

# Operating instructions

## Wood band saws

\_\_\_\_\_ HBS 351

\_\_\_\_\_ HBS 430

\_\_\_\_\_ HBS 431

\_\_\_\_\_ HBS 433

\_\_\_\_\_ HBS 533



HBS 433

HBS SERIES

## Publication details

### Product identification

Wood band saw	Article number
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HBS 431	5154301
HBS 433	5154303
HBS 533	5155303

### Manufacturer

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

Hotline: 0049 (0) 900 19 68 220  
 (0.49 Euro from German landlines)  
 Fax: 0049 (0) 951 96555 - 55  
 Email: info@holzkraft.de  
 Internet: www.holzkraft.de

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## 1 Introduction

You have made an excellent choice in purchasing a Holzkraft 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 wood band saw.

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

### 1.1 Copyright

The contents of these operating instructions are protected by copyright. Their application is permitted within the context of the use of the wood band saw. Any further use shall not be permitted without written consent by the manufacturer.

### 1.2 Customer service

Please contact your specialist retailer if you have any questions regarding your wood 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:

Hotline: 0049 (0) 900 19 68 220  
(0.49 Euro from German landlines)  
Fax: 0049 (0) 951 96555-111  
Email: [service@stuermer-maschinen.de](mailto:service@stuermer-maschinen.de)

#### Spare parts orders:

Fax: 0049 (0) 951 96555-119  
Email: [ersatzteile@stuermer-maschinen.de](mailto:ersatzteile@stuermer-maschinen.de)

Please submit any information and experiences you make during application of the machine as these may be valuable for product improvements.

### 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

**Operator**

Operators are defined as the persons who operate the wood band saw 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.

**Operator's duties**

If the wood band saw is used for commercial purposes, the operator of the wood band saw is 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 of the wood band saw 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 wood band saw's installation location. Said risk assessment shall be reflected in operating instructions for wood band saw operation.
- During the entire wood band saw 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 wood band saw 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 wood band saw 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 Personnel requirements

### Qualifications

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 wood band saw, thus putting themselves and others at risk of severe or fatal injuries.

- All work must be carried out by qualified persons only.
- Keep inadequately qualified persons 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 following tasks:

#### Operating staff:

Operating staff has undergone an induction by the operator about the entrusted tasks and potential hazards resulting from improper behaviour. Operating staff shall exclusively be permitted to carry out any tasks beyond operation in normal mode if this has been specified in the operating instructions and operators have explicitly entrusted operating staff with the task.

#### 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 and head protection

Hearing protection protects from hearing damage caused by noise. Industrial hard hats protect the head from falling objects and impact with fixed objects.



#### Protective eyewear

Protective goggles are intended to protect the eyes from flying parts.



#### Protective gloves

Protective gloves are intended to protect the hands from components with sharp objects as well as friction, abrasion, and deep-cut injuries.



#### Safety shoes

Safety shoes protect feet from pinching, falling parts and slipping on slippery surfaces.



#### Protective clothing

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

## 2.5 General safety instructions



### NOTE!

Observe the regulations applicable in the country of use (currently effective version).

Tooling, retooling, maintenance and servicing work may only be performed by trained personnel when the equipment is not running.

Unauthorised conversions and modifications of the wood band saw are not permitted for safety reasons.

## 2.6 Safety instructions for operating staff



### NOTE!

Before starting up, using, maintaining or intervening with the machine in any other way, always carefully read the operating and maintenance instructions. Only persons who are familiar with handling and the effect of the machine are permitted to handle and work on and with the machine.



### IMPORTANT!

Repairs, maintenance and upgrades may only be performed by qualified personnel with the machine switched off (disconnect the mains plug)!)

Always avoid working methods that affect the safety of the wood band saw

The operator must ensure that unauthorised persons do not work with the wood band saw (e.g., by actuating systems that prevent unauthorised use).

The operator is obliged to check the wood band saw at least once before use (daily) for visible signs of damage and defects and to immediately report any changes that have occurred (including changes to operating behaviour) that could impair safety.

The operator must also ensure that the wood band saw is operated only in a technically perfect condition.

- Before switching on the machine, make sure the workpiece is correctly clamped!
- When working on the machine, always keep your hands away from rotating parts!
- Do not remove sharp edged chips with your hands; use a hand brush or chip rake!
- Use the safety devices and fasten them securely. Never work without safety equipment; keep the safety equipment in good working order. Check its functionality before starting work.

- Keep the machine and your work environment clean at all times. Ensure sufficient illumination.
- Always secure the workpiece when working with suitable clamping equipment. Ensure a sufficient support surface.
- The machine's design must not be changed; the machine must not be used for work not intended by the manufacturer.
- Never work under the influence of illnesses that impair concentration, drugs, alcohol or medication.
- Remove spanners and other loose parts from the machine after assembly or repairs before you switch the machine on.
- Observe all safety instructions and warnings on the machine and keep the labels in a legible state
- Keep children and persons who are not familiar with the machine clear of your work environment, the machine and tools.
- The machine may only be used, toolled and maintained by persons who are familiar with it and instructed in terms of its risks.
- Do not use the mains cable to pull the plug out of the socket. Protect the cable against heat, oil and sharp edges.
- Make sure that the main switch is in the OFF position when you connect the machine with the power supply in order to avoid inadvertent switching on.
- Wear close-fitting work clothes, protective eye-wear, safety shoes and hearing protection. Tie back long hair. Do not wear watches, bracelets, necklaces rings or gloves when working (rotating parts!).
- Immediately resolve malfunctions that impair safety.
- Never leave the machine operational without supervision, remain near the machine until it reaches a complete standstill. Then pull the mains plug to prevent undesirable switching on
- Protect the machine against humidity (risk of short circuit!).
- Never use power tools and machines in the vicinity of flammable liquids and gases (risk of explosion!).
- Before using the machine, make sure that no parts are damaged. Replace damaged parts immediately to avoid sources of danger!
- Do not overload the machine! Working within the stated performance limits is better and safer. Use the right tools! Make sure that tools are not blunt or damaged.
- Use only genuine spare parts and accessories to avoid potential risks and risk of accident.

## 2.7 Special safety instructions for wood band saws

- When sawing round timber, clamp the workpiece to prevent it rotating. Use suitable holding devices
- Lower the upper band guide as close to the work-piece as possible
- If the work table is angled, attach the rip fence to the bottom half of the table
- Make sure that all workpieces are safely held and safely guided when machining
- Remove sawn off or clamped workpieces only when the saw band is at a standstill
- Set up the machine so that there is sufficient space for operations and for guiding the work-pieces
- Keep the workplace free of obstructing work-pieces
- Ensure sufficient illumination.
- Avoid larger concentrations of dust. Use a suitable extraction unit. Wood dust is explosive and can be dangerous to health
- Before machining, remove nails and other foreign bodies from the workpiece
- Specifications relating to the min. and max. work-piece dimensions must be observed
- Replace damaged saw bands immediately

## 2.8 Safety instructions for laser applications



### ATTENTION!

The machine is equipped with a laser that shows the cut path on the material. The laser has a max. output of 5 mW, a wavelength of 630 – 670 nm, and is thus classified as class 3A.

Observe the following safety instructions handling laser:

- Equipment in the beam path of class 3a laser equipment must be set up or fastened so that any unintentional changing of their position and the beam direction is avoided.
- Uncontrollably reflected radiation from the laser equipment must be avoided; reflecting or glossy objects and surfaces must be kept out of the laser beam area to the extent possible, or removed or covered.
- For protection against dangerous reflections, tools, accessories and adjusting equipment used in the laser area should not have reflective surfaces; persons in the laser area must not take reflective objects with them.
- The optical axes must not be directed at windows.
- Never look directly into the laser beam!
- For your own safety, we recommend the use of protective eyewear when working with the laser!

## 2.9 Safety labels on the wood band saw

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

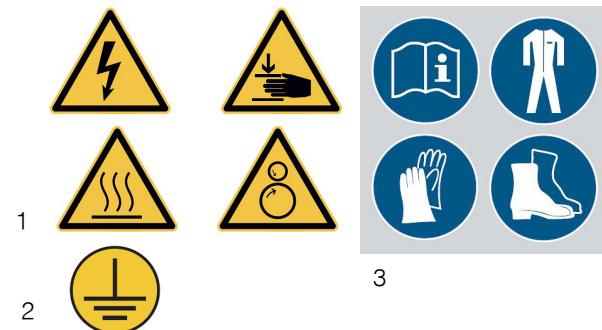


Fig. 1: Safety labels

- 1 Warning of dangerous electrical current Warning of crushing of the upper limbs - Warning of hot surfaces Warning of drawing in through rotating machine parts
- 2 Earthing
- 3 Mandatory signs: Read operating instructions, Use safety clothes, protective gloves, safety shoes. Safety identifications attached to the device must not be removed. Damaged or missing safety identifications may cause errors, personal injury and material damage. They must be replaced immediately.

If the safety identifications are not visible and comprehensible at first glance, the device must be stopped until new safety identifications have been attached.

### 3 Intended use

The on the wood band saw is designed for sawing wood and wood replacements with edges, and for hard plastics that are machined in a similar way. Round materials may only be cut with a suitable holding device. With the aid of the pivoting work table and a mitre stop, mitre cuts up to 45° degrees can be made. The machine is universally deployable for schools, trades, crafts and DIY.

Certain types of wood and wood products cause dust emissions that are detrimental to health during machining. For this reason, only use your machine in a well-ventilated room, and always use an extraction unit. The intended use shall also include adherence to all information in these operating instructions. Any other use or use beyond the intended use shall be deemed misuse.



#### WARNING!

#### Risk of misuse!

Misuse of the wood band saw may cause hazardous situations.

Stürmer Maschinen GmbH assumes no liability for design-based or technical modifications to the wood band saw.

Any claims resulting from damage due to unintended use shall be excluded.

#### 3.1 Foreseeable misuse

If the intended purpose of the wood band saw is observed, there is no actually foreseeable misuse that may cause hazardous situations involving personal injury.

#### 3.2 Remaining risks

Even when observing all safety instructions, operation of the wood band saw involves the remaining risks described in the following.

All persons working with the wood band saw must be aware of the remaining risks and observe the instructions to prevent these remaining risks from causing accidents or damage:

- There is a risk of crushing upper and lower limbs during operation.
- It may be necessary to remove installed protective equipment to configure and equip the machine. This causes various remaining risks and potential hazards that each user must be aware of.

## 4 Technical data

Model	HBS 351	HBS 430	HBS 431	HBS 433	HBS 533
Article number	5153501	5154300	5154301	5154303	5155303
Work table dimensions	495 x 356 mm	610 x 431 mm	610 x 431 mm	610 x 431 mm	680 x 530 mm
Cutting speeds	650 - 400 m/min.	900 - 450 m/min.	900 - 450 m/min.	900 - 450 m/min.	850 - 430 m/min.
Flywheel Ø	356 mm	430 mm	430 mm	430 mm	530 mm
Max. cutting height	200 mm	270 mm	270 mm	270 mm	270 mm
Max. cutting width with stop	321 mm	370 mm	370 mm	370 mm	470 mm
Max. cutting width without stop	346 mm	410 mm	410 mm	410 mm	514 mm
Saw band length	2562 mm	3345 mm	3345 mm	3345 mm	3865 mm
Precision guides	Top/bottom	Top/bottom	Top/bottom	Top/bottom	Top/bottom
Saw table angle	-10° - +45°	-10° - +45°	-10° - +45°	-10° - +45°	-10° - +45°
Motor output	550 W / 230 V	1.5 kW / 230 V	1.5 kW / 230 V	1.5 kW / 400 V	1.5 kW / 400 V
Weight	80 kg	130 kg	130 kg	130 kg	163 kg
Dimensions mm	610x 445 x1753	768 x 512 x 2048	768 x 512 x 2048	768 x 512 x 2048	1024 x 793 x 2048
Extraction port diameter	120 mm	2 x 120 mm	2 x 120 mm	2 x 120 mm	2 x 120 mm

### 4.1 Noise level



#### Hearing and head protection

The noise (sound pressure level) of this machine can exceed 82 dB(A) at the workplace.

We recommend using hearing protection.



#### NOTE!

Note that the duration of noise exposure, the type and nature of the workplace, and other machine operating at the same time also influence the noise level at the workplace.

### 4.2 Type plate HBS 533



Fig. 2: Type plate HBS 533

## 5 Delivery, packaging and storage

### 5.1 Delivery

Check the wood band saw for visible transport damage upon delivery. Immediately notify the haulage company or retailer if you identify damage to the device.

### 5.2 Packaging

All of the wood band saw'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

Allow the wood band saw to fully cool down, and always store in a clean condition and a dry, clean and frost-free environment.

## 6 Machine description

**Figures in these operating instructions may deviate from the original.**

### Scope of delivery HBS series

- Band saw
- Work table
- Rip fence
- Rip fence guide rail
- Stop support rail
- Mitre stop
- Standard saw blade
- Laser device
- Allen key
- Operating instructions
- Screw set

### 6.1 Accessories

#### Extraction units

To reduce the dust and wood particle emissions in your work area, order one of our extraction units along with the machine. Depending on your application, a variety of designs are available.

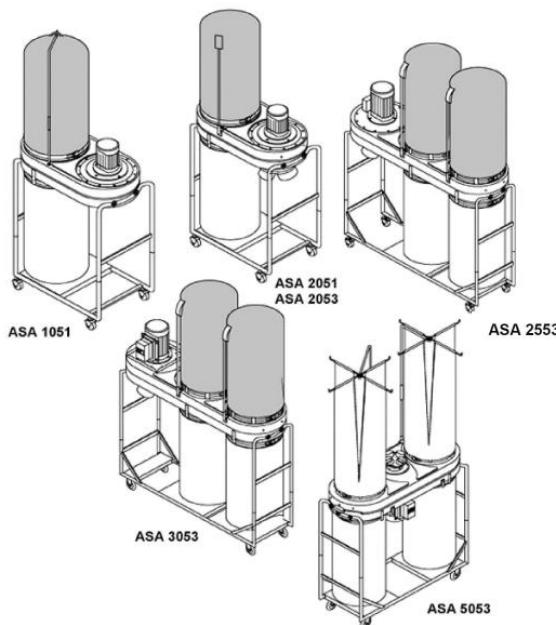


Fig. 3: Extraction units

**Caution:** These extraction units are intended for private use with a thirty minute duty cycle only.

For commercial use, please use a clean air unit.

## 6.2 Controls

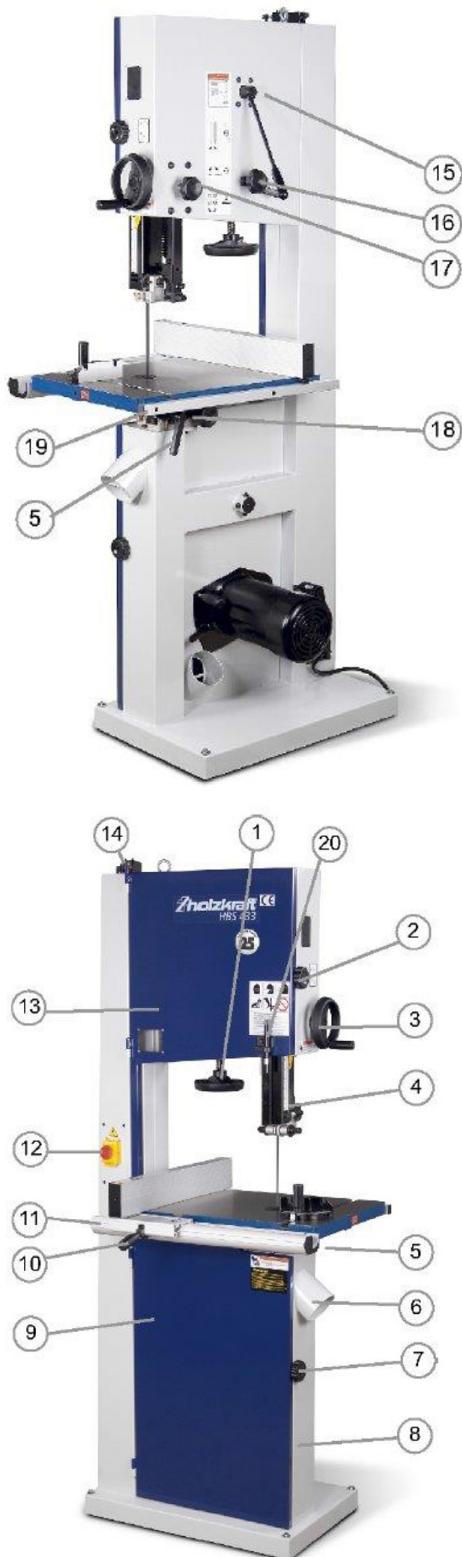


Fig. 4: Controls

1	Saw band clamping head
2	Upper rotary lock
3	Saw band height adjustment
4	Saw band guide
5	Angle adjustment
6	Extraction port
7	Lower rotary lock
8	Chassis
9	Lower front door
10	Rip fence with quick clamping
11	Guide rail rip fence
12	Emergency stop and ON/OFF switch
13	Top front door
14	Quick clamping lever saw band clamping
15	Microswitch
16	Saw band tracking adjusting screw
17	Height adjustment clamping screw
18	Rocker mount
19	Rip fence protection rail
20	Laser device

## 7 Assembly and setting up



### NOTE!

We recommend calling a second person to help assembling the band saw.

Remove the machine from its packaging and remove all protective foils. Make sure the machine is not set up or operated in a damp or wet environment. The humidity should not exceed 60% and the measured room temperature should be between max. 0°C and 40°C.

### Assembled band saw

The band saw is delivered to you in almost fully-assembled condition.

On the worktable, remove the locking pin (2) and the table insert (1). Guide the saw blade through the slot in the work table and then rotate the table through 90° so that the slot in the table points to the right as shown in the adjacent image. Screw in the screws below the worktable on the two rocker mounts (7). Then replace the table insert and locking pin. Align the table so that the saw blade is located at the centre of the table insert. Now tighten the screws. Mount the rip fence guide rail (3) on the front side of the worktable with two M6x20 screws. Mount the stop support rail (4) on the rear side of the worktable with two M6x16 screws. Make sure that the rails are correctly aligned. With the clamping lever (6) released, now locate the rip fence (5) on the guide rail (3). Pressing down the clamping lever detains the fence.

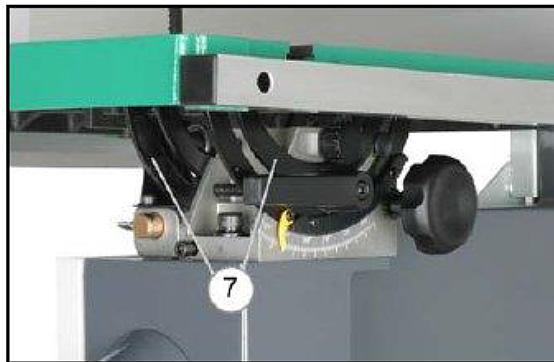
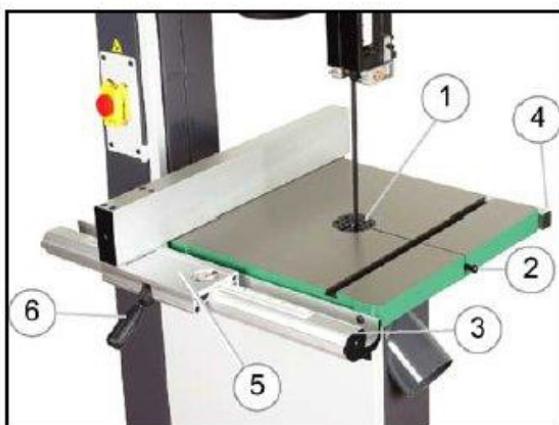


Fig. 5: Assembly of the band saw

### Machines with 400 V electric motor

Connecting the machine to the power supply:

- make sure that the power supply has the same characteristics (voltage, mains frequency, phase position) as the motor.
- Use 400 V line voltage (16A fuse)
- The supply cable must have a cable cross-section of at least 2.5 mm<sup>2</sup>.
- Note the motor's sense of rotation (see arrow on motor). If the motor turns the wrong way: push in the disc in the connector with a screwdriver and rotate through 180°. Checking the sense of rotation: switch on the motor only briefly and note the sense of rotation when the motor runs down.

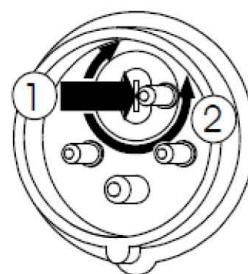


Fig. 6: Machines with 400 V electric motor



#### IMPORTANT!

Work on the electrical equipment must be performed by a qualified electrician.

### Installing the machine

The machine must be located on a stable base and anchored to it securely. This avoids the machine tipping and injuring persons, and also prevents a lack of precision in the workpieces.



#### NOTE!

Make sure that the machine is easily accessible for operation and for setup and maintenance work.

## 8 Operation



### DANGER!

#### Risk of fatal injury through electric shock!

There is a risk of fatal injury on touching live components. Electrical components that are switched on can perform uncontrolled movements and cause injuries.

- Before starting setting work, unplug the machine's mains connector.



### WARNING!

#### Danger!

Failure to observe the following rules entails a risk of injury for the operator and other persons.

- The wood band saw must be operated by one trained and experienced person only.
- The operator must not work under the influence of drugs, alcohol or medication.
- The operator must not work in case of tiredness or if suffering from an illness that impairs concentration.
- The wood band saw must be operated by one person only. Additional persons must keep out of the work area during operation.



### ATTENTION!

#### Risk of crushing!

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



### IMPORTANT!

- The device must not be operated at damp workplaces or outdoors in the rain.
- Make sure that the workplace is well ventilated!



#### Use breathing apparatus!



#### Use protective eyewear!



#### Wear safety shoes!



#### Wear protective clothing!

## 8.1 Electrical connection



### DANGER!

#### Risk of fatal injury through electric shock!

There is a risk of fatal injury on touching live components. Electrical components that are switched on can perform uncontrolled movements and cause injuries.

Make sure that the power supply has the same characteristics (voltage, mains frequency) as the motor.

Step 1: Make sure that the wood band saw is switched off.

Step 2: Connect the wood band saw to the power supply.

## 8.2 Settings



### NOTE!

Before starting up, using, maintaining or intervening with the machine in any other way, always carefully read the operating and maintenance instructions. Only persons who are familiar with handling and the effect of the machine are permitted to handle and work on and with the machine.



### IMPORTANT!

Before starting any setup work on the machine, disconnect it from the power supply.

### 8.2.1 Swivelling the worktable

After releasing the clamping lever (1) the worktable can be swivelled through up to +45°.

The preset angle can be read off via the pointer on the inclinometer (2). Apply the clamping lever again to lock the table

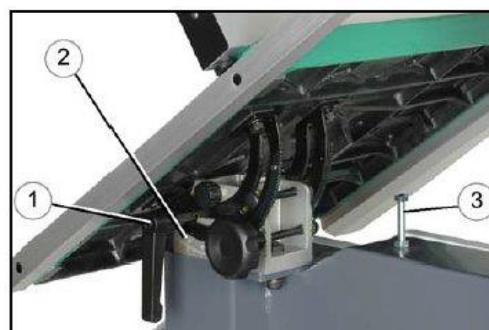


Fig. 7: Swivelling the worktable

## 8.2.2 0° position of worktable

To quickly reset to 0° position of the worktable, the table is equipped with an adjusting screw (1). Use the handwheel (2) to adjust the table's angle after releasing the clamping lever.

Set the worktable to 0°. Check the setting by measuring the angle between the worktable and the saw band with a protractor. If needed, correct the table setting and re-align the pointer on the scale.

Once the table is at an angle of precisely 90° to the saw band, unscrew the adjusting screw (1) until it lies flush against the table. Lock the screw with the nut.



Fig. 8: 0° position of worktable

## 8.2.3 Cutting height adjustment



### IMPORTANT!

- The upper saw band guide must be set to reflect the workpiece height. The upper saw band guide must be 2-3 mm higher than the thickness of the workpiece to be cut.
- Complete or check this setting before each cutting action.

To adjust the cutting height, release the clamping screw (2) and turn the adjustment wheel (1) to set the saw band guard to the desired height. After completing the setting, tighten the clamping screw again.



Fig. 9: Cutting height adjustment

## 8.2.4 Saw band change



### IMPORTANT!

Always wear gloves when changing the saw band.

- Step 1: Switch off the machine and disconnect the machine from the power supply.
- Step 2: Open the front panel by turning the top and bottom locking screws (1).
- Step 3: Release the saw band clamp by actuating the quick clamping lever (2).
- Step 4: Carefully pull the used saw band off the rollers and guide it through the slot in the table.
- Step 5: Now place the new saw band on the two saw band rollers in reverse order and centre with respect to the rubbers supports.
- Step 6: Finally, clamp the saw band again by actuating the quick clamping lever (2); refit the table insert and close the front panel.
- Step 7: Adjust the saw run as described.



Fig. 10: Saw band change


**IMPORTANT!**

The saw blades must be de-tensioned if you will not be using the band saw for a longer period of time. Denote this with a label on the outside of the machine. Before you recommission the machine, you must re-tension the saw blades.

### 8.2.5 Setting the band tension


**IMPORTANT!**

- If the tension is too high, the saw band can break.
- Risk of injury!
- If the tension is too low, the driven saw band pulley can slip, causing the saw band to stop.

Turning the adjusting screw (1) increase or reduces the saw band tension via a spring. To change saw bands of the same width, there is no need to change the basic tension setting. The saw band can be released without changing the basic tension setting via the standard quick clamping system (2).



Fig. 11: Setting the band tension

### 8.2.6 Setting the saw band run


**NOTE!**

Before the saw band run setting can be adjusted, it is important to correctly adjust the blade tension...

Step 1: Slowly turn the upper saw band pulley (1) clockwise by hand. The saw band should run centrally on the rubber supports of the saw band pulleys. If this is not the case, the upper saw band pulley's angle of inclination must be adjusted.

Step 2: The screw (2) for adjusting the saw band run is located at the rear centre of the machine. This button is used to adjust the run. The saw band run setting must be adjusted with the front panel open.

Step 3: Turn the saw band pulley clockwise by hand to check the saw band run through the sight pane. Note that the saw blade run direction is top-down. Loosen the lock nut (3) and correct the saw band run by turning the adjusting screw clockwise or anti-clockwise.

Step 4: Now check the saw band run on the lower saw band pulley. It should lie flush against the rubber support across its entire width. Correct the run until the saw band is centered on the top saw band pulley.



Fig. 12: Adjusting the saw band run


**IMPORTANT!**

After completing the adjustment and before switching on, manually turn over the saw band pulley through a number of revolutions to check whether the saw band runs off the pulleys. If this is the case, you need to re-adjust the saw band run.

### 8.2.7 Adjusting the saw blade guide



#### IMPORTANT!

Only adjust the upper and lower saw band guides after adjusting and checking the blade tension and saw blade run.

- Step 1 Loosen the lock washer (1) and turn the two ceramic guide discs (2) to move them up to 0.5 mm in front of the saw teeth. Then clamp again.
- Step 2 Loosen the clamping screw (3) and adjust the support bearing (4) so that the saw band back runs on the outer bearing ring.

The support bearing has the task of supporting the saw blade in case of a rough cutting depth, and of ensuring perfect cutting



#### IMPORTANT

The saw band will become useless if its teeth touch the guide pins when the saw band is running. Correct adjustment of the upper and lower band guide is thus important for a long saw band service life.

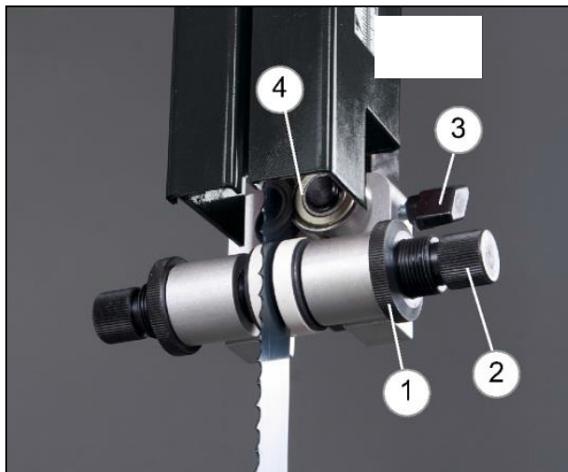


Fig. 3: Adjusting the saw blade guide



#### NOTE!

The saw band will become useless if its teeth touch the guides when the saw band is running. Correct adjustment of the upper and lower band guide is thus important for a long saw band service life.

### 8.2.8 Adjusting the saw band speed

- Step 1 Disconnect the machine from the power supply.
- Step 2 Release the drive belt by loosening the clamping screw on the motor.
- Step 3 Now locate the v-belt on the desired v-belt pulley
- Step 4 Tension the drive belt again and then retighten the clamping screw.

### 8.2.9 Swarf brush

The swarf brushes on the band saw require regular maintenance. They are used to remove chips and dust from the saw band pulleys' rubbers supports. They are located behind the front panel. The chip brushes need to be replaced when worn. Check them at regular intervals before starting up the machine.

To adjust, release the fastening screws on the chip brushes (1) and move the brushes to the correct position. Then re-tighten the screws.

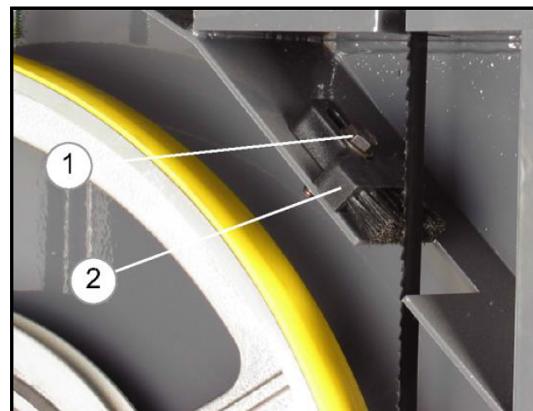


Fig. 5: Chip brush

### 8.2.10 Extraction port

For connection to an extraction system, your band saw is equipped with one or two extraction ports (2) with a diameter of 120 mm depending on the type.

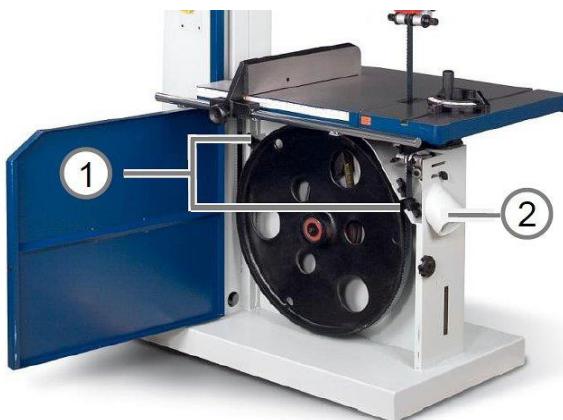


Fig. 6: Extraction port

### 8.2.11 Adjusting the braking time

Step 1 Open the switch housing

Step 2 Remove the printed circuit board

Step 3 Use a suitable tool to adjust the rotary knob. Turn the knob clockwise to increase the current and for a shorter braking time, or anti-clockwise to reduce the current and for a longer braking time.



Step 4 Refit the printed circuit board

Step 5 in its position, making sure that it is correctly seated in the guides.

Step 6 When closing the switch housing, make sure that no cables protrude beyond the areas marked 1 and 2 in the right-hand figure.

Step 7 Make sure that all screws on the switch housing are tightly fastened.

### 8.2.12 Use and assembly of the laser

Mount the bracket (1) on the machine.

Insert the batteries into the laser, paying attention to the correct polarity. Insert the laser into the bracket, and lock it in place with the screw (2). Press the button on the top side of the laser to switch the laser on. After the line has been correctly set to the desired position, lock the screws again.



Fig. 8: Use and assembly of the laser



#### IMPORTANT!

In all cases, avoid direct eye contact with the laser beam and note the safety instructions below "Safety instructions for laser applications" on page 7.



#### Note!

Rotating parts! Work sensibly; pay attention to what you are doing. Pay particular attention to rotating parts. Wear close-fitting clothing. Make sure that your hair or items of clothing cannot be drawn in by rotating parts! Wear a hair net. Do not wear jewellery when working on the machine.



#### Protective eyewear

Chips and parts flying around! Always use protective eyewear! Protect your eyes against chips and other splinters flying around.



#### IMPORTANT!

Do not use broken saw blades. Use only sharp saw blades with even tooth settings. There is a risk of breakage with band saw blades that are blunt and/or have sharpening and tooth setting faults.

For all cutting actions, move the upper band guide as close as possible to the workpiece. This ensures the best possible cut quality and operator safety. Always guide the workpiece with both hands and keep it flat on the band saw table to avoid the saw blade jamming.

Always use the rip fence or the mitre stop for all cutting actions for which they can be deployed. This prevents the saw band running out of the cut line, particularly in case of working with the table at an angle. Plan the required work steps in advance. An old rule in crafts and trades is "measure twice, cut once". It is better to complete a cut in a single action than in several sections that may require the workpiece to be pulled back.

In this case, switch off the band saw and wait for the saw band to reach a standstill before pulling back the workpiece. Note that the saw band causes a cutting kerf and set the cutting width so that the cutting kerf is in the cut-off part of the workpiece. Add an allowance if the workpiece edge needs to be machined later on.

### 8.3 Mitre stop

The mitre stop is used to safely guide the workpiece during cross-cutting or mitre cutting. For mitre cutting, the mitre stop is equipped with a degree scale up to 45° on both sides.

### 8.4 Rip fence

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

### 8.5 Rip cutting

Cutting along the grain of the wood is known as rip cutting. You can cut freehand along a marked line, or along a rip fence, thus achieving superior results. In case of cuts at right angles (the table is at right angles to the saw band), the rip fence is positioned to the left of the saw band so that the workpiece can be guided safely along the fence with your right hand.

In case of mitre rip cuts with the table at an angle, the rip fence needs to be positioned to the right of the blade on the side pointing down (if the workpiece allows this), in order to prevent the workpiece slipping.

### 8.6 Cross cutting

Cross-cutting means sawing at right angles to the wood fibre. This type of cut can also be performed freehand, but for reasons of safety and precision, it makes more sense to use a cross-cutting gauge. The cross-cutting gauge can be set to 45° for mitre cuts.

In combination with an angled table, the operator can thus perform double mitre cuts. Hold the workpiece firmly against the fence on the cross-cutting gauge and flat against the table. Pay attention to your fingers, particularly at the end of the cut; keep a safe distance to the saw band. Small workpieces should be clamped. The cross-cutting gauge can be equipped with an end stop so that multiple workpieces can be cut to exactly the same length. The end stop can also be used as a support when the table is angled.

### 8.7 Freehand cutting

The ease with which curves can be cut is one of the most outstanding characteristics of a band saw. For curved cutting select a saw band with a width that lets you cut the smallest radii that occur in your workpiece. For freehand cutting, you should work at a low feed speed so that the saw band can follow the desired line.

Make sure that you do not push the workpiece laterally out of the cutting line. This causes the saw band to run off track and it can jam in the cutting kerf. It can be useful to remove the excess material approx. 10 mm from the cutting line. In case of very tight radii in which the saw band can no longer cut perfectly, cuts at right angles to the curve line and at a short distance apart can help. When cutting the radius, the material drops off so that the saw band cannot jam.

### 8.8 Sharpening and tooth setting of the saw band

Professional maintenance of the saw bands is a major prerequisite for achieving high cutting quality and productivity.

If the cut is wavy after sawing, the saw band is blunt or the teeth are not set correctly. After discovering that the saw band is not working well, you need to sharpen the saw band. If waviness of the cut occurs after sharpening the saw band, you need to check and optimise the teeth settings. The intervals between 2 sharpening actions should not be too long; even if the cutting results are fine, you should not use the saw band for longer than approx. 1 hour. If impurities of the logwood were not removed before cutting, you may need to sharpen the saw band after the 1st cut.

As a general rule, the contact surface needs to be ground far more than the face. When grinding, make sure that the primary tooth profile is kept.

The tooth parameters, angle of rake and cross-set must be tuned to match the type of wood (hardness). The tooth height can be averaged and used for different types of wood without any changes.

#### Saw band parameters:

	Softwood, aspen, poplar	Hardwood
Rake angle [°]	13 - 16	8 - 10
Tooth height [mm]	5.5 - 6.5	5.5 - 6
Cross-set per side	0.6 - 0.7	0.5 - 0.6
Saw band thick- ness	0.9 - 1.1	0.9 - 1.1

To cut softwood that is frozen, use saw bands as for harder wood.

Cutting hardwood with too great a rake angle: the saw and wood shake, the machine is loud and works unevenly. Change the saw band immediately.  
 Cutting softwood with too low a rake angle: even if the saw band is sharp, waviness in the cut may occur.

## 9 Maintenance and repairs



### DANGER!

#### Risk of fatal injury through electric shock!

There is a risk of fatal injury on touching live components. Electrical components that are switched on can perform uncontrolled movements and cause injuries.

- Before starting cleaning and maintenance work, unplug the mains connector.



### IMPORTANT!

- Never use solvents for cleaning plastic parts or painted surfaces. This may cause the surface to disintegrate and cause consequential damage.

### 9.1 Cleaning



### ATTENTION!

Any chips that occur should be regularly removed from the inside of the band saw. Before opening the housing cover, switch off the machine and unplug the connector. After opening, you can clean with a brush or a vacuum cleaner. After completing the work, remove chips and sawdust from the motor's cooling openings.



### NOTE!

Do not remove the chips with your bare hands. There is a risk of injuries through sharp edged or pointed chips!



### NOTE!

Oil, grease and cleaning agent are harmful to the environment and must not be allowed to enter the groundwater, or disposed of as normal domestic waste. Dispose of these agents in an environmentally friendly manner. Cleaning cloths soaked in oil, grease or cleaning agent are highly flammable. Collect cleaning cloths or cleaning wool in a suitable, closed container and dispose of them in an environmentally responsible manner - not as domestic waste!

## 9.2 Care after finishing work

Always keep the wood band saw clean.



### Wear protective gloves!



### NOTE!

Never use aggressive cleaning agents for cleaning work. This may cause damage or destroy the machine.

Step 1: Unplug the mains connector from the safety socket.

Step 2: Brush or wipe off all open machine parts with a brush or cloth at regular intervals.

Step 3: Clean all painted surfaces with a soft, damp cloth.

Step 4: Treat bare metal work surfaces with anti-corrosive spray.

Step 5: Grease all bearings once a month.

## 9.3 Maintenance and repairs

Maintenance and repairs must be carried out by specialist staff only. If the wood band saw is not operating correctly, contact a specialist retailer or our customer service. The contact details are listed in "Customer service" on page 3. All protective and safety equipment must be immediately reinstalled after having completed repair and maintenance work.

## 10 Troubleshooting

Malfunction	Possible causes	Elimination
The engine does not start up	1. No mains power 2. Connecting cable is defective 3. Fuse is defective	1. Connect the device to the power supply 2. Call in a qualified electrician to check the power supply. 3. Replace the fuse.
Saw blades keep breaking	1. Incorrect saw band tension 2. Excessive load 3. Wrong saw band 4. Saw band twisted	1. Correct the saw band tension 2. Reduce the feed speed 3. Use narrow blades for thin material, wider blades for thicker material. 4. Do not exert any lateral force on the saw band.
Vibrations (vibrations are a technical factor and cannot be completely prevented)	1. Band saw not correctly anchored 2. Unsuitable anchoring surface 3. Saw table not fixed, or resting on the motor 4. Motor mount screw loose	1. See installation instructions. 2. Anchor on a stable base 3. Tighten the table arresting button, check the table position. 4. Tighten screws.
Saw band running out of the cutting line	1. Band guide not correctly adjusted	1. Re-adjust the band guide.

## 11 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.

### 11.1 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.

### 11.2 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.

### 11.3 Disposing of lubricants

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

## 12 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.



#### Tips and recommendations

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

### 12.1 Spare parts orders

Spare parts are available from authorised retailers or directly from the manufacturer. The contact details have been listed in section 1.2 Customer service.

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

You need to order the motor for the wood band saw. The motor is item number 82 in spare parts drawing 1.

- Machine type: **Wood band saw HBS 533**
- Article number: **5155303**
- Item number: 82

Your order number is: **0-5155303-1-82**

The order number is made up of the article number, spare parts drawing number, item number and a digit in front of the article number.

- Add a leading 0 in front of the article number.
- Also add a 0 in front of the item numbers 1 to 9.

## 12.2 Spare parts drawings

The following drawings of the HBS series are intended to identify the required spare parts in the event of service. When ordering, send a copy of the parts drawing including the highlighted components to your authorised retailer.

Spare parts drawing 1 (HBS 430 / HBS 431 / HBS 433 / HBS 533)

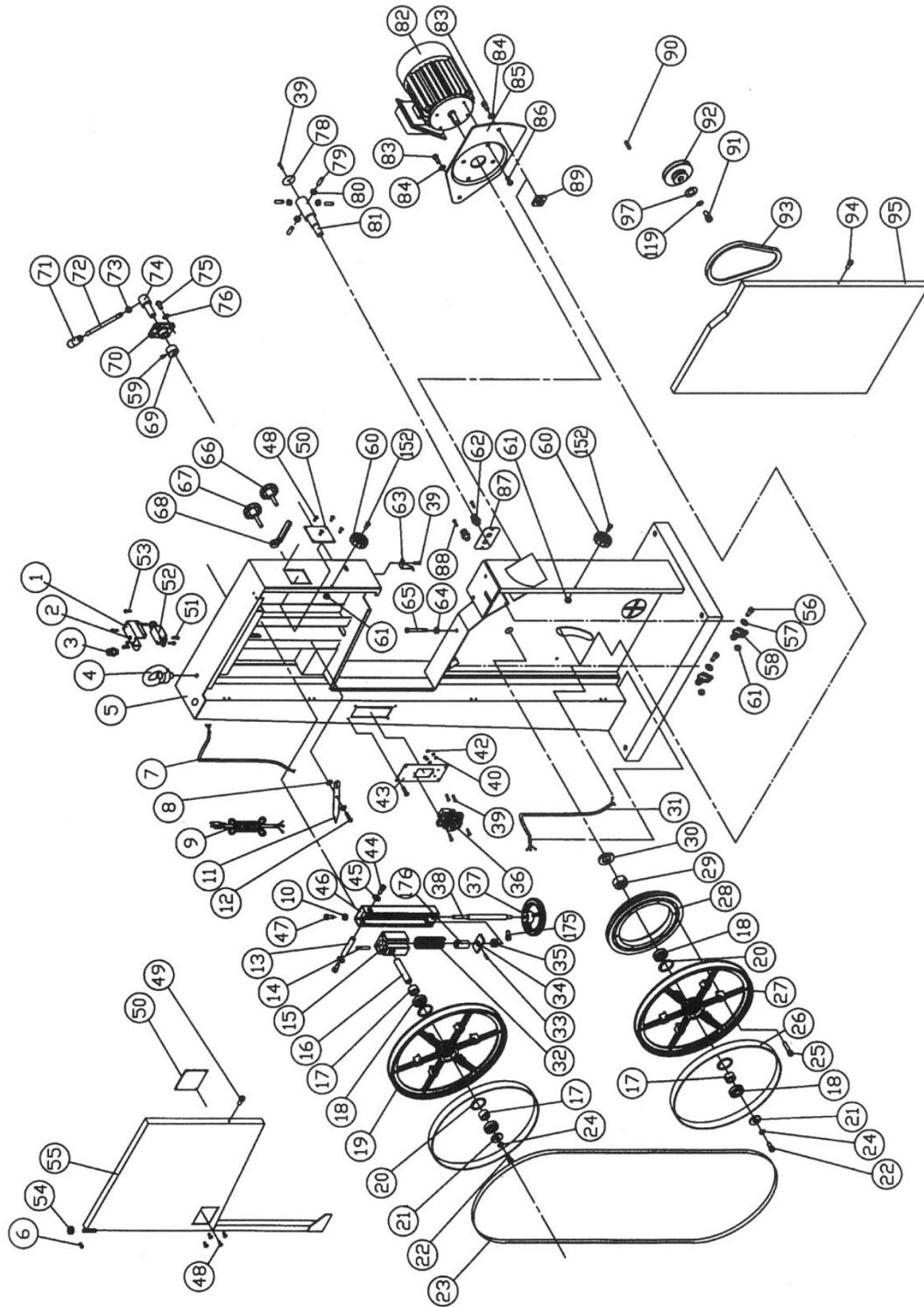


Fig. 9: Spare parts drawing HBS 430 / HBS 431 / HBS 433 / HBS 533

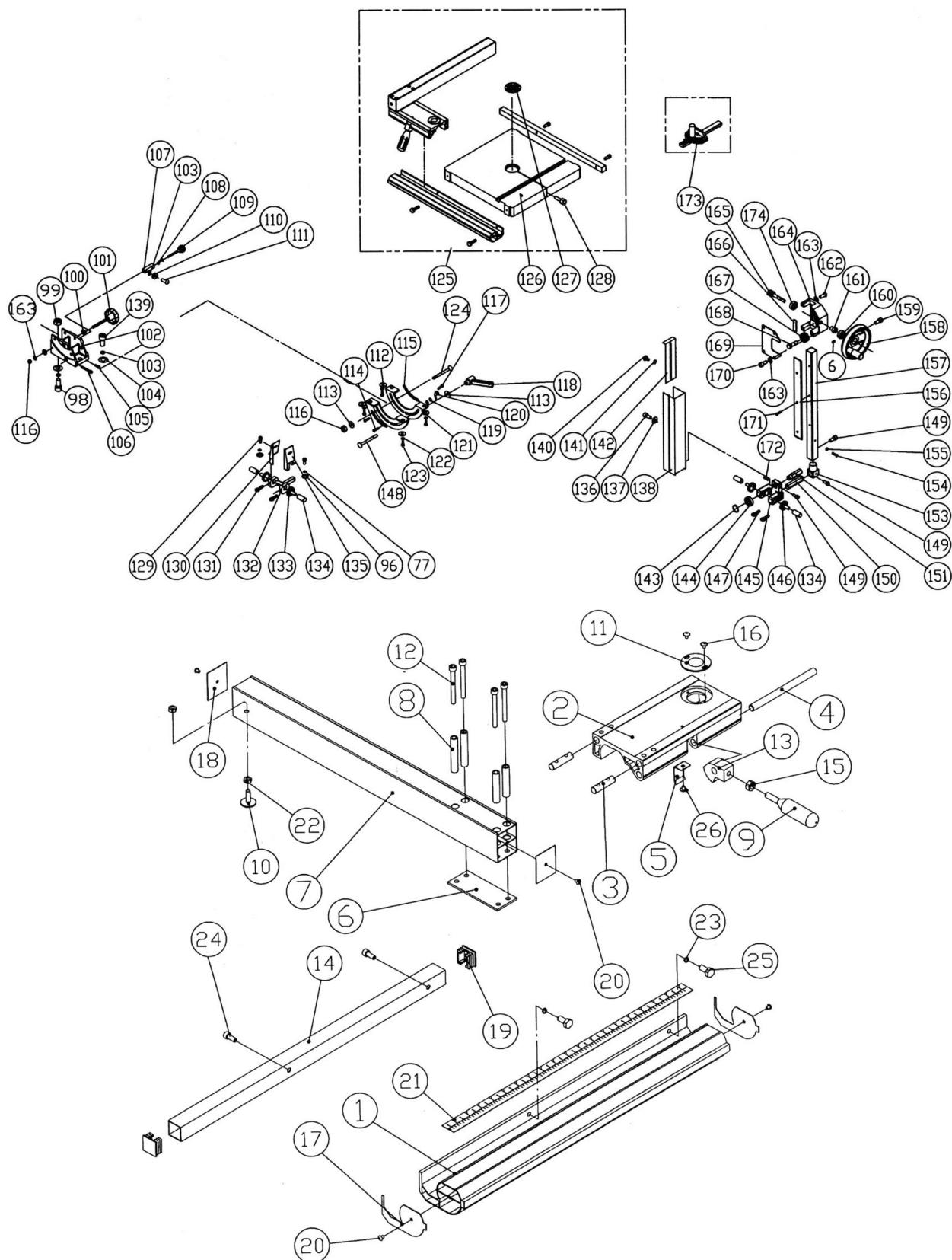


Fig. 10: Spare parts drawing HBS 430 / HBS 431 / HBS 433 / HBS 533

## 12.3 Spare parts drawing 2 (HBS 351)

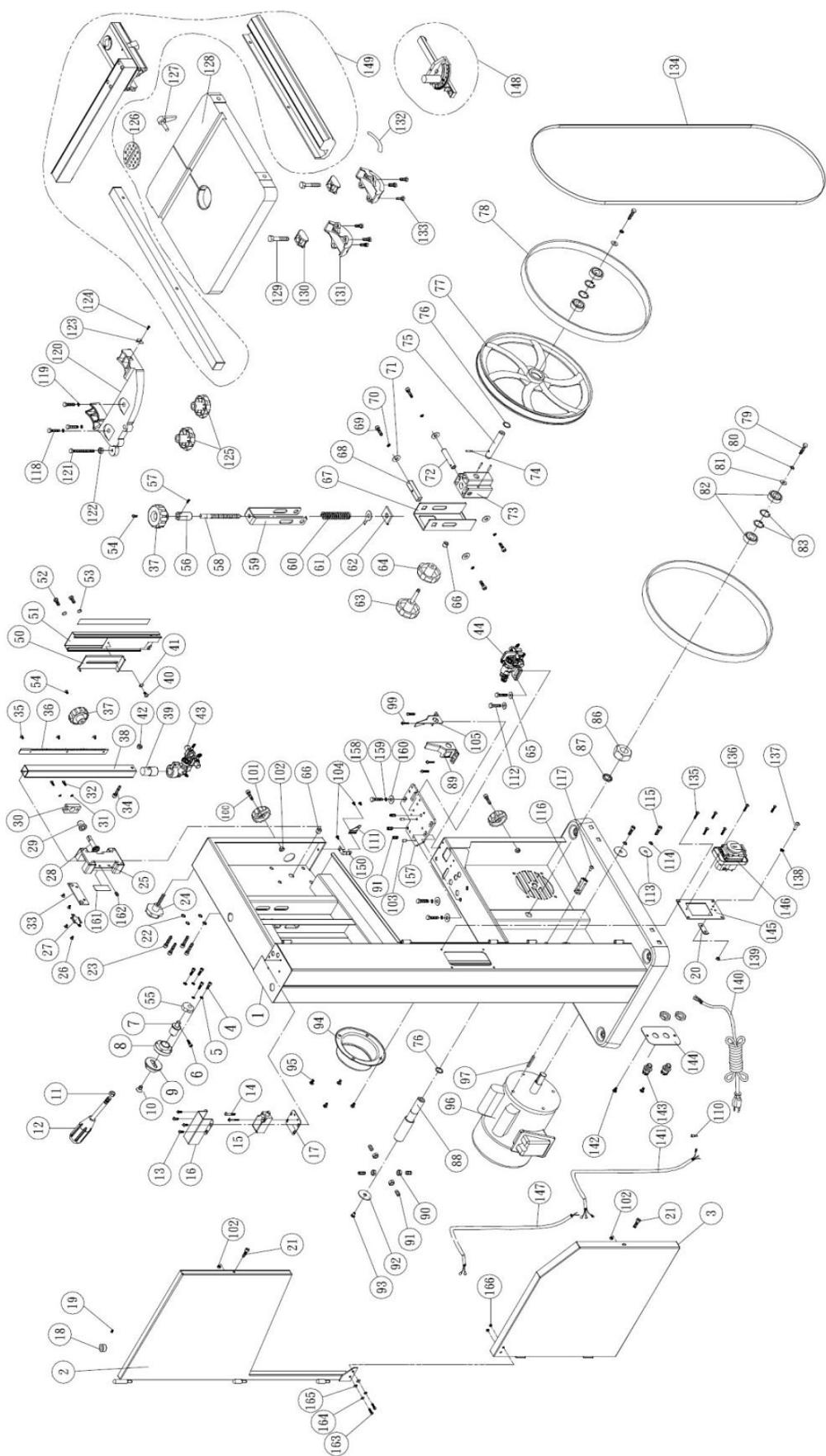


Fig. 11: Spare parts drawing HBS 351

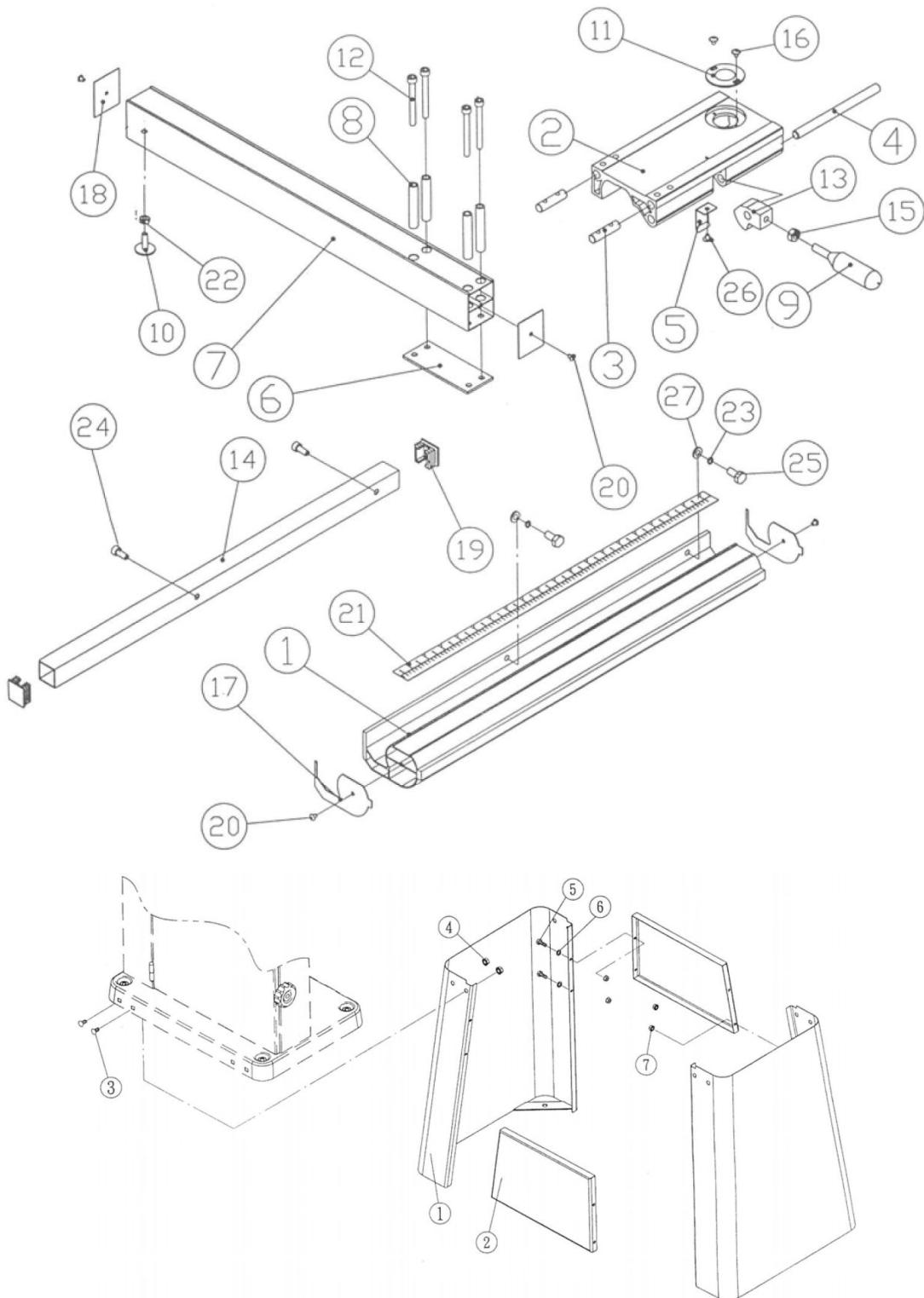


Fig. 12: Spare parts drawing HBS 351

## 13 Wiring diagram

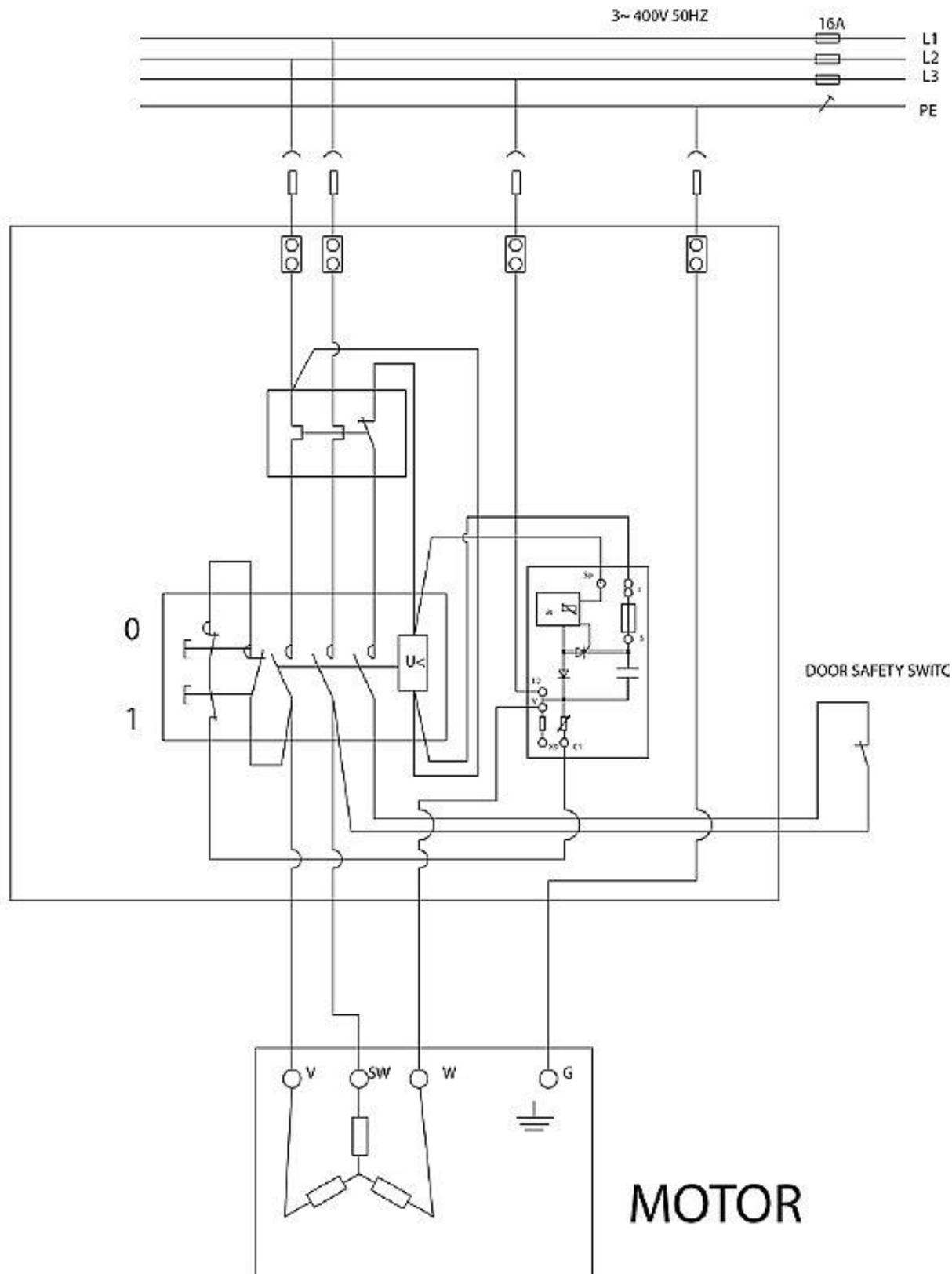


Fig. 13: Wiring diagram HBS series wood band saw

## 14 EU 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:** Holzkraft® woodworking machines  
**Machine designation:** HBS 351 / HBS 430 / HBS 431 / HBS 433 / HBS 533  
**Article number:** 5153501 / 5154300 / 5154301 / 5154303 / 5155303  
**Machine type:** Wood band saw  
**Serial number:** \_\_\_\_\_  
**Year of manufacture:** 20\_\_\_\_

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.

**Applicable EU directives:** 2014/35/EU Low Voltage Directive  
2014/30/EU EMC Directive

**The following, harmonised standards have been applied:**

DIN EN ISO 12100-1:2010	Safety of machinery - general principles of design - Risk assessment and risks reduction
EN 60204-1:2006	Safety of machinery - Electrical equipment of machines – Part 1: General requirements
DIN EN 60745-1:2009+A11:2010	Hand-held motor-operated electric tools – Safety Part 1: General requirements

**Responsible for documentation:** Technology department, Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt

Hallstadt, 2.10.2014



Kilian Stürmer  
General Manager





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[www.holzkraft.de](http://www.holzkraft.de)

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