holzstar
Holzbearbeitungsmaschinen

Instruction Manual

Table Saw

- TKS 200 - 230V
- TKS 254 E - 230V, 400V
- TKS 254 PRO - 230 V, 400V

TKS 200

TKS 254 E

TKS 254 PRO

TKS - SERIES

Imprint

Product identification

Circular Table Saw	Item number
TKS 200 - 230V	5902020
TKS 254 E - 230V	5902025
TKS 254 E - 400 V	5902026
TKS 254 PRO - 230 V	5902027
TKS 254 PRO - 400 V	5902028

Manufacturer

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Information on Operating Instructions

Original Operating Instructions

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Copyright Information

Contents

1 Introduction

You have made an excellent choice in purchasing a HOLZSTAR Circular Table Saw.

Carefully read the operating instructions priorto commissioning.

They describe correct commissioning, intended use and safe as well as efficient operation and maintenance of the Circular Table Saw.

The operating instructions form part of the Circular Table Saw. Always keep them at the Circular Table Saw location of use. Please also observe the local accident prevention regulations and general safety regulations for the use of the Circular Table Saw.

1.1 Copyright

The contents of these operating instructions are protected by copyright. Their use is permitted within the context of using the Circular Table Saw. 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 Circular Table Saw or require any technical information. Your specialist retailer will be happy to support you with specialist advice and information.

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

Repair service:
Fax: 0049(0)951 96555-111
E-Mail: service@stuermer-maschinen.de
Internet: www.holzstar.de

Spare parts orders:
Fax: 0049(0)951 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 re-sult 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, taskspecific 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 potentially dangerous situation which may cause death or serious injury if not averted.

WARNING!

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

IMPORTANT!

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

ATTENTION!

This combination of symbol and signal word indicates a potentially hazardous situation which, if not avoided, could result in property damage and environmental damage.

NOTES!

This combination of symbol and signal term indic tes 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 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:

Ear and head protection

The ear protection protects against hearing damage due to noise. The industrial helmet protects the head against falling objects and knocking against fixed objects.

Eye protection

Protective glasses protect the eyes against pro-jected parts and splashes of liquid.

Protective gloves

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

Safety boots

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

Protective clothing

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

2.3 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 applica-tion 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 addi-tional 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 hand-ling the machine have read and understood these operating instructions. Operators must also regu-larly 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.

2.4 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!

Riskfr omin adequatelyq ualified 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 autho-ri-sed 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.

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.

2.5 Safety labels on the Circular Table Saw

The following safety labels and instructions are attached to the Circular Table Saw (Fig. 1) and must be observed.

Fig. 1: Safety labels

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

As soon as the signs are not clearly visible and com-prehensible at first glance, the machine must be stop-ped until new signs have been attached.

WARNING!

Read all safety instructions and instructions. Failure to follow safety instructions and instructions may result in electric shock, fire and / or serious injury.Retain all safety instructions and instructions for the future.

2.6 Safety devices

Chip guard

The chip guard protects against accidental contact with the saw blade and flying chips. The chipbreaker must always be mounted during operation.

Push stick

The push stick serves as an extension of the hand and protects against accidental contact with the saw blade. The push stick must always be used if the distance between the stop profile and the saw blade is less than or equal to 120 mm.

2.7 General safety instructions

Please note the following:

- Use the guards and secure them securely. Never work without guards and get them working.
- Always keep the table saw and its working environment clean. Ensure adequate lighting and ventilation.
- The table saw must not be modified in its design and should not be used for purposes other than those foreseen by the manufacturer.
- Never work under the influence of concentration-disturbing illnesses, fatigue, drugs, alcohol or medicines.
- Keep children and not with the table saw.Familiar people away from their working environment.
- Do not pull on the mains lead to pull the plug out of the socket. Protect the cable from heat, oil and sharp edges.
- Eliminate disturbances that affect safety immediately.
- Before each use, make sure that no parts of the table saw are damaged.
- Damaged parts must be replaced immediately to avoid danger sources.
- Do not overload the table saw! You work better and safer in the specified performance range.
- Do not wear watches, rings or other jewelry and roll back the sleeves before working with the table saw.
- Do not use the pump in hazardous areas or near flammable liquids and gases.
- Do not touch the power plug with wet hands.
- After switching off the working machine, the extraction system will run for another 3-4 seconds and then switch off automatically. The residual dust is sucked out, as required in the Hazardous Substances Ordinance. This saves electricity and reduces noise. The extraction system runs only while the machine is being operated.
- For work in the commercial sector, a suction system must be used for suction.
- Do not switch off or remove the extraction system or dust extractor while the machine is running.
- Keep the floor around the machine clean and free of scrap, sawdust or oil to avoid the risk of tripping or slipping.
- Only use original spare parts and accessories to avoid possible risks and risks of accidents.
- Basically, the workpieces to be machined must be free of foreign bodies such as nails or screws.
- Should it be necessary to work next to the machine, the use of ear protection (headphones,Earmuffs, etc.) required.

IMPORTANT!

Do not disassemble protective devices on the table saw. Remember the position (location) of the emergency stop button so that you can use it immediately at any time.

DANGER!

The machine may only be used, maintained or repaired by persons who are familiar with it and have been informed of the dangers. Unauthorized modifications to the machine exclude liability of the manufacturer for resulting damages

IMPORTANT!

Do not wear a long piece of clothing and use a hair protector.

DANGER!

Check the saw blade for cracks or missing teeth. Do not use cracked or dull blades. Make sure the blade is firmly seated on the shaft.

DANGER!

Do not reach near the blade to remove any parts or scrap while the saw blade is running.

DANGER!

Always use the blade guard and push stick while working on the table saw.

DANGER!

Never clean the table saw during operation.

ATTENTION!

When working with wood always wear a dust mask to avoid health risks caused by wood dust.

DANGER!

Never let the table saw run unattended. Always switch off the machine as soon as you leave your workplace.

DANGER!

Always switch off the machine and disconnect the mains plug if you want to clean or replace the saw blade.

3 Indended use

The table saw is designed exclusively for processing wood and wood-like materials. Only original tools and accessories may be used. Depending on the cut and type of wood (solid wood, plywood or chipboard), use the required saw blade.

The table saw is not intended for commercial use.

It must not be operated in potentially explosive environments and the max. permissible temperature must not be exceeded. It must be operated with a suitable extraction system.

Proper use also includes compliance with all information in this manual.

For structural and technical changes to the sliding table saw the company Stürmer Maschinen GmbH assumes no liability.

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

DANGER!

Any modification of the device is prohibited. The change may result in the expiration of the warranty, fires and injuries, even fatal, to the user. The manufacturer assumes no responsibility for any damage that may cause damage to property or to persons as a result of failure to follow these instructions or to misuse the equipment.

4 Residual risks

The machine is built according to the state of the art and the recognized safety rules. Nevertheless, individual residual risks can occur when working.

-Danger of injury to fingers and hands due to the rotating saw blade if the workpiece is handled improperly.
- Injuries from the workpiece being ejected due to incorrect positioning or guidance, such as work without a stop.
- Health hazards due to noise. When working, the permissible noise level is exceeded. Be sure to wear personal protective equipment such as ear protection.
- Injuries due to defective saw blade. Check the blade regularly for integrity and before each use.
- Danger due to electricity, the use of improper electrical connection cables.
- When using special accessories, the operating instructions enclosed with the optional accessories must be observed and read carefully.
- Residual risks can be minimized if the safety instructions and the intended use, as well as the operating instructions are observed as a whole.

WARNING!

The table saw may only be operated with functioning safety devices.

Switch off the table saw immediately if you find out that a safety device is faulty or disassembled!

All operator-side accessories must comply with the prescribed safety devices be equipped.

You as the operator are responsible!

WARNING!

Danger in case of misuse!

Misuse of the table saw can lead to dangerous situations.

- Only operate the table saw in the power range specified in the technical data.
- Never bypass or override the safety devices.
- Never work on other materials than specified in the intended use.
- Only operate the table saw in a technically perfect condition.
- Never work on several workpieces at the same time.

5 Technical Data

Model	TKS 200 / 230 V	TKS 254 E 230V / 400V	TKS 254 PRO 230V / 400V
Length x Width x Height	1430 x 1000 x 1030 mm	1430 x 1000 x 1030 mm	1430 x 1000 x 1030 mm
Weight	80 kg	105 kg	131 kg
Speed of main motor	2800 U/min	2800 U/min	2800 U/min
Electric output	1,1 kW	2,1 kW	2,1 kW
Total connected load	4,6 A	9,3 A / 3,5 A	9,3 A / 3,5 A
Supply voltage	230 V	230 V / 400 V	230 V / 400 V
Input power	1.1 kW	2,1 kW / 2 kW	2,1 kW / 2 kW
(Main) saw blade speed	4750 'min^{-1}	4000 'min^{-1}	4000 'min^{-1}
Driving motor output	0,75 kW	1,5 kW	1,5 kW
Ø Extraction port diameter bottom	100 mm	100 mm	100 mm
Ø Extraction port diameter top	30 mm	30 mm	30 mm
Table height	870 mm	850 mm	835 mm
Table width	400 mm	420 mm	480 mm
Table length	530 mm	635 mm	720 mm
Sliding carriage width	250 mm	250 mm	250 mm
Sliding carriage length	400 mm	400 mm	400 mm
Ø (Main) saw blade	200 mm	254 mm	254 mm
Max. cutting height 45°	48 mm	58 mm	
Max. cutting height 90°	60 mm	80 mm	80 mm
Max. cutting height -45°			54 mm
Max. cutting width with rip fence	705 mm	680 mm	610 mm
Max. cross cut width left from saw blade	635 mm	650 mm	550 mm
Saw blade angle	45 - 90 °	45 - 90 °	90 - (-45) °
Sound pressure level	78,5 dB	85,1 dB = 230 V Model 84,7 dB = 400 V Model	84,2 dB = 230 V Model 83 dB = 400 V Model

Information on dust emission

The dust emission values measured according to the "Principles for the testing of dust emission (concentration parameters) before woodworking machinery" of the Timber Committee are less than 2 mg / m3. Thus, when the machine is connected to a proper operational extraction system with at least 20 m / s air velocity, it can be assumed that the TRC limit value for wood dust in the Federal Republic of Germany is permanently and reliably adhered to.

5.1 Type plate

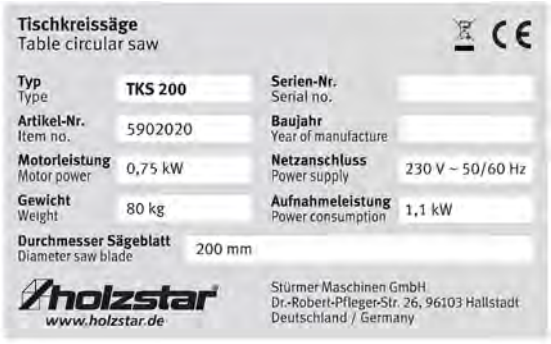


Fig. 2: Type plate TKS 200

6 Transport, packaging, storage

6.1 Delivery

Check the machine for visible transport da-mage upon delivery. In case of visible damage to the Circular Table Saw, immediately notify the carrier or your retailer.

6.2 Transport

Improper transport is accident-prone and can cause damage or malfunctions for which we do not grant any liability or guarantee.

Transport the scope of delivery secured against shifting or tilting with a sufficiently dimensioned industrial truck to the installation site.

WARNING!

Severe or fatal injuries may occur if parts of the machine tumble or fall down from the forklift truck, pallet truck or from the transport vehicle.
Follow the instructions and information on the transport box.
Note the total weight of the machine. The weight of the machine is indicated in the "Technical data" of the machine. When the machine is unpacked, the weight of the machine can also be read on the rating plate.
Only use transport devices and load suspension gear that can hold the total weight of the machine.

WARNING!

The use of unstable lifting and load suspension equipment that might break under load can cause severe injuries or even death. Check that the lifting and load suspension gear has sufficient load-bearing capacity and that it is in perfect condition.
Observe the accident prevention regulations issued by your Employers Liability Insurance Association or other competent supervisory authority, responsible for your company.
Fasten the loads properly.

General risks during internal transport

WARNING: DANGER OF TIPPING

The device may be lifted unsecured by a maximum of 2cm.
Employees must be outside the danger zone, the reach of loads.
Warn employees and, if necessary, advise employees of the hazard.

Devices may only be transported by authorized and qualified persons. Act responsibly during transport and always consider the consequences. Refrain from daring and risky actions.

Gradients and descents (e.g. driveways, ramps and the like) are particularly dangerous. If such passages are unavoidable, special caution is required.

Before starting the transport check the transport route for possible danger points, unevenness and disturban-ces as well as for sufficient strength and load capacity.

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

Careful planning of internal transport is therefore essen-tial.

Transport with forklift truck/pallet truck:

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

WARNING!

When lifting and transporting, make sure that there are no persons in the danger zone who could be injured by falling or tilting the machine! Do not lift the machine at the infeed and outfeed table!

NOTE!

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

6.3 Packaging

All used packaging materials and packaging aids of the machine are recyclable and generally need to be transported to the material recycling. The films are made of polyethylene (PE) and the upholstery parts are made of polystyrene (PS). These materials have to be delivered to a recycling station of the responsible dumping company.

6.4 Storage

WARNING!

Store the Circular Table Saw in such a way that it can not be put into operation by unauthorized persons and that nobody can injure themselves at the standing Circular Table Saw.

Thoroughly clean the Circular Table Saw in a dry, clean and frost-free environment. Cover the machine with a protective tarpaulin.
Storage and transport temperature range:
-25 ° C to + 55 ° C.

7 Description of the Device

TKS 200 / 230 V

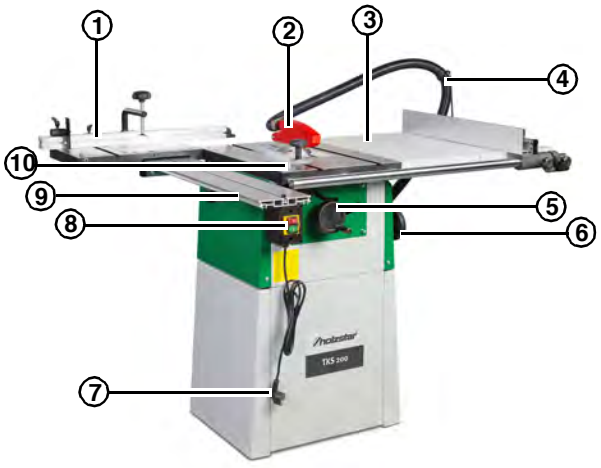


Fig. 3: Description of TKS 200 / 230 V

1. Longitudinal stop
2. Chip cover
3. Sliding table
4. Suction pipes
5. Wheel for height adjustment
6. Wheel for Saw blade tilt
7. Power plug
8. ON / OFF Switch
9. Guide carriage
10. Angle stop

TKS 254 E

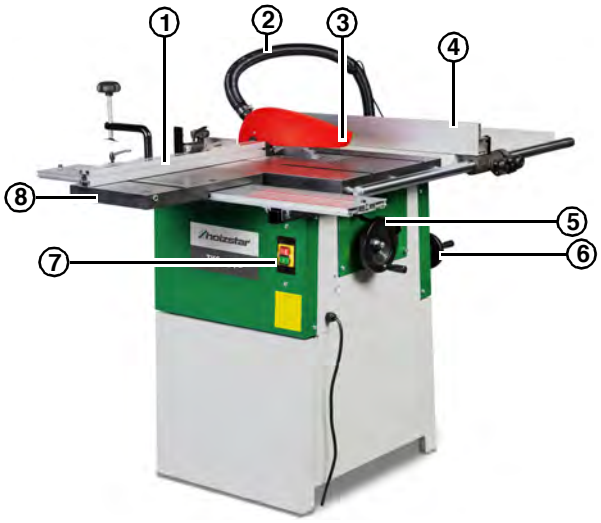


Fig. 4: Description of TKS 254 E / 230 V

1. Cross Stop
2. Suction pipes
3. Chip cover
4. Longitudinal stop
5. Wheel for height adjustment
6. Wheel for Saw blade tilt
7. ON / OFF SWITCH
8. Sliding table

TKS 254 PRO

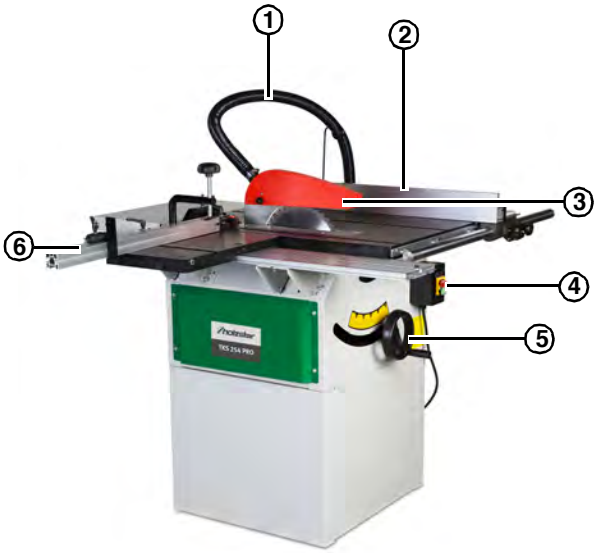


Fig. 5: Description of TKS 254 PRO / 230 V

1. Suction pipes
2. Cross Stop
3. Chip cover
4. ON / OFF Switch
5. Wheel for height adjustment
6. Sliding slide with longitudinal stop

8 Scope of Supply

TKS 200, TKS 254 E and TKS 254 PRO

- Base
- Slide table
- Rip fance
- Angle stop (TKS 200)
- Table extension (TKS 200)
- Saw blade 200 x 30 x 2,8 mm / Z18 (TKS 200)
- Saw blade 254 x 30 x 3 mm / Z 40 (TKS 254 E, TKS 254 PRO)
- Saw blade guard with suction hose
- Table extension (TKS 254 PRO)

9 Set up before commissioning

ATTENTION!

Danger of injury due to a machine that is not stably erected! Check the stability of the machine after setting it up on a level and stable surface.

ATTENTION!

Some metal parts can be sharp-edged. Check all metal parts to avoid injury.

ATTENTION!

Pay attention to the weight of the machine! The machine may only be set up by two persons. Check the aid accordingly for sufficient dimensioning and load capacity.

9.1 Requirements for the installation site

The circular table saw must be set up stable on a level and firm ground. It is important to ensure that there is sufficient freedom of movement. The site should meet the following criteria:

- The substrate must be level, firm and vibration-free. Securely secure the machine to the ground with bolts. Use the holes on the machine feet for this purpose.
- The erection or working space must not exceed + 40 ° and should not fall below + 5 °.
- Do not operate machines that cause dust and chips near the machine.
- There must be sufficient space for the operating personnel, for material transport as well as for adjustment and maintenance work.
- The site must have good lighting (500 lux).
- There must be a suction device with min. 690 m3 / h extraction capacity, min. 20 m / s flow velocity at the suction connection; Hose diameter 100 mm, max. Length 4 m.
- Before commissioning, the machine must be connected to an extraction system with a flexible, flame-resistant suction line. The extraction must be switched on automatically when switching on the table saws. When the machine is switched on, the extraction system starts automatically after a 2-3 second start-up delay. An overload of home security is prevented.

9.2 Assembly of the Circular Table Saw

CAUTION!

Risk of injury due to a machine that is not stably erected!
Check the stability of the machine after placing it on stable ground.

DANGER!

Some metal parts can be sharp-edged. Check all metal parts to avoid injury.

CAUTION!

Pay attention to the weight of the machine!
The machine may only be set up by two persons.
Check the aid accordingly for sufficient dimensioning and load capacity.

ATTENTION!

To ensure sufficient stability of the machine, it should be screwed to the ground. There are 4 holes on the machine housing for this purpose.

Use the following steps to make the machine operational.

Assembly of the substructure

Step 1: Assemble the upper case to the lower case as shown in Figure 6.

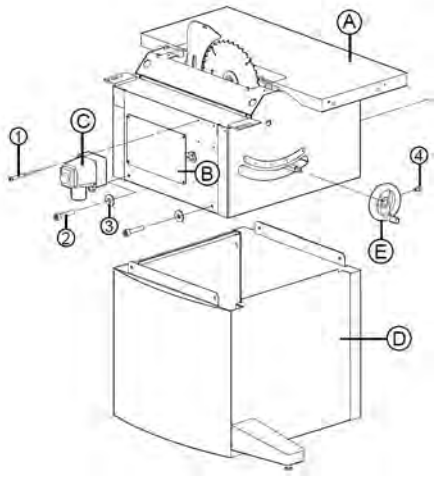


Fig. 6: Mounting the machine housing

Mount side workbench

CAUTION!

The workbench is heavy. For your safety, ensure that you have sufficient aids and support.

Step 1: Unscrew the screw on the extension table on the side of the saw, align and center it, then tighten the screws underneath and to the side of the table. Check the centering at the corners and the flat alignment of the surface on the main table with the aid of wooden blocks and spirit level, then tighten all screws of the worktable.

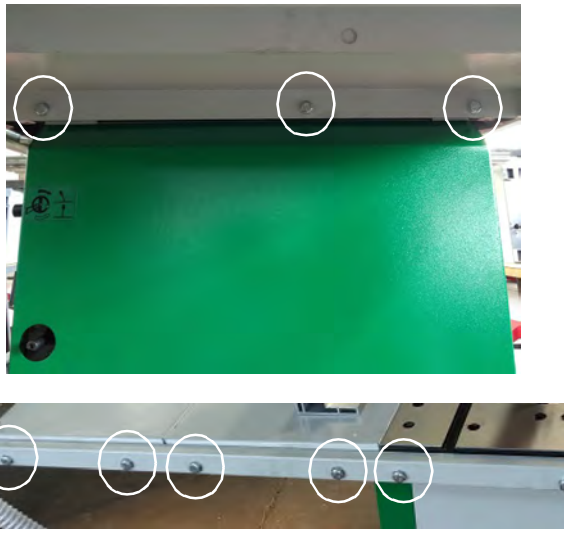


Fig. 7: Mount workbench

Mount the stop guide rail

Step 1: Insert the hexagon bolts into the main table and extension tables. Loosely screw on 2 nuts on each hexagon screw.

Step 2: Screw in the screws in the stop guide rail approx. 4 - 5 turns.

Fig. 8: Mount the stop guide rail

Mount rip fence

Step 1: Loosen the star knobs of the rip fence and push the carrier onto the guide rail.

Fig. 9: Sliding the carrier onto the guide rail

Step 2: Using the handle, loosen the screw to guide the parallel stop and slide the parallel stop into the screw of the carrier.

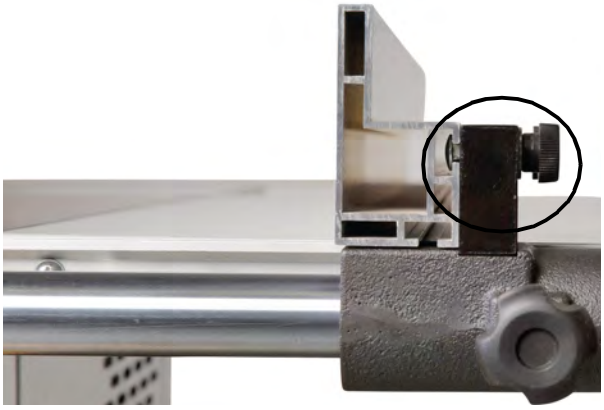


Fig. 10: Mount rip fence on carrier

Step 3: Tighten all handles to securely lock the rip fence.

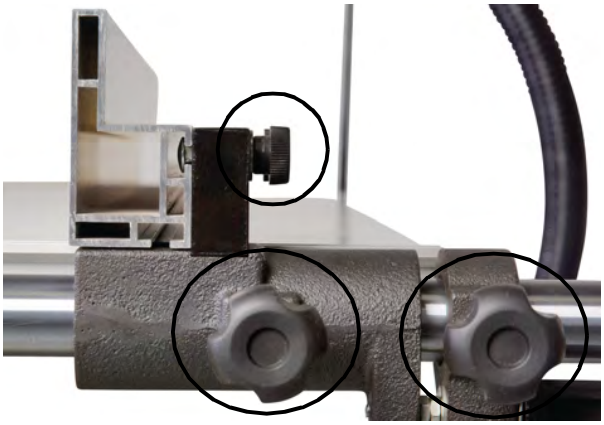


Fig. 11: Tighten rip fence

Mount angle stop

Step 1: Introduce the angle stop into the groove provided on the sliding table and tighten with the twist grip.

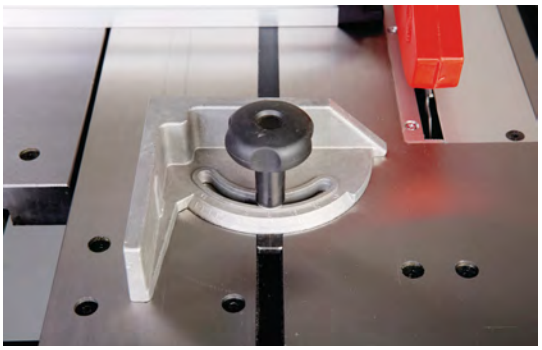


Fig. 12: Mounting the angle stop

Mount the sliding carrier

Step 1: Mount the sliding carrier with the drawing in Figure 13.

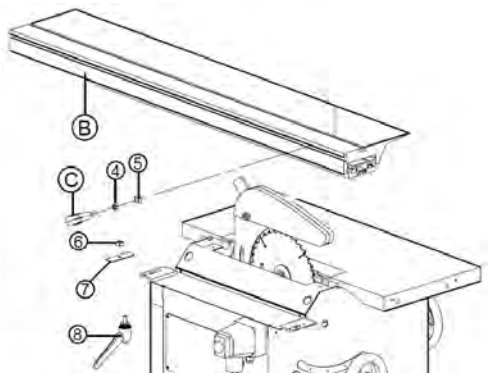


Fig. 13: Mount the sliding carrier

Step 2: Place the sliding carriage on the carrier and fasten it.

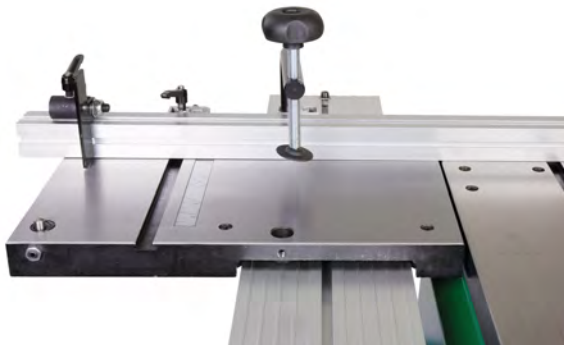


Fig. 14: Mount sliding carriage

Mount suction connection and protective devices

Step 1: Screw the exhaust port at the bottom of the back of the machine with 4 M6x12 Phillips screws, washers, and nuts (nuts on the inside).

Fig. 15: Mount suction connection

Step 2: Screw on the saw blade guard.

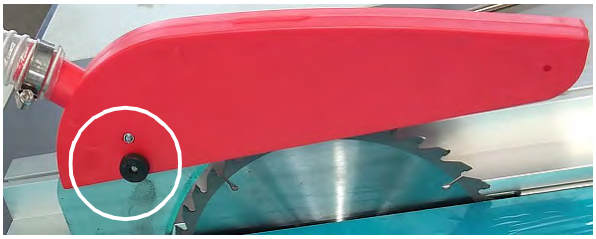


Fig. 16: Mount saw blade guard

Step 3: Screw the hose guide to the back of the steel table with 2 M6x20 hexagon bolts, washers and nuts (nuts on the inside of the table).

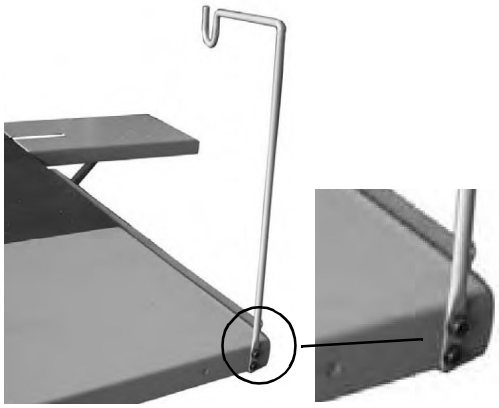
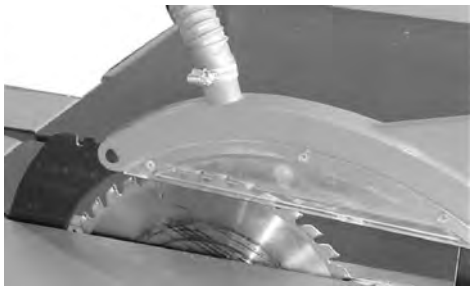


Fig. 17: Mount hose guide

Mount suction hoses



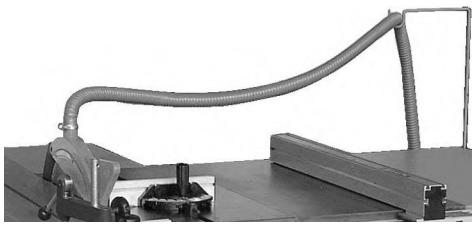


Fig. 18: Mount suction hoses

Fig. 19: Mount suction hoses

Step 1: Attach the 30mm suction hose to the saw blade guard with a hose clamp, then insert the hose into the hose guide. Make sure that the hose runs freely and that there is enough clearance to the work surface.

Step 2: Attach the other end of the suction hose to the suction connection on the machine housing with a hose clamp.

Step 3: Attach the 100 mm suction hose to the suction connection on the machine housing with a hose clamp. Attach the other end of the suction hose with a hose clamp to the intake manifold of the extraction system.

DANGER!

To ensure sufficient stability of the machine, it should be screwed to the ground. There are 4 holes on the machine housing for this purpose.

9.3 Connection of the extraction system

DANGER!

Only use the machine with the suction system connected and switched on.

For the proper functioning of the machine an extraction equipment is required:

- with a minimum capacity of 570 mm3 / h and minimum velocity of the air in the lines equal to 20 m / s for dry particles.
- with a minimum capacity of 790 mm3 / h and minimum velocity of the air in the pipes equal to 28 m / s for wet particles.
- The hose connection or the pipe for connecting the output should be conductive and electrostatically earthed (resistance less than 106 Ω).

Switch on the machine drive and the extraction system at the same time! Use flexible suction hoses with a diameter of 100 mm and for suction at the saw blade guard 30 mm.

10 Electrical connection

The installed electric motor is connected ready for use. The connection complies with the relevant VDE and DIN regulations.
The customer's power supply as well as the used Extension cables must comply with these regulations.

Important instructions
The electric motor 230 V / 50 Hz is for mode S6 / 40% (400 V / 50 Hz S6 / 40%). If the motor overloads, it automatically switches off.After a cooling time (different in time) can beturn the engine back on.

Damaged electrical connection cables
Eccentric connection lines often cause insulation damage.

Causes are:
- Pressure points when connecting cables are led through windows or door gaps.
- Kinking due to improper attachment or guidance of the connecting cable.
- Interfaces by passing over the connecting cable.
- Insulation damage by tearing out of the wall socket.
- Cracks due to aging of the insulation. Such defective electrical connection cables must not be used and are life-threatening due to the insulation damage.

Check electronic connection cables regularly for damage. Make sure that the connecting cable is not connected to the power supply when checking. Electrical connection cables must comply with the relevant VDE and DIN regulations. Only use connecting cables marked H07 RN.
An imprint of the type designations on the connecting cable is mandatory.

AC motor

- The mains voltage must be 230 Volt / 50 Hz.
- Extension cables must have a cross-section of 1.5 mm up to a length of 25 m and a minimum of 2.5 mm over a length of 25 m.
- The mains connection is protected with 16 A delay.

Three-phase motor

- The mains voltage must be 400 V / 50 Hz.
- Extension cables must have a minimum cross section of 1.5 mm.
- The mains connection is connected with max. 16 A secured.
- When connecting to power supply or relocation, the direction of rotation must be checked; if necessary, the polarity must be exchanged with a CEE plug.

Connections and repairs to the electrical equipment may only be carried out by a qualified electrician.

11 Assembly

ATTENTION!

Before any maintenance conversion and installation work on the table saw, the mains plug must be removed.

NOTE!

When unpacking, make sure that there are small parts of the machine inside the packaging.

Make the machine operational by following these steps:

- Unpack the saw and check for possible transport damage
- The machine must be set up stably, i. on a level and non-slip surface

11.1 Mounting the saw blade

Step 1: Remove the table insert (Fig.20) and loosen the fixing screw of the saw blade.

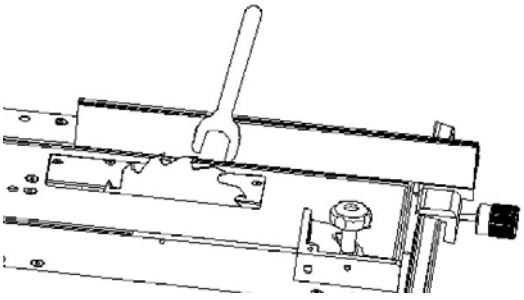


Fig. 20: remove the table TKS 200

Step 2: Place the saw blade on the flange and secure it with the screw. Pay attention to the correct direction of the saw blade teeth (Fig.21).

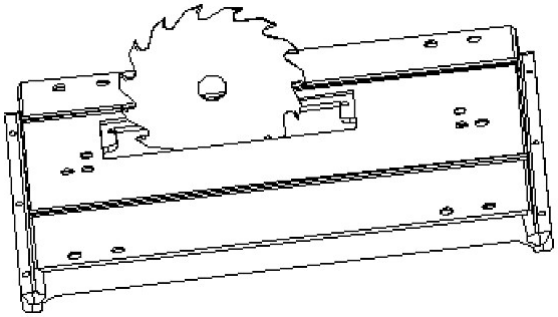


Fig. 21: Installation of the saw blade TKS 200

11.2 Assembly and adjustment of the splitting wedge

Step 1: Adjust the riving knife so that its distance from the saw blade is between 3 and 8 mm. To adjust the splitting wedge, loosen the screw, bring the splitting wedge into the correct position and tighten the nut again.

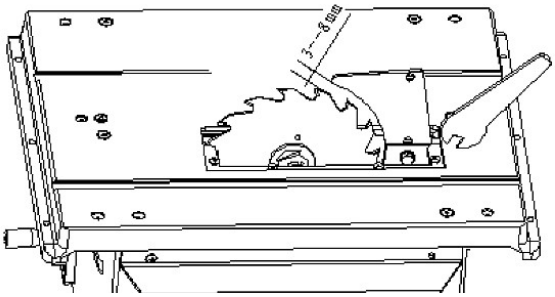


Fig. 22: Assembly riving knife

Step 2: Check whether the riving knife with the table insert is parallel to the saw blade (Fig. 23).

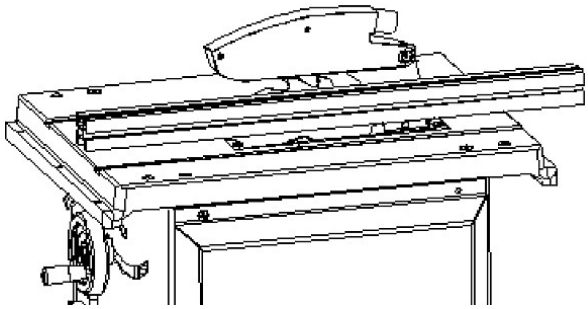


Fig. 23: Control riving knife

Step 3: Fit the cover (20) with round head screw M 6 x 25, washer 6 and wing nut M6 to the splitting wedge (18) (Fig.24).

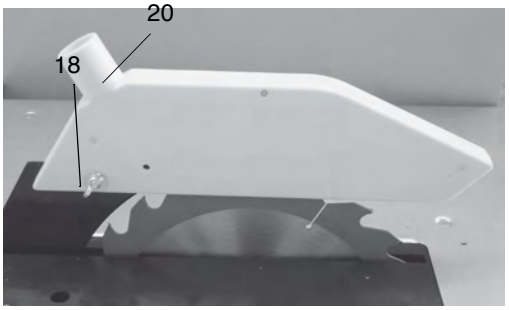


Fig. 24: Mount cover

11.3Assembly and adjustment of the longitudinal stop

Step 1: Slide the lengthwise stop into the guide groove provided for this purpose and fasten it with the left-hand hexagon socket screw (Fig.25). First set the longitudinal stop on the stop side in order to align it exactly with the guide rail to the saw blade.

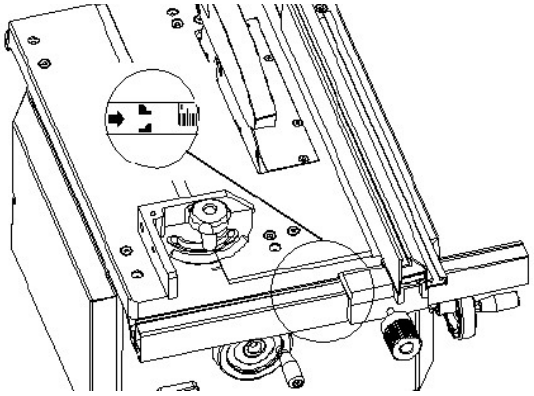


Fig. 25: Insertion of the longitudinal stop TKS 200

The longitudinal stop can be moved and rotated by loosening and turning the lower clamping screw (Fig. 26). It is also possible to use the stop on the left or right side.

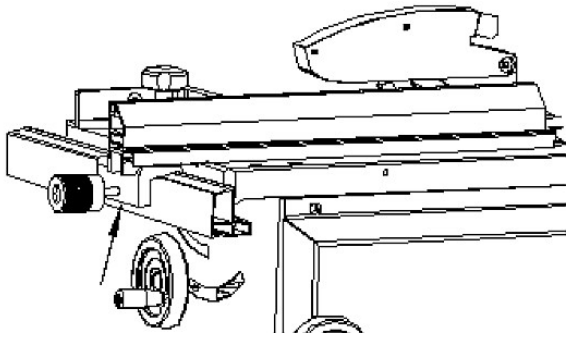


Fig. 26: Adjusting the longitudinal stop TKS 200

NOTE!

Check regularly that the longitudinal stop is parallel to the saw blade to ensure a perfect cut

12 Commissioning

ATTENTION!

Observe the safety instructions!

The machine may only be commissioned with fully assembled protective and safety equipment. Before commissioning, connect the machine to an exhaust system. The extraction hood must be lowered onto the workpiece during each work step. For hidden cuts, remove the suction hood. After this operation mount the exhaust hood immediately. The machine must be adjusted so that the tip of the highest sawtooth is just a little higher than the workpiece. Before switching on the machine, all protective and safety equipment must be installed correctly. The saw blade must be able to move freely. Inspect the workpiece for foreign objects (nails, screws, etc.). Remove all foreign objects. Before switching on the main switch, make sure that the saw blade is mounted correctly and the moving parts are smooth.

WARNING!

If you have any doubt, have the machine set up by a specialist. It's too dangerous to work on guesses.

CAUTION!
RISK OF INJURY!

Wearing gloves is expressly prohibited when cutting workpieces.

Inclined adjustment of the saw blade TKS 200 / TKS 254 PRO

Loosen the clamping lever (A, Fig.27) and turn the handwheel (B, Fig.27) to adjust the angle of the saw blade. Tighten the clamping lever afterwards.

NOTE!

The max. Height adjustment of angle work of 30 ° or more, must be reduced by 10 mm.

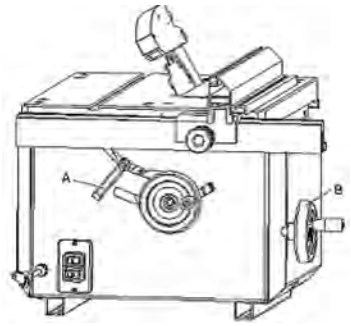


Fig. 27: Inclination of the saw blade TKS 200 / TKS 254 PRO

Height adjustment of the saw blade TKS 200 / TKS 254 E / PRO

The height of the saw blade can be adjusted by means of the handwheel (Fig.28).

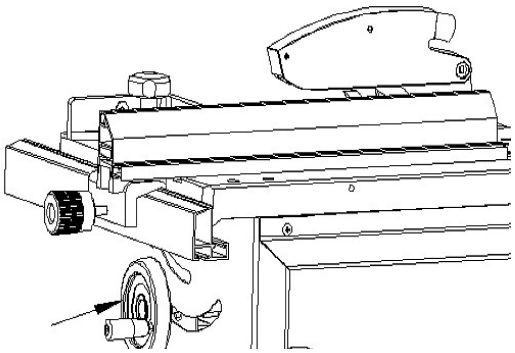


Fig. 28: Height adjustment of the saw blade TKS 200 / TKS 254 E / PRO

NOTE!

For safe and clean working, select a small saw blade projection.

Longitudinal sections

For parallel cuts, insert the longitudinal stop. at
For cutting jobs over 120 mm, use the stop ruler with the high stop side and with cutting widths less than 120 mm with the low stop side. Guide the workpiece with the enclosed push stick.

Cross sections

For transverse and angular cuts use the sliding carriage.

13 Work instructions

ATTENTION! RISK OF ENTANGLEMENT!

When working with the machine, gloves must not be worn!

13.1 Cutting wide workpieces

Width of the workpiece to be machined more than 120 mm. Tool: Circular saw blade for longitudinal cutting Operation: Adjust the longitudinal stop according to the intended workpiece width. Pay attention to secure hand rest. If narrow workpieces are separated by the cut, the feed is carried out in the tool area only with the right hand or with the aid of a push stick. If there is a risk of the workpiece jamming between the circular saw blade, splitting wedge and stop, the stop must be retracted to the center of the saw blade or a short auxiliary stop must be used. In the pictures, the upper suction hood was only hinted at, or omitted in individual cases to show operation or device more clearly. For all operations shown, the upper extraction hood is required.

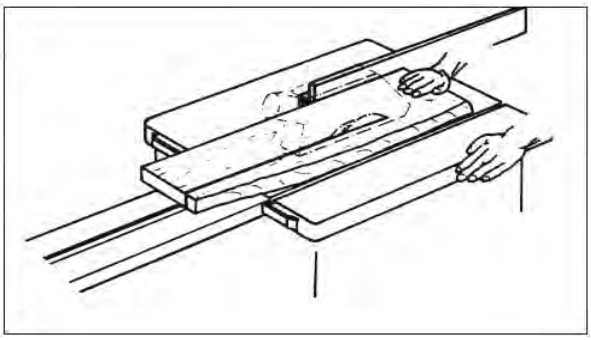


Fig. 29: Cutting wide workpieces

13.2 Cutting narrow workpieces

Width of the workpiece to be machined below 120 mm Tool: Circular saw blade for longitudinal cutting Operation: Adjust the longitudinal stop according to the intended workpiece width. Advance the workpiece with both hands, use the push stick in the area of the saw blade and push the workpiece through behind the riving knife. For short workpieces from the beginning of the cut, use the push stick for advancement.

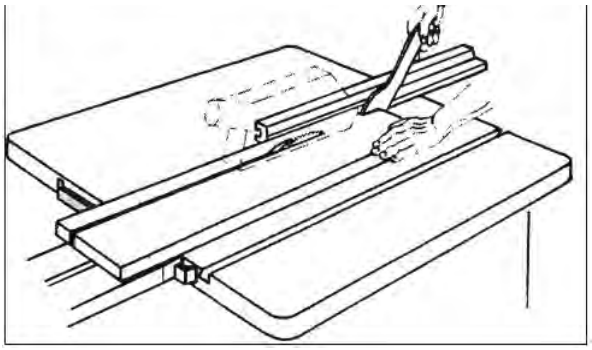


Fig. 30: cut narrow workpieces

13.3 Cutting edges and strips

Tool: Circular saw blade for fine cutting
Operation: Mount the longitudinal stop with a low contact surface or use the auxiliary stop. Advance workpiece with push stick until the workpiece end located in the area of the splitting wedge. Long workpieces
Secure against tilting at the end of the cutting process by a table extension.

NOTE!

Devices requiring connection to parts of the machine must be fastened with screws, with screw clamps only makeshift connections can be made to machines.

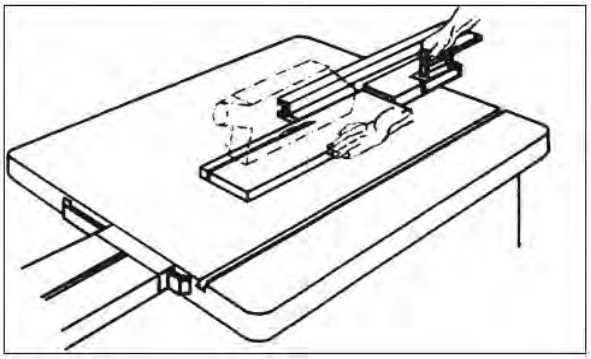


Fig. 31: Cutting edges and strips

13.4 Setting Diagonal end stop

TKS 200 / TKS 254 E

The diagonal stop can be mounted on the left or right side of the saw blade in the T-slot. Diagonal cuts between 90º and 45º can be made precisely due to the optional diagonal positioning. (Fig.32)
The diagonal positioning is made possible by the 90 ° orientation of the two bearing surfaces of the stop.

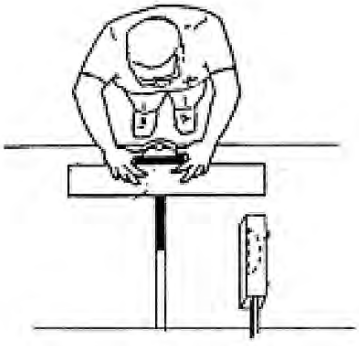


Fig. 32: Diagonal end stop

13.5 Cross cutting narrow workpieces

TKS 200 / TKS 254 E

Adjust the protective rail so that the parts of the workpiece do not come into contact with the upward rotating part of the saw blade. Only feed workpieces to the saw blade with a cross stop (Fig.33).

ATTENTION!

Do not remove any pieces of wood with your hands from the sawing tool area while the saw is running.

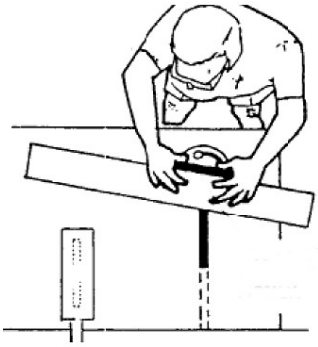


Fig. 33: Cutting with cross stop

13.6 Work with the help of the angle stop

TKS 200 / TKS 254 E

The angle stop can be inserted into the machine table T-slots on the right or left side of the saw blade. Cross sections can be made by turning the stopper at all angles. The 90 ° milled angle stop is particularly suitable for exact miter cuts. See the example for cutting frames. (Fig.34)

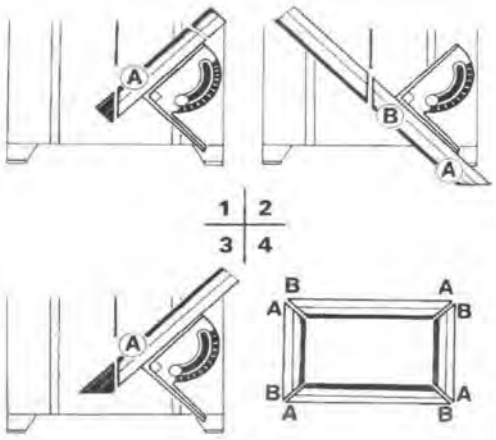


Fig. 34: Working with angle stop

13.7 Suction

ATTENTION!

The saw may only be used in combination with an adequate extraction system. The extraction system must always be switched on in front of the saw unit.

The use of a suction system is essential. An extraction system prevents the inhalation of dust and contributes to a better machine operation.

Step 1: Connect one end of the enclosed suction hose (A) to the suction connection of the saw blade cover (B), and the other end of the hose to the 30 mm connection on the main suction pipe (C).

Step 2: Then connect the suction tube of a sufficiently dimensioned extraction system to the 100 mm main suction tube (C) of the machine.

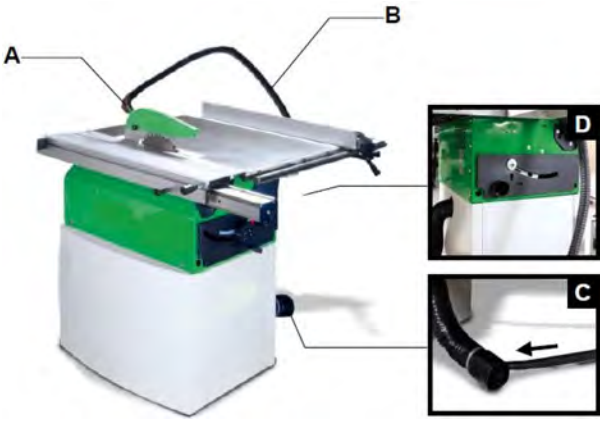


Fig. 35: Intake manifold

A - Suction nozzle Saw blade cover Ø 30 mm

B - Extraction hose Ø 30 mm

C - Main-Suction pipe Ø 100 mm / Ø 30 mm

D - Suction pipe Ø 100 mm

13.8 Selection of saw blades

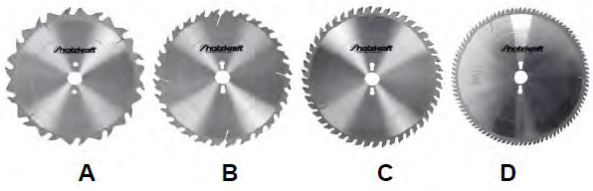


Fig. 36: Blade types

A - Cutting flat tooth saw blade

For all-round use

Diameter:..... 250mm
Drilling: 30mm
Cutting width:..... 3,2mm
Teeth: ..... 18 Stk.

B - Cutting replacement circular saw blade

For longitudinal and cross sections in solid wood and board materials; Tension limitation reduces cutting breakage due to loose branches and other inclusions.

Diameter:..... 250mm
Drilling: 30mm
Cutting width:..... 3,2mm
Teeth: ..... 24 Stk.

C - Edging and production cut circular saw blade

For finishing cuts in solid wood and other materials.

Diameter:..... 250mm
Drilling: 30mm
Cutting width:..... 3,2mm
Teeth: ..... 40 Stk.

D - Special format and edging circular saw blade

For board materials coated with veneer, plastic, melamine, paper, etc .; For table saws, folding and miter circular saws, 30 ° alternating tooth and negative clamping angle ensure tear-free cutting without the use of a presetting unit, noise-dampening by special laser elements for noise reduction.

Diameter:..... 250mm
Drilling: 30mm
Cutting width:..... 3,0mm
Teeth: ..... 80 Stk.

13.9 Replacing the saw blade

DANGER!

Switch off the machine at the ON / OFF switch and pull out the mains plug!

Wear safety gloves!

- **Saw blade change:** Loosen the thumbscrew from the extraction hood (20) and remove it.

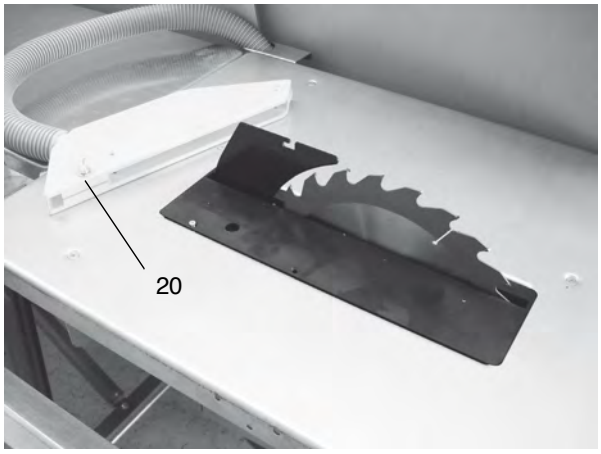


Fig. 37: Change the Saw blade

- Remove the 5 screws from the table insert (19) and remove them.

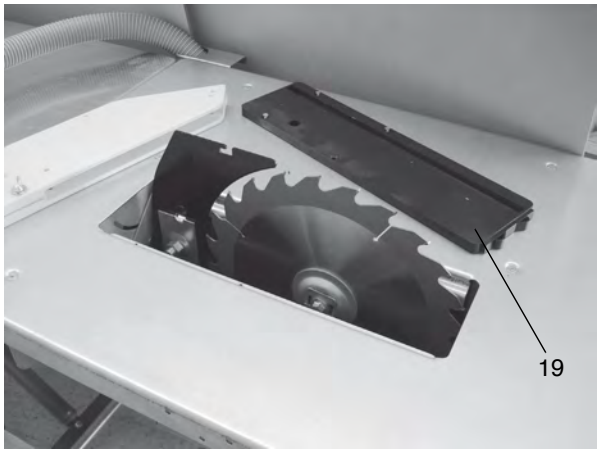


Fig. 38: Remove the table insert

NOTE!

When installing a new saw blade, make sure that the shank diameter of the saw blade coincides with the axis. You must never mount a saw blade with a larger shaft diameter.

- Set the saw blade all the way up and loosen the screw with the saw blade wrench. Attention! left-hand thread

Fig. 39: Release the saw blade with the saw blade wrench

- Remove the saw blade flange (31) and the saw blade (32). Now assemble the new saw blade. When mounting the saw blade flange, pay attention to the recess. After replacing the saw blade, check the riving knife adjustment and refit the table insert (19) and suction hood (20).

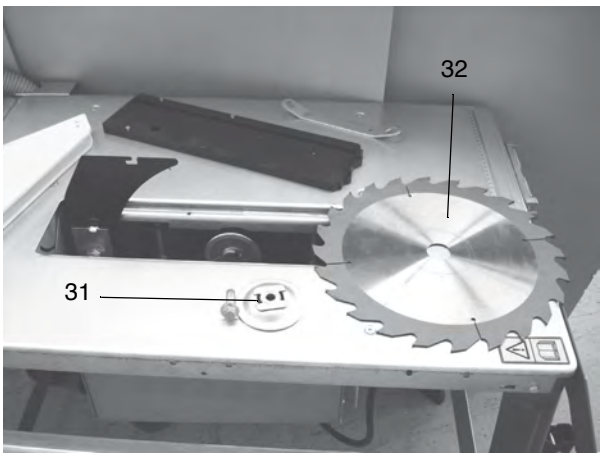


Fig. 40: Mount saw blade flange

14 Care, maintenance and repair

DANGER!

Electric shock is life-threatening!

There is a danger of life in case of contact with current running through components.Electrical components that are on can cause uncontrolled movements and lead to the most serious injuries.

- Always disconnect the mains plug before you start cleaning and maintenance works.
- Connections and repairs of the electrical equip-ment may only be carried out by specialized elec-trical staff.

14.1 Care after working

Use protective gloves!

NOTE!

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

Step 1: Remove the power plug from the socket.

Step 2: Drain and clean the extraction device

Step 3: Clean the machine from sawdust and saw dust with a dry cloth and / or compressed air (wear protective goggles!). In particular, the guide rails must be kept clean.

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

Step 5: Check the machine for damage to the safety devices and saw blade. If necessary, carry out the repair or arrange for it, observing the safety instructions.

Step 6: Check the machine regularly for:

- Loose screws and nuts
- Worn or damaged switches
- Worn or damaged saw blade
- Worn or damaged blade guard

NOTE!

The bearings are closed and pre-lubricated. They are maintenance-free for the normal life of the machine. The bearing surfaces should always be kept clean to ensure proper operation of the saw.

14.2 Maintenance and repair

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

If the Circular Table Saw does not work properly, contact a dealer or our customer service. The contact details can be found in chapter 1.2 Customer Service.
All protection and safety equipment must be reinstalled immediately after completion of repair and maintenance work.

15 Disposal, recycling of used devices

For environmental benefits it is necessary to ensure that all components of the machine are only disposed of by the provided and allowed means.

15.1 Decommissioning

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

Step 1: Dispose of all environmentally hazardous operating materials of the used device.

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

Step 3: Supply the machine components and operating materials to the provided disposal routes.

15.2 Disposal of electrical devices

Electrical devices include numerous recyclable materials as well as environmentally hazardous components.

These components must be disposed of separately and professionally. In case of doubt, please contact your municipal waste management company.

For the recycling process, please request the assistance of a specialized waste disposal centre if required.

15.3 Disposal of lubricants

The manufacturer of the lubricant makes the disposal instructions for the used lubricants available. If applica-ble, ask for the product-specific data sheets.

15.4 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.

16 Troubleshooting

Error	Possible causes	Solution
Engine does not start	1. No mains voltage 2. Connection cable defective 3. Engine defective	Have the power connection checked by qualified personnel.
Engine is running, saw blade is not turning	Drive shaft defective	Replace the drive shaft
Engine is getting hot	1. Motor short circuit 2. Overload of the engine	1.Disconnect the power plug and have the machine repaired by qualified personnel. 2. Check that the saw blade is suitable for the material to be cut.Check if the saw blade is still sufficiently sharp.Take a break from work and let the engine cool down.
Saw blade speed too low	1. Engine defective 2. Too low mains voltage	1. Check the engine by qualified personnel. 2. Check the mains voltage by qualified personnel
Saw vibrates, saw blade strikes	1. Saw blade does not match the specification 2. Saw blade not sufficiently secured 3. Saw blade defective	1. Check on the basis of the specifications in the technical data whether the saw blade is suitable for installation. 2. Tighten the fixing screw. 3. Check the saw blade for mechanical damage and replace it if necessary.
No clean 45 ° or 90 ° cuts	1. Stops not aligned correctly 2. Angle display not set correctly	1. Check the saw blade with standard angle and align the stops. 2. Check saw blade with standard angle and adjust angle display.
Workpiece is knocked back by the saw blade.	1. Stops not aligned correctly 2. Disconnect blade not aligned with saw blade 3. Defective saw blade	1. Align the stops. 2. Align the cutting blade with the saw blade. 3. Replace the saw blade.

17 Spare parts

DANG ER!

Danger of injury by the use of wrong spareparts!

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 admitted spare parts are being used.

17.1 Order of spare parts

The spare parts may be purchased with the authorised dealer or directly with the manufacturer.

Indicate the following basic information for spare part orders:

- Type of device
- Serial number
- Position number
- Quantity
- Year of manufacture
- 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 indications regarding the device type, article number and year of manufacturing on the type plate which is fixed on the device.

Example

The hand wheel for the Circular Table Saw TKS 200 must be ordered. The hand wheel has the number 31 in the spare parts drawing 1.

By ordering spare parts, send a copy of the spare parts drawing (1) with the marked part (hand wheel) and marked positon number (31) to the dealer or spare parts department and provide the following information:

- Type of Device: **Circular Table Saw TKS 200**
- Item number: **5902020**
- Drawing number: **1**
- Positions number: **31**

Item number of your Device:

TKS 200 - 230V	**5902020**
TKS 254 E - 230V	**5902025**
TKS 254 E - 400 V	**5902026**
TKS 254 PRO - 230V	**5902027**
TKS 254 PRO - 400V	**5902028**

17.2 Spare parts drawings

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

Spare parts drawing 1 TKS 200

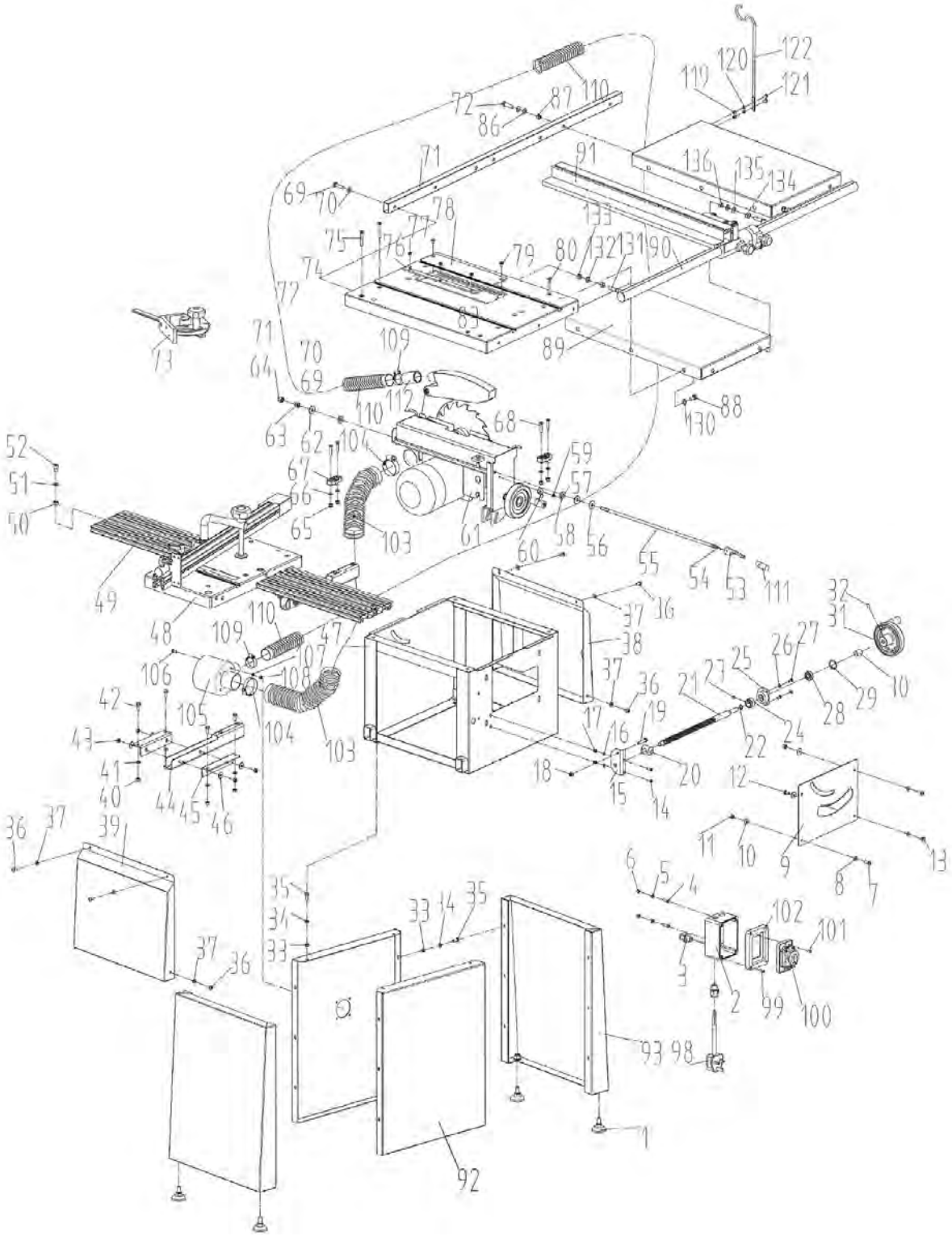
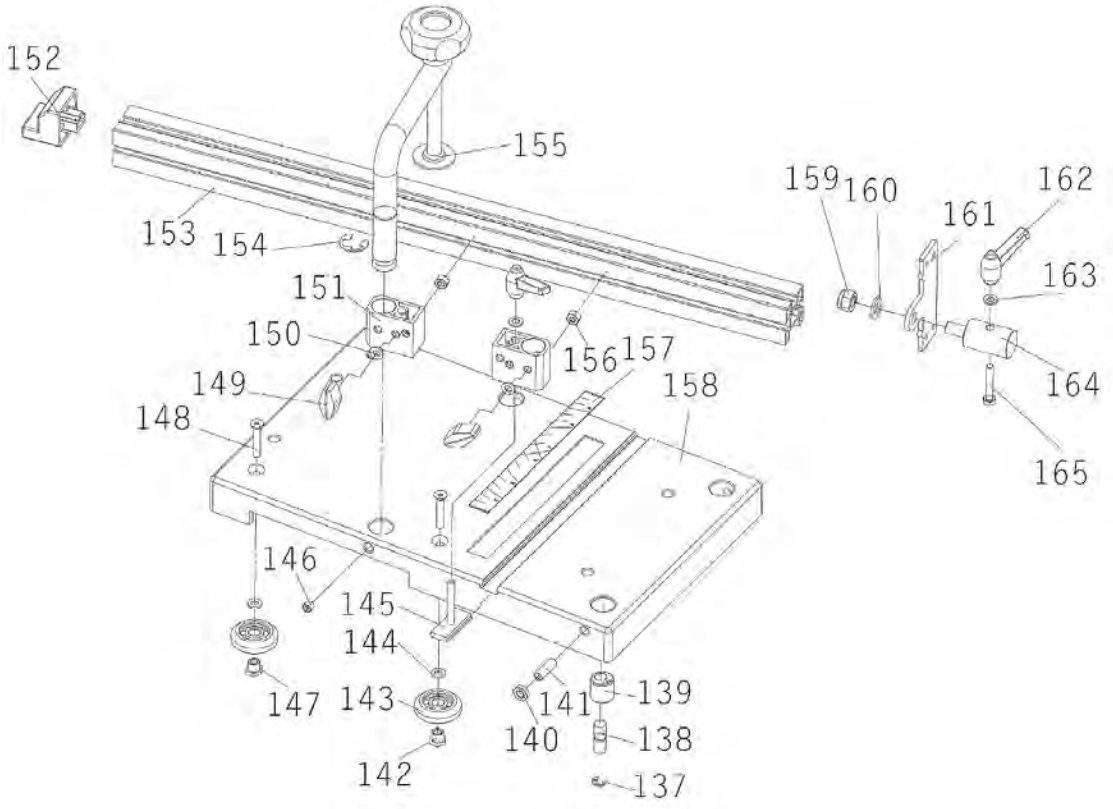


Fig. 41: Spare parts drawing 1 for TKS 200

Spare parts drawing 2



Spare parts drawing 3

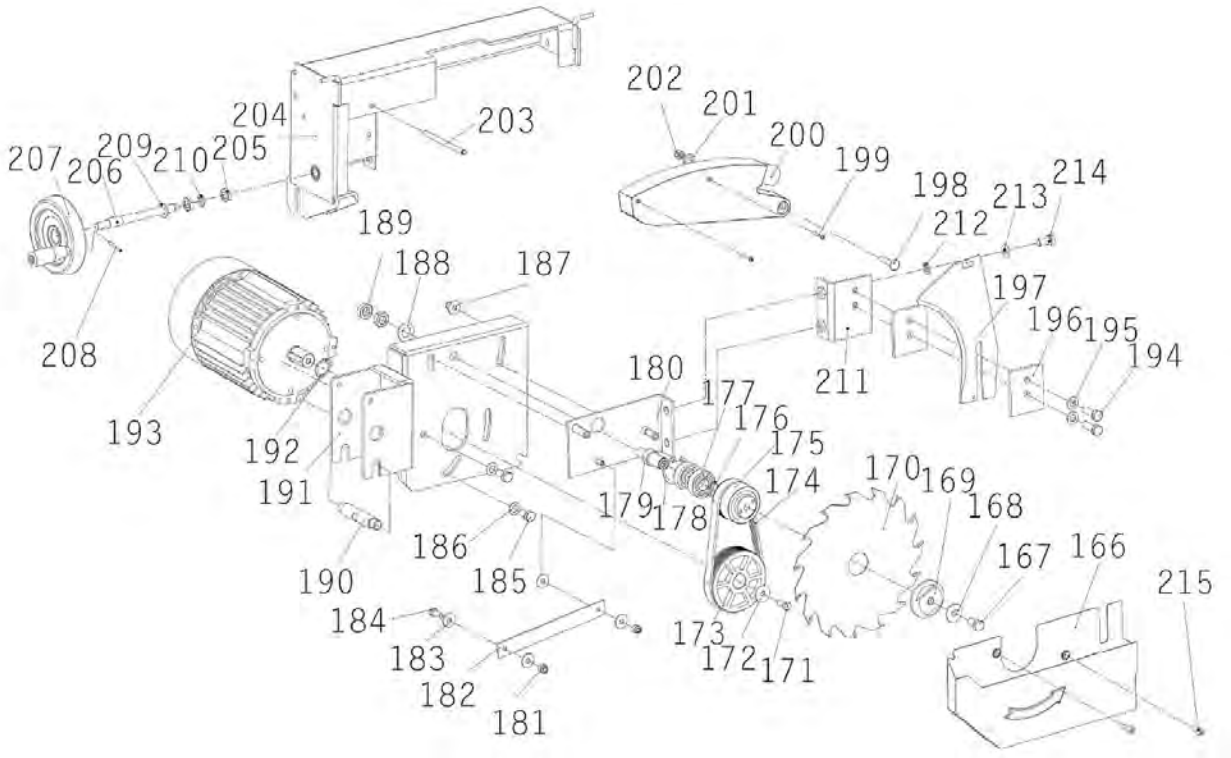
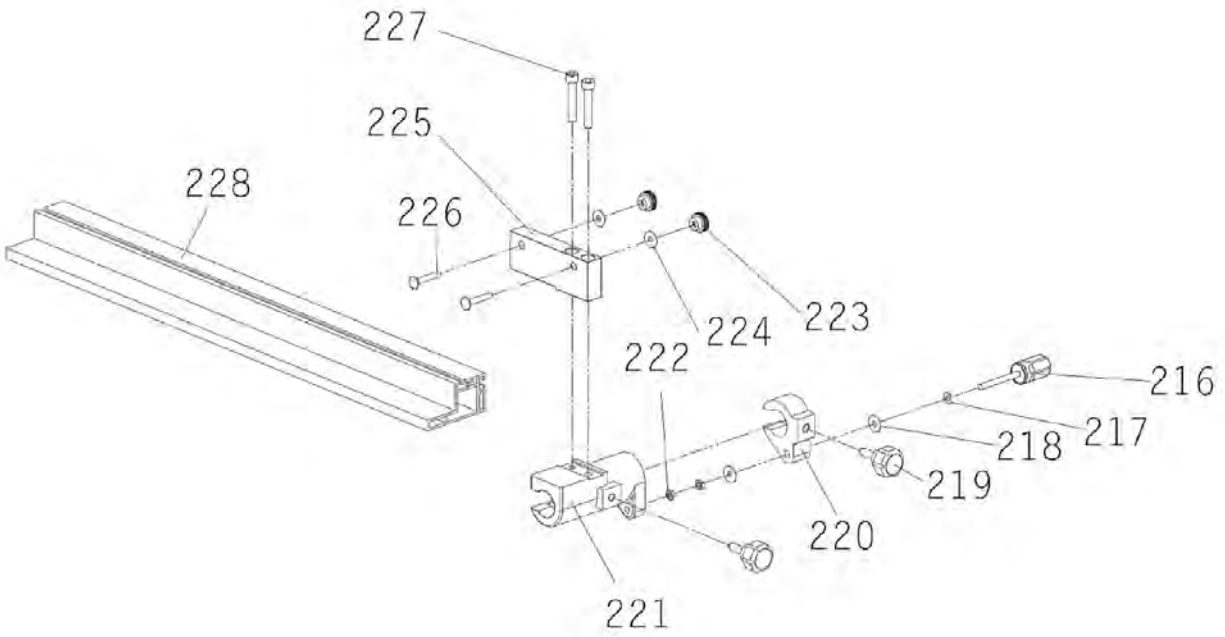


Fig. 42: Spare parts Drawing 2 (above) and 3 (below) for TKS 200

Spare parts drawing 4



Spare parts drawing 5

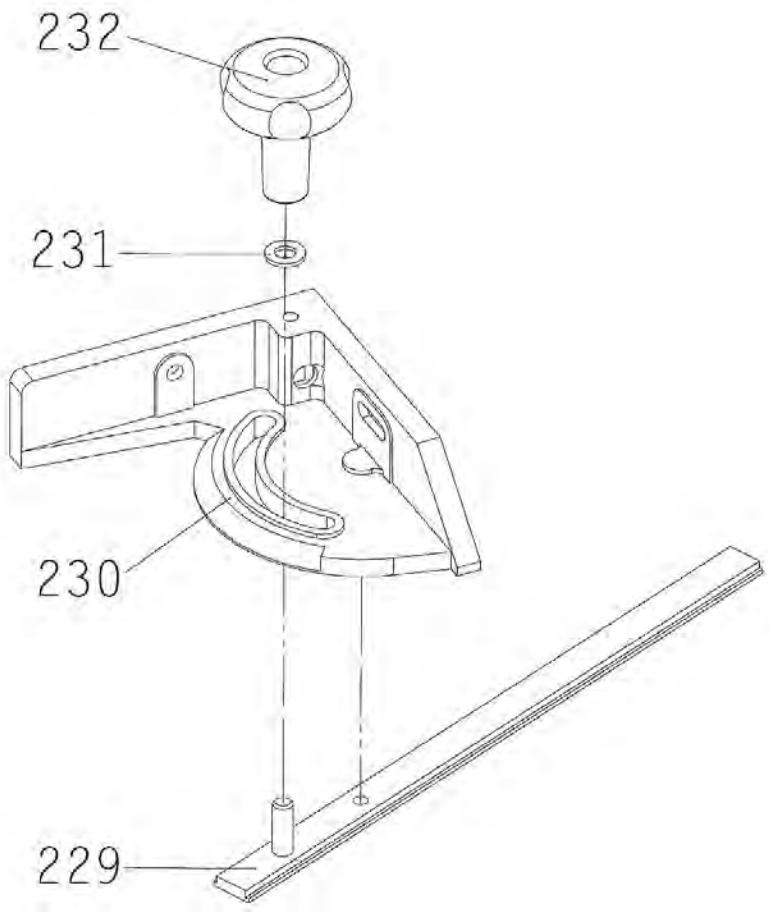


Fig. 43: Spare parts Drawing 4 (above) and 5 (below) for TKS 200

Spare parts drawing 1 TKS 254 E

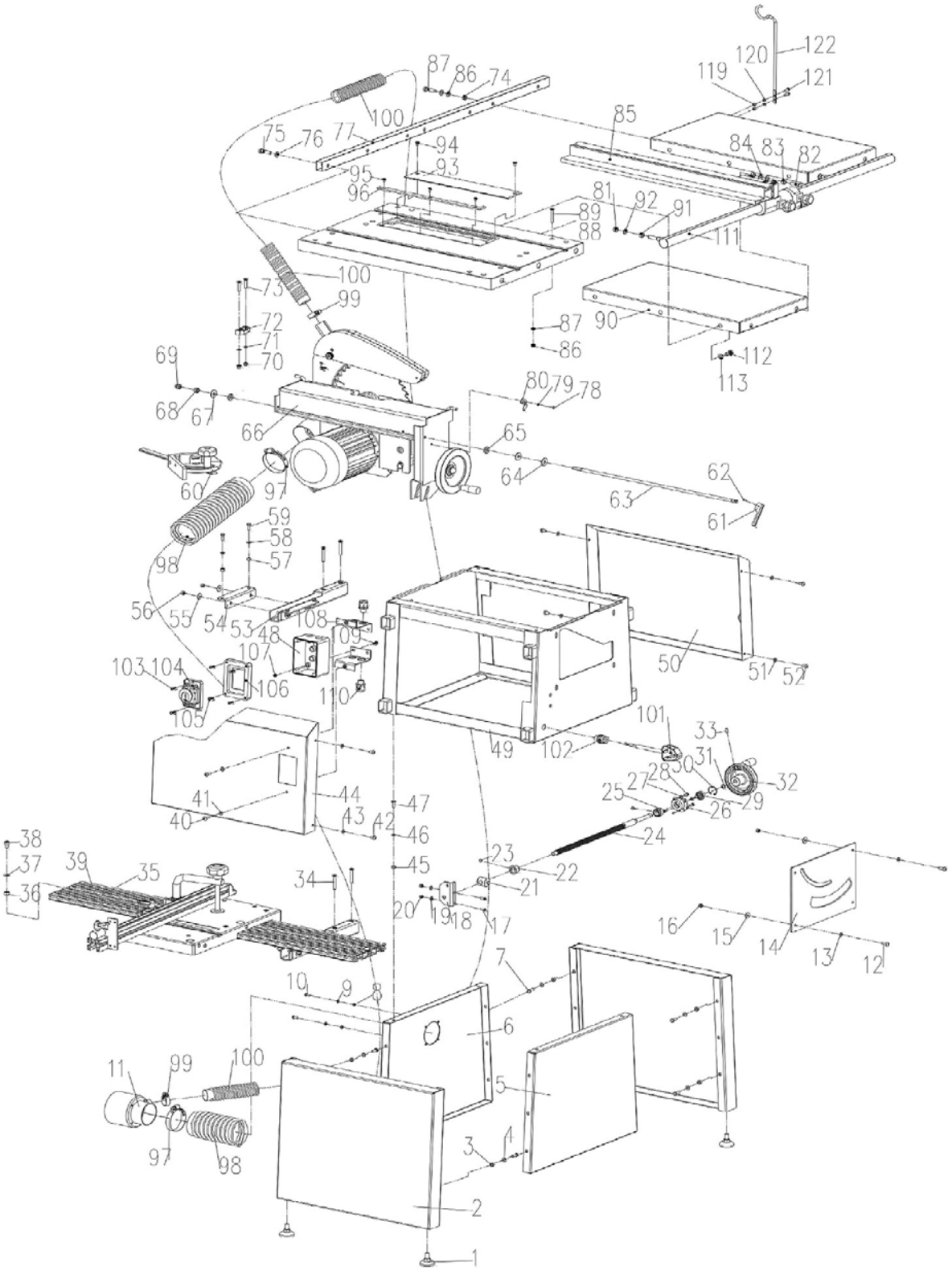
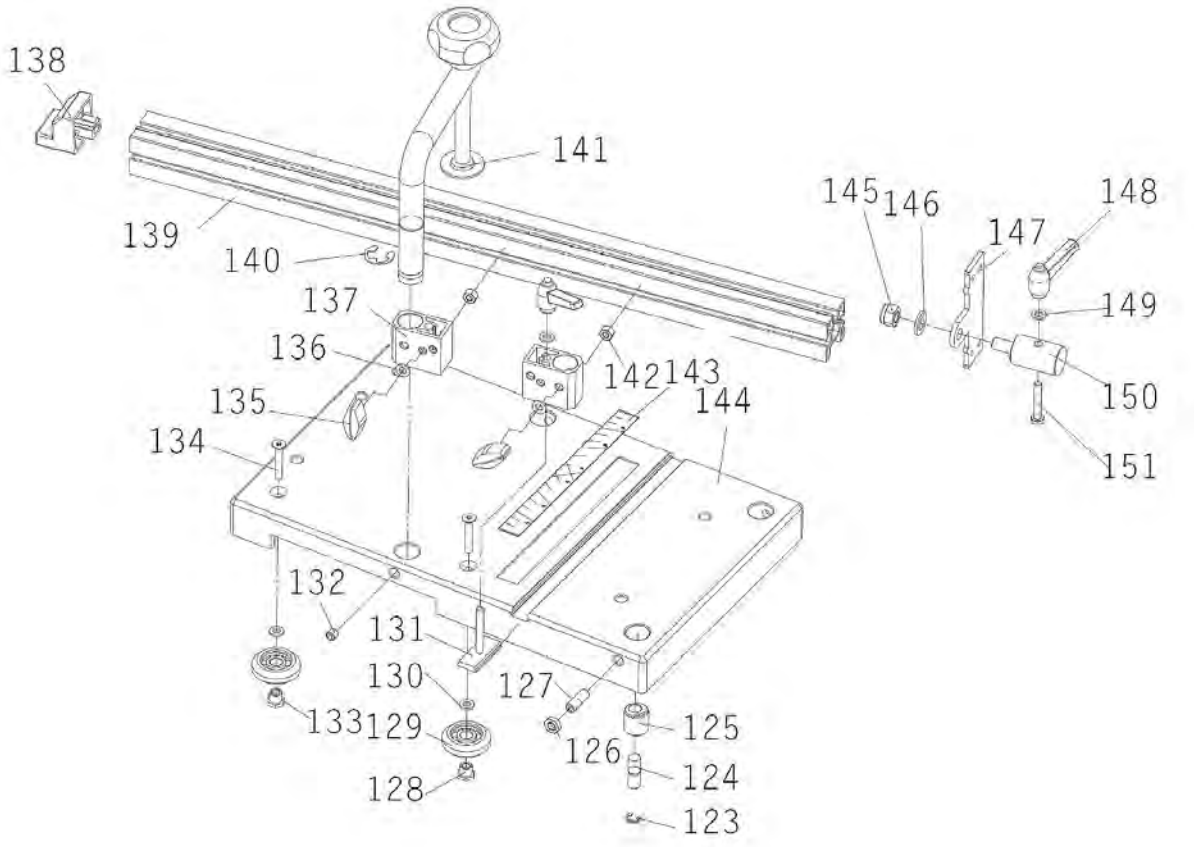


Fig. 44: Spare parts Drawing 1 for TKS 254 E

Spare parts drawing 2



Spare parts drawing 3

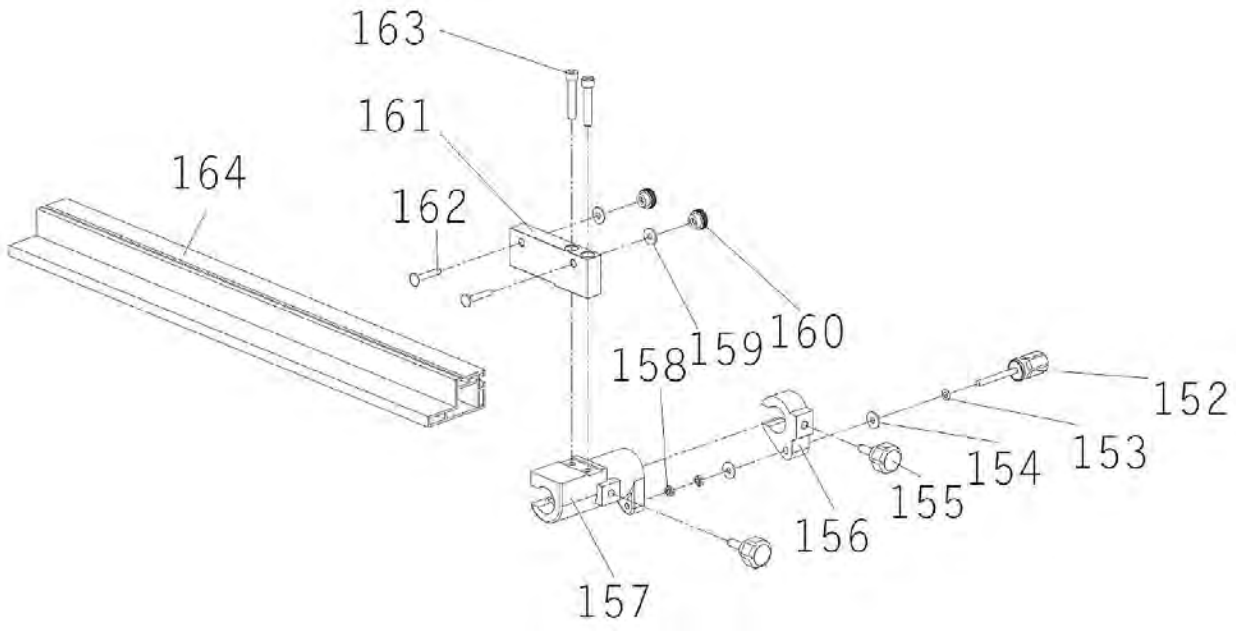
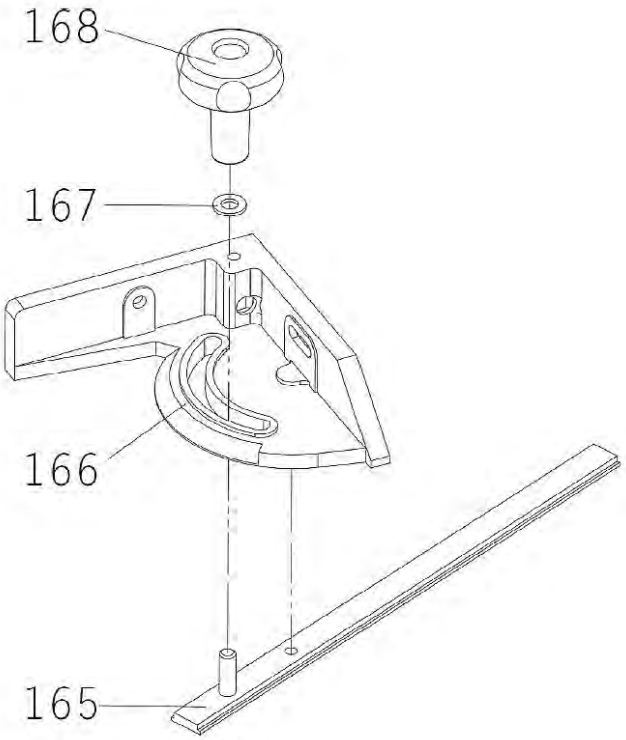


Fig. 45: Spare parts Drawing 2 (above) and 3 (below) for TKS 254 E

Spare parts drawing 4



Spare parts drawing 5

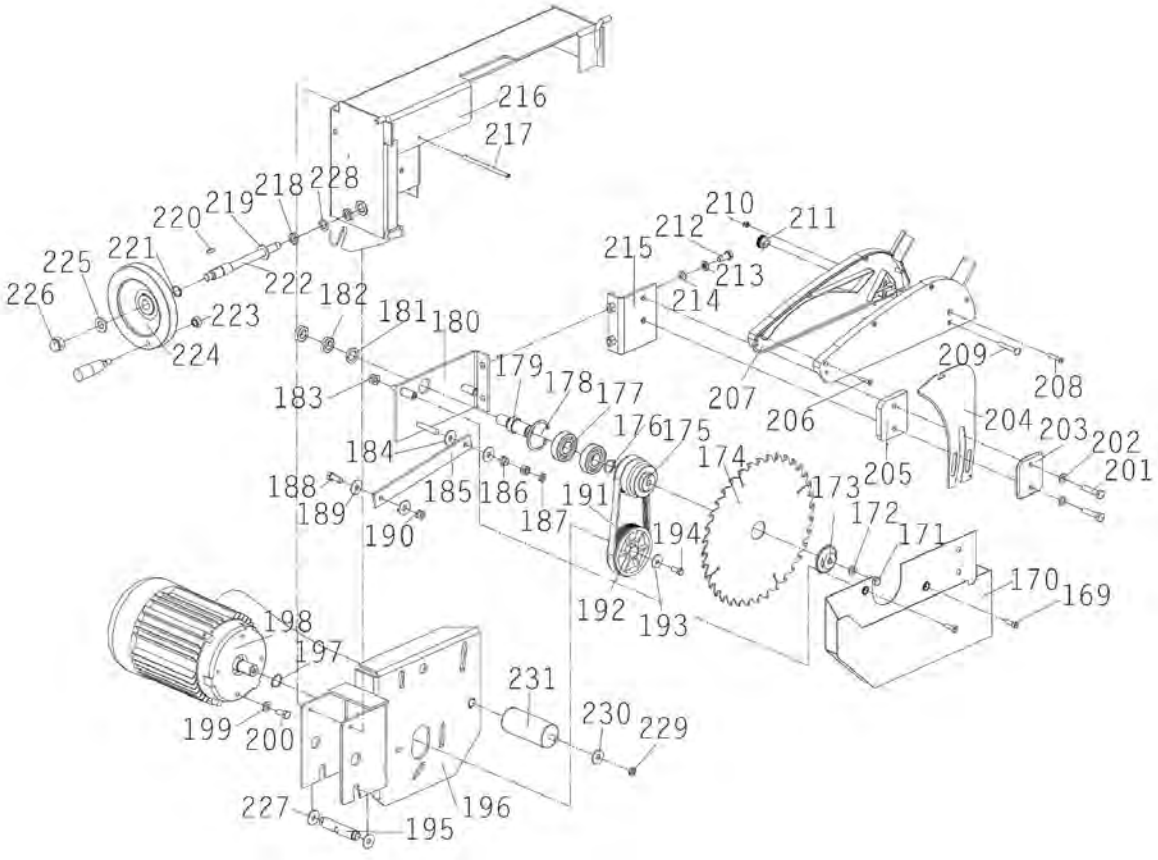


Fig. 46: Spare parts Drawing 4 (above) and 5 (below) for TKS 254 E

Spare parts drawing 1 TKS 254 PRO

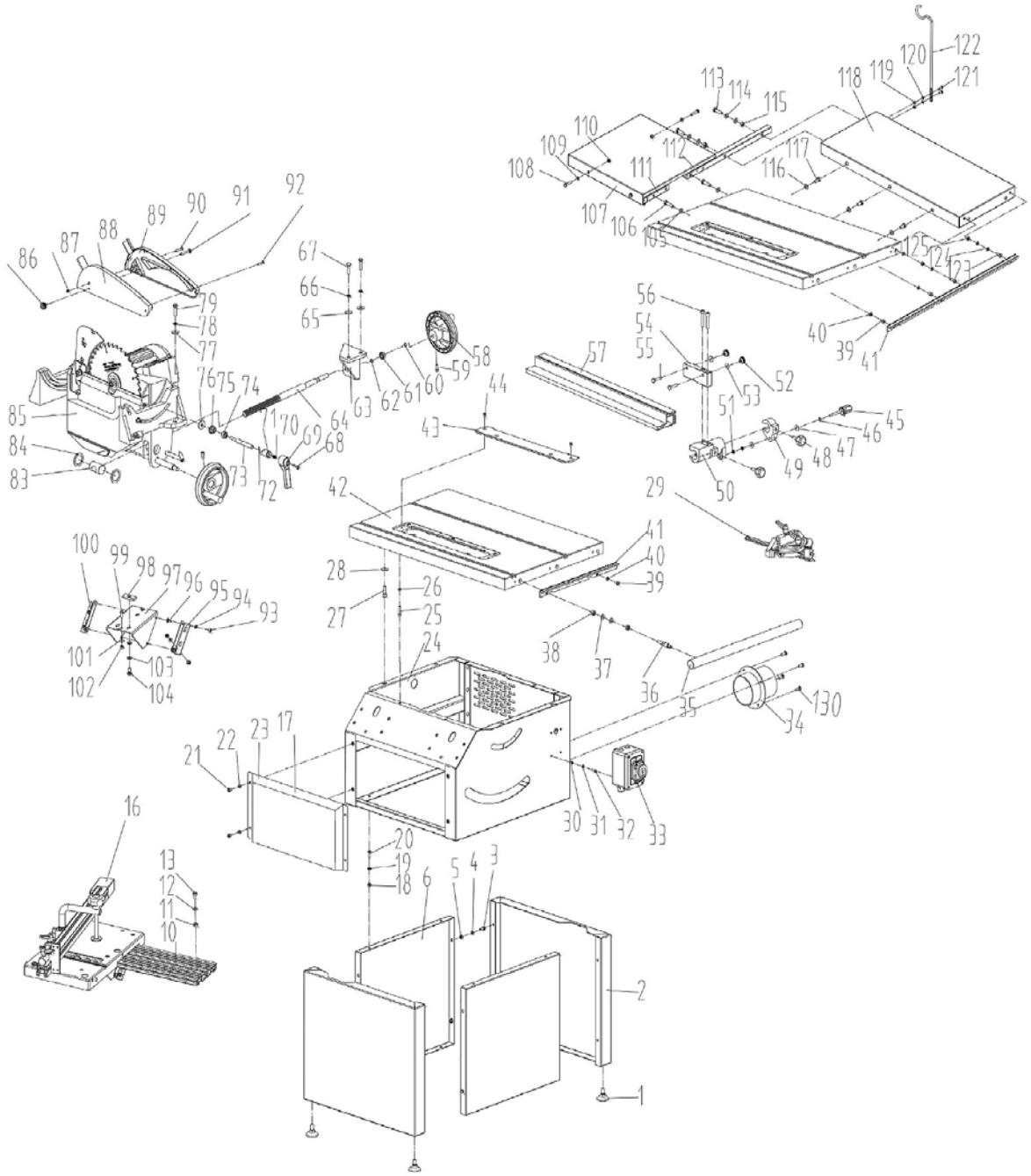
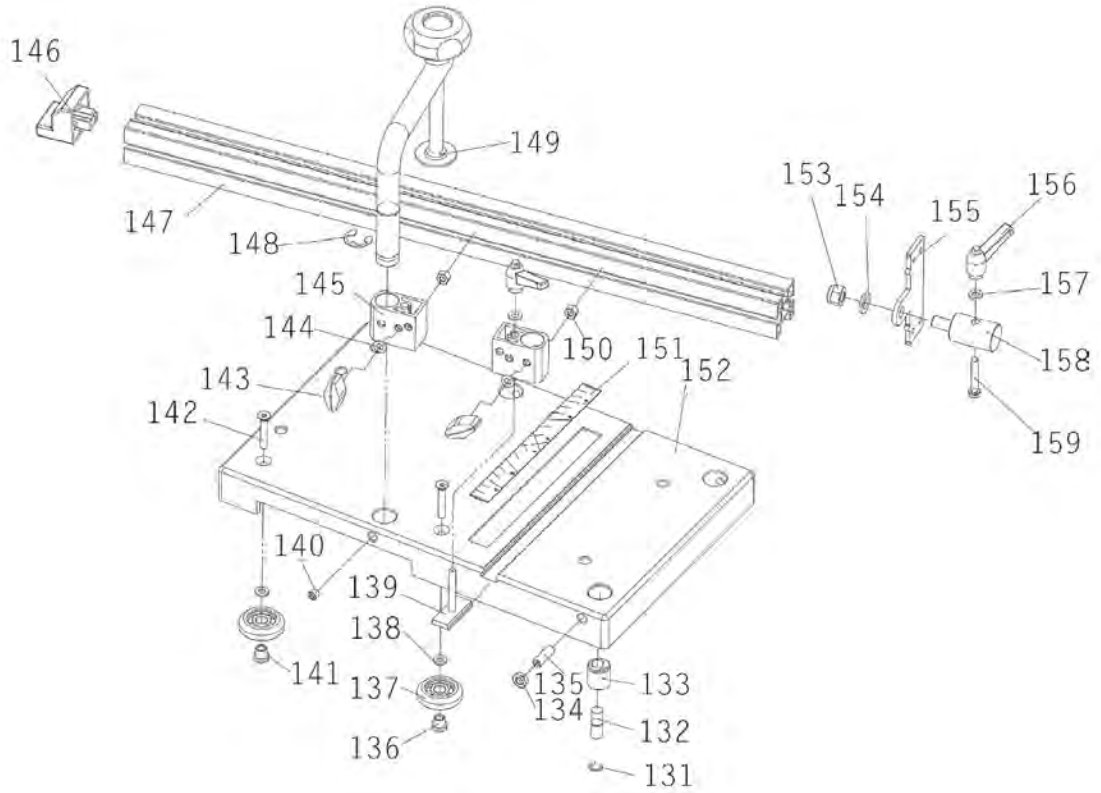


Fig. 47: Spare parts Drawing 1 for TKS 254 PRO

Spare parts drawing 2



Spare parts drawing 3

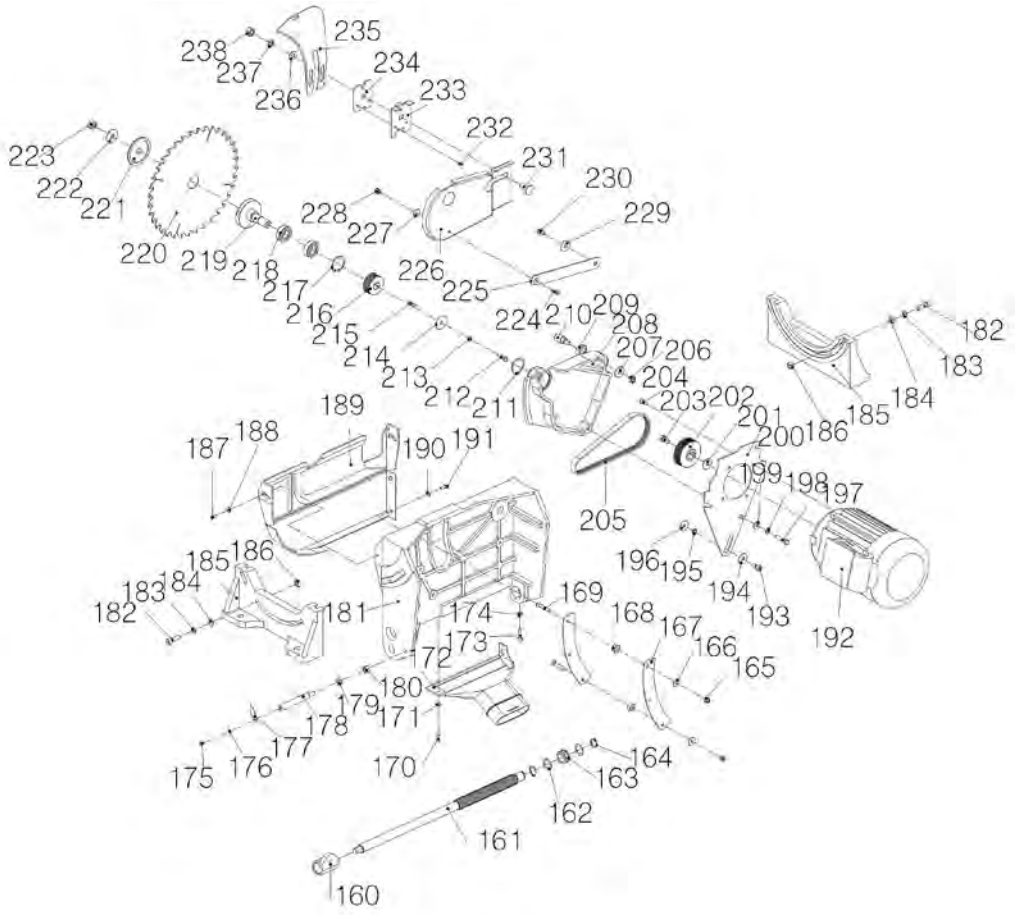


Fig. 48: Spare parts Drawing 2 (above) and 3 (below) for TKS 254 PRO

18 Electrical schematic

TKS 200 and 254 E 230 V

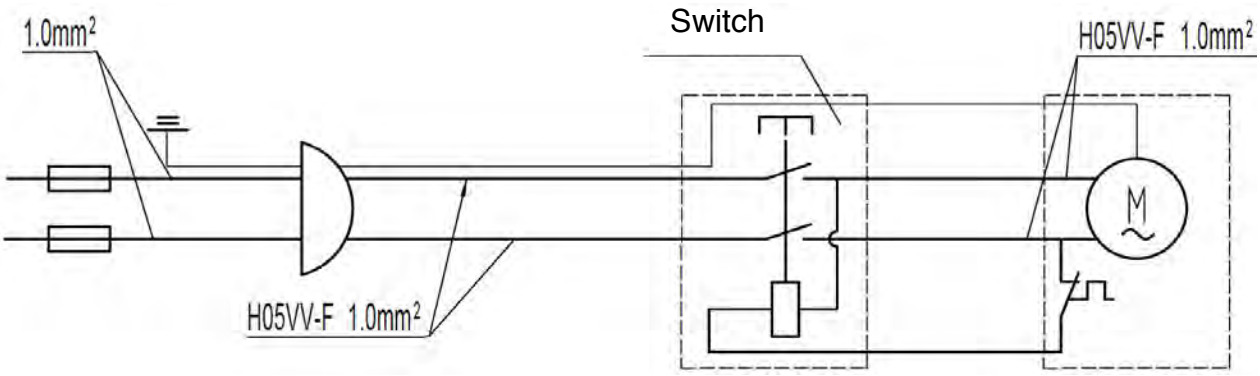


Fig. 49: Electrical schematic TKS 200 and TKS 254 E

TKS 254 PRO 230 V

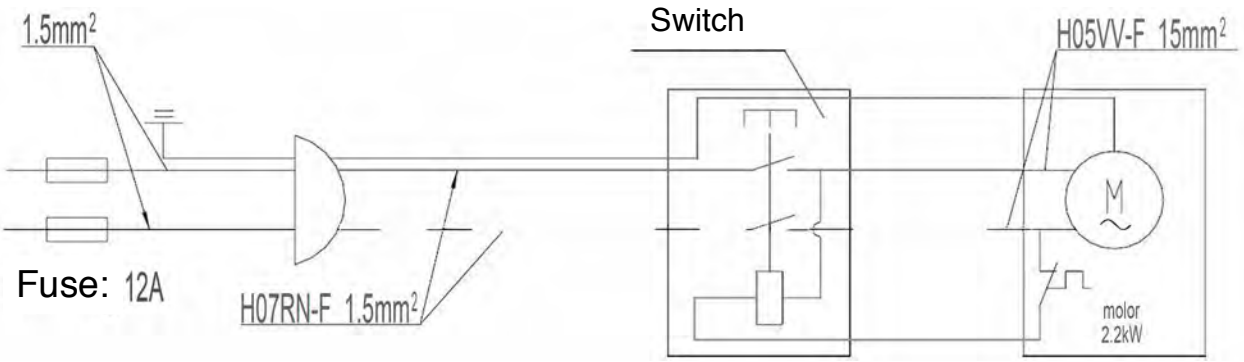


Fig. 50: Electrical schematic for TKS 254 PRO

TKS 254 E 400 V and TKS 254 400 V

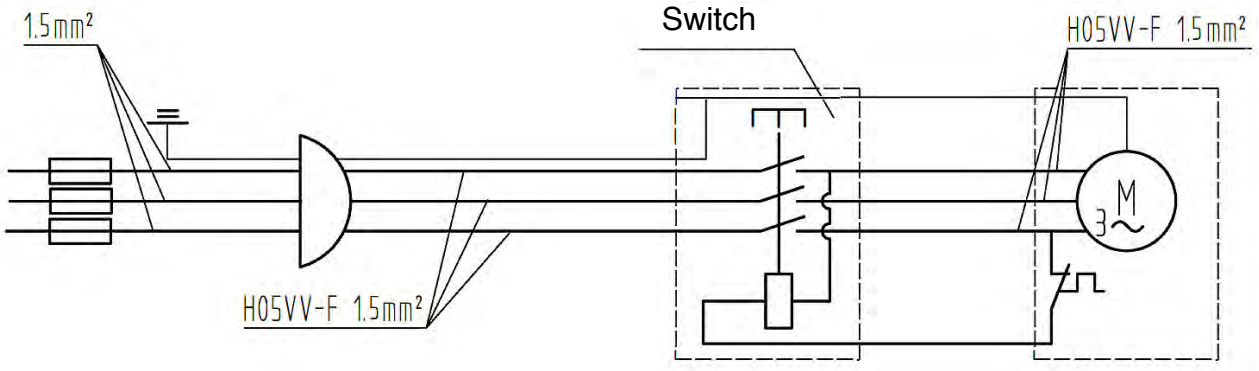


Fig.37: Electrical schematic for TKS 254 E 400 V and TKS 254 PRO 400 V

19 EC Declaration of Conformity

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

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

hereby declares that the following product

Product Category: **Holzstar® Holzbearbeitungsmaschinen**

Machine typ: Circular Table Saw

Designation of the machine*:		**Item number *:**	
	☐ TKS 200 - 230 V		☐ 5902020
	☐ TKS 254 E - 230 V		☐ 5902025
	☐ TKS 254 E - 400 V		☐ 5902026
	☐ TKS 254 PRO - 230 V		☐ 5902027
	☐ TKS 254 PRO - 400 V		☐ 5902028

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 harm onized standards have been applied:

DIN EN ISO 12100:2011-03	Safety of machinery. General principles for design. Risk assessment and risk reduction (ISO 12100:2010)
DIN EN 60204-1:2019-06	Safety of machines - Basic concepts, general principles for design - Part 1: General requirements
DIN EN ISO 19085-9:2020-08	Woodworking machines - Safety - Part 9: Circular saw benches (with and without sliding table)

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

Hallstadt, 13.03.2023

_____
Kilian Stürmer
Manager

CE


stürmer
OPTIMUM
stürmer
stürmer