

Instruction manual

— Edge milling machine

— KSO 790 230 V

— KSO 790 400 V



KSO 790

KSO 790

Imprint

Product identification

Edge milling machine	Item number
KSO 790 400V	5900790
KSO 790 230V	5900791

Manufacturer

Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

Fax: 0951 96555-55
E-Mail: info@holzstar.de
Internet: www.holzstar.de

Indications regarding the operating instructions

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Subject to technical modifications and error.

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1 Introduction

You have made a good choice by purchasing the Edge milling machine made by HOLZSTAR.

Thoroughly read the operating instructions before commissioning the machine.

It informs you about the proper commissioning, the intended use as well as the safe and efficient operation and maintenance of the Edge milling machine.

The operating instructions are part of the Belt & spindle sanding machine. Always keep it at the place of use of the Edge milling machine. Furthermore, the local accident prevention regulations and the general safety notes are applicable for the field of application of the Edge milling machine.

The illustrations in these operating instructions serve the general comprehension and may deviate from the actual type.

1.1 Copyright

The contents of these instructions are copyright. Their application is admissible in the frame of the device. An application beyond the described application is not allowed without written approval of the manufacturer. For the protection of our products, we shall register trademark, patent and design rights, as this is possible in individual cases. We strongly oppose any infringement of our intellectual property.

1.2 Customer service

Please contact your dealer if you have questions on the machine or if you need technical advice. They will help you with specialist information and expert advice.

Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

Repair service:

Fax: +49 (0) 951 96 555 - 55
E-Mail: service@stuermer-maschinen.de
Internet: www.holzstar.de

Spare part orders:

Fax: 0951 96555-119
E-Mail: ersatzteile@stuermer-maschinen.de

We are always interested in valuable experience and knowledge gained from using the application, which then could be shared and be valuable to develop our products even further.

1.3 Limitation of liability

All information and notes in these operating instructions were summarised taking the applicable standards and rules, the state-of-the-art and our long-term knowledge and experiences into consideration.

In the following cases the manufacturer is not liable for damages:

- Non-observance of the operating instructions,
- Inappropriate use
- Use of untrained staff,
- Unauthorised modifications
- Technical changes,
- Use of not allowed spare parts.

The actual scope of delivery may deviate from the explanations and presentations described here in case of special models, when using additional ordering options or due to latest technical modifications.

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 at the time of the conclusion of the contract are applicable.

2 Safety

This paragraph will give you an overview of all important safety packages for the protection of the people using it well as for a safe and undisturbed operation. Other task-based safety notes are included in the individual chapters.

2.1 Symbol explanation

Safety instructions

The safety notes in these operating instructions are highlighted by symbols. The safety notes are introduced by signal words which express the concern of the risk.



DANGER!

This combination of symbol and signal words indicates an imminently dangerous situation which may lead to death or severe injuries if they are not avoided.



WARNING!

This combination of symbol and signal word indicates a potentially dangerous situation that can lead to death or serious injury if not avoided.



CAUTION!

This combination of symbol and signal word indicates a potentially dangerous situation that can result in minor injury if it is not avoided.



ATTENTION!

This combination of symbol and signal words indicates a possibly dangerous situation which may lead to property and environmental damages if they are not avoided.



NOTE!

This combination of symbol and signal words indicates a possibly dangerous situation which may lead to property and environmental damages if they are not avoided.

Tips and recommendations



Tips and recommendations

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

It is necessary to observe the safety notes quoted in these operating instructions in order to reduce the risks for personal injuries and damages to property.

2.2 Obligations of the operating company

The operating company is the person who operates the machine for business or commercial reasons by herself, or leaves it to a third party for use or application, and who bears the legal product responsibility for the protection of the user, the staff or for third parties.

Obligations of the operating company:

If the machine is used for commercial purposes, the operating company must comply with the legal working safety regulations. Therefore, the safety notes in this operating manual, as well as the safety, accident prevention and environment protection regulations applying for the area of application of the machine must be met. The following applies in particular:

- The operating company must be informed about the applying industrial safety regulations and further analyse hazards resulting from the special working conditions at the place of use machine. She must implement these in form of operating manuals for the operation machine.
- During the entire lifetime of machine, the operating company must verify whether the operating manuals prepared by her correspond to the current status of the regulations, and must adapt these if necessary.
- The operating company must unambiguously regulate and determine the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operating company must ensure that all persons who work with machine, have read and understood this manual. Furthermore she must instruct the staff in regular intervals and inform them about the hazards.
- The operator must provide the personnel with the necessary protective equipment and bind the wearing of necessary protective equipment.

Furthermore the operating company is responsible to keep the Machine always in a technically flawless state. Thus, the following applies:

- The operator must ensure that the maintenance intervals described in this manual are kept.
- The operator must have all safety devices checked regularly for their good working order and their integrity.

2.3 Qualification of personnel

The different tasks described in this manual represent different requirements to the qualification of the persons entrusted with these tasks.



WARNING!

Danger in case of insufficient qualification of the staff!

Insufficiently qualified persons cannot estimate the risks while using machine and expose themselves and others to the danger of severe injuries.

- Have all works only performed by qualified persons.
- Keep insufficiently qualified persons and children out of the working area.

Only persons reliable working procedures can be expected from, are allowed to perform all works. Persons the responsiveness of which is affected by e. g. drugs, alcohol or medication, are not allowed to work with the machine.

The qualifications of the personnel for the different tasks are mentioned below:

Operator:

The operator is instructed by the operating company about the assigned tasks and possible risks in case of improper behaviour. Any tasks which need to be performed beyond the operation in the standard mode must only be performed by the operator if it is indicated in these instructions and if the operating company expressly commissioned the operator.

Electrical specialist:

Due to his professional training, knowledge and experience as well as his knowledge of respective standards and regulations the electrical specialist is able to perform works on the electrical system and to recognise and avoid any possible dangers himself.

Specialist staff:

Due to their professional training, knowledge and experience as well as their knowledge of relevant regulations the specialist staff is able to perform the assigned tasks and to recognise and avoid any possible dangers themselves.

Manufacturer:

Certain works may only be performed by specialist personnel of the manufacturer. Other personnel is not authorized to perform these works. Please contact our customer service for the execution of all arising work.

2.4 Personal protective equipment

The personal protective equipment serves to protect persons against impairments of safety and health while working. The staff has to wear personal protective equipment while performing different works on and with grinding system which are indicated in the individual paragraphs of these instructions.

The personal protective equipment is explained in the following paragraph:



Ear and head protection

The hearing protection protects the ears against damages of hearing due to noise. The industrial helmet protects the head against falling objects and bumping into fixed objects.



Eye protection

The protective goggles protect the eyes against parts flying off and splashes of liquids.



Breathing protection

The breathing protection serves for protecting the respiratory passages and the lung against the intake of dust particles.



Protective gloves

The protective gloves serve to protect the hands against sharp components as well as against friction, abrasions or deep injuries.



Safety boots

The safety boots protect the feet against crushes, falling parts and slipping over on slippery underground.



Protective clothes

The protective clothes are tight clothes of little tensile strength.

2.5 Safety signs on the Machine

The following safety signs and notes are applied on the grinding system (fig. 1), which need to be observed and followed. .



Fig. 1: Safety signs

Damaged or missing safety symbols at the machine may lead to errors with personal and material damages. The safety symbols which are applied on the machine must not be removed. Damaged safety symbols must be replaced immediately.

The machine must be put out of operation from the moment when the labels are unable to be recognized and understood at first glance, until new labels are attached.

2.6 Safety devices

2.6.1 Electrical connection



WARNING!

Danger due to insufficient qualification of persons!

All electrical connections must be made by a qualified professional to avoid the risk of personal injury from improperly performed work.

The cables must be connected directly to the machine without intermediate points. For a safe working operation, the grounding must be checked (see wiring diagram). If the motor overloads, it automatically switches off. After a cooling time of approx. 2 minutes, the thermal protection switch on the motor terminal box can be pressed in again.

2.6.2 Motor protection switch

The engine of the Edge milling machine has a thermal protection switch that automatically shuts off the engine in case of thermal overload.

After eliminating the cause of the overload and waiting for the engine to cool down completely, the engine can be restarted.

2.6.3 Direction of rotation of the motor

After completing the electrical connection, start the machine and check the direction of rotation of the motor.

- Press start button
- Check the direction of rotation of the drive

2.7 Danger zones

Persons under the age of 16 are strictly prohibited from operating the machine (EU Directive). The operator must have read these operating instructions and understood the dangers he is exposed to in case of misuse of the machine. For illegible or unrecognizable passages of this manual contact the manufacturer or dealer.

The machine owner is responsible for staffing the machine with qualified operators.

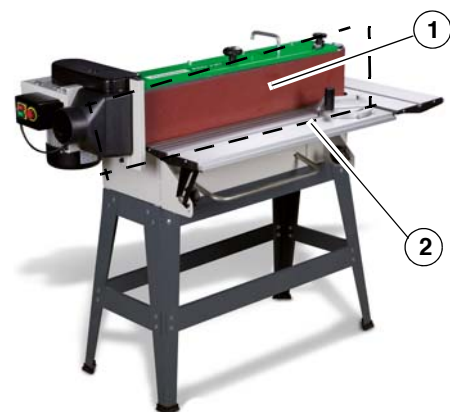


Fig. 2: Danger area

- 1 Danger area
- 2 Safety rope

2.8 Work space



DANGER!

Before using for the first time, the following points should be carefully checked:

- Is the work area around the machine free?
- Are the switches on the control panel functional?

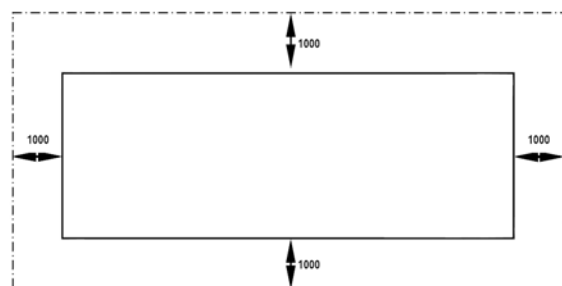


Fig. 3: Work space

Personal protection

During operation safety glasses, gloves and head protection should be worn.



DANGER!

- Caution is advised for people who are in the work area.
- Switch off the machine if it is not immediately continued.



Tips and recommendations

In case of missing or illegible.

Signs are to be contacted for the purpose of subsequent delivery manufacturer or dealer.

2.9 Regulations for safety and accident pre-vention

The following instructions are to be followed by the operating personnel. The customer must ensure that the operator has read and understood both these items and the operating instructions for safety reasons.

- Before operating the machine, read the operating instructions.
- Never touch rotating or moving parts.
- Always report electrical faults to an electrician.
- Always keep work clothes, long hair, jewellery etc. away from the machine.
- Switch off machine when work is interrupted.
- Wear suitable safety clothing (accident prevention shoes, safety glasses, etc.).
- Check safety devices for correct function before starting work.
- Read and understand safety instructions attached to the machine.
- Perform regular maintenance.
- Do not overload the machine.
- In the event of abnormal operation of the machine, inform the supervisor immediately.
- Caution is advised when people are in the work area.
- Never change the electrical system.
- Never remove mechanical or electrical safety devices.
- Special attention is needed during transport or reconstruction; The transport regulations must be followed.

3 Intended Use

The Edge milling machine KSO 790 is designed for woodworking and not for the treatment of flammable or harmful substances. The customer is responsible for the choice of the material to be processed. It must be connected to a suitable extraction system. The edge sanding machine is suitable for private use, not for industrial use. Proper use also includes compliance with all information in this manual. Any use beyond the intended use or otherwise is considered misuse.



WARNING!

Risk of misuse!

Misuse of the Edge milling machine can lead to dangerous situations.

- Operate the edge sanding machine only in the performance range specified in the technical data.
- Never bypass or override the safety devices.
- Never work on other materials than specified in the intended use.
- Only operate the edge sanding machine in a technically perfect condition.
- Never work on several workpieces at the same time.

Unauthorized modifications or changes to the grinder may void the CE conformity of the grinder and are prohibited. The company Stürmer Maschinen GmbH assumes no liability for design and technical changes to the edge grinding machine.

The improper use of the edge sanding machine as well as the disregard of the safety regulations or the operating instructions exclude a liability of the manufacturer for resulting damage to persons or objects and cause the warranty to expire!

The material should meet the following requirements:

- Dry and clean.
- Buying high quality material is advisable.

4 Technical Data

4.1 Table

Type	KSO 790 230V/400V
Motor output 230 V / 50Hz	1,5 kW
Motor output 400 V / 50Hz	1,5 kW
Sanding belt dimensions	2.000 x 152 mm
Circumferential belt speed	11 m/sec.
Table height (min./max.)	790/890 mm
Table height adjustment	100 mm
Longitudinal table dimensions	783 x 221 mm
Cross table dimensions	514 x 221 mm
Grinding surface (graphite)	823 x 152 mm
Grinding roller diameter aggregate	70 mm
Extraction port-Ø	100 mm
Dimensions (LxBxH)	1320 x 600 x 1020 mm
Weight	78 kg

4.2 Type plate

Kantenschleifmaschine Sanding machine			
Typ Type	KSO 790	Serien-Nr. Serial no.	
Artikel-Nr. Item no.	5900791	Baujahr Year of manufacture	
Motorleistung Motor power	1,5 kW	Netzanschluss Power connection	230 V / 50 Hz
 www.holzstar.de		Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt Deutschland / Germany	

Fig. 4: Type plate KSO 790

5 Transport, Packaging, Storage

5.1 Delivery and transport

Delivery

Check the Edge milling machine for visible transport damage after delivery. If you discover any damage to the Edge milling machine, immediately report it 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:

The edge sanding machine can be transported with a forklift or pallet truck if it is firmly mounted on a pallet.

5.2 Packaging

All packaging materials and packaging aids used by the Edge milling machine are recyclable and must always be recycled.

Packing components made of cardboard are crushed to waste paper collection.

The foils are made of polyethylene (PE) and the upholstery parts made of polystyrene (PS). You can hand over these substances to a recycling center or to the disposal company responsible for you.

The packaging material must not get into the hands of children, as some plastic packaging may present a suffocation hazard when used as a toy.

5.3 Storage

The Edge milling machine must be thoroughly cleaned before being stored in a dry, clean and frost-free environment. Cover the machine with a protective tarpaulin.

6 Description

Illustrations in this manual may differ from the original



Fig. 5: Edge milling machine

1 Sanding belt

2 Engine

3 Clamping screw for height adjustment of the workbench

4 Work table

5 ON and OFF switch

6 Substructure

7 Suction connection

7 Specification and standard equipment

- Longitudinal and transverse table for mitres from 0 ° to 45 ° steplessly swiveling
- Horizontally and vertically usable sanding unit, thus wide Einsatzbereich vertical grinding possible
- With abrasive belt quick tension
- Standard with cross table for contour grinding, swiveling up to 45 °
- Longitudinal table is height-adjustable by 80 mm for optimum utilization of the grinding belt width
- Including infinitely adjustable miter fence
- Graphite coating on the sanding sole for a higher sliding property of the sanding belt and longer service life
- With lockable emergency stop switch
- operating manual
- EU standard according to (CE mark)



WARNING!

Do not use profiles in excess of the specification thickness. Use the machine only for the intended purpose

8 Setting up and connection

8.1 Requirements for the installation site

The Edge milling machine must be set up stable on a level and firm ground. It is important to ensure that there is enough freedom of movement to work. On each side there must be at least 1 m distance from the wall to the edge sanding machine.

The site should meet the following criteria:

- The substrate must be level, firm and vibration-free.
- The substrate must not let any lubricant through.
- The installation or work area must be dry and well ventilated.
- Do not operate machines that cause dust and chips near the machine.
- There must be sufficient space for the operating personnel, for material transport as well as for adjustment and maintenance work.
- The site must have good lighting.

8.2 Setting up the edge milling machine



ATTENTION!

Danger of injury due to a machine that is not stably erected!

Check the stability of the machine after placing it on stable ground.



CAUTION!

Pay attention to the weight of the machine!

The machine may only be set up by two persons.

Check the aid accordingly for sufficient dimensioning and load capacity.

8.3 Electrical connection



DANGER!

Danger to life due to electric shock!

There is danger to life when in contact with live components. Switched on electrical components can cause uncontrolled movements and lead to serious injuries.



DANGER!

All work on the electrical installation may only be carried out by a qualified electrician.

When making electrical connections, make sure that the characteristics (voltage, mains frequency, protection) match those on the rating plate and for the engine.

Step 1: Check that the Edge milling machine is off.

Step 2: Connect the machine to the mains and check the direction of motor rotation. 400 V machine: If the direction of rotation is wrong, two phases must be exchanged.

9 Commissioning

9.1 Starting the machine

The following steps can be used to start the machine and perform the editing process:

- Make sure the electrical connection is correct
- Press start button



Fig. 6: Starting the machine

9.2 Basic operation

The edger has a driven cylinder. He is moved by the engine. The workpiece feed is done by hand. However, a certain amount of experience is needed to work efficiently. The following recommendations should be helpful during processing:

- The operator should have basic knowledge of this type of machine.
- The material removal is better when working in several passes at low delivery and higher feed rate.
- Operators should not wear loose clothing, necklaces, rings, etc. to prevent them from being pulled into the running machine.
- However, the best surface quality can be achieved by grinding in the fiber direction.
- The optimum delivery requires some experience, and depends on the abrasive grain size, feed rate and type of wood.
- Before processing, remove nail and other debris from the workpiece.
- Never operate the machine with the guards removed - great risk of injury!
- It is important to ensure that all workpieces are held and guided safely during processing.
- Only work on a piece of work that sits securely on the table.
- Remove the chutes and workpiece parts only when the machine is at a standstill.

9.3 Grinding

Rules for sanding with the edge sanding machine:

The grinding process may only be carried out by qualified personnel experienced on these machines. The workpiece feed is done by hand. The edge grinding machine KSO 790 can be used for edge grinding, surface grinding and hollow grinding. The sanding unit can be used horizontally and vertically. This results in a broad field of application.

Edge grinding

To do this, place the grinding unit vertically. Place the workpiece on the table. You can also apply the workpiece to the adjustable miter fence.



Fig. 7: Edge grinding

Hollow grinding / contour grinding

Mount the cross table in working position, this is swiveling.



Fig. 8: Hollow grinding / contour grinding

Surface grinding

To do this, place the grinding unit horizontally. Put the workpiece on the grinding stop.



Fig. 9: Surface grinding

Before processing

1. Begin your work with a coarse sandpaper and gradually change to finer grits.
2. The optimal inclination of the workpiece can be adjusted.
3. Regularly clean sandpaper with a brush.
4. Replace damaged and worn abrasive belts immediately.

9.4 Adjustment and set-up work



NOTE!

Before adjustment and set-up work, the machine must be secured against accidental start-up. Pull out the mains plug!

9.4.1 Sand paper mounting (Fig. 10)

By means of clamping lever, the sanding belt is loosened and tensioned. To place the new sanding belt, the tension lever must be horizontal to the belt. Fold out the sanding stopper. Loosen the clamping screw so that the clamping rod is loosened. Loosen the nut on the extraction nozzle and pull the extraction nozzle backwards. Open the protective cover and place the sanding belt on the rollers. Observe the direction of movement on the inside of the sanding belt.

To tension the sanding belt, lay the tension lever again. Fold up the protective cover and tighten the clamping screw. Put the suction nozzle and the sanding stopper back on the sanding belt and tighten the nut.

Sanding belts stretch during operation, a readjustment of the tape run may be required.

1. Check the smooth sanding belt run with the machine on. If necessary, adjust with the adjustment handle.
2. Check the free rotation of the sanding belt after each adjustment and set-up procedure. Start the engine several times briefly and check the belt run.

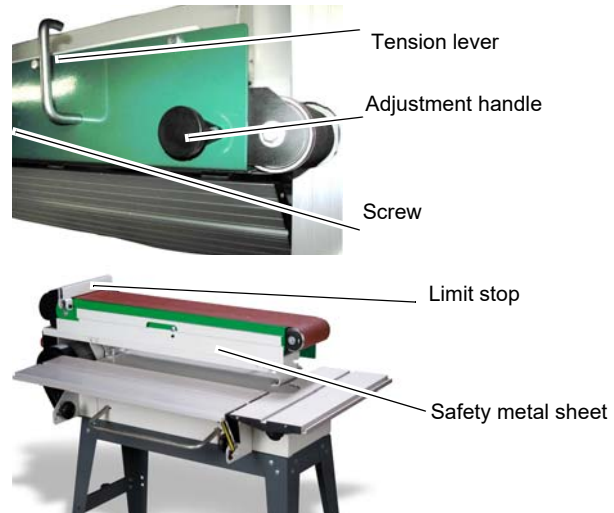


Fig. 10: Sandpaper Assembly

9.4.2 Sandpaper selection

Choosing the right abrasive grain is extremely important for optimizing the grinding performance.

Always grind first with a coarse grain and then gradually change to finer grits. Skip at most one grain level.

Too fine grains and worn abrasive belts can cause burn marks on the workpiece.

-Grain 60: Surface grinding

-Grain 80: Surfaces and light calibration, most common grain size

-Grain 100 and 120: Surfaces and fine sanding

-Korn 150, 180 and 220: Only fine sanding

9.4.3 Grinding unit tilting

The grinding unit can be swiveled 90 ° from vertical to horizontal. Only swivel the sanding table from the back of the machine. Pull up the locking lever to release. To pivot, grasp the motor console with your left hand and grasp the sanding stop with your right hand. To lock, push the locking lever down.



Fig. 11: Grinding unit tilting

9.4.4 Setting the machine table

The machine table can be adjusted in height and swiveled. Loosen the two clamping screws, now you can adjust the height. Clamp the clamping screws in the desired position again.

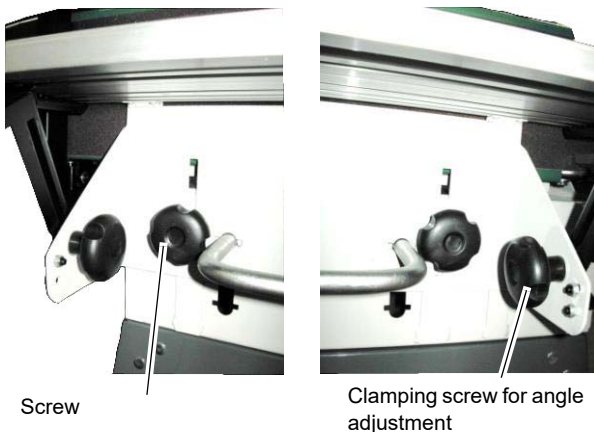


Fig. 12: Setting the machine table

9.4.5 Adjustment of the cross table

The cross table is pivotable. The desired angle can be set via the clamping screw.



Fig. 13: Adjustment of the cross table

9.4.6 Suction connection

You can connect a suction device to the extraction nozzle.



Fig. 14: Suction connection

10 Care, maintenance and repair



Danger!

Danger to live due to electrical voltage!

Contact with live components can be fatal. Activated electrical components can execute uncontrolled movements and cause serious injuries.

- Switch off the machine before carrying out cleaning and maintenance work and unplug the power cord.
- Connections and repairs of electrical equipment may only be performed by a qualified electrician.



Wearing safety gloves!



Wear protective clothing!



NOTE!

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

Step 1: Disconnect the power plug from the power outlet.

Step 2: Empty and clean the suction device.

Step 3: Clean the machine from sawdust and sawdust.

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 sanding belt. If necessary, carry out the repair or arrange for it, observing the safety instructions.

10.2 Regular checks

Functional test

The edge sanding machine is delivered ready to use.

Before each use, a functional test should be carried out.

The sanding belt has to be tensioned.

Step 1: Manually move the sanding belt, making sure it is centered on the roller. If necessary, readjust the sanding belt with the ribbon adjustment screw.

Step 2: Turn on the edge sanding machine for a short time and check the tape again.

Step 3: Switch off the edge sanding machine again.

The edge sanding machine is ready for operation.

Sanding belt

The sanding belt is a wearing part, which must be regularly checked for faults and replaced when worn.

Regularly check the grinding belt for faults.

Replace a damaged sanding belt immediately. Check the correct setting of the tape guide at regular intervals. Relax the sanding belt during longer work breaks. Clean the machine at regular intervals.

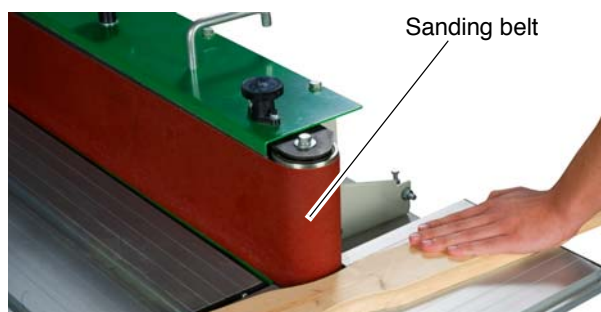


Fig. 15: Check the sanding belt

Suction

Check the adequate function of the extraction daily. Replace damaged safety equipment immediately. Reinstall all protective equipment immediately. Connections and repairs of the electrical equipment may only be carried out by a qualified electrician.

Belt tension

Check the belt tension regularly and adjust the belt tension as follows. Turn off the machine and disconnect the power plug! Remove the cover with the hexagon socket screw (left picture). Then, open the 4 hex bolts (right) from the engine mount and slide the engine down to tension the belt. Replace the screws and replace the cover.

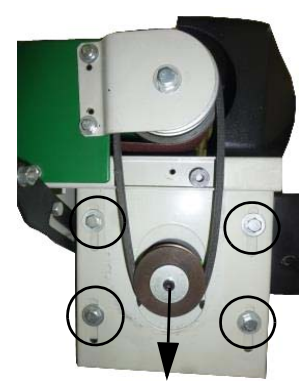


NOTE!

The correct belt tension is reached as soon as it can be pressed with the thumb only about 1 cm.



Socket screw



Hexagon screw

Fig. 16: Check the belt tension

Movable parts



Wearing safety gloves!

All moving parts must be cleaned after 50 hours of operation with a soft brush. Clean the edge sanding machine with a strong stream of compressed air. Then apply a thin layer of oil or grease to the moving parts. Lubricate the slide rails with grease.

10.3 Maintenance and repair

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

If the Edge milling machine does not work properly, contact a dealer or our customer service. The contact details can be found in chapter 1.2 Customer Service.

All protection and safety equipment must be reinstalled immediately after completion of repair and maintenance work.

11 Disposal instructions / recycling facilities

Dispose of your device in an environmentally friendly, by not disposing of waste in the environment but professionally.

Please take the packaging and later the old appliance does not just go away, but discard them in accordance with the relevant of your city / municipality or by the waste disposal company established guidelines.

11.1 Decommission

Discarded appliances are immediately professionally decommissioned, in order to avoid any later misuse and the threat to the environment or people.

Step 1: Unplug the power plug.

Step 2: Cut the connection cable.

Step 3: Remove all environmentally hazardous fluids from the old unit.

Step 4: Remove batteries, if any.

Step 5: If necessary, disassemble the machine into manageable and usable assemblies and components.

Step 6: Guide the machine components and operating materials to the appropriate disposal routes.

11.2 Disposal of new equipment packaging

All used packaging materials and packaging aids of the machine are recyclable and must always be recycled. The packaging wood can be sent for disposal or recycling. Packaging components made of cardboard can be crushed for waste paper collection.

The foils are made of polyethylene (PE) or the upholstery parts made of polystyrene (PS). These substances can be reused after processing if they are passed on to a recycling center or to the disposal company responsible for them.

Only pass on the packaging material in such a way that it can be directly recycled.

11.3 Disposal of lubricants



NOTE!

Spent coolant lubricant emulsions and oils should not be mixed together, as only non-mixed waste oils without pretreatment are usable.

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

11.4 Disposal via municipal collection points

Disposal of used electrical and electronic equipment

(Applicable in the countries of the European Union and other European countries with a separate collection system for these appliances).

The symbol on the product or its packaging indicates that this product should not be treated as normal household waste but must be returned to a collection point for the recycling of electrical and electronic equipment. By helping to properly dispose of this product, you are protecting the environment and health of others. Environment and health are at risk from improper disposal. Material recycling helps reduce the consumption of raw materials. For more information on recycling this product, contact your local community, municipal waste disposal service or the shop where you purchased the product.



NOTE!

In your own interests and in the interests of the environment, please ensure that all components of the machine are disposed of in the proper and approved way.

12 Troubleshooting

Fault	Possible causes	Removal
The edge grinding machine stops during operation.	The on / off switch is damaged. The on / off switch line is damaged. The relay is damaged. The engine is defective. The fuses are defective. Backup has triggered.	Have the edge grinder checked by an electrician and replace the damaged parts. Wait for the engine to cool and remove the cause of the overload. Then switch on the fuse and restart.
The edge sanding machine does not start.	One or more power phases have failed.	Lets check qualified personnel that all 3 phases are live.
The edge sanding machine slows down when sanding.	The workpiece is pressed too tightly against the grinding surface by the user.	Reduce the contact pressure.
The sanding belt runs off the rollers.	The grinding belt run is set incorrectly.	Adjust the sanding belt run correctly (see "Assembly and settings").
The wood gets dark or burns while working.	1.The sanding belt is worn or added with sanding dust. 2.Excessive contact pressure is applied to the workpiece on the grinding surface	1.Change the sanding belt. 2.Reduce the contact pressure

13 Spare parts



DANGER!

Danger of injury by the use of wrong spare parts!

Dangers may result for the user and damages as well as malfunctions may be caused by using wrong or damaged spare parts.

- Only use original spare parts of the manufacturer or spare parts admitted by the manufacturer.
- Always contact the manufacturer in case of uncertainties.



Tips and recommendations

Using non-approved spare parts voids the manufacturer's warranty.

13.1 Ordering spare parts

The spare parts may be purchased with the authorised dealer or directly with the manufacturer. Please find the corresponding contact data in Chapter 1.2 Customer service.

Indicate the following basic information for spare part orders:

- Type of device
- Serial number
- Quantity
- Designation
- Required mode of dispatch (mail, freight, sea, air, express)
- Address of dispatch

Spare part orders which do not include the above indications may not be taken into consideration. If the indications regarding the mode of dispatch are missing, the product is dispatched at the discretion of the supplier. Information on the device type, item number and year of manufacture can be found on the nameplate, which is attached to the unit.

Example

The drive belt for the Edge milling machine KSO 790 400V must be ordered. The drive belt has the number 41 in the spare parts drawing 1. By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (drive belt) and marked position number (41) to the dealer or spare parts department and provide the following information:

- Type of device: **Edge milling machine KSO 790 400V**
- Item number: **5900790**
- Drawing number: **1**
- Position number: **41**

13.2 Spare parts drawing KSO 790

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

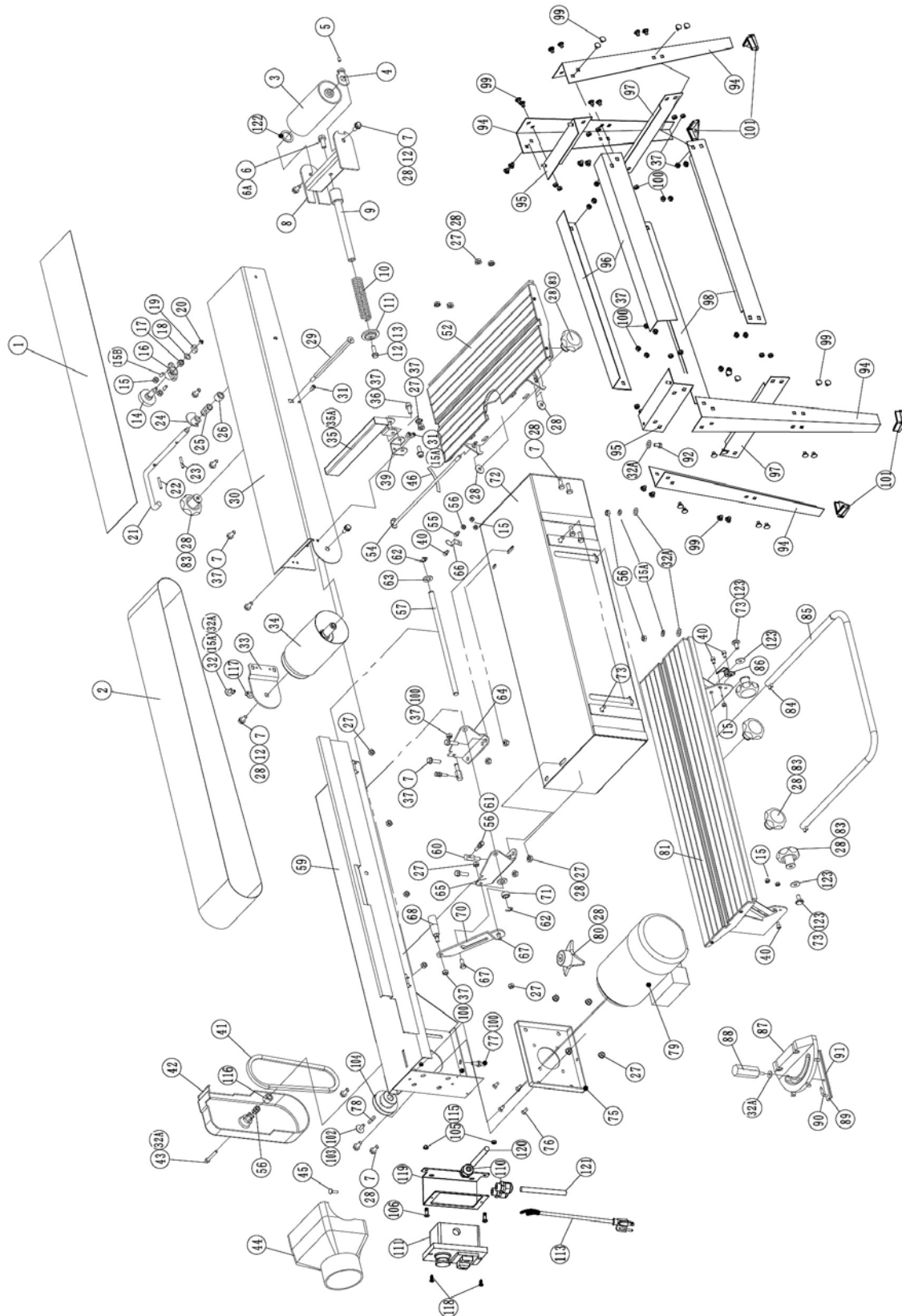


Fig. 17: Spare parts Drawing

14 Wiring diagram

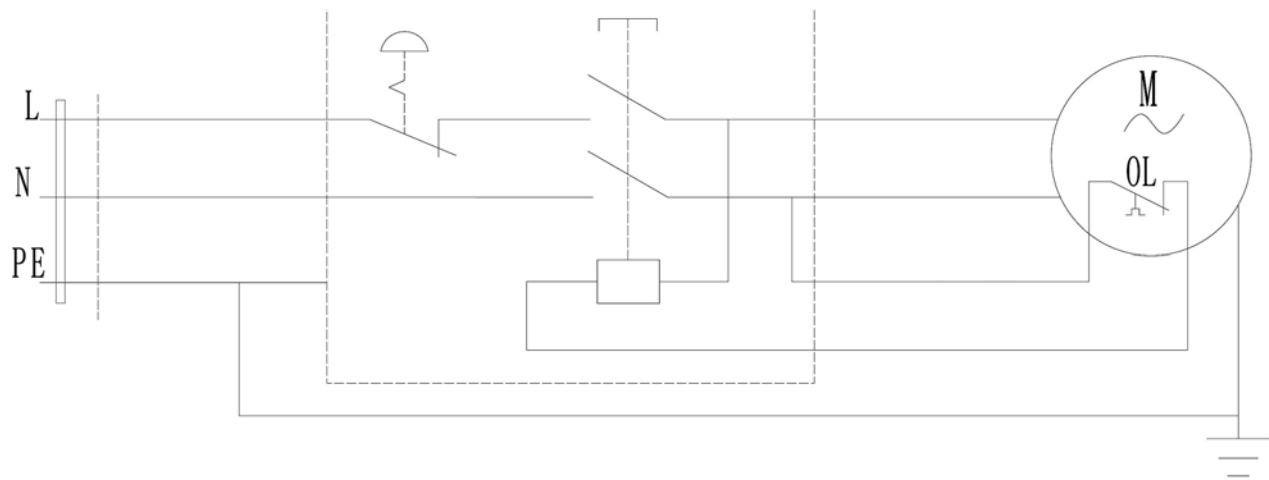


Fig. 18: Wiring diagram KSO 790 230V

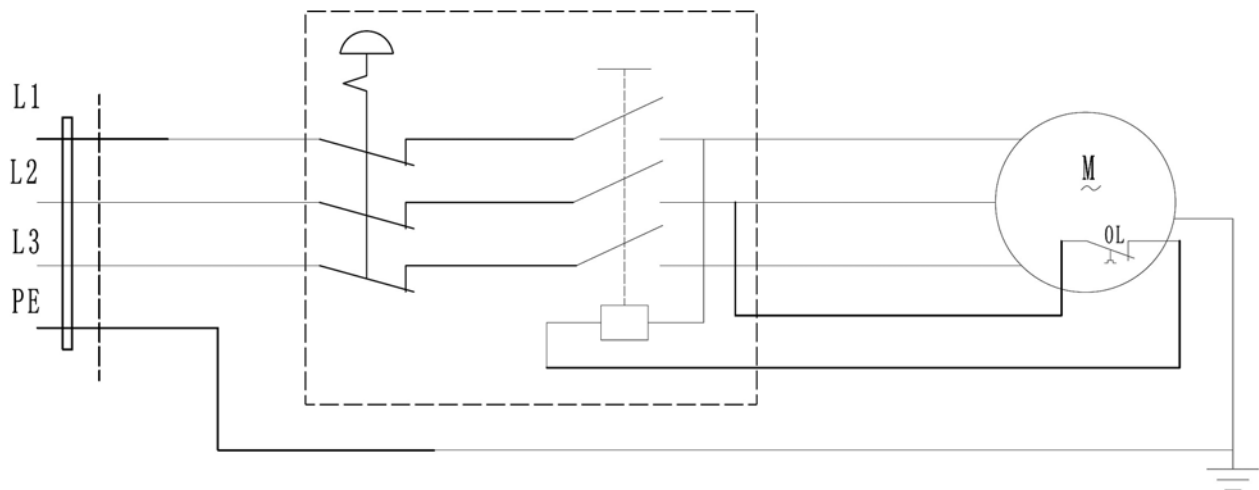


Fig:19 Wiring diagram KSO 790 400V

15 EC Declaration of Conformity

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

Manufacturer / distributor: Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26
D-96103 Hallstadt

hereby declares that the following product

Product group: Holzstar® Wood working machines

Machine type: Edge milling machine

Designation of the machine *: ☐ KSO 790 400V **Item number *:** ☐ 5900790
☐ KSO 790 230V ☐ 5900791

Serial number*: _____

Year of manufacture*: 20____

* please fill in according to the information on the type plate

complies with all relevant provisions of the above-mentioned Directive as well as the other applicable Directives (hereafter), including any changes in force at the time of declaration.

Relevant EU directives: 2014/30/EU EMC-Directive

The following harmonized standards were applied:

DIN EN ISO 12100-1:2010 Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)

DIN EN 60204-1:2014 Safety of machinery - Electrical equipment of machines - Part 1: General requirements

Responsible for documentation: Kilian Stürmer, Stürmer Maschinen GmbH,
Dr.-Robert-Pfleger-Straße 26, D-96103 Hallstadt

Hallstadt, 10.07.2016



Kilian Stürmer
Manager



