

Instruction Manual

Planer-Thicknesser

ADH 31-4 C

ADH 41-4 C



ADH 41-4 C

ADH_SERIES

Imprint

Product identification

Planer-Thicknesser	Item number
ADH 31-4 C 400V	5904013
ADH 41-4 C 400V	5904024

Manufacturer

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Indication regarding the operating instructions

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Indication regarding the copyright

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1 Introduction

You have made a good choice by purchasing the HOLZ-STAR planer and thicknesser.

Read the operating instructions carefully before using the machine.

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

The operating manual informs you about the proper start-up, the intended use as well as the safe and efficient operation and maintenance of the surface and thickness planer.

In addition, observe the local accident prevention regulations and general safety regulations for the area of application of the surface and thickness planer.

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 surface planer and thicknessing machine. 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. We register trademark, patent and design rights for the protection of our products, insofar as 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 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.



DANGER!

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

WARNING!

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

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 Operator responsibility

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

Obligations of the operator:

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

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

- Operators shall provide staff with the required protective equipment and wearing the required protective equipment shall be mandatory.

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

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

2.3 Operating staff qualification

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



WARNING!

Risk from inadequately qualified persons!

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

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

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

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

Operating staff:

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

Qualified electrician:

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

Specialist staff:

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

Manufacturer:

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

2.4 Personal protective equipment

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



Hearing protection

Hearing protection helps to protect the hearing from harmful noise and other loud sounds.



Eye protection

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



Protective dust-mask

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



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-Thicknesser

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



Fig. 1: Safety labels

If safety labels on the machine are damaged or missing, this can cause errors, personal injury and material damage. The safety symbols attached to the machine must not be removed.

Damaged safety symbols must be replaced immediately. As soon as the signs are not clearly visible and comprehensible at first glance, the machine must be stopped until new signs have been attached.

2.6 Safety data sheets

Safety data sheets on hazardous materials can be obtained from your specialist dealer or by calling +49 (0)951/96555-0.

Specialist dealers can find safety data sheets in the download area of the partner portal.

2.7 Safety devices

Undervoltage release

In the event of an electrical power failure, an undervoltage relay is triggered. This prevents the surface planer from restarting on its own as soon as electrical voltage is available again. To restart, the machine must be switched on again.

Overload protection

The surface planer has a built-in overload protection. The overload protection switches off the surface planer if the motor has heated up too much. To switch the machine on again:

- Allow the motor to cool down for about ten minutes.
- Switch machine on again

Shutdown on opening

A microswitch switches off the machine when the table is opened.

A microswitch switches off the machine when the chip catcher is opened in the "Thickness planing" operating mode.

The machine cannot start if the tables of the jointer and the chip catcher are not closed during the operation of the jointer-thicknesser.

Chip catcher

Used to collect dust and chips and has an intermediate piece for attachment to the exhaust system. The chip catcher covers the cutterhead when operating as a thickness planer and avoids access to the cutterhead below the tables when operating as a jointer. The chip catcher can be fixed in the two positions - for the jointer and for the thicknesser.

Disconnecting devices

Separators between the cutter and the infeed (or outfeed) roller; used to prevent contact and access to the cutter underneath the tables of the dresser.

Electric brake

Electric brake for dynamic braking of the motor. Ensures braking of the machine in less than 10 seconds after switching off the engine.

2.8 General safety instructions

- The surface and thickness planer may only be operated and maintained by persons who have read and understood these operating instructions. The operator must be sufficiently trained in application, setting and operation.
- Do not switch on the machine until immediately before you start machining. Do not leave the machine unattended when it is ready for operation.
- Switch off the machine and disconnect the power plug before replacing operating supplies and wearing parts.
- Never open the protective covers while the surface planer and thicknessing machine are in operation.
- Keep the workplace and the floor around the planer and thicknessing machine free of any objects that could endanger your stability or pose a tripping hazard. Keep the workplace tidy. Disorder can result in accidents.
- Check the danger area before and during work to ensure that no unauthorized persons are present.
- Replace a damaged power cord immediately.
- When laying the power cable, make sure that it is not crushed, bent or wet.

- Protect the machine from moisture and humidity to avoid electrical hazards.
- Do not use the machine in the vicinity of flammable gases, liquids and solids. There is a risk of explosion or fire due to possible flying sparks.
- Use the machine only in dry rooms or in dry surroundings and ensure that the working area is sufficiently illuminated.
- Ensure that an extraction hose is connected to the extraction system and the machine before starting it up.
- Operate the machine only with safety devices fully and correctly attached and do not modify anything on the machine.
- Always wear ear protection when working with the planer and thicknesser. It is forbidden to wear loose clothing (ties, scarves, open jackets and clothing that does not fit tightly). If you have long hair, wear a hair net.
- Use only original spare parts.
- To protect against electric shock, have the machine connected to a suitable and fused power supply only by a qualified electrician.
- Protect the power supply cable from heat, oil and sharp edges.

2.9 Machine-specific safety measures

- Before operation, inspect all workpieces for foreign objects such as nails and screws.
- When handling heavy or bulky workpieces, use suitable supports, e.g. roller blocks (optional equipment).
- Use a sliding block or sliding block when planing small workpieces.
- Use additional supports such as a horizontal clamping device when planing narrow workpieces.
- Always adjust the planer/thicknesser guard to the width of the workpiece. The unused part of the cut-block must be covered.
- Do not use planing knives that show cracks or whose shape has changed.
- Wear gloves when changing the planing knives.
- Before switching on, check that all repair and adjustment tools have been removed.
- Before any maintenance and repair, the planer must be secured against start-up.
- Do not use compressed air to clean the machine or to remove chips.
- All protective and safety devices must be refitted immediately after repair or maintenance has been completed.

3 Intended Use

The planing and thicknessing machine is used for planing and planing boards and strips of solid wood or similar wood materials, e.g. wood fiber surfaces, boards of wood parts, chipboard, plywood, laminated and non-laminated wood surfaces with rectangular or square cross-sections.

Intended use also includes compliance with all the information in these instructions.

3.1 Reasonably foreseeable misapplication

Any use beyond or different from the intended use is considered misuse.

Possible misuses can be:

- Use of the planer and thicknesser for materials other than wood (e.g. machining of metal, plastic).
- Use of the planer and thicknesser with parameters that are not allowed for machining wood.
- Operating the planer and thicknesser without the proper safety guards in place.
- Bypassing or modifying the protective devices.
- Failure to observe the maintenance instructions.
- Failure to observe the signs of wear and damage.
- Service work by untrained or unauthorized personnel.
- Operating the planer and thicknessing machine although the operating instructions are incomplete.
- Placement of objects on the work surface.
- Maintenance work on an unsecured machine.
- Working on materials that are not or insufficiently fixed.
- Deliberate or careless handling of the jointer and thicknessing machine during operation.
- Installation of spare parts and use of accessories and equipment not approved by the manufacturer.
- Machining of several workpieces simultaneously in one operation.
- Machining of oversized workpieces.
- Modifications to the machine or the use of modified tool systems.

Misuse of the surface and thickness planer can lead to dangerous situations.

Stürmer Maschinen GmbH accepts no liability for design and technical modifications to the surface and thickness planer.

Claims of any kind for damage due to improper use are excluded.

3.2 Residual risks

When used as intended, residual risks may arise even if the relevant safety regulations are observed.

- Hearing damage when working on the machine for a longer period of time with defective hearing protection.
- Danger from inhalation of wood dust (if necessary, use an exhaust system in accordance with legal requirements).
- Risk of injury to the upper limbs (e.g. hands, fingers) due to the rotating cutter head.
- Heat generation on components can lead to burns and other injuries.
- Risk of injury from workpiece parts being thrown back or flying around.

4 Technical Data

4.1 Table

Model	ADH 31-4 C	ADH 41-4 C
Length	1605 mm	1680 mm
Width/depth	630 mm	730 mm
Height	860 mm	860 mm
Weight	292 kg	334 kg
Supply voltage	400 V	400 V
Infeed table length	1560 mm	1640 mm
Infeed table width	320 mm	420 mm
Infeed table height	855 mm	855 mm
Max. cutting depth of planer	3 mm	3 mm
Thicknessing table length	750 mm	750 mm
Thicknessing table width	307 mm	408 mm
Working height min. thickness	5 mm	5 mm
Working height max. thickness	220 mm	220 mm
Max. cutting depth thickness	5 mm	5 mm
Feed speed	6,5 m/min	6,5 m/min
Planing shaft type	Strip planer cutter	Strip planer cutter
Ø Planing shaft	95 mm	95 mm

Model	ADH 31-4 C	ADH 41-4 C
Number of planing blades	4	4
Planing shaft speed	4000 min ⁻¹	4000 min ⁻¹
Max. planing width	310 mm	410 mm
Extraction port diameter thicknesser	100 mm	100 mm
Extraction port diameter planer	100 mm	100 mm
Sound pressure level L _p	85 dB	85 dB
Sound power level L _w	89 dB	89 dB
Input power	3 kW	3 kW
Output power	2,2 kW	2,2 kW

4.2 Operating conditions

Relative humidity	30% to 90%
Operating temperature range	+5°C to +40°C
max. height above sea level	1000 m

- The machine is not intended for outdoor use.
- The machine is not intended for operation under explosive conditions.

4.3 Type plate

Abriecht-Dickenhobel
Combined surface and thickness planer



Typ Type	ADH 31-4 C		
Artikel-Nr. Item no.	5904013	Serien-Nr. Serial no.	
Motorleistung Motor power	2,2 kW	Baujahr Monat/Jahr Year of manufacture	
Aufnahmeleistung Absorbed Power	3,0 kW	Netzanschluss Power supply	400 V / 50 Hz
Gewicht Weight	292 kg		
Schallleistungspegel unbelastet LWA Sound pressure level unloaded	89 dB(A)		


Stürmer Maschinen GmbH
Dr.-Robert-Pfleger-Str. 26, 96103 Hallstadt
Deutschland / Germany

Fig. 2: Type plate ADH 31-4 C

5 Transport, packaging, storage

5.1 Delivery and transport

Delivery

Check the planer thicknesser for visible transport damage after delivery. If you discover any damage to the Planer-Thicknesser, report this immediately to the transport company or the dealer. The machine is delivered completely assembled. When transporting the machine, use certified lifting gear and A steel wire rope with a diameter of at least 5mm is recommended for lifting.

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 pallet truck.



WARNING!

When lifting and transporting, ensure that there are no persons in the danger area who could be injured by falling or tilting the machine!



NOTE!

During transport, the machine must be protected by appropriate means against excessive vibration and moisture.

Transport with crane

The crane must be tested for sufficient load capacity.

The ropes are hung on the crane hook.

The ropes are then attached to the areas of the planer-thicknesser reinforced for crane transport, and the machine is then lifted by the crane. Make sure that the centre of gravity of the machine is taken into account.

Align the ropes well; if necessary, move the crane slightly to ensure vertical and stable lifting.

Make sure that the machine does not tilt. The machine must be lifted slowly without shocks and rocking.

Park the machine with the crane in the chosen place.



NOTE!

The machine must not be lifted at the work tables.

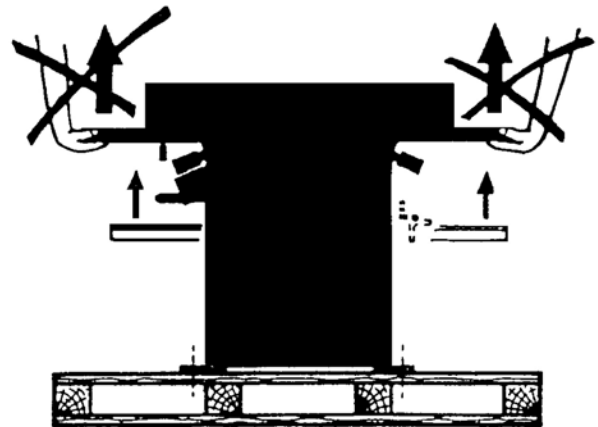


Fig. 3: Prohibited lifting at the work tables

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 machine

6.1 Machine

Illustrations in this operating manual may differ from the original.

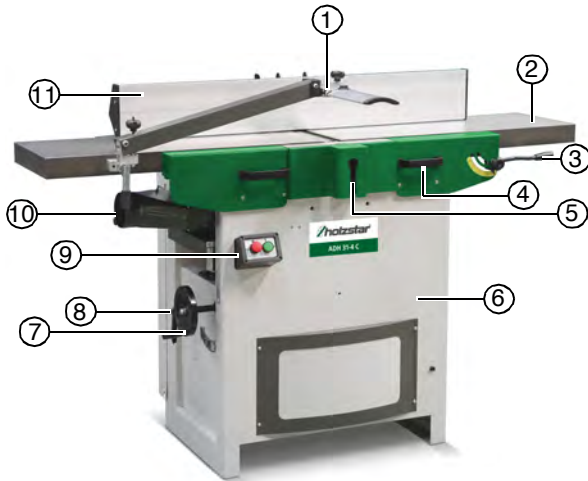


Fig. 4: Planer-Thicknesser ADH 31-4 C

- 1 Planer knife protection
- 2 Jointer table, feed side
- 3 Levers height adjustment / chip removal dressing table
- 4 Table tilt handle
- 5 Planer shaft
- 6 Machine frame with drive motor
- 7 Height adjustment for thickening planer
- 8 Clamping lever dressing table
- 9 ON and OFF switch
- 10 Suction hood with suction connection
- 11 Stop surface plane

6.2 Accessories

- Planer blades (4 Pieces.) for ADH 31-4C
Item number: 5914003
- Planer blades (4 Pieces.) for ADH 41-4C
Item number: 5914004
- Slot hole drilling equipment for ADH 31 & 41-4C
Item number: 5914005

7 Setting up and connection

7.1 Requirements for the place of operation

The place of operation should meet the following criteria:

- The underground must be even, solid and vibration-free.
- The underground must not allow any lubricants to pass through.
- The installation or working 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 (see installation plan).
- The installation site must have adequate lighting (see workplace regulations and DIN EN 12464).
- There must be an extraction device with sufficient dimensions for the machine.

7.2 Setting up of the Planer-Thicknesser



CAUTION!

Risk of injury from an improperly installed 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 correct dimensioning and load-bearing capacity of the supporting equipment.

The unpainted parts of the machine are protected with a factory applied ultra-fine oil film. It is not necessary to remove this before using the machine. However, you can remove it with a cloth soaked in spirit if you wish. Do not use nitro solvents and under no circumstances water.

7.3 Electrical connection



DANGER!

Danger to life from electric shock!

There is a danger to life in case of contact with live components. Switched-on electrical components can perform uncontrolled movements and lead to serious injuries. All work on the electrical installation may only be carried out by a qualified electrician.

Only use the surface and thicknessing plane in a dry environment. Only use the surface planer with a power supply that meets the following requirements:

- the mains voltage and the current frequency of the power supply must correspond to the specifications on the rating plate
- Protection with a residual current circuit breaker (RCD).
- Use of a grounding contact socket (properly grounded socket).
- Lay the power cable so that it does not interfere with work and cannot be damaged.
- Protect the power cord from heat, aggressive liquids and sharp edges.
- After making the electrical connection, make sure that the cutter head moves in the correct direction. If it does not, reverse the two phase wires at the power input.

Check motor rotation direction

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 incorrect, the connections of the phase wires must be replaced.

If equipped with a phase inverter:

Press the disc in the plug with a screwdriver and turn it through 180°.



Fig. 5: Change motor direction of rotation



DANGER!

The machine offers a risk of injury due to the counter rotation of the cutter shaft. Switch on the machine only briefly to find out the correct direction of rotation (if possible without workpiece).

Electric brake

If the brake does not work properly, it is forbidden to work with the machine.

7.4 Suction connection

The machine must be connected to an auxiliary system during operation. This extraction unit must guarantee an air flow of at least 20 metres per second. A flexible suction hose with a diameter of 100 mm is used for connection.

Dressing - the suction pipe is placed under the planer table in the area of the thicknessing table.

Thickness planer - the same suction pipe is used as for planing, but turned to the upper position above the planing table.



DANGER!

Suction hoses must be flame resistant and electrically conductive!

8 Settings and functions



DANGER!

Improper adjustment work can lead to serious injuries and material damage. This work may therefore only be carried out by qualified personnel who are familiar with the machine.



DANGER!

Before starting work, the machine must be switched off and secured against being switched on again.

8.1 Adjusting the chip removal

The chip removal can be adjusted on the side of the lever (1, Fig.6) and read off the scale. Loosen the clamping screw (2, fig.6) to be able to move the lever up or down.

Pay attention to factors such as the type of wood when adjusting the tension.

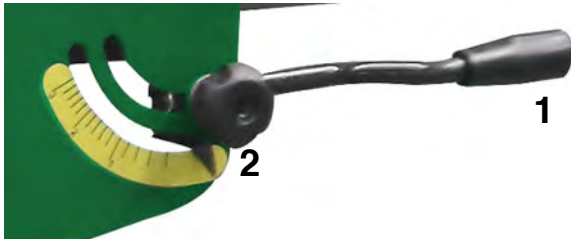


Fig. 6: Adjusting the chip removal

8.2 Adjusting the planer blade guard

If the planer protection is correctly positioned, the planer shaft is covered during dressing.

The height of the blade guard can be adjusted by means of the adjusting screw (1, Fig.7). To cover the planer shaft, the guard (3, Fig.7) can be adjusted by loosening the clamping screw (4, Fig.7).



Fig. 7: Adjusting the planer blade guard

8.3 Conversion from surface planer to thicknessing planer function



DANGER!

Before switching from operation as a surface planer to operation as a thicknesser, the machine must be switched off at the ON/OFF switch.

Step 1: Slide the workpiece stop on the dressing table all the way back and release both table locks (1; Fig.8), using the clamps on the side of the table.



Fig. 8: Conversion to thickness planing function

Step 2: Swivel the dressing table backwards using the two handles.

The table is very heavy. Be careful when lifting it. Lack of care can lead to serious injury.

The latch (1, fig.9) must be engaged to prevent the table from accidentally falling forward.



Fig. 9: conversion to thickness planing function

Step 3: Position the dust extraction unit (2, Fig. 9) to the right. Use extreme caution to avoid contact with the blades of the cutting head.



NOTE!

It may be necessary to lower the thicknessing table to make room for positioning the dust extraction system.

8.4 Height adjustment Thicknessing planer table

Step 1: Switch off the machine.

Step 2: Loosen the clamping lever (1, Fig.10) and turn the thicknessing planer table to the desired height using the handwheel (2, Fig.10).

Step 3: Tighten the clamping lever (1, Fig.10) again.

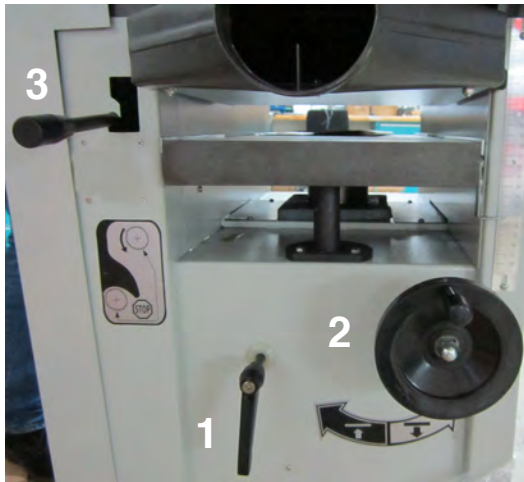


Fig. 10: Height adjustment Thickness planer table

8.5 Conversion from thickness planer to surface planer function

Step 1: Switch off the machine.

Step 2: Loosen the clamping lever (1, Fig.8) and turn the thickness planing table at least 200 mm below the cutter block with the help of the handwheel (2, Fig.10).

Step 3: Swivel the dust extractor (2, Fig.9) to the left. Use extreme caution to avoid contact with the knives of the cutter head.

Step 4: Loosen the latch (1, fig.9) and lower the table slowly.

Step 5: Lock the two clamping levers (1, Fig.8) on the side of the machine to secure the worktable.



NOTE!

Make sure that the safety limit switch is activated, otherwise the machine cannot be switched on.

8.6 Setting the planing knives



DANGER!

Cutter heads are dangerously sharp! Exercise extreme caution when checking, removing, sharpening or replacing knives of the cutterhead. Failure to do so may result in serious injury.



Wear protective gloves!

Step 1: Disconnect the unit from the power source and remove the cutter head protection.

Step 2: Loosen the screws (4, Fig.11). The force of the spring (1, fig.11) will automatically push the blade (2, fig.11) out.

Step 3: Remove the knives and clean the support surface.

Step 4: Insert the new knife with the five screws (4, fig.11) so that its surface above the cutter head is max. 1.1 mm. The manufacturer recommends a height of 0.7 to 0.8 mm.

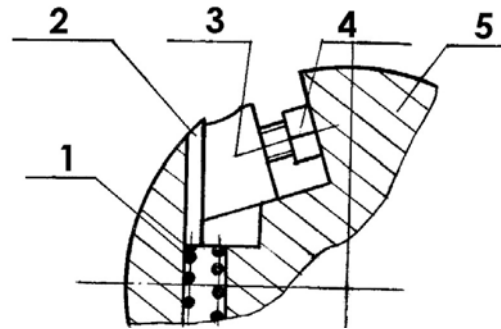


Fig. 11: Change knife

Step 5: Tighten the screws firmly.

Step 6: After all the above steps are completed, check that all five screws are properly seated and all protective covers are in place.



DANGER!

Do not use knives with a width less than 17mm.

9 Operation of the surface and thickness planer



WARNING!

Danger to life!

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

- 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.
- Disconnect the unit from the power source before making adjustments.
- The operator must not work if he is overtired or suffers from concentration disorders.
- Only one person is allowed to operate the Planner-Thicknesser. Other persons must stay away from the working area during operation.



CAUTION!

Danger to health!

Wood dust and shavings can damage the lungs when inhaled. The machine may only be operated with a suitable extraction system.



DANGER!

Check the electrical connection, cables and contacts before commissioning.



Wear ear protection!



Wear dust mask!



Wear safety shoes!



Wear protective work clothing!



Wear protective goggles!

- Always ensure a clean, free working area and free access to the machine and the machine's peripherals.
- Place tools and other obstacles in a designated place at a sufficient distance from the machine.
- Ensure that there is sufficient lighting in the working area that does not create shadows or a stroboscopic effect. Minimum brightness 500 lux.
- Connect an extraction system to the machine.
- Never place tools or other objects on the work table or covers.
- Never remove safety devices, covers or limit switches before operation.
- Do not operate the machine until you have familiarized yourself with the contents of the operating instructions (user manual).
- Ensure that the electrical cables are not damaged to avoid injury from electric current.
- Check regularly that the safety covers are correctly fitted and not damaged.
- Repair damaged covers immediately or replace them by a qualified person.
- Do not operate the appliance with the cover removed.

- Do not use tools that are warped, broken or blunt.
- Always use the tool that is suitable for the specified work and corresponds to the machine.
- The tools, knife blocks, must comply with EN 847-1.
- Replace blunt tools as soon as possible, as blunt tools can cause injury or damage.
- Never use the tools at higher speeds than recommended by the manufacturer.
- Stop all machine functions before replacing tools and unplug the power cord from the wall outlet.

9.1 Switch on the machine

Step 1: Plug the power cord into the power outlet when a properly sized plug is connected.

Step 2: Press the green power button to start up (Fig. 12).

Step 3: Press the red off button (Fig. 12) to stop the machine.



Fig. 12: Operating elements START and STOP button

9.2 Work process



DANGER!

- Observe general safety instructions.
- Observe the direction of rotation of the machine.
- Cover the cutter head with the blade guard (when machining a workpiece, push on only as far as necessary).
- Only machine short or small workpieces with a tool, e.g. guide bar.
- Check workpieces for foreign bodies and defects, e.g. nails, adhesions, cracks, metal objects or other foreign bodies.
- In the case of conical surfaces, work with a small in-feed first.
- In the event of sudden machine standstill, e.g. power failure, tearing of belts or similar, stop work immediately.

Correct working position

The operator must stand offset to the infeed table.

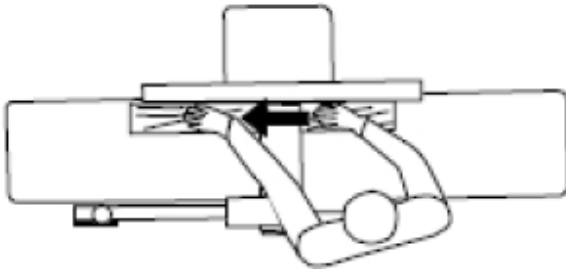


Fig. 13: Offset position of the operator to the infeed table

Step 1: At the beginning of the cut, the left hand holds the workpiece firmly against the feed table and the fence, while the right hand presses the workpiece towards the cutting head in a smooth, even movement.

Step 2: After the cut, the new surface rests firmly on the outfeed table. The left hand is transferred to the output side (Figure 13) and presses on this part of the workpiece while maintaining flat contact with the fence. The right hand presses on the workpiece in the forward direction. Before the right hand reaches the cutting head, it should be moved toward the workpiece on the outfeed table.

Surface treatment

The purpose of planing on a surface planer is to produce a flat surface. The other side of the workpiece can then be planed to precise, final dimensions on a thicknessing machine. The result is a board that is smooth, flat or even on both sides and parallel on each side.

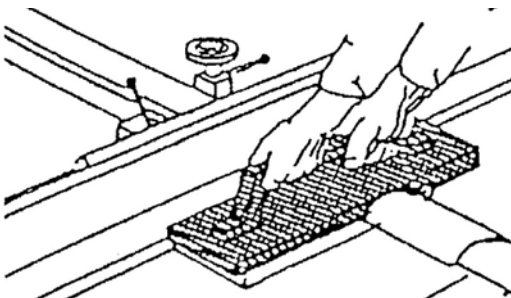


Fig. 14: Offset position of the operator to the infeed table

Step 1: If the wood is bowl-shaped or curved, lay the concave side down.

Step 2: Remove thin layers of material until the surface is flat.

Never machine parts shorter than 304 mm or thinner than 9.5 mm without using special work holders. Never machine parts thinner than 76 mm without using a sliding block.

Material cuts of about 1.5 mm each are recommended, which gives better control over the material during surface machining. The desired depth can then be achieved in several passes.

Drain direction

Avoid feeding material into the surface plane against the grain direction.

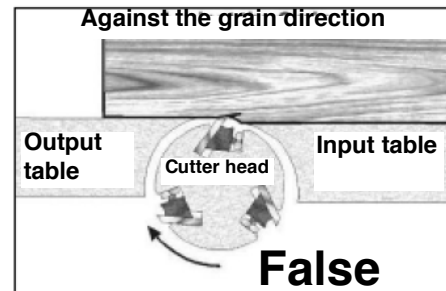


Fig. 15: Machining against the grain direction

This can lead to broken and splintered edges. Feed the material in the direction of the grain to obtain a smooth surface, as shown in Figure 16.

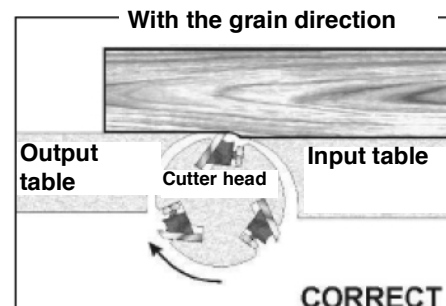


Fig. 16: Operating in grain direction

9.3 Dressing

Dressing (or edging) is the process of producing a finished, flat edge surface suitable for joinery or finishing. This processing step is also necessary if a workpiece is to be cut widthwise on a table saw.

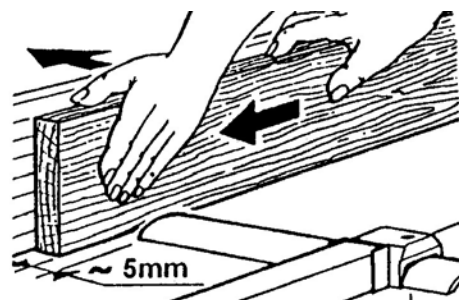


Fig. 17: Stop for thin boards

When dressing narrow pieces, the cutter cover must be adjusted so that the distance between the workpiece and the cutter cover is max. 5 mm.

When dressing wood wider than 76 mm, place your fingers over the top of the wood.

Guide them back over the fence block so that they serve as a support for your hands in case of a kickback.

Position the fence block (move forward) to expose only the required area of the cutter head.

If the workpiece is twice as long as the planer infeed or outfeed table, support is required at the infeed or outfeed.

9.4 Applications of the surface planer

Step 1: Make sure that the stop is set to 90 °. Double check the position with an angle measurement.

Step 2: Check that the workpiece is in good condition and that the grain direction is correct.

Step 3: When the board is bent (curved), place the concave edge down on the infeed table.

Step 4: Adjust the infeed table for a cut of approximately 1.5 mm.

Step 5: Press the board firmly against the stop and the table, feed the board slowly and evenly over the cutting head.

9.5 Chamfering

Chamfering an edge is the same operation as edge planing, except that the limit stop is inclined at a certain angle.

Bevelling process:

Step 1: Use a chamfer gauge to set the desired angle. Set the stop to the same angle.

Step 2: Check the workpiece for proper condition and grain direction.

Step 3: Adjust the dressing table for a cut of about 1.5 mm.

Step 4: When the board is bent (curved), place the concave edge down on the infeed table.

Step 5: Guide the material over the planing knives, making sure that the front of the material is pressed completely flat against the fence and that the edge is in firm contact with the in-feed and out-feed tables (Fig.18).

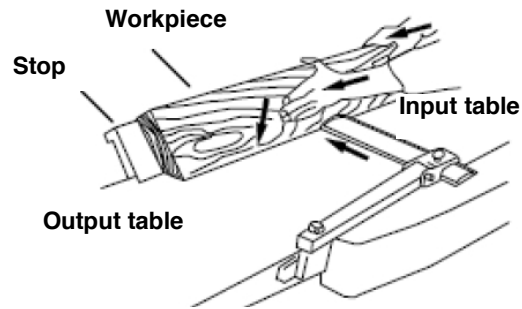


Fig. 18: Bevel process

9.6 Thickness planing



DANGER!

Before processing on the thickness planer, the workpiece should be levelled.



DANGER!

For workpieces with different thicknesses, first feed the end of the greater thickness at both ends to avoid wedging.

Depth of cut

Thickness planing is used to produce wood of a desired thickness. A plane is created that is parallel to the opposite side of the wood panel.

The thickness of the board that the planer will produce is indicated by the scale on the thickness planing table.

Set the planer to the desired thickness that the finished workpiece should have, using the gauge. The cutting depth is adjusted by raising or lowering the planing table.

The quality of thickness planing depends on the operator's judgement of the appropriate cutting depth.

The appropriate depth of cut depends on the width, hardness, damping, grain direction and grain structure of the wood.

Use the handwheel to set the material removal (chip) to max. 2.5 mm.

The board must be planed with flat cuts until the workpiece has a flat side. Once a flat surface is created, turn the wood over and machine the opposite surface until it is parallel to the previously machined surface.

Plane the sides alternately until the desired thickness is achieved. When half of the total cut from each side has been removed, the board will have an even moisture content and additional drying will not cause deformation.

The wider the work piece, the lower the cut should be.

When planing hardwood, use thin cuts or plane the wood in thin layers.

Make a test with a test piece and check the thickness.

Check the accuracy of the test cut before working on the product to be made.



DANGER OF INSERT!

There is a danger of being drawn in by the rotating feed rollers! Keep sufficient distance to the inside of the surface planer. Use a feeding aid if you want to push smaller workpieces into the machine.

Precautions

A planer is a precision woodworking machine and should only be used for the processing of quality wood.

Do not plane dirty boards; dirt and small stones are abrasive and wear the blade.

Remove nails and staples. Use the plane only for wood.

Avoid planing knots in the wood. Strongly coarse-grained wood forms hard knots. The knots can become loose and block the blades.

Any branch that hits the planer knives can be forcibly ejected from the planer, creating a risk of injury to the operator.

Preparation of the work process

A planer works best when the lumber has at least one flat surface. Use a surface planer to create a flat surface.

Twisted or heavily warped boards can block the plane. Cut the wood in half to reduce the amount of twisting.

The workpiece should be placed in the planer in the same direction as the grain of the wood. Sometimes the wood changes direction in the middle of the board. In such cases, if possible, cut the board in the middle so that the grain direction is correct.

Never plane a board that is less than 152 mm long. When planing short boards, it is recommended that you let them bump against each other to avoid kickback and reduce ejection.

Loading of the planer table

The planer is supplied with planing knives mounted in the cutter head and with infeed and outfeed rollers set to

the correct height. The planer feed can be adjusted with the lever (3, fig.19).

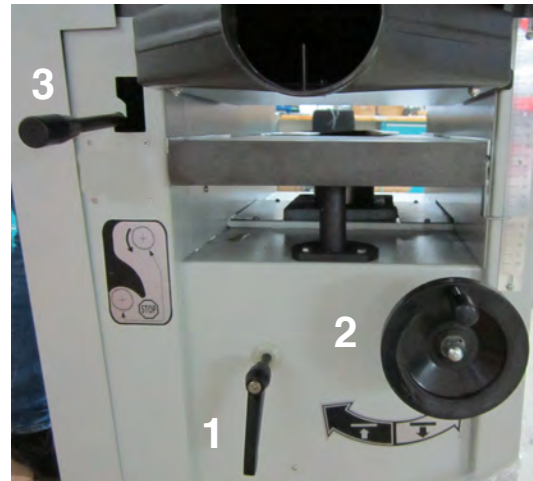


Fig. 19: Height adjustment Thickness planer table

Preparation:

The feed speed refers to the speed at which the wood is fed through the planer.

The operator is responsible for aligning the workpiece so that it is fed properly.

Raise or lower the thicknessing planer table by turning the handwheel (2, Fig. 19) to achieve the desired cutting depth.

The surface produced by the planer will be smoother if a smaller cutting depth is used.

Stand on the side where the handle is attached.

Boards longer than 609 mm should have extra support from additional material stands.

Application of the planer:

Step 1: Position the workpiece with the surface to be planed facing upwards in the direction of the knives.

Step 2: Switch on the power supply and the planer.

Step 3: Push the workpiece into the infeed side of the planer until the infeed roller starts to grip the workpiece.

Step 4: Release the work piece and switch on the feed.



NOTE!

Do not push or pull on the workpiece. Go back and remove the planed lumber in the same way as you inserted it. To avoid the risk of injury from the material being thrown out, do not stand directly in line in front of or behind the planer thicknesser.

Step 5: Do not touch any part of the board that has not yet passed the discharge roller.

Step 6: Repeat this procedure for all boards that must have the same thickness.

10 Care, maintenance and repair



DANGER!

Risk of fatal injury due to electric shock!

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

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

10.1 Care after end of work



CAUTION!

Health hazard!

Wood dust and shavings can damage the lungs when inhaled. Wear a dust mask when emptying the collection container and when cleaning the suction system.



Wear protective gloves!



Wear dust mask!



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 planing 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: The wood feed rollers for thickness planing tend to become soiled in case of resinous woods or poplar. Clean the wood feed rollers and the bearing housings regularly.

Step 6: Check the machine for damage to the safety devices and the planing knife. If necessary, carry out or arrange for repairs, observing the safety instructions.

Step 7: Check the machine regularly for

- Suitable tension of the drive belt.
- Loose screws and nuts.
- Worn or damaged switches.
- Worn or damaged planing knives.

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

Step 9: The cylindrical thickening table guide and the lifting frame should be cleaned and coated with a lubricant.



NOTE!

The table surface should be regularly sprayed with a lubricant or lubricant product such as Sliber-gleit or Molycote to improve the sliding of the work pieces.

10.1.1 Functional test

A functional test should be carried out before each use.

Step 1: The drive belt must be under tension.

Step 2: The planing knife must rotate freely and must not jam.

Step 3: Check the connection cable for damage.

10.1.2 Suction

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

10.1.3 Lubrication

Use a good grease on the steel adjusting screws located in the lifting and lowering mechanisms of the work tables.

The electric motor is basically maintenance-free (sealed bearings). The planer/thicknesser shafts are mounted in maintenance-free, sealed bearings.

10.2 Maintenance and repair

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

If the Planner-Thicknesser does not function properly, contact a specialist dealer or our customer service. The contact details can be found in chapter 1.2 Customer service. All protective and safety devices must be reinstalled immediately after repair and maintenance work has been completed.

Read the operating instructions carefully and completely with regard to maintenance:

- Keep your fingers away from the belt and pulleys during maintenance work.
- When replacing electrical parts, switch the machine off at the MAIN switch and remove the plug from the socket. Defective parts should only be replaced with original spare parts.
- Do not remove or block safety devices such as covers, limit switches.
- Do not switch on the machine until all covers that have been removed for maintenance purposes are back in place.
- Always keep the maintenance area, including the workplace, clean.
- Maintenance work must be carried out by qualified personnel in accordance with the instructions issued by the machine manufacturer.
- When replacing parts or tools, use only original spare parts.
- Use only specified lubricating oils and greases.
- If the belt is worn out, replace the belt.
- Do not use compressed air to clean the machine or remove chips.

Care of the planer blades

Blades are extremely sharp! Be careful when cleaning or changing them. Non-observance can lead to serious injuries!

The condition of the blades affects the precision of the cut. Observe the cut quality produced by the planer to check the condition of the blades.

Blunt blades tear instead of cutting the wood fibres. They leave a fibrous appearance.

Torn fibres occur when dull blades strike wood of different density. A raised edge is also produced where the blades have been nicked. If gum and residue accumulates on the blades, carefully remove it with a strong solvent.

Failure to remove rubber and other residues can lead to excessive friction, blade wear and overheating. Resharpen the blades or replace them if they become dull.

Sharpening the knives

Blades are extremely sharp! Be careful when handling the blades. Failure to do so may result in serious injury!

Step 1: Disconnect the machine from the power supply.

Step 2: Remove the blade guard and belt cover.

Step 3: To protect the input table from scratches, partially cover the grindstone with paper (Fig. 20).

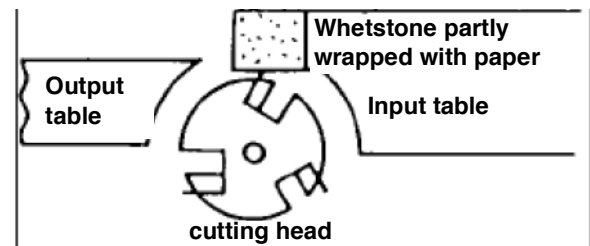


Fig. 20: Sharpening the knives

Step 4: Place the stone on the input table.

Step 5: Lower the input table and rotate the cutter head by turning the cutter drum. The height of the in-feed table is correctly adjusted when the stone surface is flush with the knife bevel.

Step 6: Stop the cutter head from rotating by holding the cutter drum while the stone slides back and forth across the table.

Step 7: Make the same number of passes for all three blades. If the blades have been sharpened and are still not cutting efficiently, replace the blades.

If the blades are sharpened and still not cutting efficiently, further reworking of the blades will only result in the formation of a second bevelled edge. If this happens, you will need to replace the blades with a new set.

It is recommended that you keep a second set of blades ready so that they can be installed while the first set is being professionally sharpened.

Changing the planing knives

In order to be able to freely rotate the knife block to disassemble all knives, the belt must be removed for this purpose.

Proceed as follows to replace the planing knives:

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

Step 2: Remove the workpiece stop.

Step 3: Remove the side machine cover.

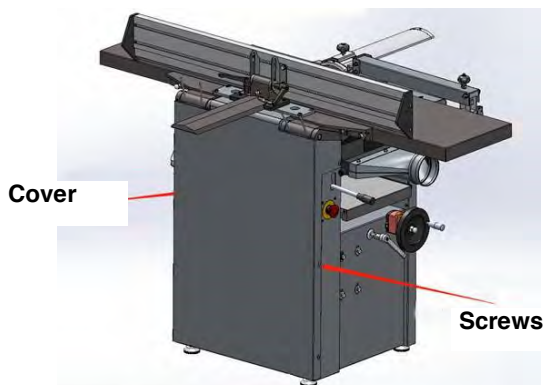


Fig. 21: Remove machine cover

Step 4: Release the drive belt.

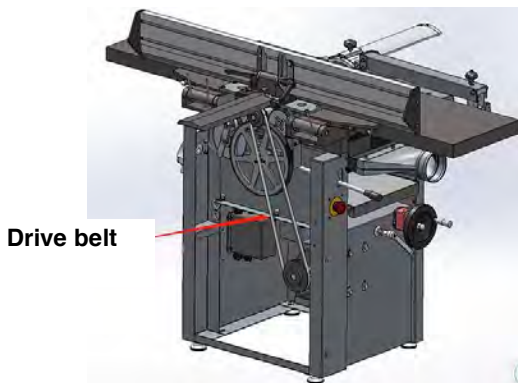


Fig. 22: Release the drive belt

Step 5: Replace and adjust the knife according to chapter 8.6.

Step 6: Tension the drive belt again.

Step 7: Reassemble the machine cover and workpiece stop.

Setting of the dressing table

For the precise adjustment of the thickness planer three things must be fulfilled:

- The input and output table must be coplanar.
- Knives or knife inserts must be inserted into the cutting head so that the highest point is in one plane with the output table.
- On the standard cutting head, the knives must be parallel to the output tables over the entire length of the knife.
- A straight edge of more than 1 meter is required to adjust the work table.



NOTE!

The front working table (blue, Fig.23) is not adjustable.

Proceed as follows to adjust the dressing table:

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

Step 2: Release the clamping lever (Fig.23).

Step 3: Position the straight edge. The straight edge should lie straight and level over both tables.

Step 4: Raise the input table by turning the two adjustment screws on the support plate until it touches the straight edge.

Step 5: Check parallelism of the two dressing tables.

Step 6: Tighten the clamping lever (Fig.23).

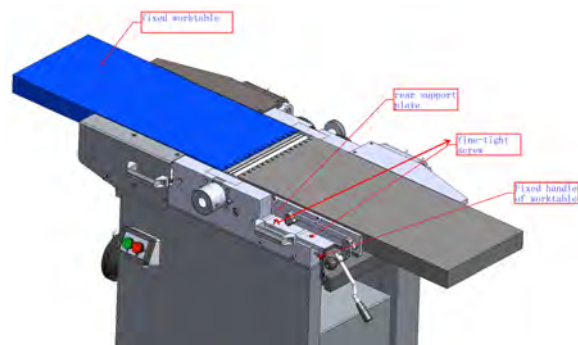


Fig. 23: Table adjustment

Tension the drive belt



Wear protective gloves!

Proceed as follows to tension the drive belt:

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

Step 2: Swivel the dressing table backwards.

Step 3: Release the front protective cover.



Fig. 24: Remove protective cover

Step 4: Tension the drive belt by loosening or tightening the two nuts A (Fig.25).

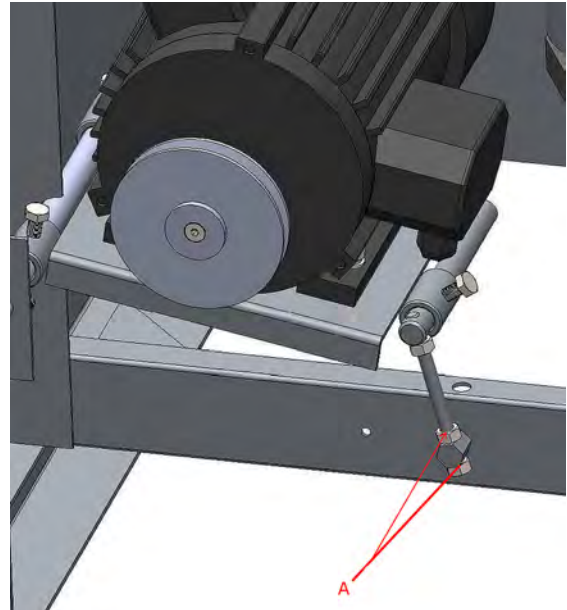


Fig. 25: Tension the drive belt

Step 5: Swing dressing table down.

Step 6: Refit the front protective cover.

11 Mechanical Troubleshooting - Planer-Thicknesser

Fault	Possible cause	Solution
Chain jumping.	Inadequate tension.	Adjust the chain tension.
	Sprockets misaligned	Align sprockets
	Sprockets are worn.	Replace the sprockets.
Machine does not start / does not restart	No incoming power.	Check that the device is connected to the power supply, the START button is pressed completely, and the STOP button is released.
	The automatic overload reset has not restarted.	<p>If the overload switch on the circuit breaker in the motor starter is overloaded, it takes time for the machine to cool down before restarting. Allow the machine to cool down sufficiently before restarting.</p> <p>If the problem persists, check the ampere setting on the motor starter in the electrical box.</p>

12 Troubleshooting

12.1 Troubleshooting table dresser

Fault	Possible cause	Solution
The finished workpiece is concave at the end of the workpiece after machining.	The knife is set higher than the discharge table.	Adjust the cutting head knives and the output table to each other. (See Setting the Cutting Head Knives)
After machining, the finished workpiece is concave at the beginning of the workpiece.	The outfeed table is higher than the knife.	Adjust the cutter head knife with outfeed table.
Chip out.	Cutting against the grain direction.	If possible, always cut with the grain direction.
	Blunt knives.	Sharpen or replace the knives/knife inserts.
	The workpiece feed is too fast..	Use a slower feeding speed.
	Cutting too deeply.	Make shallower cuts.
	Knots, imperfections in wood.	Inspect wood closely for imperfections; use different stock if necessary
Structure is fibrous.	The wood has a high moisture content.	Allow the wood to dry or use a drying chamber.
	Blunt knives.	Sharpen or replace the knives/knife inserts.
The cutter head slows down during operating.	The workpiece is conveyed too quickly or too much pressure is exerted on the workpiece.	Feed more slowly or apply less pressure to workpiece.
„Chatter“ marks on the workpiece.	The knives are inserted incorrectly.	Insert the knives correctly. Check that the knife slots are clean.
	Feeding workpiece too fast.	Feed workpiece slowly and consistently.
Uneven knife marks on the workpiece.	Knives are nicked or incorrectly adjusted.	Adjust the knives. Replace the nicked knives.

13 Troubleshooting table - Planer

Fault	Possible cause	Solution
Snipe NOTE: Snipe can be minimized but not eliminated.	The knife is set higher than the output table.	Align the cutting head knives and the output table. (See „Setting the Cutting Head Knives“)
	Insufficient support of a long board.	Support a long board with extension rolls.
	Uneven feed roller pressure from front to rear.	Adjust the feed roller tension.
	Blunt knives.	Sharpen or replace the knives.
	Lumber not butted properly	Butt end to end each piece of stock at the pass through.
Structure is fibrous..	The wood has a high moisture content.	Allow the wood to dry or use a drying chamber.
	Blunt knives.	Sharpen or replace the knives/knife inserts.
Torn grain	Too heavy a cut..	Adjust proper depth of cut
	The knives cut against the grain.	.Cut in grain direction.
	Blunt knives.	Sharpen or replace the knives
Rough / Raised Grain	Blunt knives.	Sharpen or replace the knives
	Too heavy a cut..	Adjust proper depth of cut
	Moisture content too high.	Make sure that the wood dries.
Rounded, glossy surface	Blunt knives.	Sharpen or replace the knives
	Feed speed too slow	Increase the speed.
	Cutting depth too shallow.	Increase the depth.

Fault	Possible cause	Solution
Poor feeding of lumber.	Uneven feed roller pressure.	Adjust the feed roller tension.
	Planer bed is rough or dirty.	Clean the incline and remove any residue.
	The transmission V-belt slips.	Tighten the transmission V-belt.
	The surface of the feed rollers is clogged.	Clean the pitch and remove the residue from the teeth.
Uneven depth of cut side to side	Knife projection	Adjust the knife protection.
	Cutter head not level with bed.	Adjust the table bed level.

14 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.

14.1 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.

14.2 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.

14.3 Disposal of lubricants

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

14.4 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.

15 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.

15.1 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 part orders which do not include the above indications may not be taken into consideration. If the indications regarding the mode of dispatch are missing, the product is dispatched at the discretion of the supplier.

You will find information regarding the device type, item No. and year of construction on the type plate which is fixed on the machine.

Example

The engine for the Planer-Thicknesser ADH 31-4 C - 400V must be ordered. The engine has the number 11 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 (11) to the dealer or spare parts department and provide the following information:

- Type of device: **Planer-Thicknesser
ADH 31-4 C - 400V**
- Item number: **5904013**
- Drawing number: **1**
- Position number: **11**

15.2 Spare parts drawings ADH 31-4C and ADH 41-4C

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.

Spare parts drawing 1

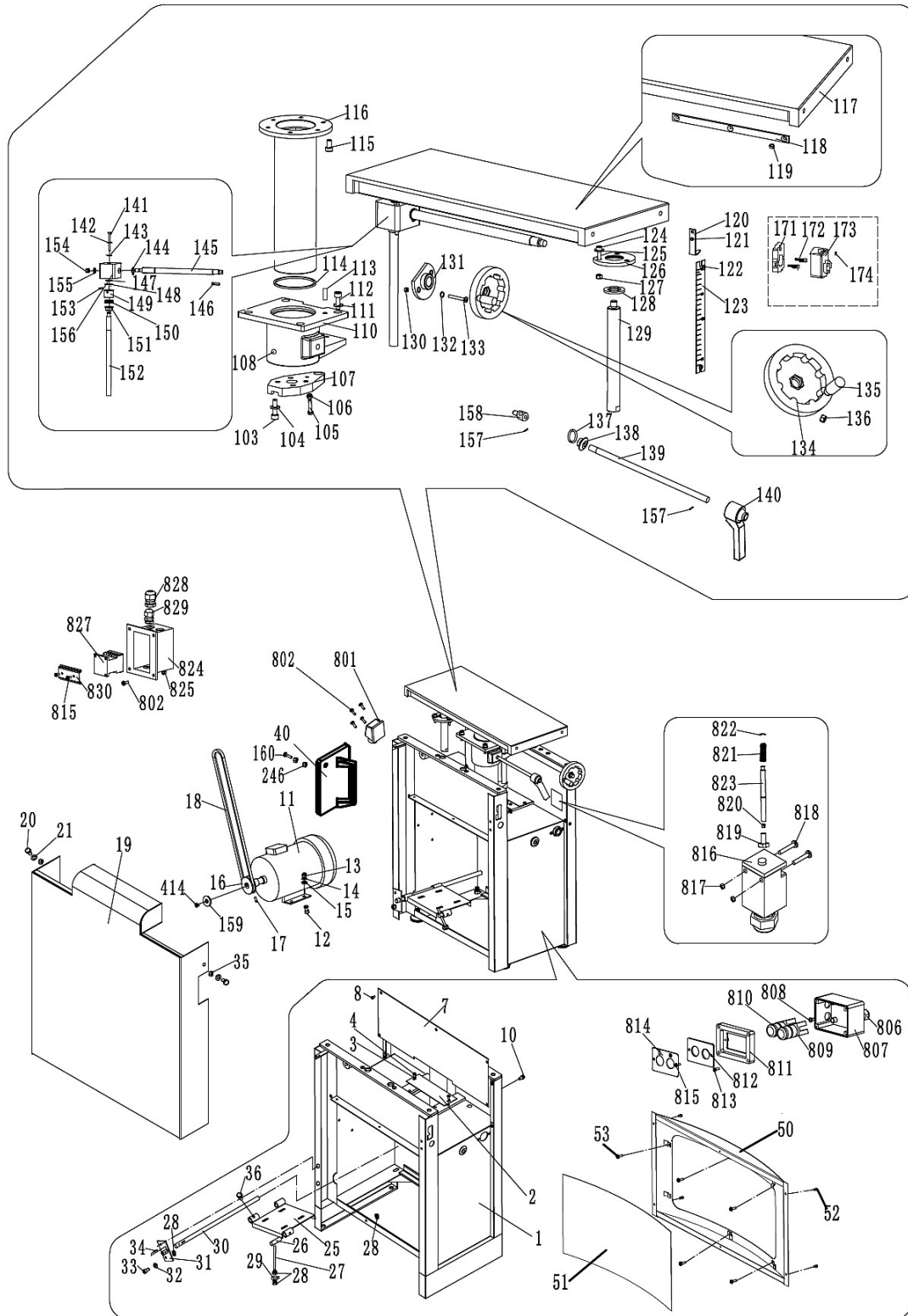


Fig. 26: Spare parts drawing 1 ADH 31-4 C and 41-4 C

Spare parts drawing 2 for machines with angle scale

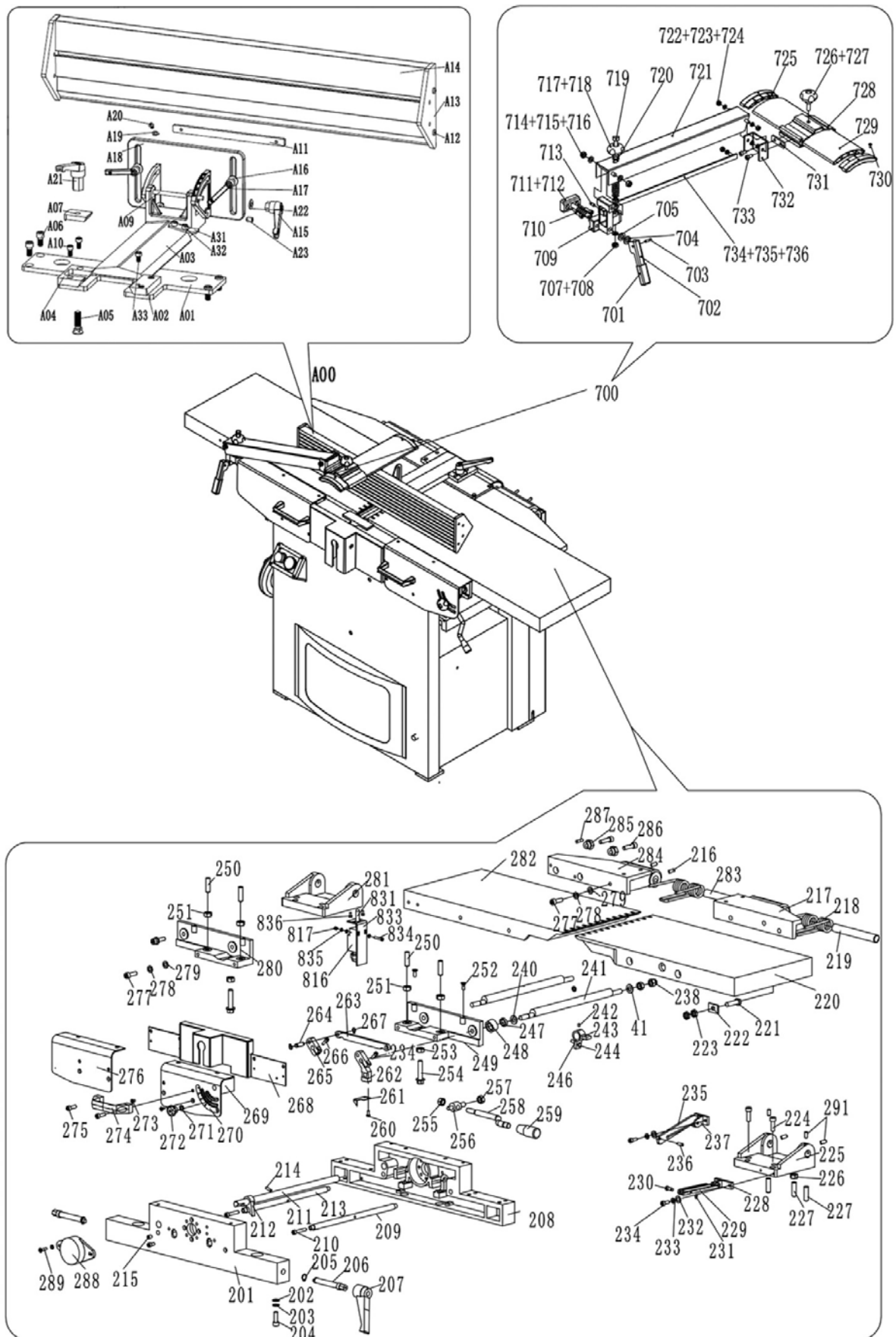


Fig. 27: Spare parts drawing 2 ADH 31-4 C and 41-4 C

Spare parts drawing 2 for machines without angle scale

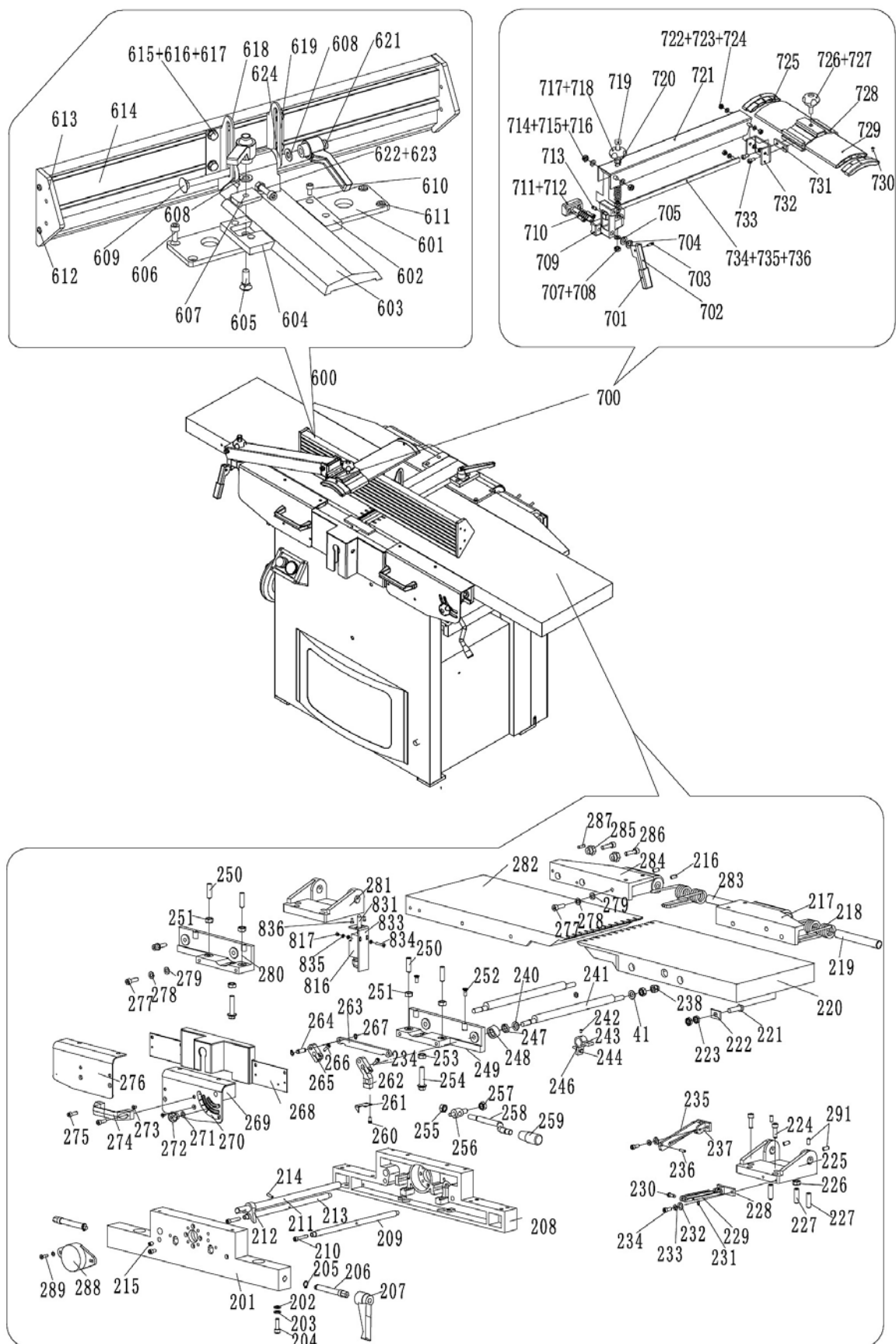


Fig. 28: Spare parts drawing 2 ADH 31-4 C and 41-4 C

Spare parts drawing 3

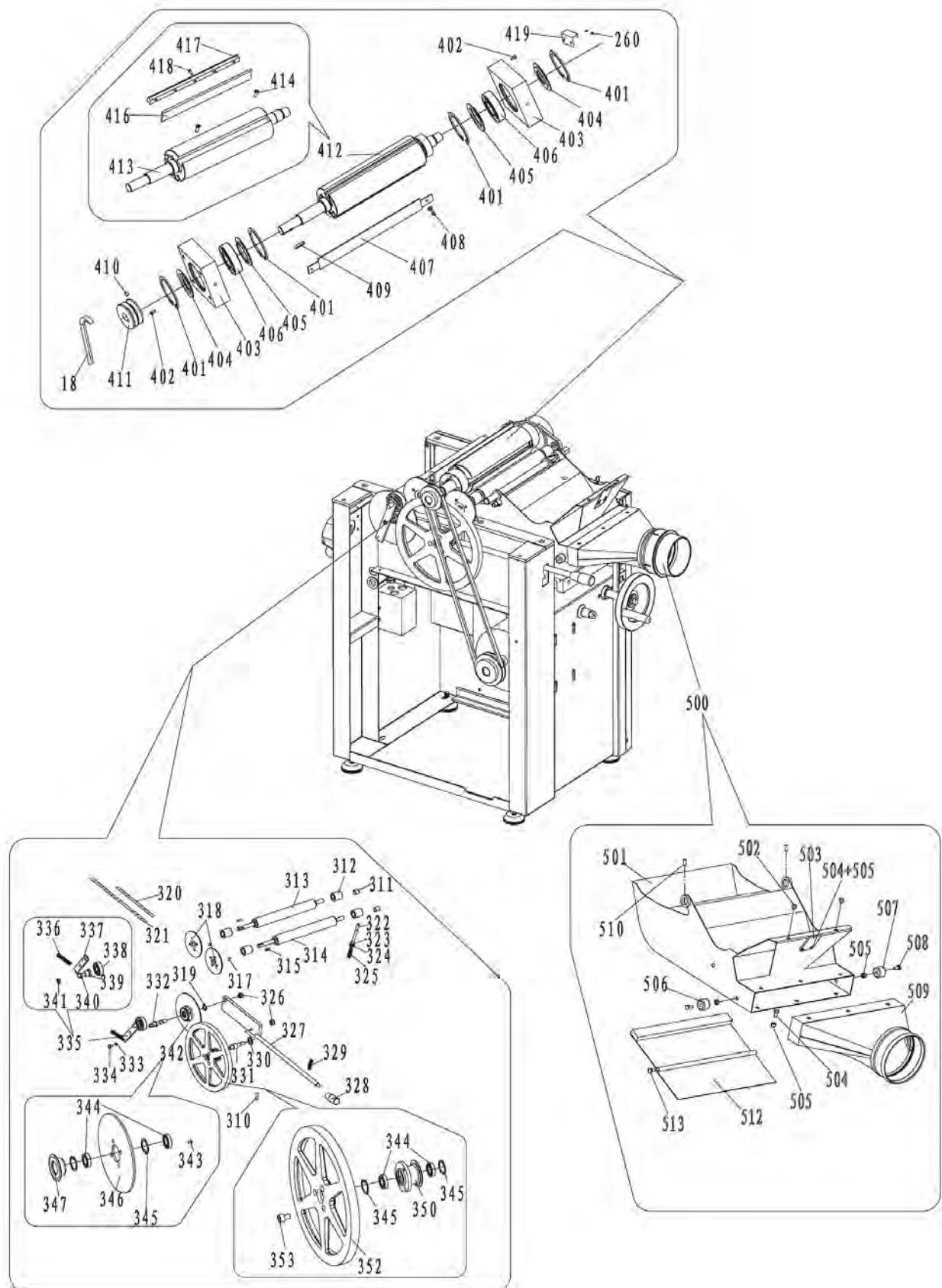


Fig. 29: Spare parts drawing 3 ADH 31-4 C and 41-4 C

16 Electrical circuit diagram ADH 31-4C and ADH 41-4C

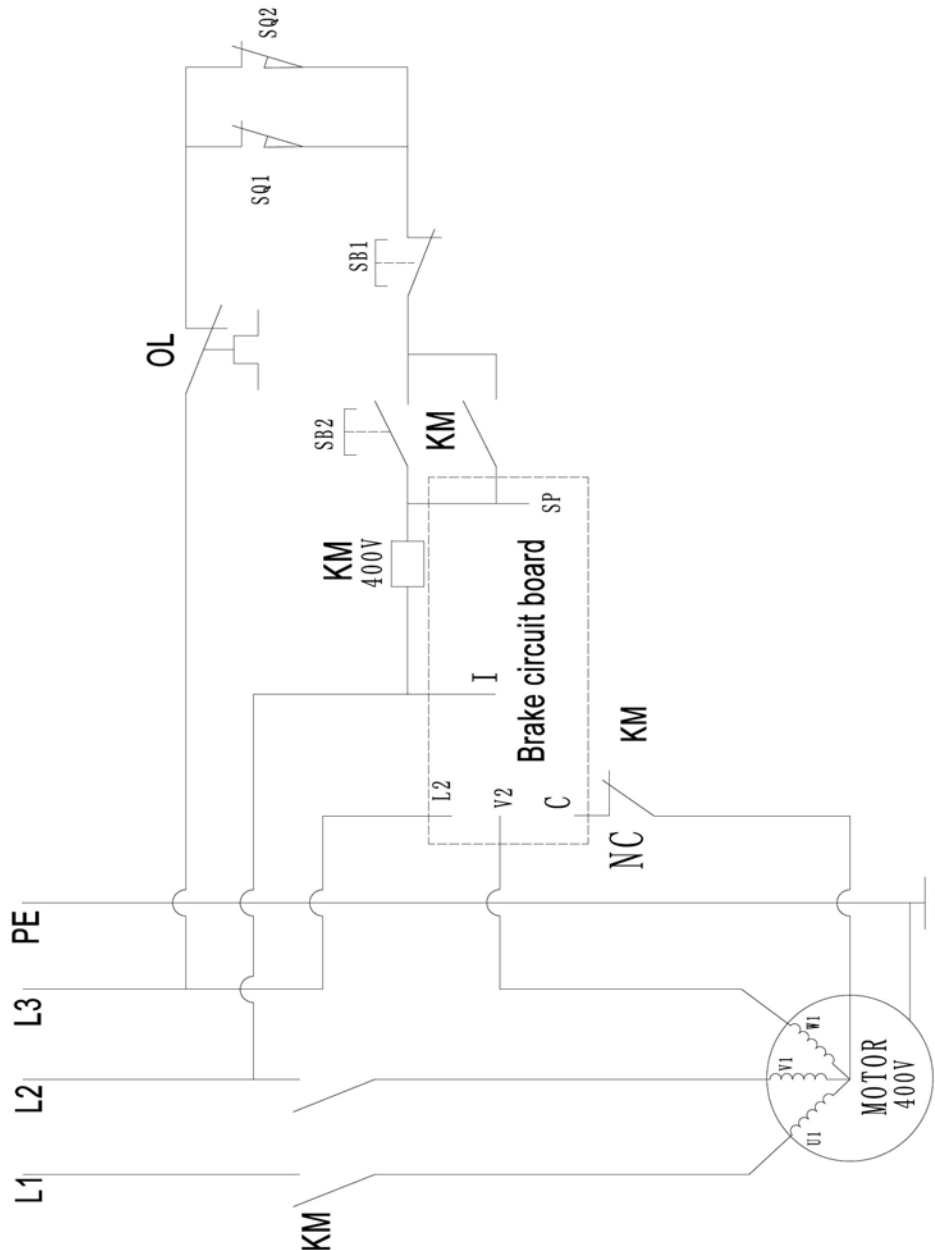


Fig. 30: Electrical circuit diagram

Listing

Pos.	Component	Pos.	Component
KM	AC contactor	NC	Closed terminal of AC contactor
C	Terminal for NC	V2	Terminal for motor
L2	Terminal for power cord	SP	Terminal for AC contactor's coil
SB 1	Stop Button	SB 2	Start up Button
SQ 1	Micro Switch 1	OL	Reset Thermal Protector of Motor
SQ 2	Micro Switch 2		

17 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 *: ☐ ADH 31-4 C 400 V **Item number *:** ☐ 5904013
☐ ADH 41-4 C 400 V ☐ 5904024

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

The following harmonized standards have been applied:

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
DIN EN 60204-1:2019-06	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
DIN EN ISO 19085-7:2019-10	Woodworking machines - Safety - Part 7: Surface planing, thickness planing, combined surface/thickness planing machines

Responsible for the documentation: Kilian Stürmer, Stürmer Maschinen GmbH,
Dr.-Robert-Pfleger-Str. 26, D-96103 Hallstadt
Hallstadt, 29.08.2022



Kilian Stürmer
Manager



