

Model FS 305  
Serial 9934

# JOINTERS

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**FS305**  
**F430**

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**USE AND MAINTENANCE HANDBOOK**

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# 1

## GENERAL SAFETY RULES

*The machine operator and the person responsible must read this instruction handbook carefully and completely before executing any operation on the machine. Always keep this handbook near the machine.*

*The machine utilization is reserved to skilled staff, well acquainted with the problems of the several machinings the machine can carry out.*

This machine has been designed and manufactured to give the user highest safety in compliance with the safety rules in the field but, like all machines provided with cutting tools, it may cause danger situations due to incorrect use of the machine, lack of experience or tampering with the safety devices of the machine; therefore the operators should take these remarks into account and carefully follow the instructions given in this handbook about safety. To point out the handbook sections concerning personal safety we have decided to use *italic* and **bold-face** characters.

1.1  
Dangerous environ-  
mental factors



*Experience has shown that some objects worn by people operating on the machine or near it may cause accidents. It is advisable not to wear such objects. Dangerous objects are: rings, watches, bracelets, large-sleeved overalls, not perfectly fastened belts, ties and, generally, anything sticking out of the person that may be grasped by a moving part of the machine during its operation (people with long hair should keep it gathered on the back of the neck).*

*Only genuine spare parts and tools must be used.*

*Non-authorized people, and above all children, not belonging to the work place shall absolutely stay far off the operating machine.*

*The place of work must be properly illuminated, without shadows on the machine.*

*The operations performed by the machine produce dust and, in general, the machine is in a place where other machines spread dust in the environment; to avoid dangerous dust concentrations it is necessary not only to connect a suitable suction system [paragraph 4.5 "Connection to the suction system"], but also to provide for the periodical maintenance of the suction system filters. Furthermore, the dust deposited on the floor causes danger situations, so it is necessary to provide for a proper cleaning of the place of work as well as of the machine.*

*The operator must use the personal accident prevention protections necessary for working on surfacing machines.*

1.2  
Dangerous factors  
connected with the  
machine use

*As the machine must be connected to the mains, check the correspondence between the electrical features of the machine and those of the mains; it is also advisable to check the correct grounding of the machine; the skilled technician who will execute the electrical connection must be informed about these operations [paragraph 4.3 "Connection to the electrical system"].*

*If you perform a maintenance or adjustment operation on the machine, switch it off, set the main switch to zero and lock it.*

*Machining pieces that are too small or too big for the machine capacity may cause a danger situation for the operator or the people near the machine; always compare the sizes of the pieces being machined with the max. and min. dimensions that the machine can work and do not remove or change the protections for changing the working capacity of the machine.*

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Pay particular attention to the selection and the maintenance of the tools.  
***Never use cracked, warped or too worn-out tools, as their use, besides having negative effects on the machining quality, may cause danger.***

A correct maintenance, chapter 7 "Maintenance", will ensure higher working safety as well as a constant quality level of the machining.

***The protection devices must be steadily checked for their operation before each working shift.***

Carefully comply with the data in the handbook as for knife locking, knife projection and best adjustment of the knife locking screws.

### 1.3 Residual risks

Even when the guards are installed and the machine works properly, the following residual risks may occur:

- a) ***breaking of a tool during machining;***
- b) ***breaking of the piece being machined;***
- c) ***electric shock;***
- d) ***exposure to noise, particularly if in the place of work there are other machines and/or the sound-proofing devices are removed or their maintenance is not executed;***
- e) ***dust emission, particularly if in the place of work there are other machines and/or the suction system is not properly connected and maintained.***

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## 2

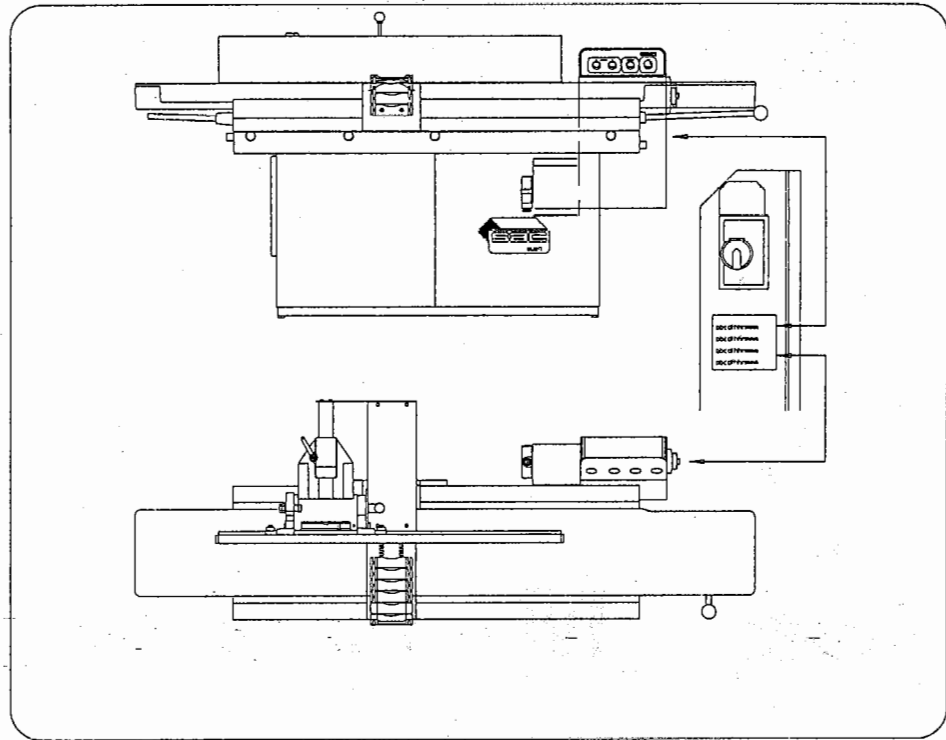
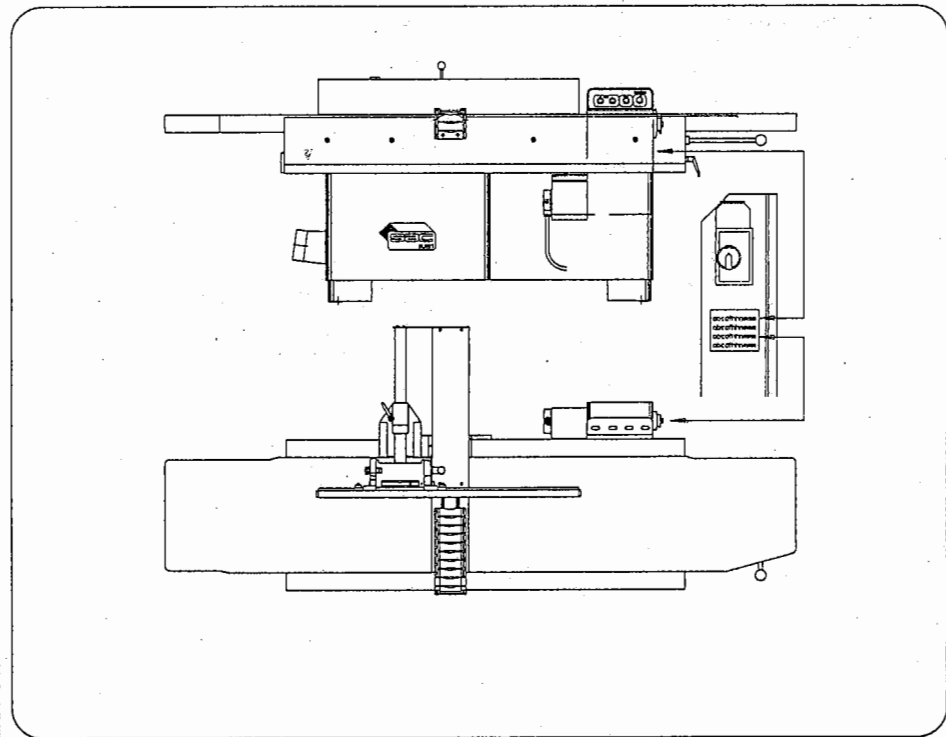
## MACHINE IDENTIFICATION

On the machine rear side, where indicated by fig. 2.2 and 2.3, there is the machine identification plate, see fig. 2.1. In your messages, always refer to the serial number of the machine.

Costruttore/Hersteller/Manufacturer/Constructeur	
 <b>sueri alfredo spa</b> COSTRUZIONE MACCHINE PER LEGNO VIA CARRI-RAVARNO, 115 - 41010 LIMBI DI SOLIERA (MO) ITALY Telefono 059/56 17 50 Fax 059/56 50 52	
Type	<input type="text"/>
Nr./Seriennummer/Serial No. No. d'immatriculation	<input type="text"/>
Anno di costruzione/Baujahr/Year of construction/Année de fabrication	<input type="text"/>
Ø massimo utensile Max. Werkzeug Ø Max. tool Ø Outil maxi Ø	Fresa per prof./Fräser Cutters/Fraises <input type="text"/> mm Fresa per ten./Schlitzwerkzeuge Tenoning cutters/Outils à tenonner <input type="text"/> mm
Velocità Drehzahl Speed Vitesse	giri/min UpM rpm t/mn <input type="text"/>
Tensione/Spannung Voltage/Tension	<input type="text"/> V <input type="text"/> Hz <input type="text"/> 3~
Intensità di corrente/Nennstrom Current rating/Intensité	<input type="text"/> A
Schema elettrico Nr./Schaltplan Nr. Electrical drawing No./Schéma électrique No.	<input type="text"/>

Fig. 2.1



**Fig. 2.2****Fig. 2.3**

## 3

## TECHNICAL DATA

**Table 3.1**

		FS.305 three-phase	FS.305 single-phase	F.430
Machining width	mm	305	305	430
Max. removal	mm	8	8	8
In-feed table length	mm	1250	1250	1570
Out-feed table length	mm	870	870	1280
Total table length	mm	2170	2170	2905
Table height	mm	820	820	860
Rip fence length (can be inclined from 0° to 45°)	mm	1200	1200	1200
Spindle diameter	mm	120	120	120
Knife number		3	3	4
Spindle speed	min <sup>-1</sup>	5000	5000	5000
Max. number of start/hour		40	40	40
Spindle motor power	kW/HP	2.6/3.5	2.6/3.5	4.8/6.5
Weight	kg	460	460	650

**Table 3.2**

		FS.305	F.430
Max. width	mm	305	430
Max. length	mm	1600	2400
Min. length	mm	200	200

3.1  
Max. and min. dimensions of the pieces that can be machined and features of the material that can be machined

*The machine can flat or thickness deadwood, veneered wood, plastic materials with features similar to wood, with a max. removal by 8 mm; any other utilization or machining on a material different from the mentioned ones is forbidden, as it can be risky for the user; in case of doubts, apply to the machine seller or directly to the technical department of our company.*

3.2  
Noise levels

Noise levels detected according to EN 23746 for the acoustic power level and to EN 31202 (correction factor k3 according to Appendix A.2 of EN 31204) for the acoustic pressure level in the working place as indicated by the norm ISO 7960:

	FS.305	F.430
<b>Standard spindle</b>		
Acoustic power level in dB(A)		
Empty	86.5	89.3
Loaded	96.2	96.9
Acoustic pressure level in dB(A) in the working place		
Empty	77.0	80.5
Loaded	89.7	89.4

Dust e

For the values above, an inaccuracy constant of  $K = 4\text{dB}$  applies.

The reported noise levels are emission levels and do not represent safe operation levels. Although there is a relation between emission levels and exposure levels, this cannot be reliable for stating whether further precautions are needed or not. The factors determining the exposure level of the work staff include exposure time, features of the working place, other noise sources, etc..., i.e. the number of machines and other adjacent processes. The allowed exposure levels may be different depending on the country, too. However, this information will allow the machine operator to better evaluate the danger and the risk.

### 3.3

#### Dust emission levels

FS.305: the dust emission level is  $0.4 \text{ (mg/m}^3 \text{ of air)}$ .

F.430: the dust emission level is  $0.18 \text{ (mg/m}^3 \text{ of air)}$ .

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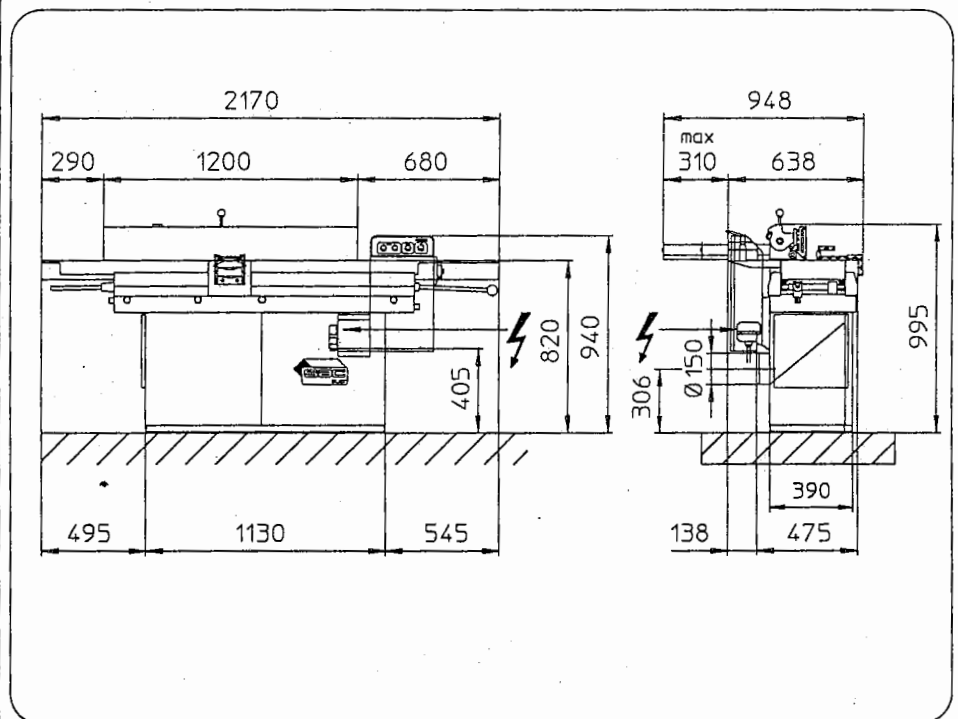
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Overall

## 4

## MACHINE INSTALLATION

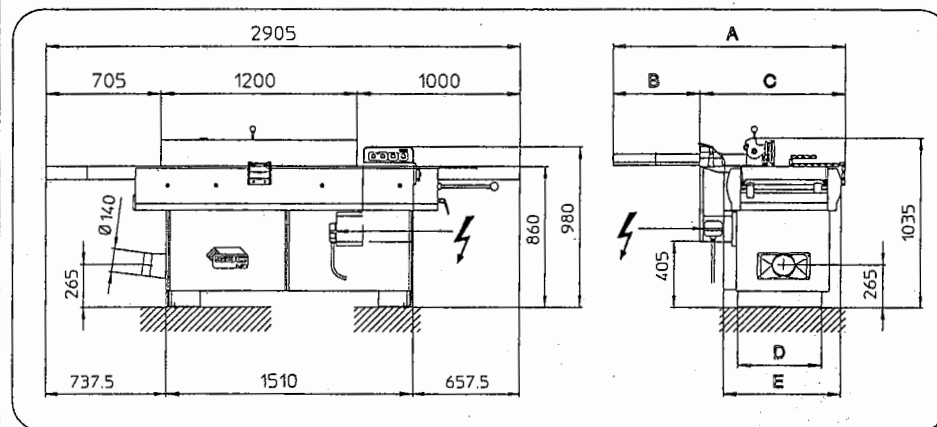
4.1  
Overall dimensions of  
FS.305



**Fig. 4.1**

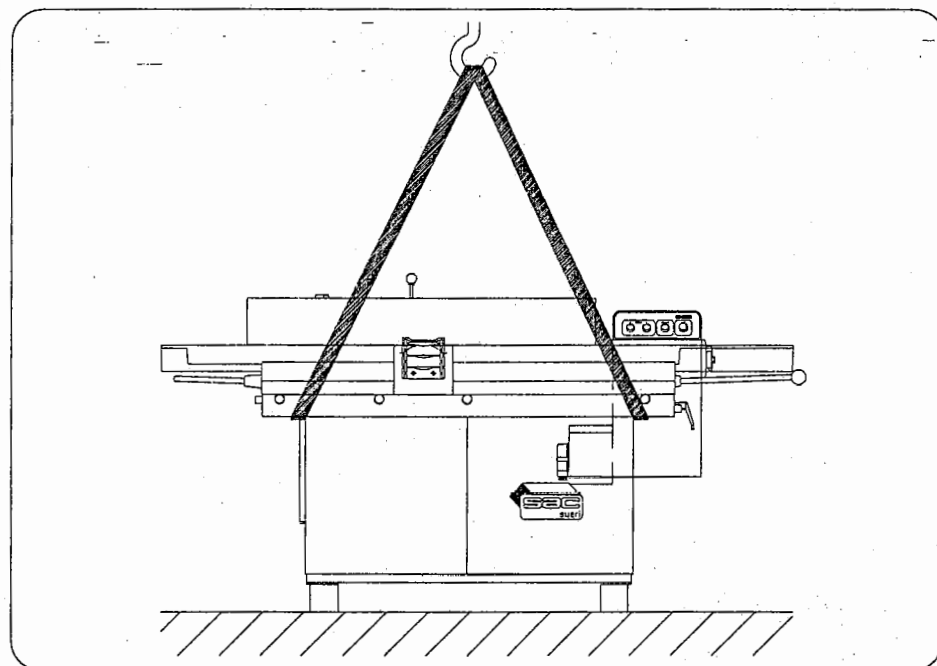
4.2  
Overall dimensions  
of F 430

	A <sub>max</sub>	A <sub>min</sub>	B	C	D	E
F 430	1805	838	400	785	410	615



**Fig. 4.2**

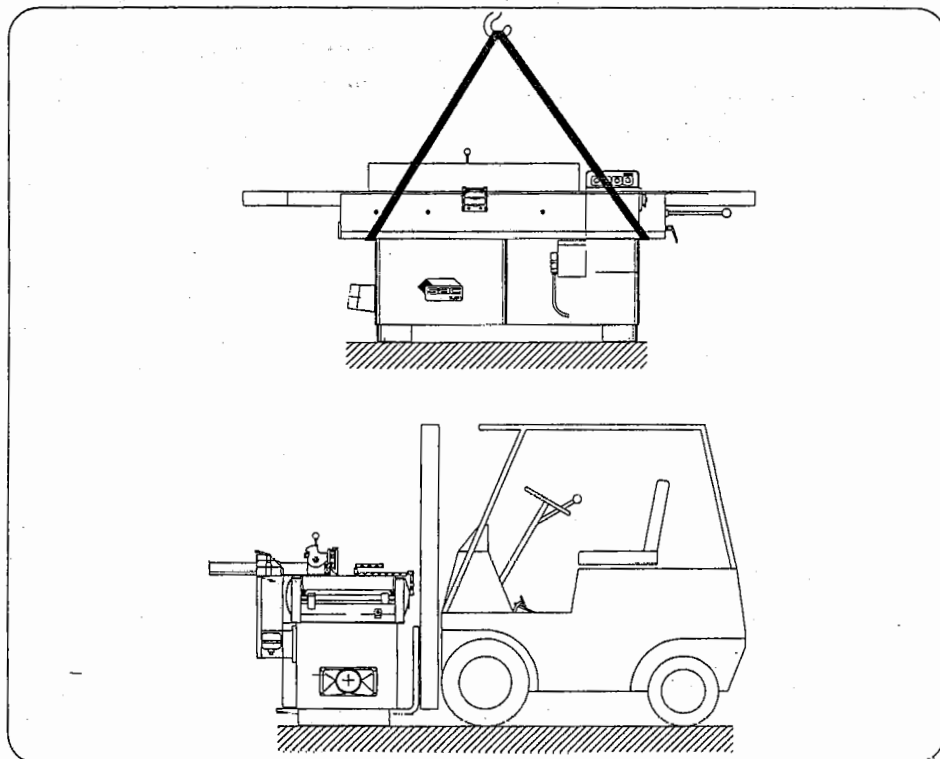
4.3  
Transport



**Fig. 4.4**

When delivering the machine check that there are no damages due to the transport; if there are any damages, immediately inform the forwarder or contact us directly. The machine rests on two wooden blocks screwed to the base - one close to the in-feed table and another close to the out-feed table - so that it can be lifted using a fork lift with suitable loading capacity (see pages 17 and 18 for the weights); if a crane is available for the lifting, it is possible to use some ropes or lifting belts with suitable capacity and arranged as shown in fig. 4.4 for FS.305, fig. 4.5 for F 430.

*When using a fork lift for transporting the models FS.430 it is necessary to fit the forks in the position marked by a point in fig. 4.5.*

**Fig. 4.5**

**While the machine is moved do not stay in the maneuvering area.** Do not leave the machine under bad weather conditions and grease all oxidable parts in the event of long storage which must be in a dry place and at temperatures between 0° and 50°C.

#### 4.4 Positioning

Place the machine on a reinforced concrete board with a thickness of about 150 mm, being properly levelled and sized a little larger than the machine overall dimensions. The machine needs no floor fixing. The room temperature must be included between 5° and 40°C.

**Before placing the machine check that the working area is large enough for a correct use (see fig. 4.1 and 4.2).**

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4.5  
Connection to the  
electric system

*All the operations concerning the electric connection must be executed by skilled personnel in compliance with the regulations in force.*

*Before executing any electrical connection, check that voltage, frequency and power supplied by the mains correspond to the machine requirements. These data are given on the machine identification plate (fig. 2.1).*

The position of the terminal board is indicated in fig. 4.1 for FS.305, in fig. 4.2 for F 430.

To protect the power supply cables and to improve the safety during the maintenance of the electric system, it is necessary to install a switch that can be locked upstream the machine. This switch must be provided with fuses.

*After connecting the machine to the mains, check that the spindle rotates clockwise; otherwise, invert two phases of the main power supply.*

4.6  
Connection to the  
suction system

*The machine must be connected to the suction system and the connection must be made so that the suction system - if not already on - goes on contemporarily when the machine is started up.*

The machine is equipped with a suction opening with diameter 150 mm, and it must be connected with a suction system having the following features:

*760 CFM*

capacity: 1280 m<sup>3</sup>/h (air min. speed 20 m/s)

head: 450 Pa

*For a correct suction always keep the strainers very efficient, checking their condition every day.*

Figures 4.1 and 4.2 show the position of the suction opening.

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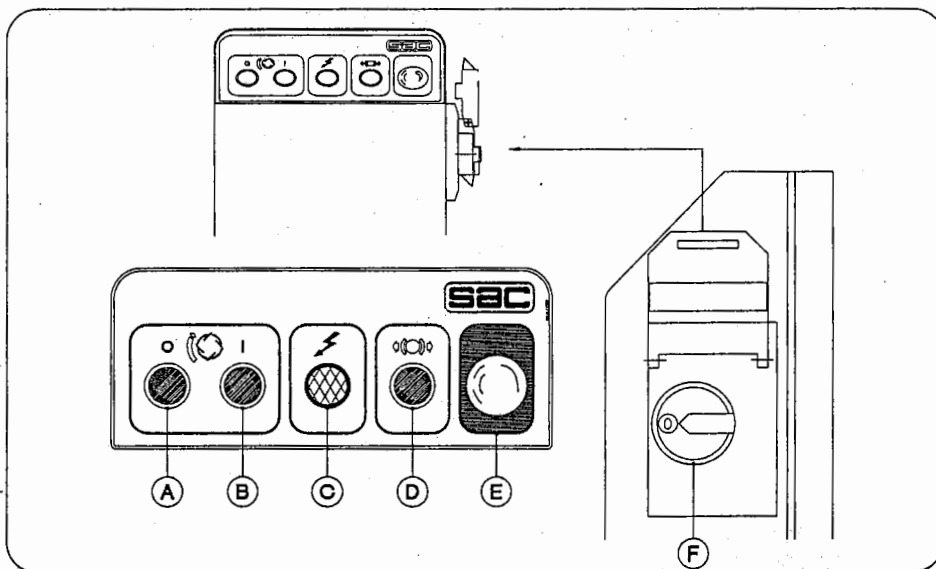
# 5

## HOW TO USE THE MACHINE

5.1  
Control panel of  
FS.305-430

**Fig. 5.1**

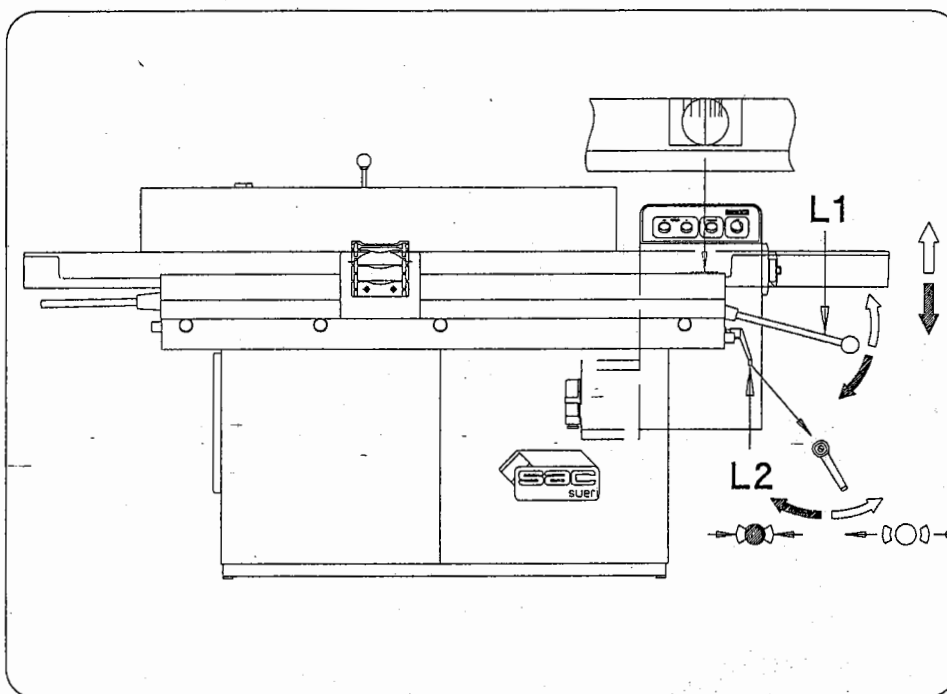
- A) stop push button;
- B) start push button;
- C) mains pilot light;
- D) brake release push button;
- E) emergency push button;
- F) main switch.



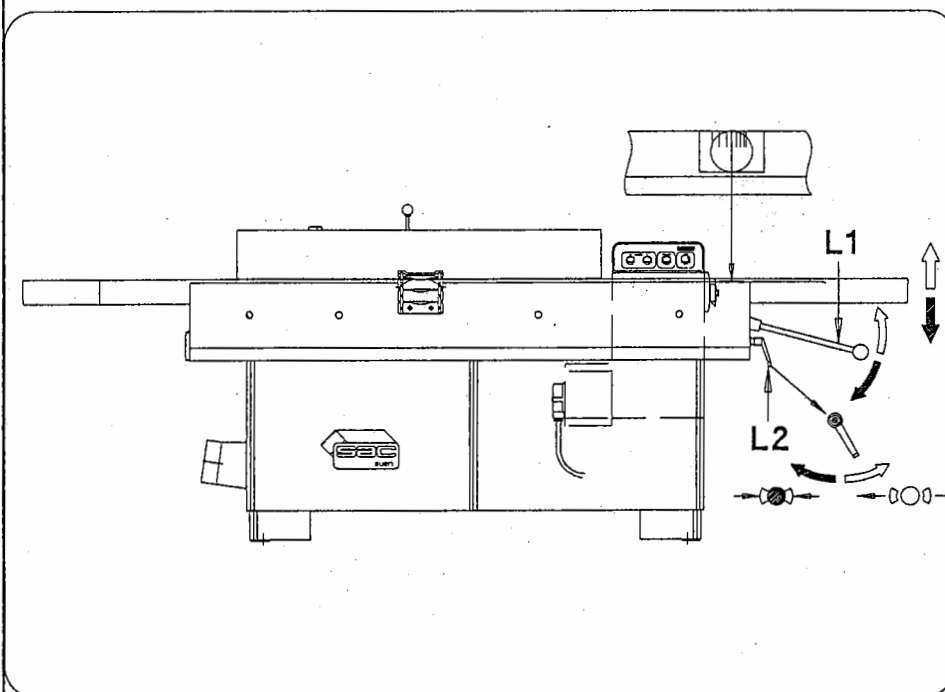
## 5.2 Removal adjustment

On the machines FS.305 (fig.5.2a) and F-430 (fig. 5.2b) the removal adjustment is performed by acting manually on the lever L1 placed under the in-feed table, after having released it by the lever L2; the display placed on the side of the in-feed table enables to check the removal thickness.

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**Fig. 5.2a**



**Fig. 5.2b**

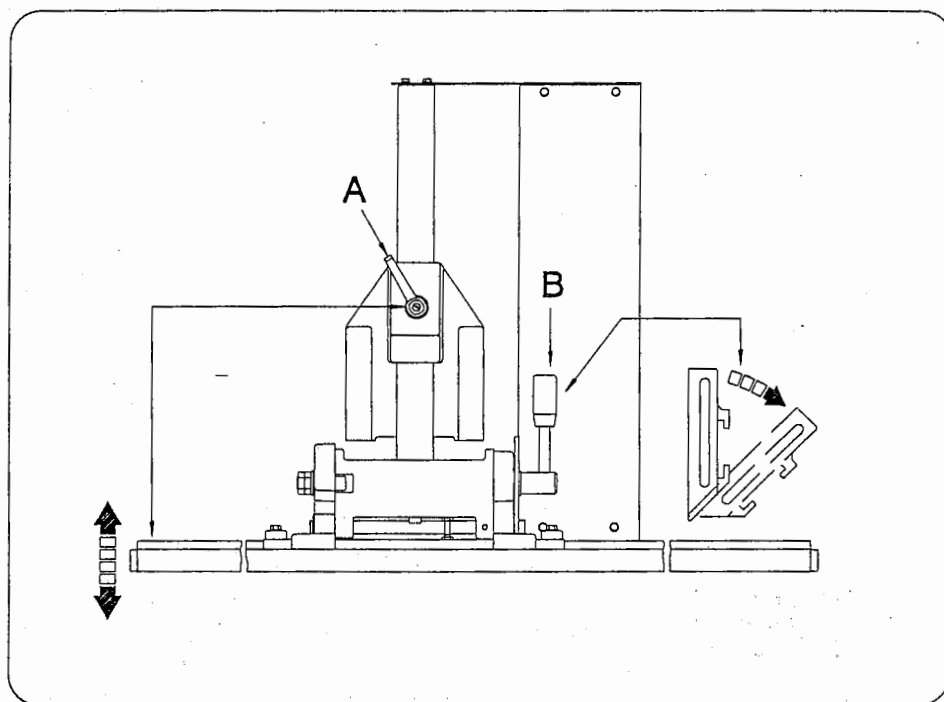
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### 5.3 Adjustment of the rip fence (fig. 5.3)

The rip fence must be safely fixed.

- 1) Act on lever A to adjust the rip fence depth, rotate clockwise to lock and counterclockwise to release.
- 2) Act on lever B to adjust the rip fence inclination, rotate clockwise to lock and counterclockwise to release.

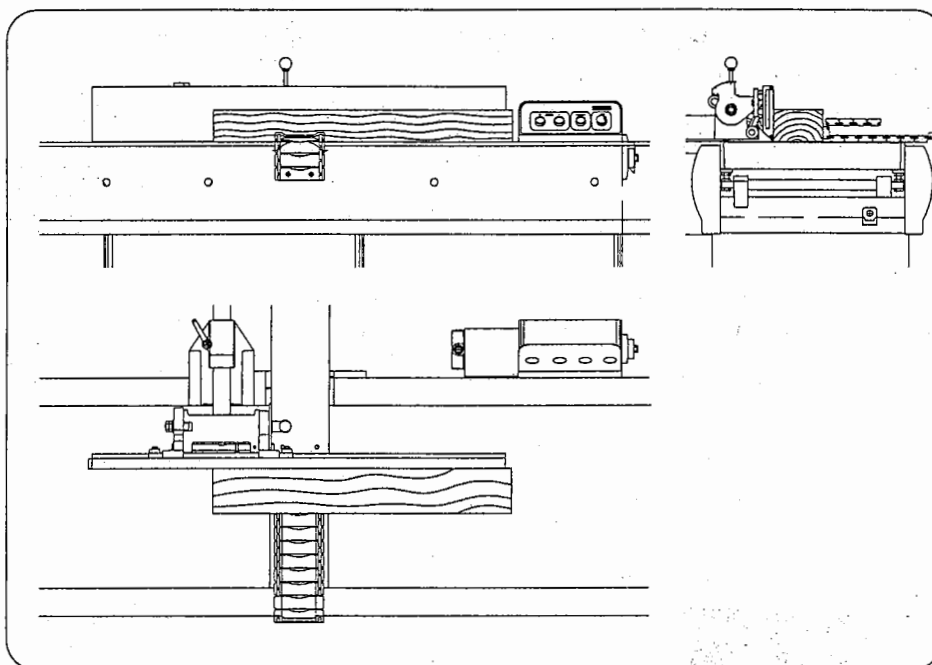


**Fig. 5.3**

### 5.4 Surfacing of pieces

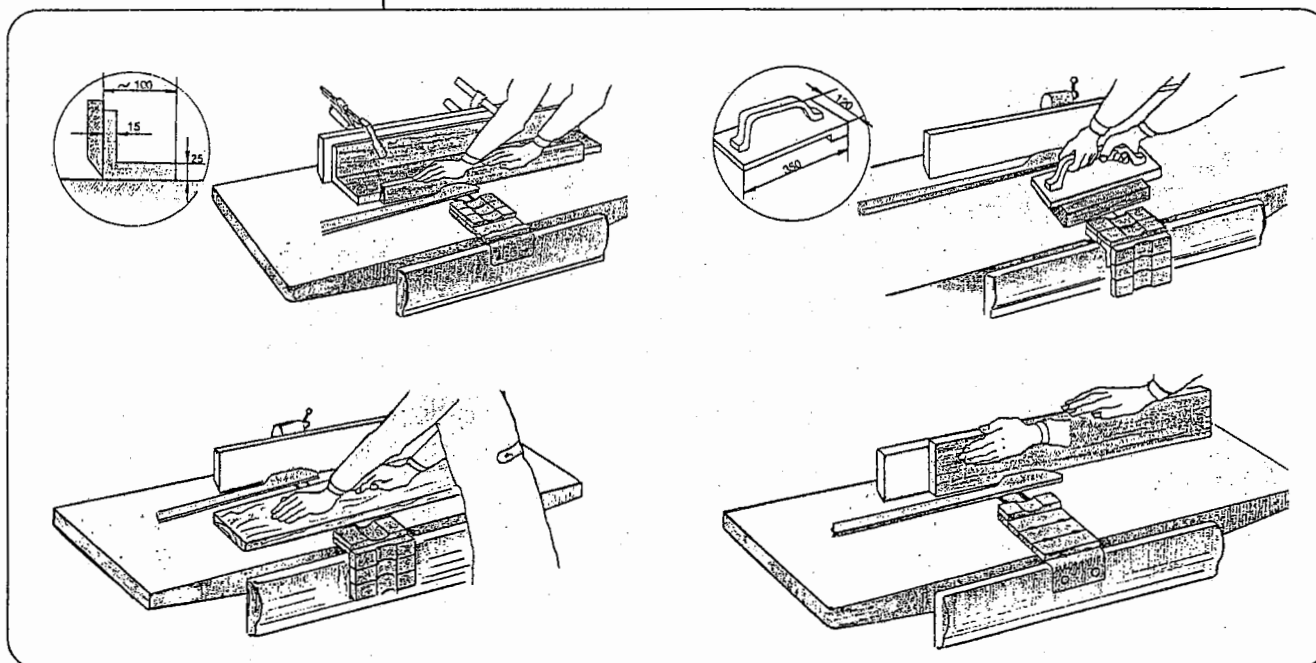
- 1) Adjust the rip fence position as a function of the width of the piece being machined;
- 2) adjust the removal depth;
- 3) position the folding guard at such a distance from the rip fence to leave a sufficient clearance for the piece passage;
- 4) ***the piece must be checked before the machining for possible foreign matters, knots, slots, marks, distortions that could originate dangerous situations while machining;***
- 5) start the machine spindle pressing the push button B in fig. 5.1 in the first position (star), wait for about 3-4 seconds then rotate the starter in the second position (delta);
- 6) machine the piece keeping the hands as shown in fig. 5.4.

To switch the spindle motor off press the push button A in Fig. 5.1.

**Fig. 5.4****5.5****Surfacing of narrow pieces (fig. 5.4)**

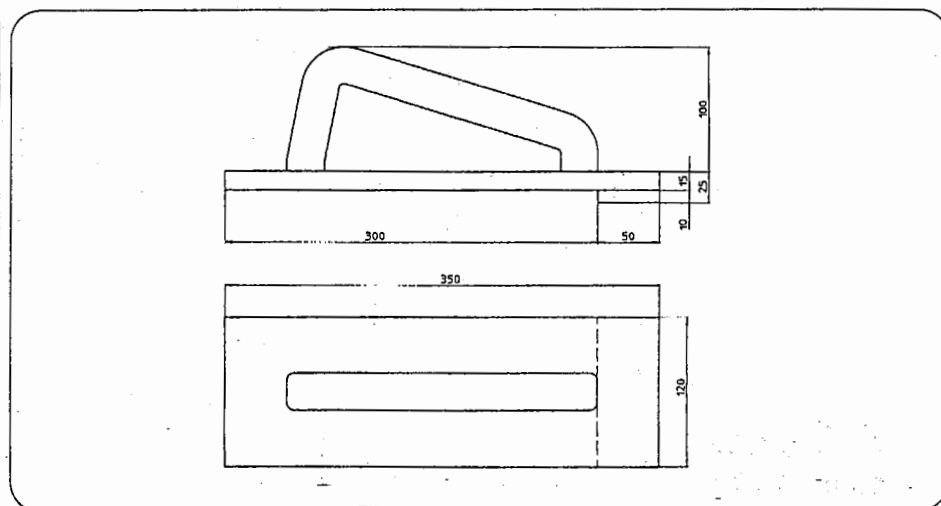
For surfacing narrow pieces it is necessary to use an additional rip fence.

- 1) Lower the additional rip fence;
- 2) adjust the removal depth;
- 3) position the folding guard as indicated in paragraph 5.4;
- 4) **the piece must be checked before the machining for possible foreign matters, knots, slots, marks, distortions;**
- 5) start the machine spindle;
- 6) machine the piece keeping the hands as shown in fig. 5.4.

**Fig. 5.5 operating modes**

### 5.6 Surfacing of short pieces (fig. 5.6)

For surfacing short pieces it is necessary to use a support tool for making the piece advance. This tool can be purchased from the machine supplier, or it can be made by the user; in this case, fig. 5.6 shows the overall dimensions of the tool that the user shall adapt to the features of the piece being machined.



**Fig. 5.6**

- 1) Adjust the position of the rip fence as a function of the machined piece width;
- 2) adjust the removal depth;
- 3) adjust the guard;
- 4) ***the piece must be checked before the machining for possible foreign matters, knots, slots, marks, distortions;***
- 5) start the machine spindle;
- 6) for the piece feeding, during the machining, use the tool for short pieces as shown in fig. 5.4.

### 5.7 Chamfering of long pieces

- 1) Adjust the inclination of the rip fence (max. 45°) and lock it;
- 2) ***the piece must be checked before the machining for possible foreign matters, knots, slots, marks, distortions;***
- 3) adjust the removal depth;
- 4) lay the piece against the inclined rip fence by the right hand;
- 5) position the folding guard as indicated in par. 5.4;
- 6) start the machine spindle;
- 7) press the piece against the rip fence and the out-feed table, fist closed, and move the piece forwards with the right hand closed.

### 5.8 Chamfering of short pieces

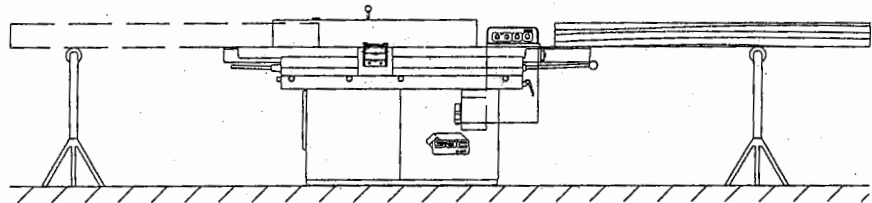
The chamfering jig is indispensable for the chamfered cutting of short edges, and can be used even for chamfering long edges.

- 1) Tighten the chamfering jig on the rip fence;
- 2) position the folding guard as indicated in par. 5.4;
- 3) adjust the removal depth;
- 4) *the piece must be checked before the machining for possible foreign matters, knots, slots, marks, distortions;*
- 5) start the machine spindle;
- 6) make the piece advance by the aid of a special chamfering piece-holder.

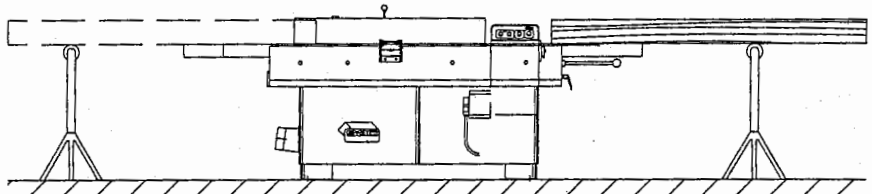
### 5.9 Surfacing of long pieces

For surfacing long pieces (length longer than what indicated in chapter 3) it is necessary to use supports placed before the in-feed table and after the out-feed one, as shown in fig. 5.9a and fig. 5.9b; in this way the piece is kept stable on the machining tables.

After having positioned these supports, the machining goes on as shown in the previous paragraphs according to the piece dimensions.



**Fig. 5.9a**



**Fig. 5.9b**

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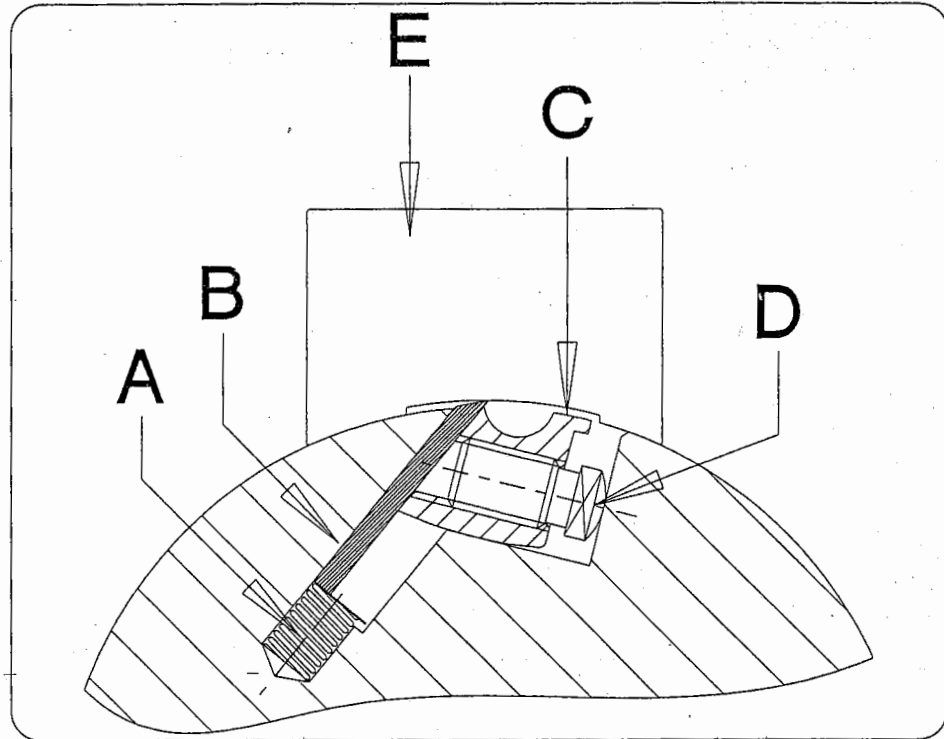
# 6

## KNIFE REPLACEMENT AND/OR ADJUSTMENT

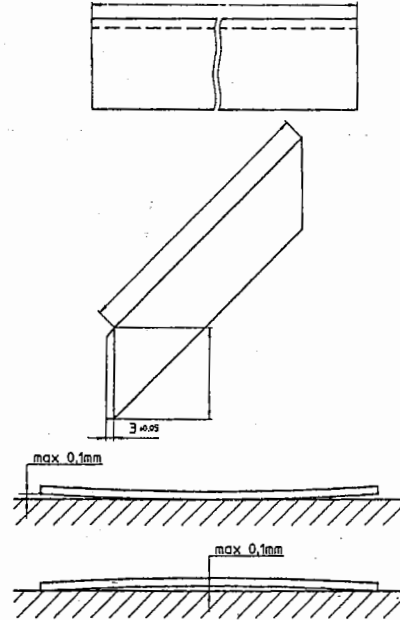
### 6.1 Knife replacement and/or adjustment on the standard spindle

- 1) Rotate the spindle manually keeping pressed the push button for releasing the brake, until the knife is between the two tables;
- 2) cut the machine off and lock the main switch;
- 3) loosen the screws D locking the knife by the gib C (fig. 6.1);
- 4) clean the gib and its seat;
- 5) if it has been necessary to disassemble all the gibs, position them following the numbers indicated on the gib and on the spindle;
- 6) never replace a single gib, but the complete set installed on the machine, so as to avoid vibration problems due to an incorrect balancing;
- 7) replace and/or re-position the knife B (fig. 6.1) keeping it pressed in its seat by a wooden piece (in case of replacement of knives, de-grease them before the installation), and **before the knife replacement check if the dimensions and tolerances are those indicated in table 6.1 and fig. 6.2;**
- 8) tighten the screws 1 to slightly lock the knives;
- 9) position the knife adjuster E as shown in fig. 6.1;
- 10) loosen the screws D so that the springs A push the knife against the knife-adjuster, so that the knife max. projection does not exceed 1.1 mm;
- 11) tighten the screws D starting from the central one, and then tightening first on the right and then on the left till reaching the ends; use the supplied wrench;

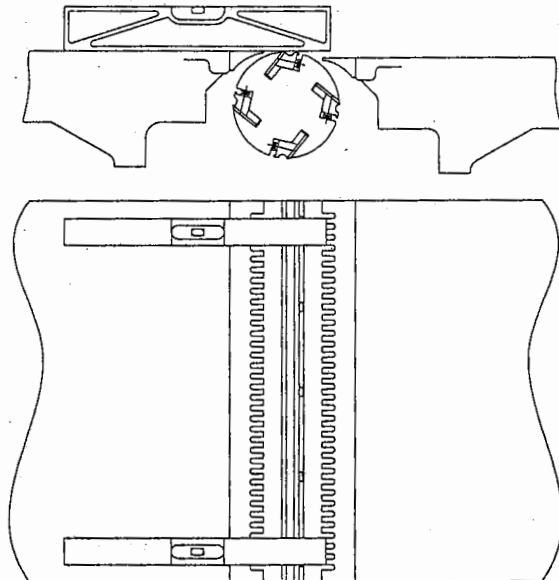


**Fig. 6.1**

- 12) check if all the fastening screws have been correctly tightened;
- 13) align the out-feed table with the cutting edges as shown in fig. 6.3.

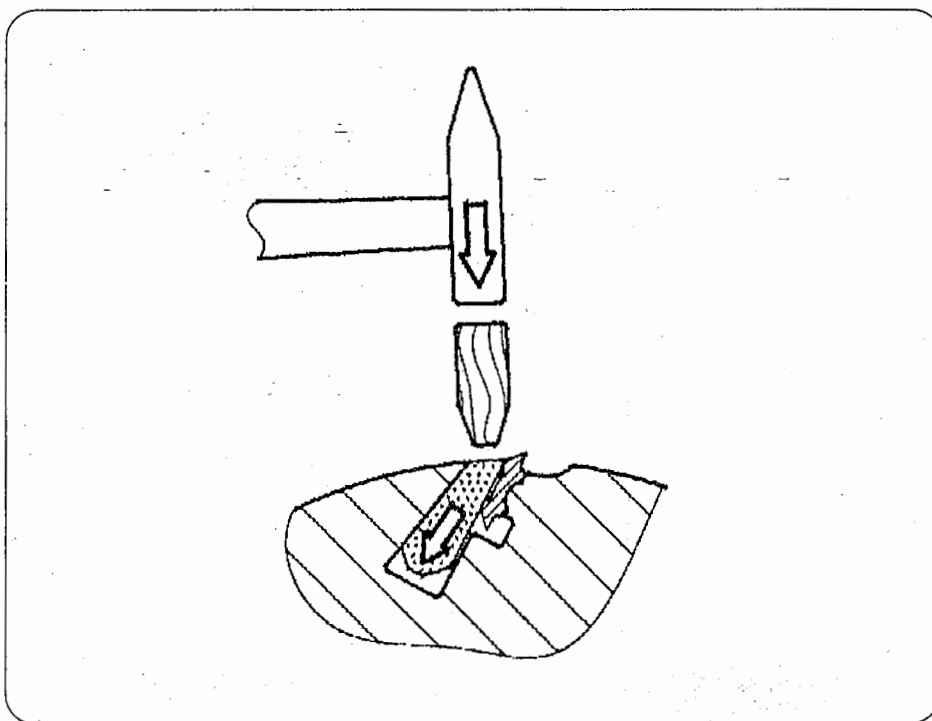
**Fig. 6.2**

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1 fig. 6.3.

**Fig. 6.3**

6.4  
Knife replacement  
and/or adjustment on  
the Tersa spindle

- 1) Rotate the spindle manually keeping pressed the push button for releasing the brake, until the knife is between the two tables;
- 2) cut the machine off and lock the main switch;
- 3) release the gib locking the knife by light hammer blows on a wooden wedge as shown in fig. 6.4;
- 4) replace the knife pulling it out;
- 5) perform the steps from point 1) to 4) for all the knives;
- 6) start the spindle; the knife locking is obtained by centrifugal force at the spindle start;
- 7) align the out-feed table with the cutting edges.



**Fig. 6.4**

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# 7

## MAINTENANCE

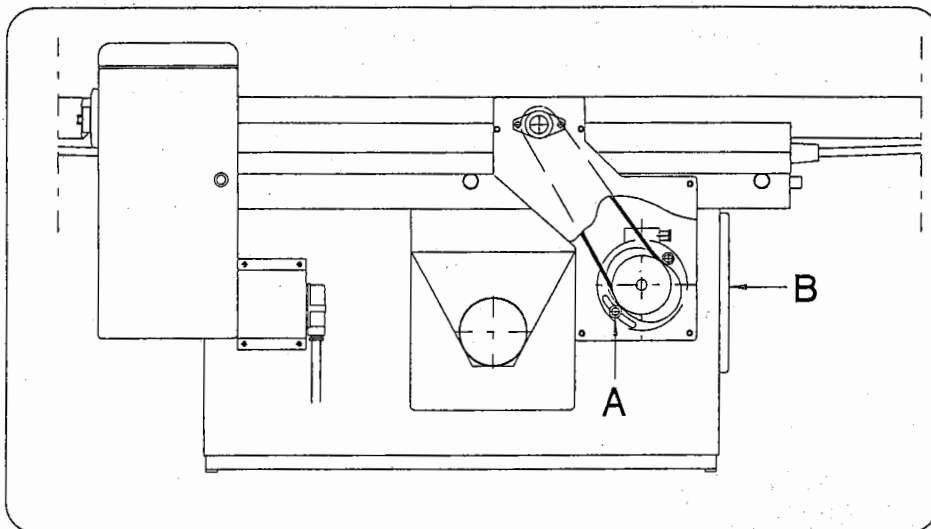
A careful maintenance makes the machine life longer and keeps the machining features unchanged. An important safety factor for the machine and the operator is a general accurate cleaning of the machine and the surrounding area; in the evening, at the end of the works, it is advisable to clean by means of a powerful air jet or of a vacuum-cleaner all the dust deposited around the machine.

All the installed bearings are life-lubricated, and therefore they do not need any lubrication.

The bushes used for the table positioning are self-lubricating, and therefore do not need any lubrication.

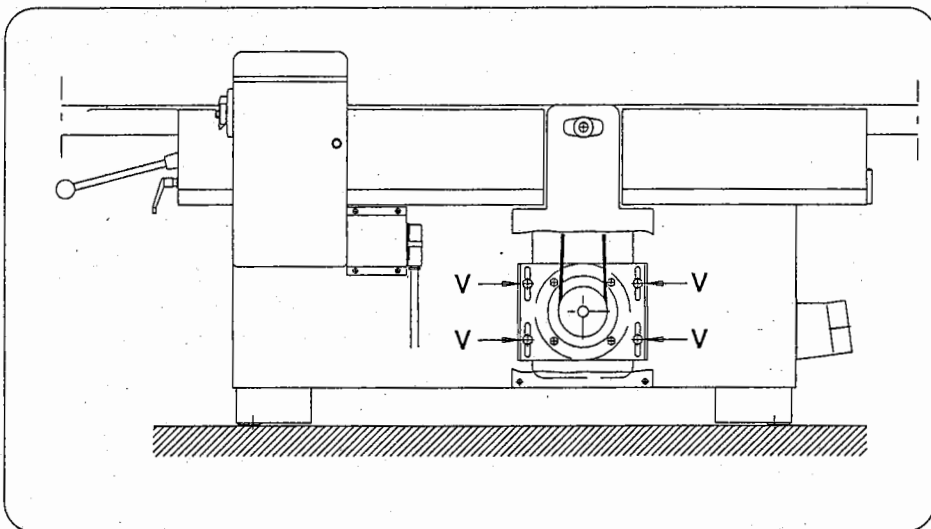
### 7.1a Belt replacement and adjustment

After the initial working hours, tension the belt/s. After having removed the protection crankcase placed on the machine rear, loosen the screw A in fig. 7.1a; the tensioning is correct when, applying at half belt a load of about 5 kg, the belt itself yields of about 15 mm. After having found the correct tensioning tighten again the screw A. When replacing the belts (FS 305) it is advisable to replace both of them in order to avoid having a short belt - the new one - and a long belt - the old one -, with a faster wear of the new one. The spare part list shows the initials of the belts to be used.

In-feed  
ta**Fig. 7.1a**

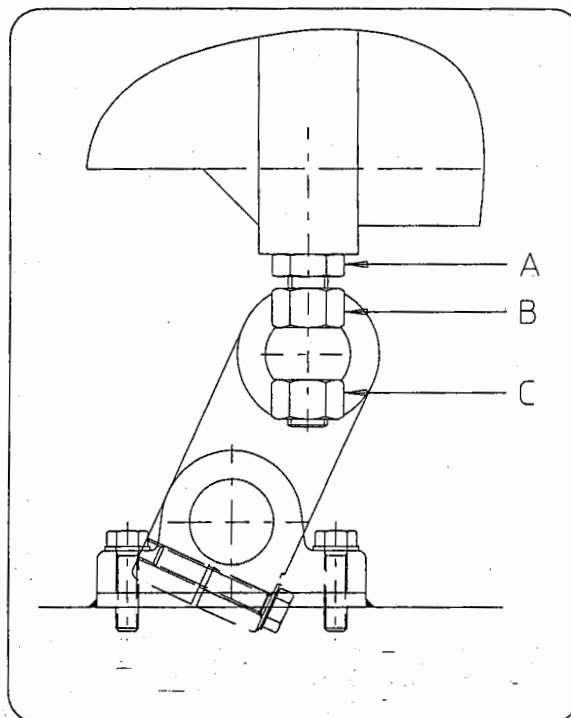
### 7.1b Belt replacement and adjustment

After the initial working hours, tension the belt/s. After having removed the protection crankcase placed on the machine rear, loosen the screws V in fig. 7.1b; the tensioning is correct when, applying at half belt a load of about 5 kg, the belt itself yields of about 15 mm. After having found the correct tensioning tighten again the screws V. When replacing the belts (F 430) it is advisable to replace both of them in order to avoid having a short belt - the new one - and a long belt - the old one -, with a faster wear of the new one.

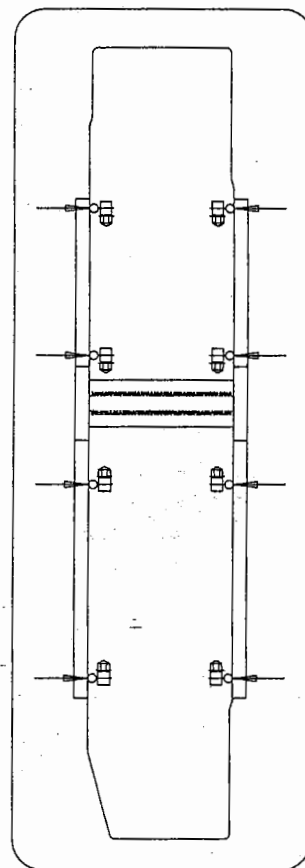
**Fig. 7.1b**

The spare part list shows the initials of the belts to be used.

## 7.2 In-feed and out-feed table alignment



**Fig. 7.2**



**Fig. 7.3**

- 1) lift the in-feed table till having it at the same height of the out-feed table;
- 2) loosen the nut C (fig. 7.2);
- 3) act on the nut B to adjust the table height;
- 4) the steps indicated in the points 2) and 3) must be repeated for each table supporting point (the position is indicated in fig. 7.3) till the two tables are aligned.

## 7.3 Electric system maintenance

**The maintenance of the electric parts must be performed by skilled personnel.** It's not possible to perform any preventive intervention on the electric system, but you can only intervene when an element is damaged providing for its replacement; however it is possible to improve the reliability of the electrical parts following some provisions:

- a) the spindle motor is supplied with overload cutout, but this protection is not sufficient if it is switched on and off several times in a short period; at least 60 seconds must pass between a switching-on and the next one;
- b) always check if the supply voltage ranges within the correct values ( $\pm 5\%$  of the rated value); operating with lower values means increasing the value of the voltage absorbed by the motor; for voltages higher than the rated values problems typical of over-voltages arise;
- c) replace the faulty components with genuine spare parts;
- d) calibrate the overload cutout at the current rated value shown on the motor plate.

#### 7.4 Brake adjustment and replacement

A self-braking motor is installed on the machine, and it needs a routine check for keeping its safety functions efficient.

*The material used for the friction surface does not contain asbestos.*

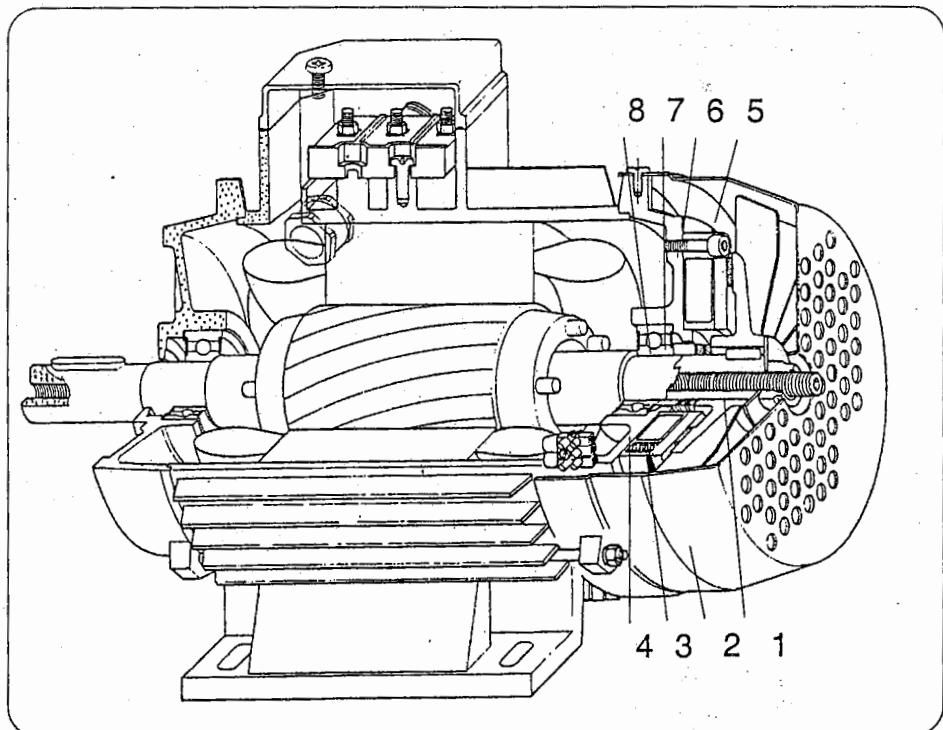
*As the material used for the friction surface is subject to wear, it must be checked quite frequently (at least once a week) if the spindle motor braking time is shorter than 10 seconds; if necessary, adjust or possibly replace the brake.*

#### *Electromagnet replacement*

To adjust the braking time, operate on the self-locking nut (1) checking that the entrefer, distance between the movable armature and the brake core, has a value ranging between 0.2 and 0.5 mm; the braking moment is inversely proportional to the entrefer value. In this case the entrefer value, compatibly with the above values, must be adjusted so that the braking time is shorter than 10 seconds. If it is not possible anymore to reach such a braking time, this happens after several adjustments due to the ferode wear, and the friction surface must be replaced.

#### *Brake adjustment (fig. 7.4)*

Remove the air conveyor (2), loosen the self-locking nut (1), pull the cooling and braking fan (5), the shims (8) and the push spring (7) out. Disconnect the brake coil from the rectifier, on the motor terminal box; then unloosen the three socket head screws (6), replace the electromagnet (4) and repeat the inverse step to install the parts. Then adjust the brake.



**Fig. 7.4**

routine

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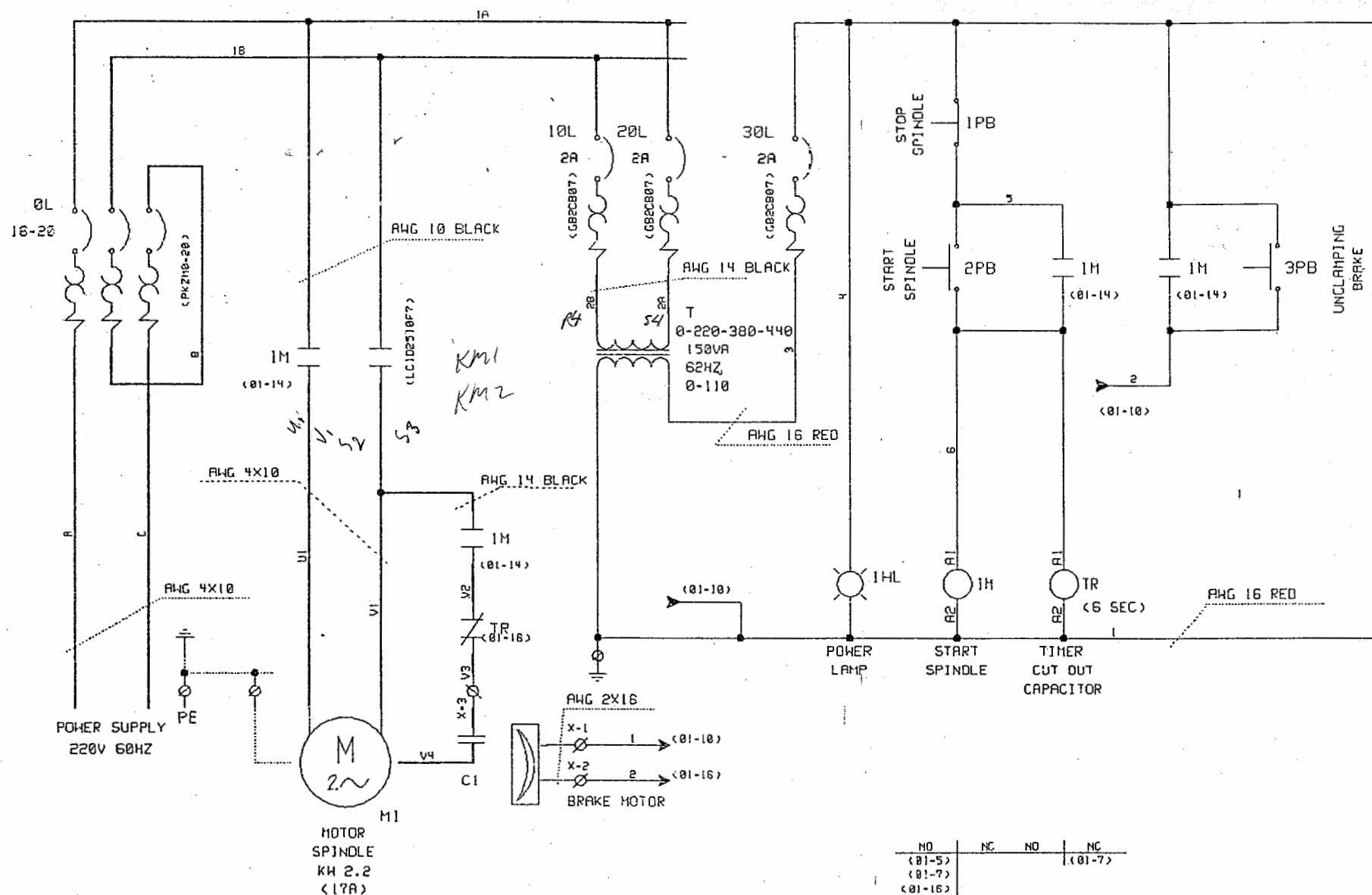
# 8

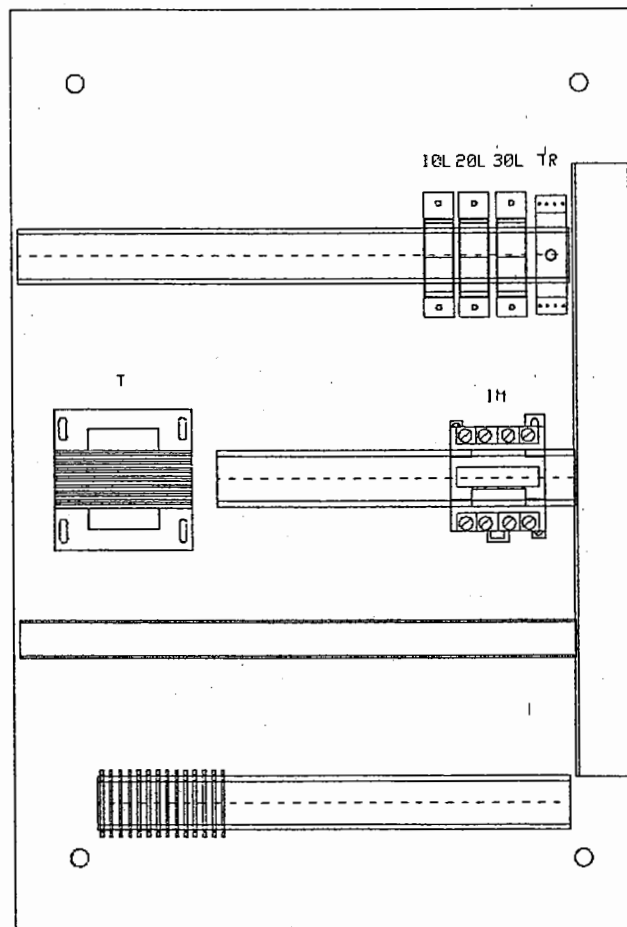
## SMALL TROUBLES: CAUSES AND REMEDIES

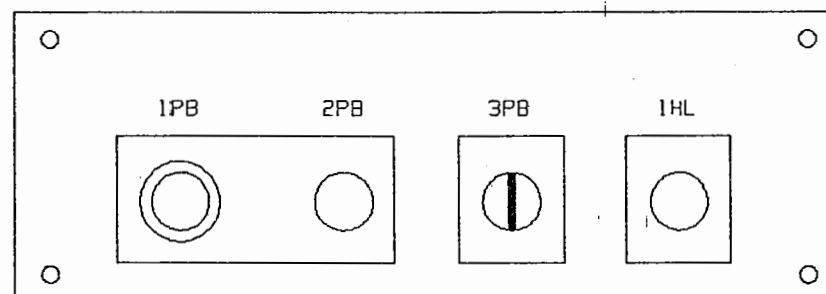
TROUBLE	CAUSE	REMEDY
The spindle overload cutout does not reset nor switches off	The supply voltage is lacking	Check if the supply mains to which the machine is connected supplies power
	Overload	Wait 10-30 seconds before resetting it
	Faulty overload cutout	Replace it
The motor rotates always braked and the brake release push button is not operating	One of the brake circuit protection switches has intervened	Reset it
	Brake coil faulty	Replace it
	Brake rectifier faulty	Replace it
During the machining the overload cutout has intervened	Overload caused by excessive removal	Reduce the removal depth
Piece surface marking	Insufficient suction	Check the connection with the suction system
	Spindle chip outlet clogged	Clean the spindle ship outlet
Piece bending during the machining	Worn knives	Re-sharpen or replace them

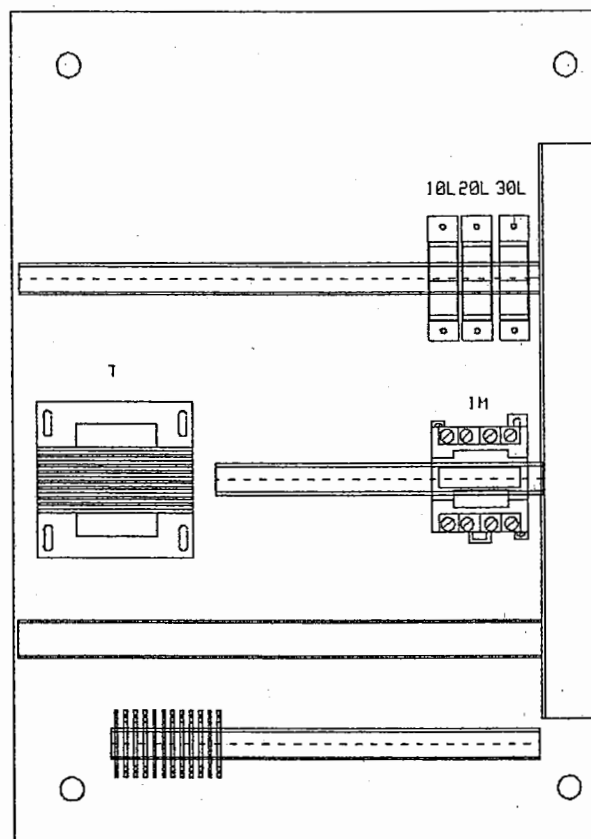


TROUBLE	CAUSE	REMEDY
Tears on the piece surface	Too high feed speed	Reduce the feed speed
	Knife/knives not aligned with the out-feed table	Adjust the height of the knife/knives according to the instructions in par. 6.1
Rounded piece ends	Out-feed table not aligned with the spindle cutting circumference	See chapter 6
Surfacing not at right angle	Rip fence not orthogonal to the machining table	Adjust the rip fence

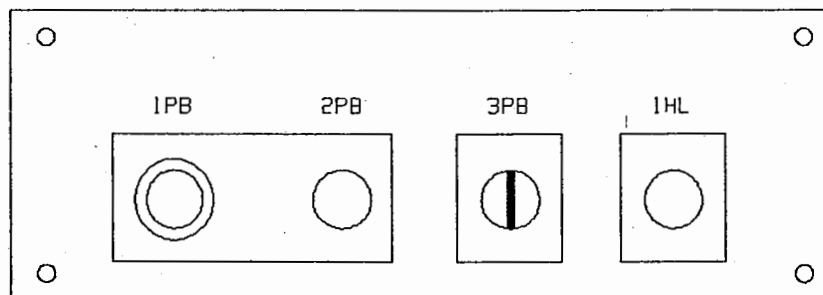












DESCRIPTION- ELECTRICAL LAYOUT MACHINE FS305 3-PHASE

N.SHEET 5

SHEET N.

LAYOUT N. 62010700

DATE PR. 07-10-1998

DATE MOD. 23-11-1998

NOTE 704/011

03

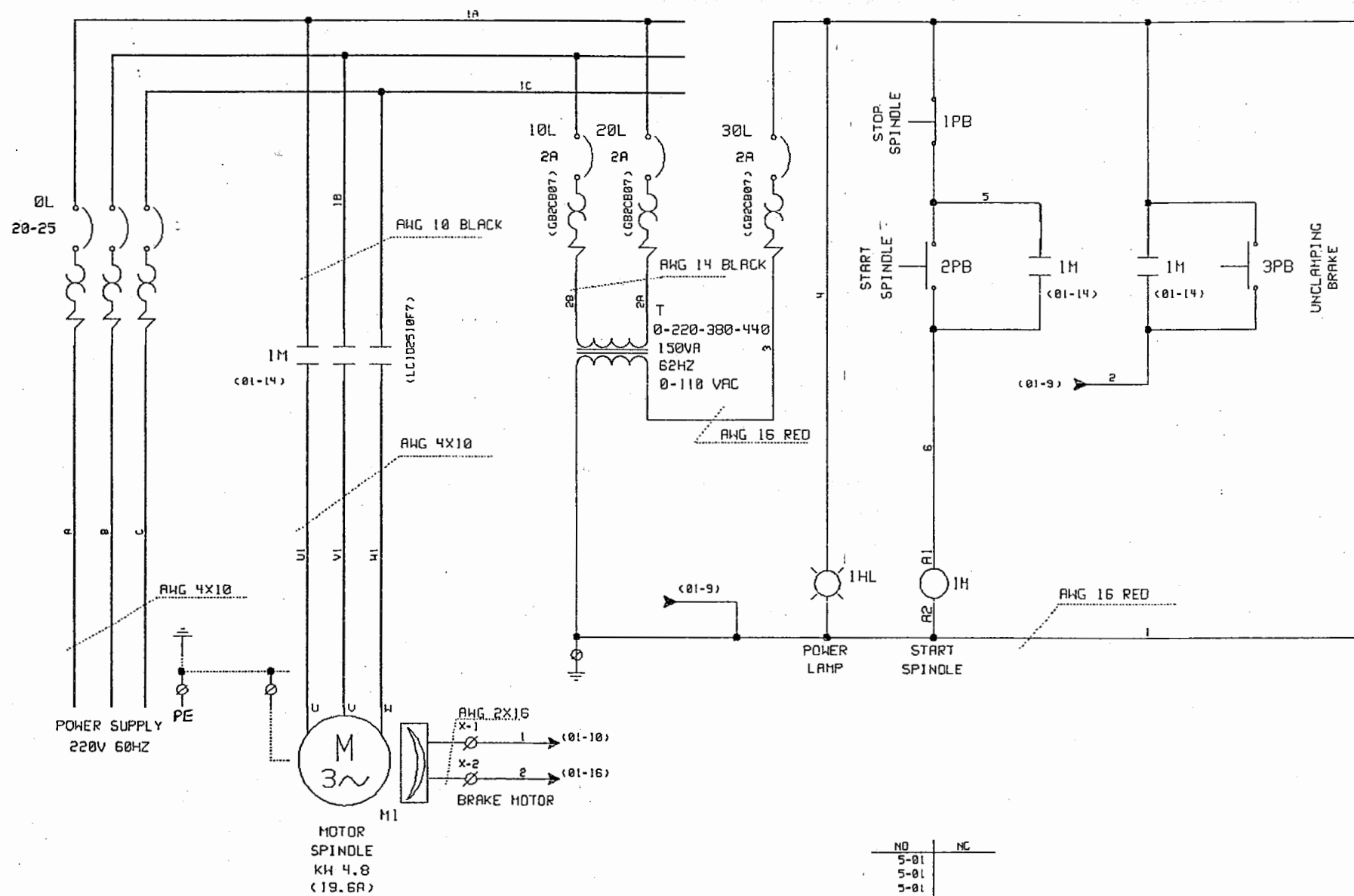




# MATERIAL LISTING

NAME	DESCRIPTION	MANUFACTURER	CODE	QTY
	CONNECTOR DIN 6 GROUND WPE 6	WEIDMULLER	NI 01020	1
	CONNECTOR DIN 2.5 GROUND WPE 2.5	WEIDMULLER	NI 01000	1
	PRESS-CABLE SKINTOP PG 16	OBO	2022656	2
	PRESS-CABLE SKINTOP PG 9	OBO	2022613	1
M1	SPINDLE MOTOR KW 2.6 WITH BRAKE 110VAC	SEIMEC	HFV90LA2	1







# MATERIAL LISTING

NAME	DESCRIPTION	MANUFACTURER	CODE	QTY
T	TRANSFORMER 0-220-380-440 SHIELD/0-110 150VA	VARAT	150-009	1
OL	MOTOR CIRCUIT BREAKER 20-25A	KLOCKNER	PKZM0-25	1
	BOX FOR GROOVE	KLOCKNER	PKZ0-G	1
	BLOCK PADLOCK	KLOCKNER	PKZ0-E	1
1OL	AUTOMATIC SWITCH 2A	TELEMECANIQUE	GB2CB07	1
2OL	AUTOMATIC SWITCH 2A	TELEMECANIQUE	GB2CB07	1
3OL	AUTOMATIC SWITCH 2A	TELEMECANIQUE	GB2CB07	1
1M	CONTACTOR 3P 32A WITH BRAKE 110VAC	TELEMECANIQUE	LC1D2510F7+LA8DN11	1 + 1
1PB	BLACK PUSH-BUTTON	TELEMECANIQUE	XB2BA21	1
2PB	EMERGENCY UNCLAMPING ROTATION PUSH-BUTTON	TELEMECANIQUE	XB2BS542	1
3PB	SELECTOR 2 POSITION UNSTABLE	TELEMECANIQUE	XB2BD41	1
1HL	WHITE LAMP	TELEMECANIQUE	ZB2BV01	1
	LAMP SOCKET	TELEMECANIQUE	ZB2BV6	1
	CONNECTOR DIN 6 GROUND WPE 6	TELEMECANIQUE	NI01020	1
	CONNECTOR DIN 2.5 WDU 2.5	WEIDMULLER	NI02000	2



Suero Alfredo S.p.A.

DESCRIPTION- MATERIAL LISTING MACHINE FS430

LAYOUT N. 62010700

DATE PR. 07-10-1998

DATE MOD. 23-11-1998

N.SHEET 5

NOTE 704/013

SHEET N.

04



# MATERIAL LISTING

NAME	DESCRIPTION	MANUFACTURER	CODE	QTY
	CONNECTOR DIN 2.5 GROUND WPE2.5	WIEDMULLER	NI01000	1
	PRESS-CABLE SKINTOP PG 16	OBO	2022656	2
	PRESS-CABLE PG 9	OBO	2022613	1
M1	MOTOR SPINDLE KW 4.8 WITH BREAK 100VAC	SEIMEC	HFV 112M2	1
	YELLOW RETTANGULAR FOR EMERGENCY	TELEMECANIQUE	Z10	1







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