

CUT-OFF SAW

TR 600

HYDRAULIC

INSTRUCTIONS AND SPARE PARTS HANDBOOK

3rd Edition

I F D **GB** E NL



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1. GENERAL INFORMATION

1.1. Preface

In drawing up this manual, all the operations pertaining to normal use and regular maintenance of the machine have been taken into consideration.

Therefore, to use the machine correctly and optimally it is necessary to read the instructions contained herein carefully and to follow them meticulously.

It is advised to keep this manual in good condition, in an easily accessible place close to the machine.

Use of the machine must be entrusted exclusively to authorized and trained personnel.

It is recommended not to carry out any repair or action that is not indicated.

All operations requiring removal of parts from the machine must be assigned to authorized technical personnel.

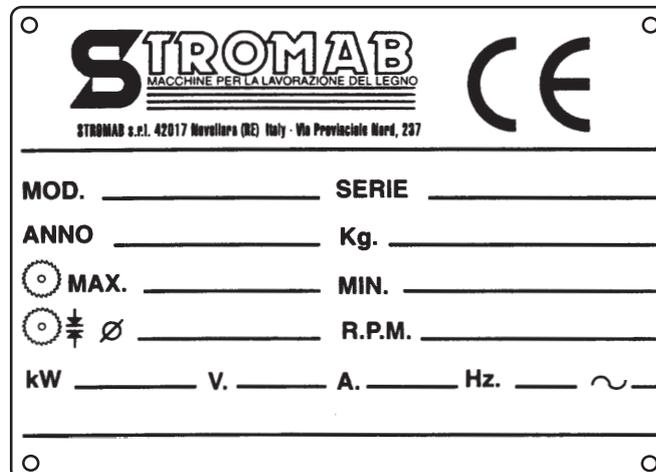
1.2. Warranty

Warranty consists of replacing defective mechanical parts free of charge and which will be shipped to you free at our works. It is valid for one year as of the date of our invoice and does not include the electric and electronic components. In addition, it does not cover failures or defects due to external factors, maintenance errors, improper use of the machine, using the machine while overloaded, natural wear, assembly errors, or other causes not ascribable to us. Any requests for after-sales maintenance or spare parts will have to be addressed to our authorized area dealer.

1.3. Sending correspondence

For every need for written correspondence or telephone communication with the Dealer or with STROMAB s.r.l. concerning the machine, it is necessary to provide the following information (points 1-2-3 can be found on the machine's rating plate on the base, see fig. 1-1):

- 1 - machine model
- 2 - serial number
- 3 - machine voltage and frequency
- 4 - date of purchase
- 5 - name of Dealer where purchased
- 6 - description of defect found, if any
- 7 - description of type of work being carried out
- 8 - hours of daily use



STROMAB
MACCHINE PER LA LAVORAZIONE DEL LEGNO
STROMAB s.r.l. 42017 Novellara (RE) Italy - Via Provinciale Nord, 237

CE

MOD. _____ **SERIE** _____

ANNO _____ **Kg.** _____

⊙ **MAX.** _____ **MIN.** _____

⊙ ⊕ ∅ _____ **R.P.M.** _____

kW _____ **V.** _____ **A.** _____ **Hz.** _____ ~ _____

Fig. 1-1 Rating plate

For information specifically concerning the electric system, it is necessary to provide the following data given on the rating plate of fig. 1-2 situated on the inside of the electric compartment door:

- | | | |
|------|---------------|--|
| 1 - | SUPPLIER | Firm that made the electric system |
| 2 - | DATE | Date of manufacture of the electric unit |
| 3 - | BILL CODE NO. | Electric component bill number |
| 4 - | No. | Wiring diagram number |
| 5 - | MAINS VOLT. | Machine power supply mains voltage - Volts |
| 6 - | AUX VOLT. | Auxiliary circuit power supply voltage - Volts |
| 7 - | BRAKE VOLT. | Motor brake power supply voltage - Volts |
| 8 - | Hz | Electric frequency - Hertz |
| 9 - | kW | Power drawn by the machine |
| 10 - | MACH. | Machine type |

S.A.M.U. AUTOMAZIONI s.r.l.			
Via Oceano Pacifico, 9/1 41010 Fossoli di Carpi (MO) Tel. +39 59 660847 Fax +39 59 660845			
CERT.	CE	MATR.	<input type="text"/>
DATA	<input type="text"/>	VOLTS	<input type="text"/>
COMM.	<input type="text"/>	HZ.	<input type="text"/>
SCH.	<input type="text"/>	KW.	<input type="text"/>
MACC.	TR 600		100KA

Fig. 1-2 Electric system rating plate

Send to:

STROMAB s.r.l.
Via Provinciale Nord, 189
42017 NOVELLARA RE ITALY
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1.4. Certification

- "CE" examination certification type:
- CE examination number: 0476140140595
- Issuing body: CERMET
- Address: S. LAZZARO DI SAVENA (BO)

2. MACHINE DESCRIPTION AND SPECIFICATIONS

The machine is composed of a base in thick sheet metal and a suitably beaded sheet metal top to ensure stability and cutting precision over time. The machine can be equipped with roller conveyors on both the right- and left-hand sides, which may vary in length according to the customer's working requirements. They are equipped with a moving stop with a millimetre rule to determine the various cutting lengths. In addition, the machine is equipped with dust extraction mouths and has noise reduction systems. The electric and hydraulic systems are made with certified materials and fitted as required by the relative standards. The machine operation control, complying with safety standards, is the two-hand type with standard push-buttons. Likewise there is electric, hydraulic and structural protection for the operator's safety. The machine is equipped with a fold-away bottom saw unit and a top wood-presser both with hydraulic control. It has the benefit of a considerable cutting speed, so it can carry out a considerable number of cuts per minute.

2.1. Foreseen use of the machine and contra-indications for use

The machine has been designed and made to split or butt single planks, strips, or beams of different grades of solid wood or wood derivatives within the size limits indicated in the technical data and in compliance with the safety, use and maintenance instructions contained in this manual.

In particular, using the machine to cut overlapping pieces is excluded as locking by the presser is not certain; introduce pieces one at a time.

Cutting must be carried out with great care and attention.

The assigned personnel will need to have carried out a sufficient training period on the use and maintenance of the machine and have the minimum age required by the law in force in the relative country. Use the individual protection gear and take the precautions given in this handbook. Use any other means that may become necessary depending on the conditions of the working environment. The safety measures have been adopted in relation to the above so it is forbidden to use the machine for any other work and/or to make modifications without the manufacturer's prior consent.

In particular, using the machine to cut material other than wood and/or similar materials is excluded.

Normal operating conditions require the presence of just one operator who, after loading the piece to be cut, must remain in the area next to the machine start and stop control panel.

2.1.1. Residual risks

Normal conditions of use require the presence of just one operator who must remain in the area next to the control panel.

Remember moreover that the two-hand control protects the operator alone, so he must watch so that no other persons are close to the area with the cutting hazard.

Please also remember residual risks due to electric energy, blade misassembly and vibrations caused by unbalanced blade and/or wrong installation of the machine.

2.2. General safety recommendations

Always consider that using a machine tool involves certain risks: consequently, concentrate on the work to be done with the utmost attention. Remember that wood cutting machines are considered among the most dangerous due to the high speed of the tools and operations. Therefore, work in an optimum state of mind and body.

All the safety and protection devices must be kept in a state of perfect efficiency. The rating plates giving various indications and safety recommendations must always be perfectly readable.

It is absolutely forbidden to remove them or modify the particulars they contain.

It is absolutely forbidden to carry out adjustments, cleaning, maintenance or otherwise while the machine is running.

2.2.1. Safety of the person operating the machine

Wear close-fitting clothes suited to the working requirements. Take off any objects or clothing (scarves, watches, bracelets, etc.) that may get caught up.

Avoid using the machine if your state of body and mind is not up to par, ie. that may reduce the speed of your reflexes or your level of attention.

2.2.2. Individual protection gear

It is recommended to use the following individual protection gear:

- Strong gloves to prevent risks of crushing, splintering and cutting while handling pieces and changing the blade.
- Goggles against splinters and/or dust.
- Anti-noise ear-muffs.
- Crush-proof footwear when handling pieces of a certain size and weight.

2.2.3. Machine safety

Always use the extractor, even when cutting single pieces.

In the event of trouble, never act on the machine in movement: operate the stop control and wait for it to stop completely.

Never cut materials that may cause sparks or overheat shavings and therefore generate fires or explosions as they pass through the extraction pipes.

Always use well sharpened and balanced blades. Before fitting them, clean the blade and flange contact surfaces carefully and check they have no dents. Sharpening must be correct, frequent and done in compliance with the angular features of the tool.

Do not remove trimmings or dust from the tables with your hands, use a rule or another device.

Never stand any objects on the work table.

2.2.4. Working environment safety

Keep the working environment tidy and sufficiently well lighted. Arrange for spaces to store untreated and processed materials and for moving around the machine. Likewise, keep the floor clean from dust and sawdust. Untidiness is a synonym for accident risk.

2.2.5. Procedure for isolating the machine

Before any maintenance, repair work or otherwise, the machine must be isolated by turning the knob of the master switch onto the "0" position and padlocking it. Do not leave the key next to the machine.

This must be done by the same person doing the work. If it is a simple maintenance job, this person may be the operator.

When the machine is out of service, padlock the master switch; in case of machines with pneumatic system, cut compressed air supply off by disconnecting the intake quick fitting.

2.2.6. During maintenance

- Regular maintenance of the mechanical and electric parts, besides extending the service life of the machine and ensuring better performance, constitutes an important safety factor.
 - It is absolutely forbidden to set up mechanical parts or do maintenance work without first carrying out the isolation procedure indicated above.
 - After each operation involving opening or removing protection parts, refit them checking their correct positioning and operation and that no tool or foreign body has been forgotten inside.
 - Wear protective gloves while changing the blade.
 - Any replacement of mechanical parts must be done exclusively with genuine parts. The electric components must be the ones indicated in the list accompanying the wiring diagram, or others having the same safety features. In case of doubt, contact the manufacturer.
- Non-observance of this point forfeits the manufacturer's liability for the safety of the machine.

2.3. Overall dimensions of the machine

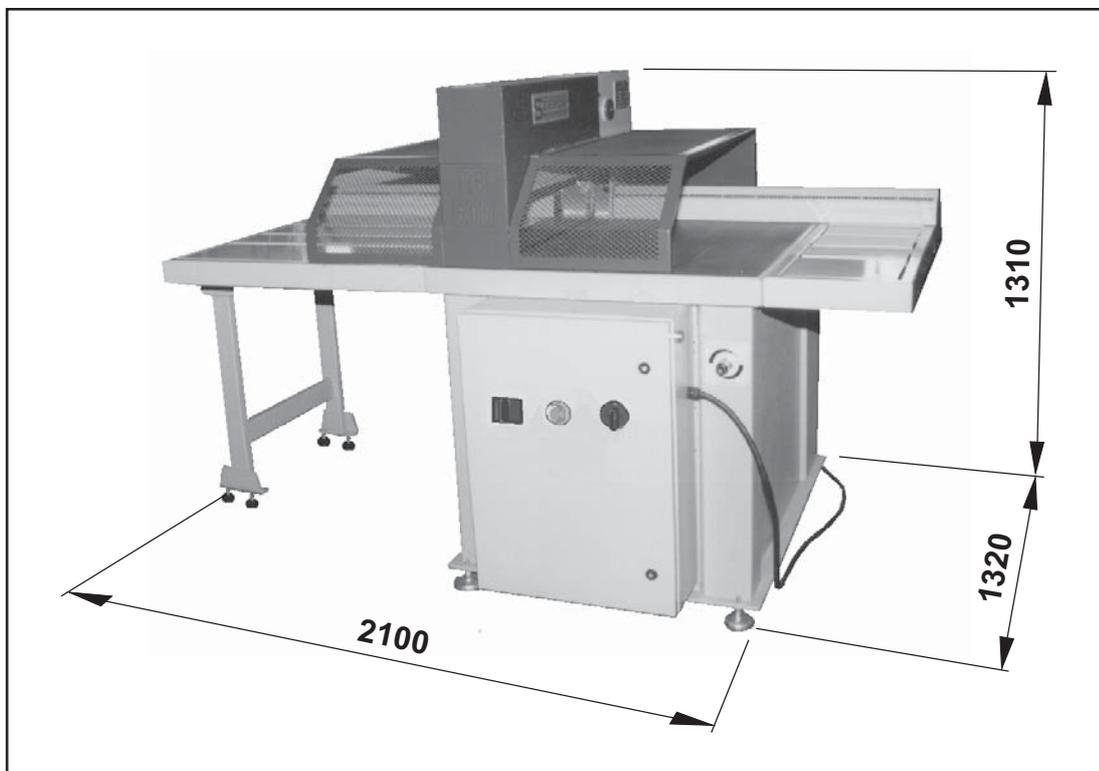


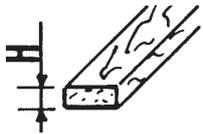
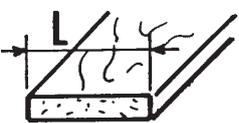
Fig. 2-1 Overall dimensions

2.4. Technical particulars

Motor power	kW	7.5
Blade diameter	mm	600
Blade hole diameter	mm	30
Blade r.p.m.	nos.	2800
Cutting width - with thickness 30 mm	mm	610
Cutting width - with thickness 60 mm	mm	590
Cutting width - with thickness 100 mm	mm	540
Work table height	cm	85
Feed		from RH to LH
Overall dimensions	cm	132x210x131
Overall dimensions with bench	cm	132x405x131
Machine packing dimensions	cm	133x122x141
Net weight of the machine	kg	380
Gross weight of the machine	kg	425
Bench packing dimensions	cm	212x78x45
Net weight of the bench	kg	175
Gross weight of the bench	kg	243
Hydraulic unit motor power	kW	1.1
Hydraulic operating pressure	bar	70
3 extraction mouths	mm	Ø 102
Max air capability	m ³ /h	1800

CUTTING CAPACITY

Tab. 2-1 Cutting capacity with blade Ø 600

	
30 mm	610 mm
60 mm	590 mm
100 mm	540 mm
120 mm	510 mm
140 mm	470 mm
160 mm	420 mm

2.5. Outfit

2.5.1. Standard outfit

- instructions booklet complete with wiring and pneumatic diagrams
- service keys
- steel blade

2.5.2. Optional outfit

- widia blade
- roller bench standard version
 - 1.30 m. to right
 - 2.00 m. to left
- roller bench with multiple lengths or to customer's request
- manual side stop (normal - extended)
- pneumatic stop

2.6. Choice and maintenance of blades

(The blades must be to EN 847-1)

Blade diameter	mm	600
Blade hole diameter	mm	30
Blade tooth thickness	mm	5
Distance between centres pin hole Ø8 for driving	mm	60

The conformation and number of teeth of the blade must be chosen in relation to the material and the thickness of the material to be cut, according to the indications given by the blade manufacturer.

Some advice for blade use and maintenance:

- check machine positioning to prevent vibration;
- if the teeth lose their edge and chip, replace the blade immediately;
- sharpen the blades with precision machines, observing the angular features;
- clean the blades often, removing incrustation by means of specific products available on the market;
- place the blades in their containers, or in special racks, to prevent them knocking against each other.

NOTE: It is advised to use blades with a shaving limiter and with an adequate number of teeth for the thickness and nature of the material to be cut.

It is forbidden to fit blades with a fixing hole >30 and to compensate for the difference with compensation rings.

2.7. Sound emissions

Reference standards: ISO 7960 Annex No.

Characteristic data of the machine:

Cut-off capacity:	600	[mm]
Blade rotation speed:	2800	[rpm]
Motor power:	7.5	[kW]
Power supply voltage:	380	[V]
Extraction mouth diameter:	95	[mm]

Characteristic data of the blade:

Diameter:	600	[mm]
Number of teeth:	120	
Teeth thickness:	4.2	[mm]

Operating conditions:

- at work with extraction

Thickness of pieces cut off:	20	[mm]
Blade feed speed:	6	[m/min]
Mean speed of extraction at mouth:	20	[m/s]

Test material:

Type:	softwood with no knots	
Moisture:	8-14	[%]
Length:	1000-500	[mm]
Width:	250	[mm]
Thickness:	100	[mm]

Results of measurements:

Uncertainty associated with the measurements: 2.0 [dB(A)]

Tab. 2-2 Noise level values under normal working conditions

	Lm	Lw	Lpc
[dB(A)]	82.8	97.7	90.8
[mW(A)]	/	5.89	/

Lm = mean level of acoustic radiation pressure

Lw = Level of acoustic power

Lpc = Instant level of acoustic power

“The values of noise level given are levels of emission and do not necessarily represent safe operating levels. Even though there is a correlation between the level of emission and that of exposure, the latter cannot be used as a reliable element to establish whether it is worthwhile taking additional precautions. The factors affecting the level of exposure the labour force is subject to comprise the duration of exposure, the characteristics of the work place, any other sources of dust and noise, etc., ie. the number of machines and of other adjacent processes. Moreover, the levels of allowed exposure may vary from one country to another. This information will nonetheless allow the machine user to make a better evaluation of the risk.”

2.8. Main parts of the machine

- A - adjustable support feet for levelling on the ground
- B - control box
- C - wood presser
- D - synchronous two-hand control of the cutting cycle
- E - emergency stop
- F - cage protection
- G - table extensions
- H - holes for fixing to floor
- I - reference ledge (optional)
- L - feed speed adjustment
- M - star/delta starter

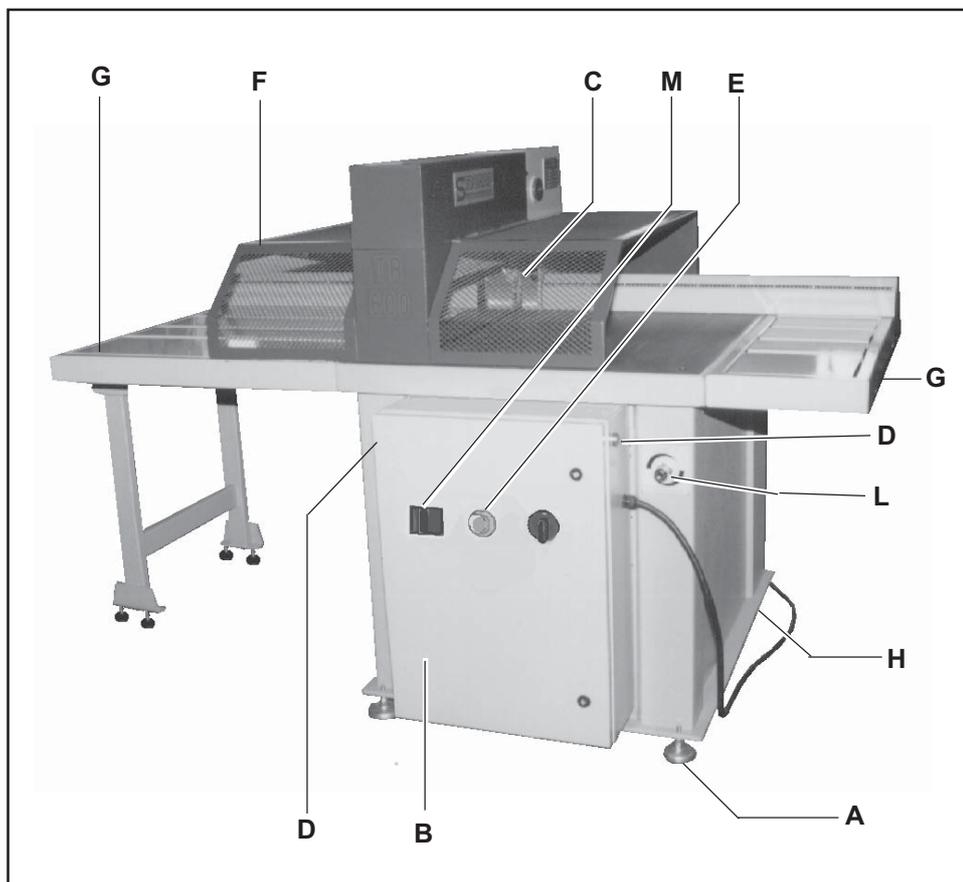


Fig. 2-2 Main parts of the machine

3. INSTALLATION INSTRUCTIONS

All our machines are as a rule shipped in perfect conditions of assembly after careful internal testing. In the case of transport by sea or articulated lorry, they are packed in wooden crates or boxes and protected against oxidation with special products that have to be removed before installation. Any damage found on the machines must immediately be notified to the carrier. In addition, check there are all the standard or optional accessories.

3.1. Required space

The figure is a schematized diagram of the area occupied by the machine and the minimum space necessary to be able to work in total safety.

- Lm = machine length 2100
- LI = space required for passing and working 1800 mm depending on length of material to cut and on the type of work to do
- Am = machine width 1320
- AI = space required for passing and working 1000 + depending on the length of material to cut and on the type of work to do

NOTE: When cutting very long pieces, we recommend to use the outfitted table extensions.

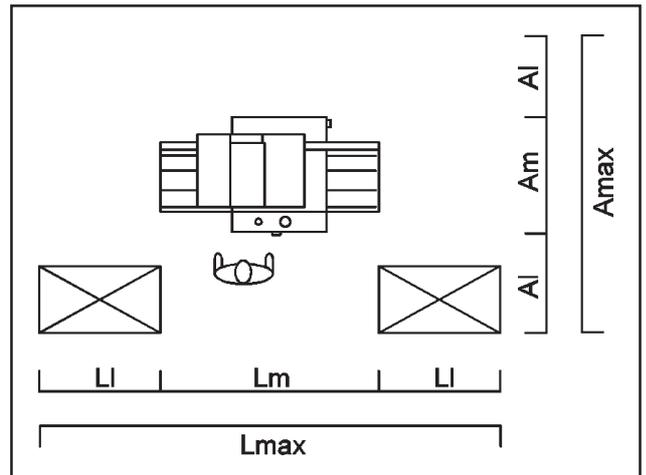


Fig. 3-1 Space required

3.2. Lifting

The machine can be lifted with a transpallet or fork-lift truck inserting the forks as shown in the figure. Bear in mind that the machine weighs approximately 380 kg.



Fig. 3-2 Lifting

3.3. Positioning and levelling

As soon as you receive the machine, before passing on to any other operation, it is advisable to make a general check to see that during the transport and lifting phases no damage has occurred and no screws or unions of the systems have come loose.

The machine and the roller conveyor can be anchored to the ground by means of holes **B** or they can be stood on vibration-damping rubber feet so as to reduce both any vibration and noise transmission through solids. If the feet are used it is necessary to make the machine very stable. To do this it is necessary to check that all the feet fig. 3-3 rest completely on the floor.



Fig. 3-3 Levelling



Fig. 3-4 Levelling

Should this not occur, use the screws so as to create a stable and efficient support, then lock the screws with the lock nut **A** fig. 3-3 once the right position has been reached.

In the same way it is necessary to adjust the feet of the left side supporting surface or of any roller conveyors fig. 3-4.

3.4. Electric connection

It is advised to assign this operation to specialized personnel. First of all, it is necessary to check that the voltage and frequency of the machine's electrical system are in conformity with those of the mains the machine has to be connected to.

The leads of the connecting cable need to have a cross-section of 4 mm² for 380V/50Hz or 6 mm² for 220V/50Hz. Remove the protection **C** fig. 3-6.

Connect the power leads to the terminals (**L1-L2-L3**) of the master switch and the yellow green earth lead to the terminal (PE) (if neutral is connected, arrange terminal N) fig. 3-5.

Proceed to check the direction of rotation of the motor, observing the arrow on the base above the blade access door and observing the blade through the window **D** fig. 3-7 of transparent material created in the door. In the case of the direction of rotation being the contrary, reverse the position of two power leads. Put the protection **C** fig. 3-6 back over the connecting terminals and tighten the cable clamp at the entrance to the electric system box.

N.B.: The connection must be made with a flexible section of cable of at least 50 cm so as to permit removal and rotation of the electric panel in the event of specialized personnel replacing the motor.

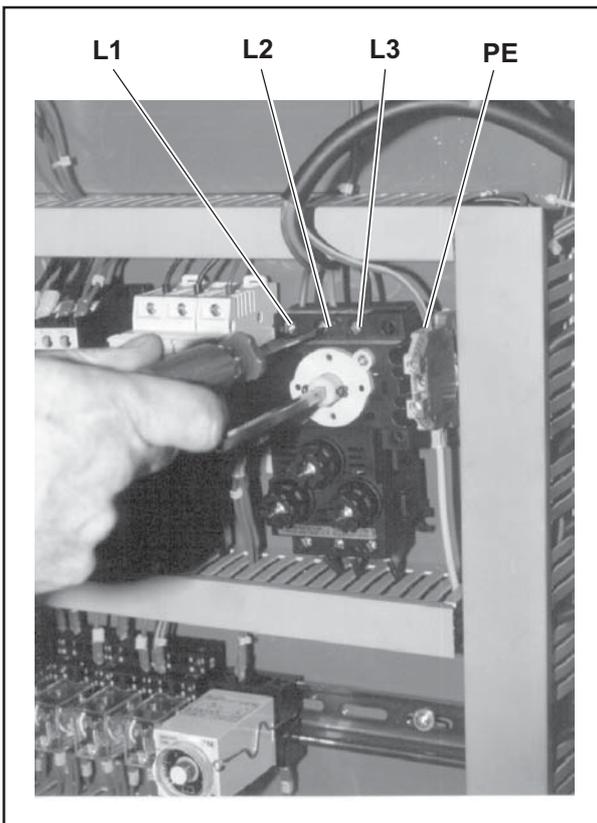


Fig. 3-5 Terminal board

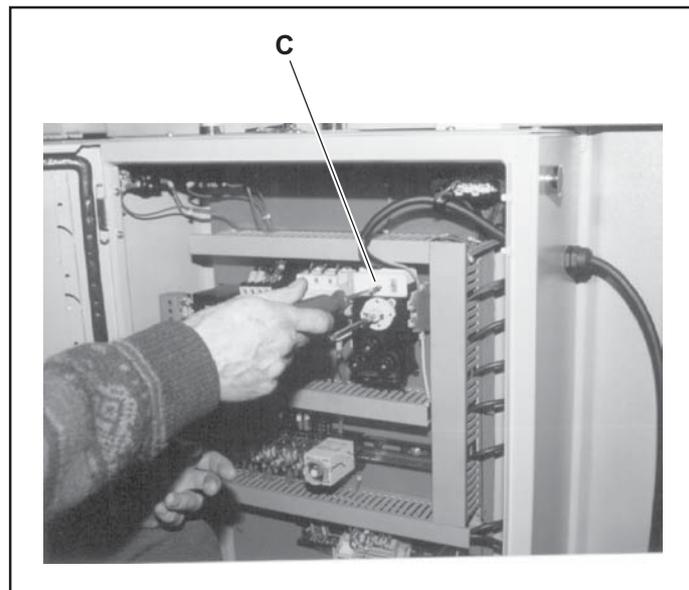


Fig. 3-6 Terminal board protection

3.5. Extraction connection

It is compulsory to connect the rear extraction mouths **E-F** and **G** of diameter 100 mm to an effective suction device. Considering a minimum speed of 20 m/sec the volume of air required is 1800 m³/hour. Extraction must also be used while cutting single pieces.

N.B.: In the case of damp shavings the extraction speed must be at least 28 m/sec.

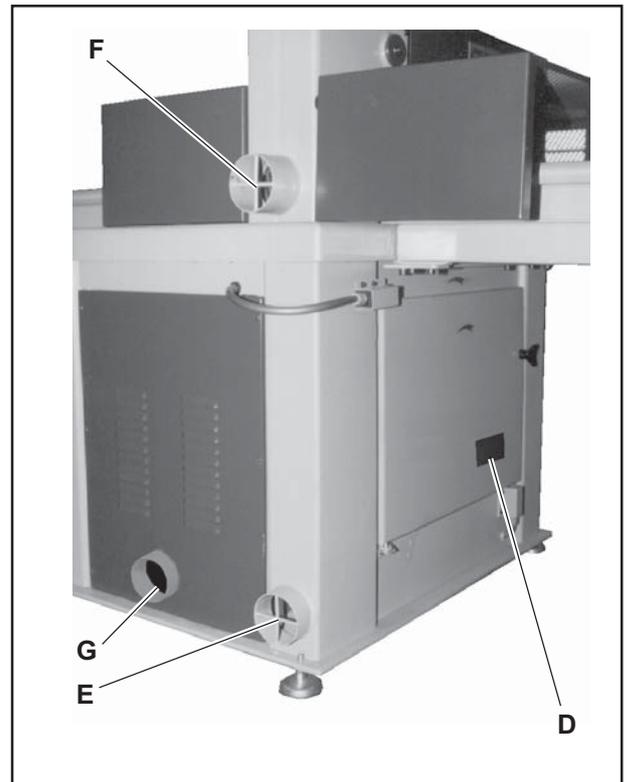


Fig. 3-7 Extraction

3.6. Preliminary checks

Before starting to cut it is essential to make a few preliminary checks:

- that the line voltage corresponds to the motor voltage (see motor rating plate) on the back of the machine;
- the power cable is sufficiently sized;
- there is an electrical protection before the connection with adequate fuses;
- that the blade is well tightened, turns without oscillating and that the direction of rotation corresponds to the one indicated by the arrow on the base;
- that the doors with safety microswitches are perfectly shut (otherwise it is not possible to start up the machine);
- check there is oil in the hydraulic power unit;
- that the roller benches (if fitted) are complete with rollers and perfectly aligned.

4. ADJUSTMENTS

4.1. Fitting and removing the blade

Before fitting the blade (the operation is to be done with protective gloves) thoroughly clean the tightening flanges, then insert the blade (fig.4.1) on to the shaft, bearing in mind the direction of rotation marked by the arrow above, then the front flange **F** (fig.4-2) and the two tightening screws **I** (fig. 4-1), screwing them firmly onto the shaft. Keep hold of the flange by means of spanner **G**. Reclose protection door of blade which had been opened previously. To remove the blade proceed in reverse order.

We recommend to use only the outfitted spanners. Do not use extensions or mallets to tighten further.

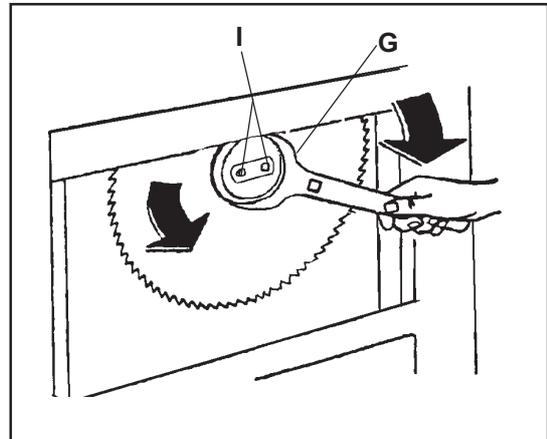


Fig. 4-1 Fitting blade

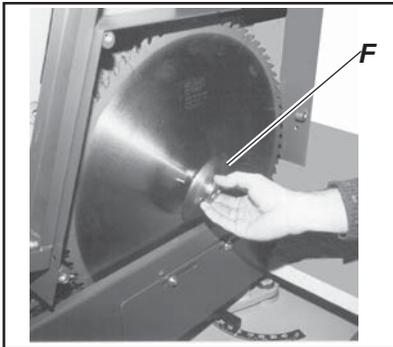


Fig. 4-2 Fitting-removing blade

4.2. Fitting and removing the table extensions

After positioning and levelling the machine, having to fit the side extensions, proceed as follows:

fix the foot **G** to the right and left extensions **H**, then rest the opposite side to the foot on the supports **I** integral with the machine, then with a straight rule (preferably made of iron or aluminium) positioned against the wood support guide fixed on the machine, check the alignment of the

respective guides fitted on the extensions, and at the same time align the wood processing table using the dowels **L** and the screws of the adjustment feet on the ground **M**. Then lock the extensions by means of the screws **Z**.

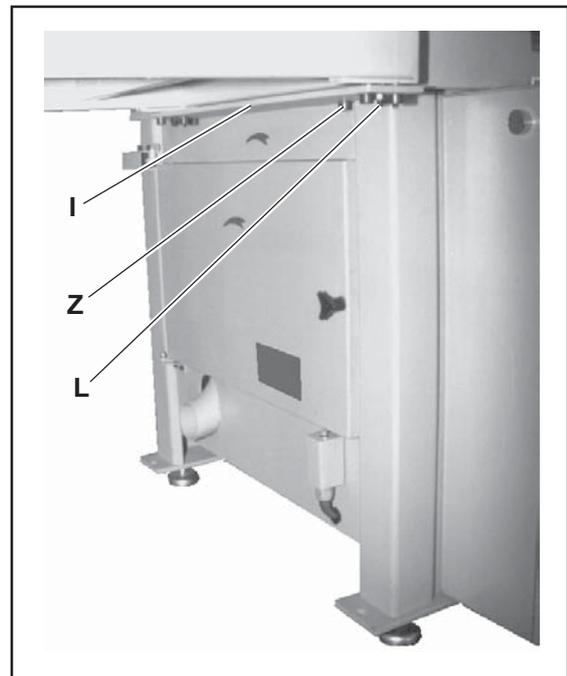


Fig. 4-4 Adjusting roller benches

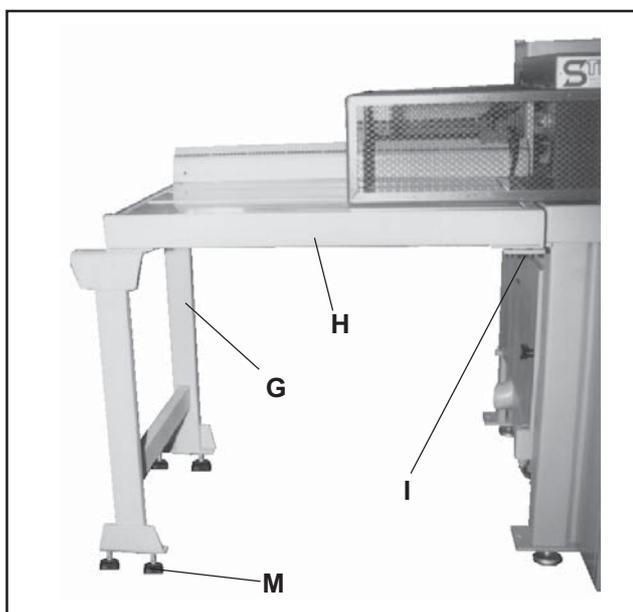


Fig. 4-3 Roller benches

4.3. Fitting and removing the side roller benches

For this operation, proceed as follows:

fix the plates supplied to the right-hand extension, then proceed as for fitting the table extensions.

5. USING THE MACHINE

5.1. Starting up the machine

At the time of starting up the machine it is necessary to:

- 1) switch on the master switch equipped with the door lock **V**, placed on the front wall of the electric panel.
- 2) Turn the starter **W** onto the λ position for 3-4 seconds, then turn it again onto the Δ position. At this stage the motor will start at working speed and at the same time the hydraulic power unit will start up.

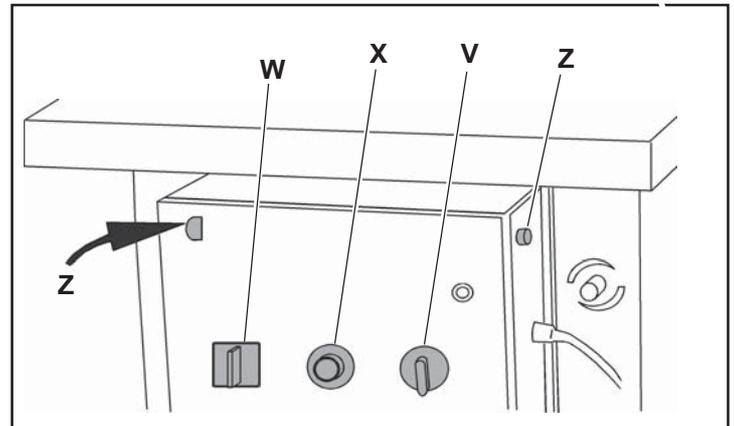


Fig. 5-1 Start buttons

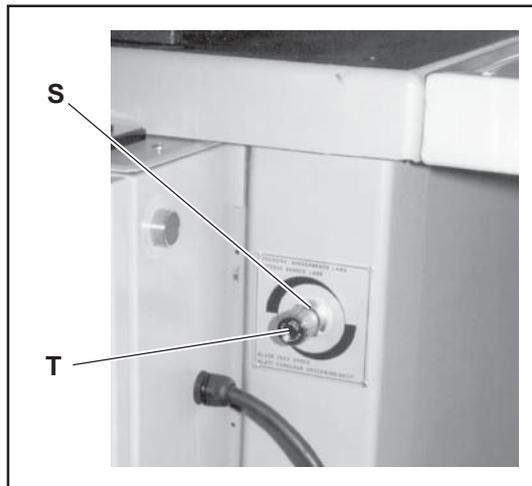


Fig. 5-2 Start buttons

5.2. Preparing for cutting cycle

After starting up the machine adjust the ascent of the blade by means of the knurled knob **T** (fig. 5-2), trying it without a load, starting with a slow speed and increasing up to the desired speed. Insert the wood to be cut from right to left keeping it pushed against the rear guides bring it into position so its head is at least 35 mm over the cutting line then cut by pressing the two buttons at the same time to the side of the electric panel **Z**. If the speed is right, firmly tighten the knurled ring nut **S** of fig. 5-2.

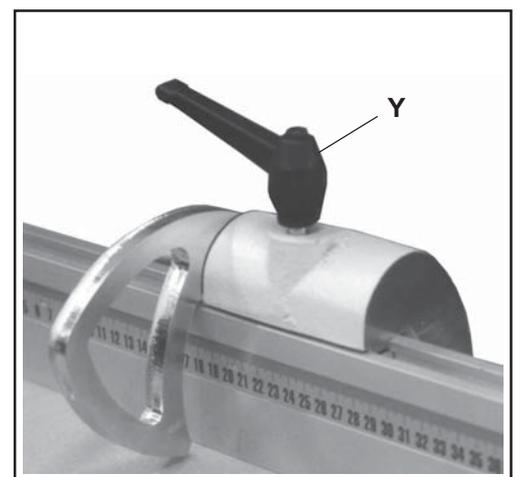


Fig. 5-3 Stops

IMPORTANT: minimum length of pieces to be cut 35 mm.

Now adjust any stops to the desired cutting length by using the snap lever **Y** (fig. 5-3). Then push against the wood and repeat the cutting operation with the two-hand buttons bearing in mind that on releasing just one of them the machine goes back to the start of the cycle and will not restart if both have not been released.

6. SAFETY

6.1. General notices

In the standard version the cut-off saw is equipped with all the mechanical and electrical protections to protect the operator's safety. The main protections that must never be removed while the machine is being used are the following:

- master switch that can be padlocked with door lock;
- low-voltage electric controls;
- two-hand controls;
- earthing;
- blade access door safety microswitch;
- low blade limit microswitch;
- fixed mains protection.

7. MAINTENANCE

Before going ahead with any maintenance or cleaning operation, it is absolutely necessary to turn the master switch onto zero and padlock it.

7.1. Topping up hydraulic power unit oil

The hydraulic operating pressure of the unit is registered in the factory before selling the machine. It is absolutely forbidden to tamper with this setting. For problems concerning the hydraulic system, refer to specialized personnel.

The hydraulic power unit is equipped with a tank with a capacity of 8 litres of oil type HIDRUS OIL 32 IP or a corresponding one. This oil capacity permits working in normal conditions (8 hours a day) for approximately 1600 hours.

The oil level of the unit must anyhow be checked periodically, roughly once a year, and possibly topped up proceeding as follows:

- 1) Take off the rear door **P** (fig. 7-1) with the slits by undoing the screws **V**.
- 2) Unscrew the cap **T** on the tank **S** and check that the oil level is approximately 3-4 cm from the rim of the tank and top up if necessary.
- 3) Close the tank with the cap **T**.
- 4) Put the door **P** back on, screwing down the screws **V**.

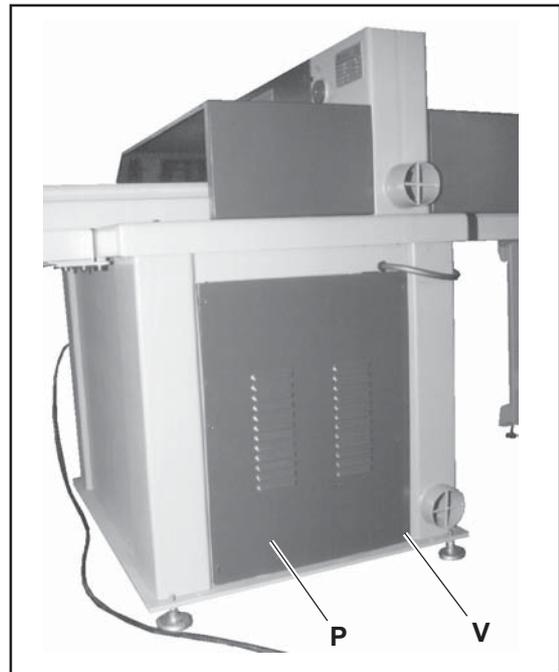


Fig. 7-1 Rear door

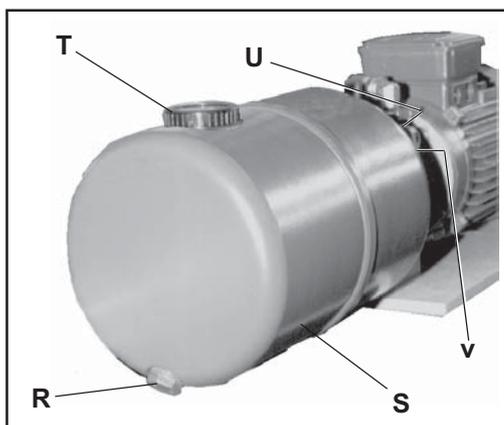


Fig. 7-2 Topping up with

7.1.1. Changing hydraulic unit oil

To change the oil in the hydraulic unit, proceed as in point 1 of 7.1 and then:

- 2) Unscrew the cap **T** on the tank, put a collection basin under the tank, then unscrew the plug **R** under the tank.
- 3) After letting all the oil run out, close the plug **R** and fill as in point 2 of 7.1 and proceed as in points 3 and 4 of 7.1.
- 4) Clean the tank: to disassemble the tank, loosen nuts **U** and keep hold of screws **V** by means of a hexagonal wrench. Clean and dry thoroughly, then reassemble all the parts and fill up with HIDRUS OIL 32 IP oil or a similar one.

7.2. Electromagnet brake maintenance type S.E.I.M.E.C.

7.2.1. Rectifier connection for HFV and HPEV motor

Single-speed motors are supplied with rectifier already connected to motor terminal block (for line voltage 400 V in case of standard manufacturing). Therefore, for standard duties, motor is ready to be used without any further connections for brake supply.

For **two-speed** motors and for those driven by **inverter** it is necessary to supply independently the rectifier with proper cables pre-arranged. Follow the instructions of fig. 7-3.

Verify that rectifier supply voltage corresponds to the one stated on motor name plate.

WARNING: it is not allowed to open the electromagnet supply on d.c. side of rectifier (to achieve a rapid braking).

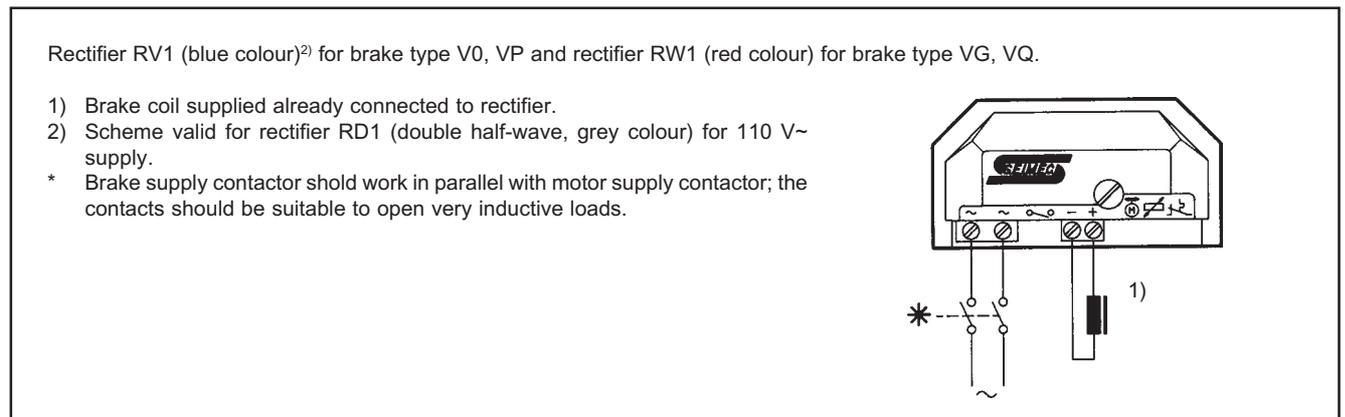


Fig. 7-3 Rectifier connection for HFV and HPEV motor

7.2.2. Periodical maintenance of brake

Verify, at regular intervals, that air-gap is included between values in table 1.

Excessive air-gap value could produce: decrease of braking torque up to zero, rise of brake noise level, and even miss of electric release.

Adjust the air-gap (fig. 7-4), with mounted fan cover, for HFV motor, acting on self-locking nut 1 considering that the pitch is: 1 mm for size 63; 1,25 mm for sizes 71 and 80; 1,5 mm for sizes 90...112; 1,75 mm for sizes 132 and 160S; for motors HPEV, acting on self-locking nut 2 keeping in mind that the pitch is: 1,25 mm for sizes 63 and 71; 1,5 mm for size 80.

After several adjustments of air-gap, verify that the thickness of friction surface is not lower than the minimum value stated in table 1; if necessary, replace the brake anchor.

Grandezze freno		Grandezze motore		Traferro mm	Amin mm ¹⁾
HFV	HPEV	HFV	HPEV		
V 02		63		0,25-0,5	1
V03	VP3	71	63	0,25-0,5	1
V04	VP4	80	71	0,25-0,5	1
V05, G5	VP5, VQ5	90	80	0,25-0,5	1
V06, G6		100, 112		0,3-0,55	1, 4, 5 ²⁾
V07, G7		132, 160S		0,35-0,6	1

Tab. 1 Periodical maintenance of HFV and HPEV motor brake

Filetto		M4	M5	M6	M8
Momento torcente	min	0,8	1,8	2,7	5,5
di serraggio [Nm]	max	1,2	2,5	4	8

Tab. 2 Tightening torque for terminal block connections

- 1) Minimum thickness of friction surface.
- 2) Value for VG6.

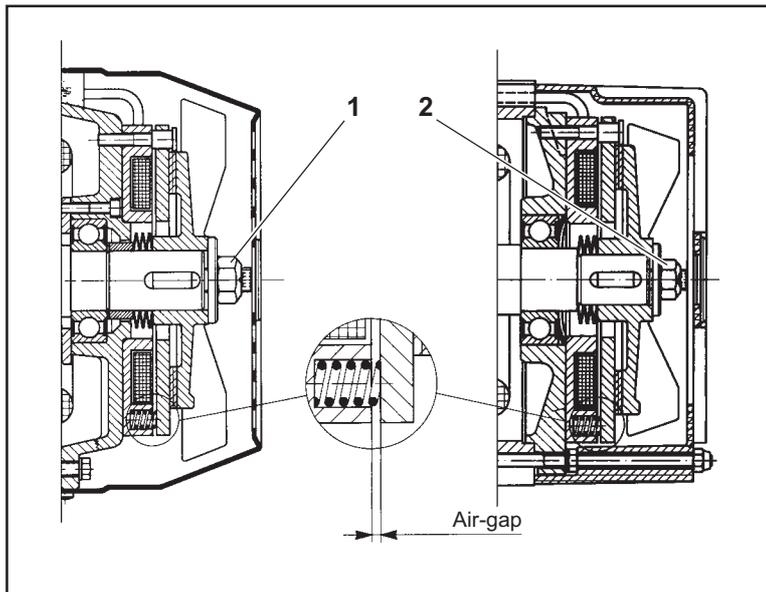


Fig. 7-4 HFV and HPEV motor brake

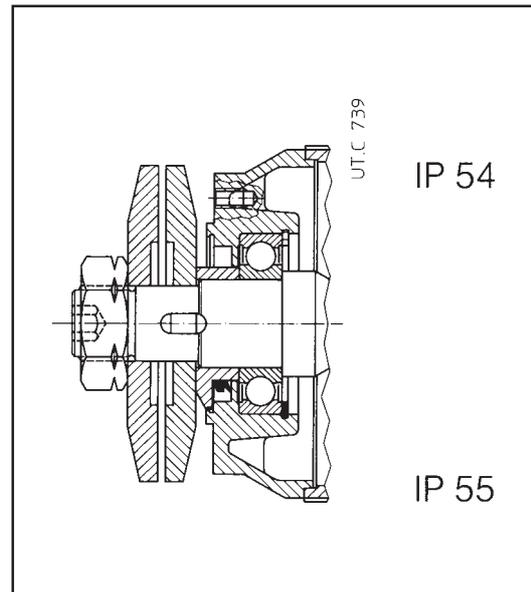


Fig. 7-5 Blade holding kit mounting HPE, HPEV

NOTE: schemes of fig. 7-4 and 7-5 represent motors comprehensive of some designs on request: driving shaft axially fastened, V-ring, hand lever for manual release with automatic return, dust-proof gaiter, blade holding kit.

7.3. Cleaning

Keep the work table as clean as possible and periodically suck air from the motor and saw unit for dust depositing. Periodically check the extraction mouths are not clogged.

7.4. General lubrication

The machine needs no special lubrication or greasing as it is fitted with watertight bearings. Periodically check the oil level of the hydraulic unit. If necessary, use oil type IP HIDRUS OIL 32 or a corresponding one.

7.5. Special precautions

In the event of the machine being inactive for a period of time longer than a few days, oil the non-painted metal parts to prevent oxidation. When restarting work it will be necessary to remove the film of oil from the areas where the material rests.

7.6. Frequency of maintenance work, cleaning and checking

Tab. 7-3 Frequency of maintenance works

JOB	EVERY TIME POSSIBLE	EVERY DAY	EVERY YEAR	EVERY 3000 HOURS PR ONE YEAR
Hydraumatic unit oil level			<input type="checkbox"/>	
Change hydraulic oil and clean the tank				<input type="checkbox"/>
Make sure the extraction pipes are not clogged		<input type="checkbox"/>		

8. TROUBLE-SHOOTING GUIDE

DEFECT

The machine will not start

REMEDY

- Check the blade door closure
- Check the emergency button is released

DEFECT

The machine vibrates considerably

REMEDY

- Check the blade is fitted correctly
- Check no teeth are missing from the blade
- Check the bearings of the driving shaft

DEFECT

The machine is very noisy

REMEDY

- Check the quality of the blade

DEFECT

The machine will not carry out the cutting cycle

REMEDY

- Check the oil level in the hydraulic unit
- Check that the starter is on the \triangle position

DEFECT

The blade goes up very slowly

REMEDY

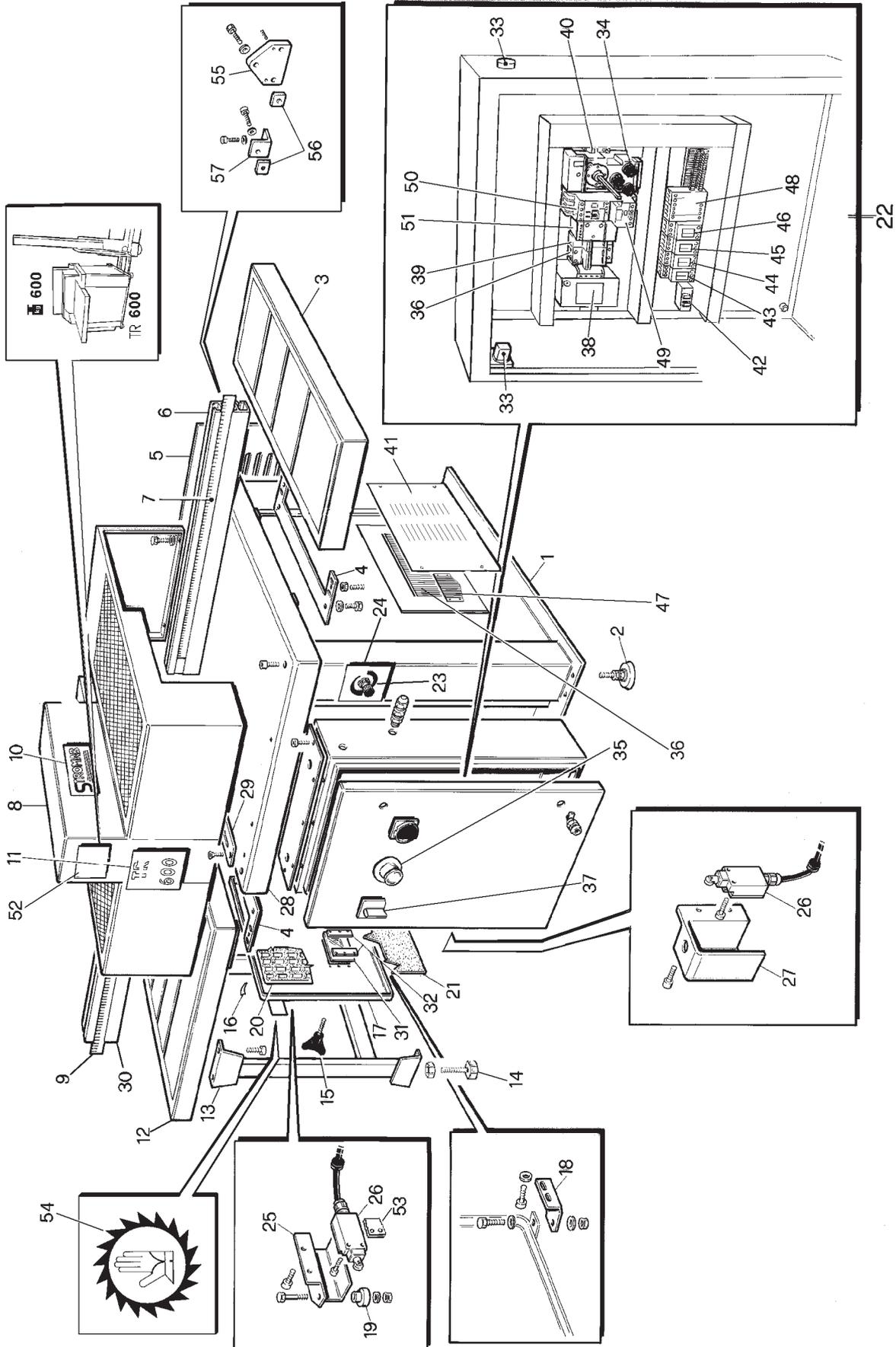
- Wash the tank and clean the hydraulic pipes

9. SPARE PARTS

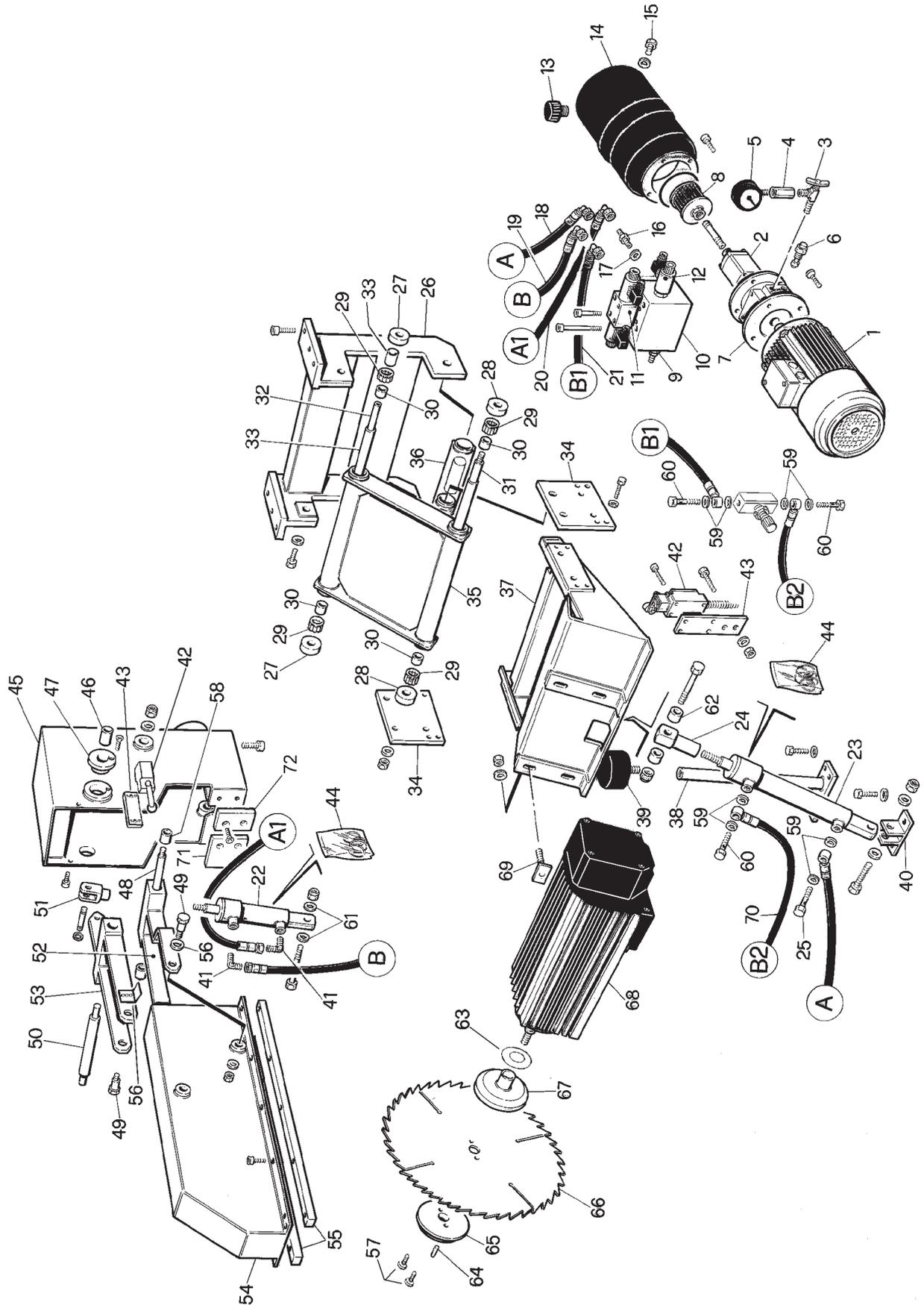
In order to ensure speedy despatch of necessary spare parts, it is necessary to meticulously keep to the following rules:

- 1 - indicate the machine serial number;
- 2 - indicate the table, code and reference numbers of the parts required;
- 3 - indicate the required quantity;
- 4 - indicate the method of delivery ;
- 5 - indicate your exact address.

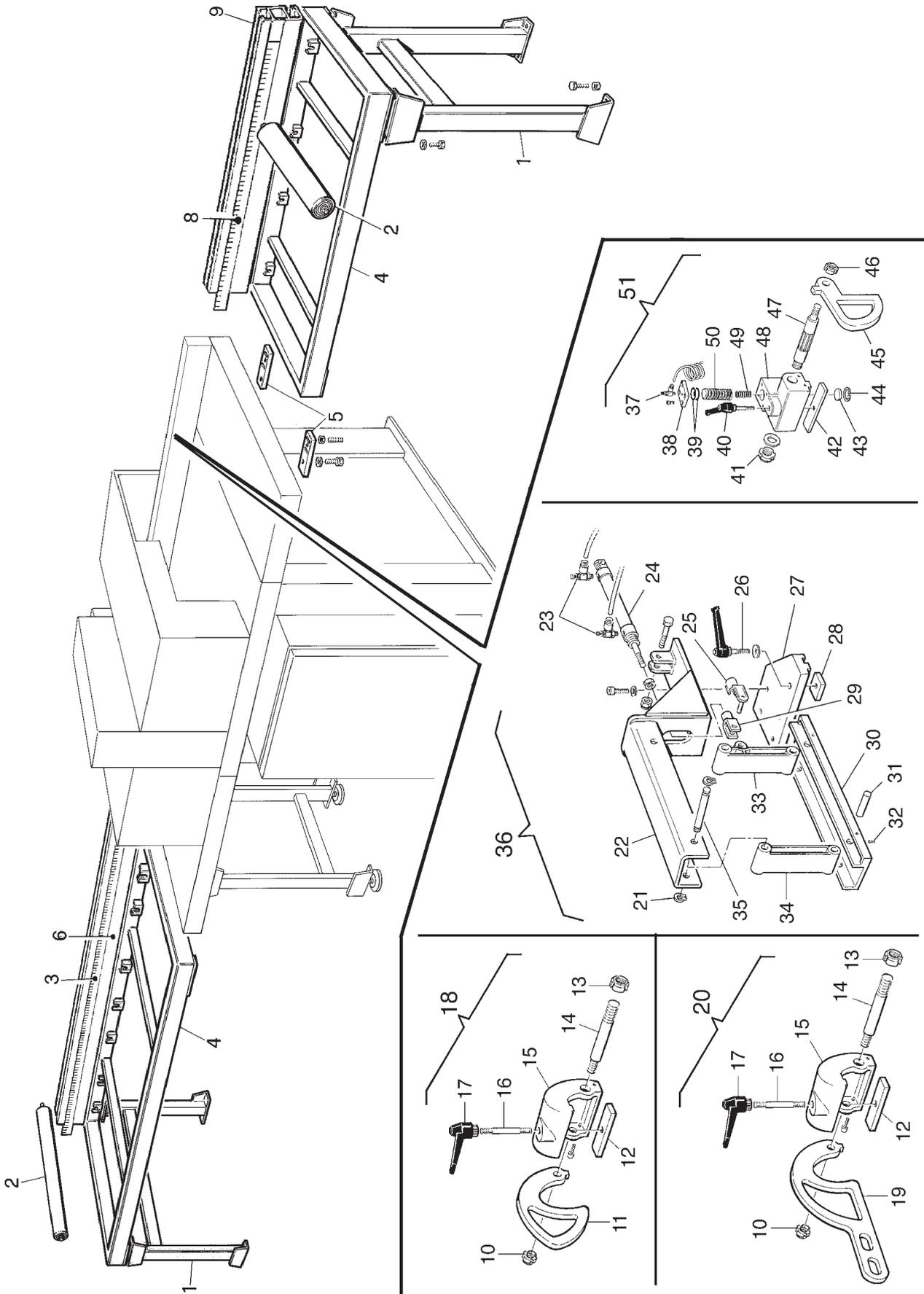
TAB. 1



TAB. 2



TAB. 3



ELECTRIC SYSTEM

SEE ENCLOSED DIAGRAM

HYDRAULIC SYSTEM

SEE ENCLOSED DIAGRAM

PNEUMAT. SYSTEM

SEE ENCLOSED DIAGRAM



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