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General information

Name and adress of manufacturer : NV WERKHUIZEN LANDUYT
Kolvestraat 44
B - 8000 BRUGGE
BELGIE



The model has been examined by the following organisation:
L'INSTITUT NATIONAL DE RECHERCHE ET DE SECURITE I.N.R.S.
Avenue de Bourgogne - BP27 - F 54501 Vandoeuvre Cedex - France

Description of the machine: PLANER-THICKNESSER-MORTISER SD-B 510
Date of construction of the machine: from 1998 on

Option: Mortiser unit
Digital read out of the tchicknesser
Wigo planer shaft

Always mention the following items on your order:

- Type of machine
- Serial number of the manual
- Part number and quantity
- Your reference and correct phone and fax number



Danger list

The danger list is based on parts 1 and 2 of EN 290 and annexe A of part 2.

Safety and maintenance instructions



Woodworking is a pleasant job that will give you a lot of satisfaction.

Nevertheless, working with a machine requires constant attention and care. Therefore, for your own safety, pay attention to the instructions summarised in this chapter.

- The machine can only be used safely if the operator strictly follows the operating and safety instructions.
- It is absolutely essential to read this manual before using the machine so you know how to the machine works and what its limitations are.
- Always make sure that all safety devices are fitted to the machine and that the machine is connected to a dust extraction system.
- Provide sufficient space around the machine and a good lighting of the workshop.
- When changing tools or when doing a maintenance job, the machine must always be disconnected from its power supply.
- Knives and tools which are not correctly sharpened, or in a bad shape, not only diminish the quality of the work, but also increase the risk of accidents.
- Always wear suitable clothing, loose or torn clothes are very dangerous.
- Keep children away from the machine and out of the workshop.
- To avoid damaging your hearing we recommend to wear ear protection, when working with the machine.

Attention

Working with woodworking machines can be extremely dangerous if the safety instructions are not followed.

It is recommended to systematically use the safety equipment installed on your machine.

Use only EN-847-1 sawblades on your machine.

Operating instructions



The following recommendations for safe working procedures are given as an example, on top of all information characteristics of this machine.

When working with the machine, safety equipment must be used.

Nevertheless, the user must also follow the operating instructions to avoid accidents.

1. Training of machine operators

It is absolutely essential that the machine operator receives thorough training regarding operating and adjusting the machine.

In particular:

- The risks involved in working with the machine;
- The operating principles, the correct usage and adjustment of the machine;
- The correct choice of the tool for each operation;
- The safe handling of the parts to be processed;
- The position of the hands in relation to the cutting tools;
- Storing the workpieces safely before and after machining them;

2. Stability of the machine

In order to be able to use the machine safely, it is essential to place it stable on the ground.

3. Adjustment and installation

Disconnect the machine from the power supply before every adjustment.

The recommendations of the machine manufacturer must be followed when adjusting and installing the tools.

The tools must be correctly sharpened and installed.

4. Handling of tools

In order to avoid severe cuts, safety measurements, such as the wear of safety gloves, must be taken

when handling planer knives, or other tools you are using in your workshop.

Even blunt tools can cause serious injuries to your hands.

vertaling punten 5 tot 8

Acoustic and dust emission levels

The values given are the emission levels; these are not necessary the levels at which the operator can work safely.

Although there is a link between the emission values and the exposure level, it cannot be used in a reliable way to determine if supplementary measures should be taken.

Noise information

- Measurements as per ISO Norm 7960; Annexe D

| Workpost under load | Level continuous acoustic pressure per index A dB(A) | Level acoustic power dB(A) (MW) | Max. value acoustic pressure as per index C (instantaneous) dB |
|---------------------|--|---------------------------------|--|
| planer | 92 | 98(6,3) | < 130 |
| thicknesser | 83 | 97(5) | < 130 |
| mortiser | 96 | 107(250,1) | < 130 |

Dust emission

The dust emission examination has been carried out by the following approved body:

Prüfinstitut für Holzstaubmessungen

Institut für Werkzeugmaschinen

Universität Stuttgart, Germany

Measurements as per DIN 933 893 (GS-HO- 05)

Measurements show that the TRK- value of 2mg/m³ has not been exceeded.

Notification number and date : 08/03/1998 FPH-AZ : 029/98



Normal and prohibited use

The machine is designed for the following work and is equipped with protective devices for these processes only.

It is not designed to work materials such as ferrous and non-ferrous metals, work different from that stated below is prohibited.

NORMAL USE

- planing the wide surface of workpieces on the planer unit;
- planing the narrow side of workpieces on the planer unit;
- beveling an edge on workpieces on the planer unit;
- thicknessing on the thicknesser unit;
- mortising holes in all wood types;
- mortising slots in solid wood, e.g. sinking doorlocks, flush sinking of hardware;
- mortising dowel holes, boring out knot holes, and making plugs for knot holes.

PROHIBITED USE

- insertion cuts on the planer unit, i.e. when the workpiece is not worked along its entire length;
- the use of other materials than wood, such as ferrous or non-ferrous materials.
- routing work of all types using router bits;
- grinding metal parts e.g. planer knives.

REMAINING RISKS

- unintentional contact of the hands with the running planer arbor;
- workpiece kickback;
- tipping over of the workpiece due to insufficient support;
- ejection of knots, ect.

The above does not negate the fact that extra safety equipment such as safety gloves and ear protection must be used.



Toegelaten en verboden toepassingsmogelijkheden LANGGATBOORTAFEL

De langgatboortafel bestaat uit een wegneembare boortafel en de boorkop die gemonteerd is op het uiteinde van de as van de vlak-vandikteschaaf.

De boortafel werd ontworpen voor de volgende toepassingen, uitgerust met een goede bescherming en mag enkel gebruikt worden om hout te bewerken.

Andere materialen mogen met dit systeem niet bewerkt worden.

- Boren van gaten in alle houtsoorten, met of zonder diepte-aanslagen.
- Boren van gaten in massief hout.
- Boren van spillen.
- Verwijderen van knopen.
- Het vervaardigen van opvulstukjes in vervanging van uitgeboorde knopen.

VERBODEN TOEPASSINGEN

Volgende bewerkingen op de boortafel zijn verboden :

- Frezen of pennen slaan met niet voor dit doel aangepaste werktuigen.
- Slijpen van de schaafmessen, of schuren van metalen onderdelen met een in de boorkop gemonteerde schuurschijf.

LATENTE RISICO'S

De voornaamste ongevallen met de boortafel zijn :

- Onvrijwillig contact van de handen met het in beweging zijnde werktuig.
- Kantelen van het te bewerken stuk door gebrek aan voldoende steunoppervlak.
- Als de boorkop op het uiteinde van de vlak-vandikteas is gemonteerd : contact met de draaiende as, door het weglaten van de vlakschaafbescherming.

Ondanks het gebruik van specifieke beveiligingen en het toepassen van de voorschriften inzake veiligheid en hygiëne, bestaan er toch nog latente risico's tijdens het werken met de boortafel.

- Risico op ongevallen in de niet beveiligde omgeving rond het werktuig.
- Risico op verwondingen tijdens het vervangen en monteren van werktuigen (snijwonden door contact met de messen).
- Verbrijzeling van de vingers.
- Gezondheidsrisico's door langdurig inademing van stofdeeltjes, vooral van eik, beuk en bepaalde exotische houtsoorten.
- Doofheid door langdurige blootstelling aan lawaai.

Vertaling AUB

Technical data



| | | |
|-------------------|----|----------------|
| Voltage | V | 220 Tri-380 |
| Gewicht | kg | 900 (SD-510) |
| Verpaking (BxLxH) | mm | 1150x1600x1100 |

Planer

| | | |
|--------------------------|-------|--------------|
| Diameter planer arbor | mm | 100 |
| Number of knives | | 3 |
| Dimensions of the knives | mm | 410-510x30x3 |
| R.P.M. planer arbor | T/min | 6000 |
| Planer width | mm | 410-510 |
| Length planer tables | mm | 2250 |
| Height planer tables | mm | 790 |
| Lenght planer fence | mm | 1100 |
| Inclination planer fence | | 90°-45° |
| Maximum spaanafname | mm | 6 |
| Maximum depth of cut | kW | 5,5 (7,5 PK) |
| Material planer tables | | cast iron |

Thickneser

| | | |
|---------------------------------|--------|-----------|
| Thickneser capacity | mm | 250 |
| Diameter central column | mm | 150 |
| Feeding speeds | m/min. | 5/8/10/16 |
| Diameter feeding rollers | mm | 50 |
| Electrical raise and fall table | mm | 150 |
| Friction reduction rollers | | 2 |
| Dimensions thicnesser table | mm | 810x510 |
| Material thickneser table | | cast iron |

Mortiser

| | | |
|--------------------------------|----|-------------|
| Stroke: cross in/out/up | mm | 200/150/120 |
| Chuck capacity | mm | 0-16 |
| R.P.M. chuck | | 3000 |
| Weight | kg | 200 |
| Material of the mortiser table | | cast iron |
| | | |
| | | |



Standard equipment

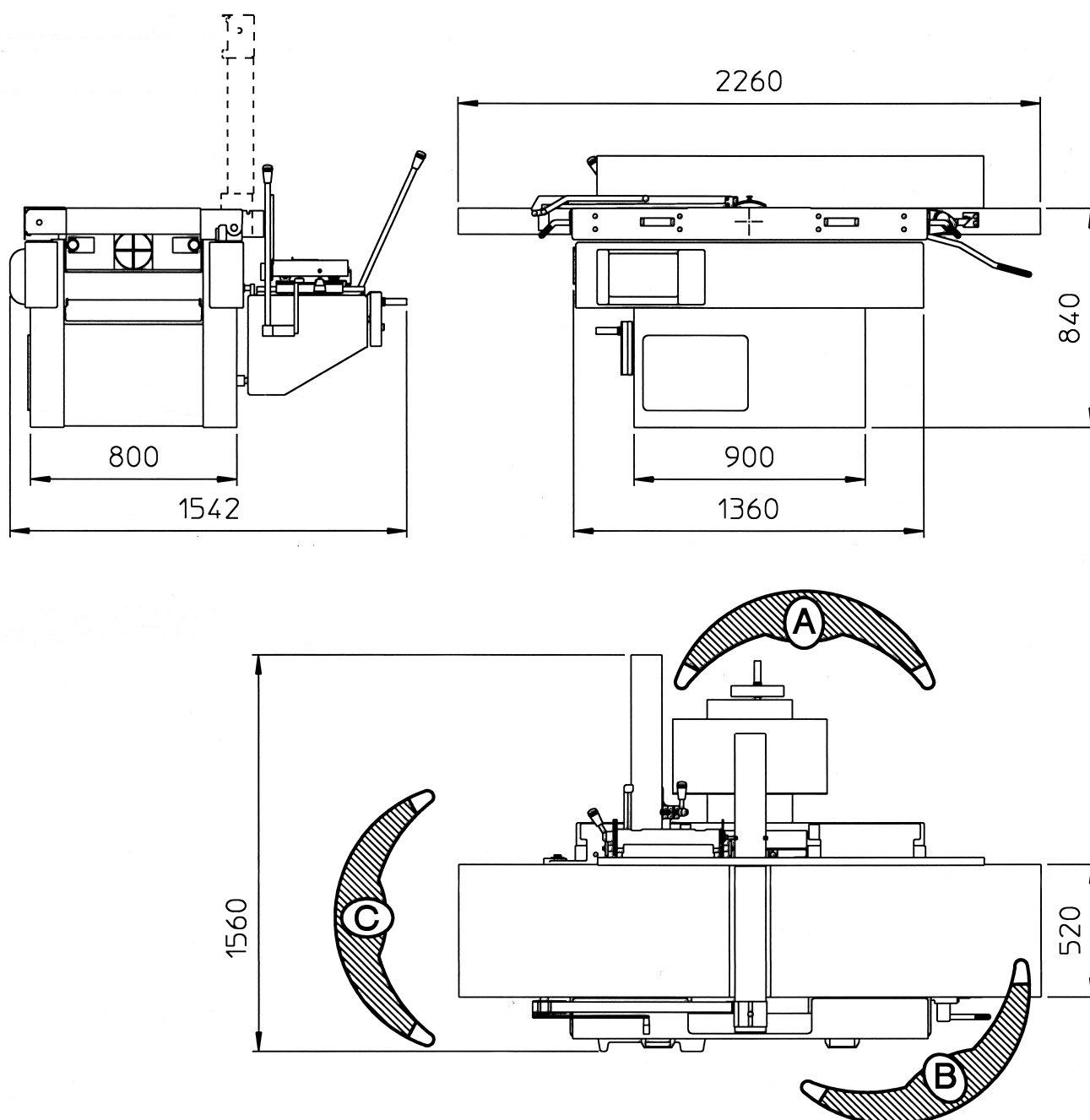
- 4 feeding speeds on the thickener by a selector switch, and 2 motors.
- 5,5 kW motor
- Electrical raise and fall of the thickener table.
- Friction reduction rolls in the thickener table.
- Manual "Star-Delta" starter.

Options

- Mortiser
- 7,5 kW motor
- Automatic "Star-Delta" starter

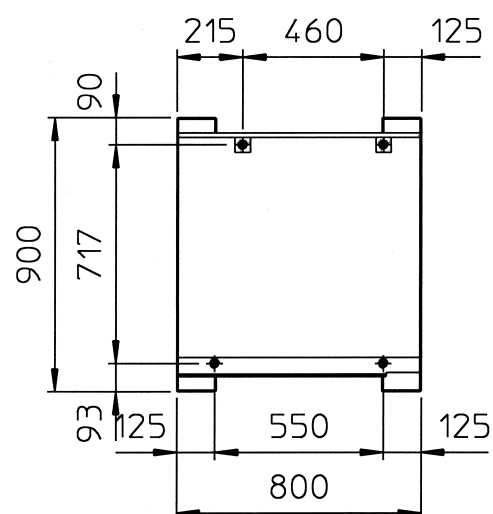
Dust suction

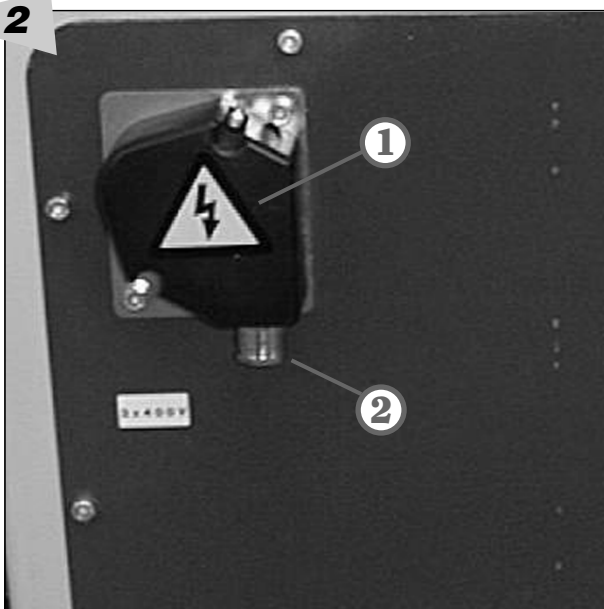
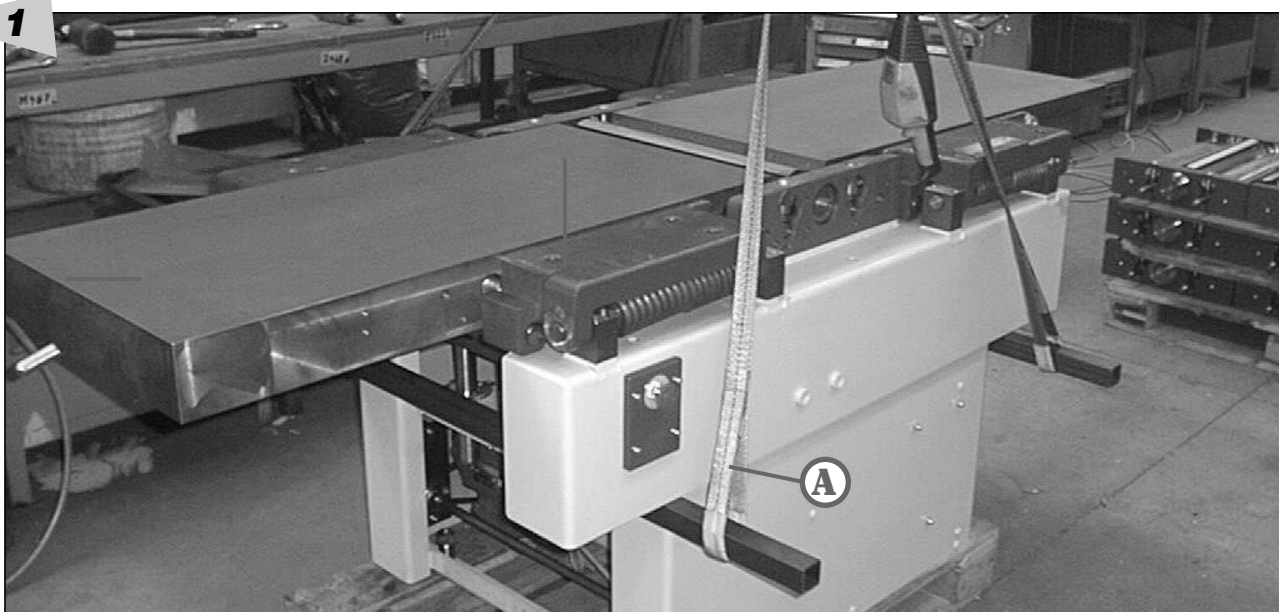
- Planer thickener: 150 mm diameter



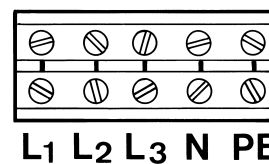
PLAATS VAN DE BEDIENING

- A: Langatboren
- B: Vlakschaven
- C: Vandiktschaven



RS (Fig 1-2-2bis)

2 bis



Transportation of the machine (fig.1)



Depending the method of transport or shipping, you will receive the machine in a crate or on transport blocks.

Remove the sides of the crate and cover and slide the hoisting equipment(A) under the table as shown in fig, 1, make sure not to damage the electrical cabinet when lifting the machine.

The machine can be lifted with a small crane, or a forklift, but severe shocks must be avoided. Place the machine on a concrete base, and level the machine perfectly horizontally in both directions.

The machine is constructed in such a manner that it is not necessary to fix it to the ground, but if you wish to do so, fixing bolts must be introduced through the leveling bolts in the base plates.

Please find the dimensions of the base plate in the technical data drawing.

Electrical connections (fig.2,2bis)



The electrical connections must be carried out by a qualified electrician who is able to calculate the exact needed wire section and caliber of fuses.

- Check that the mains voltage of your machine corresponds with the voltage in your workshop.
- Open the electrical connection box at the back of the machine (fig, 2,1).
- Connect the three phases to the terminals marked L1, L2, L3 (fig,2 bis).
- If there is a neutral conductor (blue) it is to be connected to the terminal N.
- Connect the earthing (green-yellow) to the terminal marked with the earth symbol PE.

ATTENTION:

- **Check first if the spindle runs free and if all protections are mounted before starting up the machine.**
- **If the rotation direction of the spindle is not correct, the leads L1, and L2 must be exchanged.**
- **The rotation direction of the spindle is clockwise: right.**

Power supply

Electric potential : 5,5 kW - optional 7,5 kW.

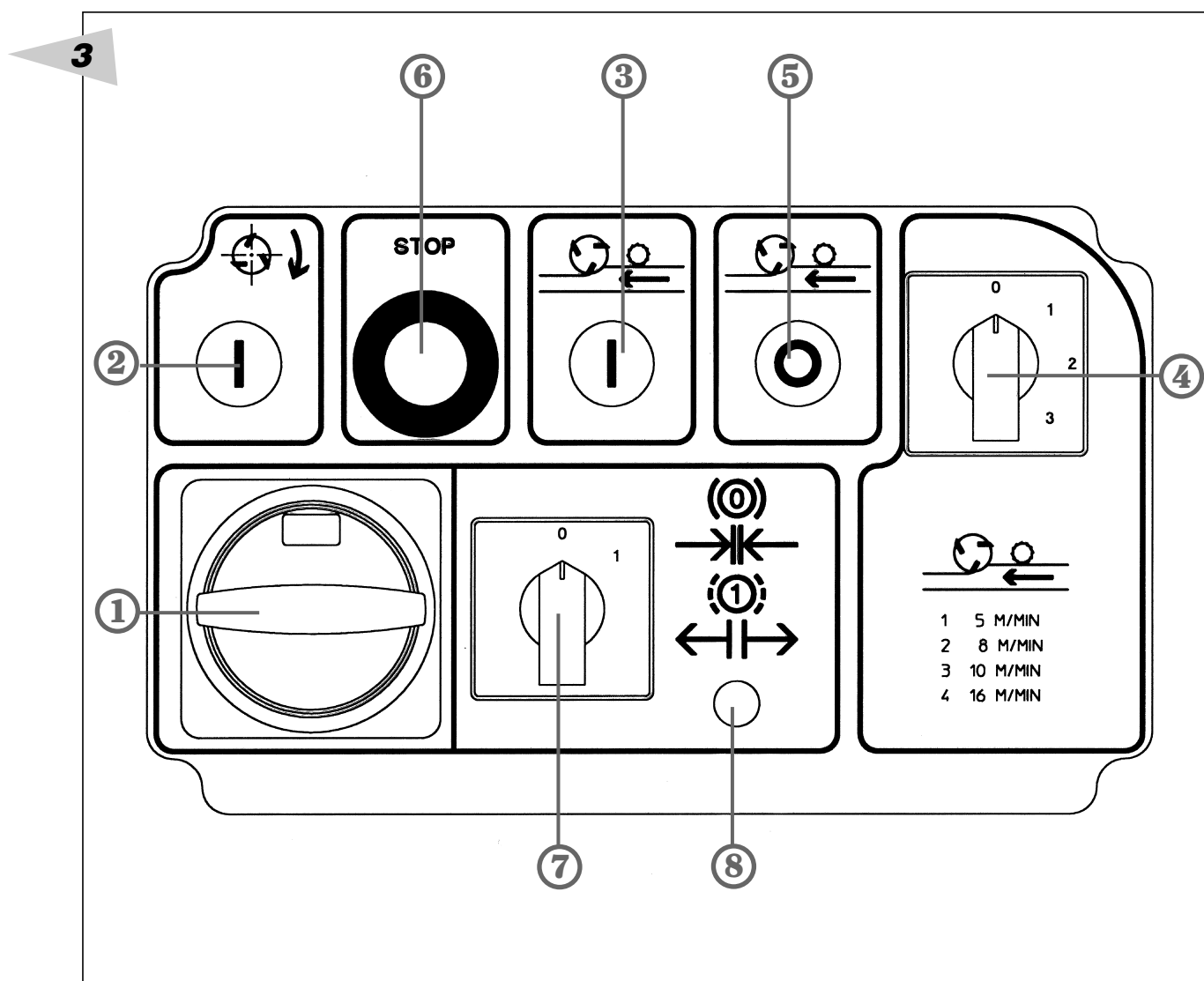
Wire section power supply cable : minimum 2,5 square mm.

Nominal current : 11 Amp for 5,5 kW, and 15 Amp for 7,5 kW.

Frequency : 50/60Hz.

ATTENTION:

The machine is equipped with overload protection, and should the motor be shut-off by this protection, it is necessary to wait for a few minutes until the overload has cooled down, and resets itself.

RF (Fig 3)

Starting up the machine (fig,3)



Turn the main switch (1) to position "1" in order to put the machine under tension, and ensure that the Star-Delta switch is set at the "Star" position.

To start up the motor push the start button (2), and after about 6 seconds switch over to the "Delta" position.

This time delay of 6 seconds is needed to let the motor gain its full speed before switching over to "Delta".

When you forget to switch over from Star to "Delta", the motor will reach its full speed but will have no power, and can be damaged very easily.

By pushing the stop button (6) the main motor is automatically stopped, and slowed down by the automatic brake(only CE version machines) within 10 seconds.

The feeding motor can be started by pushing the start button (3), and with the selector switch (4) the 4 different feed speed can be chosen.

To stop the feeding motor, push the stop button (5).

All motors are stopped automatically when the emergency stop button (6) is used;

Make sure the brake release switch (7) is set at position O in order to be able to start up the machine.

When this same switch is set at position 1 during the run of the machine the motors will automatically be stopped.

WARNING:

All fuses can be found inside the electrical cabinet, and each time this cabinet is opened the machine must be disconnected from the main power supply.

Dust extraction



For your own health and to avoid fire risk and dust explosion, it is recommended to connect the machine to a dust extraction system

Safety instructions for the planer



1. Always make sure there is no tool left in the mortising chuck before starting up the planer-thicknesser.
2. Check very carefully whether the planer knives are well positioned, and fastened, this to prevent the knives from coming out of the planer arbor, which could lead to serious injuries for the operator, and damage to the machine.
3. Never use planer knives which have less than 20 mm of height.
- 4; Always check the correct setting and position of both planer fence and guard.
5. Ensure the planer tables are well locked.



Changing and setting of the planer knives (fig.4,5)

In order to turn the planer arbor by hand, put the brake release switch (fig.3,7) in position 1. To avoid serious injuries when handling planer knives, the wear of safety gloves is highly recommended: even blunt knives can cause serious damage to your hands !.

Make sure both planer knives and jib strips are well cleaned before putting them into the slots in the planer arbor.

Take care of the springs underneath the knives, and see to it that they do not stay blocked inside their seats in the arbor.

Now put the cleaned planer knife into the groove, pushing the knife down with the adjustment gauge(2), and tighten the 2 outer bolts(1) at each side, using the same gauge as a hand cover.

Now tighten the remaining locking bolts, and repeat above for the other planer knives.

Make sure all knives are set at exactly the same height, and then ensure the outfeed table is set at the same height as the planer knives.

To raise or lower the outfeed table, loosen bolt (fig.5 bis,1) and use the long handle (fig.5 bis,2) to move the table up or down.

After the table is checked for the position against the planer knives, tighten well bolt (fig.5bis,1).

Before starting up the machine check again if all bolts are well tightened, and then put the brake release switch (fig.3,7) in the position "0" in order to be able to start up the machine.

The most simple and exact way to ensure all planer knives are well set, and at the exact same height is to use a magnetic knife setting gauge, suited for 100 mm diameter arbor.

This device will not only make knife setting very easy, but will save precious time.

Ask your Robland dealer for this item (not available as a Robland factory item).

To ensure the planer knives are set at exactly the same height as the outfeed planer table, a simple device can be used as seen in fig 5.

Take a piece of square wood and put 10 marks at exactly 1 mm interval, and put one planer knife at its highest point, and put your scale with the 0 on top of the planer knife.

Now turn the planer arbor 1 turn by hand (use the brake release switch) and if the scale is moved for not more than 3 marks, this means the knives are well set.



Planer fence (fig.6, 6 bis)

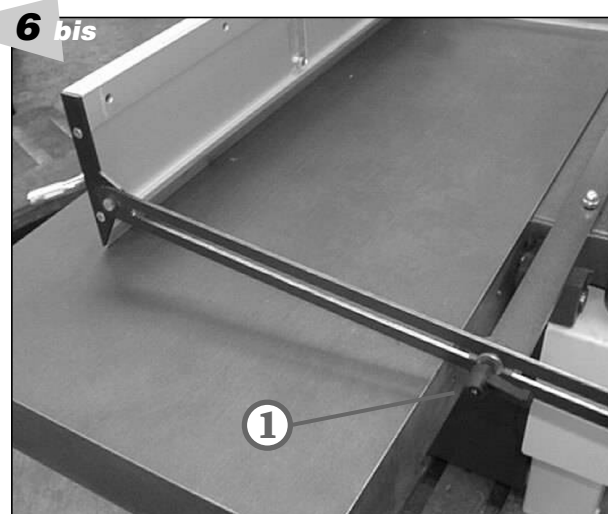
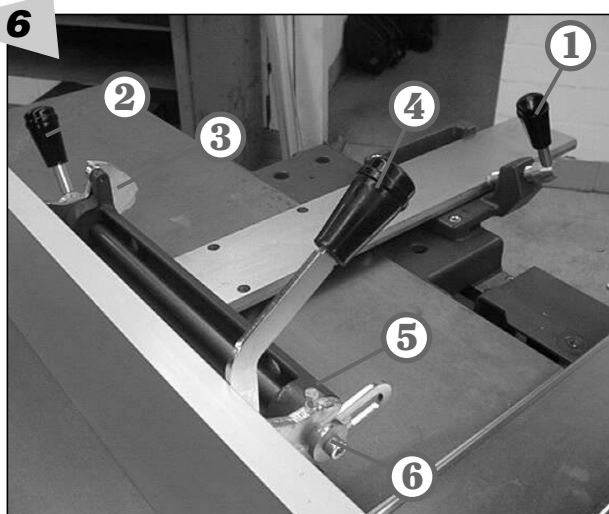
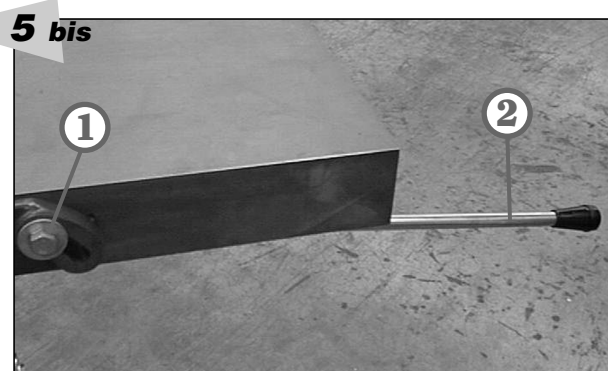
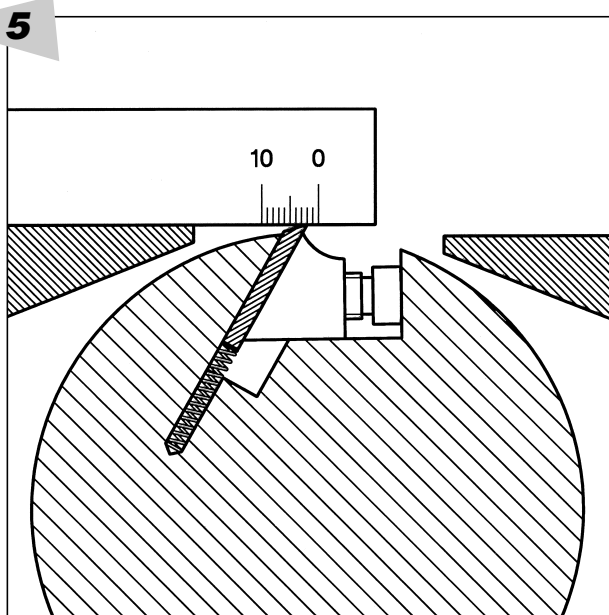
The planer fence can be adjusted according to the width of the workpiece by loosening the handles (fig.6,1 and 6 bis,1), and sliding the fence to the front or back.

After unlocking the handles (2, and fig.6 bis1) and pushing the lever (4) the fence can be set at any angle between 90° and 45°.

The 90° positive stop can be adjusted underneath the fence support, the 45° positive stop can be adjusted on top of the fence support.

Angles can be read at the scale (3).

Make sure all clamping handles are well tightened before starting to work.

(Fig 4-5-5bis-6-6bis)



Planer guard (fig.7,7bis)

The planer guard is composed of an aluminium protection bridge which can be adjusted in height parallel to the table surface.

For planing the bridge guard (fig.7) has to be lowered so that the workpiece can be slid under the bridge guard.

Set the height using the lever (fig.7,1); the workpiece is guided along the planer fence.

First check the workpiece for straightness and always put the workpiece on the planer table with the concave side down.

For planing the narrow side of a workpiece the protection bridge has to be lowered down to the table and has to be set according to the workpiece width (fig.7 bis).

Set the bridge guard with a minimal opening to the workpiece to ensure maximum cover and safety.

This guard has to be used for every operation on the planer. Never work without it !!!



Adjusting the planer depth cut (fig.8)

Unlock the clamping handle (1), and by lifting, or pushing down the lever (2) the depth of cut can be adjusted.

The depth of cut can be read at the scale (3).

After setting is done, lock the clamping handle (1).

The maximum depth of cut is 6 mm.



Changing over from planer to thicknesser (fig.9,10,11)

After both planer tables have been opened using the planer table locking handles (fig.9,1) the dust chute has to be flipped over to the thicknesser position.

Unlock both knobs (fig.11,1) and flip the back part of the chute over so that it covers the planer arbor.

Now lift the front part up and push it to the front in order to engage both parts, and lock both knobs.

A safety device (fig.10) prevents the tables from falling down in case of spring failure, before lowering the tables, pull this lever towards the front, and lower the tables.

Always when opening the tables, engage this device.



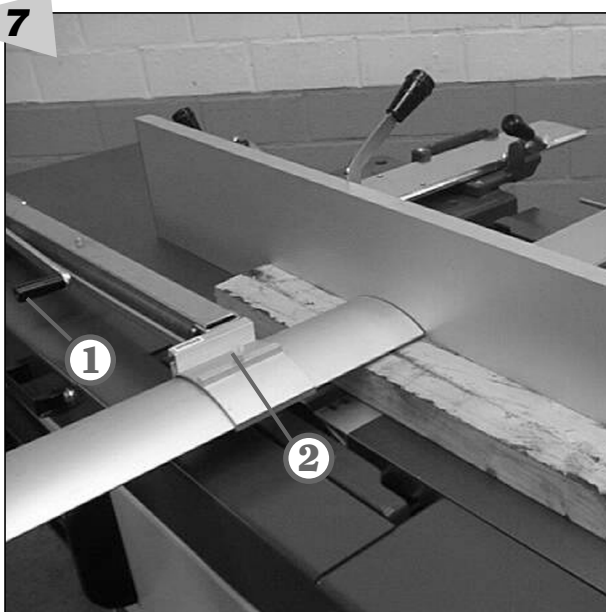
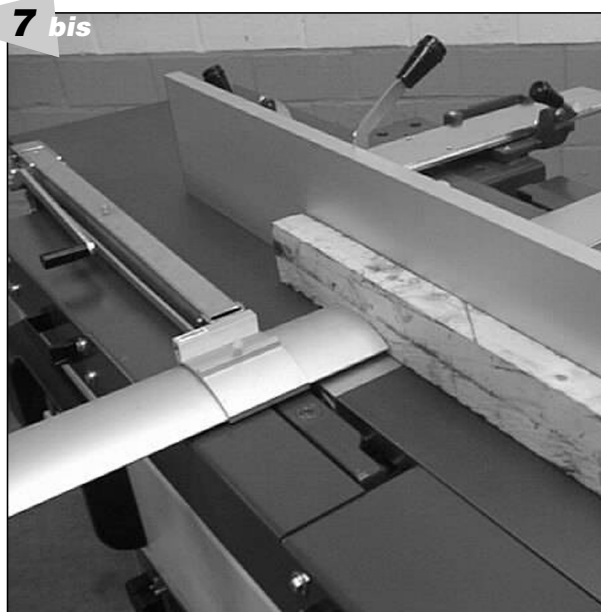
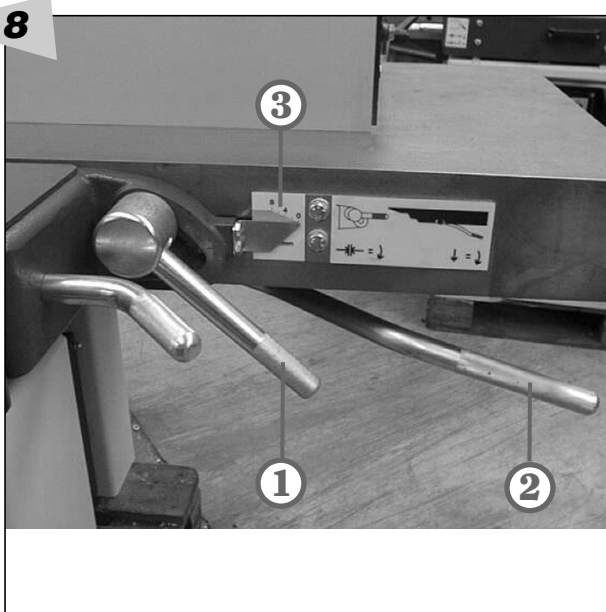
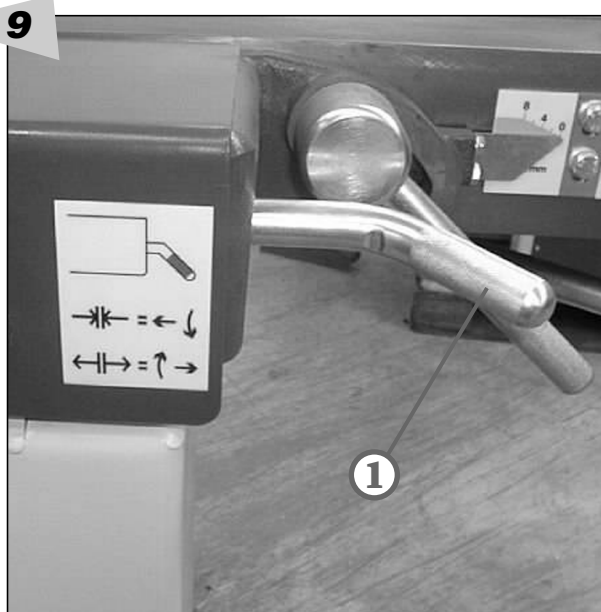
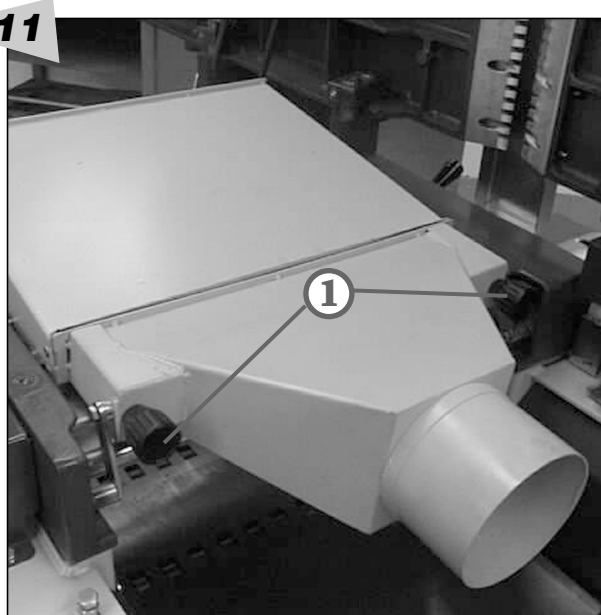
Safety instructions for the thicknesser

Always make sure there is no tool left in the mortising chuck before starting up the thicknesser.

Ensure the correct position and locking of the dust chute.

Roller supports should be used when long workpieces are machined.

Ensure the thicknesser table is well cleaned, since a smooth table surface is essential for good operation of the thicknesser.

(Fig. 7-7bis-8-9-10-11)**7****7 bis****8****9****10****11**



Adjusting the depth of cut on the thicknesser (fig.12,12bis)

The raise and fall of the thicknesser table is motor driven (on some versions) by turning the switch (fig.12,1) to the position raise, or fall.

The vertical movement of the table is 150 mm/min, and the thicknesser capacity is 250 mm.

The exact measure can be read at the scale (4), and as an option a digital read out is available.

The fine adjustment of the height setting of the thicknesser table can be achieved by turning the handwheel (1).

After the height setting is done the thicknesser table can be locked by turning the two handles (2) to the left (clockwise).

The left handle is for locking the central column, and the right handle is for locking the two extra guide columns sitting to the right side of the central column.

To avoid damage to the motor drive system, and the other different components it is very important that each time the height setting is done, the columns are unlocked, using the locking handles (2) by turning them to the right (anti-clockwise).



Calibrating of the digital read out (fig.13)

It is highly recommended that each time the planer knives are changed, the digital read out is calibrated, this to avoid measurement errors.

Calibration is done as follows:

- set the thicknesser table at a random height and thickness a sample.
- now measure exactly the thickness of the sample.
- now the digital read out has to be set at the same measure, and this can be achieved by simultaneously pressing the F and the RESET button on the indicator.
- Now the indicator begins to count up at 3 progressive speed rates:
 - Rate 1: at 1Hz for 10 sec.
 - Rate 2: at 10 Hz for 10 sec.
 - Rate 3: at 1000 Hz as long as the two buttons F, and RESET are held.
- shortly before the desired value is reached, release the two buttons and press the same two buttons again so as to approach the desired value with the slowest rate 1 of Hz.

Now the full stroke of 250 mm of the thicknesser is calibrated.

To set the indicator at 0, simultaneously press F and RESET.



Thicknesser feed (fig.3)

Before starting to work on the thicknesser always ensure that the anti-kickback protection fingers are clean and hang down freely in position under their own weight.

These anti-kickback fingers should be inspected on a regular base, and kept clean and free of any resin deposits whatsoever.

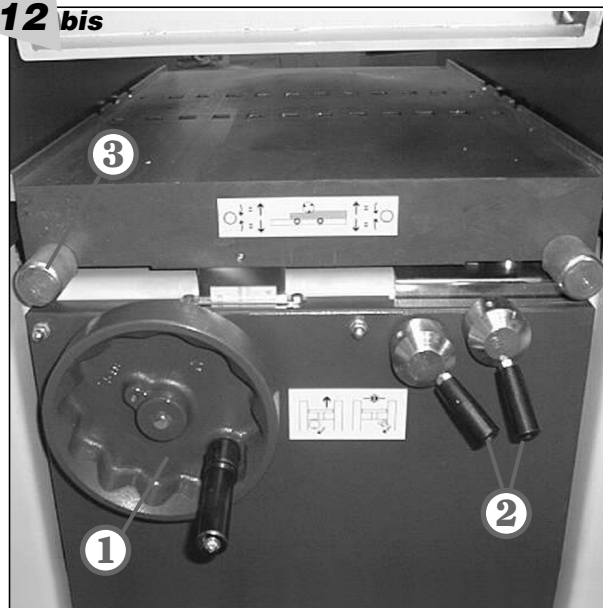
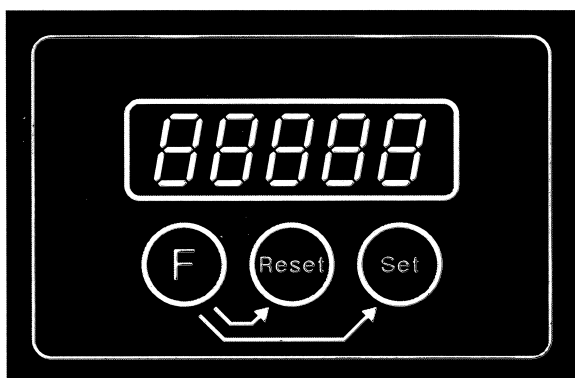
The feeding motor can only be started up when the main motor runs.

The feeding speed can be chosen on the selector switch (fig.4), and the motor can be started by pushing the start button (5).

Changing over from one speed to another can be done without having to stop the main motor.

In case of overloading of the feeding mechanism the feeding motors must be disengaged immediately by pushing the emergency stop button on the thicknesser side (12) or on the main electrical cabinet.(6).

After reducing the depth of cut on the thicknesser, the motor can be started up again.

(Fig. 12-12bis-13)**12****12 bis****13**



Safety instructions on the mortiser

Always make sure both the mortiser chuck and the planer arbor safety guards are in place before starting work.

Only use left hand drill bits, and whenever possible short type drill bits.

Make sure the drill bit is correctly fastened.

Make sure the workpiece is firmly secured onto the table with the woodclamp.

Adjustable workpiece supports should be fitted onto the mortising table when machining overdimensioned workpieces.



Mounting of the mortiser unit onto the machine (fig.14)

The mortiser unit is fully mounted, and is fixed with 3 big bolts onto the machine (1).

First of all put the 3 threaded adapter parts half into the frame, and lower the mortising table, using the handwheel, so far untill the 2 upper mounting holes are free.

Now lift up the mortiser using a pallet truck untill the 2 upper bolts can be put inside the upper adapters.

Now raise the mortiser table, using the handwheel, so far up untill the lower mounting hole is free

and put the lower fixing bolt into the adapter.

Now by adjusting the adapters the mortiser unit can be adjusted in both horizontal, and vertical direction.

Make sure the mortising table runs perfectly parallel to the mortising chuck, iff not readjust the 3 fixings.



Mounting of the chuck and the guard on the planer arbor (fig.15)

Warning : planer arbor and chuck have right hand thread.

Both planer arbor and chuck should be well cleaned before mounting.

Now the chuck can be mounted onto the arbor upto the end.

The chuck guard is fixed onto the machine by putting the 2 screws (1) through the front of the guard into the support.

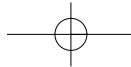
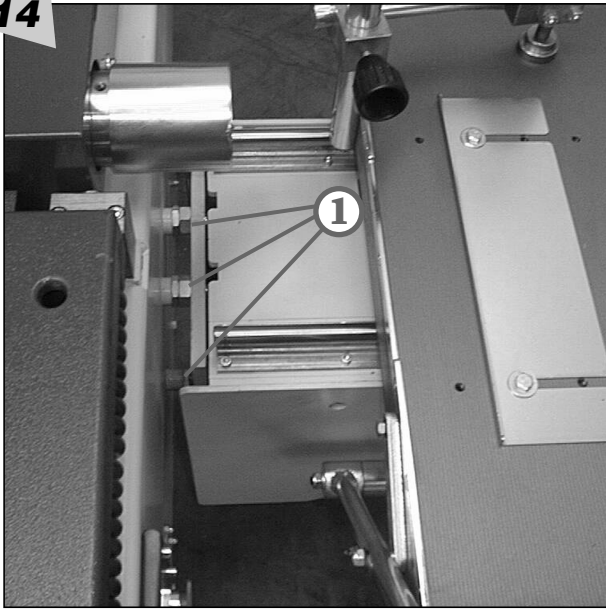
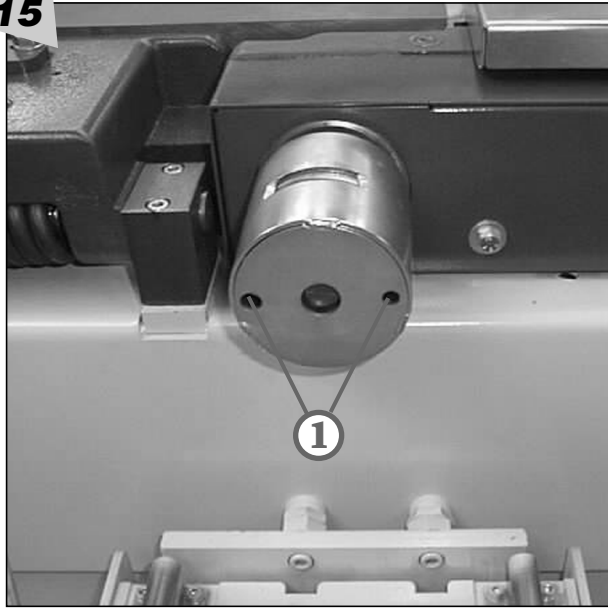
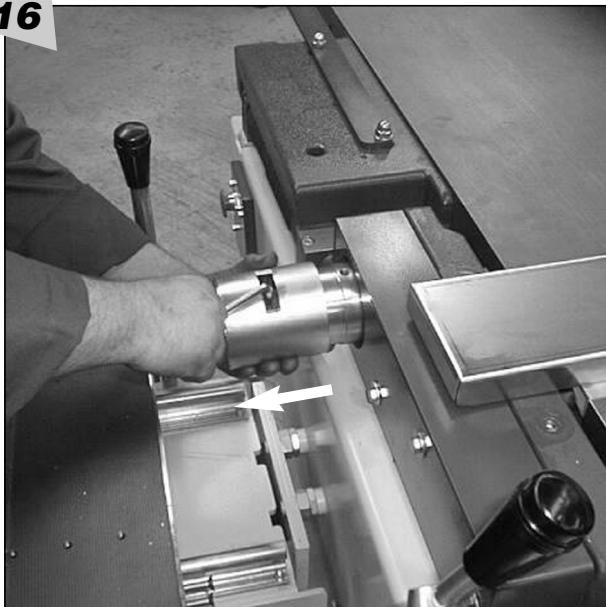
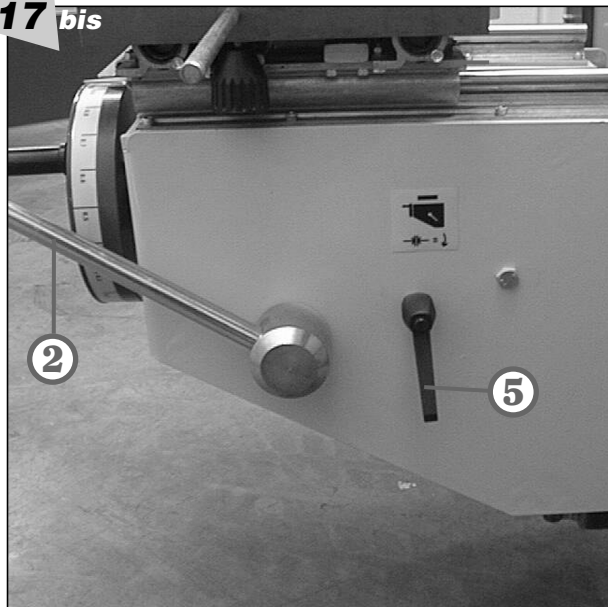
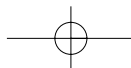
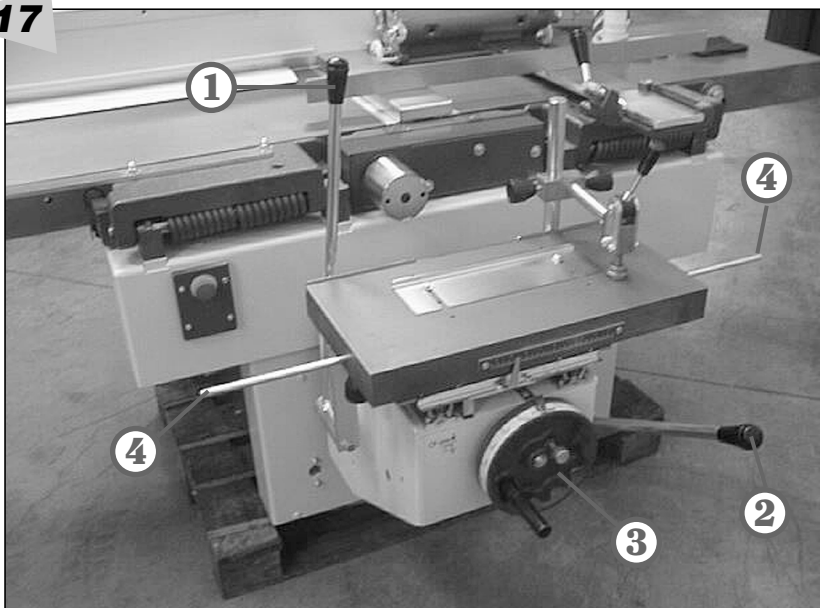


Mounting of the tool on the chuck (fig.16)

Pull the chuck guard to the front in order to put the Allen key spanner into the chuck.

By turning this guard it is always possible to put the Allen key regardless the position of the chuck.

Short type drill-bits are highly recommended, thus avoiding vibrations, and coming loose of the drill-bit inside the chuck.

**(Fig. 14-15-16-17-17bis)****14****15****16****17 bis****17**



Use of the mortiser (fig.17)

The mortiser is equipped with 2 levers (1,2), this in order to move the table in 2 directions. Handle (1) is for the longitudinal stroke, handle (2) is for the transversal stroke. The unit has 1 adjustable depth stop (fig.17 bis 5), and 2 adjustable length stops (4) to facilitate repetition hole boring. The height adjustment is done with the handwheel (3), 1 turn of this handwheel corresponds with 2 mm height adjustment of the mortiser table. All different measurements can be read on the different scales. The depth stop can be set by unlocking the handle (fig.17,5) and setting the depth on the scale, and locking the handle (5). When the handle (5) is left unlocked, then the full stroke of 130 mm can be used.

In case deep holes have to be drilled it is recommended to drill in steps. You will obtain far better results than when drilling the full depth in one step. When mortising, it is recommended to drill first two holes at the extremities of the mortise; then drill the necessary holes next to one another at the correct depth and cut away the remaining material.



Maintenance of the mortiser unit

Attention: Always disconnect the machine from its power supply before starting all maintenance works !!
The exterior parts of the mortiser must be cleaned regularly in order to avoid an accumulation of dust and woodchips.
Any possible deposit of resin on the sliding bars must be taken away with a piece of cloth and a little solvent.
Never smoke during cleaning the mortiser: fire hazard and risk of serious burns for the operator !!
The bearings on the different sliding bars must be well oiled on a regular base using a thin oil.
Also the threaded shaft for the raise and fall of the mortiser has to be cleaned and oiled regularly.



Change and tensionning of the belts (fig.18,19)

The belts of the feeding motors system of the thicknesser can be tensionned as follows:
 Unlock the bolts which holds the upper motor (fig.18,1) and push the motor up in order to tension belt A, and lock again the bolts.
 To tension belt B, unlock the bolts of the lower motor and push the motor down, and again lock the bolts.
 To tension the belts C of the main motor (fig.18,3) loosen the 4 bolts which holds the motor to the frame, and let the motor hang down under his own weight to tension the belts. Lock again the 4 bolts.
 To tension the belts D which drives the chain (fig.19) : on the outside of the frame unlock the bolts 1 and 2 and pull the drive shaft in the inside of the machine towards yourself; again lock bolts 1 and 2.

Tensionning the drive chain (fig.19)

This chain E needs no tensionning since the tension is always assured by an idle chain spanner (3). To change the drive chain, pull the chain spanner backwards and remove the chain from the 2 upper sprockets, and from the lower sprocket. Now the chain can be taken out. After the chain is replaced always assure the chain spanner is well placed onto the chain.

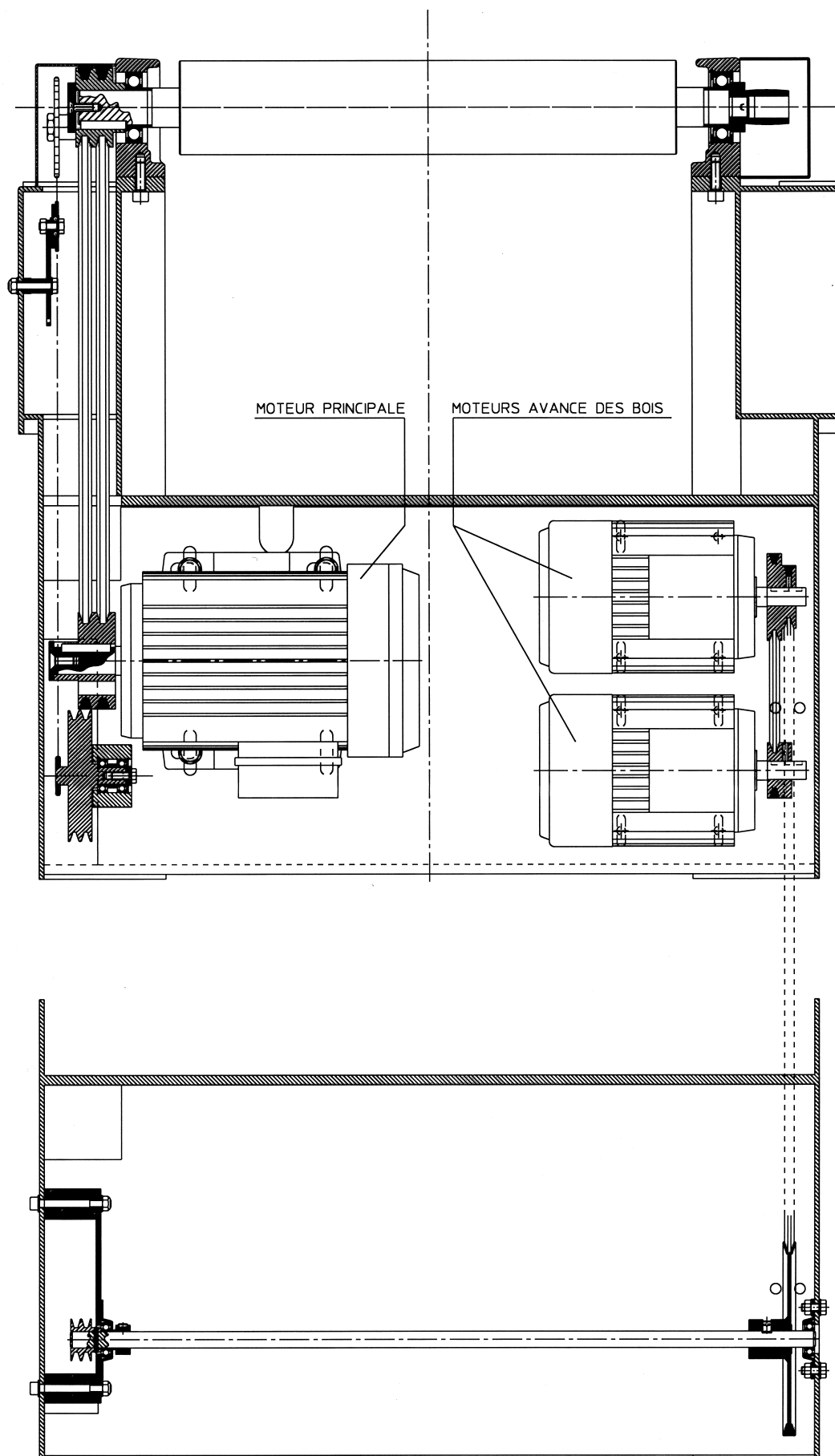
Problems and troubleshooting

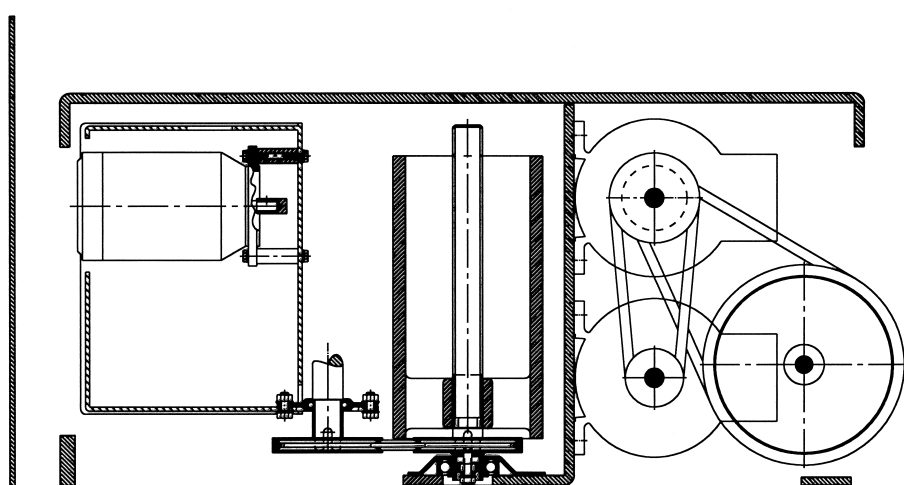
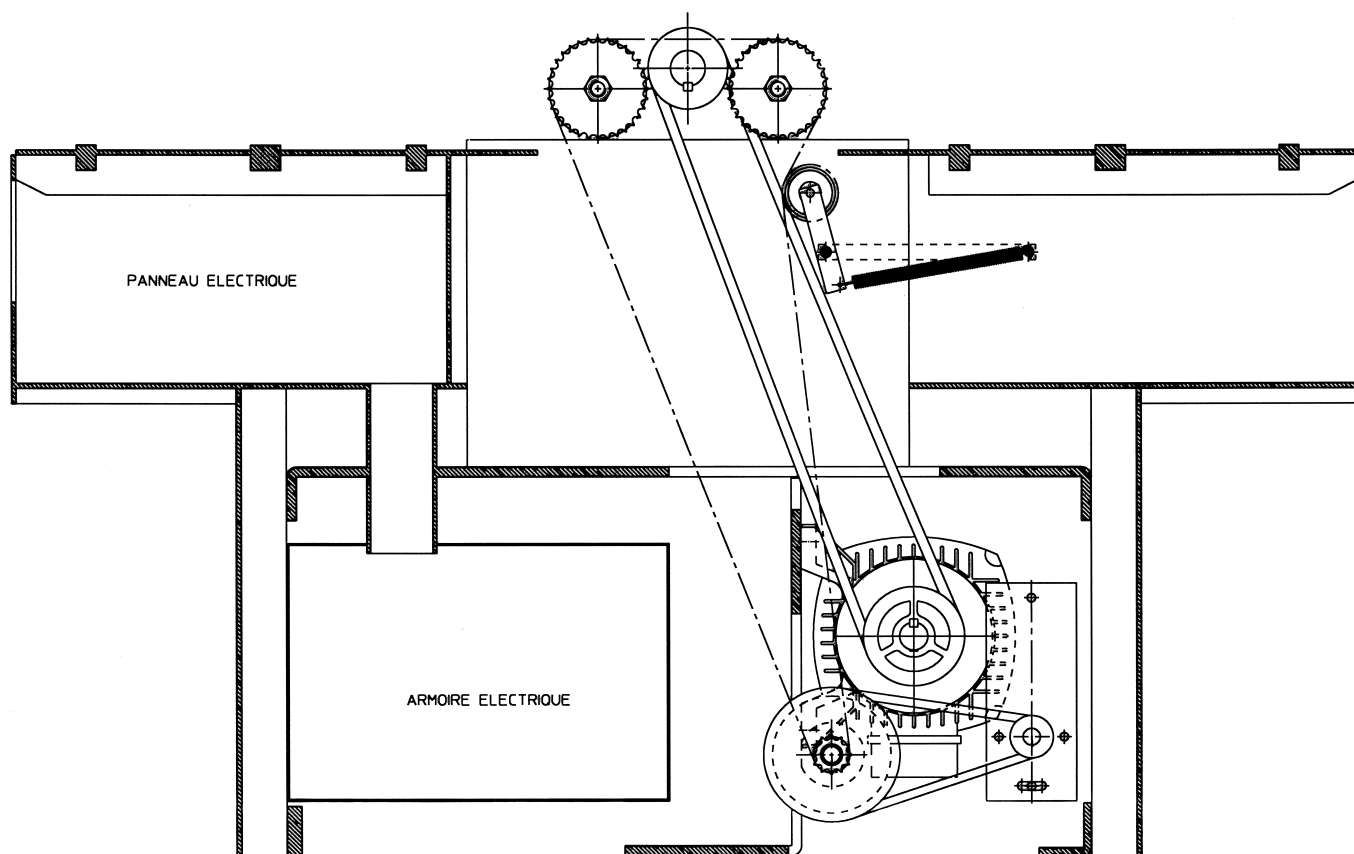


1. The machine does not start when the start button is activated :
 - workshop main fuse is switched off: power cut, power shortage, or general overload.
 - “Star-Delta” switch in the wrong position: put switch on “Star”.
 - main switch off: put switch on “1”.
2. Reduction of cutting speed when working :
 - belt tension not correct: tension the belt
 - motor overload due to incorrect feed rate: reduce the feed rate
 - blunt tools: sharpen tools
3. Vibration of the machine :
 - worn or damaged belt: replace the belt
 - overtensionned belt: loosen belt
4. Thermal overload does not re-arm automatically after shut-off and cooling down period :
 - overload is not set on automatic reset, or the overload is faulty: set on automatic, or replace

If you cannot solve the problem yourself or you do not find your problem in this list, please contact your Robland dealer.



**(Fig. 18)****18**

(Fig. 19)**19**



Electrical components spares list

“Manual Star-Delta”

| <u>Symbol</u> | | <u>Description</u> | <u>Réf.Robland</u> | |
|---------------|---------------------------------------|----------------------------|--------------------|---------------|
| Q1 | Main switch | | N8443 | |
| F | Fuse holder | | N8553 | |
| F1-2-3 | Fuse10x38mm | 5,5kW 400V = 16A | N8537 | |
| | | 7,5kW 400V= 25A | N8542 | |
| | | 5,5kW 230V 3ph = 25A | N8542 | |
| | | 7,5kW 230V 3ph = 40A | N8594 | |
| F4-5 | Fuse 10x38mm | transformator primary 1A | N8454 | |
| F6 | | transformator secondary 2A | N8553 | |
| F7 | | brakesystem main motor 2A | N8553 | |
| T1 | Transformator | 230-400V-24V 40VA | N8470 | |
| cb1 | Thermal overload relay | 400V 5,5kW 9-13A | N8476 | |
| | | 400V 7,5kW 12-18A | N8477 | |
| | | 230V 4kW 12-18A | N8477 | |
| | | 230V 5,5kW 17-34A | N8487 | |
| | | 220V 7,5kW 24-34A | N8435 | |
| eb2 | Thermal overload relay | 400V 0,12kW 1,3 A | N8585 | |
| | | 230V 0,12kW 2,3 A | N8585 | |
| eb3 | Thermal overload relay | 400V 0,12kW 0,3 A | N8586 | |
| | | 230V 0,12kW 0,6 A | N8586 | |
| | | | <u>CE 24V</u> | <u>Normal</u> |
| KM1 | Magnetic starter M1 | 400V 5,5kW | N8457 | N8467 |
| | | 400V 7,5kW | N8461 | N8580 |
| | | 230V 5,5kW | N8461 | N8465 |
| | | 230V 7,5kW | N8566 | - |
| KM2 | Magnetic starter M2,M3 | 400V 0,12kW | N8457 | N8467 |
| | | 230V 0,12kW | N8457 | N8560 |
| KM3 | Magnetic starter M4 | 400V 0,12kW | N8457 | N8467 |
| | | 230V 0,12kW | N8457 | N8560 |
| S1 | Start button main motor M1 | | N8500 | N8500 |
| S6 | Star-Delta switch | | N8447 | N8447 |
| S8 | Switch raise and fall table | | N8575 | N8575 |
| S4 | Selection switch feeding motors M1,M2 | | N8576 | N8576 |
| S3 | Stop button feeding motors M1,M2 | | N8480 | N8480 |
| S9 | Start button feeding motors M1,M2 | | N8500 | N8500 |
| S5 | Brake release switch | | N8544 | - |
| L1 | Brake release warning light | | N8567 | - |
| SE1 | Micro switch tables | | N8506 | - |
| SE2 | Micro switch dust hood | | N8506 | - |
| AU1 | Emergency switch electrical panel | | N8502 | N8502 |
| AU2 | Emergency switch mortiser side | | N8502 | N8502 |
| AU3 | Emergency switch thickneser side | | N8502 | N8502 |
| YB1 | Brake system main motor | | - | - |
| | | | <u>CE</u> | <u>Normal</u> |
| M1 | Main motor | 400/690V 5,5kW | M370 | M357 |
| | | 230/400V 5,5kW | M371 | M376 |
| | | 400/690V 7,5kW | M374 | M377 |
| | | 230/400V 7,5kW | M375 | M378 |
| M2 | Feeding motor 1 | 400V 0,18/0,37kW | M340 | M340 |
| | | 230V 0,18/0,37kW | M342 | M342 |
| M3 | Feeding motor 2 | 400V 0,37/0,55kW | M341 | M341 |
| | | 230V 0,37/0,55kW | M343 | M343 |
| M4 | Raise and fall table | 230/400V 0,12kW | M1480 | M1480 |

Electrical components spares list

"Automatic Star-Delta"



| <u>Symbol</u> | | <u>Description</u> | <u>Réf.Robland</u> | |
|---------------|-------------------------------------|----------------------------|--------------------|---------------|
| Q1 | Main switch | N8443 | | |
| F | Fuse holder | N8553 | | |
| F1-2-3 | Fuse 10x38mm | 5,5kW 400V=16A | N8537 | |
| | | 7,5kW 400V=25A | N8542 | |
| | | 5,5kW 230V=25A | N8542 | |
| | | 7,5kW 230V=40A | N8594 | |
| F4-5 | Fuse 10x38mm | transformator primary=1A | N8454 | |
| F6 | | transformator secondary=2A | N8553 | |
| F7 | fuse brake system=2A | | N8553 | |
| T1 | Transformator | 230-400V-24V 63VA | N8563 | |
| eb1 | Thermal overload relay | 400V 5,5kW 5-8A | N8475 | |
| | | 400V 7,5kW 7-11A | N8491 | |
| | | 400V 5,5kW 9-13A | N8476 | |
| | | 230V 7,5kW 12-18A | N8477 | |
| eb2 | Thermal overload relay | 400V 0,12 kW 1,3 A | N8585 | |
| | | 230V 0,12 kW 2,3 A | N8585 | |
| eb3 | Thermal overload relay | 400V 0,12 kW 0,3 A | N8586 | |
| | | 230V 0,12 kW 0,3 A | N8586 | |
| | | | <u>CE 24 Volt</u> | <u>Normal</u> |
| KM1,4,5 | Magnetic starter M1 | 400V 5,5kW | 3xN8457 | 3xN8467 |
| KM1,4,5 | Magnetic starter M1 | 400V 7,5kW | 3xN8461 | 3xN8580 |
| KM1,4,5 | Magnetic starter M1 | 230V 5,5kW | 3xN8461 | 3xN8465 |
| KM1,4,5 | Magnetic starter M1 | 230V 7,5kW | 3xN8461 | 3xN8560 |
| KM2 | Magnetic starter M2,M3 | 400V 0,12 kW | N8457 | N8467 |
| | | 230V 0,12 kW | N8457 | N8560 |
| KM3 | Magnetic starter M4 | 400V 0,12 kW | N8457 | N8467 |
| | | 230V 0,12 kW | N8457 | N8560 |
| TE1 | Starter delay | SK-R11CX | N8556 | N8556 |
| SK21 | | | N8559 | N8559 |
| S1 | Start switch M1 | | N8500 | N8500 |
| S8 | Switch up and down table | | N8575 | N8575 |
| S3 | Stop switch feeding motors M2,M3 | | N8480 | N8480 |
| S4 | Feeding motor selector switch | | N8576 | N8576 |
| S5 | Brake release switch | | N8544 | - |
| S9 | Start feeding motors M2,M3 | | N8500 | N8500 |
| L1 | Warning light brake release | | N8567 | |
| SE1 | Micro switch planer tables | | N8506 | - |
| SE2 | Micro switch dust hood | | N8506 | - |
| AU1 | Emergency switch electrical cabinet | | N8502 | N8502 |
| AU2 | Emergency switch mortiser side | | N8502 | N8502 |
| AU3 | Emergency switch thicknesser side | | N8502 | N8502 |
| YB1 | Brake system | | - | - |
| | | | <u>CE</u> | <u>Normal</u> |
| M1 | Main motor | 400/690V 5,5kW | M358 | M356 |
| | 400/690V 7,5kW | | M374 | M377 |
| | 230/400V 5,5kW | | M371 | M376 |
| | 230/400V 7,5kW | | M375 | M378 |
| M2 | Feeding motor 1 | 400V 0,18/0,37 kW | M340 | M340 |
| | 230V 0,18/0,37 kW | | M342 | M342 |
| M3 | Feeding motor 2 | 400V 0,37/0,55 kW | M341 | M341 |
| | 230V 0,37/0,55 kW | | M343 | M343 |
| M4 | Motor raise and fall table | 230/400V 0,12 kW | M1480 | M1480 |

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8000 BRUGGE - BELGIE

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bouwwijze van de
machine

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Bauart der Maschine

herewith declare that the
construction of the
machine

certifions par la présente
que la fabrication de la
machine

ROBLAND Z 3200
Art. nr - Stock Nr - Nr° Article

voldoet aan de volgende
richtlijnen

folgende Bestimmungen
entspricht

complies with the following
relevant regulations

est conforme aux
dispositions suivantes

EG MACHINERICHTLIJNEN • EG MASCHINERICHTLINIE
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Die Baumusterprüfung
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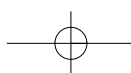
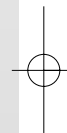
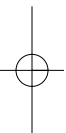
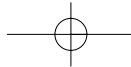
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Instruction manuel

