

Instruction Manual

_____ Building Site Saw

_____ BKS 501



BKS 501

BKS 501

Imprint

Product identification

Building Site Saw	Item number
BKS 501	5740050

Manufacturer

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Information on the operating instructions

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Copyright information

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Technical changes and errors excepted.

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1 Introduction

You have made a good choice by purchasing the HOLZ-STAR circular saw.

Read the operating instructions carefully before using the saw.

These are an important part and must be kept near the circular saw and accessible to every user.

The operating instructions inform you about the proper commissioning, the intended use as well as the safe and efficient operation and maintenance of the circular saw.

In addition, observe the local accident prevention regulations and general safety regulations for the area of application of the circular saw.

1.1 Copyright

The contents of these instructions are protected by copyright and are the sole property of Stürmer Maschinen GmbH. Their use is permitted within the scope of using the construction circular saw. Any other use is not permitted without the written consent of the manufacturer.

Passing on and reproduction of this document, utilisation and communication of its contents are prohibited unless expressly permitted. Violations will result in liability for damages. We register trademark, patent and design rights to protect our products, insofar as this is possible in individual cases. We emphatically oppose any infringement of our intellectual property.

1.2 Customer service

Please contact your specialist dealer if you have any questions about your Circular saw or for technical information. They will be happy to provide you with expert advice and information.

Germany:
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Repair service:
Fax: 0049(0)951 96555-111
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Fax: 0049(0)951 96555-119
E-Mail: ersatzteile@stuermer-maschinen.de

We are always interested in information and experiences that result from the application and can be valuable for the improvement of our products.

1.3 Limitation of liability

All information and notes in these instructions have been compiled taking into account the applicable standards and regulations, the state of the art and our many years of knowledge and experience.

The manufacturer accepts no liability for damage in the following cases:

- Non-observance of these instructions
- Non-intended use
- Use of untrained personnel
- Unauthorized modifications
- Technical modifications
- Use of unauthorized spare parts

The actual scope of delivery may deviate from the explanations and representations described here in the case of special versions, when additional order options are used or due to the latest technical changes.

The obligations agreed in the delivery contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations valid at the time of the conclusion of the contract shall apply.

2 Safety

This section provides an overview of all important safety packages for the protection of persons and for safe and trouble-free operation. Further task-related safety instructions are contained in the individual chapters.

2.1 Symbol explanation

Safety instructions

Safety instructions are identified in these operating instructions by symbols. The safety instructions are introduced by signal words that express the extent of the hazard.



DANGER!

This combination of symbol and signal term indicates a directly dangerous situation which may cause death or serious injury if not averted.

WARNING!

This combination of symbol and signal term indicates potentially hazardous situations which may cause death or serious injury if not averted.

ATTENTION!

This combination of symbol and signal term indicates a potentially hazardous situation which may cause minor or light injuries if it is not averted.

IMPORTANT

This combination of symbol and signal term indicates a potentially dangerous situation which may cause material damage or harm the environment if it is not averted.



NOTE!

This combination of symbol and signal word indicates a possibly hazardous situation which, if not avoided, may result in damage to property and the environment.

Tips and recommendations



Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for efficient and trouble-free operation.

To reduce the risks of personal injury and damage to property and to avoid dangerous situations, the safety instructions given in these operating instructions must be observed.

2.2 Responsibility of the operator

Operator

The operator is the person who operates the construction circular saw for commercial or economic purposes himself or who leaves it to a third party for use or application and who bears the legal product responsibility for the protection of the user, the personnel or third parties during operation.

Operator obligations

If the construction circular saw is used in the commercial sector, the operator of the construction circular saw is subject to the legal obligations for occupational safety. Therefore, the safety instructions in this operating manual as well as the safety, accident prevention and environmental protection regulations valid for the area of application of the construction circular saw must be observed. The following applies in particular:

- The operator must inform himself about the applicable occupational health and safety regulations and, in a risk assessment, identify additional hazards arising from the special working conditions at the place of use of the construction circular saw. He must implement these in the form of operating instructions for the operation of the construction circular saw.
- During the entire period of use of the construction circular saw, the operator must check whether the operating instructions he has drawn up correspond to the current status of the regulations and, if necessary, adapt them.
- The operator must clearly regulate and define the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operator must ensure that all persons handling the construction circular saw have read and understood these instructions. In addition, he must train the personnel at regular intervals and inform them about the dangers.
- The operator must provide the personnel with the required protective equipment and issue binding instructions for the wearing of the required protective equipment.

Furthermore, the operator is responsible for ensuring that the construction circular saw is always in technically perfect condition. Therefore, the following applies:

- The operator must ensure that the maintenance intervals described in these instructions are observed.
- The operator must have all safety devices checked regularly for functionality and completeness.

2.3 Personnel requirements

Qualifications

The various tasks described in this manual place different demands on the qualifications of the persons entrusted with these tasks.



WARNING!

Danger in case of insufficient qualification of persons!

Insufficiently qualified persons cannot assess the risks involved in handling the construction circular saw and expose themselves and others to the risk of serious or fatal injuries.

- All work must be carried out by qualified personnel only.
- Keep insufficiently qualified persons away from the work area.

Only persons who can be expected to perform this work reliably are permitted to perform any work. Persons whose ability to react is influenced by drugs, alcohol or medication, for example, are not permitted.

In these operating instructions, the qualifications of the persons listed below are named for the various tasks:

Operator:

The operator has been instructed by the operator about the tasks assigned to him and possible dangers in case of improper behavior. The operator may only perform tasks that go beyond operation during normal operation if this is specified in these operating instructions and the operator has expressly entrusted him with this task.

Electrician:

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, qualified electricians are able to carry out work on electrical systems and to independently recognize and avoid potential hazards.

Specialist personnel

Due to their professional training, knowledge and experience as well as knowledge of the relevant standards and regulations, the qualified personnel are able to carry out the work assigned to them and to recognize possible hazards independently and to avoid hazards.

Manufacturer

Certain work may only be carried out by specialist personnel of the manufacturer. Other personnel are not authorized to perform this work. Contact our customer service department if any work is required.

2.4 Personal protective equipment

The personal protective equipment serves to protect persons against impairments to safety and health during work. The personnel must wear personal protective equipment during the various work on and with the machine, which is referred to separately in the individual sections of these instructions.

The following section explains the personal protective equipment:



Breathing protection

Respiratory protection is used to protect the respiratory tract and lungs from the ingestion of dust particles.



Head protection

The industrial helmet protects the head against falling objects and bumping against fixed objects.



Hearing protection

Hearing protection helps to protect the hearing from harmful noise and other loud sounds.



Safety goggles

The safety goggles are used to protect the eyes from flying parts.



Protective gloves

The protective gloves are used to protect the hands from sharp-edged components, as well as from friction, abrasions or deeper injuries.



Safety shoes

The safety shoes protect the feet from crushing, falling parts and slipping on slippery surfaces.



Protective work clothing

Protective work clothing is tight-fitting work clothing, without protruding parts, with low tear resistance.

2.5 Safety markings on the Circular saw

The following safety markings (Fig. 1) are attached to the Circular saw, which must be observed and followed.



Fig. 1: Safety labels

The safety markings attached to the machine must not be removed. Damaged or missing safety markings can lead to incorrect actions, personal injury and damage to property. They must be replaced immediately. If the safety markings are not recognizable and comprehensible at first glance, the machine must be taken out of operation until new safety markings have been applied.

2.6 Safety data sheets

Safety data sheets on hazardous materials can be obtained from your specialist dealer or by calling +49 (0)951/96555-0. Specialist dealers can find safety data sheets in the download area of the partner portal.

2.7 Safety devices

Splitting wedge

The riving knife prevents a workpiece from being caught by the rising teeth and thrown in the direction of the operator. The riving knife must always be mounted during operation.

Chip cover

The chip hood protects against accidental contact with the saw blade and against flying chips. The chip hood must always be fitted during operation.

Sliding stick

The push stick serves as an extension of the hand and protects against accidental contact with the saw blade. The push stick must always be used when the distance between the fence profile and the saw blade is less than or equal to 120 mm.

Motor brake device

Your construction circular saw is equipped with an automatic brake. After switching off the motor, the saw blade must stand still after 8 - 10 seconds.

The electric motor is designed for the S 6 / 40 % operating mode. In case of overload of the motor, it switches off automatically. After a cooling time, the motor can be switched on again.

2.8 General safety instructions

The following should be noted:

- The machine may only be operated outdoors or in adequately ventilated rooms. Exception: If the machine is connected to an exhaust system, it can also be operated indoors.
- Only work with personal protective equipment!
- Only use the machine when it is in perfect technical condition and in accordance with its intended use and in a safety-conscious and hazard-conscious manner, observing the operating instructions! In particular, faults that can impair safety must be eliminated immediately!
- During sawing it must be ensured that all workpieces are held and guided safely.
- The safety, working and maintenance instructions of the manufacturer as well as the dimensions specified in the "Technical Data" must be observed.
- The applicable accident prevention regulations and other generally recognized safety rules must be observed.
- The construction circular saw may only be used, maintained or repaired by persons who are familiar with it and have been informed about the dangers. Unauthorized modifications to the machine exclude the manufacturer's liability for any resulting damage.
- The construction circular saw may only be used with original accessories, original attachments and saw blades from the manufacturer.
- Only correctly sharpened saw blades manufactured according to the requirements in EN 847-1:2005 may be used.
- Do not use a saw blade for which the specified maximum speed (see saw blade imprint) is higher than the motor speed (see Technical Data).
- Make sure that there is sufficient general or local lighting at your workplace.
- During operation, several persons must not work on the machine at the same time.
- The machine may only be operated by trained personnel. Unauthorized persons, especially children, and untrained persons must be kept away from the working environment!
- The construction circular saw should not be used for cutting firewood.
- Operate the construction circular saw only on solid, level and non-slip ground.
- The operator must be at least 18 years old. Trainees must be at least 16 years old and may only work on the machine under supervision.
- Keep the machine operating area free of chips and wood debris.

- When rip cutting narrow workpieces - less than 120 mm - be sure to use the push stick for working.
- Observe the direction of rotation of the motor and the saw blade.
- Only use well-sharpened, crack-free and undistorted original saw blades. Circular saw blades made of high-speed steel must not be installed.
- The safety devices on the machine must not be dismantled or modified.
- Pay attention to the riving knife thickness - see numbers on the riving knife. The riving knife must not be thinner than the saw blade and not thicker than its kerf width.
- Lower the blade guard after each operation.
- When cutting workpieces crosswise, a lateral overhang must be supported, e.g. by a material stand.
- Switch off the machine to rectify faults or to remove jammed pieces of wood.
- The conversion as well as adjustment, measuring and cleaning work may only be carried out with the motor switched off. Pull out the mains plug!
- Plugs and coupling sockets on connection lines must be made of rubber, soft PVC or other thermoplastic material of the same mechanical strength or be coated with this material.
- The plug device of the connecting cable must be splash-proof.
- When using a cable drum, unwind the cable completely.
- Do not use the cable for purposes for which it is not intended. Protect the cable from heat, oil and sharp edges. Do not use the cable to pull the plug out of the socket.
- Regularly check the saw's cable and have it replaced by a qualified specialist if it is damaged.
- When laying the connecting cable, avoid crushing the cable.
- The machine may only be used and stored in a dry environment.
- Before each use, check that the plug connections are clean and dry!
- Do not use defective connecting cables.
- Only use approved and appropriately marked extension cables outdoors.
- Connect the machine via residual current circuit breaker (30 mA).
- Switch off the motor when leaving the workplace. Pull out the mains plug!
- Installations, repairs and maintenance work on the electrical installation may only be carried out by qualified personnel.
- Protective gloves must be worn when changing the saw blade.

- All protective and safety notices must be refitted immediately after repair and maintenance work has been completed.
- Risk of injury when removing chips as long as the saw blade is rotating. Remove chips only after the saw blade and the saw unit (motor) have come to a standstill.
- The construction circular saw must be connected to an external chip and dust extraction system when in operation.
- Check the saw blade for cracks or missing teeth. Do not use cracked or dull saw blades. Make sure the saw blade screw is tight.
- Never clean the construction circular saw while it is running. Always switch off the machine and disconnect the power plug when cleaning or replacing the saw blade.

3 Intended use

The construction circular saw is designed exclusively for processing wood and wood-like materials.

Depending on the cut and type of wood (solid wood, plywood or chipboard), the appropriate saw blade must be selected.

Intended use also includes compliance with all the information in these instructions.

3.1 Reasonably foreseeable misuse

Any use beyond the intended use or any other use is considered misuse.

Possible misapplications may include:

- Use of the construction circular saw for materials other than wood (e.g. the processing of metal).
- Machining workpieces that are too large or heavy.
- Operating the machine without the safety devices in place.
- Installation of spare parts and use of accessories not approved by the manufacturer.
- Service work carried out by untrained or unauthorized personnel.
- Maintenance work on an unsecured machine.
- Modifications to the machine or the use of modified tool systems.
- Use of the circular saw in areas where there are aggressive or flammable substances in the air (the circular saw is not explosion-proof as standard).
- Operating the construction saw in a damp environment.

Misuse of the wood band saw can lead to dangerous situations.

Stürmer Maschinen GmbH accepts no liability for design and technical modifications to the wood band saw.

Claims of any kind for damage due to improper use are excluded.

3.2 Residual risks

Even if all safety regulations are observed and the machine is used in accordance with the regulations, there are still residual risks, which are listed below:

- Impairment of hearing during prolonged work without hearing protection or if it is defective.
- Heat generation on components can lead to burns and other injuries.
- Electrical hazard due to contact with parts and high voltage (direct contact) or with parts that are under high voltage due to a defect of the device (indirect contact).
- Risk of injury to fingers and hands from the tool or workpiece.
- Danger of breakage or ejection of the workpiece.
- Risk of injury from kickback of workpiece and workpiece parts due to improper handling.
- Risk of injury to the eye from flying parts, even with protective goggles.
- Danger from inhaling wood dust.
- Injuries due to a defective saw blade.

4 Technical Data

Model	BKS 501
Length	1870 mm
Width / Depth	810 mm
Height	1170 mm
Weight	103 kg
Supply voltage	400 V
Max. Cutting height 90	150 mm
Ø Saw blade	500 mm
Saw blade speed	2800 min ⁻¹
Ø Suction nozzle Saw blade guard	50 mm
Ø Suction nozzle	95 mm
Table length	1000 mm
Table width	660 mm
Table height	850 mm
Absorbed power	4,2 kW
Output power	3,4 kW
Protection class drive motor	IP 44
Nominal operating mode drive motor	S6 40%
Motor efficiency class Drive motor	IE 3
Total current consumption	7,1 A

Noise characteristics

The noise emission values determined in accordance with EN 23746 for the sound pressure level or EN 31202 (correction factor k3 calculated from EN 31204 in accordance with Annex A.2) for the sound pressure level at the construction site are as follows, based on the working conditions specified in ISO 7960 Annex A:

Idling LWA = 103 dB(A)

Working LWA = 108 dB(A)

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

4.1 Type plate





Baukreissäge Building Site Saw				
Typ Type	BKS 501	Serien-Nr. Serial no.		
Artikel-Nr. Item no.	5740050	Baujahr <small>Monat/Jahr</small> Year of manufacture <small>month/year</small>		
Aufnahmeleistung Input Power	4,2 kW	Netzanschluss Power connection	400 V / 3~/ 50 Hz	
Abgabeleistung Output Power	3,4 kW	Sägeblatt- Ø Saw blade Ø	500 mm	
Nennstrom Rated current	7,1 A	Drehzahl Motor speed	2800 min⁻¹	
Spaltmaß Riving thickness	2,5 mm	Kurzschlussfestigkeit Short circuit rating	1 kA	
Güteklasse Material Grade of materials	B	Max. Schnitttiefe Max. cutting depth	150 mm	
Nennbetriebsart Nominal mode	S6 40%	Sägeblattinnen- Ø Saw blade inner Ø	30 mm	
Gewicht Weight	103 kg	Schallleistungspegel Sound power level	110 dB(A)	
 www.holzstar.de		Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt Germany		

Fig. 2: Type plate

5 Transport, packing and storage

5.1 Delivery and Transport

Delivery

Check the Circular saw for visible transport damage after delivery. If you discover any damage to the Circular saw, report it immediately to the transport company or the dealer.

Transport

Improper transport is accident-prone and can cause damage or malfunctions for which we do not grant any liability or guarantee. Transport the scope of delivery secured against shifting or tilting with a sufficiently dimensioned industrial truck to the installation site.



WARNING!

Severe or fatal injuries may occur if parts of the machine tumble or fall down from the forklift truck, pallet truck or from the transport vehicle. Follow the instructions and information on the transport box.

Note the total weight of the machine. The weight of the machine is indicated in the "Technical data" of the machine. When the machine is unpacked, the weight of the machine can also be read on the rating plate.

Only use transport devices and load suspension gear that can hold the total weight of the machine.



WARNING!

The use of unstable lifting and load suspension equipment that might break under load can cause severe injuries or even death. Check that the lifting and load suspension gear has sufficient load-bearing capacity and that it is in perfect condition.

Observe the accident prevention regulations issued by your Employers Liability Insurance Association or other competent supervisory authority, responsible for your company.

Fasten the loads properly.

General risks during internal transport



WARNING: DANGER OF TIPPING

The device may be lifted unsecured by a maximum of 2cm.

Employees must be outside the danger zone, the reach of loads.

Warn employees and, if necessary, advise employees of the hazard.

Devices may only be transported by authorized and qualified persons. Act responsibly during transport and always consider the consequences. Refrain from daring and risky actions.

Gradients and descents (e.g. driveways, ramps and the like) are particularly dangerous. If such passages are unavoidable, special caution is required.

Before starting the transport check the transport route for possible danger points, unevenness and disturbances as well as for sufficient strength and load capacity.

Danger points, unevenness and disturbance points must be inspected before transport. The removal of danger spots, disturbances and unevenness at the time of transport by other employees leads to considerable dangers.

Careful planning of internal transport is therefore essential.

Transport with a forklift / pallet truck:

For shipping, the machine packed in boxes is delivered on a pallet so that it can be transported with a forklift truck or a lift truck.

5.2 Packaging

All packaging materials and packaging aids used in the Circular saw are recyclable and must always be recycled. Packaging components made of cardboard should be shredded and taken to the waste paper collection. The films are made of polyethylene (PE) and the padding parts of polystyrene (PS). These materials should be taken to a collection point for recyclable materials or to your local waste disposal company.

5.3 Storage



DANGER!

Do not store the construction circular saw unprotected outdoors or in a damp environment.

Store the Circular saw thoroughly cleaned in a dry, clean and frost-free environment. Cover the machine with a protective tarpaulin.

6 Description of the device

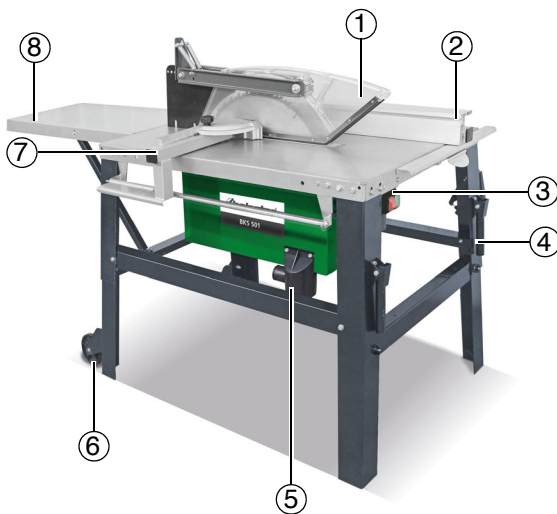


Fig. 3: Description of the device

- 1 Saw blade guard
- 2 Longitudinal stop
- 3 ON / OFF switch
- 4 Transport handle
- 5 Suction connection
- 6 Transport wheel
- 7 Angle stop
- 8 Table extension

Scope of delivery

- Saw blade 500x30x4 Z44
- Push stick
- Push handle
- Pendulum saw blade guard
- Tool for saw blade change
- Foldable table extension

Accessories

- HM-Saw blade Ø500mm Z44
- Item number: 5740505**

7 Set up before commissioning



CAUTION!

- Risk of injury due to an unstable machine! Check the stability of the machine after setting it up on level and stable ground.
- Observe the weight of the machine!
A second person must be called in to set up the machine. Check the auxiliary equipment for sufficient dimensioning and load-bearing capacity.

7.1 Requirements for the installation site

The Circular saw must be set up in a stable position on a level and solid surface. Ensure that there is sufficient freedom of movement for working.

The installation site must meet the following criteria:

- The substrate must be level, firm and vibration-free.
- The surface must not allow any lubricants to pass through.
- The installation or work area must be dry and well ventilated.
- Set up and operate the machine in a place that is as dust-free as possible.
- There must be sufficient space for the operating personnel, for material transport and for adjustment and maintenance work.
- The installation site must have good lighting.
- A sufficient suction device must be available and connected.

8 Assembly

The following personal protective equipment must be worn when working on the circular saw:



The explanation of the pictograms can be found in Chapter 2.4 "Personal protective equipment".

8.1 Assembly of the construction circular saw



CAUTION!

The mains plug must be disconnected before all maintenance, conversion and assembly work on the circular saw.

Use the following steps to make the machine ready for operation:

Step 1: Unpack the circular saw, check for completeness and possible damage.

Step 2: Fold out the feet (Pos.1, Fig. 4) at the front and rear and clamp them firmly..

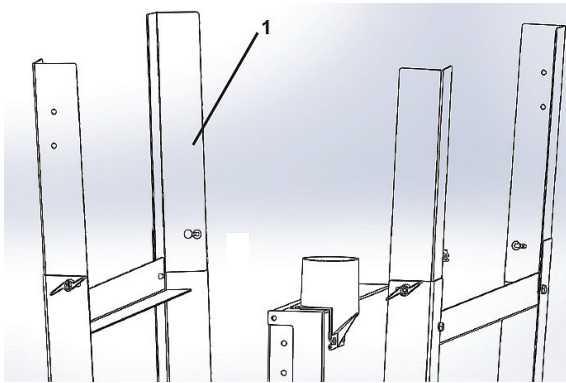


Fig. 4: Mount frame

Step 3: Align the cross strut (Pos.2, Fig.5) with the mounting holes and mount it. Tighten all screws (Pos.3, Fig.5).

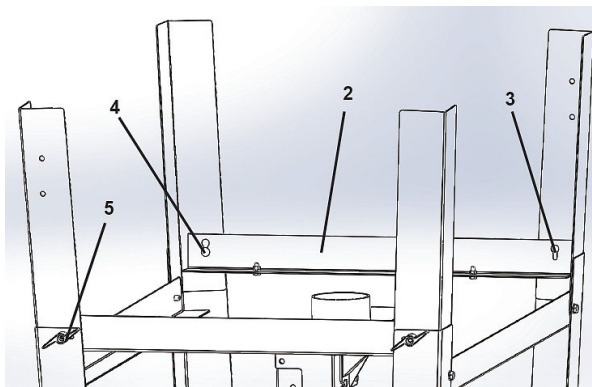


Fig. 5: Mount cross strut

Step 4: Insert the assembled protective hood with riving knife (Pos.1, Fig.6) from above between the guide plate and the clamping plate.

Step 5: Adjust the distance between the riving knife and the saw blade to 3 - 8 mm (Pos.a, Fig.6), tighten the clamping plate with four hexagon screws (Pos.2, Fig.6) and washers.

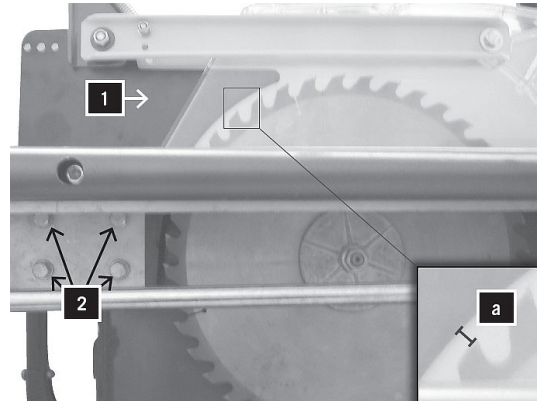


Fig. 6: Mount saw blade guard

Step 6: Mount table extension (Pos.3, Fig.7) on both sides of the table top (Pos.2, Fig.7).

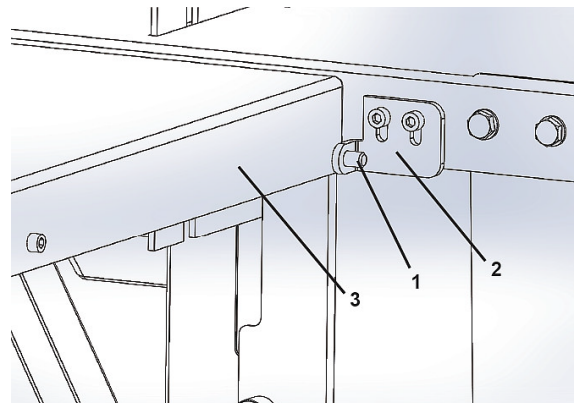


Fig. 7: Mount table extension

Step 7: Mount cross strut (Pos.4, Fig.8) for table extension with screws, washers and nuts (Pos.5, Fig.8).

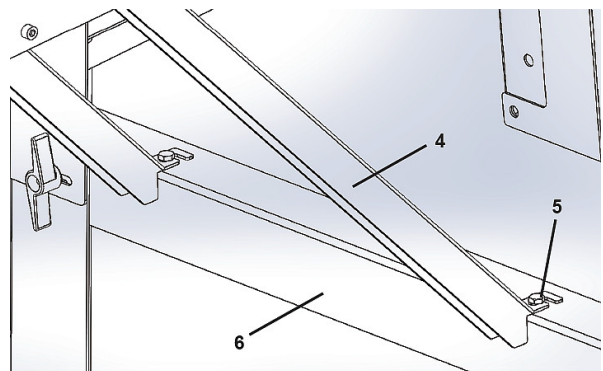


Fig. 8: Mount the cross struts of the table extension

Step 8: Align the table extension as follows:

- Place the spirit level on the saw table and the table extension,
- Align the table extension in height, tighten with the screws on the saw table and on the support.

Step 9: Mount the wheel set (Pos.1, Fig.9) to the feet.

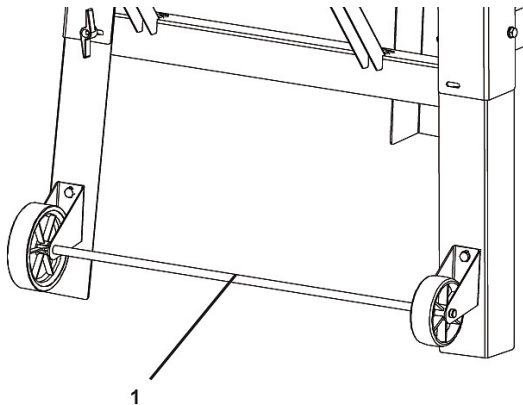


Fig. 9: Mount transport wheels

Step 10: Mount the clamping device (Pos.1, Fig. 10) for the longitudinal stop to the table top using two cylinder screws M6x30, two washers and two nuts M6.

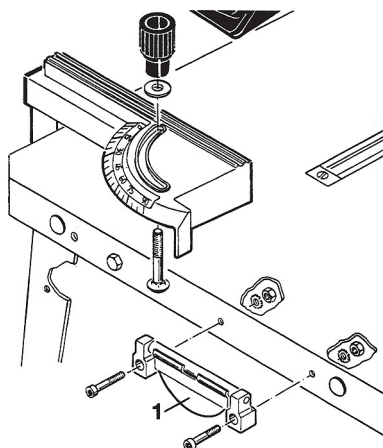


Fig. 10: Mounting the clamping device longitudinal stop

Step 10: Insert the M8 x 70 screw from below through the square tube into the angle stop and clamp it with an 8 mm washer.

Step 11: Set the angle stop (Pos.3, Fig.11) at right angles to the saw blade using the hexagon screw (Pos.2, Fig.11) in the square tube. Use the 90° angle and then make a test cut.

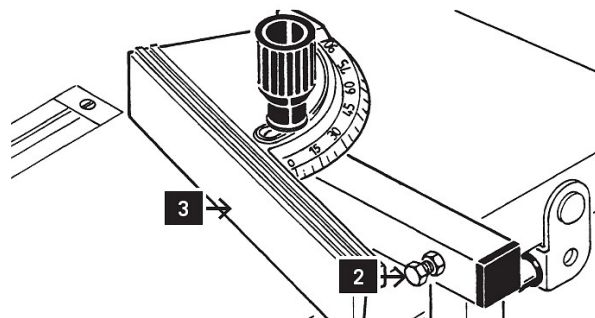


Fig. 11: Mount angle stop

Step 12: Insert the stop rail and clamp it firmly.

Step 13: Insert the longitudinal stop into the clamping device.

Clamping = Pull up clamping lever

Release = press down clamping lever

Step 14: Insert the longitudinal stop into the clamping device.

Position 1 = High contact surface

Position 2 = Low contact surface

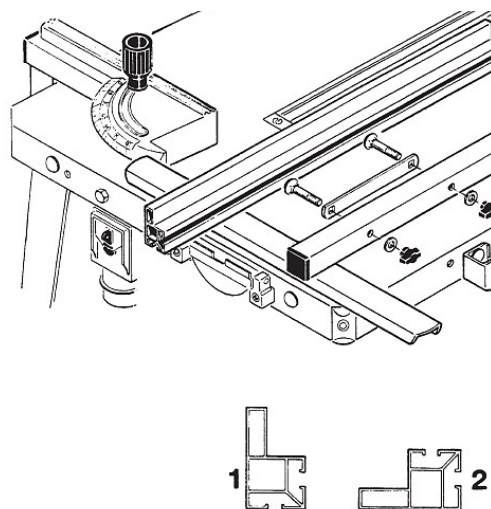


Fig. 12: Mount longitudinal stop

Step 15: The cover (Fig. 13) is mounted ready for operation. Make sure that the cover is always supported by its own weight on the table top, but that the two screws are fastened without play.

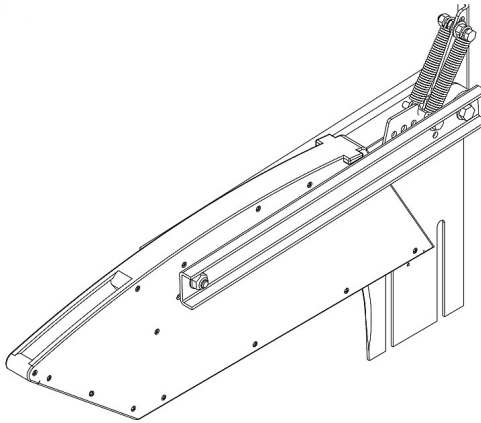


Fig. 13: Mount saw blade cover

Step 16: The distance between the saw blade and the riving knife must not exceed 8 mm. Check after each saw blade change and readjust if necessary. Also make sure that the riving knife is set correctly. It must not protrude over the saw blade, but must also only be a maximum of 2 mm below the highest point on the saw blade.

In case of deviation, correct as follows, Fig. 14:

- Loosen hexagon screws (Pos.2, Fig. 14),
- Adjust the splitting wedge,
- Tighten the hexagon head screws (Pos.2, Fig. 14) again.

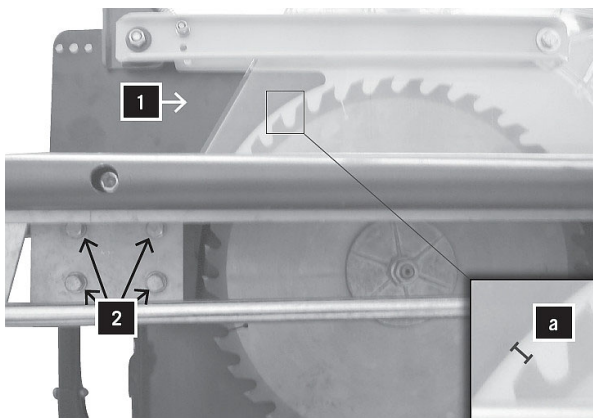


Fig. 14: Adjusting the splitting wedge

The riving knife is an important protective device that guides the workpiece and prevents the kerf from closing behind the saw blade and the workpiece from kicking back. Pay attention to the riving knife thickness - see numbers on the riving knife. The riving knife must not be thinner than the saw blade and not thicker than its kerf width.

Step 17: Make sure that the riving knife is aligned with the saw blade.

In case of deviations, correct as follows:

- Loosen two hexagon head screws on both sides (Pos.1, Fig. 15),

- Align splitting wedge vertically,
- Slightly tighten the hexagon head screws (Pos.1, Fig. 15),
- Align splitting wedge flush to saw blade and tighten the four hexagon screws (Pos.2, Fig. 15) again,
- Check the distance to the saw blade.

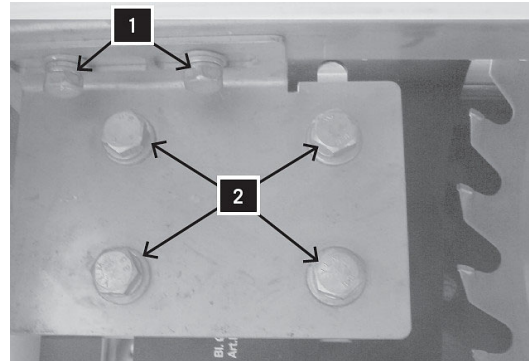


Fig. 15: Adjusting the splitting wedge

9 Commissioning



DANGER!

Observe the safety instructions!

- The machine may only be started up with completely mounted protective and safety devices.
- Before commissioning, connect the machine to an exhaust system.
- The machine must be set so that the tip of the highest saw tooth is just a little higher than the workpiece.
- Before switching on the machine, all protective and safety devices must be in place as prescribed.
- The saw blade must be able to move freely.
- Check the workpiece for foreign bodies (nails, screws, etc.). Remove all foreign objects before switching on the machine, make sure that the saw blade is mounted correctly and that the moving parts move smoothly.
- Use appropriate table extensions and support aids for workpieces that are difficult to handle.
- Make sure that the saw blade guard is in the correct position before you start sawing.

9.1 Electrical connection



CAUTION!

Connections and repairs to the electrical equipment may only be carried out by a qualified electrician.

The installed electric motor is connected ready for operation. The connection complies with the relevant VDE and DIN regulations. The customer's mains connection and the extension cable used must comply with these regulations.

Motor brake device

Your construction circular saw is equipped with an automatically acting brake. The effectiveness of the brake starts after the drive motor is switched off.

After the motor is switched off, the saw blade must come to a standstill after 8 - 10 seconds.

The electric motor is designed for the operation mode S 6 / 40 %.

If the motor is overloaded, it switches off automatically. The motor can be switched on again after a cooling time (varying in time).

Damaged electrical connection lines

Insulation damage often occurs on electric connection lines.

Causes are:

- Kinks due to improper fastening or routing of the connecting cable.
- Interfaces due to the connecting cable being driven over.
- Insulation damage due to tearing out of the socket.
- Cracks due to aging of the insulation. Such defective electrical connection cables must not be used and are life-threatening due to the insulation damage.

Regularly check electronic connection lines for damage. Make sure that the connecting cable is not connected to the power supply when checking. Electrical connection lines must comply with the relevant VDE and DIN regulations. Only use connection cables with the H07 RN marking.

Three-phase motor

- The mains voltage must be 400 V/50 Hz.
- Mains connection and extension cable must be 5-core. 3P * N * SL
- Extension lines must have a minimum cross-section of 1.5 mm.
- The mains connection is fused with max. 16 A.
- When connecting to the mains or changing the location, the direction of rotation must be checked, if necessary the polarity must be changed with a CEE plug.

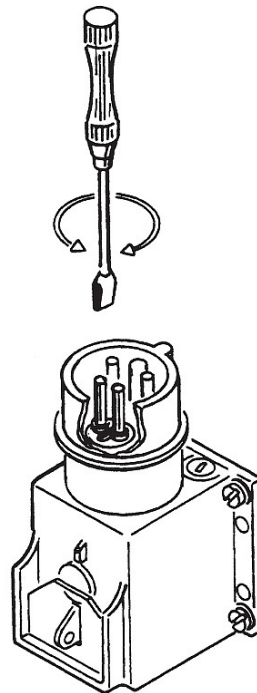


Fig. 16: Change motor direction of rotation

10 Operation



DANGER!

Danger to life from electric shock!

There is a danger to life in case of contact with live components. Switched-on electrical components can perform uncontrolled movements and lead to serious injuries.

- Disconnect the power plug before starting any adjustments on the machine.



NOTE!

If the effect of the brake decreases when switching off, it must be checked or replaced by a specialist.



WARNING!

Risk of life!

There is danger to the life of the operator and other persons if they do not observe the following rules.

- The Circular saw may only be operated by an instructed and experienced person.
- The operator must not work when under the influence of alcohol, drugs or medication.

10.1 Switch on machine

Start

- Connect the construction saw to the power supply.
- Press the green Start button.



Fig. 17: ON / OFF switch

Stop

- Press the red stop key.
- Disconnect the machine from the power supply.

10.1.1 Longitudinal sections

- For longitudinal cuts, use the longitudinal stop.
- For machining narrow workpieces (less than 120 mm), use the push stick. Use the fence rail with low fence height.
- Attention! Defective or broken push rod or push handle must no longer be used (risk of injury).
- Push rod or push handle must be replaced by new ones.
- Defective parts must be disposed of immediately.

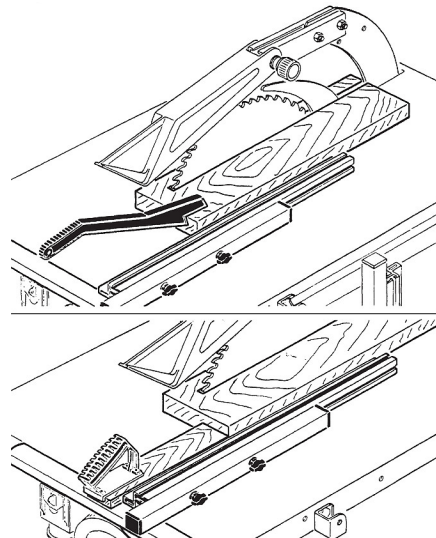


Fig. 18: Perform longitudinal sections

10.1.2 Cross sections

- Use the angle stop for cross and angle cuts.
- This can be used by folding it up onto the saw table.
- The setting scale ranges from 0° to 90°.
- To achieve an accurate cut, press the wood against the surface of the fence of the cross-cutting gauge when sawing.
- When not in use, swing the fence to the side.

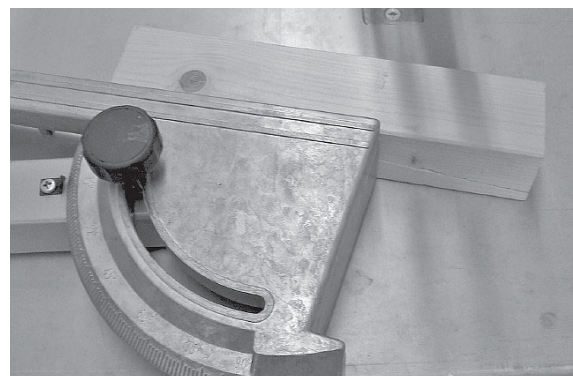


Fig. 19: Perform cross sections

10.1.3 Cutting wedges

- The angle stop can also be used for cutting wedges.
- To do this, set the angle to 0° and secure it with the locking handle.
- Place the wood in the recess and carefully saw through with even pressure.
- Switch off the machine and remove the wedges.
- Caution. Apply the feed only with the hand on the angle stop (Do not hold the wood with the hands).



Fig. 20: Cutting wedges

11 Care, maintenance and repair



DANGER!

Danger to life from electric shock!

There is a danger to life in case of contact with live components. Switched-on electrical components can perform uncontrolled movements and lead to serious injuries.

- Before starting cleaning and maintenance work, switch off the machine and disconnect the power plug.

11.1 Care after work



Wear protective gloves!



NOTE!

Never use harsh cleaning agents for any cleaning work. This can lead to damage or destruction of the machine.

Step 1: Disconnect the power plug from the socket.

Step 2: Empty and clean the suction device.

Step 3: Clean the machine from sawdust and sawdust with a dry cloth and/or with compressed air (wear protective goggles!).

Step 4: Spray all unpainted metal surfaces with some anti-rust spray.

Step 5: Check the machine for damage to the safety devices and the saw blade. If necessary, repair or arrange for repair in accordance with the safety instructions.

Step 6: Periodically clean the fences of wood dust and debris to ensure smooth operation.

Step 7: Keep the table surface free of resin.

Step 8: Check the machine regularly for:

- Loose bolts and nuts
 - Worn or damaged switches
 - Worn or damaged saw blade
 - Worn or damaged saw blade guard
- Maintenance and repair

Maintenance and repair work may only be carried out by qualified personnel.

If the Circular saw does not function properly, contact a specialist dealer or our customer service. The contact details can be found in chapter 1.2 Customer service.

All protective and safety devices must be refitted immediately after repair and maintenance work has been completed.

The construction of the circular saw is largely maintenance-free, including the electric motor. This does not include the saw blades, which are subject to normal wear, the table insert and brake pads (approx. 14200 cycles) of the electric motor.

The saw blade must come to a stop within approx. 10 seconds. If necessary, replace the worn replace the worn table insert.

Brake linings may only be replaced by qualified personnel.

11.2 Replace saw blade



Wear protective gloves!



DANGER!

Danger to life from electric shock!

Disconnect the power plug before starting any adjustments on the machine.

Step 1: Switch off the machine and disconnect it from the power supply.

Step 2: Unscrew the two M8 screws (Pos.1, Fig.21) on the lower saw blade cover.

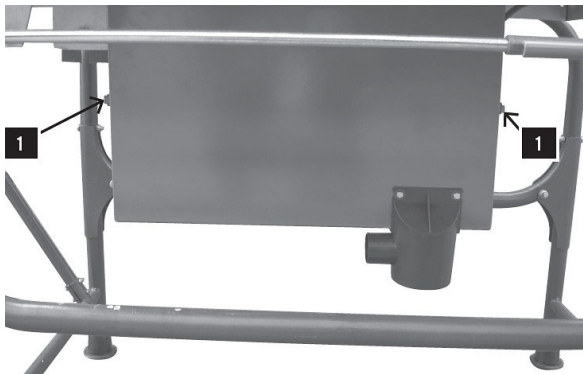


Fig. 21: Loosen the screws of the saw blade cover

Step 3: Swing the saw blade cover down.

Step 4: Loosen clamping nut (M20, left-hand thread), counterhold with counter wrench (Fig. 22).

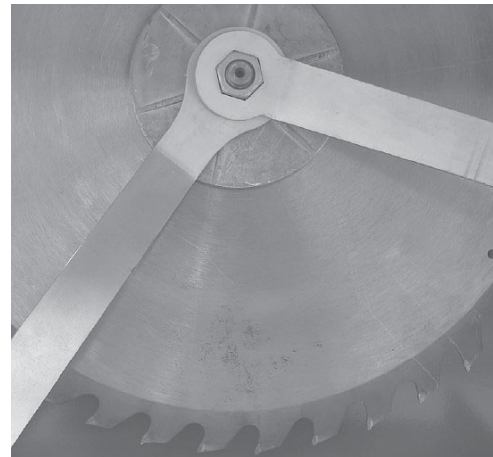


Fig. 22: Loosen saw blade

Step 5: Remove the saw blade.

Step 6: Insert new saw blade.

Step 7: Tighten the clamping nut and hold it in place with the counter wrench (note the left-hand thread).

Step 8: Fold up the lower saw blade cover and screw in and tighten the two M8 screws.

Step 9: After each saw blade change, the riving knife must be readjusted.

12 Troubleshooting

Fault	Possible causes	Disposal
Brake motor has no braking effect.	Brake worn	Replace brake pads. Repairs to the electrical system may only be carried out by a qualified electrician.
Saw blade comes loose after motor is switched off.	<ol style="list-style-type: none"> 1. Fastening nuts tightened too lightly. 2. Motor braking effect too strong. 	<ol style="list-style-type: none"> 1. Tighten fastening nuts M20 left-hand thread. 2. Correct braking current setting <ul style="list-style-type: none"> - Remove the small plug from the side of the switch housing. - Use a screwdriver to correct the braking current at the potentiometer. - After switching off the motor, the saw blade must stop after 8 - 10 seconds. - Replace the plug in the switch housing.
Motor does not start.	<ol style="list-style-type: none"> 1. Mains fuse failure. 2. Extension cable defective 3. Connections to motor or switch not in order. 4. Motor or switch defective. 	<ol style="list-style-type: none"> 1. Check the mains fuse. 2. See "Electrical connection". 3. Have the fuse checked by a qualified electrician. 4. See "Electrical connection".
Motor does not provide any power, switches off automatically.	<ol style="list-style-type: none"> 1. Overload due to blunt saw blade. 2. Overload due to 2-phase running - motor becomes hot. 	<ol style="list-style-type: none"> 1. Insert sharpened saw blade. 2. Have extension cords and connections checked by a qualified electrician.
Burn marks on the cut surface for longitudinal cut.	<ol style="list-style-type: none"> 1. Blunt saw blade 2. Wrong saw blade 3. Longitudinal stop not parallel to saw blade 	<ol style="list-style-type: none"> 1. Insert sharpened saw blade. 2. Insert the saw blade for longitudinal cuts. 3. Align the longitudinal stop.
Burn marks on the cut surface at the cross section.	Sliding carriage not parallel to the saw blade.	Set up the sliding carriage to the saw blade.
Incorrect direction of rotation for three-phase motor.	Socket incorrectly connected.	Reverse polarity on socket.

13 Disposal, recycling of old equipment

In your own interest and in the interest of the environment, please ensure that all components of the machine are disposed of only via the designated and approved channels.

13.1 Decommission

Discarded devices must be taken out of service immediately in a professional manner in order to avoid later misuse and the endangerment of the environment or persons.

Step 1: Remove all environmentally hazardous operating materials from the old machine.

Step 2: If necessary, dismantle the machine into manageable and recyclable assemblies and components.

Step 3: Route the machine components and operating materials to the designated disposal channels.

13.2 Disposal of lubricants

The disposal instructions for the lubricants used are provided by the lubricant manufacturer. If necessary, ask for the product-specific data sheets.

13.3 Disposal via municipal collection points

Disposal of used electrical and electronic equipment (To be applied in the countries of the European Union and other European countries with a separate collection system for this equipment).



The symbol on the product or its packaging indicates that this product should not be treated as normal household waste, but must be taken to a collection point for the recycling of electrical and electronic equipment. By helping to dispose of this product correctly, you are protecting the environment and the health of those around you. Environment and health are endangered by incorrect disposal. Material recycling helps to reduce the consumption of raw materials. For more information about recycling this product, contact your local municipality, municipal waste disposal service or the store where you purchased the product.

14 Spare parts



DANGER!

Risk of injury due to the use of incorrect spare parts!

The use of incorrect or faulty spare parts can result in danger to the operator and cause damage and malfunctions.

- Only original spare parts from the manufacturer or spare parts approved by the manufacturer are to be used.
- In case of any uncertainties, always contact the manufacturer.



Tips and recommendations

Use of non-approved spare parts will void the manufacturer's warranty.

14.1 Ordering spare parts

The spare parts can be obtained from the specialist dealer.

Specify the following key data when making inquiries or ordering spare parts:

- Device type
- Item number
- Position number
- Year of manufacture
- Quantity
- Desired shipping method (mail, freight, sea, air, express)
- Shipping address

Spare parts orders without the above information cannot be considered. In the absence of information on the shipping method, shipping will be at the discretion of the supplier.

Information on the device type, article number and year of manufacture can be found on the type plate attached to the machine.

Example

The engine for the Circular saw BKS 501 must be ordered. The engine has the number 60 in the spare parts drawing.

When ordering spare parts, send a copy of the spare parts drawing with the marked component (engine) and marked item number (60) to the authorized dealer or to the spare parts department and provide the following information:

- Type of device: **Building Site Saw BKS 501**
- Item number: **5740050**
- Position number: **60**

14.2 Ordering spare parts

The following drawing should help to identify necessary spare parts in case of service. To order, please send a copy of the parts drawing with the marked components to your authorized dealer.

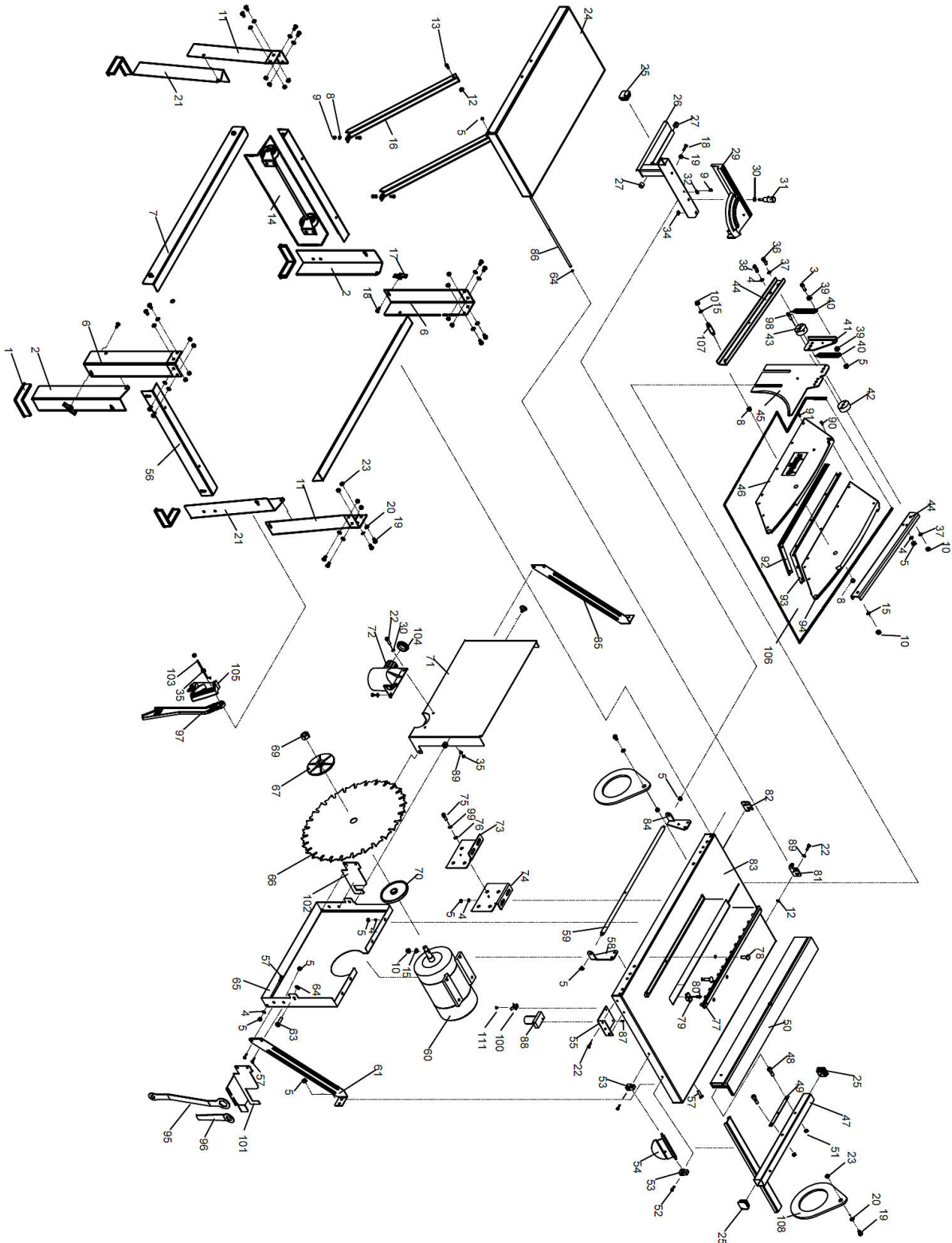


Fig. 23: Spare parts drawing BKS 501

15 Electrical circuit diagram

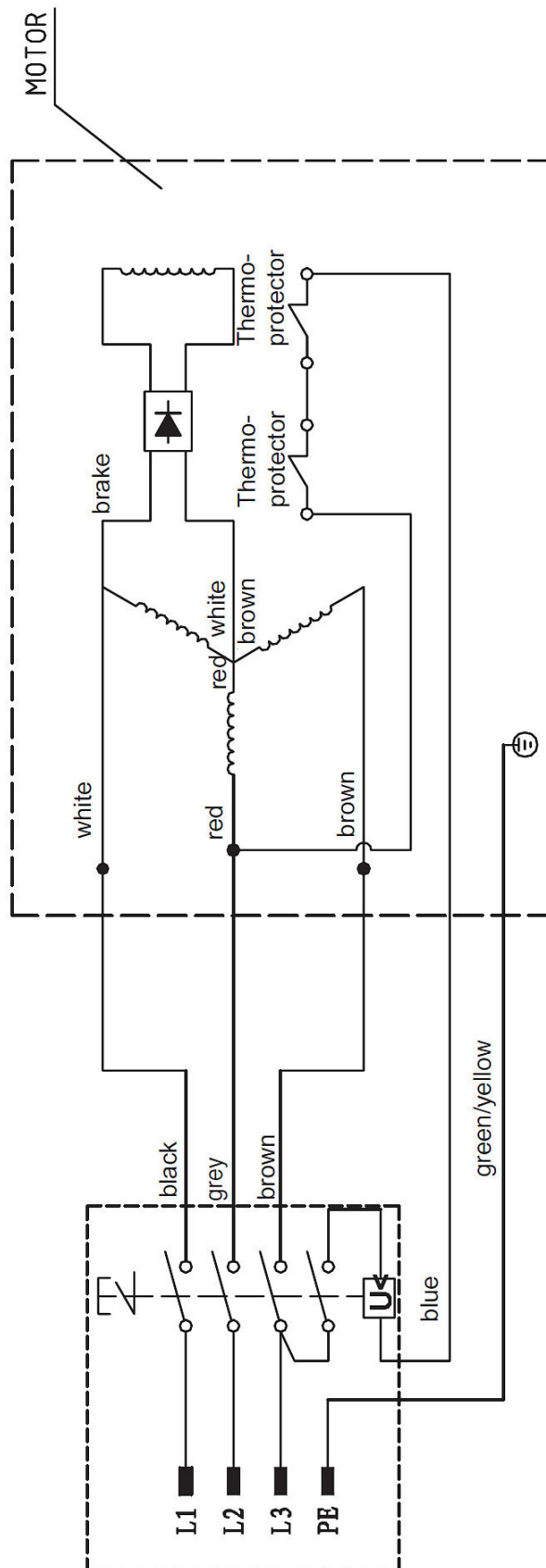


Fig. 24: Electrical circuit diagram BKS 501

16 EC-Declaration of Conformity

According to Machinery Directive 2006/42/EC Annex II 1.A

Manufacturer/carrier: Stürmer Maschinen GmbH
 Dr.-Robert-Pfleger-Str. 26
 96103 Hallstadt, Deutschland

hereby declares that the following product

Product group: Holzstar® Woodworking machines
Machine type: Building Site Saw
Designation of the machine: BKS 501
Item number: 5740050
Serial number*: _____
Year of manufacture*: 20_____

* fill in these fields according to the information on the type plate

complies with all relevant provisions of the above-mentioned directive and the other directives applied (hereinafter) - including their amendments in force at the time of the declaration,

Applicable EU directives: 2014/30/EU EMC-Directive
 2011/65/EU RoHS-Directive
 2012/19/EU WEEE-Directive

Applicable EU regulations: 1907/2006/EU REACH-Regulation

and was the subject of the type examination carried out by the accredited testing institute TÜV Rheinland LGA Products GmbH, Tillystraße 2, 90431 Nürnberg, No. 0197.

Issued EC type examination certificate: Certificate No. BM 50596094 0001

The following harmonized standards have been applied:

DIN EN ISO 12100:2011-03	Safety of machinery - General principles for design - Risk assessment and risk reduction
DIN EN 60204-1:2019-06	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
DIN EN 19085-1:2021-07	Woodworking machines - Safety - Part 1: Common requirements
DIN EN ISO 19085-9:2020-08	Woodworking machines - Safety - Part 9: Circular saw benches (with and without sliding table)
DIN EN 55014-1:2022-12	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
DIN EN IEC 55014-2:2022-10	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard
DIN EN IEC 61000-3-2:2023-10	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions
DIN EN 61000-3-3:2023-02	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

Responsible for documentation: Kilian Stürmer, Stürmer Maschinen GmbH,
 Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt Germany
 Hallstadt, 23.10.2023



Kilian Stürmer
 Manager



17 Notes

