

- General information	2
- Important instructions when ordering spare parts	2
- Safety and maintenance instructions	3
- Danger list	3
- Operating instructions	4
- Normal and prohibited use	5
- Accoustic and dust emission levels	5
- Technical data	6
- General dimensions	7
- Transportation of the machine	8
- Electrical connections of the machine	8
- Starting up the machine	10
- Mounting of the sliding table	10
- Changing saw blades	10
- Use and adjustment of the riving knife	12
- Sliding table lock	12
- Mounting of the cross cut fence	12
- Calibration of the scale on the cross cut fence	14
- Mitre fence	14
- Use of the parallel fence	14
- Calibration of the scale on the fence	16
- Overhead sawguard	16
- Raise and fall and tilting of the sawblade	16
- Belt tension and changing	18
- Maintenance of the machine	18
- Problems and trouble shooting	18
- Electrical components spares list	19
- Electrical wiring diagrams	21
- Exploded views	25 —>



General information

Name and address of manufacturer:

NV WERKHUIZEN LANDUYT
Kolvestraat 44
B - 8000 BRUGGE
BELGIUM



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: TABLE SAW E45

Date of construction of the machine: from 1998 on



Important instructions when ordering spare parts at your machine dealer

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



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.

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 are 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.

Danger list



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



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:

- a) The risks involved in working with the machine;
- b) The operating principles, the correct usage and adjustment of the machine;
- c) The correct choice of the tool for each operation;
- d) The safe handling of the parts to be processed;
- e) The position of the hands in relation to the sawblade;
- f) 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

- a) Disconnect the machine from the power supply before every adjustment.
- b) The recommendations of the machine manufacturer must be followed when adjusting and installing the tools.
- c) The tools must be suited to the material being cut to assure safe and efficient sawing.
- d) 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 sawblades, or other tools you are using in your workshop. Even blunt tools can cause serious injuries to your hands.

Normal and prohibited use



The table saw 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

- Ripping with the parallel saw fence with, or without the sawblade tilted and the fence in the upright or low position;
- Right-angled or mitre cuts with the 90° fence mounted to the sliding table with tilted or upright sawblade;
- Cross cutting workpieces using the adjustable stop on the 90° fence;
- Cutting panels or solid wood on the sliding table;

PROHIBITED USE

Following tasks are prohibited on the table saw:

- Submerged cuts by removing the riving knife, and saw guard;
- All types of cuts without using the table saw fence, the 90° fence or sliding table;
- Cutting large workpieces that exceed the machine capacity without using aids such as roller supports or table extensions;

REMAINING RISKS

Main risks on the table saw are:

- Unintentional contact of the hand with the running sawblade;
- Workpiece kickback;
- Tipping over of the workpiece due to insufficient support;

NOISE REDUCTION

The type and condition of the sawblade is important in keeping the noise level as low as possible. The material and the position of the safety devices are important in reducing the noise level. Using the correct speed of the sawblade for the type of material will reduce the noise level as well; The above does not negate the fact that extra safety equipment such as ear protection must be used.

Acoustic and dust emission levels



The values given are the emission levels; these are not necessarily 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
Saw	91	105 (26.3)	< 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



Technical data

Voltage	V	220-380
Motor power	kW	5,5 / option 4-7,5
Max.-min. diameter sawblade	mm	350 - 450
Cutting depht max. 450 mm	mm	150
Cutting depht max. 45°	mm	120
Saw arbor tilt		90° - 45°
Rip capacity right side	mm	1270 (upon request 650)
Cutting lenght	mm	1250
Diameter saw arbor	mm	30
Speed saw arbor	T/min	3000
Dimensions sliding table	mm	1510 x 510
Dimensions saw table	mm	1150 x 965
Dust suction diameter	mm	120 - 50
Netto weight	kg	650
Bruto weight	kg	750



Place of the operator
A: cross cutting
B: ripping



Transportation of the machine (fig. 1, 2)

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 under the table as shown in fig. 1.

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 can also be lifted, or transported using the opening in the front side of the frame as shown in fig. 2.



Electrical connections (fig. 3, 4)

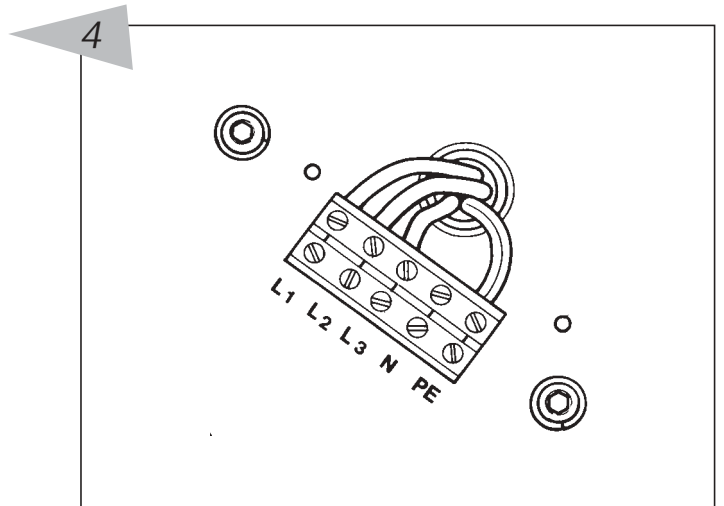
The electrical connections must be carried out by a qualified electrician who is able to calculate the exact needed wire section and caliber of fuses.

- 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. 3).
- Connect the three phases to the terminals marked L1, L2, L3 (fig.4).
- 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 anticlockwise: left.

(Fig.1-2-3-4)





Starting up the machine (fig, 5)

Turn the main switch (1) to position “1” in order to put the machine under tension, and ensure that the Star-Delta switch (2) is set at the “Star” position.

To start up the motor push the start button (3), 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 (4) the saw motor is automatically stopped, and slowed down by the automatic brake(only CE version machines) within 10 seconds.

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.



Mounting of the sliding table (fig, 6)

Slide the guide rail onto the two brackets which are mounted at the side of the saw table, and lock the two bolts (1).

The same two bolts (1) can be used to change the position of the guide rail relative to the saw table, unlock and slide the guide rail in or out in function of the stroke of the sliding table wanted.

The sliding table is to be slid onto the guide rail, and after this has been done put the guide rail stop bracket at the front end of the guide rail, this in order to prevent the cross cut table from falling off.



Changing sawblades (fig, 7, 7 bis)

WARNING: Before changing sawblades always disconnect the machine from the main power supply by turning the main switch off.

Use only sawblades accordingly EN 847-1 specifications.

The wear of safety gloves when changing sawblades is highly recommended.

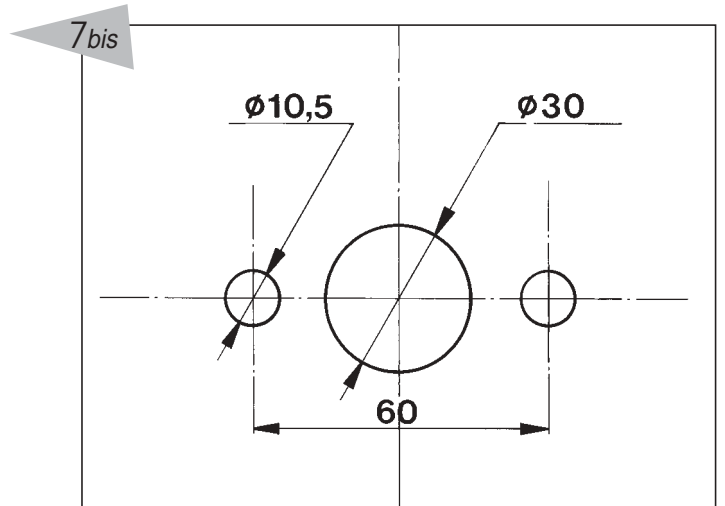
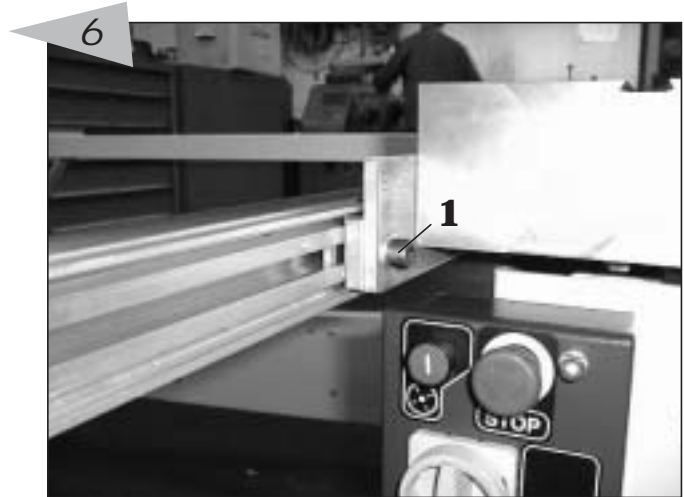
- Remove the table insert (3) and raise the saw arbor to its highest position, and turn the saw arbor until the locking pin (1) can be introduced into the bore of the saw table and the saw arbor pulley.
- The easiest way to turn the saw arbor is to put the saw nut wrench (2) onto the nut and turn the saw arbor using this wrench- Now unlock the nut: Warning: left hand thread.
- Before fitting the sawblade ensure that both sawblade body and flanges are clean, this to prevent the sawblade from wobbling.
- Never forget, after the saw arbor nut has been tightened, to remove the locking pin from the pulley before starting up the motor.

WARNING: All sawblades used on the machine must have two additional safety bores in the sawblade body, these bores together with the two bolts in the saw flange prevent the sawblade from coming off, when the sawblade is stopped by the brake motor.

The dimensions of these bores can be seen in fig, 7 bis.

Never remove the two safety bolts which are fixed in the saw arbor flange.

(Fig. 5-6-7-7^{bis})





Use and adjustment of the riving knife (fig, 8)

The machine is equipped with riving knives for the use of sawblades from 250 to 300 mm, and for 350 to 450 mm diameter.

The riving knife has to be adjusted in such a way that over its entire length the gap between sawblade and riving knife does not exceed min.3 mm and max. 8 mm.

The riving knife can be adjusted in both vertical and horizontal direction.

The height setting has to be adjusted in such a way that the highest point of the riving knife never exceeds more than 3 mm above the highest placed sawblade tooth.

After height adjustment always lock the central bolt (3). The three little adjustment screws (2) are used for the exact setting of riving knife in line with the sawblade.

For slotting or grooving the riving knife has to be adjusted in such a way that the upper part of the riving knife is never set lower than the highest saw tooth in use.

NEVER REMOVE THE RIVING KNIFE, KICKBACKS CAN KILL !!



Sliding table lock (fig, 9)

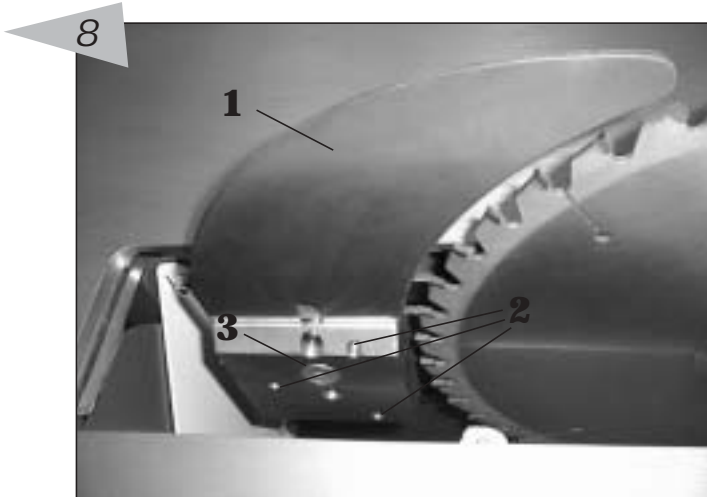
When loading the workpiece onto the table, and when ripping along the parallel fence the sliding table should be locked in place.

To achieve this, simply push the sliding table to the far end against the stop, and lift lever (2) and push it into the opening at the side of the table.



Mounting of the cross-cut fence (fig, 10, 10 bis)

- The cross-cut table has four precision bores allowing the fence to be put in 2 positions: at the back side and at the front side of the cross-cut table.
 - Put the fence onto the the cross-cut table and lock it in position using the two serrated nuts (3).
 - The 90° right angle of the fence is factory set. Should the 90° angle need to be adjusted, then the two bolts (fig, 10 bis,2) must be loosened: then by turning the little bolt (fig, 10 bis,1), the angle can be opened or closed towards the sawblade.
 - After adjustment the 2 bolts (fig, 10 bis,2) have to be retightened.
-





Calibration of the scale on the cross-cut fence (fig, 11, 11 bis)

Each time a new sawblade is used on the machine, the scales have to be calibrated.

Put the first repetition stop (fig, 11,1) at a certain measure and cut off a sample.

Measure the exact length of the sample, unlock the screw (fig, 11,2) which holds the scale and move the scale until the exact length of the sample corresponds with the index on the repetition stop. Now the scale on the telescopic extension of the fence (fig, 11 bis,2) has to be adjusted to the first scale. When using the telescopic extension, the second repetition stop has to be set at 1925 mm to make the different scales correspond with one another. The best way to check if all scales correspond is to make several test cuts on the different scales.

When, after some time, the wooden protection on the cross-cut fence is cut away, a new one can be made according diagram fig. 12.



Mitre fence (fig, 13)

Mitre cuts can be made using the mitre fence.

This fence can be orientated from -60° to $+60^\circ$. The use of the fence should be restricted to short pieces of wood not exceeding one metre of length.



Use of the parallel fence (fig, 14, 14 bis)

When the serrated knob (fig, 14,3) is unlocked, and the handle (fig, 14,1) is lifted up, the complete parallel fence can be moved.

To lock the fence, push handle (1) down.

Micrometric adjustment can be achieved by locking the serrated knob (3) and holding the handle (1) in the upright position, and then turning the serrated knob (2).

After the micrometric adjustment is carried out, push the handle (1) down to lock the fence in place.

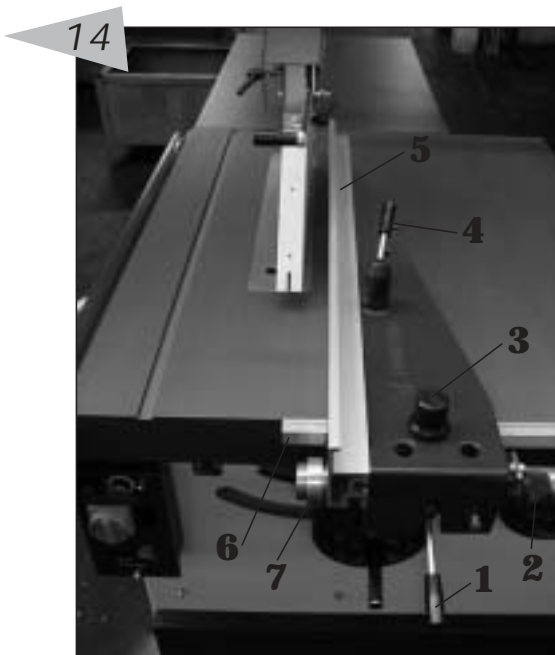
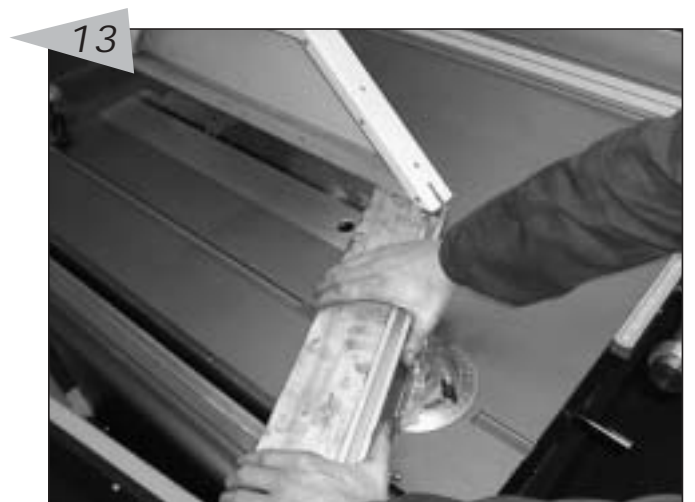
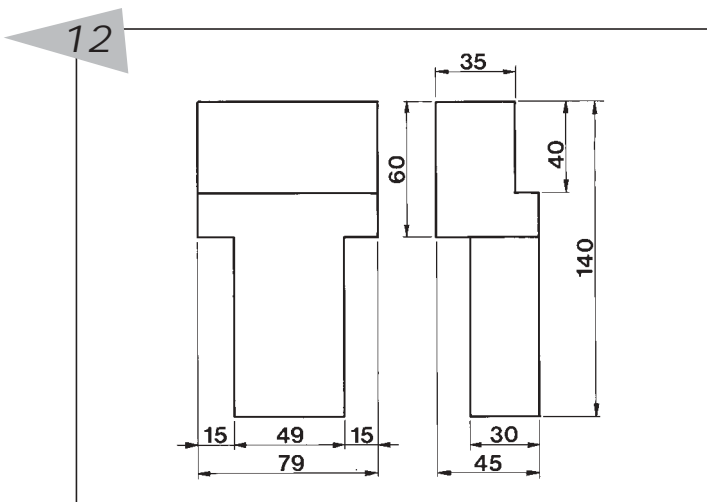
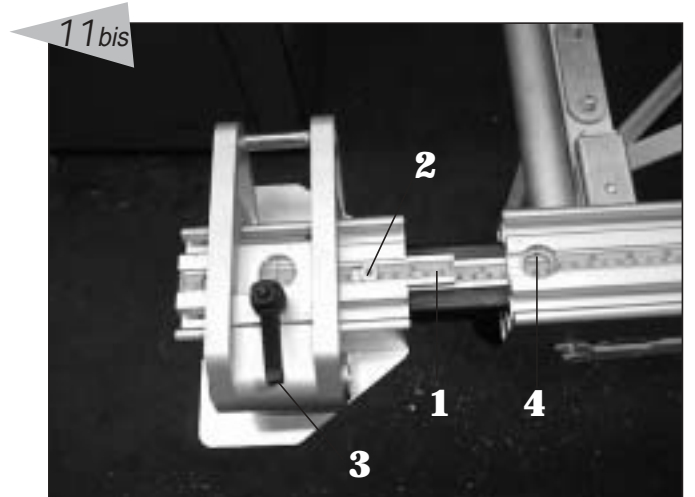
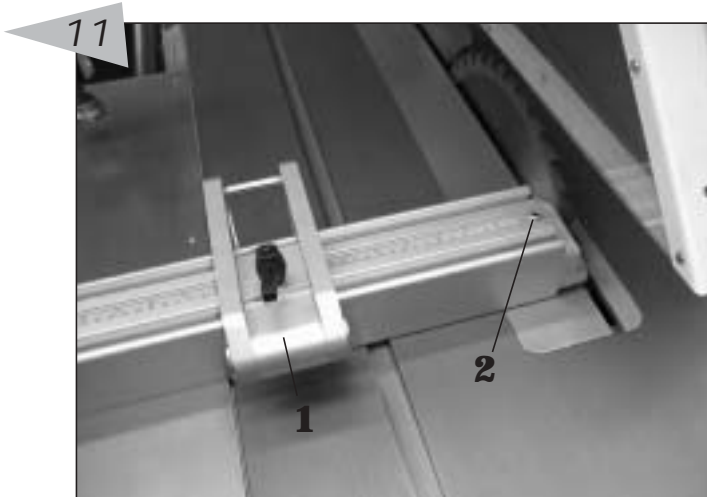
When cutting small workpieces, and with the saw inclined at 45° , the fence should be set in the low position.

Simply unlock the clamping handle (4) on top of the casting and slide off the fence, and set the fence back in the low position as shown in fig 14 bis.

When cutting solid wood against the parallel fence, to avoid the wood getting jammed between the sawblade or riving knife and fence (resulting in a highly violent dangerous kickback of the wood) it is recommended to set the fence so that its end never protrudes beyond an imaginary line drawn at 45° from the centre of the sawblade to the right upper side.

In practice each time a different width of cut is taken, the fence has to be set against this imaginary line at 45° .

(fig. 11 - 11_{bis} - 12 - 13 - 14 - 14_{bis})





Calibration of the scale on the fence (fig, 15)

Each time a new sawblade of different thickness is fitted onto the machine, a new calibration of the scale on the fence is needed.

By cutting a sample and measuring its exact length, the scale can be adjusted so that the exact measure corresponds with the front side of the fence.

After the screw(6) has been loosened the scale can be adjusted.

To avoid the fence contacting the sawblade while it is revolving, the stop ring (7) has to be adjusted.

Slide the fence to about 10 mm of the sawblade and now set the stop ring against the cast body of the fence, and tighten the screw on the stop ring.



Overhead sawguard (fig, 16, 16 bis)

For safety and health reasons it is highly recommended to connect the machine, and sawguard to a dust extraction system.

Both outlets on the machine (diameter 150 mm) and on the sawguard (diameter 50 mm) need to be connected, and the dust extractor should be powerful enough to obtain an airflow of at least 20m/sec

measured at the outlet of the dust extractor.

Height setting of the guard is achieved with the handle (1).

Relative to the sawblade diameter in use, the guard has to be limited in height using the diameter indicator (2).

To adjust the guard to the diameter push the guard down to the table, and then set the indicator (2) at the chosen diameter of the sawblade.

The narrow sawguard is for cuts at 90°, and the sawfence in the upright position.

All other cuts are made with the wide extension; To remove the extension or side plate cover, unlock the handle and remove.

Keep the plexiglass window clean to ensure good visibility, and optimal safety.

When damaged, replace this part as soon as possible.



Raise and fall and tilting of the sawblade (fig,17)

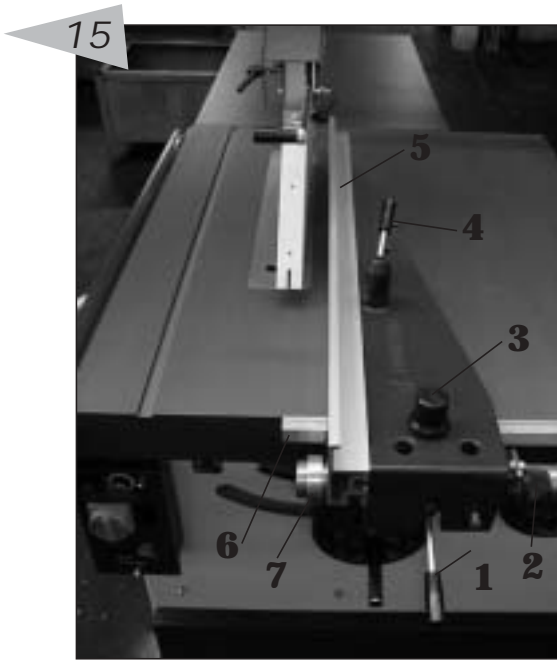
Sawblade height setting is done by turning the handwheel (1).

After the desired cutting depth is set, the handwheel has to be locked with the locking handle (2).

By turning the handwheel (3), the sawunit can be set at any angle between 90° and 45°.

After setting the angle, lock the handwheel using the handle (4), read out of the angle at (5).

Both 90° and 45° stops are factory set and need no adjustment.





Belt tension and changing (fig, 18)

WARNING:

Always disconnect the machine from its power supply before starting any maintenance work.

Turn the main switch on “off” and lock if necessary with a padlock.

After removing the side panel on the machine the belts can be tensioned simply by unlocking the bolt (1), and pushing the motor down, and then locking again the bolt (1).

Use only original belts Type SPZ 850.

Make sure the belts are not overtensioned, because this will lead to damage of the bearings on the saw arbor, and belts.

To check the tension of the belts, push in the middle between the two pulleys with an average pressure of 3 kgs. If the belt bends 5 to 6 mm, it has the right tension. This can be checked manually, and on a regular basis.



Maintenance of the machine

The interior and exterior of the machine have to be cleaned regularly to avoid any accumulation of dust and woodchips.

Any deposition of resin on the sliding table and other surfaces has to be removed.

Never smoke while cleaning the machine, and especially when using petrol or kerosine, or other inflammable products. This to avoid explosion, and serious burns as a result to the operator.

All moving parts have to be kept clean and have to be lubricated with a thin penetrating oil.

All bearings are double sealed and need no lubrication. The use of a dust extraction system will most certainly extend the life of your machine.

The lifetime of the motor can be extended by blowing out sawdust and chippings from the cooling fan and motor itself.



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 sawblade or arbor :

- unbalanced tool: replace or have the tool balanced
- worn or damaged belt: replace the belt
- overtensioned 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.

Electrical components spares list

"Manual Star-Delta"



			<u>Robland spare N°</u>	
Q1	Mainswitch		N8443	
F	Fuse holder		N8553	
F1-2-3	Fuse 10x38mm	4-5,5kW 380V = 16A 4kW 220V 3ph= 16A 7,5kW 380V= 25A 5,5kW 220V 3ph = 25A 7,5kW 220V 3ph = 40A	N8537 N8537 N8542 N8542 N8594	
F4-5	Fuse 10x38mm	transfo primaire 1A	N8454	
F6		transfo secondaire 2A	N8553	
T1	Transformator	220-380V-24V 30VA	N8470	
cb1	Thermal overload relay	380V 4kW 7-11A	N8491	
		380V 5,5kW 9-13A	N8476	
		380V 7,5kW 12-18A	N8477	
		220V 4kW 12-18A	N8477	
		220V 5,5kW 17-34A	N8487	
		220V 7,5kW 24-34A	N8435	
			<u>CE 24V</u>	<u>Normal</u>
KM1	Magnetic starter	380V 4kW SK11	N8457	N8467
		380V 5,5kW SK11	N8457	N8467
		380V 7,5kW SK21	N8461	N8580
		220V 4kW SK21	N8461	N8465
		220V 5,5kW SK21	N8461	N8465
		220V 7,5kW SK25	N8566	-
S1	Emergency stop		N8498	N8498
S2	Start button		N8500	N8500
S3	Start - Delta switch		N8447	N8447
			<u>Brake motor</u>	<u>Normal</u>
M1	Saw motor	380/660V 4kW	M353	M352
		380/660V 5,5kW	M358	M356
		380/660V 7,5kW	M386	M393
		220/380V 4kW	M351	M350
		220/380V 5,5kW	M359	M354
		220/380V 7,5kW	M384	M394



Electrical components spares list

"Automatic Star-Delta"

			<u>Robland spare N°</u>	
Q1	Main switch			N8443
F	Fuse holder			N8553
F1-2-3	Fuse 10x38mm	4-5,5kW 380V = 16A		N8537
		4kW 220V = 16A		N8537
		7,5kW 380V = 25A		N8542
		5,5kW 220V = 25A		N8542
		7,5kW 220V = 40A		N8594
F4-5	Fuse 10x38mm	transfo primary = 1A		N8454
F6		transfo secondary = 2A		N8553
T1	Transformator	220-380V-24V 63VA		N8563
cb1	Thermal overload relay	380V 4kW 4-6A		N8474
		380V 5,5kW 5-8A		N8475
		380V 7,5kW 7-11A		N8491
		220V 4kW 7-11A		N8491
		220V 5,5kW 9-13A		N8476
		220V 7,5kW 12-18A		N8477
			<u>CE 24V</u>	<u>Normal</u>
KM1	Magnetic starter	380V 4kW SK-R11CX	3x N8457	3x N8467
KM2	Magnetic starter	380V 5,5kW SK-R11CX	3x N8457	3x N8467
KM3	Magnetic starter	380V 7,5kW SK21	3x N8461	3x N8580
		220V 4kW SK21	3x N8461	3x N8465
		220V 5,5kW SK21	3x N8461	3x N8465
		220V 7,5kW SK25	3x N8566	-
TE1	Starter delay	SK-R11CX	N8556	N8556
		SK21	N8559	N8559
S1	Emergency stop		N8498	N8498
S2	Start button		N8500	N8500
			<u>Brake motor</u>	<u>Normal</u>
M1	Saw motor	380/660V 4kW	M353	M352
		380/660V 5,5kW	M358	M356
		380/660V 7,5kW	M386	M393
		220/380V 4kW	M351	M350
		220/380V 5,5kW	M359	M354
		220/380V 7,5kW	M384	M394

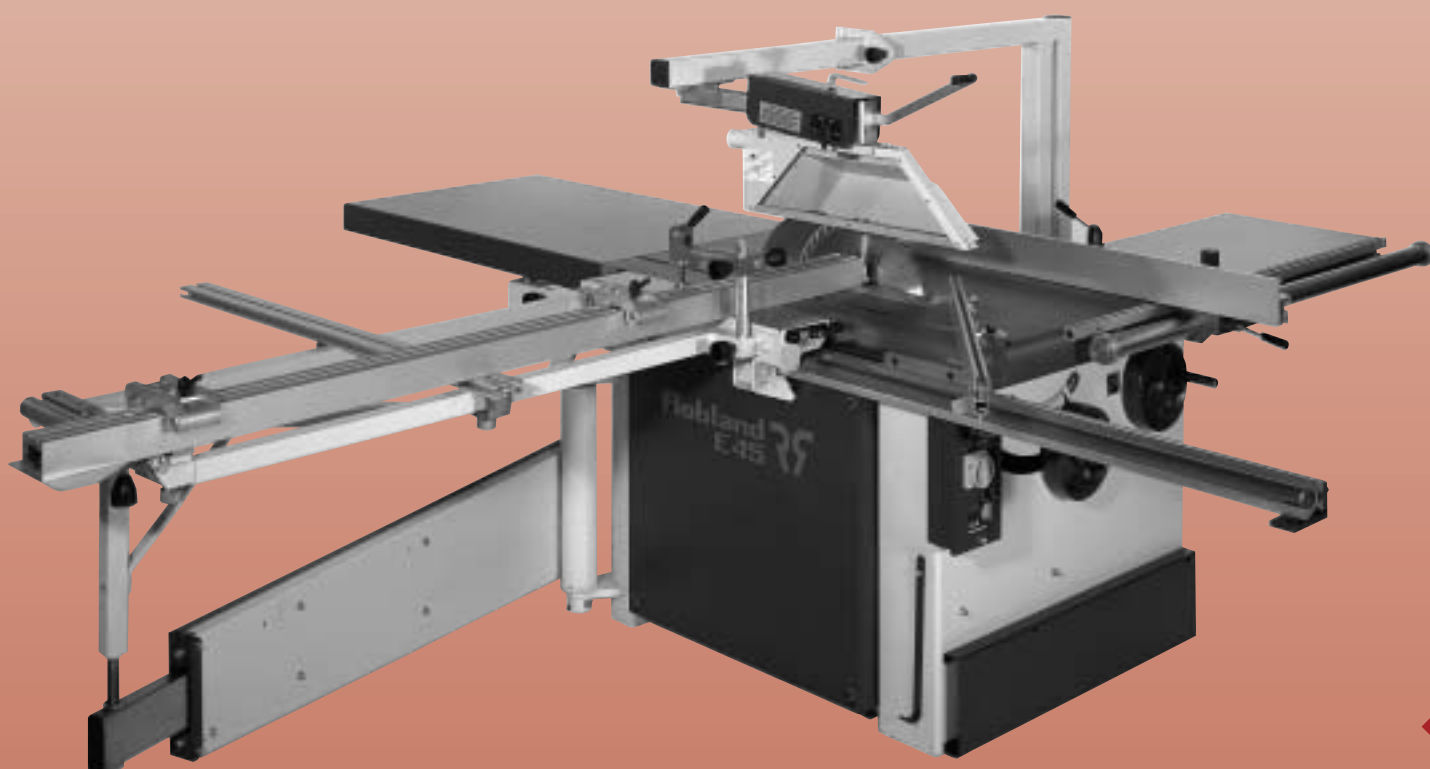
Robland

AUTOMATIC

Robland

MANUAL

E - 45



Instruction manual

Maintenance and operating instructions.





Geachte Klant,
Gelieve hieronder ons
CE-homologatienummer
te willen vinden voor onze
machine

Sehr geehrter Kunde,
Bitte finden Sie anbei
unsere
CEHomologationsnummer
für unsere Maschine

**Dear Customer,
Please find herewith our
CE-homologation num-
ber for our machine**

Cher Client,
Nous vous prions de trou-
ver ci-après notre numéro
d'homologation CE pour
notre machine

EG Conformiteitsverklaring

EG Konformitätserklärung

**EC Declaration of
Conformity**

Déclaration de Conformité
CE

Wij-Wir-We-Nous
NV WERKHUIZEN LANDUYT
Kolvestraat 44
8000 BRUGGE - BELGIE

verklaren hierbij dat de
bouwwijze van de machine

erklären dass die
Bauart der Maschine

**herewith declare that the
construction of the
machine**

certifions par la présente
que la fabrication de la
machine

ROBLAND E 45
Art. nr - Stock Nr - Nr° Article

voldoet aan de volgende
richtlijnen

folgende Bestimmungen
entspricht

**complies with the follo-
wing relevant regulations**

est conforme aux
dispositions suivantes

EG MACHINERICHTLIJNEN • EG MASCHINERICHTLINIE
EC MACHINERY DIRECTIVE • DIRECTIVES CE RELATIVES AUX MACHINES

89/392/CEE - 73/23/CEE - 89/336/CEE

Het type-onderzoek werd
uitgevoerd door

Die Baumusterprüfung
wurde von folgender Stelle
durchgeführt

**Type examination was
carried out by the follo-
wing approved body**

Le modèle a été examiné
par l'organisme suivant

L'INSTITUT NATIONAL DE RECHERCHE ET DE SECURITE I.N.R.S.
Avenue de Bourgogne - BP 27 - F 54501 VANDOEUVRE CEDEX FRANCE

Nummer van het
type-onderzoek

Nummer der EG
Baumusterprüf-
bescheinigung

**EC Type Examination
Certificate Number**

Numéro du Certificat
d'Essai CE accordé au
modèle

Brugge, 03/02/98

Yves Damman, Techn. Dept.

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