holzstar
Holzbearbeitungsmaschinen

Operating Instructions

Wood Band Saw

- HBS 400
- HBS 471
- HBS 473

HBS 473

HBS SERIES

Imprint

Product identification

Wood Band Saw	Item number
HBS 400	5900410
HBS 471	5900471
HBS 473	5900473

Manufacturer

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Information about the operating instructions

Genuine operating instructions
according to DIN EN ISO 20607:2019

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Contents

1 Introduction

You have made an excellent choice in purchasing a HOLZSTAR Wood Band Saw.

Carefully read the operating instructions prior to commissioning.

They describe correct commissioning, intended use and safe as well as efficient operation and maintenance of your band saw.

The operating instructions form part of the wood band saw. Keep these operating instructions at the installation location of your band saw. Also observe the local accident prevention regulations and general safety regulations for the use of the band saw.

1.1 Copyright

1.2 Customer service

Please contact your specialist retailer if you have any questions regarding your band saw or require any technical information. Your specialist retailer will be happy to support you with specialist advice and information.

Germany:

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

Repair service:

Fax: 0049 (0) 951 96555-111
Email: service@stuermer-maschinen.de

Spare parts orders:
Fax: 0049 (0) 951 96555-119
Email: 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 Disclaimer

All data in these operating instructions has been compiled on the basis of the state-of-the-art, valid standards and guidelines as well as our many years of expertise and experience.

The manufacturer shall not be liable for damage in the following cases:

- Non-observance of these operating instructions
- Unintended use
- Deployment of untrained staff
- Conversions at one's own responsibility
- Technical modifications
- Use of unauthorised spare parts

The actual scope of delivery may deviate from the descriptions and illustrations in this document as a result of special variants, optional extras or recent, technical modifications.

The obligations defined in the supply contract shall apply in addition to the general terms and conditions and the manufacturer's general terms and conditions as well as the statutory regulations valid at the time of the conclusion of the contract.

2 Safety

This section provides an overview of all important safety packages for personal protection as well as safe and reliable operation. The sections on individual service life phases contain additional, specifically applicable safety information.

2.1 Legend of symbols

Safety Instructions

Safety instructions in these operating instructions have been highlighted with symbols. Safety instructions are indicated by signal terms that express the degree of risk involved.

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 term indicates a potentially dangerous situation which may cause material damage or harm the environment if it is not averted.

Tips and recommendations

Tips and recommendations

This symbol highlights useful tips and recommendations as well as information for efficient and reliable operation.

Observe the safety information in these operating instructions to minimise the risk of personal injury as well as material damage and prevent hazardous situations.

2.2 Operator responsibility

Operators are defined as the persons who operate the machine for commercial or profit-based purposes or provide the machine to third parties for use or application and bear the legal product responsibility in terms of the protection of users, staff or third parties during operation.

Obligations of the operator:

If the machine is used for commercial purposes, operators are subject to the legal stipulations in terms of occupational safety. For this reason, the safety instructions in these operating instructions as well as the safety, accident prevention and environmental protection regulations valid at the installation location must be complied with. In this process, the following shall apply in particular:

- Operators shall obtain information about valid occupational safety regulations and determine additional hazards as part of a risk assessment which result from the specific operating conditions at the machine's installation location. Said risk assessment shall be reflected in operating instructions for machine operation.
- During the entire machine operating time operators must check whether the operating instructions they created meet current standards and adapt the operating instructions where necessary.
- Operators shall clearly manage and specify the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- Operators must make sure that all persons handling the machine have read and understood these operating instructions. Operators must also regularly train staff and notify of the hazards.
- Operators shall provide staff with the required protective equipment and wearing the required protective equipment shall be mandatory.

Operators shall also be responsible for maintaining the machine in a technically perfect condition. For this reason, the following shall apply:

- Operators shall make sure that the maintenance intervals described in these operating instructions are complied with.
- Operators shall regularly check that the safety equipment is fully functional and complete

2.3 Operating staff qualification

The different tasks described in these operating instructions require different levels of skills in terms of the qualifications of operating staff working with the machine.

WARNING!

Risk from inadequately qualified persons!

Inadequately qualified persons are unable to assess the risks when handling the machine, thus putting themselves and others at risk of severe injuries.

- All work must be carried out by qualified persons only.
- Keep inadequately qualified persons and children away from the work area.

Exclusively persons of whom it can be expected that they reliably complete assigned tasks shall be authorised to carry out any tasks. Persons whose reactions have been impaired shall not be authorized, e.g. drug users, users under the influence of alcohol or medication.

These operating instructions specify the following personal qualifications for the different tasks:

Operating staff:

Operating staff has undergone an induction by the operator about the entrusted tasks and potential hazards resulting from improper behaviour. Tasks which go beyond normal operation may only be carried out by the operator if they are listed in the operation manual and the operator has made him/herself familiar with them.

Qualified electrician:

Due to the electrician's specialised training, know-how, experience and knowledge of pertinent standards and regulations the electrician is in a position to work on the electrical systems, and autonomously identify and avoid potential hazards.

Specialist staff:

As a result of specialist training, expertise, experience and skills in terms of the relevant standards and regulations, specialist staff is able to complete the tasks they are entrusted with and independently identify hazards and avert risks.

Manufacturer:

Certain work must be carried out by manufacturer specialist staff only. Other staff is not permitted to carry out this work. Contact our customer service to have the work carried out.

2.4 Personal protective equipment

Personal protective equipment is intended to protect the health and safety of persons at work. Staff must wear the personal protective equipment indicated in individual sections of these operating instructions when carrying out the different tasks on the machine.
The personal protective equipment is described in the following section:

Hearing protection

The hearing protection protects the ears against damages of hearing due to noise.

Eye protection

Protective glasses protect the eyes against projected parts and splashes of liquid.

Suitable protective gloves

The protective gloves provide protection for the hands against sharp-edged components, as well as against friction, abrasions or deeper injuries.

Safety boots

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

Protective clothes

Protective work clothing means tight-fitting clothing with low tear resistance.

Protective dust-mask

The dust protection mask protects the respiratory tract from wood chips and wood dust.

2.5 Safety labels on the band saw

The following safety labels identifications are attached to the band saw (Fig. 1) and must be observed.

Fig. 1: Safety labels

If safety labels on the machine are damaged or missing, this can cause errors, personal injury and material damage. The safety symbols attached to the machine must not be removed. Damaged safety symbols must be replaced immediately. As soon as the signs are not clearly visible and comprehensible at first glance, the machine must be stopped until new signs have been attached.

2.6 Safety data sheets

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

2.7 Safety devices

Safety switch

The machine is equipped with a safety switch to prevent it from being switched on again after a voltage drop.

Speed selector

The harder the material, the lower the saw blade speed must be.

3 Intended Use

The wood band saw is used for sawing angular wood or wood-like workpieces, plastics (Plexiglas, GFK) and other non-metallic workpieces (foam, rubber, leather and cork). Round materials may only be cut with suitable holding devices. Only saw bands suitable for the machine may be used. It is suitable for private use, not for industrial use. Intended use also includes compliance with all information in these instructions. Any use exceeding the intended use or any other use is considered misuse. Different types of saw blades can be used with the machine. The saw blade thickness and the number of teeth/inch (tooth pitch) depend on the radius to be cut. The narrower the radius to be cut, the narrower the saw blade must be and the lower the saw band speed must be.

ATTENTION!

Certain types of wood and wood products produce harmful dust emissions when processed. Therefore, only use your machine in a well-ventilated room and use an extraction system.

For structural and technical changes to the band saw the company Stürmer Maschinen GmbH assumes no liability Claims of any kind due to damage due to improper use are excluded.

Misuse

The wood band saw must not be used for sawing metals.

WARNING!

Danger in case of misuse!

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

- Only operate the wood band saw in the power range specified in the Technical Data.
- Never bypass or disable the safety devices.
- Never work on materials other than those specified for the intended use.
- Only operate the band saw in a technically perfect condition.
- Never machine several workpieces at the same time.

Residual risks

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:

1. There is a risk of injury to the upper limbs (e.g. hands, fingers).
2. Danger from falling or throwing workpieces.
3. Break/tear of the tool
4. Fire hazard due to insufficient ventilation of the motor
5. Hearing impairment during prolonged work without hearing protection.
6. Contact with rotating parts tools or live parts.

4 Technical Data

Model	HBS 400	HBS 471/473
Recording power	1,5 kW 230V / 50Hz	1,5 / 1,6 kW 230V / 50Hz / 400V 3~/50Hz
Power input	9,0 A	8,8 A / 4,3 A
Table size	530 x 485 mm	535 x 485 mm
Height table work	900 mm	975 mm
Table angle of inclination	0° to 45°	0° to 45°
Max. cutting width without stop	416 mm	465 mm
Cutting width max. with stop	266 mm	390 mm
Max. cutting height 90°	305 mm	285 / 270 mm
Saw band length	3378 mm	3455 mm
Flywheel Ø	426 mm	470 mm
Saw band width	6 to 25 mm	6 to 25 mm
Ø Extraction port	120 mm	100 mm
Saw band speed	460 m/min, 980 m/min	380 m/min, 820 m/min
Weight	140 kg	157 kg
Length	765 mm	800 mm
Width / Depth	520 mm	490 mm
Height	1750 mm	2000 mm

4.1 Type plate

Fig. 2: Type plate HBS 473

5 Transport, packaging and storage

5.1 Delivery

After delivery, check the band saw for visible transport damage. If you discover any damage to the cross-cut and mitre saw, report it immediately to the transport company or 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 disturban-ces 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 crane:

The machine can be set up with a crane in a suitable place. The machine must be properly attached to the crane.

The upper suspend (Fig. 3, Pos. 1) is provided for lifting the machine. Use a crane with sufficient lifting capacity.

NOTE!

For transport, all covers must be attached to the machine frame.

- The machine must not be rocked by the crane during transport.

5.2 Packaging

All of the machine‘s packaging materials and packing aids are suitable for recycling and must always be disposed of using material-based recycling systems.

Packaging materials made of cardboard must be shredded and disposed of as part of waste paper recycling.

The foils are made of polyethylene (PE), padding is made of polystyrene (PS). Dispose of these substances at a recycling centre or hand them over to the relevant waste disposal company.

5.3 Storage

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

6 Description of device

6.1 Machine

Illustrations in these operating instructions may deviate from the original.

Fig. 3: Wood Band Saw HBS 473

1 Mount
2 Saw band tension display - Display window
3 Hand wheel - Saw band tension
4 ON/OFF switch
5 Parallel stop
6 Hand wheel - Saw band speed
7 Saw blade guide
8 Height adjustment - Saw band guide
9 Display window - Saw band running
10 Tension release
11 Clamping - Saw band guide
12 Suction nozzle
13 Motor
14 Table adjustment
15 Adjusting screw - Saw band running
16 Lower door lock
17 Upper door lock

6.2 Scope of delivery

- Wood Band Saw
- Saw band16,0 x 0,5 x 3378 mm / 4 TPI (HBS 400)
- Saw band16,0 x 0,5 x 3455 mm / 4 TPI (HBS 471/473)
- Saw table
- Handwheels
- Parallel aluminium stop
- Instruction manual

6.3 Accessories

Tips and recommendations

We recommend to use only high quality original Holzstar accessories. Only with original accessories a perfect operation and optimal results can be guaranteed.

- Saw band 6,0 x 0,65 x 3378 mm / 6 TPI
- Saw band 10,0 x 0,5 x 3378 mm / 4 TPI
- Saw band 16,0 x 0,5 x 3378 mm / 4 TPI
- Saw band 20,0 x 0,5 x 3378 mm / 4 TPI
- Saw band 25,0 x 0,5 x 3378 mm / 4 TPI
- Angle stop HBS 473, HBS 400, HBS 471
  Item number: 5910814

7 Setting up and connection

7.1 Requirements for the place of operation

Remove the band saw from the packaging and all protective films. Do not set up or operate the machine in a damp or wet environment. The air humidity should not exceed 80% and the measured room temperature should be between 5°C and 35°C. The machine should not be operated in a humid or wet environment.

The installation or work area must be dry and well ventilated.

7.2 Set up the wood band saw

NOTE!

To reduce noise, a rubber layer can be placed between the machine and the workbench. This effectively prevents vibrations and noise.

CAUTION!

Risk of injury from an unstable machine!
Check the stability of the machine after setting it up on stable ground.

ATTENTION!

In order to ensure sufficient stability of the machine, it should be bolted to the ground. There are 4 holes at the bottom of the machine housing for this purpose.

ATTENTION!

Do not overtighten the fixing screws of the base plate. The base plate must not be distorted.

Wear suitable protective gloves

Wear protective clothes!

Wear safety boots!

The wood band saw is already delivered largely assembled. Only a few parts like the saw table, the rip fence and the handwheels have to be assembled after delivery.

Step 1: After unpacking, park the machine at the desired location.

Step 2: Screw the base plate of the machine to the substrate via the holes using four M10 screws (Fig. 4, Pos. 1).

Fig. 4: Mounting on the subsurface

The wood band saw is already delivered largely assembled. Only a few parts like the saw table, the rip fence and the handwheels have to be assembled after delivery.

The machine is made ready for operation with the following steps:

Assembly of the saw table

ATTENTION!

The mains plug must be disconnected before any maintenance and conversion work is carried out on the wood band saw.

Step 1: With the help of another person, lift the saw table to the angle adjustment.

Step 2: Fasten the saw table to the trunnion with 4 screws (Fig. 5, Pos.1) and one washer each.

Fig. 5: Assembly of the saw tableh

Assembly of the rip fence

Step 1: First mount the rear fence rail (Fig. 6, Pos. 1) with two M6x20 screws and the matching washers.

Step 2: Then fasten the front fence rail (Fig. 6, Pos. 2) with the four thumb screws and the washers (M8).

Step 3: Hook the rip fence (Fig. 6; Pos. 3) into the rear fence rail and then into the front fence rail.

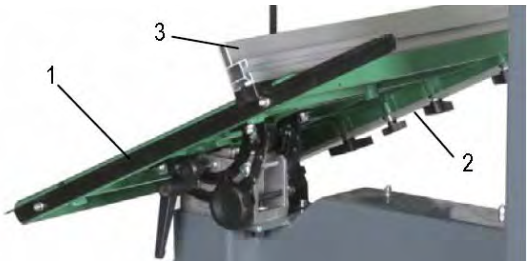

Fig. 6: Mounting the rip fence

Assembly of the handwheels

Step 1: Mount the small handle (Fig. 7, Pos. 1) in the lower position.

Step 2: Mount the large handle (Fig. 7, Pos. 2) to the upper position.

Fig. 7: Assembly of the handwheels

Use a 14 mm. or 10 mm. open-end wrench to fasten it.

7.3 Electrical connection

DANGER!

Risk of fatal injury due to electric shock!

Contact with live components may result in fatal injury. Switched-on electrical components can make uncontrolled movements and lead to serious injuries.

ATTENTION!

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

When connecting the power supply, make sure that the characteristics (voltage, mains frequency) are identical to what is indicated on the type plate.

Step 1: Check that the wood band saws turned off.

Step 2: Connect the machine to the mains.

8 Settings

ATTENTION!

The machine must be switched off and the mains plug disconnected before all adjustment, set-up and maintenance work is carried out on the machine.

8.1 Setting of the 90° table square

The table may be set at 90o to the saw blade by adjusting the table stop screw under the table. The table stop screw rests on the top of the lower wheel bandwheel housing (Fig. 8):

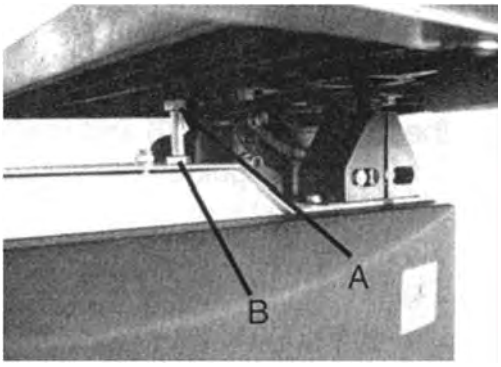

Fig. 8: 90°-Position of the sawing table

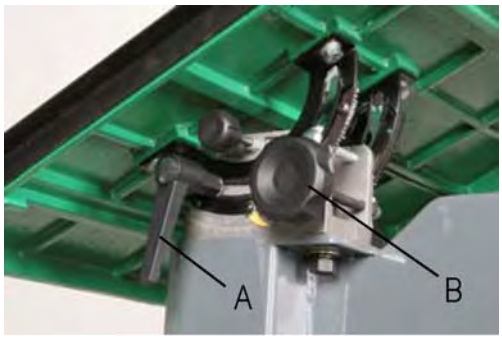

Fig. 9: Slope adjustment of the saw table

Step 1: First loosen the clamping nut (Fig. 8, Pos. A).

Step 2: Adjust the screw (Fig. 8, Pos. B) as follows, that the angle between table and band saw blade is 90°. (Check this with an angle if necessary).

Step 3: Retighten the clamping nut (Fig. 8, Pos. A), making sure that the setting is maintained.

8.2 Tilting the table

The saw table inclination can be set as follows:

Step 1: Loosen the lock handle (Fig. 9, Pos. A) on the table trunnion.

Step 2: Turn the table tilting knob (Fig. 9, Pos. B) to adjust the table to the desired angle. Use the angle indicator scale on the trunnion bracket to find the desired angle.

Step 3: Retighten the lock handle to secure the table.

8.3 Adjusting the saw blade guide

NOTE!

The upper saw band guide must be adjusted according to the height of the workpiece. The upper band guide unit should be set approximately 2-3 mm higher than the thickness of the workpiece to be sawn. The adjustment must be carried out or checked before each sawing operation.

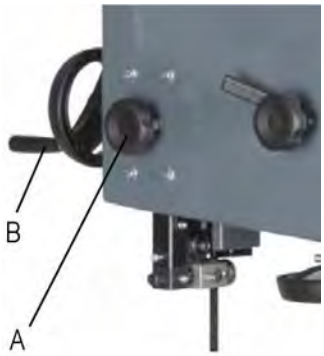

Fig. 10: Adjusting the saw blade guideg

Step 1: Loosen the clamping screw (Fig. 10, Pos. A).

Step 2: Adjust the optimum height by turning the handwheel (Fig. 10, Pos. B).

Step 3: Clamp the saw band guide using the clamping screw (Fig. 10, Pos. A).

8.4 Saw blade change

Wear suitable protective gloves!

Fig. 11: Change the saw blade

Step 1: Open the front covers by turning the top and bottom door locks (Fig. 11; A).

Step 2: Remove the front rip fence strip (Fig. 11; B) by loosening the four wing screws.

Step 3: Release the saw band tension by actuating the quick release lever (Fig. 11; C).

Step 4: Carefully remove the old band saw blade from the rollers and guide it through the slot in the table.

Step 5: Place the new band saw blade centrally on both rollers.

NOTE!

Make sure that the teeth of the saw band face the front edge of the table and the tips of the teeth point downwards.

Step 6: Tension the saw band again by turning the quick release (Fig. 11; C). Mount the rip fence bar and close the front covers.

Step 7: Re-adjust the saw band run, the saw band guide and the saw band tension as described.

NOTE!

If the band saw is not used for a longer period of time, the band saw blade must be released. This must be indicated on the outside of the machine. Before you put the machine back into operation, the saw band must be tensioned.

8.5 Adjusting the saw blade tension

DANGER!

Risk of injury!

- If the tension is too high, the saw band may tear.
- If the tension is too low, the actuated band saw roller can rotate and the band saw blade stops.

Step 1: By turning the handwheel (Fig. 12, Pos. A) the saw blade tension is increased or decreased by means of a spring.

Step 2: The correct tension can be read off the scale (Fig. 12, Pos. B).

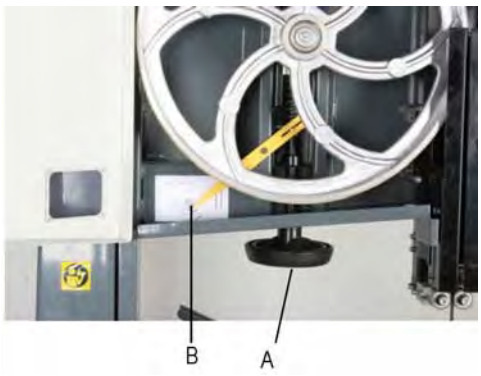

Fig. 12: Saw blade tension

NOTE!

To change saw bands of the same width, this basic tension setting no more needs to be changed. The standard quick clamping system allows the saw band to be released without changing the basic tension setting.

8.6 Adjusting the running of the saw band

NOTE!

Before the saw blade run can be adjusted, a concrete adjustment of the saw blade tension is necessary. Disconnect the machine from the power supply as with all adjustment work.

Fig. 13: Saw band running

Step 1: Release the clamping lever (Fig. 13, Pos. A) by turning it counterclockwise.

Step 2: Turn the upper saw band wheel with the front cover open. Turn the adjustment screw (Fig. 13, Pos. B) counterclockwise or clockwise to adjust the band saw blade run. You can observe your settings in the side window.

Step 3: Then turn the saw band wheel several times to check your settings.

Step 4: Close the front covers and secure your settings with the clamping lever (Fig. 13, Pos. A).

8.7 Adjusting of the saw blade guide

The upper and lower saw blade guides are similar in construction and must be adjusted as listed below.

Upper saw blade guide:

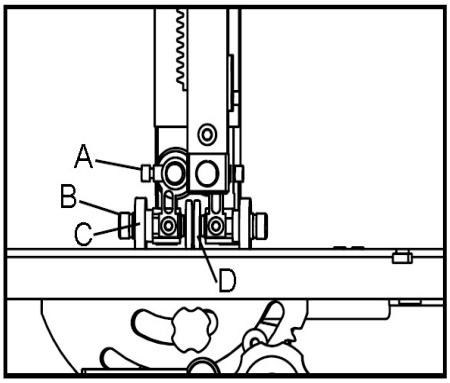

Fig. 14: Saw blade guide

Step 1: First loosen the screw and push the rollers up to approx. 1.5 mm towards the saw blade teeth.

Step 2: Clamp the screw again.

Step 3: To adjust the lateral guide rollers (Fig. 14, Pos. D), loosen the clamping plates (Fig. 14; C) and adjust the guide rollers with the adjusting screw (Fig. 14, Pos. B) so that there is a gap of approx. 0.5-0.7 mm between them and the saw band. If the gap is set too small, the bandsaw blades will wear faster!

Step 4: Retighten the screws (Fig. 14, Pos. C).

Step 5: Loosen the screw (Fig. 14; A) and slide the rear guide roller on the saw band backs.

Step 6: Retighten the screw (Fig. 14, Pos. A).

Lower saw blade guide:

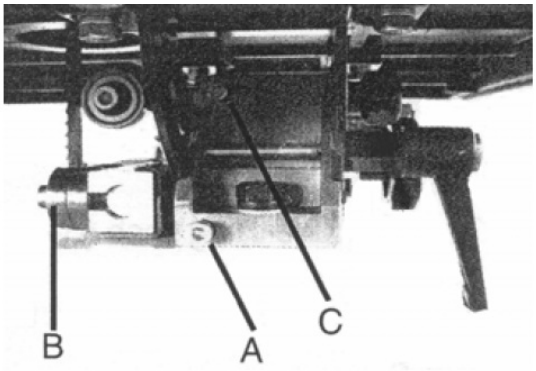

Fig. 15: Saw blade guide

Step 1: First loosen the screw (Fig. 15, Pos. A) and slide the rollers up to approx. 1.5 mm to the saw blade teeth.

Step 2: Retighten the screw (Fig. 15, Pos. A).

Step 3: Loosen the screws (Fig. 15, Pos. B) and adjust the guide rollers so that there is a gap of approx. 0.5-0.7 mm between them and the saw band. If the gap is set too small, the bandsaw blades will wear out faster!

Step 4: Retighten the screws (Fig. 15, Pos. B).

Step 5: Loosen the screw (Fig. 15, Pos. C) and slide the rear guide roller on the saw band backs.

Step 6: Retighten the screw (Fig. 15, Pos. C).

8.8 Adjusting the rip fence guide scale

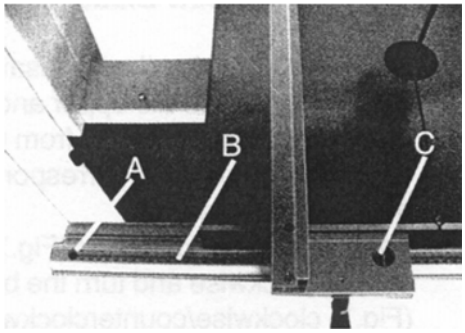

Fig. 16: Adjusting the rip fence guide scale

Step 1: Push the rip fence towards the saw band and loosen the screw (Fig. 16; A).

Step 2: Move the scale along the mark in the window. If necessary, you can also insert the screw (Fig. 16; A) in another position to fix the scale.

Step 3: To check the settings, saw a test piece first if necessary and readjust the scale.

8.9 Changing the saw band speed

ATTENTION!

Before changing the speed always make sure the machine has been unplugged from the electrical supply!

The wood band saw has a high and a low saw band speed. On the lower impeller (Fig. 17; A) and two belt pulleys of different sizes are mounted on the motor.

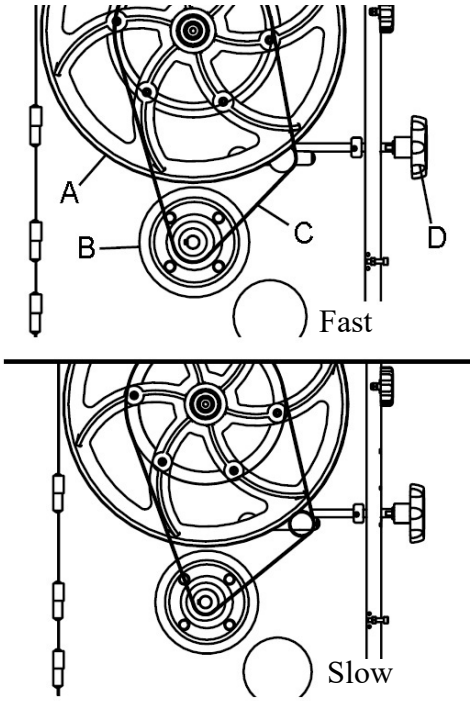

Fig. 17: Saw band speed

Step 1: Turn the handwheel (Fig. 17, Pos. D) to release the tension of the V-belt (Fig. 17, Pos. C).

Step 2: Place the belt on the two rear pulleys to set the fast speed or on the two front pulleys to set the slow speed.

Step 3: Then retighten the V-belt using the handwheel (Fig. 17, Pos. D).

NOTE!

The correct belt tension is achieved as soon as the thumb can only be pressed through approx. 1 cm.

9 Operation

DANGER!

Risk of fatal injury due to electric shock!

Contact with live components may result in fatal injury. Switched-on electrical components can make uncontrolled movements and lead to serious injuries.

- Disconnect the mains plug before making any adjustments to the machine.

WARNING!

Risk of injury!

There is a risk of injury to the operator and other persons if they do not comply with the following rules.

- The Wood Band Saw may only be operated by an instructed person.
- The operator must not work when under the influence of alcohol, drugs or medication.
- The operator must not work if he is overtired or suffers from illnesses affecting his concentration.

ATTENTION!

Risk of crushing!

In case of unintended work on the device, there is a risk of injury to the upper limbs.

ATTENTION!

- Health-damaging emissions of wood dust when used indoors.
- Risk of kickback of the workpiece.
- Risk of ejection of branch parts and workpiece parts.

ATTENTION!

- Protect the machine from humidity (danger of short circuit!).
- Do not overload the machine! You will work better and safer in the specified performance range.
- Never use blunt or damaged saw blades. Check that the appropriate saw blade is used.

Use hearing protection!

Use protective goggles!

Wear protective dust-mask!

Wear safety boots!

Wear protective clothes

9.1 Workflow

Step 1: Check that the band saw is turned off and the power plug is unplugged.

Step 2: Check that all covers and safety devices are properly installed.

Step 3: Check the workpiece for foreign objects such as nails or screws and remove them if necessary.

Step 4: Select and clamp the saw blade, check the moving parts for easy movement.

Step 5: Adjust the inclination angle if necessary.

Step 6: Connect the extraction unit to the extraction socket and switch it on.

Step 7: Switch on the saw by pressing the green START button.

Step 8: Guide the workpiece against the saw blade.

Step 9: After finishing the sawing work, switch off the wood band saw with the red STOP button, switch off the extraction after approx. 20 seconds and pull the mains plug.

NOTES FOR SAWING!

- The band saw does not cut the workpiece automatically. The user allows cutting by guiding the workpiece into the moving saw blade.
- The teeth cut the workpiece in the direction of the worktable (down).
- The workpiece must be moved slowly into the saw blade.
- Every person who works with the band saw needs instruction.
- When cutting thicker workpieces, make sure that the band saw blade is not bent or twisted. This increases the service life of the saw blade.
- For all cutting operations, the upper band guide must be positioned as close as possible to the workpiece. This ensures the best possible operator safety.
- Always guide the workpiece with both hands and hold it flat on the band saw table to avoid jamming the band saw blade.
- Always use the rip fence or the mitre fence for all cutting operations for which they can be used. This prevents the saw blade from running out of the cutting line, especially when working with an inclined table.
- Plan the necessary steps in advance. An old craftsman's rule is "measure twice, saw once". It is better to make a cut in one operation rather than in several sections that may require retraction after the band saw blade has come to a standstill.
- Remember that the band saw blade causes a kerf and adjust the kerf width so that the kerf is in the section part of the workpiece. Add a little extra if the workpiece edge is to be machined later.

9.2 Rip fence

For straight longitudinal cuts, the workpiece is guided along the rip fence. The rip fence can be adjusted to the desired cutting width.

9.3 Cut types

Longitudinal cuts

The longitudinal cuts are sawing along the workpiece grain. It is possible to saw along a torn line without a rip fence or along the rip fence for a better result.

For right-angled cuts (the table is at right angles to the band saw blade), the rip fence is placed to the left of the band saw blade so that the workpiece can be guided safely along the fence with the right hand.

In the case of longitudinal mitre cuts with an inclined table, the rip fence must be fitted to the right of the blade on the downward side (if the width of the workpiece permits this) in order to secure the workpiece against slipping.

Cross sections

Cross-section is the sawing at right angles to the grain of the wood. This type of cut can also be carried out without a rip fence.

Freehand cuts

The ease with which curved cuts can be made is one of the outstanding features of a band saw. For curved cuts, choose a band saw blade with a width that can cut the smallest radii in your workpiece. For freehand cutting, you should work at a low feed rate so that the saw band can follow the desired line. Make sure that you do not push the workpiece sideways out of the cutting line. This will cause the saw band to run and jam in the cutting groove.

Tips and recommendations

It can often be useful to remove excess material about 10 mm from the cutting line. In the case of very tight radii, which the saw blade can no longer cut properly, cuts at right angles to the curve line and at a small distance from each other can help. When sawing the radius, the material falls off so that the saw band cannot jam.

10 Care, maintenance and repair

DANGER!

Risk of fatal injury due to electric shock!

Contact with live components may result in fatal injury. Switched-on electrical components can make uncontrolled movements and lead to serious injuries.

- Before starting cleaning and maintenance work, switch off the machine and disconnect the mains plug.
- Connections and repairs to the electrical equipment may only be carried out by a qualified electrician.

10.1 Care after work

Wear suitable protective gloves!

NOTE!

Never use strong cleaning agents or solvents for any cleaning work. This can damage or destroy the device.

Step 1: Disconnect the mains plug from the socket.

Step 2: Empty and clean the suction device.

Step 3: Clean the machine of chips and sawdust with compressed air (Attention: wear protective goggles and dust mask!) and/or with a brush or dry cloth.

ATTENTION!

Do not remove the chips with your bare hand. There is a risk of cutting injuries due to chips and tools!

Step 4: Clean the wood band saw regularly with a damp cloth and a mild detergent.

Step 5: Spray or oil all unpainted metal surfaces with a little anti-rust spray.

Step 6: Regularly lubricate the bearings and guide points with a high-quality machine grease.

10.2 Maintenance and repair

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

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

Check the machine for external damage before use.

The V-belt must be checked for correct tension after the first 20 hours of operation. After every 250 operating hours (every six months), check the V-belt for wear, porosity and tension.

All protective and safety devices must be reinstalled immediately after completion of repair and maintenance work.

Extraction system

Check the extraction system daily for sufficient function. If the extraction system does not function or functions only to a limited extent, it must be repaired. Only then may the wood band saw be put into operation

11 Troubleshooting

ATTENTION!

If one of the following errors occurs, stop working with the machine immediately. Serious injury could result.

All repairs and replacement work may only be carried out by qualified and trained personnel.

Fault	Possible cause	Solution
The wood band saw does not start when the switch is actuated.	1. No power supply. 2. Defective switch.	1. Plug in the plug or have the power connection checked by qualified personnel. 2. Have the switch replaced by qualified personnel.
The motor is running, but the saw band is not.	1. The quick release lever is open. 2. The band saw blade runs off the wheels. 3. The saw band is broken. 4. The V-belt is damaged.	1. Switch off the motor and clamp the quick release lever. 2. Switch off the motor and adjust the saw band correctly. 3. Insert a new saw band. 4. Insert a new V-belt.
The saw band does not cut a straight line.	1. The rip fence is not used. 2. The feed too fast. 3. The saw band teeth are blunt or damaged. 4. The saw band guides are not adjusted correctly.	1. Use the rip fence. 2. Press the saw band with the workpiece. 3. Insert a new saw band. 4. Readjust the saw band guide.
The saw band does not cut or cuts only very slowly.	1. The saw band teeth are blunt due to the sawing of wrong material. 2. The saw band was installed the wrong way round.	1.Insert the correct saw band for the material to be processed. 2. Insert the saw band correctly.
Chips and sawdust accumulate in the machine.	1. It is a normal situation.	1. Clean the machine regularly. If necessary, use a vacuum cleaner.
Sawdust in the motor housing.	1. Abnormal amounts of sawdust.	1. Clean the motor housing with a vacuum cleaner. 2. Use a suction unit
The machine is not sawing at the correct angle.	1. The saw table is not correctly adjusted. 2. The saw band is blunt or too much cutting pressure has been applied.	1 Adjust the saw table correctly. 2. Change the saw blade and exert less pressure.
The saw blade run cannot be adjusted correctly.	1. The wheels are not adjusted. Defective bearings. 2. The saw blade run has not been adjusted correctly. 3. Low-quality saw band.	1. Contact your dealer. 2. Adjust the saw blade run. 3. Use a different saw blade.

12 Disposal, reusing used machines

In your own interest and to protect the environment make sure that all machine components are exclusively disposed of in as intended and permitted.

12.1 Decommissioning

Disused machines must be decommissioned immediately to prevent misuse at a later point and putting the environment or persons at risk.

Step 1: Remove all environmentally hazardous processing materials from the used machine.

Step 2: If necessary, disassemble the machine into assemblies and components that are easy to handle and suitable for recycling.

Step 3: The machine components and processing materials must be disposed of using the intended disposal methods.

12.2 Disposal of electrical equipment

Note that electrical equipment contains a variety of recycling-capable materials and also environmentally hazardous components. Please help to separate these components and dispose of them responsibly. In case of doubt, contact your local waste disposal authority. Consult a specialist disposal agent for recycling if needed.

12.3 Disposing of lubricants

Lubricant manufacturers provide disposal information for the lubricants used. If necessary, request product-specific data sheets.

13 Spare parts

DANGER!

Risk of injury caused by the use of incorrect spare parts!

The use of incorrect or faulty spare parts may cause risks for operating staff and damage as well as malfunctions.

- Exclusively genuine spare parts made by the manufacturer or spare parts authorised by the manufacturer shall be used.
- Always contact the manufacturer if you are unsure.

NOTE!

The manufacturer warranty shall be rendered void in the event of a use of unauthorised spare parts.

13.1 Spare parts orders

Spare parts are available from authorised retailers.

The following key data is required for queries or spare parts orders:

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

Spare parts orders without the aforementioned data cannot be taken into account. The supplier shall determine the shipping type if no relevant data was provided.

Data on the machine type, item number and year of manufacture is listed on the type plate attached to the device.

Example

The engine for the Wood band saw HBS 400 must be ordered. The engine has the number 30 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (engine) and marked positon number (30) to the dealer or spare parts department and provide the following information:

- Type of device: **Wood Band Saw HBS 400**
- Item number: **5900410**
- Spare parts drawing: **1**
- Position number: **30**

The item number of your device:

Wood Band Saw HBS 400	**5900410**
Wood Band Saw HBS 471	**5900471**
Wood Band Saw HBS 473	**5900473**

13.2 Spare parts drawings HBS 400

The following spare parts drawings are intended to help identify the necessary spare parts. To order, please send a copy of the list of spare parts with the marked components to your dealer.

Spare parts drawing 1 - HBS 400

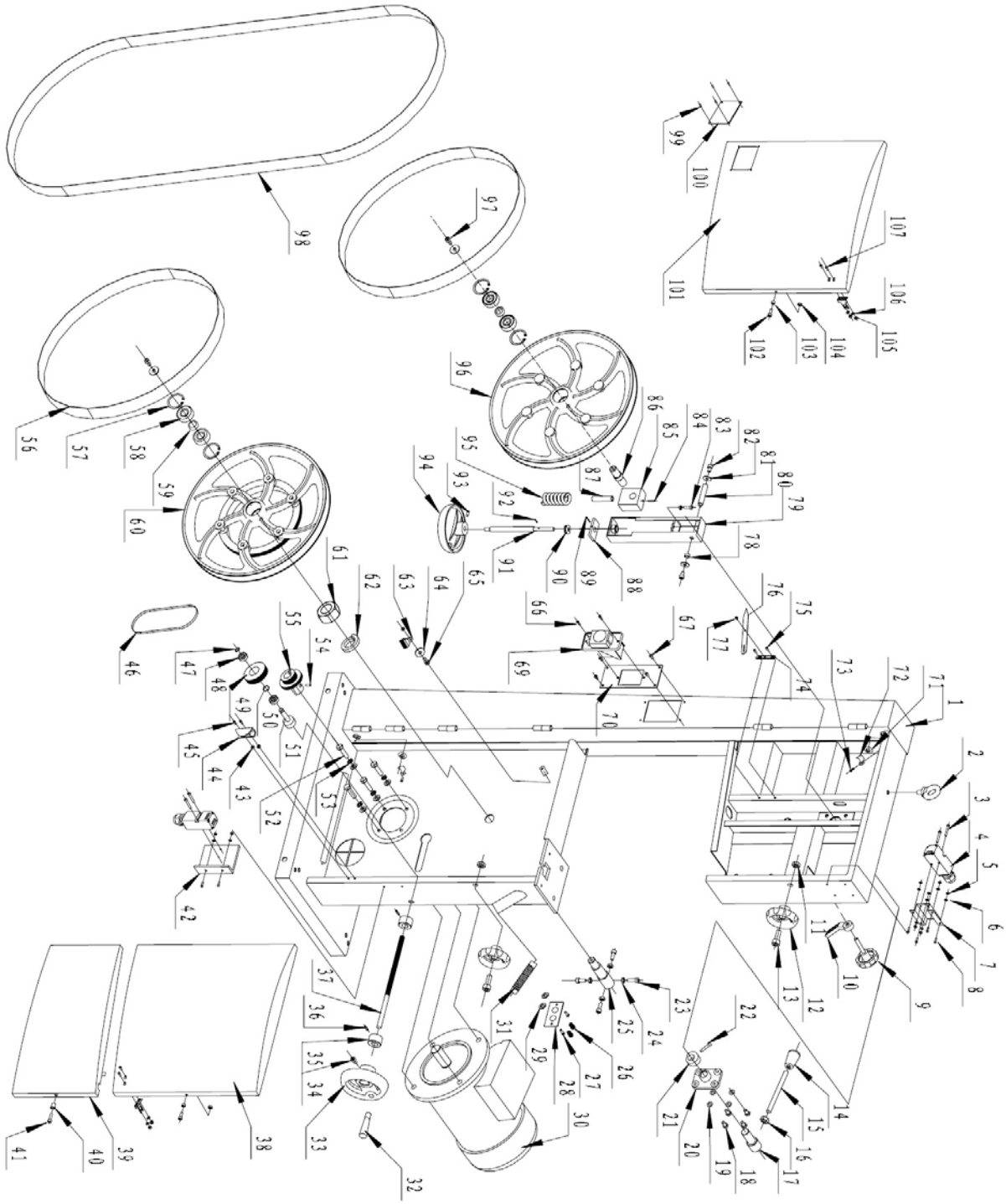

Fig. 18: Spare parts drawing 1 - Wood Band Saw HBS 400

Spare parts drawing 2 - HBS 400

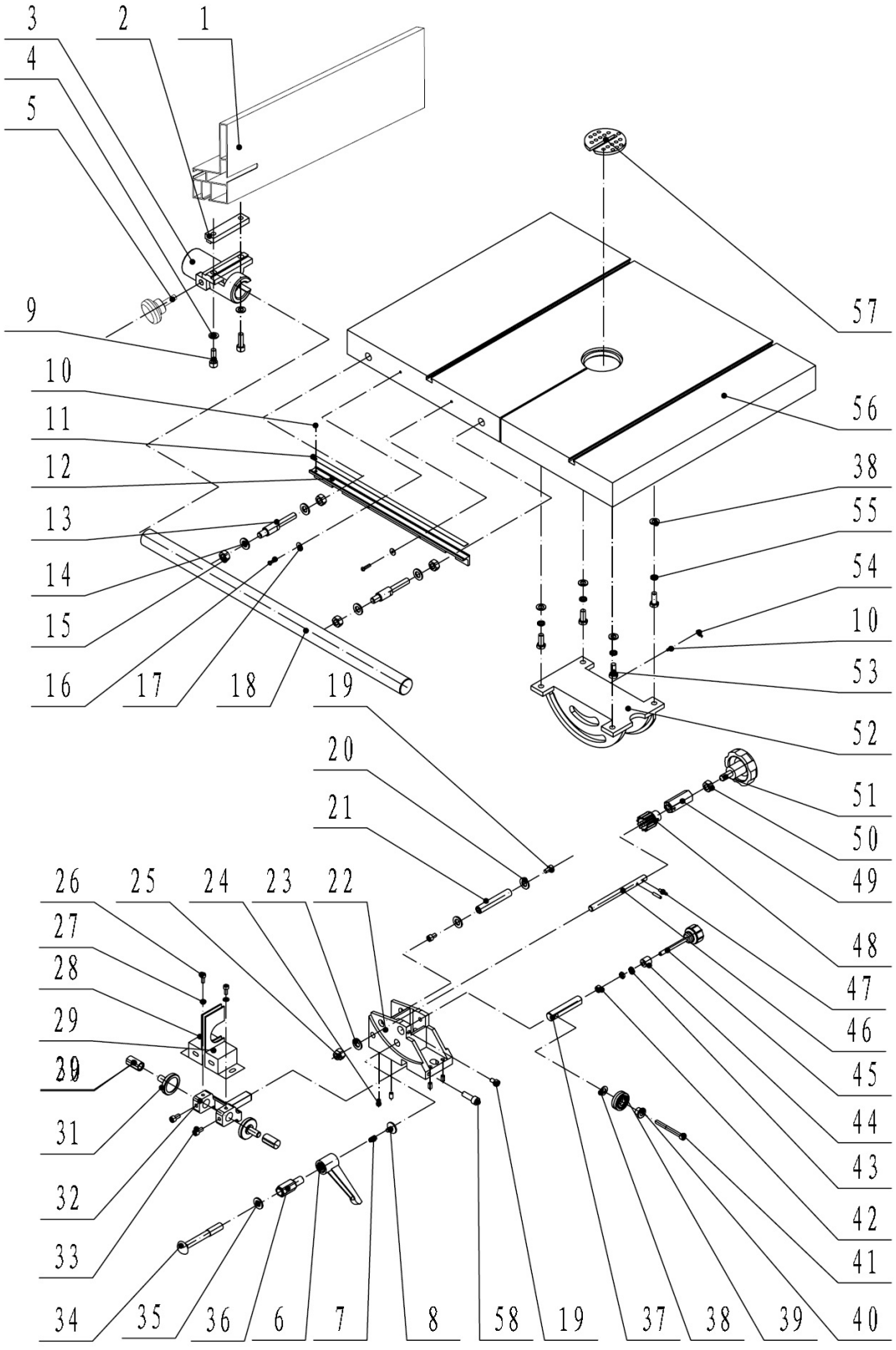

Fig. 19: Spare parts drawing 2 - Wood Band Saw HBS 400

Spare parts drawing 3 - HBS 400

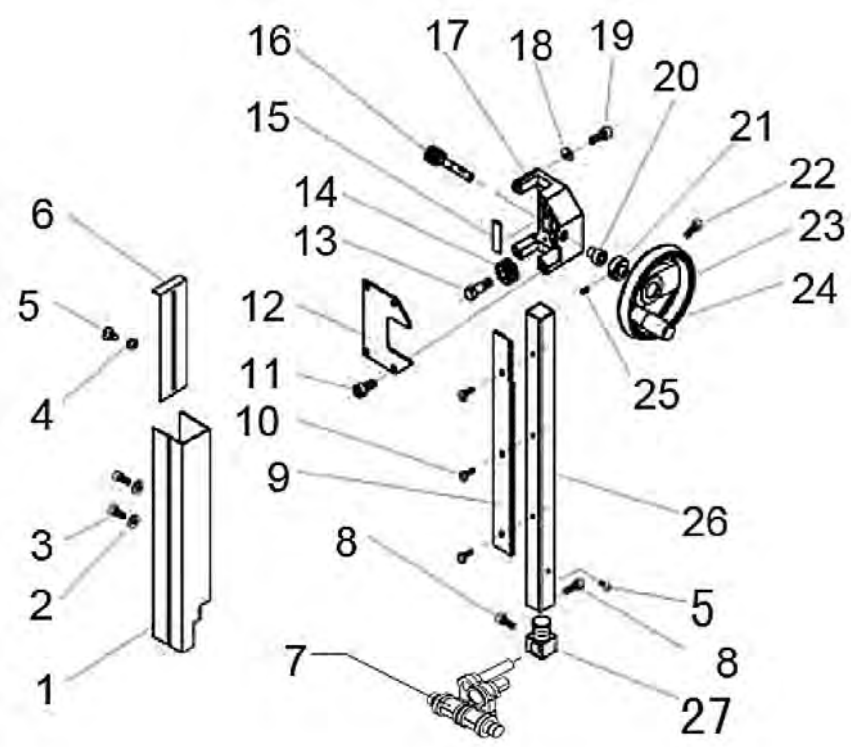

Fig. 20: Spare parts drawing 3 - Wood Band Saw HBS 400

13.3 Spare parts drawings HBS 471 / HBS 473

The following spare parts drawings are intended to help identify the necessary spare parts. To order, please send a copy of the list of spare parts with the marked components to your dealer.

Spare parts drawing 1 - HBS 471 / HBS 473

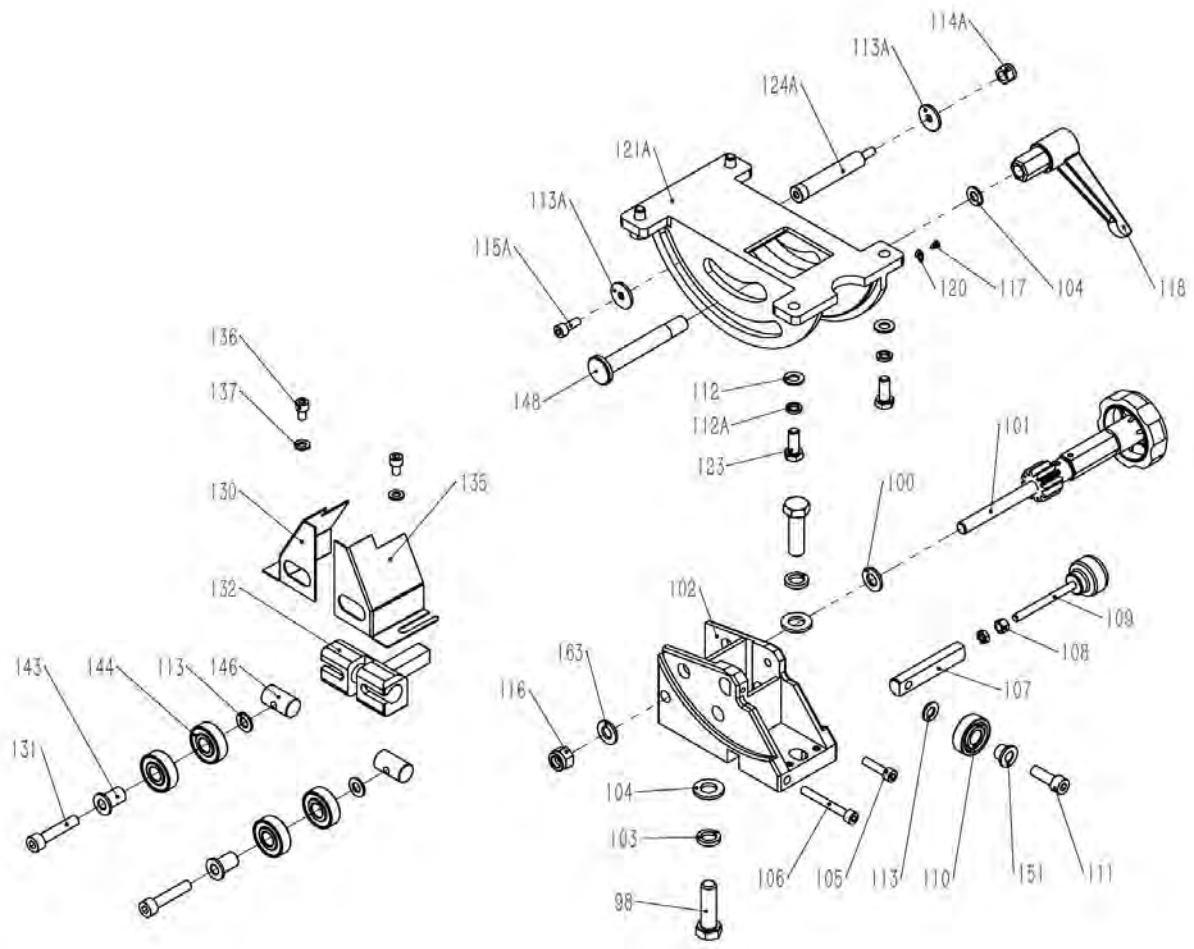

Fig. 21: Spare parts drawing 1 - Wood Band Saw HBS 471 / HBS 473

Spare parts drawing 2 - HBS 471 / HBS 473

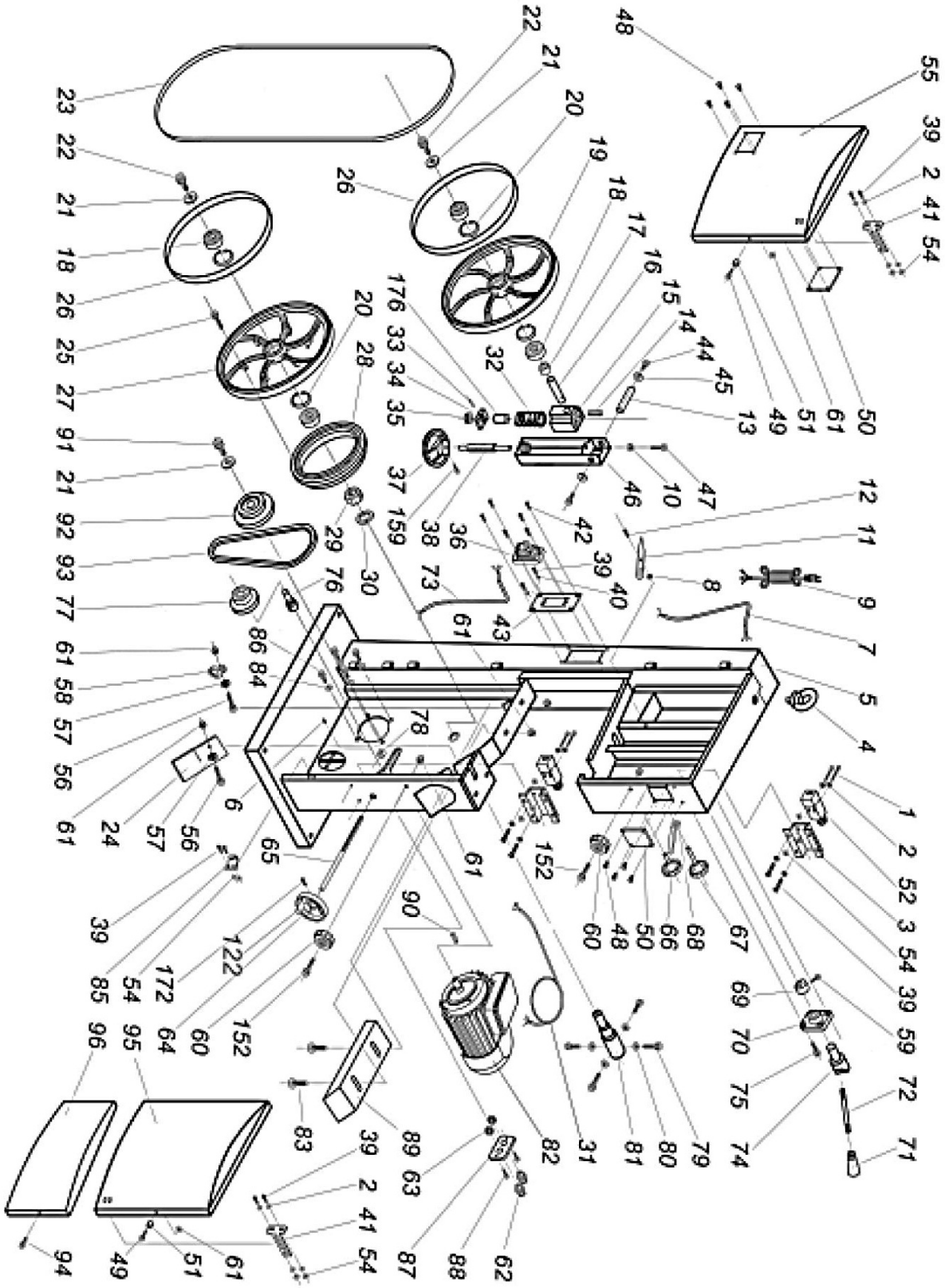

Fig. 22: Spare parts drawing 2 - Wood Band Saw HBS 471 / HBS 473

Spare parts drawing 3 - HBS 471 / HBS 473

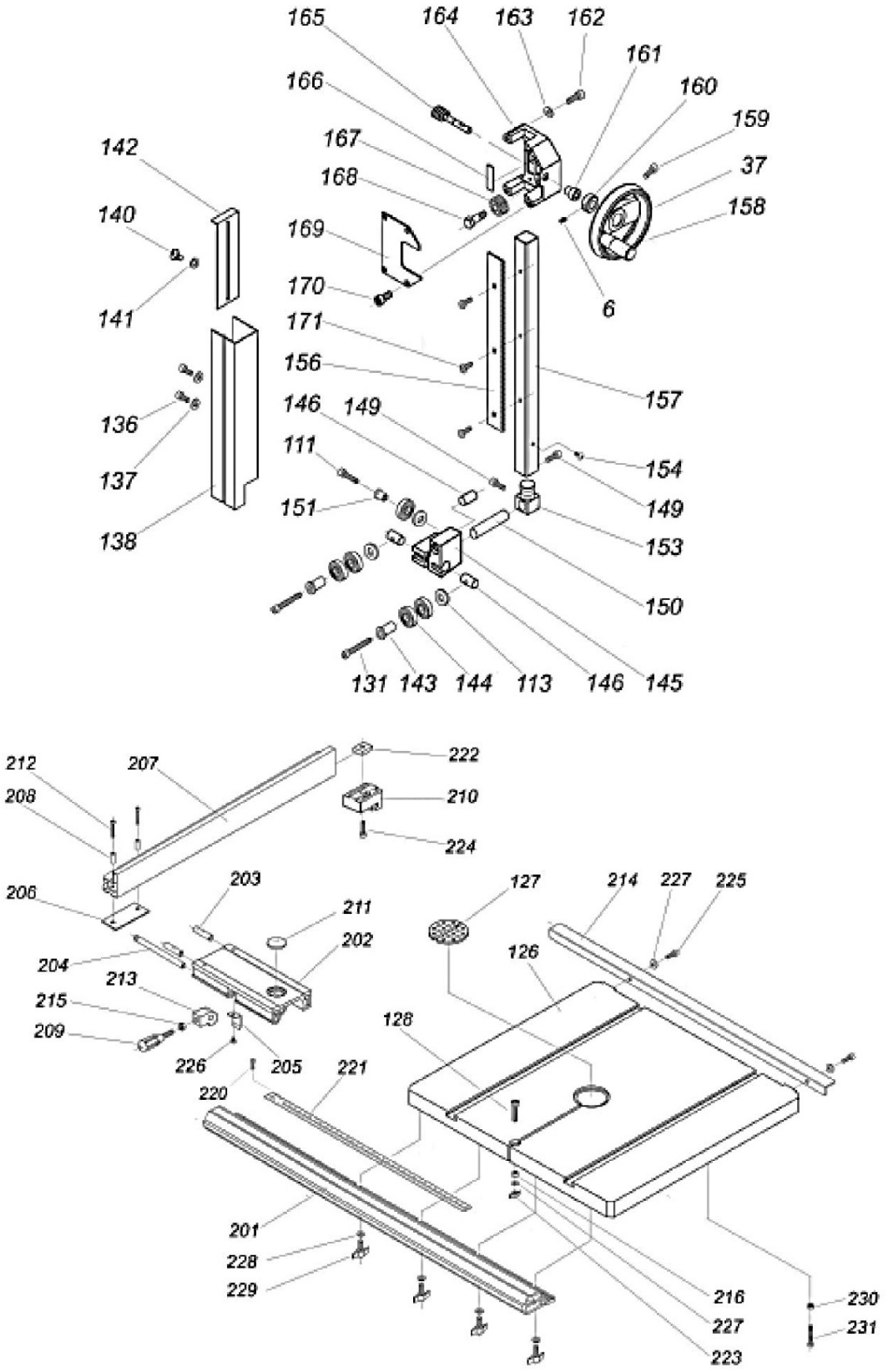

Fig. 23: Spare parts drawing 3 - Wood Band Saw HBS 471 / HBS 473

14 Electrical circuit diagrams

HBS 400

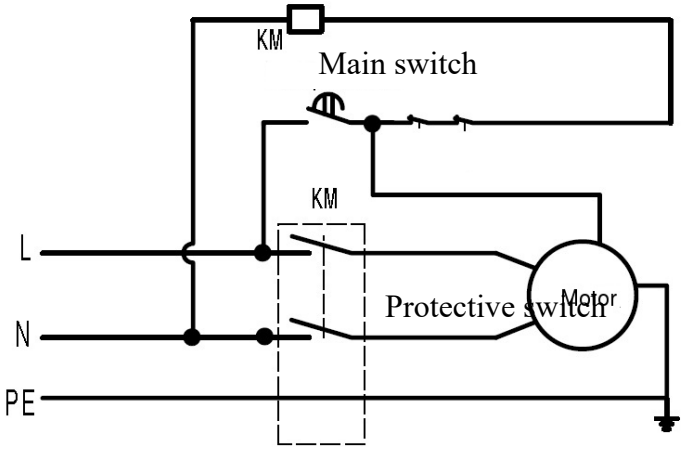

Fig. 24: Electrical circuit diagram HBS 400

HBS 471

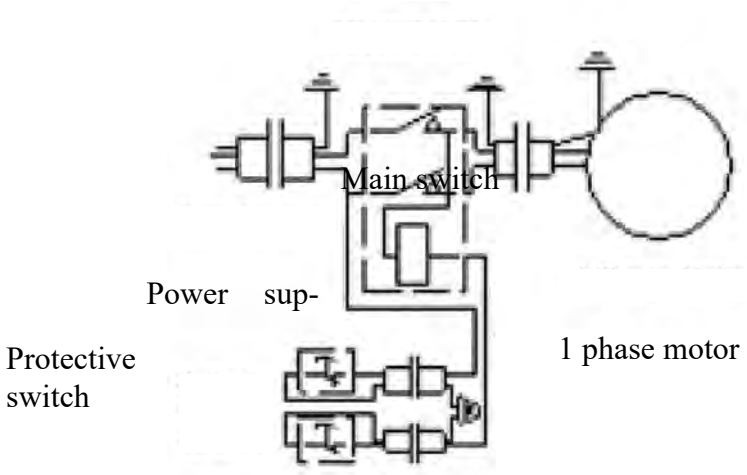

Fig. 25: Electrical circuit diagram HBS 471

HBS 473

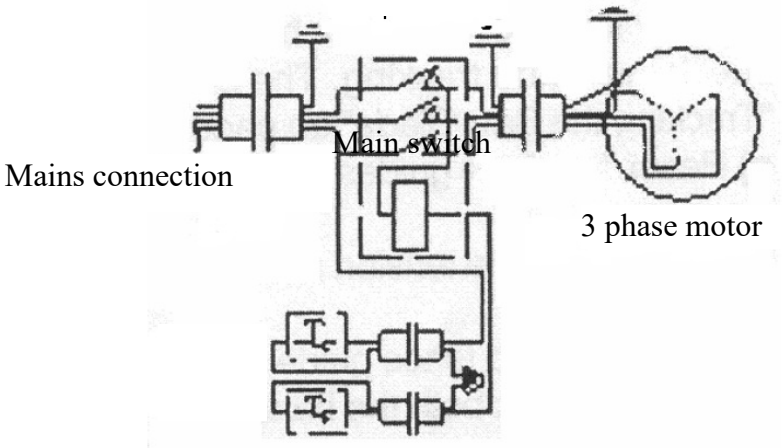

Fig. 26: Electrical circuit diagram HBS 473

15 EC Declaration of Conformity

As per machine directive 2006/42/EC, Appendix II 1.A

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

hereby declares that the following product

Product group: Holzstar® Woodworking Machines

Machine type: Wood Band Saw

Designation of the machine*:		**Item number *:**	
	☐ HBS 400 / 230V		☐ 5900410
	☐ HBS 471 / 230V		☐ 5900471
	☐ HBS 473 / 400V		☐ 5900473

Serial number*: _____

Year of manufacture*: 20____

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

complies with all relevant regulations of the aforementioned directive as well as any other, applicable directives (subsequently added) – including the changes applicable at the time the declaration was made.

Relevant EU directives: 2014/30/EU EMC Directive

The following harmonized standards have been applied:

DIN EN ISO 12100-1:2011-03	Safety of machinery - General principles for design - Risk assessment and risk reduction
DIN EN 60204-1:2014-10	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
DIN EN 1807-1:2013-06	Safety of woodworking machines - Band sawing machines - Part 1: Table band saws and band re-saws

Person responsible for the documentation: Kilian Stürmer, Stürmer Maschinen GmbH,
Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt

Hallstadt, 12.11.2020

Kilian Stürmer
Managing Director

CE

16 Notes


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