

Instruction Manual

Planer-Thicknesser

_____ ADH 2540 230 V

_____ ADH 2540 400 V

_____ ADH 3050 230 V

_____ ADH 3050 400 V



ADH 3050 / 230 V

ADH-SERIES

Imprint

Product identification

Planer-Thicknesser	Item number
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ADH 2540 400 V	5904126
ADH 3050 230 V	5904130
ADH 3050 400 V	5904131

Manufacturer

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

Fax: 0049 (0) 951 96555 - 55
 E-Mail: info@holzstar.de
 Internet: www.holzstar.de

Indication regarding the operating instructions

Original instructions

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Indication regarding the copyright

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Subject to technical modifications and error.

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1 Introduction

You have made an excellent choice in purchasing a HOLZSTAR Planer-Thicknesser.

Carefully read the operating instructions prior to commissioning.

They describe correct commissioning, intended use and safe as well as efficient operation and maintenance of the Planer-Thicknesser.

The operating instructions form part of the Planer-Thicknesser. Always keep them at the Planer-Thicknesser's location of use. Please also observe the local accident prevention regulations and general safety regulations for the use of the Planer-Thicknesser.

1.1 Copyright

The contents of these operating instructions are protected by copyright. Their use is permitted within the context of using the Planer-Thicknesser. Any further use shall not be permitted without written consent by the manufacturer.

To protect our products, we register our rights to our brands, patents and designs where possible in each individual case. We take strong action against any violation of our intellectual property.

1.2 Customer service

Please contact your specialist retailer if you have any questions regarding your Planer-Thicknesser 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: 0951 96555-111
E-Mail: service@stuermer-maschinen.de
Internet: www.holzstar.de

Spare parts orders:

Fax: 0951 96555-119
E-Mail: 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 this operation manual 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:

- Failure to comply with the operation manual,
- 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 individual sections contain additional, task-specific safety information.

2.1 Legend of symbols

Safety instructions

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



WARNING!

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



DANGER!

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



CAUTION!

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



ATTENTION!

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



NOTE!

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

Tips and recommendations



Tips and recommendations

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

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

2.2 Operator responsibility

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

Obligations of the operator:

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

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

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

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

2.3 Operating staff qualification

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



WARNING!

Risk from inadequately qualified persons!

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

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

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

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

Operating staff:

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

Qualified electrician:

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

Specialist staff:

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


Manufacturer:


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


2.4 Personal protective equipment

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


The personal protective equipment is described in the following section:


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

 **Hearing and head protection**
Hearing protection protects against hearing damage caused by noise. The industrial helmet protects the head against falling objects and bumping into stationary objects.

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

 **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.

2.5 Safety labels on the Planer-Thick-nesser

The following safety labels and instructions are attached to the Planer-Thicknesser s (Fig. 1) and must be observed.



Fig. 1: Safety labels

The safety markings affixed to the machine must not be removed. Damaged or missing safety markings can lead to incorrect handling, personal injury and damage to property. If the safety markings are not visible and understandable at first sight, the machine must be taken out of operation until new safety markings have been applied.

2.6 Safety data sheets

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

2.7 Safety devices

Kickback protection

The kick-back guard prevents the workpiece from kicking back against the operator when the cutter head is rotating; it must not be damaged.

Safety switch swarf extraction hood

The chip suction hood safety switch is located under the dressing table. As long as the switch has no contact with the dressing table, the switch prevents the motor from starting.

Bridge protection of the planer shaft

The bridge guard is used to cover the planer shaft during dressing. When the machine is stored, the planer shaft must be completely covered by the bridge guard.



Fig. 2: Bridge protection of the planer shaft

Motor circuit breaker 230 V models

The motor is equipped with a thermal protection which automatically switches off in case of overload. After the motor has cooled down, the machine can be started again by switching on the main switch.

To reset the thermal protector, press the switch Figure 3.

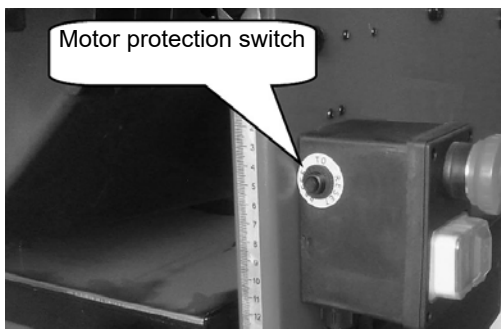


Fig. 3: Motor protection switch

2.8 General Safety Instructions

Pass on these safety instructions to all persons working on the machine. The instructions must be read by every operator before starting work. This applies in particular to persons who do not regularly work on the machine, e.g. during preparation, adjustment or maintenance work.

- The machine may only be put into operation and operated by persons who are familiar with the machine and are aware of the dangers involved in handling the machine. Keep visitors, unauthorised persons and above all children away from the machine.
- Ensure that the safety and warning notices attached to the machine are always complete and clearly legible.
- Check all power supply lines.
- Do not use defective cables.
- When working on the machine, all safety devices and covers must be fitted and functional.
- Persons under 16 years of age may only use the machine as part of a vocational training course and under the supervision of a trainer.
- Always disconnect the machine from the electrical power supply when carrying out inspection, cleaning or maintenance work.
- Do not wear loose clothing or jewellery, they can get caught in moving parts.
- Wear a hair net to protect long hair. Use safety goggles and hearing protection and a dust mask to be protected from toxic wood dust.
- Do not wear gloves when working on the machine!
- In case of tiredness, lack of concentration or under the influence of medication, alcohol or drugs, working on the machine is prohibited!
- Only use the machine in accordance with the instructions and the purpose for which it was designed.
- The working area on the machine must be free of chips and wood debris. Disorder can cause accidents.
- Make sure that the machine and the working area are adequately lit.
- Ensure that the machine is placed in a stable position on solid ground. During operation, the machine should be secured to the ground with bolts.
- There is a risk of injury to fingers and hands from the rotating cutting tool.
- Do not overload the machine, use it only in the performance range specified in the Technical Data section of the operating manual.
- Store the machine in a safe place so that nobody can be injured or the machine can be switched on. Ensure that the machine is not stored unprotected outdoors or in a damp environment.
- When leaving the workplace or when not using the machine, switch off the motor and pull out the mains plug!
- Check the machine before every use for defective switches, plugs, electrical cables and defective or missing safety devices. Only switch on the machine when all parts are in perfect condition.

- The safety devices on the machine must not be removed or rendered unusable. Cleaning, changing, calibrating and adjusting the machine may only be carried out with the engine switched off. Unplug the machine and wait until the rotating tool has come to a complete stop.
- Connection of the machine and repairs to the electrical equipment may only be carried out by a qualified electrician.
- The machine must be grounded safely.
- Only use well-sharpened planing knives for better and safer work.
- Keep the cable away from heat, oil and sharp edges.
- Keep the handles dry, clean and free from oil and grease.
- Do not use the machine in places where there is a risk of fire or explosion.
- When working outdoors, use only the correctly marked and approved extension cable.
- Protect the machine from rain and moisture.
- Remove all setting tools before switching on the machine.
- Inspect all workpieces for foreign objects such as nails and screws before operation.
- When handling heavy or bulky workpieces, use suitable supports, e.g. roller blocks (optional equipment).
- Use a sliding block or a sliding log when dressing small workpieces.
- Use additional supports such as a horizontal clamping device when planing narrow workpieces.
- Always adjust the surface/thickness planer protection to the width of the workpiece. The unused part of the cutter block must be covered.
- Regularly check that the planing/thicknessing knives are firmly mounted on the cutter head. The knives must not protrude more than 1 mm + 10 % over the cutter head.
- The machine must not be used for rebating and dovetailing.
- Regularly check the function of the non-return device and the clearance of the cutter head.
- Before carrying out repair work, switch off the machine and pull out the mains plug.
- Wear gloves when changing planing knives.
- Do not use planing knives that have cracks or that have changed shape.
- After completion of the repair or maintenance work, all safety devices and safety equipment must be reattached immediately.
- Only use original accessories and spare parts from HOLZSTAR.

3 Intended use

The Planer-Thicknesser ADH 2540 or 3050 is used for planing and thicknessing boards and strips of wood. The processing of solid wood, chipboards, panels and profiles is possible. The tools and accessories offered are exclusively designed for the processing of wood. A suitable extraction system for the operation of the planer-thicknesser must be connected.

The Planer-Thicknesser is suitable for private use and not for industrial use.

Proper use also includes compliance with all the information in these instructions. Any use beyond the intended use or any other use is considered misuse.

Stürmer Maschinen GmbH accepts no liability for design and technical modifications to the Planer-Thicknesser. Claims of any kind for damage due to improper use are excluded.

3.1 Predictable misuse

Misuse of the planner thicknesser can lead to dangerous situations.

- Simultaneous dressing or thickness planing of several workpieces.
- Machining of too large or heavy workpieces or workpieces that are not or not sufficiently fixed.
- Machining of impermissible materials such as metals or plastics.
- Operating the machine without the protective devices provided.
- Bypassing or changing the protective devices.
- Installation of spare parts and use of accessories not approved by the manufacturer.
- Maintenance work on an unsecured machine.

3.2 Residual risks

The machine has been built with modern technology in accordance with recognised safety regulations. Nevertheless, some residual dangers may still exist.

- The rotating planer shaft can cause injuries to fingers and hands if the workpiece is fed at the wrong feed rate.
- Ejected workpieces can cause injury if the workpiece is not properly secured or fed, for example, when working without a fence.
- Wood shavings and sawdust can be hazardous to health. Make sure that you wear personal protective equipment such as safety goggles and dust mask. Use an extraction system.

- Injuries due to defective planing knives. Check the planing knives regularly to ensure that they are in perfect condition.
- Risk of injury to fingers and hands when changing planing knives. Wear suitable gloves.
- Risk of hearing damage due to noise exposure when working on the machine. Wear suitable hearing protection.
- Danger to health from long hair and loose clothing. Wear personal protective equipment such as a hairnet and close-fitting clothing.
- Risk of injury from starting planing knives when the machine is switched on. Remove the setting key and workpieces before switching on the machine. Keep hands away from the planer spindle.
- Risk of injury from electricity when using damaged extension cables. Only use undamaged extension cables that have been checked by a specialist.

4 Technical data

Model	ADH 2540	ADH 3050
Length approx.	1105 mm	1140 mm
Width/depth approx.	750 mm	800 mm
Height approx.	1075 mm	1075 mm
Net weight approx.	87 kg	93 kg
Supply voltage	230 / 400 V	230 / 400 V
Gesamtlänge Tisch	1050 mm	1080 mm
Total length of table L x W	510 x 260 mm	525 x 308 mm
Working height	920 mm	920 mm
Max. cutting depth of joints	3 mm	3 mm
Planing stop Length x Height	635 x 127 mm	635 x 127 mm
Planing stop pivoting range	90-135°	90-135°
Thickening table L x W	480 x 254 mm	500 x 305 mm
Working height min. thickness	6 mm	6 mm
Working height max. thickness	160 mm	160 mm
Working length min. thickness	250 mm	250 mm

Model	ADH 2540	ADH 3050
Max. cutting depth thickness	2 mm	2 mm
Feed speed	8,5 m/min	8,5 m/min
Planing shaft type	Strip planer blade shaft	Strip planer blade shaft
Planing shaft diameter	62 mm	62 mm
Number of planing blades	2	2
Planing shaft speed	6700 min ⁻¹	6700min ⁻¹
Max. planing width	254 mm	305 mm
Extraction port diameter thickness	75 mm	75 mm
Extraction port diameter joints	100 mm	100 mm
Machine body L x W	450 x 420 mm	450 x 470 mm
Sound pressure level Lp	81 dB(A)	84 dB(A)
Sound power level Lw	93 dB(A)	97 dB(A)
Absorbed power drive motor	1,8 kW	1,8 kW
Drive motor output	1,2 kW	1,25 kW
Duty type drive motor	S1	S1

4.1 Type plate

Abrichtdickenhobel		Combined surface planer and thickness planer			
Typ Type	ADH 2540 / 230V	Serien-Nr. Serial no.			
Artikel-Nr. Item no.	5904125	Baujahr Year of manufacture	Monat/Jahr month/year		
Motorleistung Motor power	1,2 kW	Netzanschluss Power connection		230 V / 50 Hz	
Wellendrehzahl Shaft speed	6700 1/min	Aufnahmeleistung Input power		1,8 kW	
Gewicht Weight	87 kg	Schalleistungspegel Sound power level		93 dB(A)	
		Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt Deutschland / Germany			

Fig. 4: Type plate ADH 2540

5 Transport, packaging, storage

5.1 Delivery and transport

Delivery

Check the planner thicknesser for visible transport damage after delivery. If you discover any damage to the planner-thicknesser, report this 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 cardboard box is delivered on a pallet so that it can be transported with a forklift or a pallet truck.

5.2 Packaging

All packaging materials and packaging aids used in the planer-thicknesser are recyclable and must always be recycled. Cardboard packaging components are crushed and sent for waste paper collection. The films are made of polyethylene (PE) and the padding parts of polystyrene (PS). You hand these materials over to a recycling collection point or to the disposal company responsible for you.

5.3 Storage

Store the Planner-Thicknesser thoroughly cleaned in a dry, clean and frost-free environment. Cover the machine with a protective tarpaulin and ensure that the machine cannot be started up by unauthorised persons.

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

6 Description of the device

Illustrations in this operating manual may differ from the original.

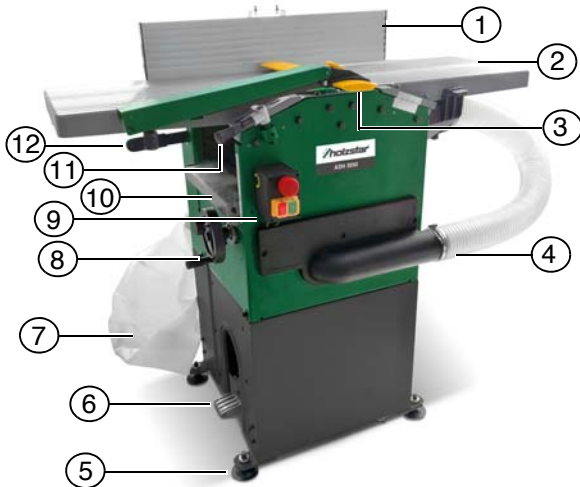


Fig. 5: Planer-Thicknesser ADH 2540

- 1 Stop
- 2 Jointer table
- 3 Knife shaft cover
- 4 Suction connection
- 5 Stand foot
- 6 Transport lever Swivel castors
- 7 Chip bag
- 8 Hand wheel Height adjustment thickening table
- 9 ON / OFF switch with motor protection
- 10 Thickening planer table
- 11 Locking of dressing table
- 12 Feed lever

6.1 Scope of delivery

- Planer-Thicknesser
- Convertible chip suction hood
- Integrated suction
- Chip collection bag
- Infinitely adjustable aluminium truing fence from 0° to 45°
- Operating Instructions

6.2 Accessories

- Replacement filter bag ADH 2540
Item number: 5914060
- Replacement filter bag ADH 3050
Item number: 5914061
- Suction hose ADH 2540 & 3050
Item number: 5914062
- Replacement planer blade set 2 St. ADH 2540
Item number: 5914063
- Replacement planer blade set 2 St. ADH 3050
Item number: 5914064

7 Installation and connection

7.1 Requirements for the installation site

The Planer-Thicknesser must be placed on a level and solid surface to ensure stability. The installation site should meet the following criteria:

- The substrate must be level, firm and vibration-free.
- The subfloor must not let any lubricants through.
- The installation or working area must be dry and well ventilated.
- No machines that produce dust and chips should be operated near the machine.
- Sufficient space must be available for the operating personnel, for material transport and for adjustment and maintenance work.
- The installation site must have good lighting.
- A suction device must be available with a suction capacity of at least 690 m³/h, min. 20 m/s
- Flow velocity at suction connection; hose diameter see technical data, max. hose length 4 m.

7.2 Setting up the Planer-Thicknesser



CAUTION!

Danger of injury from a machine that is not stable!

Check the stability of the machine after it has been set up on a stable surface.



CAUTION!

Observe the weight of the machine!
The machine may only be set up by two persons together. Check auxiliary equipment accordingly for sufficient dimensioning and load capacity.



DANGER!

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 housing.

The surface and thickness planer is delivered in one box and is already largely assembled. Only a few parts have to be assembled after delivery. With the following steps the machine is made ready for operation:



DANGER!

Do not connect the machine to the mains until it is completely and correctly installed.

Step 1: Check the carton contents for the following.

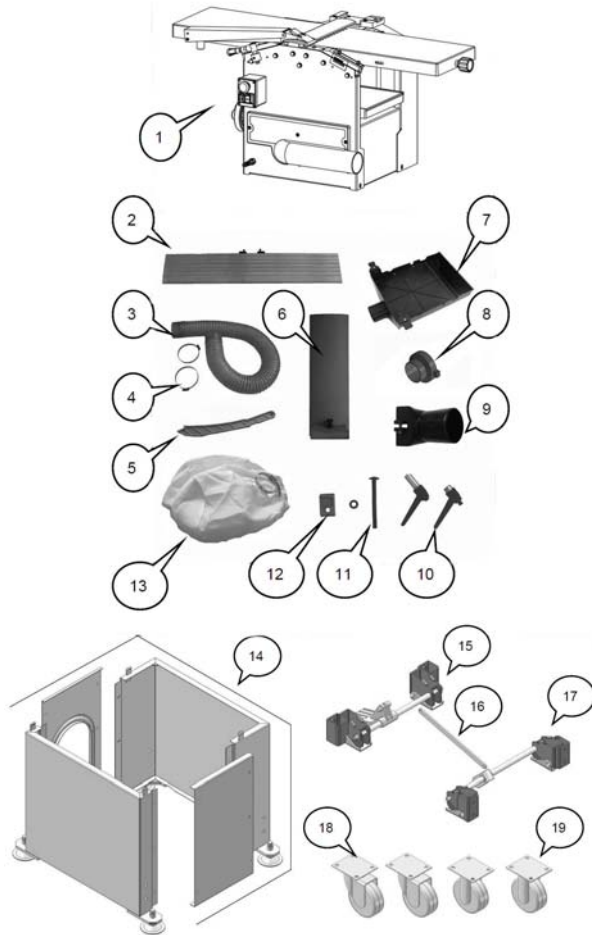


Fig. 6: Carton contents

- 1 Surface and thickness planer
- 2 Workpiece stop
- 3 Suction hose
- 4 Hose clamps (2 pieces)
- 5 Push stick
- 6 Support for workpiece stop
- 7 Connection of the suction unit
- 8 Suction adapter
- 9 Suction socket
- 10 Clamping lever (2 pieces)
- 11 Screw with washer
- 12 Clamp
- 13 Filter bag
- 14 Machine base frame
- 15 Front castor bracket
- 16 Connecting rod
- 17 Hindere Castor holder
- 18 Swivel castor (2 pieces)
- 19 Rigid roller (2 pieces)

Step 2: Mount the machine base with 12 hexagon socket screws (A, Fig.7).

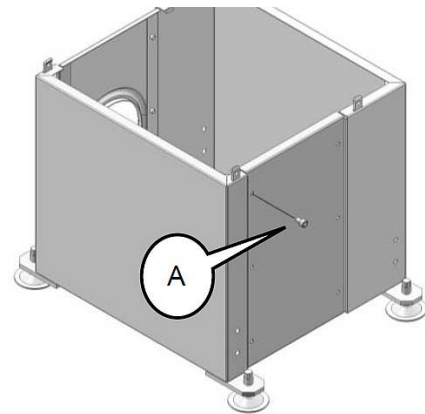


Fig. 7: Mounting the machine base frame

Step 3: Fit the 2 castor wheels (Fig.8) to the front castor bracket using the cap screws and washers.

Step 4: Fit the 2 rigid castors (Fig.8) to the front castor bracket using the screws and washers..

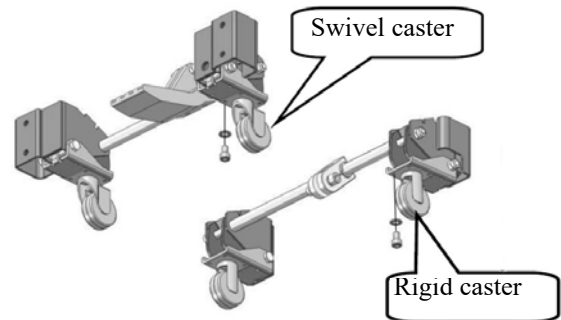


Fig. 8: Assembly of the transport rollers

Step 5: Mount the front and rear castor brackets to the machine base (Fig.9).

Step 6: Bolt the front and rear castor brackets together using the connecting rod (Fig.9).

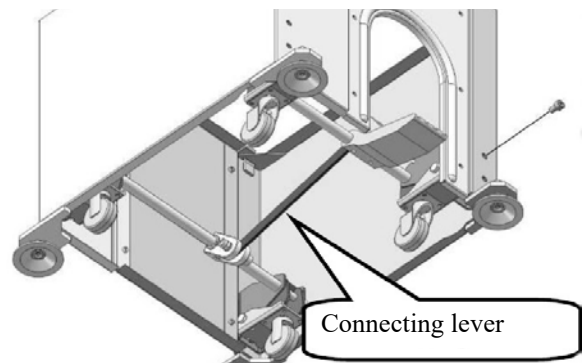


Fig. 9: Mounting the Castor Bracket

Step 7: Adjust machine base (Fig.10) to the desired height.

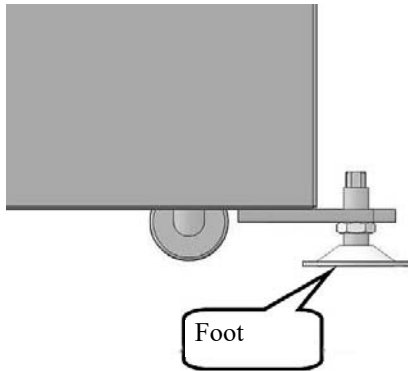


Fig. 10: Adjusting the machine feet

Step 8: Lift the surface and thickness planer onto the machine base (Fig.11) with the help of a second person.

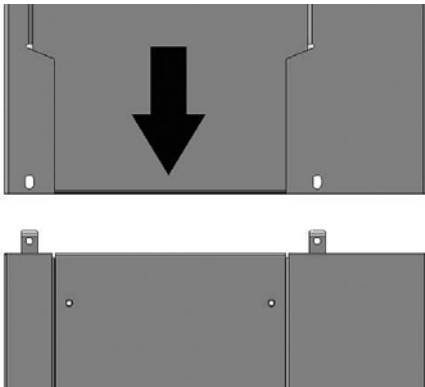


Fig. 11: Mounting the surface and thickness planer

Step 9: The surface and thickness planer with the help of the screws and washers (B, Fig.12) on the machine base frame.

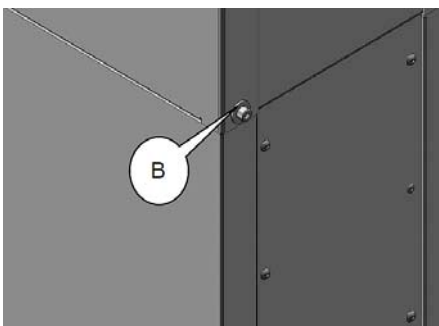


Fig. 12: Fixing the surface and thickness planer

7.2.1 Assembly of the workpiece stop

Step 1: Insert the stop bracket (C, Fig.13) into the guide.

Step 2: By turning the locking handle (D, Fig.13) fasten the stop bracket with the clamp (E, Fig.13).

Step 3: Mount the stop using the clamping screw F (Fig.13).

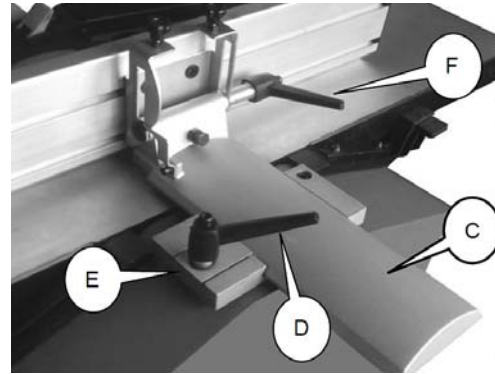


Fig. 13: Assembly of the workpiece stop

7.2.2 Assembly of the chip bag



DANGER!

Suction hoses must be flame-retardant and electrically conductive. Only use original HOLZSTAR suction hoses.

To prevent dust deposits in the machine, an extraction system with sufficient capacity must be connected.

Step 1: Fasten the chip bag to the suction nozzle of the machine using the hose clamp.



Fig. 14: Assembly of the chip bag

7.2.3 Mounting the suction hose



Tips and recommendations

The extraction device for chips and dust must guarantee a performance of at least 690 m³/h at a flow velocity of at least 20 m/s.

Step 1: Fasten the suction hose with a hose clamp to the suction connection on the machine housing and to the suction connection of the planer table.



Fig. 15: Mounting the suction hose

7.3 Electrical connection



DANGER!

Risk of death due to electric shock!

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



DANGER!

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

Grounding instructions

The machine must be earthed during use to protect the operator from electric shock.

In the event of a malfunction, grounding provides a path with the least resistance to electric current and reduces the risk of electric shock. The machine is equipped with an electric cable with a grounding conductor and a grounding plug. The plug **MUST** be plugged into a suitable outlet that is properly installed and grounded in accordance with ALL local codes and ordinances.



DANGER!

There is a risk of electric shock if the machine is not connected properly. The machine must be grounded during operation to protect the operator from electric shock.

Check motor rotation direction 400 V models

After electrical connection, check that the direction of rotation of the spindle corresponds to the direction indicated on the plate.

If the direction of rotation is wrong, the connections of the phase leads must be replaced. If equipped with a phase inverter: Press the disc in the plug with a screwdriver and turn it through 180°.

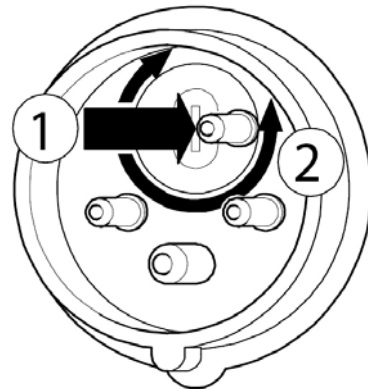


Fig. 16: Change motor direction of rotation



DANGER!

The machine is at risk of injury due to the counter-rotation of the blade shaft. Switch on the machine only briefly to check the correct direction of rotation (without tools).

8 Operation



DANGER!

Risk of death due to electric shock!

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

- Unplug the machine from the mains before making adjustments to the machine.



WARNING!

Danger to life!

There is danger to life for the operator and other persons if the following rules are not observed.

- The Planner-Thicknesser may only be operated by a trained and experienced person.
- The operator must not work if he is under the influence of alcohol, drugs or medication.
- The operator must not work if he is overtired or suffers from concentration disorders.
- The Planer-Thicknesser may only be operated by one person. Other persons must stay away from the working area during operation.



CAUTION!

Risk of crushing!

There is a risk of injury to the upper limbs when working improperly on the machine.



DANGER!

Check the electrical connection, cables and contacts before commissioning.



Wear ear protection!



Wear protective goggles!



Wear safety shoes!



Wear protective work clothing!



Wear a dust mask!

8.1 Dressing of workpieces

Up to 3 mm can be planed off in one planing pass. This planing thickness may only be used with:

- sharp planing knives,
- soft woods,
- maximum workpiece width can be used.

If these characteristics are not observed, there is a risk of overloading. Always machine a workpiece in several operations until the desired material thickness is reached.

Dress workpieces with the machine as follows:

Step 1: Crank the thickening table to the lowest position by turning the hand wheel (G, Fig.17).

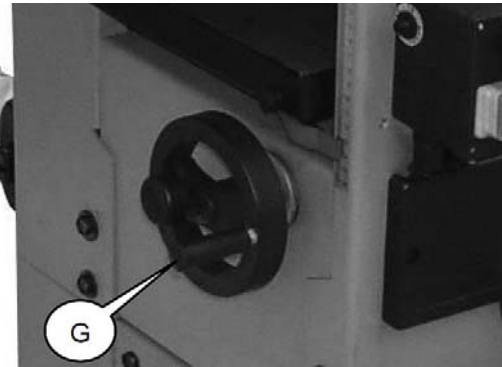


Fig. 17: Handwheel thickening table

Step 2: Use a hose clamp to connect the suction hose to the suction socket of the machine frame and the suction socket of the planer table (Fig. 18).

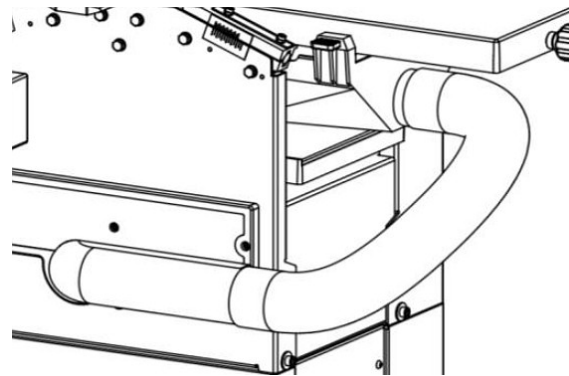


Fig. 18: Connect suction hose

Step 3: Position the suction hood using the two brackets.



NOTE!

The bracket (H, Fig. 19) on the chip extractor hood activates a safety switch on the machine. If this safety switch is not activated, the machine cannot be started!

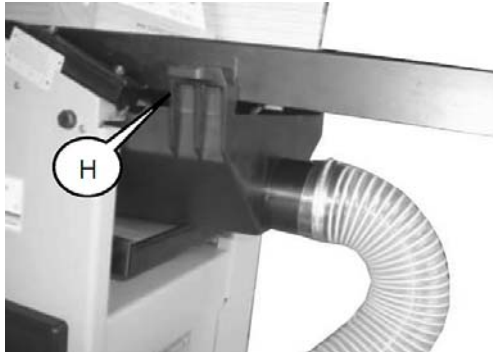


Fig. 19: Assembly of chip suction hood

Step 4: Adjust the planer shaft bridging protection with the knurled screw (I, Fig.20).

Step 5: By loosening the locking knob (J, fig.20), the cutter head's blade guard can be moved sideways and the blade guard adjusted to the correct width.

Step 6: After the adjustments have been made, retighten the locking knob (J, Fig.20).

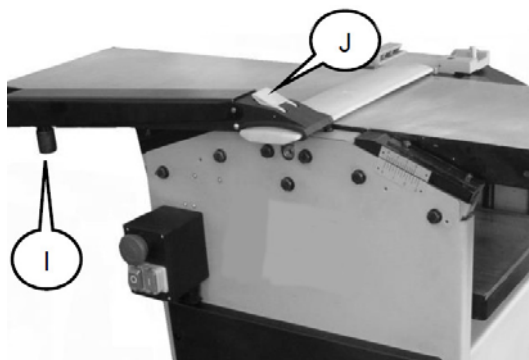


Fig. 20: Adjusting the splitter shaft cover

Step 7: Release the clamping lever (D, Fig.21) to move the stop to the desired position.

Step 8: Release the clamping lever (F, Fig.21) to set the desired angle of the stop.

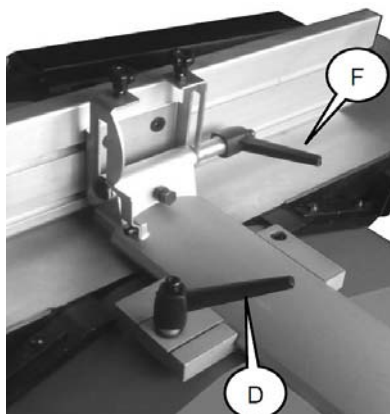


Fig. 21: Setting the workpiece stop

Step 9: Turn the handle (K, Fig.22) to adjust the chip removal.



Abb. 22: Setting the chip removal

Step 10: Switch on the machine.

Step 11: Press the workpiece with one hand against the dressing table and stop. Then use the second hand to push the workpiece evenly on..

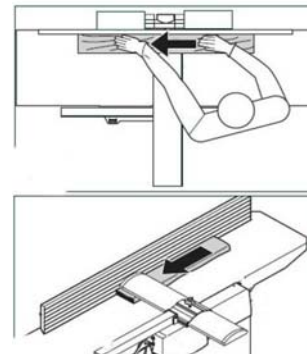


Fig. 23: Adjustment and material guidance Surface planing

Step 12: After finishing the operation, switch off the machine with the red stop button.

8.2 Thickness planing of workpieces

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

Step 2: Remove the workpiece stop by releasing the clamping lever (D, Fig.21).

Step 3: Lift the cutter cover to the highest position.

Step 4: Swing the jointer plane table back by turning and releasing the handle (L, Fig.24).

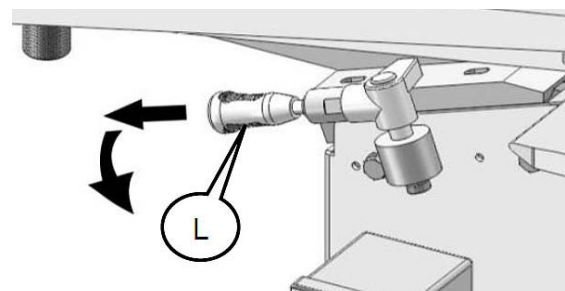


Fig. 24: Swivel work table

Step 5: Pull out the two brackets (H, Fig.25) of the suction hood.



NOTE!

The brackets (see Fig. 25) on the chip extraction hood activate a safety switch on the machine. If this safety switch is not activated, the machine cannot be started!

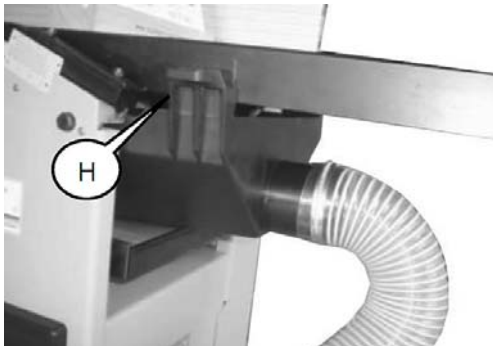


Fig. 25: Assembly of chip suction hood

Step 6: Swing the suction hood upwards (Fig.26) and fix it in place using the two brackets (H, Fig.25). Ensure that it engages properly!

Step 7: Connect the suction hose to the suction socket of the machine frame and the suction socket of the planing table using a hose clamp (Fig. 26).

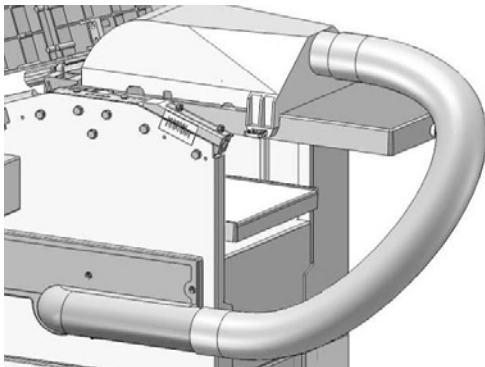


Fig. 26: Connect suction hose

Step 8: Use the handwheel (G, Fig.27) to set the thickening table to the desired height.

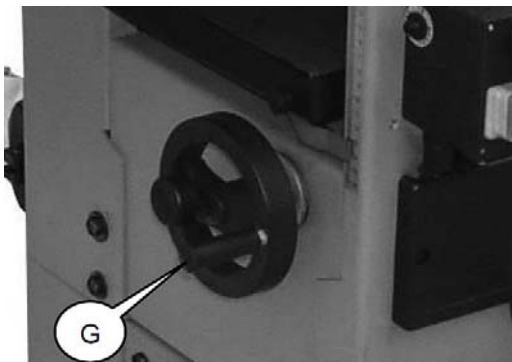


Fig. 27: Handwheel thickening table

Step 9: Press the lever (M, Fig.28) to start the feed

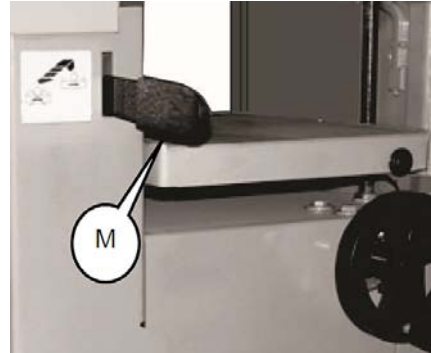


Fig. 28: Feed lever

Step 10: Switch on the machine.

Step 11: Place the workpiece with the surface to be machined facing upwards.

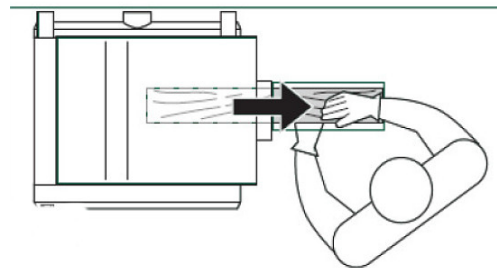
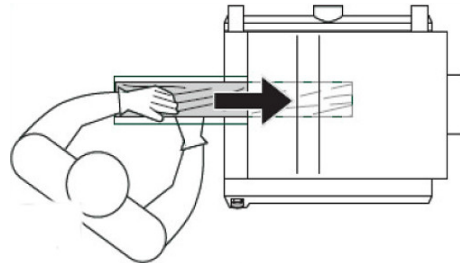


Fig. 29: Setting and material guidance Thickness planing

Step 12: After finishing the operation, switch off the machine with the red stop button.

Step 13: To swivel the work table back again, pull the engaged locking pin.

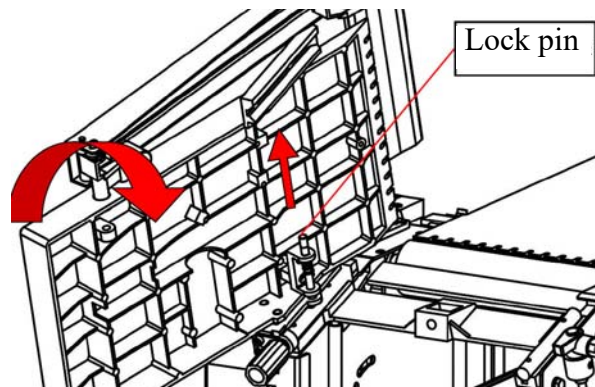


Fig. 30: Safety lever dressing table

Step 14: Turn the handle (Fig.31) 3-4 turns clockwise to lock the dressing table.

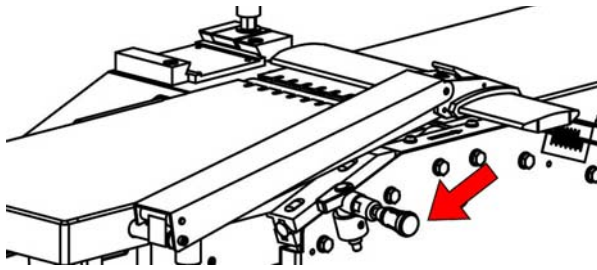


Fig. 31: Locking the dressing table



DANGER!

In case of a defect, switch off the machine immediately. Do not remove any chips or splinters from the tables while the machine is running. Workpieces under 250 mm must not be planed.

8.3 Changing and adjusting the planing knives



NOTE!

Before changing and adjusting the planing knives, the mains plug must be disconnected.



Wear protective gloves!

With the aid of the setting gauge, the planing knives can be mounted with the correct projection.



NOTE!

The setting gauge is not included in the delivery and must be ordered separately.

Step 1: Switch off the machine and pull the mains plug.

Step 2: Set the bridge guard of the planer shaft in the upper position.

Step 3: Loosen the knife clamping screws.

Step 4: Remove the planing knife and the knife clamp from the cutter head.

Step 5: Remove chips and any resin from the cutter head and clean it.

Step 6: Insert new knives in the cutter head.

Step 7: Place the knife clamp on the knives.

Step 8: Tighten the clamping screws slightly.

Step 9: Repeat all steps for the second knife.

Step 10: Place the setting jig with the two supports A on the table and turn the planer head. The surface B should be directly above the knife.

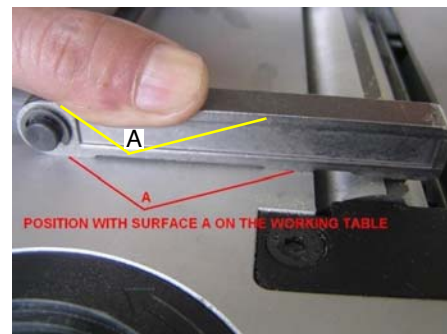
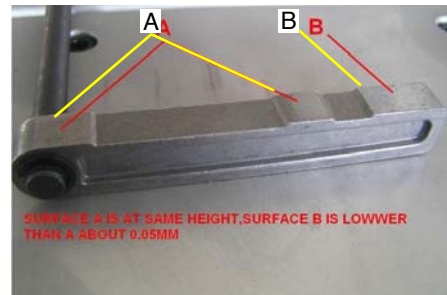


Fig. 32: Setting the planing knives to surface B

Step 11: Turn the planer head and adjust the knife to the height of surface B (Fig.33)

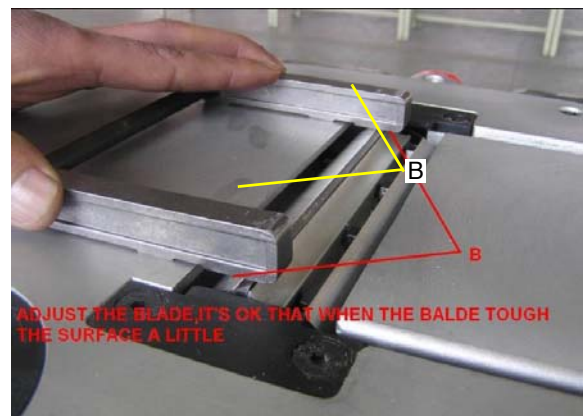


Fig. 33: Setting the planing knives to surface B

Step 12: After a successful blade setting, all clamping screws must be tightened (8.5 N/m).

Step 13: Check the height again by turning the planer shaft. The knife should touch surface B slightly. If this is not the case, repeat steps 10, 11 & 12.

Step 14: Lower the bridge guard of the cutter head.

9 Care, maintenance and repair



DANGER!

Risk of fatal injury due to electric shock!

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

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

9.1 Care after end of work



Wear protective gloves!



NOTE!

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

Step 1: Unplug the power cord from the wall outlet.

Step 2: Empty and clean the suction device.

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

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

Step 5: Oil the shaft and bearings.

Step 6: Check the machine for damage to the safety devices and the planing knife. If necessary, carry out or arrange for the repair in accordance with the safety instructions.

Step 7: Check the machine regularly for

- Appropriate tension of the drive belt
- Clean inlet and outlet rollers.
- Clean ventilation opening of the motor
- Loose screws and nuts
- Worn or damaged switches
- Worn or damaged planer blades

Step 8: Check the drive belt every 3 months, monthly if used daily, replace if worn or damaged.

9.1.1 Tool maintenance

Knife block, planing knives and clamping devices must be cleaned of resin regularly, as a clean tool improves the planing quality.



NOTE!

Resin from aluminium tools may only be removed with cleaning fluids that are not aggressive to this metal.

9.2 Maintenance and repair

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

If the Planer-Thicknesser does not function properly, contact a specialist dealer or our customer service department. You will find the contact details in chapter 1.2 Customer service.

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

9.2.1 Functional test

The surface and thickness planer is delivered ready for operation.

A functional test should be carried out before each use.

Step 1: The drive belt must be under tension.

Step 2: The planer head must rotate freely, knives must not jam.

Step 3: Check the connection cable for damage.

9.2.2 Suction

Check the suction system daily to ensure that it is functioning properly. If the suction does not work or only works to a limited extent, it must be repaired. Only then may the surface planer and thicknesser be put into operation.

9.2.3 Lubrication

The surface/thickness planer is low maintenance. The ball bearings are permanently lubricated. After approx. ten operating hours, relubrication of the following parts is recommended:

- Bearing arrangement of the infeed and outfeed roller
- Bearing of belt pulley and sprocket

The threaded spindle for height adjustment of the thickening table must only be treated with dry lubricant. The table surfaces and the infeed and outfeed rollers must always be kept free of resin.

9.2.4 Regular inspection of the planing knives

Check the blades of the planing knives regularly, as most problems occur when planing due to dull knives.

9.2.5 Tensioning the drive belt

The drive belt must not come into contact with oil or grease. It must be checked regularly for wear, cracks or brittleness.

Step 1: Switch off the machine and disconnect the power plug.

Step 2: Remove the side cover.

Step 3: If necessary, loosen the fixing screws and adjust the position of the motor to adjust the drive belt tension.

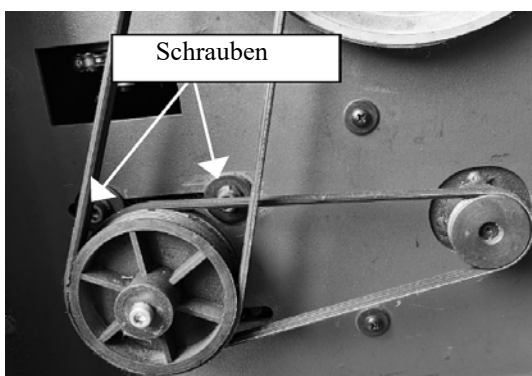


Fig. 34: Tensioning the drive belt

9.2.6 Tensioning the flat belt

Step 1: Switch off the machine and disconnect the power plug.

Step 2: Remove the side cover.

Step 3: Loosen and adjust the position of the Allen screw to adjust the flat belt tension.

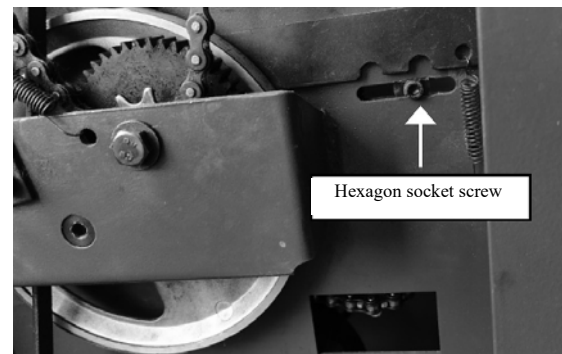


Fig. 35: Tensioning the flat belt

10 Troubleshooting

Fault	Possible causes	Remedy
Motor does not start	<ol style="list-style-type: none"> 1. No mains voltage 2. Connection cable defective 3. Overload protection has responded 	<p>Let the power connection checked by qualified personnel.</p> <p>Let the engine cool down, then start it again.</p>
The machine switches off automatically when idling.	<ol style="list-style-type: none"> 1. No power supply 2. Motor overload 	<ol style="list-style-type: none"> 1. Check fuses 2. Let the engine cool down
Motor runs, planer blade does not rotate	<ol style="list-style-type: none"> 1. Drive belt torn 	<ol style="list-style-type: none"> 1. Replace the drive belt.
The machine stops during planing.	<ol style="list-style-type: none"> 1. Too fast feed 2. Overload of the motor 3. Blunt planing knives 	<ol style="list-style-type: none"> 1. Apply constant pressure and reduce feed 2. Let the engine cool down. 3. Sharpen or replace planer blades.
Planed surface not smooth.	<ol style="list-style-type: none"> 1. Feed too fast 2. Planing knife blunt 3. Irregular feed. 	<ol style="list-style-type: none"> 1. Reduce intake speed. 2. Replace knife. 3. Apply constant pressure and reduce feed.
Motor protection switch triggers	<ol style="list-style-type: none"> 1. Too much material removal 2. Blunt knives 3. Feed too fast 	<ol style="list-style-type: none"> 1. Reduce chip removal. 2. Replace knife. 3. Apply constant pressure and reduce feed 4. Let the engine cool down
The speed decreases during planing.	<ol style="list-style-type: none"> 1. Chip removal set too high 	<ol style="list-style-type: none"> 1. Reduce chip removal.
Handwheels are difficult to move	<ol style="list-style-type: none"> 1. Dirt or chips have deposited in the machine or block the hand wheel 	<ol style="list-style-type: none"> 1. Clean the machine and oil the bearings

11 Disposal, recycling of used devices

Please take care in your own interest and in the interest of the environment that all component parts of the machine are only disposed of in the intended and permitted way.

11.1 Decommissioning

Immediately decommission used machines in order to avoid later misuse and endangering of the environment or of persons.

Step 1: Eliminate all environmentally hazardous operating materials from the used device.

Step 2: If required, disassemble the machine into easy-to-handle and usable components and parts.

Step 3: Dispose of machine components and operating materials by the disposal channels provided.

11.2 Disposal of electrical equipment

Please note that electrical equipment contains a variety of recyclable materials and environmentally harmful components.

Contribute to the separation and proper disposal of these components. In case of doubt, please contact your municipal waste disposal. If necessary, the help of a specialised waste disposal company should be used for processing.

11.3 Disposal of lubricants

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

11.4 Disposal via municipal collection points

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



The symbol on the product or its packaging indicates that this product should not be treated as normal household waste, but must be returned to a collection point for the recycling of electrical and electronic equipment. By helping to properly dispose of this product, you are protecting the environment and 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.

12 Spare parts



DANGER!

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

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

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



Tips and recommendations

The manufacturer's warranty will become null and void if non-permissible spare parts are being used.

12.1 Ordering spare parts

The spare parts may be purchased with the authorised dealer. Indicate the following basic information for requests or orders of spare parts:

- Type of device
- Item No.
- Position No.
- Year of construction:
- Quantity
- Required mode of dispatch (mail, freight, sea, air, express)
- Address of dispatch

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

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

Example

The engine for the Planer-Thicknesser ADH 2540 - 230V must be ordered. The engine has the number 109 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (engine) and marked position number (109) to the dealer or spare parts department and provide the following information:

- Type of device: **Planer-Thicknesser
ADH 2540 - 230V**
- Item number: **5904125**
- Drawing number: **1**
- Position number: **109**

12.2 Spare parts drawings

The following drawings are intended to identify the required spare parts in the event of service. If applicable, submit a copy of the parts drawing including the highlighted components to your authorised retailer.

12.2.1 Spare parts drawing ADH 2540

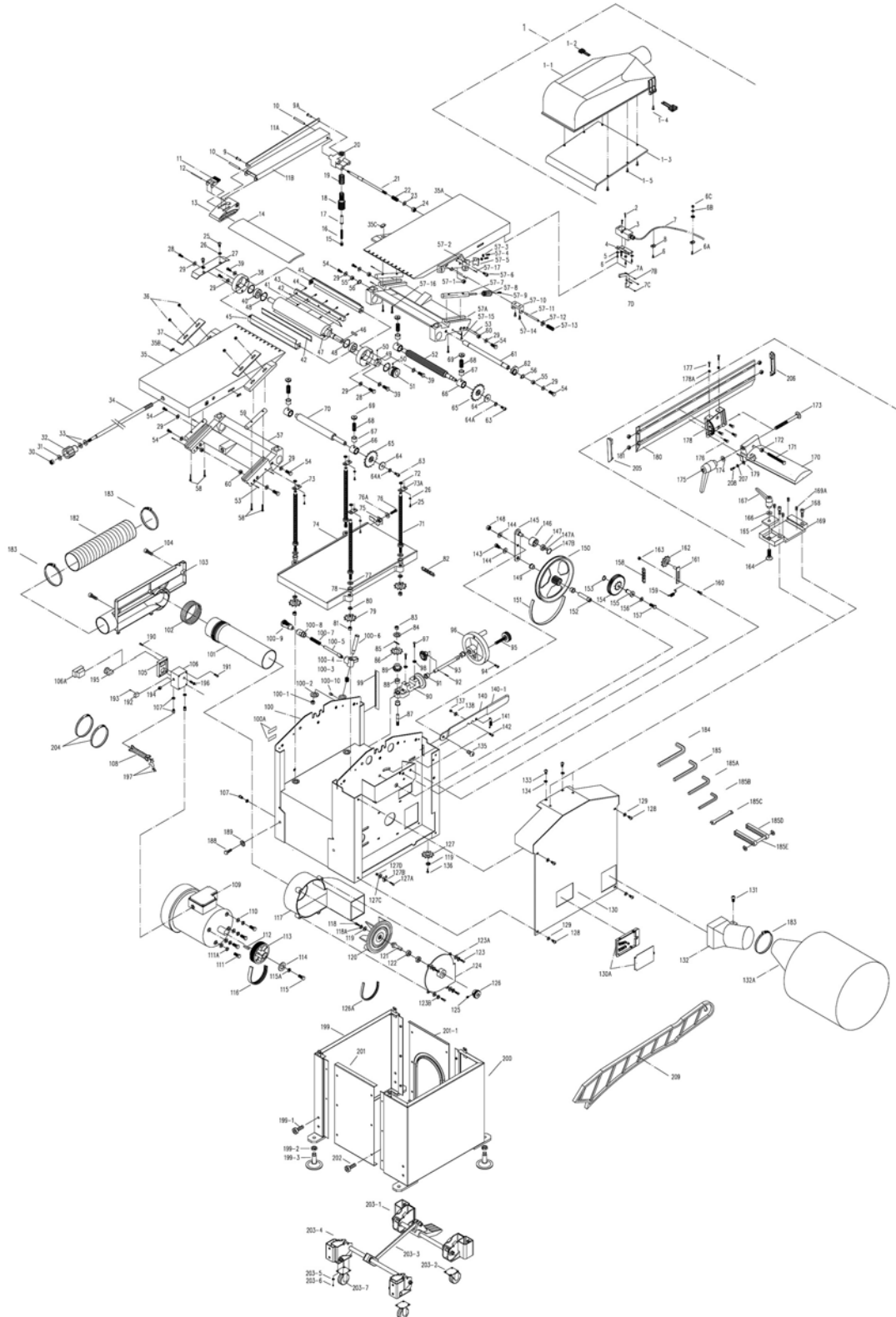


Fig. 36: Spare parts drawing Planer-Thicknesser ADH 2540

12.2.2 Spare parts drawing ADH 3050

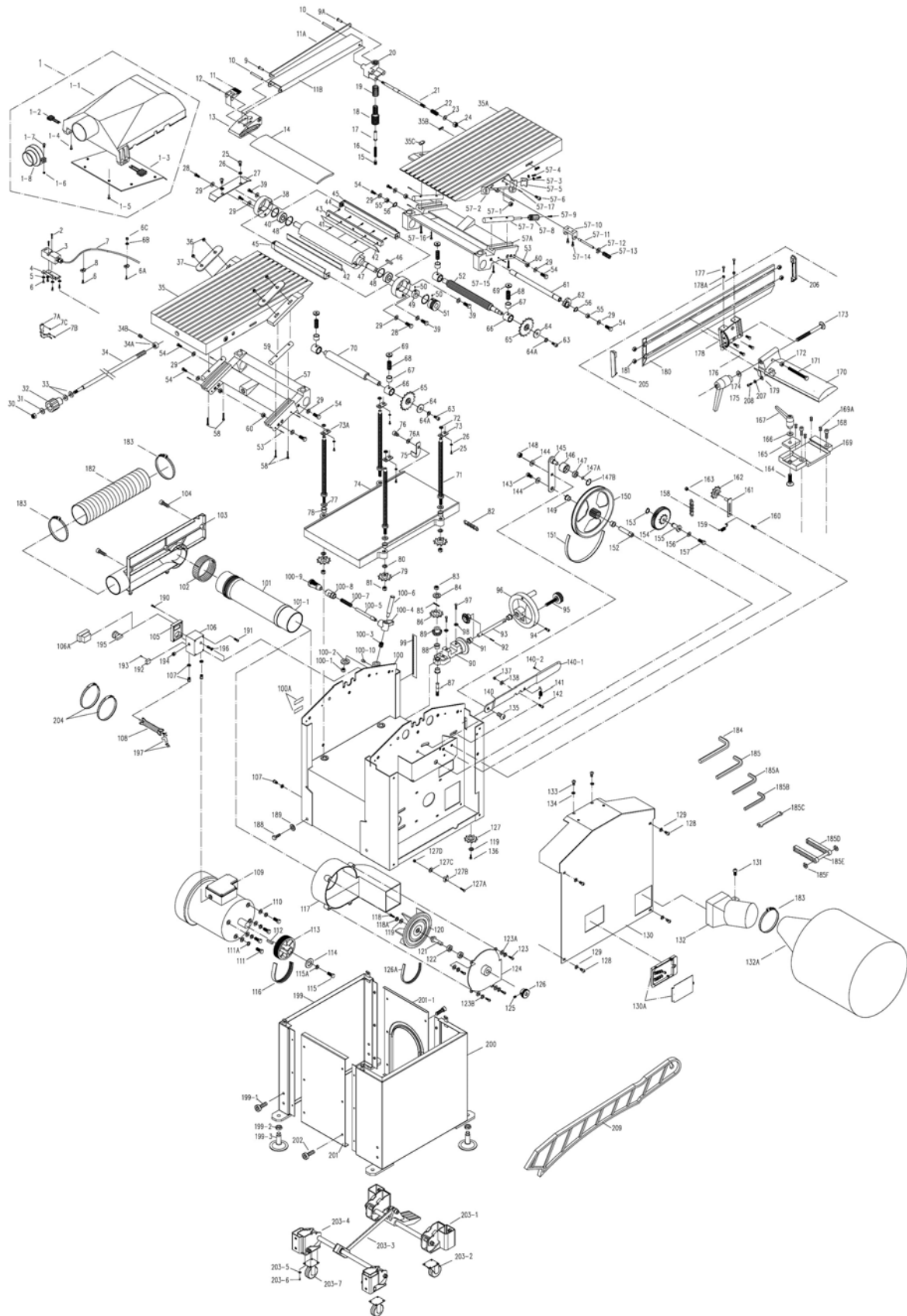


Fig. 37: Spare parts drawing Planer-Thicknesser ADH 3050

13 Electrical circuit diagrams

13.1 Electrical circuit diagram 230 V Models

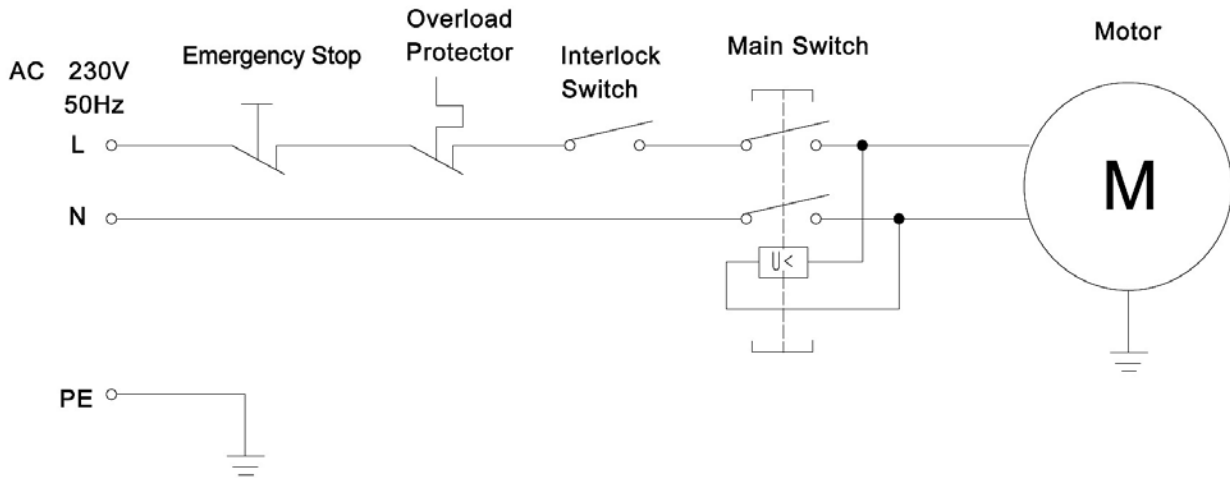


Fig. 38: Electrical circuit diagram ADH 230 V Models

13.2 Electrical circuit diagram 400 V Models

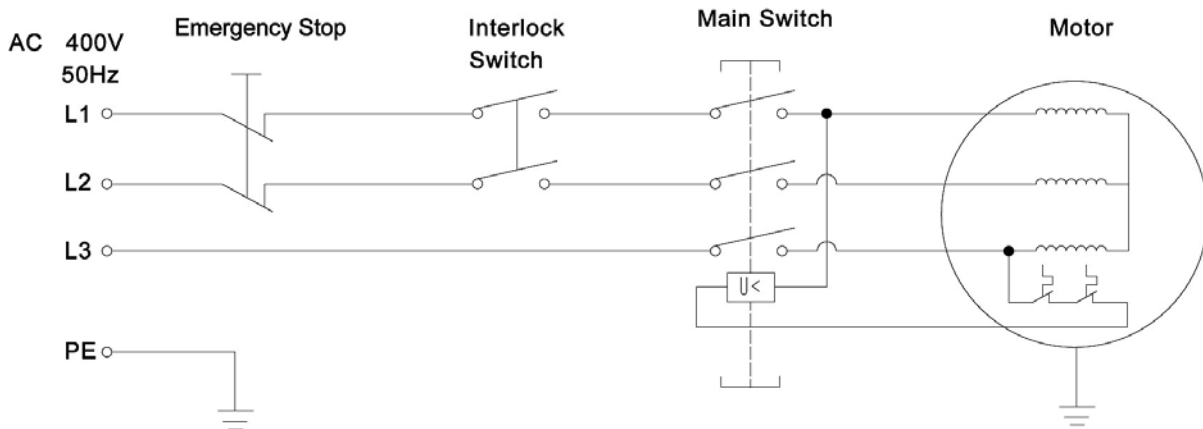


Fig. 39: Electrical circuit diagram ADH 400 V Models

14 EC-Declaration of Conformity

According to machine directive 2006/42/EC Annex II 1.A

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

herewith declares that the following product

Product group: Holzstar® Woodworking machines

Type of machine: Planer-Thicknesser

Designation of the machine *: **Item number *:**

ADH 2540 230 V

5904125

ADH 2540 400 V

5904126

ADH 3050 230 V

5904130

ADH 3050 400 V

5904131

Serial number*: _____

Year of manufacture*: 20____

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

corresponds, on the basis of its design and construction, as well as the version that we have put into circulation, with the relevant fundamental health and safety requirements of (subsequent) EU Directives.

Relevant EU Directives:

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

The following harmonized standards have been applied:

DIN EN 61029-1:2009/A11:2011-11	Safety of transportable motor-operated electric tools - Part 1: General requirements
DIN EN 61029-2-3:2012-01	Safety of transportable motor-operated electric tools - Part 2-3: Particular requirements for planers and thicknessers
DIN EN 55014-1:2018-08	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 1: Emission
DIN EN 55014-2:2016-01	Electromagnetic compatibility - Requirements for household appliances, electric tools and similar apparatus - Part 2: Immunity - Product family standard
DIN EN 61000-3-2:2019-12	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
DIN EN 61000-3-3:2020-07	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

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

Hallstadt, 19.04.2021



Kilian Stürmer
Manager



