

Operating instructions

— Wood Lathe

— DB 900

— DB 1100



DB 900



DB 1100

DB - SERIES

Imprint

Product identification

Wood Lathe	Item number
DB 900	5920900
DB 1100	5921100

Manufacturer

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

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

Indications regarding the operating instructions

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Indications regarding the copyright

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1 Introduction

You have made a good choice by purchasing the HOLZSTAR wood lathe.

Read the operating instructions carefully before commissioning.

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

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

Furthermore, observe the local accident prevention regulations and general safety regulations for the area of application of the wood lathe

1.1 Copyright

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

Passing on as well as duplication of this document, utilization and communication of its contents are forbidden, as far as not expressly permitted. Violations will result in liability for damages. We register trademark, patent and design rights for the protection of our products, if this is possible in individual cases. We emphatically oppose any infringement of our intellectual property.

1.2 Customer service

Please contact your specialist retailer if you have any questions regarding your lathe 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 word indicates a potentially hazardous situation which, if not avoided, will result in death or serious injury.

CAUTION!

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.

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.



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 Obligations of the operating company

Of the operator

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

Obligations of the operating company

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

- The operator must inform himself about the applicable occupational health and safety regulations and determine additional hazards in a hazard assessment which are caused by the special working conditions at the place of use of the machine. These must be implemented in the form of operating instructions for the operation of the machine.
- During the entire period of use of the machine, the operator must check whether the operating instructions issued by him correspond to the current state of the rules and regulations and, if necessary, adapt them.
- The operator must clearly regulate and define the responsibilities for installation, operation, troubleshooting, maintenance and cleaning.
- The operator must ensure that all persons handling the machine have read and understood these instructions. In addition, he must train the personnel at regular intervals and inform them about the dangers.
- The operator must provide the personnel with the necessary protective equipment and instruct them to wear the required protective equipment in a binding manner.

Furthermore, the operator is responsible for ensuring that the machine is always in perfect technical condition. The following therefore applies:

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

2.3 Requirements to staff

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



WARNING!

Danger in case of insufficient qualification of the staff!

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

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

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

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

Operator

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

Qualified electrician

Due to their technical training, knowledge and experience as well as knowledge of the relevant standards and regulations, skilled electricians are able to carry out work on electrical systems and to recognize and avoid possible dangers independently.

Qualified personnel

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

Manufacturer

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

2.4 Personal protective equipment

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

The personal protective equipment is explained in the following paragraph:

Head protection

The industrial helmet protects the head against falling objects and knocks against stationary objects items.

Hearing protection

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

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.

Eye protection

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

2.5 Safety labels on the lathe

The following safety signs are applied on the lathe (Fig. 1), which need to be observed and followed.



Fig. 1: Mandatory signs: 1 Use eye protection | 2 Use ear protection | 3 Wear a dust mask
Safety markings: 4 Warning of dangerous electrical voltage | 5 Safety instructions

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 instructions



NOTE!

The instructions for use and maintenance must be read carefully before starting, using, servicing or otherwise modifying the machine. Handling and working with the machine is only permitted to persons who are thoroughly familiar with the handling and mode of operation of the machine.



ATTENTION!

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

- Before switching on the machine, check that the workpiece is correctly positioned!
- Never place your hands near rotating parts when working with the machine!
- Do not remove the sharp-edged chips by hand; use a hand brush or chip hook!
- Use the guards and secure them securely. Never work without guards and keep them functional. Check the functionality before starting work.
- Always keep the machine and its working environment clean. Ensure adequate lighting.
- Always secure your workpiece when working with suitable clamping devices. Ensure that there is sufficient contact surface.
- The machine must not be modified in its design and must not be used for purposes other than those intended by the manufacturer.
- Never work under the influence of concentration-disturbing diseases, overloading, drugs, alcohol or medication.
- Remove tool keys and other loose parts from the machine after assembly or repair before switching on.
- Observe all safety and danger instructions on the machine and keep it in a perfectly legible condition.
- Keep children and persons unfamiliar with the machine away from your working environment, machine and tools.
- The machine may only be used, equipped and maintained by persons who are familiar with it and have been informed of the dangers.
- Do not pull the mains cable around the plug to pull it out of the socket. Protect the cable from heat, oil and sharp edges.



ATTENTION!

Make sure that the main switch is in the "OFF" position when connecting the machine to the power supply in order to avoid unintentional switching on.

- Wear tight-fitting work clothing, safety glasses, safety shoes and hearing protection. Tie long hair together. Do not wear watches, bracelets, chains, rings or gloves (rotating parts!) when working.
- Immediately eliminate any faults that impair safety.
- Never leave the machine unattended in operation and remain with the machine until the tool has come to a complete standstill. Then pull out the mains plug to protect against unintentional switching on.
- Protect the machine from moisture (danger of short circuits!).
- Never use electric tools and machines in the vicinity of flammable liquids and gases (danger of explosion!).
- Before each use of the machine, make sure that no parts are damaged. Damaged parts must be replaced immediately to avoid sources of danger!
- Do not overload the machine! You will work better and safer in the specified power range. Use the correct tool! Make sure that the tools are not blunt or damaged.
- Only use original spare parts and accessories to avoid possible hazards and accident risks.

2.7 Safety instructions for the lathes

- The machine must always be operated by qualified personnel who are familiar with its operation and function.
- Always wear eye protection.
- Securely fasten the wood to be processed
- Do not work with cracked or faulty wood
- Use the lowest speed after clamping a new workpiece.
- Observe the warnings on the machine.
- The clamped material must not be too unbalanced to prevent ejection.
- Before switching on the motor, turn the clamped workpiece a few turns by hand to avoid collisions.
- Do not wear work gloves, as they can get caught on the workpiece.
- Wear a dust mask to protect yourself from wood dust.
- Prevent the tool from being hooked in during machining
- Place the tool on the support. Set the cutting edge of the tool to the center of the workpiece.
- Pay attention to the correct direction of rotation.
- Remove all loose snags before switching on the unit.
- Always ensure that the machine is used and handled safely.

2.8 Safety data sheet

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.

3 Intended Use

The lathe DB900 / DB1100 is intended exclusively for turning wood or wood-like materials. Intended use also includes compliance with all the information in these instructions.

3.1 Reasonably foreseeable Misapplication

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

Possible misapplications may include:

- Use of the lathe on materials other than wood (e.g. machining of metal, plastic).
- Simultaneous machining of several workpieces.
- Machining of workpieces that are too large or too heavy or that are not fixed or not fixed enough.
- Operating the machine without the functioning, intended safety devices.
- Installation of spare parts and use of accessories not approved by the manufacturer.
- Service work by untrained or unauthorized personnel.
- Maintenance work on an unsecured machine.
- Machining of several workpieces at the same time in one operation.
- Modifications to the machine or the use of modified tool systems..

Misuse of the lathe can lead to dangerous situations. Stürmer Maschinen GmbH does not accept any liability for constructive and technical modifications to the lathe. Claims of any kind for damage due to improper use are excluded.

3.2 Residual risks

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

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

4 Technical Data

Model	DB 900
Max. turning Ø	306 mm
Max. height	155 mm
Max. width	900 mm
Spindle head thread	M33 x 3.5
Morse cone	MK 2
Speeds	500 - 2000 min ⁻¹
Speed stages	Mechanical variable, 10 stages
Motor output	550 W
Electrical connection	230 V / 50 Hz
Dimensions L x W x H	1380 x 330 x 1175 mm
Weight	77 kg

Model	DB 1100
Max. turning Ø	358 mm
Max. height	185 mm
Max. width	1100 mm
Spindle head thread	M33 x 3.5
Morse cone	MK 2
Speeds	500 - 2000 min ⁻¹
Speed stages	Mechanical variable, 10 stages
Motor output	750 W
Electrical connection	230 V / 50 Hz
Dimensions L x W x H	1620 x 340 x 1215 mm
Weight	111 kg

4.1 Type plate



Fig. 2: Type plate DB 1100

5 Transport, packaging, storage

5.1 Delivery

After delivery, check the lathe for visible transport damage. If you discover any damage to the lathe, 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 disturbances as well as for sufficient strength and load capacity.

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

Careful planning of internal transport is therefore essential.

Transport with a forklift/lift truck:

For shipping, the device packed in a wooden box is delivered on a pallet so that it can be transported with a forklift truck or pallet truck.

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

Let the lathe cool down completely. Storage the thoroughly cleaned lathe in a dry, clean and frost-free environment.

Environmental temperature range: -25 °C to +55 °C.

6 Description of the device

6.1 Machine

Illustrations in these operating instructions may deviate from the original.

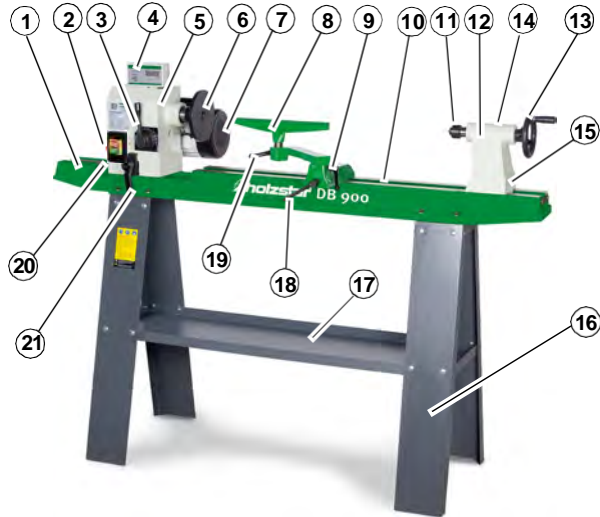


Fig. 3: Lathe DB 900

1. Bed extension
2. ON/OFF, EMERGENCY STOP switch
3. Speed adjustment lever
4. Digital display of speed
5. Spindle head
6. Face plate
7. Motor
8. Tool rest
9. Clamping lever, tool rest arm
10. Machine bed
11. Travelling centering point
12. Tailstock
13. Handwheel
14. Tailstock spindle clamp
15. Tailstock - clamping lever
16. Machine base frame
17. Tool rest
18. Clamping, tool rest
19. Clamping, height adjustment of the tool rest
20. Locking bolt
21. Clamping lever for spindle head

6.2 Scope of delivery

- Wood Lathe
- Base frame
- Face plate, diameter 15 cm
- Travelling tailstock centre
- Face driver

6.3 Accessories, not included



Fig. 4: Accessories

	Description	Item No.
1.	8-part turning tool set	5931011
2.	4-jaw chuck set 1 Ø 150 mm, M33x3.5	5931020
3.	4-jaw chuck set 1 Ø 100 mm, M33x3.5	5931021
4.	4-jaw chuck set 2 Ø 100 mm, M33x3.5	5931023
5.	Copy device for DB 1100	5931102
	Copy device for DB 900	5931101
6.	Fixed steady DB1100	5931030
	Fixed steady DB 900	5931050
7.	External turning device DB1100	5931052
8.	Carrier Set MK3. 3 pieces DB 900 and DB 1100	5931056

7 Installation and connection

7.1 Requirements for the place of installation

The Wood lathe must be placed securely on a level and firm surface. It must be ensured that there is sufficient freedom of movement for working. The installation site should meet the following criteria:

- The surface must be level, firm and free of vibrations.
- The substrate must not allow any lubricants to pass through.
- The installation or work area must be dry and well ventilated.
- No machines causing dust or chips should be operated near the machine.
- There must be sufficient space for the operating personnel, for material transport and for adjustment and maintenance work.
- The installation site must have adequate lighting (see workplace regulations and DIN EN 12464).

7.2 Setting up the lathe



CAUTION!

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



CAUTION!

Observe the weight of the machine!
The machine may only be set up by two persons together.
Check the appropriate aids for adequate dimensioning and load capacity.



ATTENTION!

In order to ensure sufficient stability of the machine, it should be bolted to the ground. For this purpose there are 4 holes at the bottom of the machine frame.

The lathe is supplied in a wooden box and is already largely assembled. Only a few parts have to be assembled after delivery.

8 Assembly



ATTENTION!

During assembly, the parts must first be loosely screwed together. When all parts are assembled, align the parts at right angles before tightening the screws.

8.1 Mount four-jaw chuck



Fig. 5: Lathe

- 1 Screw set
- 2 Thread mount, external clamping range 50-90 mm
- 3 Thread mount, internal clamping range 38-73 mm
- 4 Replaceable jaws

8.1.1 Mounting and securing the chuck to the wood lathe spindle

To mount the four-jaw chuck on the spindle of the wood-working machine, carefully screw the adapter and the chuck onto the spindle until it stops. Place the lever (A, Fig. 6) in the hole of the jaw chuck and the second lever in the spindle flange hole as shown in Fig. 6.

To secure the chuck, turn the two levers clockwise until the adapter face (B, Fig. 6) contacts the spindle flange (C, Fig. 6). To release the chuck, turn the levers counterclockwise. Opening and closing the clamping jaws (D, Fig. 6) also requires both levers (A, Fig. 6). Place one lever in the hole (E, Fig. 6) and the second lever in the chuck hole. To open the jaws, turn the two levers counterclockwise. To close the jaws, turn the levers clockwise.

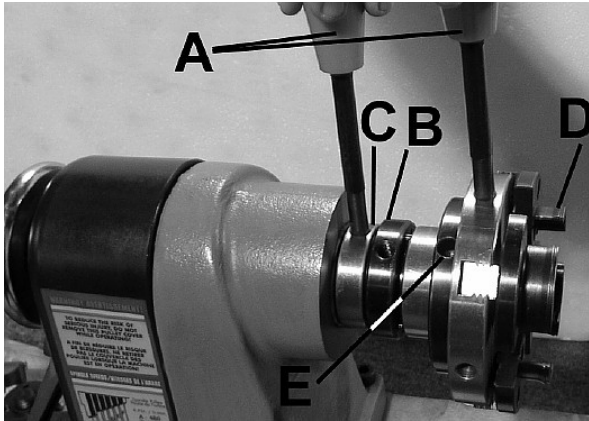


Fig. 6: Assembly of the jaw chuck

8.2 Changing the chuck jaws

To change the standard chuck jaws already mounted to the outer jaws, loosen the 2 cap screws (A, Fig. 7) which fix each jaw to its jaw base. Take the outer jaw with the limiting pin (B, Fig. 7) and position it either on jaw base 2 or 4 (C, Fig. 7). The limit pin (D, Fig. 7) engages in the slot (E, Fig. 7) in the chuck body. This prevents the positioning of the outer jaw on jaw base 2, so that the jaws do not protrude from the chuck. Check the jaw numbers against the jaw base numbers and secure the outer jaws with only 1 cap screw per jaw.

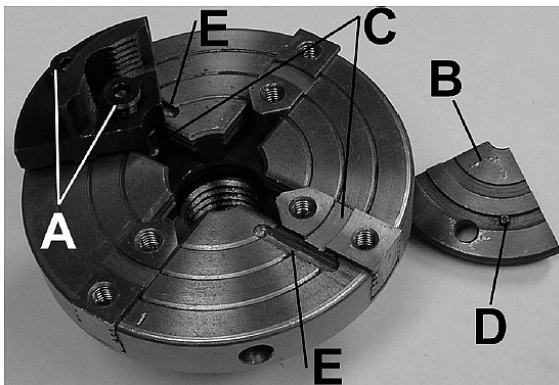


Fig. 7: Changing the chuck jaws

8.3 Clamping a workpiece in the chuck

To clamp a workpiece in the chuck, open the clamping jaws. Position the workpiece in the center so that the jaws are evenly distributed on the workpiece. Tighten the jaws enough to prevent the workpiece from slipping or twisting.

8.4 Removing the adapter

If necessary to remove the adapter, loosen and remove the 3 cap screws that secure it. Screw 2 of the cap screws into the 2 previously unused threaded holes in the adapter. These two cap screws lift the adapter by tightening the two screws one by one until the adapter slowly loosens.

8.5 Model DB 900

8.5.1 Assembly of the machine frame

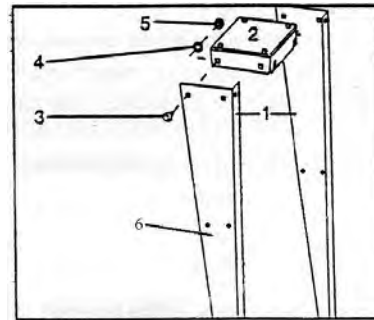


Fig. 8: Assembly of the machine frame

The machine frame is prepared for operation with the following steps:

Step 1: Screw the frame feet (Pos. 1, Fig. 8) to the bracket (Pos. 2, Fig. 8) using 3 M8x12 round head screws (Pos. 3, Fig. 8) and the corresponding washers (Pos. 4, Fig. 8) and nuts (Pos. 5, Fig. 8).

Step 2: Attach the tool rest to the intended position (Pos. 6, Fig. 8) with a total of 8 M8x12 round head screws, washers and nuts.

8.5.2 Assembly of the machine bed

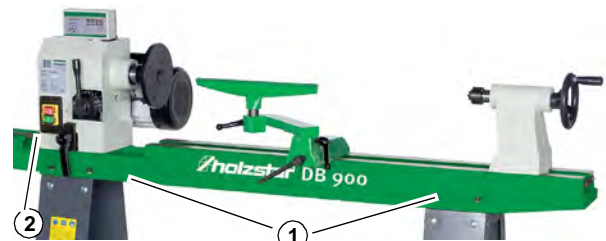


Fig. 9: Assembly of the machine bed

Place the machine frame on a level work surface.

Lift the machine onto the machine frame with the aid of a second person. Fasten it with 8 M8x35 hexagon socket screws (Pos. 1, Fig. 9). Place a spring washer under each nut. The machine bed extension (Pos. 2, Fig. 9) must also be mounted. Tighten it with two hexagon socket screws M10x25 and spring washers.

8.5.3 Mounting of spindle head

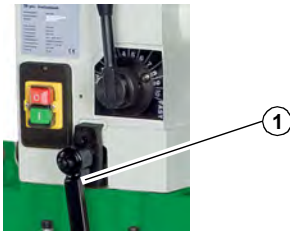


Fig. 10: Mounting of spindle head

Fix the spindle clamping lever (Pos.1, Fig.10) of the DB 900 in the following order: clamping handle, compression spring and screw.

8.6 Model DB 1100

8.6.1 Assembly of the machine base

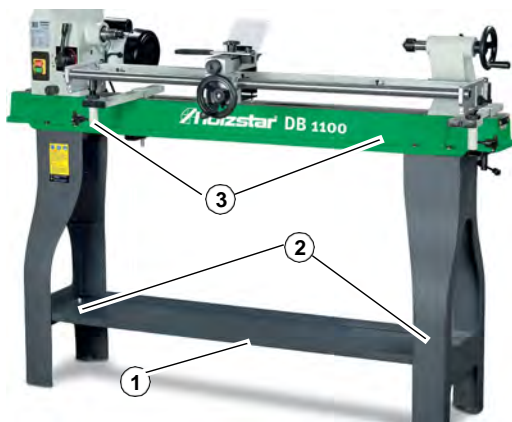


Fig. 11: Assembly of the machine bases

Attach the support plate (Pos.1, Fig 11) as shown in the illustration. This requires the 4 hexagonal bolts, washers and nuts supplied (Pos. 2, Fig. 11).

8.6.2 Assembly of the machine bed

Place the machine base on a level work surface. Lift the machine onto the machine frame with the aid of a second person. Attach it with 8 hexagon socket screws M 8x35 (Pos.3, Fig. 11). Place a spring washer under each nut.

8.6.3 Mounting of spindle head

On the DB 1100, the clamping lever (Pos. 1, Fig. 12) must be screwed into the back of the spindle head.



Fig. 12: Mounting of spindle head

8.7 Electrical connection



DANGER!

Risk of death 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.

Step 1: Insert the power plug into a 230 V socket.

Step 2: The machine is now ready for operation.

9 Operation



NOTE ON LUBRICATION!

All moving parts must be lubricated before commissioning. The belt cover must be removed to lubricate the selector and drive shafts. Only an adhesive grease may be used here, otherwise it can lead to malfunctions!

In addition, guides, quills and bearings must be lubricated with commercially available grease.



WARNING!

Danger to life!

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

- The lathe may only be operated by an instructed and experienced 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.
- The lathe may only be operated by one person. Other persons must stay away from the work area during operation.



DANGER!

Risk of death 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.



CAUTION!

Danger of crushing!

Improper work on the machine may result in injury to the upper limbs



ATTENTION!

Before starting up, check the electrical connection, cables and contacts.



Use hearing protection!



Wear safety boots!



Wear protective clothes!



Use eye protection!

9.1 Speed adjustment

Change the speed only when the motor is running!

To change the speed, the setting lever must be tightened slightly to release it from its locked position. The desired speed can be read on the digital display. Make sure that the setting lever clicks into place again after adjustment.

The speed depends on the following factors:

- Type and nature of woods
- Glued woods
- Dimensions, such as diameter and length of the workpiece
- Workpieces with large unbalance
- Dry or seasoned woods
- Lathing tools
- Lathe technology

Select a low speed for:

- Large diameter workpieces
- Glued workpieces
- Long workpieces
- Unbalanced workpieces
- Hard workpieces

9.2 Handling the clamping tools

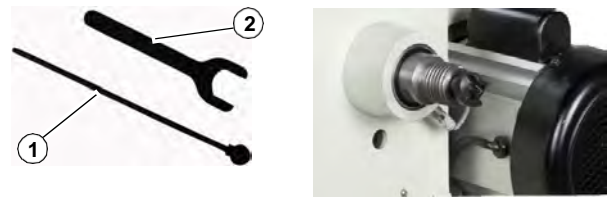


Fig. 13: Handling the clamping tools

Mounting the face plate

Screw the face plate hand-tight onto the main spindle. Insert the rod (Pos.1, Fig. 13) into the compatible hole in the faceplate and hold the main spindle in place using the open-end wrench (Pos. 2, Fig. 13). Tighten the face plate firmly to avoid loosening during operation.

Replacement of the face driver

Insert the face drivers manually into the main spindle. To loosen it again, insert the rod (Pos. 1, Fig. 12) at the back of the main spindle and carefully knock out the face driver. Hold it firmly to prevent it from falling down and getting damaged.

Use the face driver only for work "between lace".

Replacing the travelling tailstock centre



Fig. 14: Replacing the travelling tailstock centre

Release the clamping lever for the spindle clamping (Pos. 1, Fig. 14). Turn the spindle on the handwheel (Pos. 2, Fig. 14) completely backwards to remove the tailstock centre (Pos. 3, Fig. 14).

9.3 Adjustment of the spindle head

Release the spindle head clamp and pull the locking bolt. Swivel the spindle head to the desired angle. The possible locking positions are 60°, 90°, 120° and 180°. As soon as the spindle head is in the correct position, it must be clamped again.



ATTENTION!

Do not turn the spindle head more than 180° clockwise. Damage to the power cable may result.

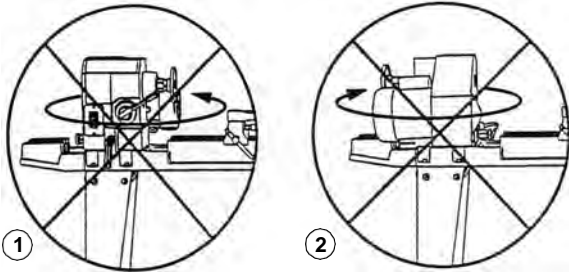


Fig. 15: Adjustment of the spindle head

Step 1: Do not turn the spindle head counterclockwise when it is in this position (Pos. 1, Fig.15).

Step 2: Do not turn the spindle head clockwise when it is in this position (Pos. 2, Fig.15).

With the lathe DB 1100, you also have the option of moving the spindle head on the machine bed after releasing the spindle head clamp (Figure 16).



Fig. 16: Move the spindle head.

9.4 Adjustment of the tailstock



Fig. 17: Adjustment of the tailstock

After releasing the tailstock clamping lever (Pos. 1, Fig. 17), the tailstock can be moved on the machine bed as required.

To clamp a long workpiece between centres, clamp the tailstock to the clamping lever (pos. 1, Fig. 17). Turn the tailstock spindle on the handwheel out until the travelling centering point is pressed sufficiently deep into the workpiece to be machined. This should protrude approx. 20 mm from the tailstock. Clamp the spindle to the lever (Pos. 3, Fig. 17). Check by hand whether the workpiece is firmly seated.



NOTE!

Adjust the lace from time to time during machining to

9.5 Adjusting the tool rest



Fig. 18: Adjusting the tool rest

Use the tool rest for safe guidance of the lathe tool and as a support for the hand. A distance of approx. 1-3 mm must be set between the workpiece and the tool rest. Adjust the tool rest approx. 3 mm below the axis of rotation.

Thinner workpieces can also be worked without an extension arm (Pos.1, Fig.18). Insert the tool rest (Pos.2, Fig.18) directly into the traverse slide (Pos.3, Fig. 18).

By releasing the clamping lever (Pos.4, Fig.18), the travel carriage can be moved on the machine bed as required.

When machining larger workpieces, the tool rest with extension arm must be mounted to the left of the headstock (Figure 19).



Fig. 19: Tool rest mounted left

Finally tighten all clamping levers.

Turn the workpiece several times by hand to check the settings and avoid collisions.

Work instruction



NOTE!

For an optimal lathe turning result, perfect and sharply ground tools must be used.

Choice of materials

Defective wood tends to splinter and becomes a risk for user and machine.

Work pieces made of glued wood should only be processed by an experienced craftsman. Turning these woods requires careful gluing without weak points, as the workpiece can explode due to the centrifugal force generated.

The user should master the basic knowledge of turning with solid material.

Material preparation

For turning of the *log wood*, the material must first be cut to a square shape.

For turning *crosswise wood*, the material must also be cut raw. You can, for example, saw out the crossbar raw with a band saw. An octagonal shape is suitable to avoid vibrations.

Center workpiece

The centering of the prepared workpieces is an important operation before they are inserted into the machine. Centering means measuring the center of the workpiece, marking it with center punches and making a recess of 1.5 to 2 mm in diameter in the center. If the workpiece is not centered exactly, the unbalance will cause excessive vibrations. This can result in the workpiece being ejected. A clean concentric run can only be achieved by exact centering of the workpiece.

During turning

The unmachined part must be machined at low speed. After pre-turning, i.e. when the basic shape of the workpiece has been achieved and uniform concentricity has been achieved, the speed can be increased. The rotating center of the center punch must be readjusted by means of the handwheel when the motor is switched off. The centre point of the grain must sit firmly in the wood. Turn the workpiece by hand to check the tight fit between the tips.

Technical literature

The specialized trade offers literature about turning. It is a great help for beginners and experts and also contains many suggestions for processing.

10 Care, maintenance and repair



DANGER!

Risk of death 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 by cleaning



Use protective gloves!



NOTE!

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

Step 1: Disconnect the mains plug from the socket.

Step 2: Remove chips and dust from the machine with a hand brush or brush.

Step 3: Check the machine for damage to the safety devices. If necessary, carry out or arrange for the repair to be carried out in accordance with the safety instructions.



ATTENTION!

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

10.2 Maintenance

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

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

Please consider the following points:

1. All protective and safety devices must be reinstalled immediately after completion of repair and maintenance work.
2. Clean the spindle thread for the tool holder when changing tools and oil it lightly.

3. Occasionally unscrew the tailstock spindle, clean it and spray it with dry lubricant. Grease the threaded spindle.
4. Check the clamping of the tailstock and tool rest and readjust if necessary.
5. Check drive belt and replace if necessary. The check should be carried out after approx. 100 operating hours.

10.3 Servicing

As a result of wear and tear, servicing work may have to be carried out on the machine.



ATTENTION!

Servicing work may only be carried out by qualified personnel with mechanical knowledge.

Lubrication



NOTE!

During the maintenance of the lathe, all moving parts must be lubricated at least once a month. If required, the parts can be lubricated at shorter intervals

The belt cover must be removed to lubricate the shift and drive shafts. Only an adhesive grease may be used for this, as it can otherwise lead to malfunctions of the belt!

Guides, quills and bearings must be lubricated with commercially available grease!

The points to be lubricated are shown in Figure 20.

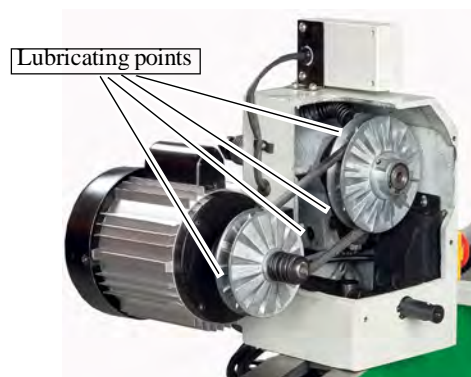


Fig. 20: Lubricating points

11 Troubleshooting

Fault	Possible cause	Solution
Motor does not start	No mains voltage.	Check mains fuse.
	Switch, capacitor are defective.	Have checked by a qualified electrician.
	Electrical extension conductor is defective.	Pull the mains plug, check and replace if necessary.
Holes become larger than the drill used.	Spindle head and tailstock are not parallel.	Adjust spindle head to tailstock tip. To do this, insert the face driver and the moving tailstock tip. Push the tailstock forward and align with the points.
The workpiece is fluttering	Workpiece loosens during work.	Observe the working instructions in the operating instructions.
	No centering.	Observe chapter "Working instructions" in the operating instructions.
	Speed too high.	Select a lower speed.
The tool rest or the tailstock can no longer be clamped..	The eccentric clamp is too loose.	Tighten the hexagon nuts on the underside. This only has to be in contact and not tightened.

Fault	Possible cause	Solution
Strong vibrations.	Workpiece deformed, un-round, has large weak points/cracks or has not been prepared for turning.	Prepare the workpiece for turning by planing and sawing.
	Spindle bearing is worn.	Replace the spindle bearing.
	Belt is worn.	Replace the belt
	Motor mounting or handle are loose.	Tighten screws and handle.
	The lathe stands on an uneven surface.	Place the lathe on a flat surface and align it.
The workpiece surface is too rough.	The turning iron is out of focus.	Resharpen the turning iron.
	Turning iron spring	Clamp the lathe tool shorter.
Motor overheats and has no power	Motor overloaded.	Reduce feed.
	Mains voltage is too low	Switch off and have it checked by a specialist.
	Motor is connected incorrectly.	Have it checked by a specialist.
Insufficient working accuracy	Uneven, heavy or clamped workpiece.	Clamp workpiece mass-balanced and tension-free.
	Incorrect horizontal position of the tool rest.	Adjust the tool rest.

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.

12.4 Disposal via municipal collection points

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



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

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 handwheel for the Wood Lathe DB 900 must be ordered. The handwheel has the number 49 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (handwheel) and marked position number (49) to the dealer or spare parts department and provide the following information:

- Type of device: **Wood Lathe DB 900**
- Item number: **5920900**
- Drawing number: **1**
- Position number: **49**

13.2 Spare parts drawing DB 900

The following spare parts drawings is 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.

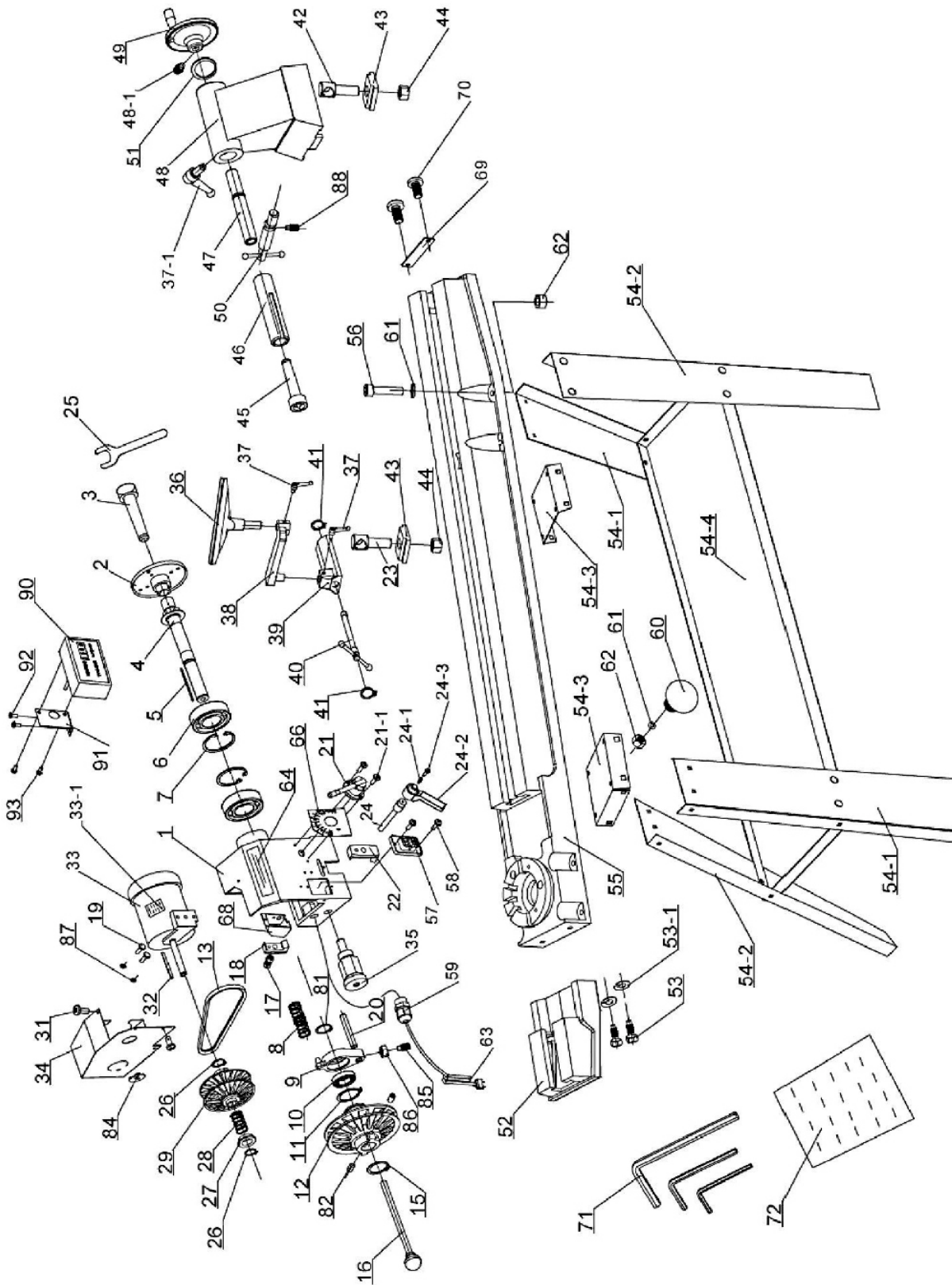


Fig. 21: Spare parts drawing DB 900

13.3 Spare parts drawing DB 1100

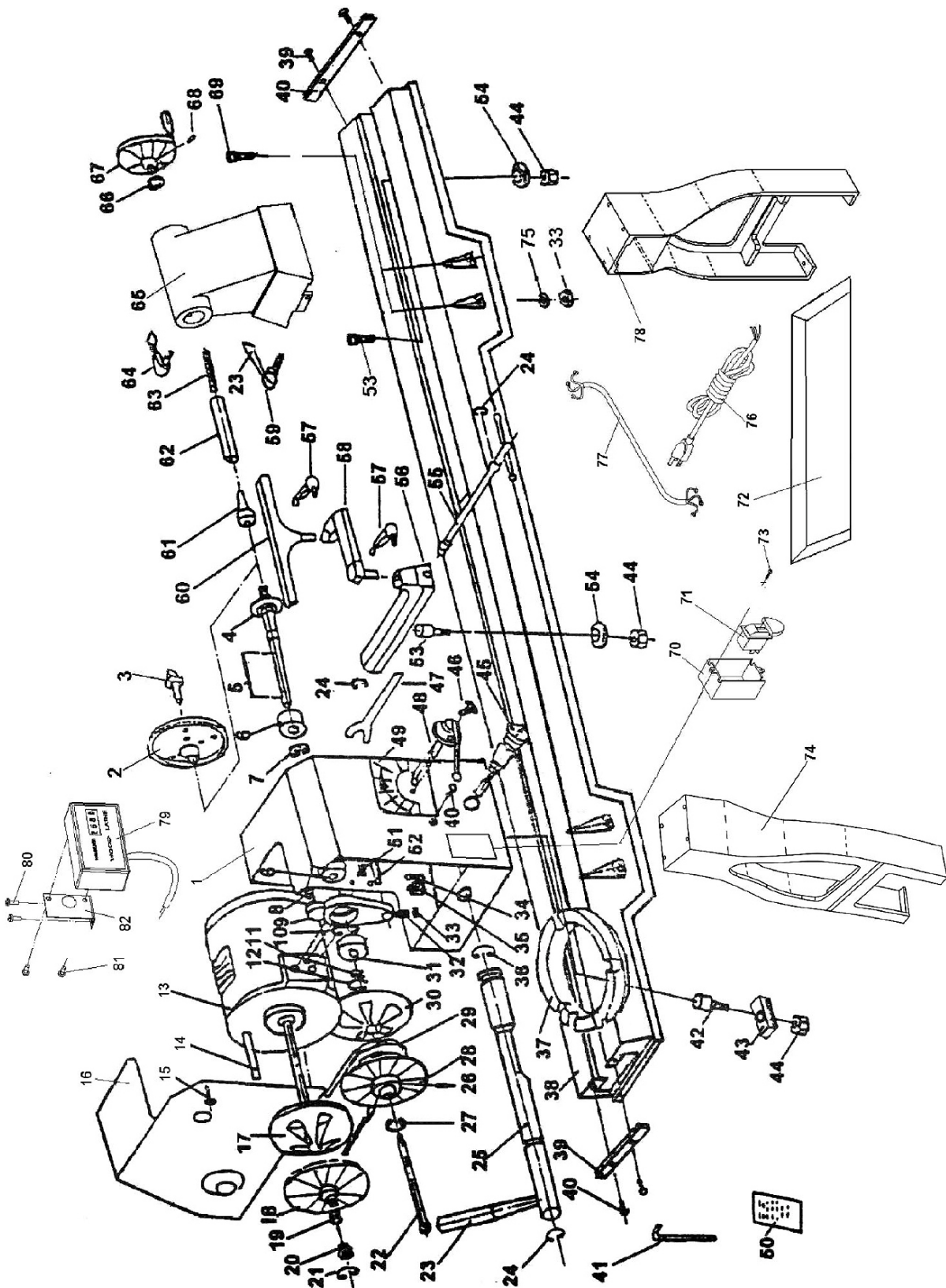


Fig. 22: Spare parts drawing DB 1100

14 Electrical circuit diagram

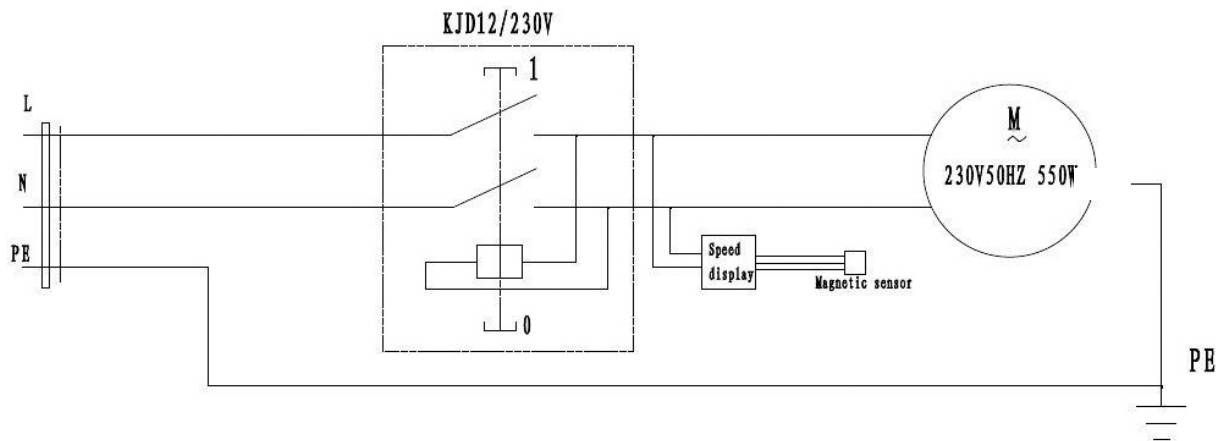


Fig. 23: Electrical circuit diagram EC Declaration of Conformity

15 EC-Declaration of Conformity

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

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

hereby declares that the following product

Product group: Holzstar® Holzbearbeitungsmaschinen
Machine type: Wood Lathe
Description of the machine*: DB 900 **Item number *:** 5920900
 DB 1100 5921100
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
 2012/19/EU WEEE-Directive

The following harmonized standards have been applied:

DIN EN ISO 12100:2011-03 Safety of machinery. General principles for design.
 Risk assessment and risk reduction
 DIN EN 60204-1:2019-06 Safety of machinery - Electrical equipment of machines -
 Part 1: General requirements

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

Hallstadt, 21.03.2021



Kilian Stürmer
 Manager



16 Notes

