Turning the option switch to position " main switch" (7.1 Fig.1), press the main switch (7 Fig.1).

Stop

To stop the band saw

- Push the Emergency (red mushroom) (6 Fig.1).
- Turn the total switch (8 Fig.1) to "OFF" (or position "0").

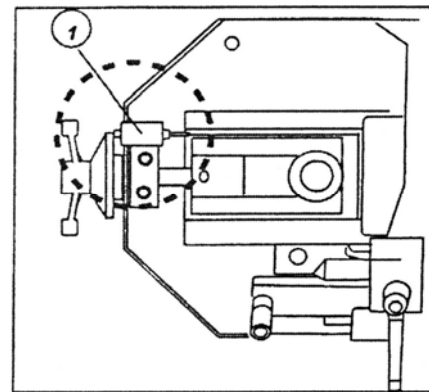


Fig.7

4.4 CONTROL DEVICES

The machine is equipped with the following control devices:

1. Total switch (8 Fig.1)

The function of this switch is to power supply the machine. When it is on, a pilot light indicates that the machine is energized.

(3~ Motor only) ("0" position: the saw blade does not rotate; POSITION "1": This is the position of the lowest speed; POSITION "2": This is the position of the fastest speed.)

2. Emergency stop (6 Fig.1)

The machine is equipped with an emergency push button used to stop the machine in an emergency. The stop push button must be released before the machine is restarted after an emergency stop.

3. Option switch (7.1 Fig.1)

The function of this switch is option circuit. ("handgrip control" or "main switch")

4. Main switch (7 Fig.1)

Press this switch, the band saw is running.

5. Handgrip with control push button (1 Fig.1)

The handgrip control (the operator must be present) is used to lift or lower the bow, in order to carry out the cutting operation. This handgrip consists of a tube, secured to the machine head: the handgrip control with its push button is fitted to the end of the tube.

Press the button(2 Fig.1) to start rotating the saw blade; release the button to stop it.

Furthermore, the handgrip is equipped with a safety device to guard against accidental start up.

6. Guard opening microswitch (Fig.8)

The machine is equipped with a position action microswitch.

The function of this device is to stop the band from rotating if the FLYWHEEL GUARD opens (4 Fig.1).

7. Limit switch (25 Fig.1)

When the cutting is completed, the band saw is stopped.

4.5 NORMAL CUTTING

After carrying out the operations required for machine start – up, follow the instructions below:

- Place the material to be cut in the vice and clamp it firmly.
- Press the main switch (7 Fig.1) in order to energize the machine.
- Select the required cutting position on the option switch (7.1 Fig.1).
- The band saw is now ready to cut.

(1) Grasp the handgrip control (1 Fig.1) and press the push button (2 Fig.1), in order to start the blade rotation.

(2) Press the main switch (7 Fig.1), in order to start the blade rotation.

Rest the blade lightly on the piece to be cut , in order to avoid breaking the teeth, and execute the cut.

Ensure that the coolant comes out in a sufficient quantity during the cutting operations. The blade must be well lubricated.



WARNING!

The machine is equipped with a low voltage electrical system (24V) with a minimum voltage and thermal protection device. With this device, if voltage is disconnected, the machine stops and does not restart work, the start push button (1 Fig.1) must be activated. In this way, risks from accidental restarting of the machine are avoided.

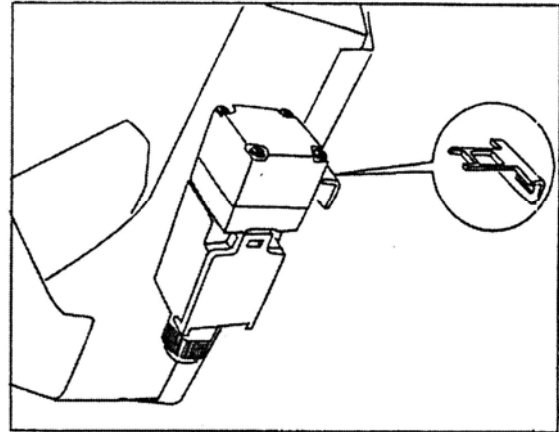


Fig.8



CAUTION!

During normal operation if the band saw stops and the main switch has not been turned to “OFF” (or “0”) and press emergency “red mushroom”, determine the cause for the stop, but take care as this is a hazardous situation.



DANGER!

ALL THE PRELIMINARY OPERATIONS FOR THE CUT MUST BE CARRIED OUT WHEN THE MACHINE BOW IS IN STANDBY POSITION AND THE SAW BLADE IS NOT RATATING.

CUTTING CAPACITY in mm.

Angle	●	■	■
0°	220	220	260 x 110
45°	150	145	
60°	90	85	

4.6 MITRE CUTTING

It is possible to perform mitre cutting (max. 60°).

To perform this operation, simple loosen the vice lock lever (11 Fig.1) positioned on the machine base and rotate the head to the angle required; finally tighten the above mentioned lock lever.



DANGER!

This operation must be performed with the machine off and voltage disconnected.

The lock lever must be tightened securely to avoid any movement of the head during cutting.

4.7 VICE UNIT

The vice unit is equipped with a quick lock system with a shifting is approx. 4mm. Use the handwheel (a Fig.9) to bring the jaws to approx. 2mm from the piece to be cut and then clamp the piece by means of the quick lock lever. (b Fig.9)



WARNING!

Before executing the cut, ensure that the workpiece is firmly secured in the vice to prevent it from moving during the cutting operation.



WARNING!

Do not position the pieces to be cut on the vice unit while a workpiece is already inserted in the vice.



DANGER!

**THE OPERATION MUST BE CARRIED OUT WITH THE MACHINE HEAD IN THE STANDBY POSITION AND THE SAW BAND STOPPED.
CUT OFF THE POWER SUPPLY TO THE MACHINE.**

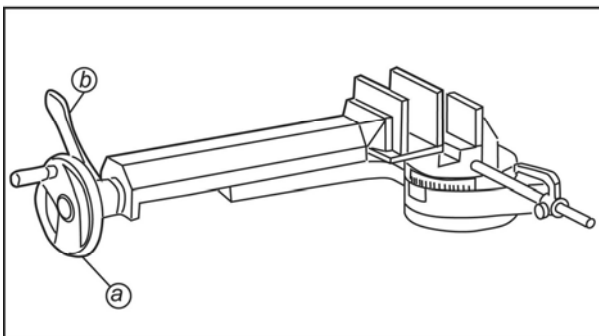


Fig.9

4.8 ADJUSTING THE BAND TENSION

For an optimum band tension adjustment operate as follows:

- Turn the handwheel (23 fig.1) until the stop rests against the microswitch, located immediately below the handwheel support flange. (1 fig.7)
- Press the push button on the handgrip control (1 fig.1) , the blade starts to rotate.



WARNING!

If the microswitch is not pressed the machine will not operate. Moreover, if the band is broken or missing, the machine will not start.

**THIS OPERATION MUST BE CARRIED OUT WHEN THE MACHINE BOW IS IN STANDBY POSITION AND THE SAW BLADE IS AT A STANDSTILL.
DISCONNECT THE MACHINE.**

4.9 REPLACING THE SAW BLADE



WARNING!

Before replacing the saw blade disconnect the machine from the power supply.

To replace the saw blade:

- Lift the bow completely;
- Unhook and lift off the flywheel safety guard (1 Fig.10);
- Secure the open guard by means of the special hook, to make sure it does not close during the operation;
- Loosen the band by means of the handwheel (3 Fig.10);
- Remove the worn band from the flywheel (2 Fig.10) and extract it from the blade guides;
- Fit in the new band on the blade guides and subsequently on the flywheels.

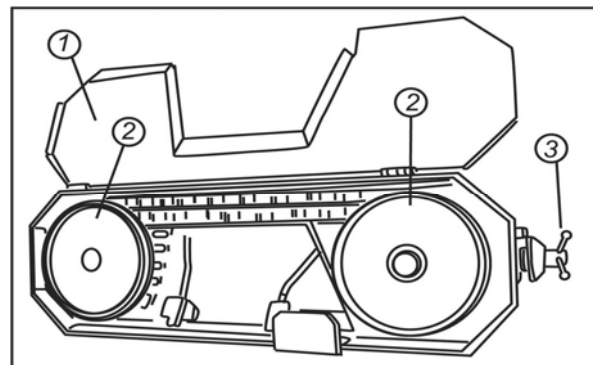


Fig.10



WARNING!

Ensure the blade teeth rotate in the correct direction (see the arrow on the flywheel safety guard—Fig.6)

- Tighten the band by means of the special handwheel (3 Fig.10);
- Close the flywheel safety guard and secure it with the special clamps.



WARNING!

Ensure that the microswitch located under the handwheel is pressed by the stop (1 fig.7) on the handwheel otherwise the machine will not function. The band is perfectly tensioned when the microswitch is pressed by the stop of the handwheel. If the flywheel safety guard is not properly closed the machine does not work because of the safety microswitch. (1 Fig.8)

THIS OPERATION MUST BE CARRIED OUT WHEN THE MACHINE BOW IS IN STANDBY POSITION AND THE SAW BLADE IS AT A STANDSTILL. DISCONNECT THE MACHINE.

4.10 ADJUSTING THE BOW RETURN STROKE

It is possible to adjust the bow return stroke (this is a useful operation if several repeated cuts are needed), in this way the complete return stroke for each single cut be avoided.

Proceed as follows:

- Release the hex nut (1 Fig.11).
- Screw in or out the hex bolt (2 Fig.11) to adjust.
- Then tighten the hex nut.

Now the bow return stroke will stop at the set position.

4.11 ADJUSTING THE BOW PIVOT STROKE

The bow can pivots from 0° to 60°. To adjust the 0° and 60°, proceed as follows:

- Release the hex nut (1 Fig.12).
- Screw in or out the hex bolt (2 Fig.12) to adjust.
- Then tighten the hex nut.

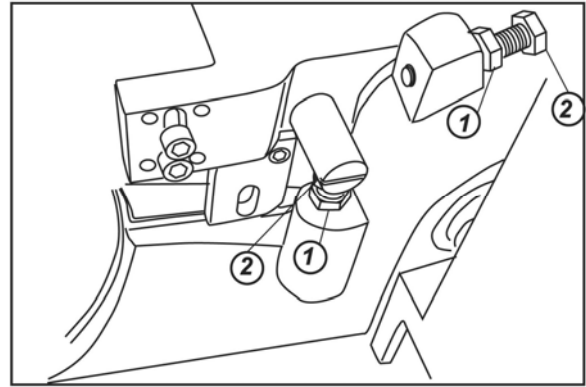


Fig.11

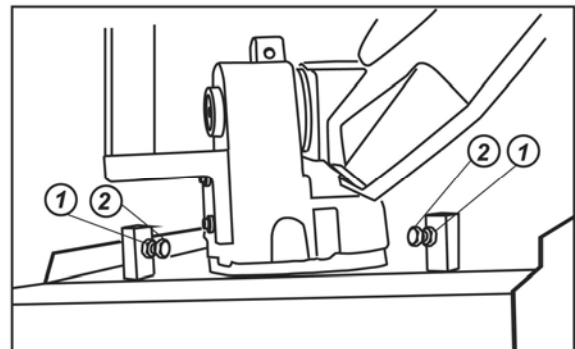


Fig.12

4.12 ADJUSTING THE FRONT BLADE GUIDE UNIT



WARNING!

This adjustment must be repeated every time the section of the workpiece changes.

To get the maximum accuracy and safety during the cut (i.e with a very small portion of blade not covered by the guard) the blade guide unit must be as possible to the piece to be cut.

Release the blade guide arm by operating the piece to be cut. This way the arm will not make contact with the piece during its stroke; then retighten the arm.

4.13 STOP THE SAW

To stop the saw band from rotating while operating simple release the handgrip control (1 Fig.1).

The machine can also be brought to a stop by pushing the emergency (6 Fig.1).

The machine can also be brought to a stop by turning the total switch (8 Fig.1) to position "OFF" (or "0").

The machine can also stop when the cut I completed.

4.14 AFTER USE

After use all machining residues or other humid or dusty materials must be cleaned from the machine. Keep the machine clean and in good condition. It will continue to give better results.



WARNING!

After use always make sure that the electric power supply has been disconnected.

4.15 SHUTDOWN

If the machine is to be shut down for a prolonged period of time the parts subject to wear must be lubricated and the machine covered with a plastic sheet and stored in a sheltered, dry place. If these instructions are observed when work with the saw is resumed the machine will be in perfect working order.

SECTION 5

MAINTENANCE

5.1 MAINTENANCE



WARNING!

It is essential for all maintenance operations to be performed with the motor off and the machine unplugged from the power supply.

Apart from the oil change in gear-motor, the machine does not require any particular maintenance operations. It is however important to remember the following:

- Clean the machine and the work area regularly.
- Use saw blades with teeth that are suitable for the materials to be cut; this ensures optimum cutting results. Your saw blade supplier can provide you with helpful advice.
- Replace the saw blade when it is worn, in order to avoid vibrations and inaccurate cuts.
- Clean the coolant tank when necessary, or at least, twice a year, through the special opening on the tank itself.
- Check the cooling pump regularly.
- Ensure that the safety guard completely covers the blade.

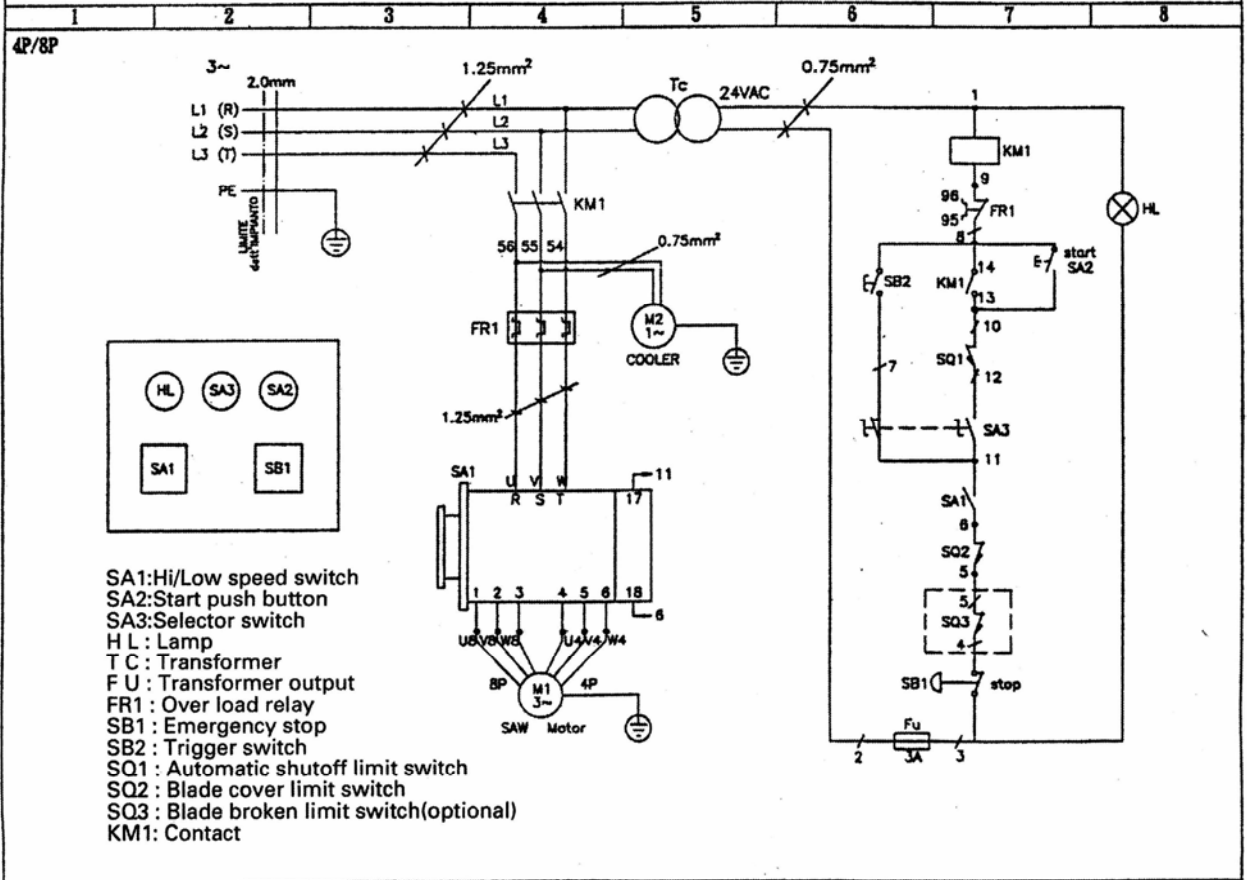
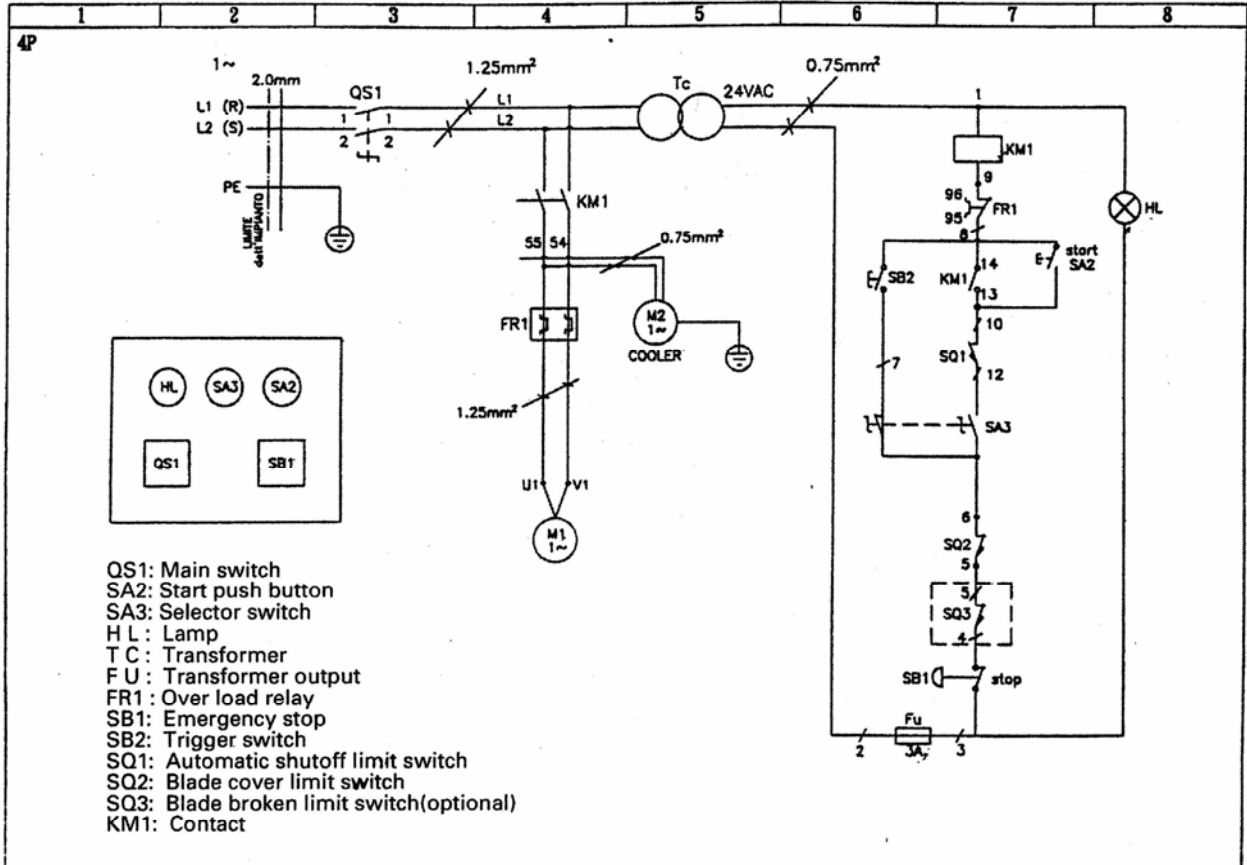


WARNING!

FOR ANY PROBLEMS OTHER THAN THOSE DESCRIBED ABOVE CONTACT THE MANUFACTURER IMMEDIATELY.

5.2 ELECTRICAL SYSTEM

The saw is equipped with a 24 Volt low voltage electrical system.



PART LIST

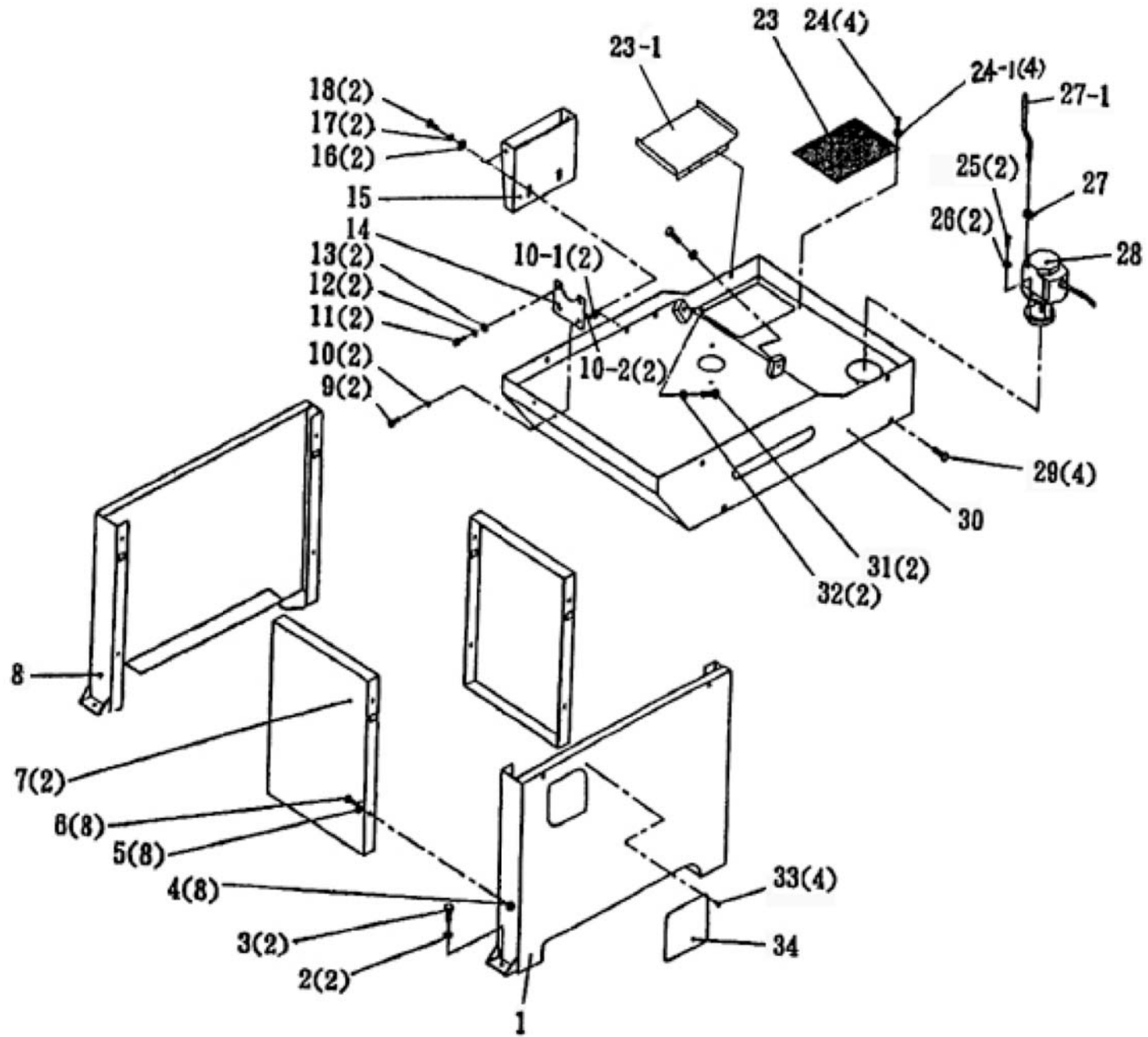
Part NO.	Description	Size No.	Qty	Part NO.	Description	Size No.	Qty
1	Base (right part)		1	38	Hand Wheel		1
2	Nut	M12	2	39	Set Screw	M8 x 10	1
3	Hex. Cap Bolt	M12 x40	2	40	Nut		1
4	Nut	M8	8	41	Bearing Bushing		1
5	Washer	8	8	42	Thrust Ball Bearing	#51104	1
6	Hex. Cap Bolt	M8 x 16	8	43	Lock Handle		1
7	Base Plate		2	44	Bushing		1
8	Base (left part)		1	45	Hex. Socket Cap Screw	M6 x 100 x 25	2
9	Hex. Socket Cap Screw	M8 x 20	2	46	Table		1
10	Spring Washer	8	2	47	Plate		1
10-1	Nut	M8	2	48	Flat Head Machine Screw	M6 x 20	2
10-2	Washer	8	2	49	Compressed Spring		1
11	Hex. Socket Cap Screw	M8 x 20	2	50	Lead Screw		1
12	Spring Washer	8	2				
13	Washer	8	2	52	Washer (larger)	8	1
14	Supporting Plate		1	53	Set Screw	M8 x 10	1
15	Roller Stand Bracket		1	54	Vise		1
16	Washer	10	2	55	Bar-Stop-Rod		1
17	Spring Washer	10	2	56	Bracket		1
18	Hex. Cap Bolt	M10 x 20	2	57	Butterfly Screw	5/16 x 3/4	1
				58	Washer	5/16	1
				59	Spring Washer	5/16	1
				60	Hex. Cap Bolt	5/16/1"	1
				61	Rod		1
23-1	Block Plate		1	62	Nut	5/16	1
23	Filter Net		1	63	Hex. Cap Bolt	5/16 x 2"	1
24	Round Head Screw	M5 x 10	4	64	Set Screw	M8 x 10	1
24-1	Washer	5	4	64-1	Hex. Socket Cap Screw	M5 x 8	2
25	Hex. Socket Cap Screw	M6 x 15	2	64-2	Scale Point		1
26	Washer	6	2	65	Pivot		1
27	Hose Clamp		1	66	Cover		1
27-1	Hose	5/16"x130cm	1	67	Ball Bearing	#32006zz	2
28	Pump		1	68	Nut	M10	2
29	Hex. Cap Bolt	M10 x 20	4	69	Hex. Cap Bolt	M10 x 30	2
30	Coolant and Chip Tray		1	69-1	Hex. Cap Bolt	M10 x 25	1
31	Hex. Cap Bolt	M12 x 40	2	70	Spring Hook		1
32	Nut	M12	2	72	Star Washer	30	1
33	Hex. Socket Cap Screw	M5 x 8	4	73	Nut	M30	1
34	Base Front Plate		1	74	Start Button		1

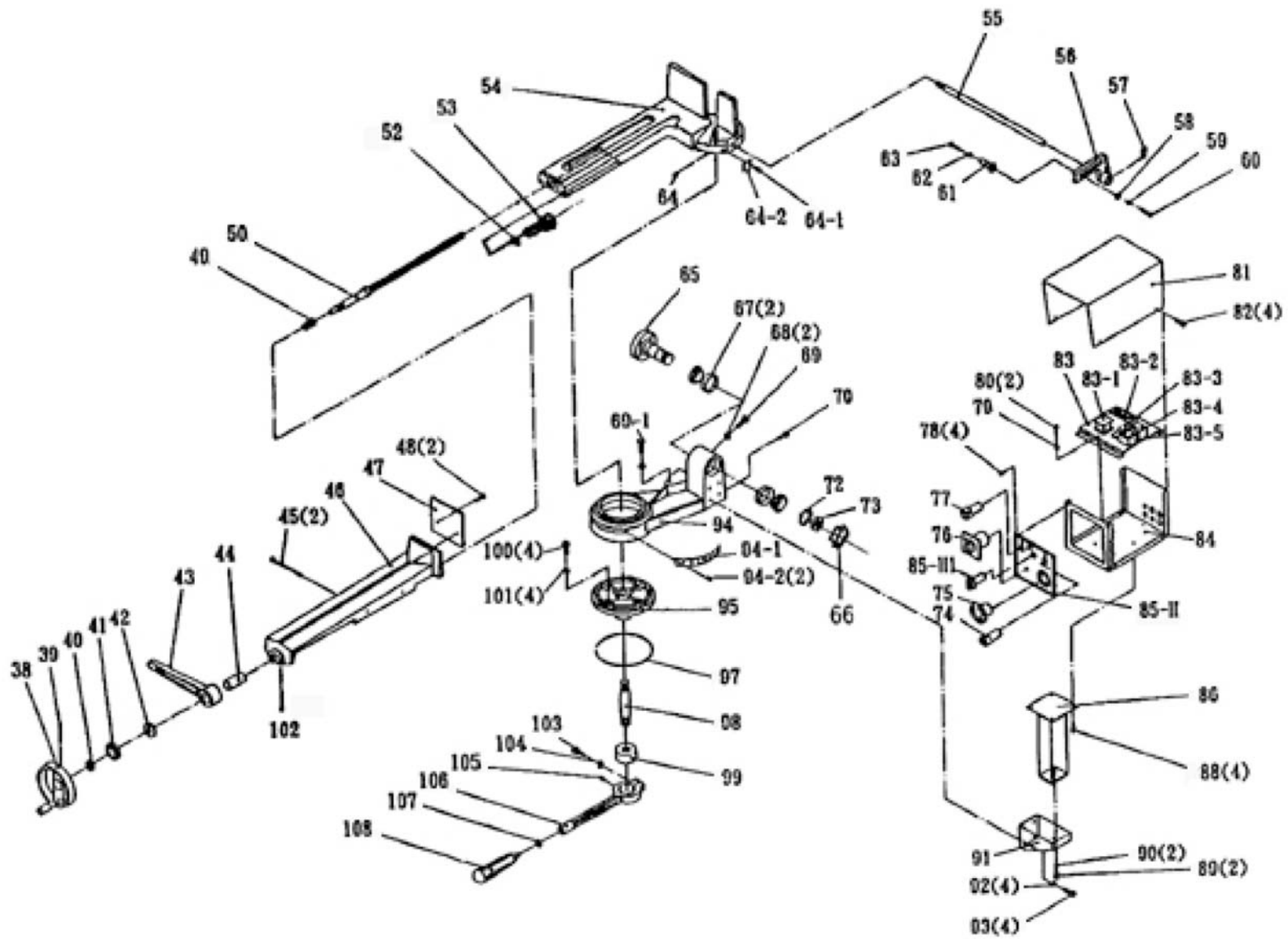
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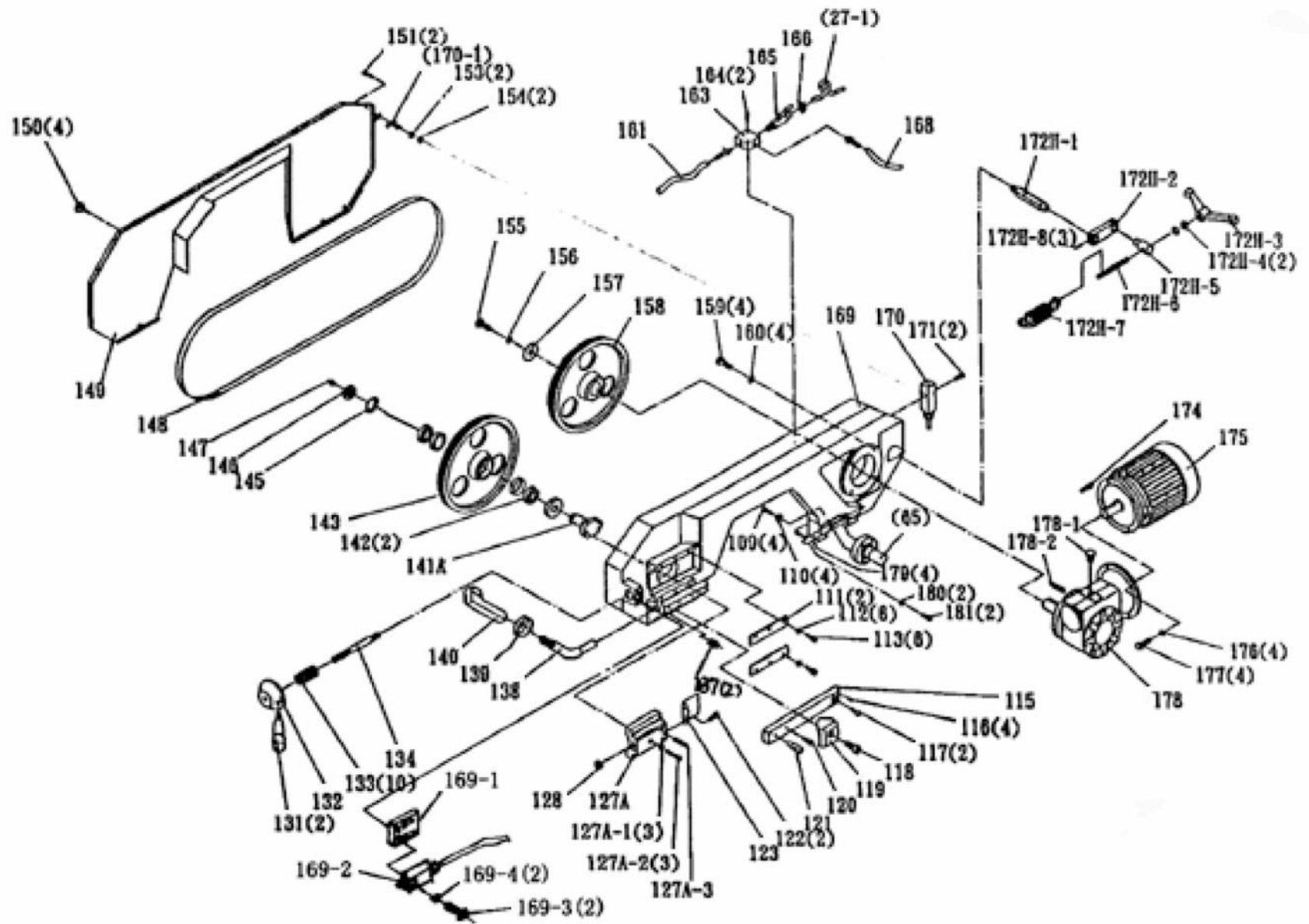
Part NO.	Description	Size No.	Qty	Part NO.	Description	Size No.	Qty
75	Emergency Switch		1	107	Nut	M12	1
76	Main Connect Switch		1	108	Handle		1
77	Power Indicator Light		1	109	Hex. Socket Cap Screw	M10 x 30	4
78	Hex. Socket Cap Screw	M5 x 8	4	110	Spring Washer	10	4
79	Washer	5	2	111	Gib		1
80	Hex. Socket Cap Screw	M5 x 8	2	112	Spring Washer	8	6
81	Cover		1	113	Hex. Socket Cap Screw	M8 x 20	6
82	Hex. Socket Cap Screw	M5 x 8	4	115	Front Ball Bearing Bracket		1
83	Control Box Bottom Plat		1	116	Set Screw	M6 x 12	1
83-1	Transformer		1	117	Hex. Socket Cap Screw	M8 x 25	2
83-2	Contacts		1	118	Hex. Socket Cap Screw	M12 x 50	1
83-3	Fuse Seat		1	119	Setting Bracket		1
83-4	Overload Rely		1	120	Hex. Socket Cap Screw	M6x 8	2
83-5	Magnetic Connector		1	121	Plastic Handle		1
84	Control Box Bottom Part		1	122	Hex. Socket Cap Screw	M6x 8	2
85-H	Control Box Panel		1	123	Cover Plate		1
85-H1	Manual/Auto Selector		1	127A	Slide		1
86	Support		1	127A-1	Spring Washer	10	3
88	Hex. Socket Cap Screw	M5 x 8	4	127A-2	Hex. Socket Cap Screw	M10 x 45	3
89	Hex. Socket Cap Screw	M8 x 20	2	127A-3	Set Screw	M10 x 16	1
90	Spring Washer	8	2	128	Nut	M16x2.0x8t	1
91	Setting Bracket		1	131	Handle		2
92	Spring Washer	8	4	132	Handle Wheel		1
93	Hex. Socket Cap Screw	M8 x 20	4	133	Thrust Spring Washer		10
94	Swivel Arm		1	134	Tension Shaft		1
94-1	Scale		1	137	Set Screw	M8 x 25	2
94-2	Rivet	2mm	2	138	Rod		1
95	Disk		1	139	Nut	M16x2.0x8t	1
				140	Trigger Switch		1
97	Oil Seal		1	141A	Shaft		1
98	Shaft		1	142	Ball Bearing	#32006zz	2
99	Nut		1	143	Idle Flywheel		1
100	Hex. Socket Cap Screw	M8 x 25	4				
101	Spring Washer	8	4	145	Star Washer	30	1
102	Set Screw	M8 x 10	1	146	Jam Nut	M30	1
103	Hex. Socket Cap Screw	M10 x 35	1	147	Oil Inlet		1
104	Spring Washer	10	1	148	Saw Arm		1
105	Set Screw	M10 x 10	1	149	Blade Cover		1
106	Locking Lever		1	150	Knob Bolt	M6 x 10	4

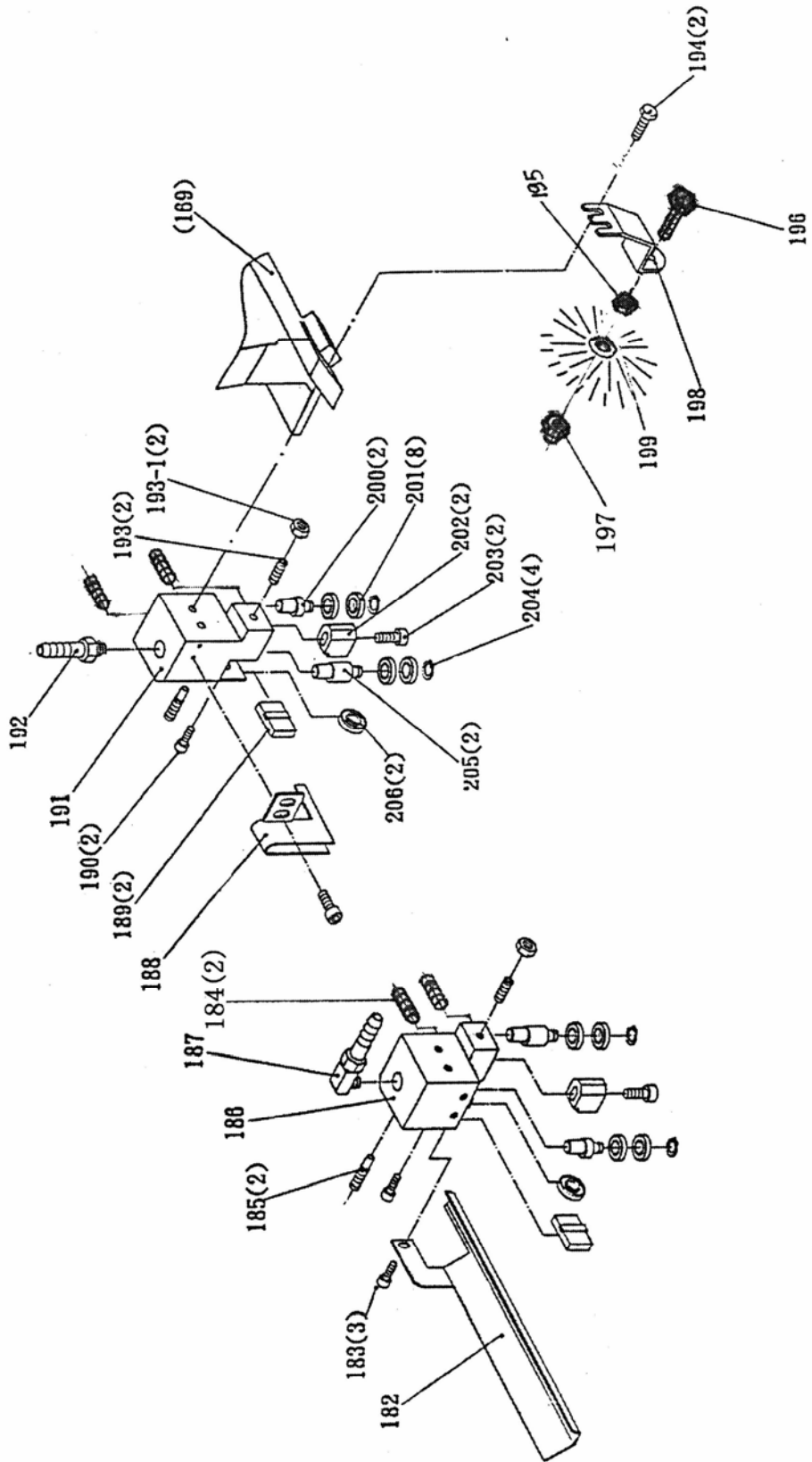
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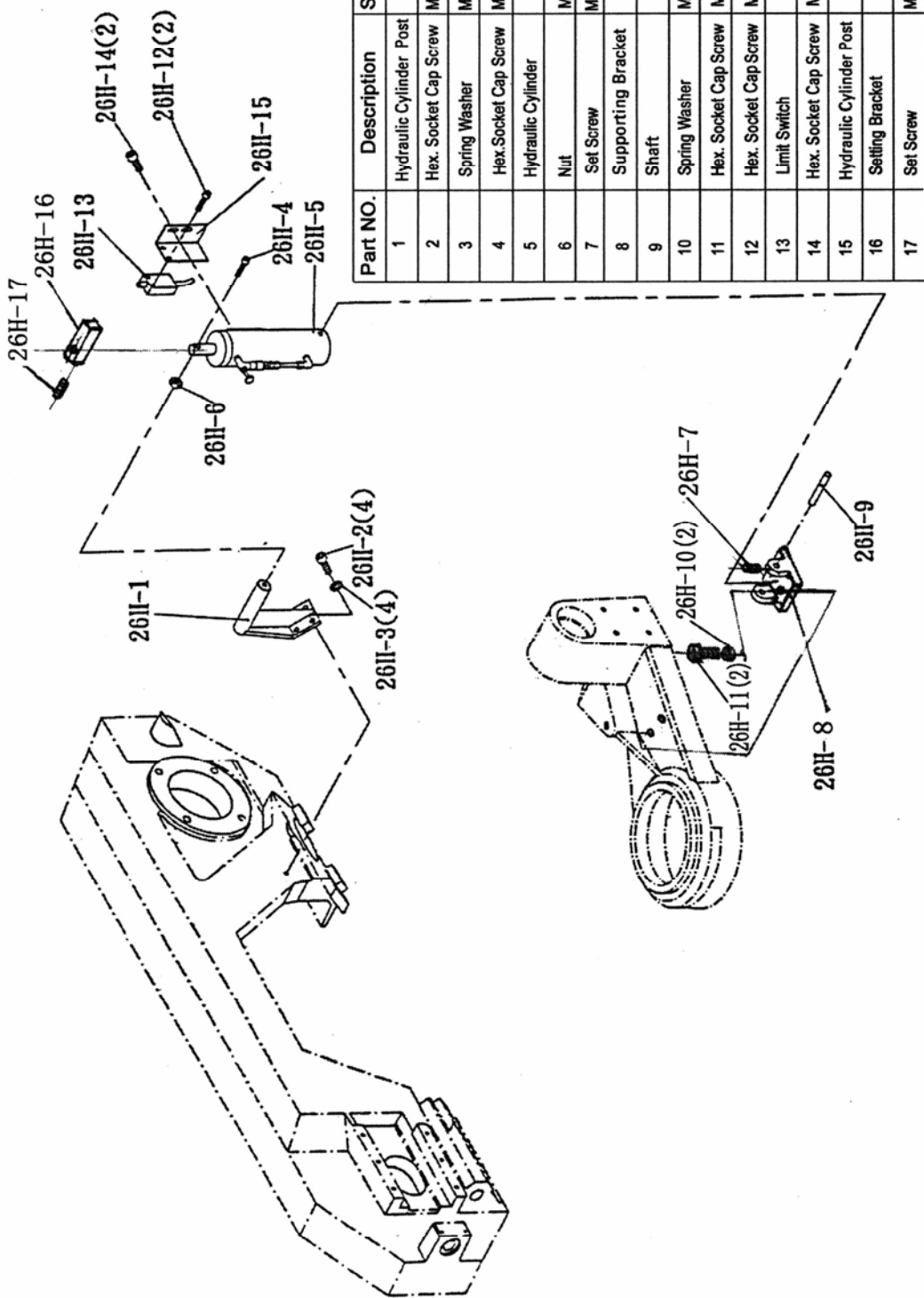
Part NO.	Description	Size No.	Qty	Part NO.	Description	Size No.	Qty
151	Round Head Screw	M4 x 8	2	176	Spring Washer	8	4
153	Spring Washer	4	2	177	Hex. Cap Bolt	M8 x 30	4
154	Nut	M4	2	178	Gear Box		1
155	Hex. Cap Bolt	M10 x 25	1	178-1	Vent Screw		1
156	Spring Washer	10	1	178-2	Key	8 x 8 x 35	1
157	Washer		1	179	Set Screw	M6 x 12	4
158	Drive Flywheel		1	180	Spring Washer	8	2
159	Hex. Socket Cap Screw	M10 x 40	4	181	Hex. Socket Cap Screw	M8 x 25	2
160	Spring Washer	10	4	182	Front Blade Guard		1
161	Hose	5/16" x(100cm)	1	183	Round Head Screw	M6 x 8	3
				184	Set Screw	M6 x 6	4
163	Pipe Fitting Seat		1	185	Bolt		2
164	Hex. Socket Cap Screw	M5 x 30	2	186	Front Ball Bearing Seat		1
165	Coolant Switch	1/4P x x5/16	1	187	Pipe Fitting	1/4P x x5/16	1
166	Hose Clamp		1	188	Rear Blade Guard		1
				189	Blade Guide(B)		2
168	Hose	5/16(40cm)	1	190	Hex. Socket Cap Screw	M6 x 8	2
169	Saw Arm		1	191	Rear Ball Bearing Seat		1
169-1	Plate		1	192	Pipe Fitting	1/4P x x5/16	1
169-2	Switch		1	193	Set Screw	M6 x 20	2
169-3	Screw	M4 x 30	2	193-1	Nut	M6	2
169-4	Washer	4	2	194	Hex. Cap Bolt	M6 x 12	2
170	Limit Switch		1	195	Nut	M6	1
170-1	Switch Pin		1	196	Screw	M6 x 25	1
171	Hex. Socket Cap Screw	M4 x 35	2	197	Set Nut	M6	1
172-H1	Spring Shaft		1	198	Bracket		1
172-H2	Adjust Plate		1	199	Brush	1-1/2"	1
172-H3	Handle		1	200	Eccentric Shaft		2
172-H4	Nut	M16x2.0x8t	1	201	Ball Bearing	#608zz	8
172-H5	Hanger		1	202	Blade Guide(A)		2
172-H6	Lead Screw		1	203	Hex. Socket Cap Screw	M6 x 25	2
172-H7	Spring		1	204	E Ring	E7	4
172-H8	Set Screw	M8 x 10	1	205	Centric Shaft		2
174	Key	8 x 8 x 35	1	206	Ball Bearing	#608zz	2
175	Motor		1				











Part NO.	Description	Size No.	Q'ty
1	Hydraulic Cylinder Post		1
2	Hex. Socket Cap Screw	M8×25	4
3	Spring Washer	M8	4
4	Hex.Socket Cap Screw	M10×55	1
5	Hydraulic Cylinder		1
6	Nut	M10	1
7	Set Screw	M6×12	1
8	Supporting Bracket		1
9	Shaft		1
10	Spring Washer	M8	2
11	Hex. Socket Cap Screw	M8×25	2
12	Hex. Socket Cap Screw	M4×15	2
13	Limit Switch		1
14	Hex. Socket Cap Screw	M6×8	2
15	Hydraulic Cylinder Post		1
16	Setting Bracket		1
17	Set Screw	M6×6	1

NOTES



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