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scheppach



HS120

GB

Circular Saw Bench
Translation from original manual

GB

Circular Saw Bench

4-21

Manufacturer:**scheppach**

Fabrikation von Holzbearbeitungsmaschinen GmbH
Günzburger Straße 69
D-89335 Ichenhausen
Made in China

Dear customer,

we wish you a pleasant and successful working experience with your new Scheppach machine.

Advice:

According to the applicable product liability law the manufacturer of this device is not liable for damages which arise on or in connection with this device in case of:

- improper handling,
- non-compliance with the instructions for use,
- repairs by third party, non authorized skilled workers,
- installation and replacement of non-original spare parts,
- improper use,
- failures of the electrical system due to the non-compliance with the electrical specifications and the VDE 0100, DIN 57113 / VDE 0113 regulations

We recommend

that you read through the entire operating instructions before putting into operation.

These operating instructions are to assist you in getting to know your machine and utilize its proper applications. The operating instructions contain important notes on how you work with the machine safely, expertly, and economically, and how you can avoid hazards, save repair costs, reduce downtime and increase the reliability and service life of the machine.

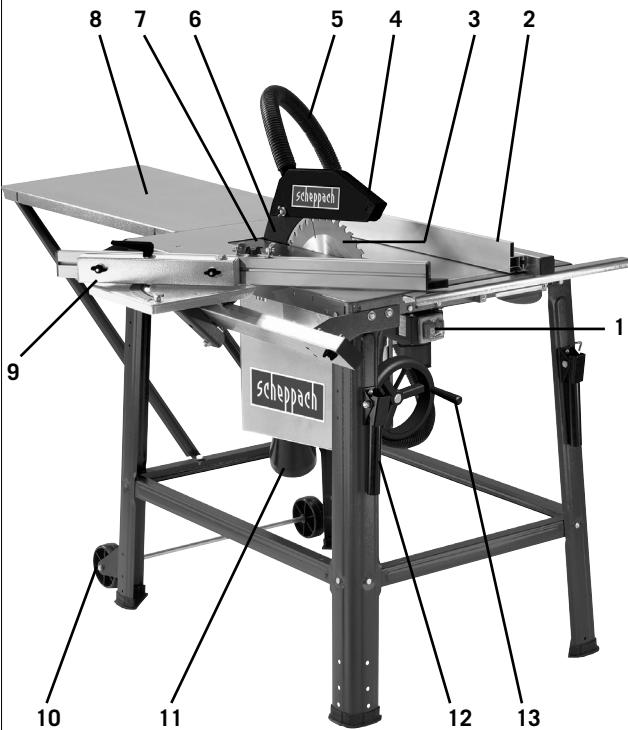
In addition to the safety requirements contained in these operating instructions, you must be careful to observe your country's applicable regulations.

The operating instructions must always be near the machine. Put them in a plastic folder to protect them from dirt and humidity. They must be read by every operator before beginning work and observed conscientiously. Only persons who have been trained in the use of the machine and have been informed of the various dangers may work with the machine. The required minimum age must be observed.

In addition to the safety requirements contained in these operating instructions and your country's applicable regulations, you should observe the generally recognized technical rules concerning the operation of woodworking machines.

General notes

- After unpacking, check all parts for any transport damage. Inform the supplier immediately of any faults.
- Later complaints cannot be considered.
- Make sure the delivery is complete.
- Before putting into operation, familiarize yourself with the machine by carefully reading these instructions.



- Use only original Scheppach accessories, wearing or replacement parts. You can find replacement parts at your Scheppach dealer.

- When ordering, include our item number and the type and year of construction of the machine.

1. On/off switch
2. Longitudinal stop
3. Saw blade
4. Protective cover
5. Extraction hose
6. Riving knife
7. Stage centre
8. Table extension
9. Sliding table
10. Wheel kit
11. Extraction connection piece
12. Transport handle
13. Height adjustment wheel

HS120

Delivery status

	Circular Saw Bench HS120
	Longitudinal stop with angle bar
	Cross-cutting jig
	Saw blade cover with screw and wing nut
	Splitting wedge
	Shift rod
	Bench extension
	2 Bench extension supports
	2 Wheel and plate units
	Saw blade ø 315 x 30 x 3,0/2 24 Z
	Saw blade key
	Push stick
	Extraction hose and fastening clamp
	Accessories kit
	Manual

Technical data

Dimensions L x W x H	1110 x 600 x 1050 mm	
Size of bench	800 x 550 mm	
Size of extended bench	950 x 800 mm	
Height of bench with base frame	800 mm	
ø Saw blade	315 x 30 x 3,0/2 24 Z	
Height adjustment 90°/45°	0–83/0–49 mm	
Displacement	90°–45°	
Cutting speed m/sec	46	
Longitudinal stop	580 mm	
Weight	48 kg	

Drive

Motor V/Hz	230 V/50 Hz	400 V/50 Hz
Performance input P1	2200 W	2800 W
Operation mode	S 6/40 %	S 6/40 %
Number of revolutions	2800 1/min	2800 1/min
Motor protection	yes	yes
Undervoltage cutback	yes	yes
Connector	TYP I	CEE 16 A
Stecker	Schuko	CEE 16 A

Subject to technical changes!

Noise characteristic values

Measurement conditions

The values stated are emission values and are therefore not necessarily safe operating values. Although there is a correlation between emission and immission levels, you cannot reliably deduce from this whether additional safety measures are required or not. Factors which can influence the immission level currently at the workstation comprise the duration of the effects, the characteristics of the work room, other sources of noise etc., for example, the number of machines and adjacent operations. The permissible values per workstation can also vary from country to country. This information should nevertheless enable the user to make a better estimation of dangers and risks.

Sound level in dB

Operation L_{WA} = 112,4 dB(A)

Sound level at the workplace in dB

Operation L_{pAeq} = 102,5 dB(A)

A measurement uncertainty allowance K = 4 dB applies to the mentioned emission values.

Information on dust emission

The dust emission values measured in accordance with the „principles for testing dust emission“ of the committee of experts of wood are below 2 mg/m³. This means that the TRK limit for wood dust which is valid in the Federal Republic of Germany will be permanently kept to if the machine is connected to a properly working dust extractor with at least 20 m/s air speed.

	Use hearing or ear protection.
	Use protective mask and goggles.
	Use eye protection.



In these operating instructions we have marked the places that have to do with your safety with this sign.

⚠ Safety notes

Attention! The following basic safety measures must be observed when using electric tools for protection against electric shock, and the risk of injury and fire.

Read all these notices before using the electric tool and keep the safety instructions for later reference.

- Please pass on safety notes and instructions to all those who work on the machine.
- The machine must only be used in technically perfect condition in accordance with its designated use and the

instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine. Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately.

- Only tools which correspond to the European norm, EN 847-1, may be used.
- Observe all safety instructions and warnings attached to the machine.
- See to it that safety instructions and warnings attached to the machine are always complete and perfectly legible.
- Caution when working: There is a danger to fingers and hands from the rotating cutting tool.
- Make sure that the machine stands stable on firm ground.
- Check all power supply lines. Do not use defective lines.
- Keep children away from the machine when it is connected to the power supply.
- Operating personal must be at least 18 years of age. Trainees must be at least 16 years of age, but may only operate the machine under adult supervision .
- Persons working on the machine may not be diverted from their work.
- The machine must be equipped with a table length extension if a second person is working at the circular sawbench removing cut workpieces. The second person may not stand anywhere else but at the take-off table end.
- The working space on the machine must be free of chips and wood scrap.
- Wear only close-fitting clothes. Remove rings, bracelets and other jewelry.
- Pay attention to the rotational direction of the motor – see Electrical Connection.
- The safety mechanisms on the machine may not be removed or rendered unusable.
- Cleaning, changing, calibrating, and setting of the machine may only be carried out when the motor is switched off. Pull the power supply plug and wait for the rotating tool to completely stop.
- Switch the machine off and pull power supply plug when rectifying any malfunctions.
- The machine must be attached to a Scheppach dust extractor during all work cycles. Please observe the proper use of this.
- When working on the machine, all safety mechanisms and covers must be mounted.
- Use only sharpened, nick-free and non-deformed saw blades.
- Circular saw blades made from superspeed steel may not be used.
- The splitting wedge is an important safety feature. The workpiece is fed through the splitting wedge, which prevents the cut from closing behind the saw blade and also prevents the workpiece from kicking back.
- Lower the cover onto the workpiece during every working operation. It must stand horizontal above the saw blade.
- Always use a push-stick for longitudinal cuts

of narrow workpieces (less than 120 mm). The push-stick must be used to prevent you from having to work with your hands near the sawblade. Stop the machine to repair a failure or remove pieces of wood which have become jammed. Disconnect the mains plug.

- Use the push stick or the feed lever for sliding the wood, to guide it safely past the saw blade.
- Switch the machine off and pull power supply plug when rectifying any malfunctions.
- The table insert must be renewed when the saw slot is worn down. Pull power supply plug.
- Before the machine is put into operation it must be connected to a dust extractor with a flexible, non-flammable suction hose. The suction should switch on automatically when the machine is switched on.
- When leaving the work place, switch the motor off. Pull the power supply plug.
- Cut off the external power supply of the machine or plant even if only minor changes of place are envisaged. Properly reconnect the machine to the supply mains before recommissioning.
- Connection and repair work on the electrical installation may be carried out by a qualified electrician only.
- All protection and safety devices must be replaced after completing repair and maintenance procedures.

Accessories

Only purchase accessories from your authorised specialised dealer.

⚠ Use only as authorized

The machine corresponds to the valid EC guideline.

CE tested machines meet all valid EC machine guidelines as well as all relevant guidelines for each machine.

- The machine has been built in accordance with state-of-the-art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or of third parties, or cause damage to the machine and to other material property.
- The circular saw bench is constructed exclusively for the sawing of wood. The required saw blade should be inserted according to the cut type and the wood type (solid wood, chip board or plywood).
- The machine must only be used in technically perfect condition in accordance with its designated use and the instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine. Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately.
- When used in enclosed rooms, the machine must be connected to a vacuum exhaust unit. Use the vacuum exhaust unit or ha 2600 to remove matchwood or saw dust. The vacuum support flow rate must be 20 m/s. Subatmospheric pressure 1200 Pa.
- The automatic switching unit is available as a special accessory. The vacuum exhaust unit automatically switches on after a 2-3 second delay after the machine tool is turned on. This avoids overloading the circuit fuse. After turning off the machine tool, the vacuum

exhaust unit remains on for an additional 3-4 seconds and is then automatically switched off. Remaining dust is thereby removed by vacuum exhaust, as required by German regulations governing hazardous materials. This results in savings in electricity consumption and reduces noise levels, as the vacuum exhaust unit is on only during machine tool operation.

- For work in commercial spaces, the **dust remover woova 7** must be used. Do not remove or shut off vacuum exhaust systems or dust removers while machine tools are operating.
- Any other use exceeds authorization. The manufacturer is not responsible for any damages resulting from unauthorized use; risk is the sole responsibility of the operator.
- The safety, work and maintenance instructions of the manufacturer as well as the technical data given in the calibrations and dimensions must be adhered to.
- Relevant accident prevention regulations and other, generally recognized safety-technical rules must also be adhered to.
- The **Table Circular Saw** may only be used, maintained, and operated by persons familiar with and instructed in its operation and procedures. Arbitrary alterations to the machine release the manufacturer from all responsibility for any resulting damages.
- The **Table Circular Saw** may only be used with original accessories and saw blades from the manufacturer.

⚠ Remaining hazards

The machine has been built using modern technology in accordance with recognized safety rules. Some remaining hazards, however, may still exist.

- The rotating saw blade can cause injuries to fingers and hands if the work piece is incorrectly fed.
- Thrown work pieces can lead to injury if the work piece is not properly secured or fed, such as working without a limit stop.
- Noise can be a health hazard. The permitted noise level is exceeded when working. Be sure to wear personal protective gear such as ear protection.
- Defective saw blades can cause injuries. Regularly inspect the structural integrity of saw blades.
- The use of incorrect or damaged mains cables can lead to injuries caused by electricity.
- The operating instructions supplied with the special accessories must be observed and carefully read when Scheppach special accessories are used.
- Even when all safety measures are taken, some remaining hazards which are not yet evident may still be present.
- Remaining hazards can be minimized by following the instructions in "Safety Precautions", "Proper Use" and in the entire operating manual.

Fig. 1

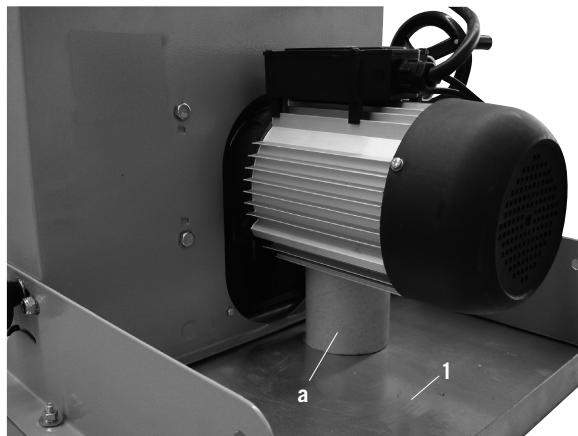
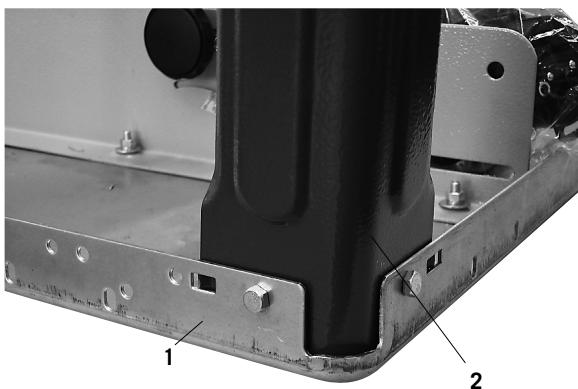


Fig. 1.1



Assembly

Important:

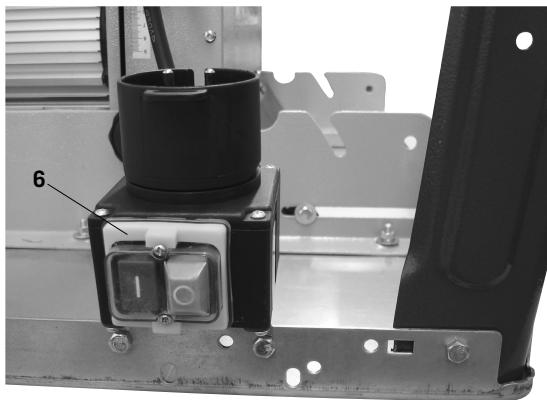
When unpacking, take care to locate all the small parts of the machine supplied inside the carton box.

Fig. 1

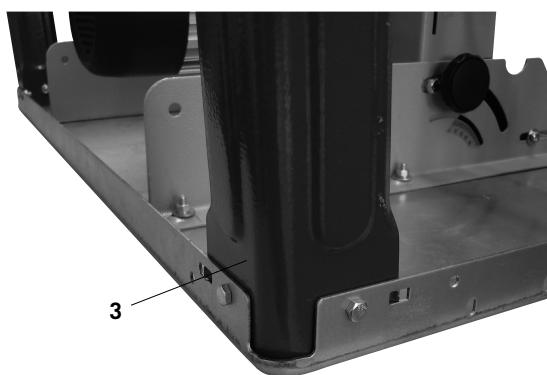
Place the table top (1) onto a work bench after having removed the packing pad a underneath the motor.

Fig. 1.1

Fasten the base leg (2) onto the table top using 2 hexagon bolts M6 x 16, 2 washers 6 and 2 nuts M6. Tighten the bolts slightly by hand.

Fig. 2**Fig. 2**

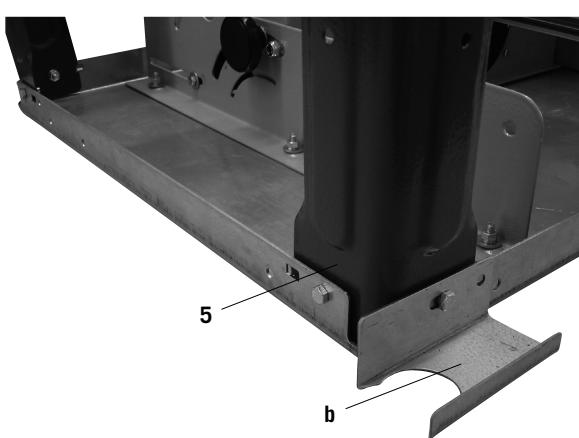
Fasten the switch (6) to the table top using 2 hexagon bolts M6 x 16, 2 washers 6, and 2 nuts M6.

Fig. 3**Fig. 3**

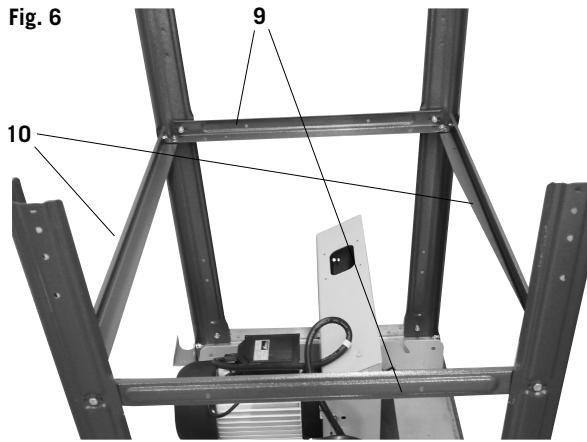
Fasten the base leg (3) to the table top using 2 hexagon bolts M6 x 16, 2 washers 6, and 2 nuts M6. Tighten the bolts slightly by hand.

Fig. 4**Fig. 4**

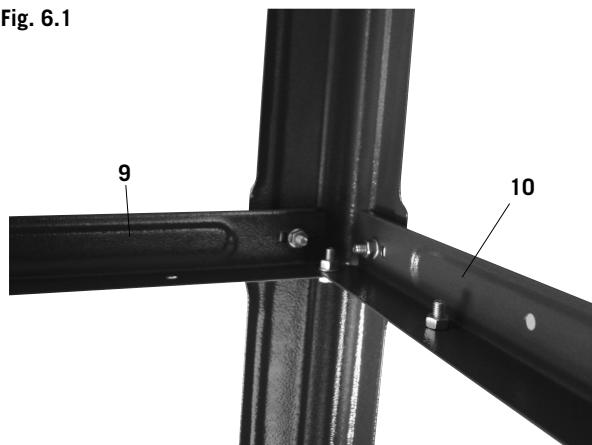
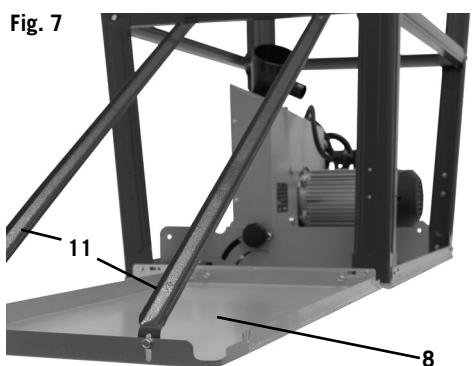
Fasten the base leg (4) to the table top using 2 hexagon bolts M6 x 16, 2 washers 6, and 2 nuts M6. Tighten the bolts slightly by hand.

Fig. 5**Fig. 5**

Fasten the base leg (5) and the hose holder to the table top using 2 hexagon bolts M6 x 16, 2 washers 6, and 2 nuts M6. Tighten the bolts slightly by hand.

Fig. 6**Fig. 6 / 6.1**

Fasten 2 longitudinal braces (10) and 2 cross braces (9) onto the base legs (2, 3, 4 and 5) using 12 hexagon bolts M6 x 16, 12 washers 6, and 12 nuts M6.

Fig. 6.1**Fig. 7****Fig. 7 / 7.1 / 7.2 / 7.3 / 7.4**

The table extension plate (8) has to be mounted parallel to the table top on the motor side of the machine. Fasten the table extension plate (8) with 2 braces (11) and cross brace to the table top using 6 hexagon bolts M6 x 16, 6 washers 6, and 6 nuts M6. The open slots of the table extension have to be fixed at the table top while braces (11) have to be fixed at the elongated holes of the table extension. Tighten the bolts slightly by hand. The table length extension (8) can also be used as table width extension by fitting it to the side with the shorter extended braces. (Fig. 7.4)

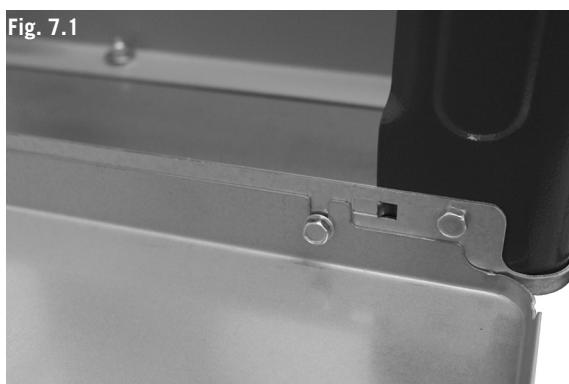
Fig. 7.1

Fig. 7.2

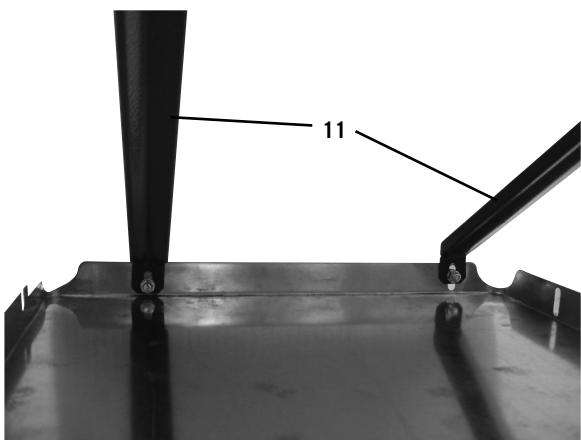


Fig. 7.3

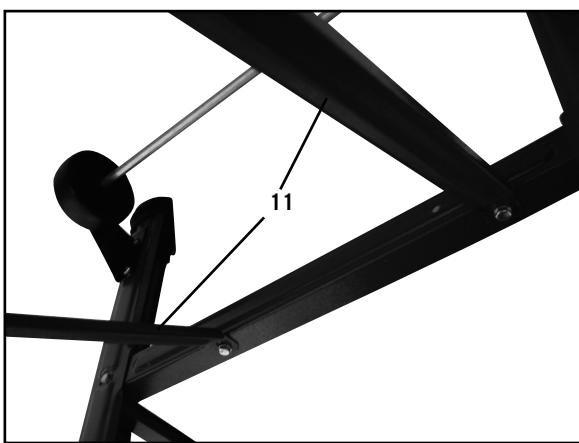


Fig. 7.4

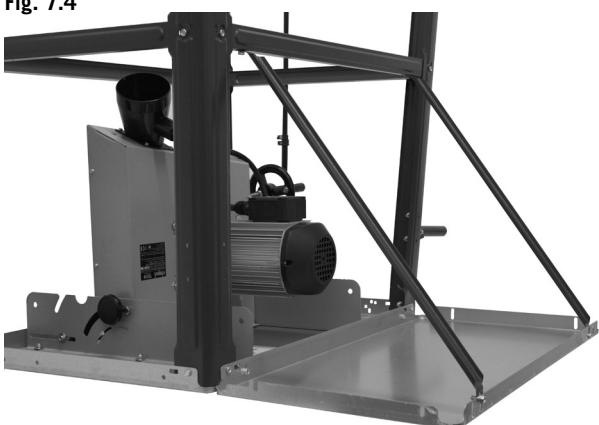


Fig. 8

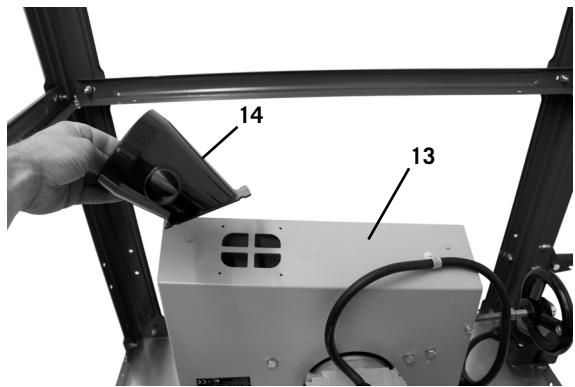


Fig. 8.1

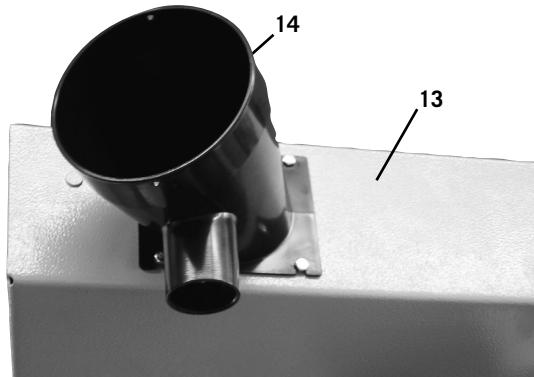


Fig. 9

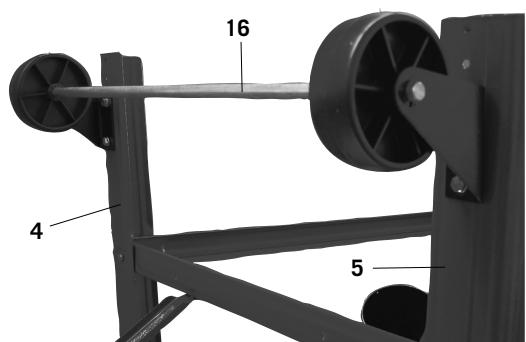


Fig. 9.1

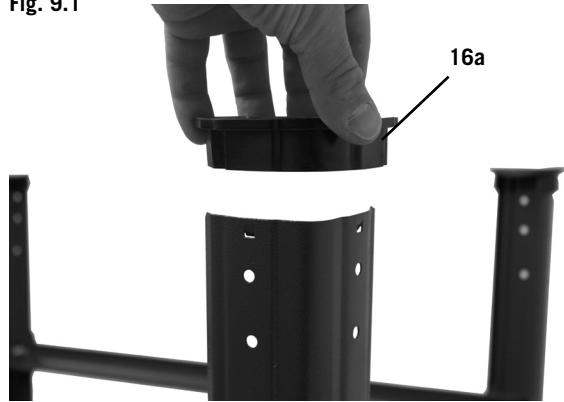


Fig. 8 / 8.1

Fasten the suction piece (14) to the lower saw blade guard (13) using 4 hexagon bolts M4 x 10.

Fig. 9

Fasten the wheel assembly (16) to the rear base legs (4 and 5) using 4 hexagon bolts M6 x 16, 4 washers 6, and 4 nuts M6.

Tighten the bolts slightly by hand.

Now place the rubber feet (16a) onto the support legs (fig. 9.1).

Fig. 10



Fig. 10

Place the machine on its feet and firmly tighten all bolts of table, legs and braces (except those of the wheel assembly).

Fig. 11



Fig. 11

Firmly tighten the wheel assembly in the position where the wheels slightly touch the ground.

Fig. 12



Fig. 12 / 12.1

Fasten the riving knife in line with the saw blade as described in the illustration. Slightly release the bolt without removing it. Retighten it firmly after resetting. For doing this, it is necessary to remove the saw blade insert (19, Fig. 13).

Fig. 12.1

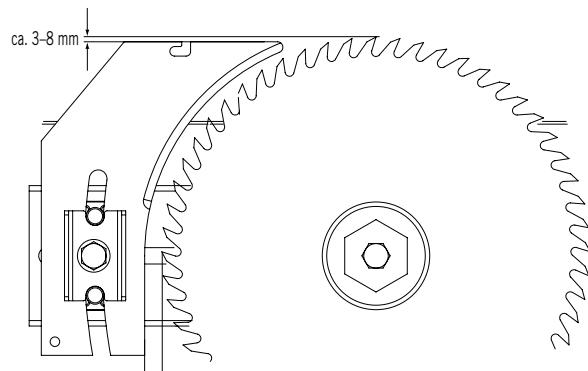


Fig. 13

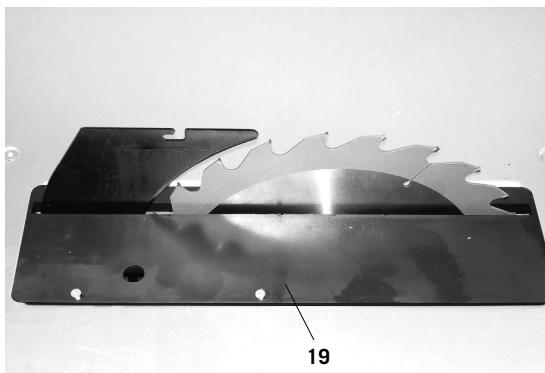


Fig. 14

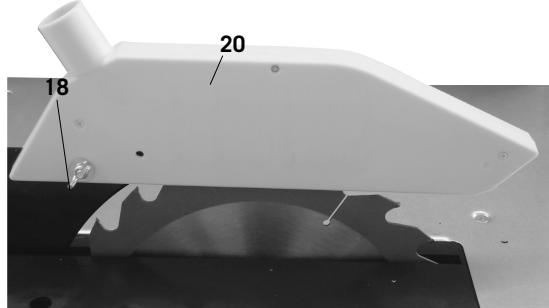


Fig. 15

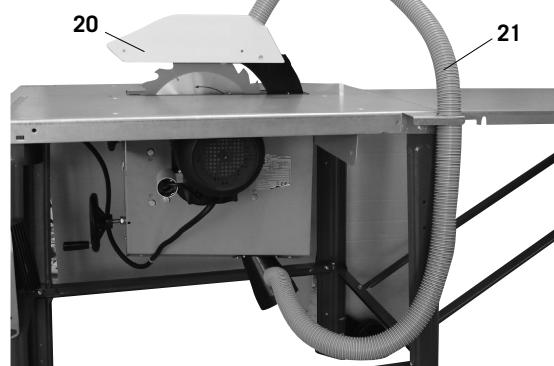


Fig. 15a



Fig. 15b

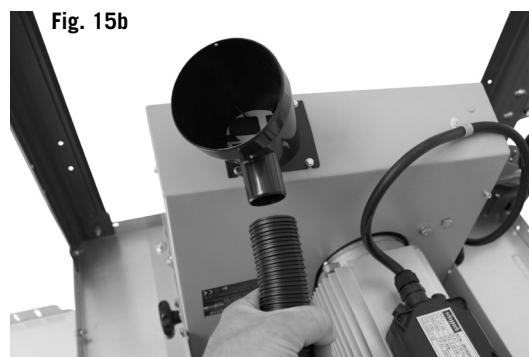


Fig. 13

After setting the riving knife, refasten the saw blade insert (19) with 4 countersunk bolts M6 x 16.

Fig. 14

Fasten the cover (20) to the riving knife 18 with round-head bolt M6 x 25, washer 6, and wing nut M6.

Fig. 16



Fig. 16.1

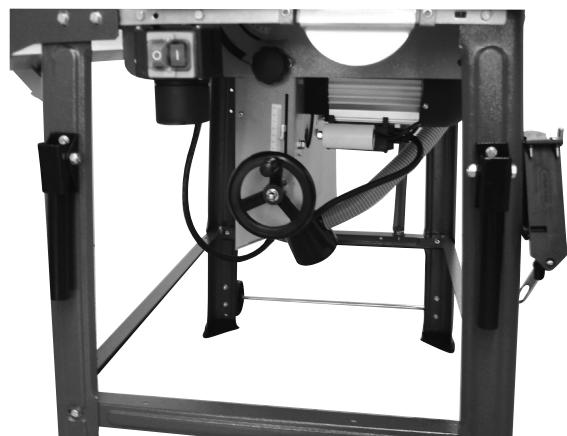


Fig. 17



Fig. 17.1

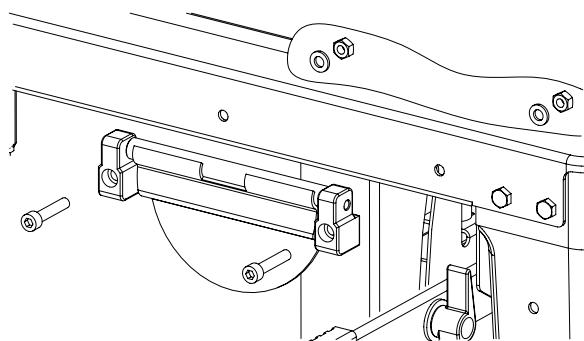


Fig. 16 / 16.1

Fasten the hooked bolt to the right-hand leg side using 2 washers 6 and 2 nuts M6. The hook serves for storing the saw blade key and the push stick.

The 2 transport handles are attached at the left and right leg at the front of the saw using 4 hexagon bolts M6 x 16, 4 washers 6, and 4 nuts M6.

Assembly of the lengthwise catch, Fig. 17 / 17.1

Put the storage pieces on the clasp. Mount the clasp to the tabletop with 2 cylindrical screws M6 x 30, 2 serrated washers A 6,4 and 2 hexagonal nuts.

Fig. 18

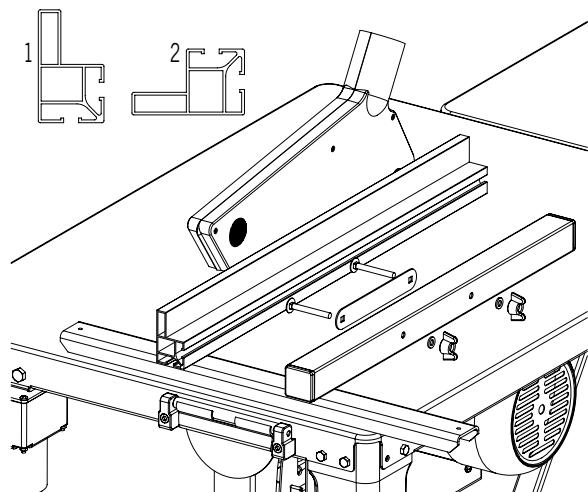


Fig. 19

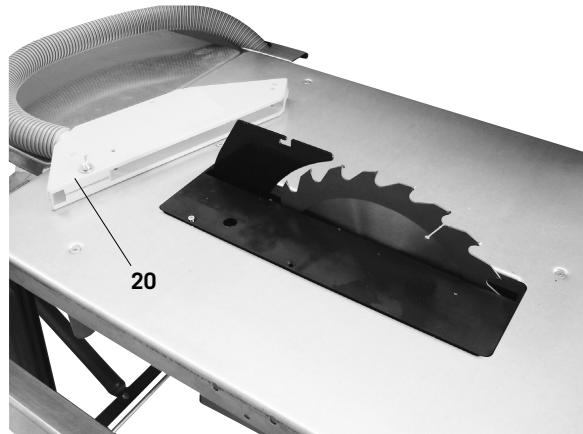
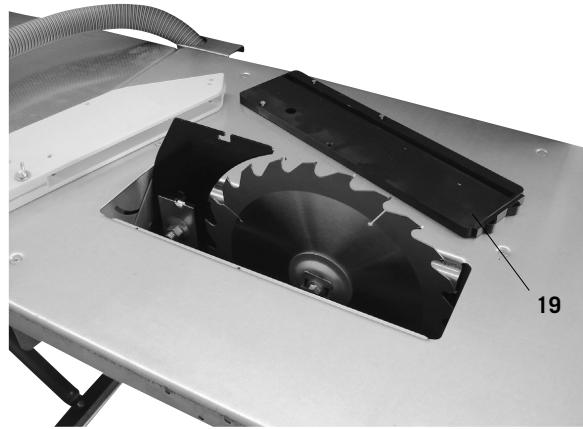


Fig. 20



Assembly of the catch support, Fig. 18

Mount the intermediate plate to the lengthwise catch with 2 flat round screws M6 x 50, 2 screws A6, and 2 wing nuts.

Edge the catch support onto the intermediate plat and clip it in with wing nuts.

Legend:

1 = Upper Surface

2 = Lower Surface

To clip in, lift up the clasp. To release, push it down.

Changing the sawblade, Fig. 19

Attention: Pull the power supply plug!

Wear safety gloves when changing the saw blade. Risk of injury!

Release the wing screw of the suction hood (20) and remove the hood.

Fig. 20

Release the 4 Phillips screws of the table insert (19) and remove the insert.

Fig. 21



Fig. 22

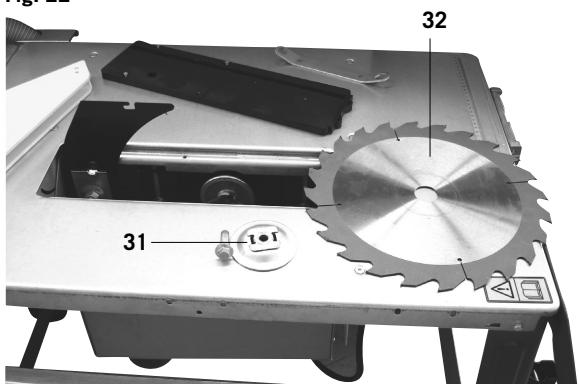


Fig. 23

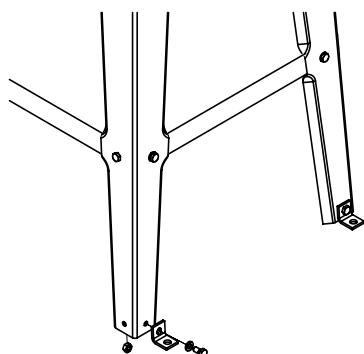


Fig. 21

Move the saw blade to the very top and release the bolt with the saw blade key.

Attention: Left-handed thread.

Fig. 22

Remove the saw blade flange (31) and the saw blade (32). Then change the saw blade.

When mounting the saw blade mind the recess.

After changing the saw blade, check the setting of the riving knife and refit the table insert (19) and the suction hood (20).

Set-up:

Prepare the workplace where the machine is to be placed. Insure sufficient room to allow safe work without malfunctions. The machine is designed to operate in closed rooms and must be placed stably on firm level ground. Stability is insured by attachment to the ground with 4 screws (Fig. 23).

Transport:

The machine may only be transported with suitable lifting devices (crane or fork lift). The connection point for the rope (crane) is on the upper band wheel cabinet. **Never lift from the saw bench.** If the machine is to be moved frequently within the work area, use of the **wheel assembly special accessory** is recommended.

Putting into Operation

Observe the safety instructions!

Important: The machine must only be brought into service with completely installed safety and protection devices. Before starting to use it, connect the machine to an extraction system.

For every operation, the extraction cover has to be lowered down to the work piece.

Secure long workpieces at the end of the cutting process against tipping (e. g. unwind stands).

Fig. 22

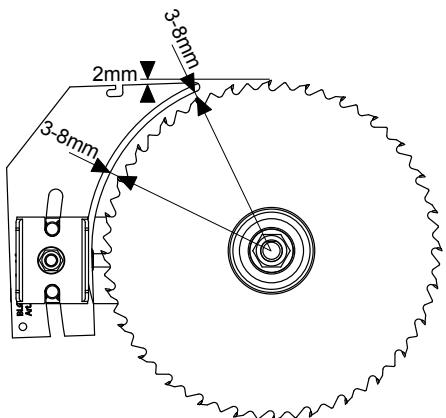


Fig. A

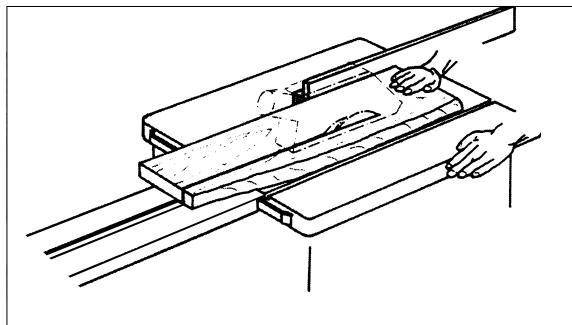
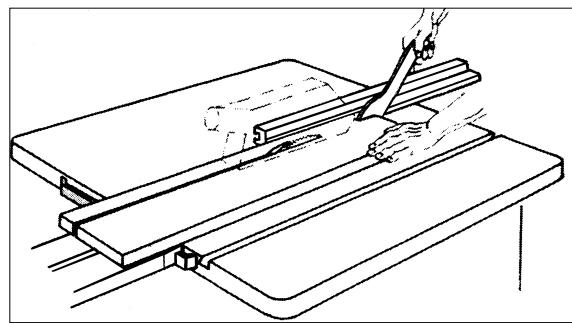


Fig. B



Do not carry out folds or grooves without using proper protective devices over the saw table.

Do not use this electrical power tool to create slashes (grooves finished on the work piece itself).

Always use the transporting means for the transport of the electrical power tool. Never use the protective devices for handling and transporting the device.

Make sure that the upper part of the saw blade is covered; e.g. by the protective device.

Warning! During operation this electrical power tool produces an electromagnetic field which can influence active or passive medical implants under certain conditions. In order to avoid the risk of serious or fatal injuries, we recommend persons with medical implants to consult with their doctor and the manufacturer of the medical implant before operating the electrical power tool

Make sure, that you select a saw blade that is appropriate for the material you intend to cut.

Wear appropriate, personal protective equipment such as:

- Ear protection to reduce the risk of getting hard of hearing
- Respiratory protection to reduce the risk of inhaling dangerous dust
- Be sure to wear gloves when working with saw blades and coarse materials

Where practicable, keep saw blades in a separate container.

Connect the power tool to a dust reception facility when cutting wood. Dust release is influenced by the type of material you will work on, the importance of local deposition (acquisition or source) and the proper adjustment of covering/ deflecting plate/ guide.

Do not use saw blades made out of high-speed steel (HSS steel).

Use the push stick or the feed lever for sliding the wood, to guide it safely past the saw blade. In times of non-use keep the push stick or the push block with the electrical power tool at all times.

The settings of the machine have to ensure that the top of the highest saw tooth is positioned just a little higher than the work piece.

Before switching on the machine, all safety and protection devices have to be installed according to the instructions.

The saw blade must move freely.

Always check timber, which has been processed before, for foreign objects (nails, screws, etc.). Remove all foreign matter.

Before turning on the power supply, make sure that the saw blade is installed correctly and that the moving components can move freely.

Warning: If in doubt, have the machine set by a qualified person. It is too dangerous to work on assumptions.

Saw Blade – Diagonal Adjustment

The saw blade may be swiveled from 90° to 45° after the wing nut has been loosened.

Check the 90° and the 45° position before the first and each subsequent startup.

Make a test cut! Readjust the angle adjustment on the adjusting bolts 1 & 2.

Saw Blade Height Adjustment

The saw blade is adjustable from 0 to 80 mm cutting height after the wing nut has been loosened. For safe and clean working, choose a minimal saw blade projection for the workpiece.

Adjust the riving knife as shown in picture 22.

The riving knife is an important safety device which guides the workpiece and prevents the cutting joint from closing behind the saw blade and the workpiece from being kicked backwards. Check the riving knife thickness. The riving knife should never be thinner than the body of the saw blade or thicker than the cutting joint width. Only use saw blades with a diameter of 250 mm and a thickness of 2.4 mm (3.0 mm teeth).

Lower the suction hood onto the workpiece during every working cycle. The hood must be positioned horizontally above the saw blade during every working cycle.

Fig. C

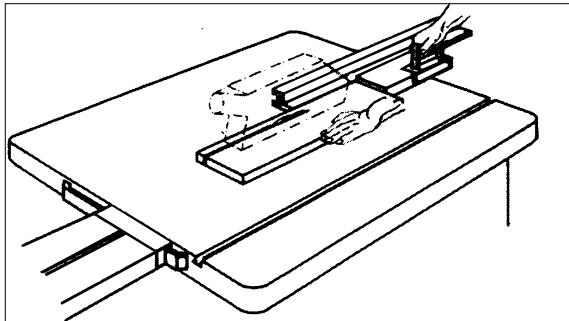
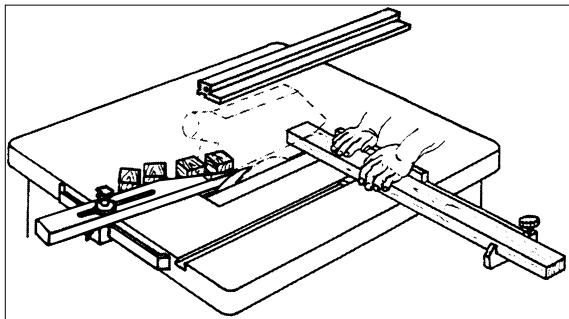


Fig. D



Length Cuts

Insert the length stop for parallel cuts.

Use the stop ruler with the high stop side for cuts above 120 mm and the stop ruler with the low stop side for cut widths under 120 mm.

Lead the workpiece with the push stick.

1 high hub

2 low hub

Diagonal Cuts

For diagonal and angle cuts, insert the cross-cutting guide.

Operational Information

Working on circular saws

Cutting wide workpieces, Fig. A

Width of the workpiece to be machined over 120 mm

Tool: Circular sawblade for longitudinal cuts

Operating cycle: Adjust the ripping fence in accordance with the width of the workpiece. Ensure that your hands are resting in a safe place. The workpiece may only be forward-fed in the tool area with the right hand or with the aid of a push-stick if narrow workpieces are cut off in the cutting process. Move the fence back to the middle of the saw or use a short auxiliary fence if there is a danger of the workpiece being jammed between the circular sawblade, the riving knife and the fence.

Only the upper suction hood has been indicated in the figures on pages 26-28 or has been left out in the individual case in order to display the operating cycle or device more clearly.

The upper suction hood is required for all of the operating cycles.

Cutting narrow workpieces, Fig. B

Width of the workpiece to be machined less than 120 mm

Tool: Circular sawblade for longitudinal cuts

Operating cycle: Adjust the fence in accordance with the width of the workpiece. Feed the workpiece with both hands (use the push-stick in the region of the sawblade) and push the workpiece until it is behind the riving knife. Use the push-stick to feed the workpiece right from the beginning of the cutting process if short workpieces are being used.

Cutting edges and strips, Fig. C

Tool: Circular sawblade for a fine cut

Operating cycle: Mount the fence with a low stop bar surface or use an auxiliary fence. Feed the workpiece with a push-stick until the end of the workpiece is in the region of the riving knife. Prevent long workpieces from toppling over at the end of the cutting process by using a table length extension.

Note: Devices which must be connected to parts of the machine are to be secured with screws. Thumb screws can only be used to make temporary connections at machines.

Cross-cutting narrow workpieces, Fig. D

Tool: Fine-toothed crosscut blade

Operating cycle: Adjust the rejection rail so that workpiece sections do not touch the ascending part of the sawblade. Only feed the workpiece by means of a crossfeed stop or a cross slide.

Do not remove wood chippings from the region of the workpiece with your hands.

⚠ Electrical Connection

The electric motor is connected in a ready-to-operate state. The connection corresponds to the relevant VDE and DIN regulations.

The mains connection at the customer's work place and the extension cable used must correspond to these regulations.

Important information

The 230 V / 50 Hz electric motor is designed for the S6 / 40% (400 V/50 Hz S6/40%) operating mode.

The motor automatically switches off if it is overloaded. The motor can be switched on again after a cooling-down period (varies timewise).

Faulty electrical connecting leads

Insulation damage often occurs at electrical connecting leads.

Causes include:

- Pressure marks caused when connecting leads are run through windows or the cracks of doors.
- Folds caused by the improper attachment of running of the connecting leads.
- Cuts resulting from the crossing of the connecting lead.
- Insulation damages caused by the ripping out of the connecting lead from the wall socket.
- Cracks due to the ageing of the insulation.

Faulty electrical connecting leads such as these may not be used and are highly dangerous due to the insulation damage.

Check electrical connecting leads regularly for damage. Ensure that the connecting lead is not attached to the mains supply when you are checking it.

Electrical connecting leads must correspond to the relevant VDE and DIN regulations. Only use connecting leads with the code H 07 RN. The type designation must be printed on the connecting lead by regulation.

Single-phase motor

- The supply voltage must be 230 volt – 50 Hz.
- Extension leads up to 25 m in length must have a cross-section of 1.5 mm². Extension leads whose length is over 25 m must have a cross-section of at least 2.5 mm².
- The mains connection is fused with a 16 A slow-blow fuse.

Three-phase motor

- The mains voltage must coincide with the voltage specified on the motor's rating plate.
- The mains connection and the extension cable must have 5 conductors: 3 phase conductors + 1 neutral conductor + 1 earth conductor.
- The extension cable must have a minimum cable cross-section of 1.5 mm².
- The connection to the mains must be protected with a 16 A slow-acting fuse.
- The rotating direction must be checked when the machine is connected to the mains or re-sited. If necessary, the polarity will have to be changed over (wall socket).

Connections or repairs on the electrical equipment may only be carried out by an electrician.

Please give the following information if you have any enquiries.

- Motor manufacturer
- Kind of current
- Machine type label data

If you are sending back the motor, always send the complete drive unit with the switch.

- The product meets the requirements of EN 61000-3-11 and is subject to special connection conditions. This means that use of the product at any freely selectable connection point is not allowed.
- Given unfavorable conditions in the power supply the product can cause the voltage to fluctuate temporarily.
- The product is intended solely for use at connection points that
 - a) do not exceed a maximum permitted supply impedance "Z", or
 - b) have a continuous current-carrying capacity of the mains of at least 100 A per phase.

- As the user, you are required to ensure, in consultation with your electric power company if necessary, that the connection point at which you wish to operate the product meets one of the two requirements, a) or b), named above.

Maintenance

Warning: Turn off the machine and disconnect from the power supply before conducting maintenance work or settings.

Store the manual close to the machine.

Keep the machine clean.

Wear goggles when cleaning the machine.

Caution: Do not clean synthetic components of the bench using aggressive cleaning agents. We recommend a mild dish washing liquid. The machine must not get into contact with water.

- Check the saw blade regularly. Use only well-sharpened, crack-free and not distorted saws. Use only tools that comply with the European standard EN 847-1.
- Exchange immediately table lining that run out.
- Always keep table surface nonresinous.
- Clean regularly the inner section of the machine, like tooth segment and pinion of the oscillating device, of wood and chip rests.
- Remove possible sawdust blockages at the discharge.

Have your electric tool repaired by a qualified electrician. This electric tool conforms to the applicable safety regulations. Repairs may only be performed by an electrician using original spare parts. Otherwise accidents can occur.

Troubleshooting table

Warning: In the interests of operational safety, always switch off the saw and remove the mains plug before carrying out maintenance work.

Problem	Possible Cause	Help
Saw blade gets loose after turning off the motor	Fastening nut tightened insufficiently	Tighten fastening nut, M20 left-handed thread
Motor does not start	a) Fastening nut tightened insufficiently b) Extension cable defect c) Connections on the motor or switch defect	a) Check the mains fuse. b) See "Electrical Connection" in the operating manual c) Have it checked by an electrician
No motor output turns off automatically	Overload by dull saw blade, thermoprotection is triggered	Insert a sharpened saw blade; motor can be turned on again after the cooling period
Burns on the cutting surface c) with longitudinal cuts d) with cross cuts	a) Fastening nut tightened insufficiently b) Wrong saw blade c) Longitudinal stop not parallel d) Slide carriage not parallel	a) Insert a sharpened saw blade b) Insert saw blade with 20 or 28 teeth for longitudinal cuts c) Exchange the longitudinal stop Align the slide carriage with the saw blade

