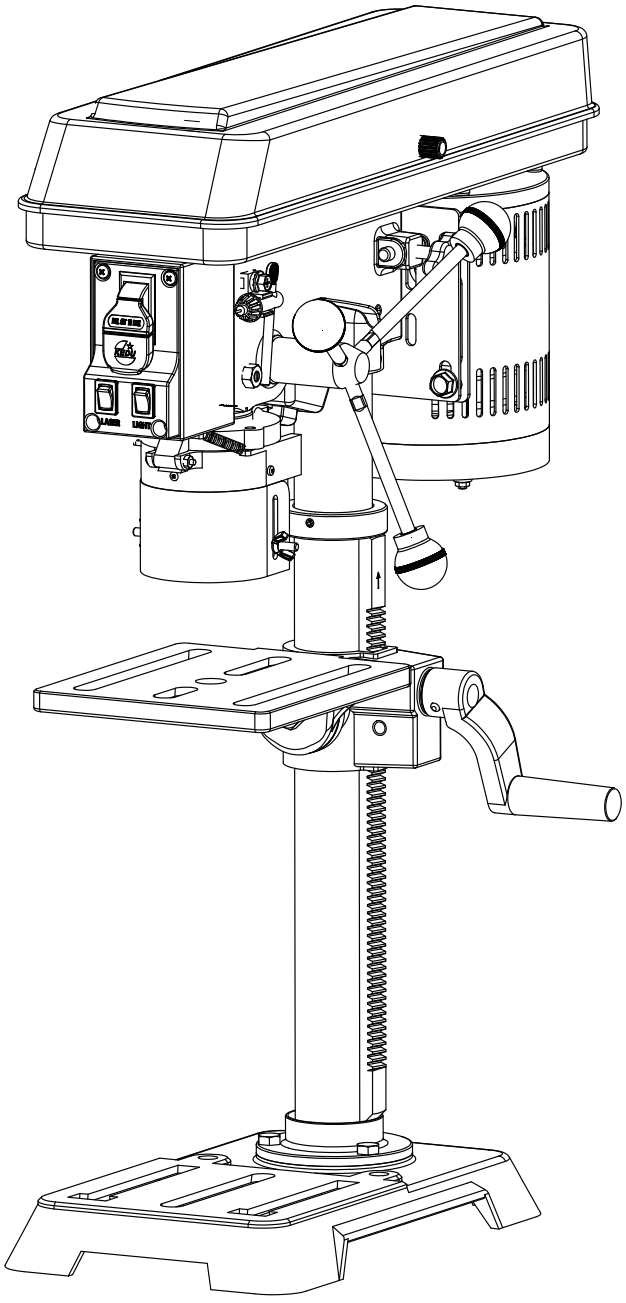
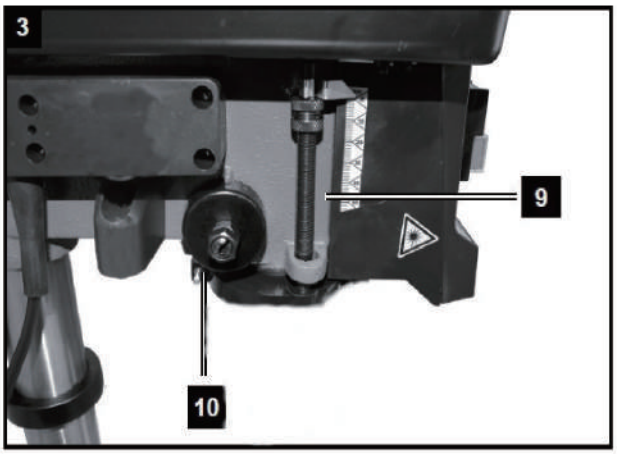
PRECISION MACHINES®

10-INCH DRILL PRESS

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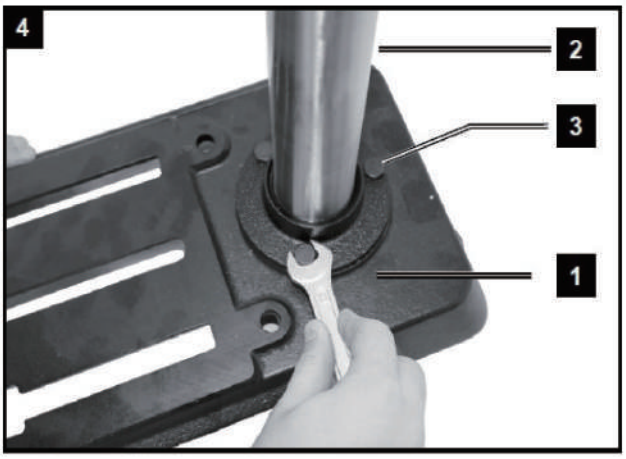
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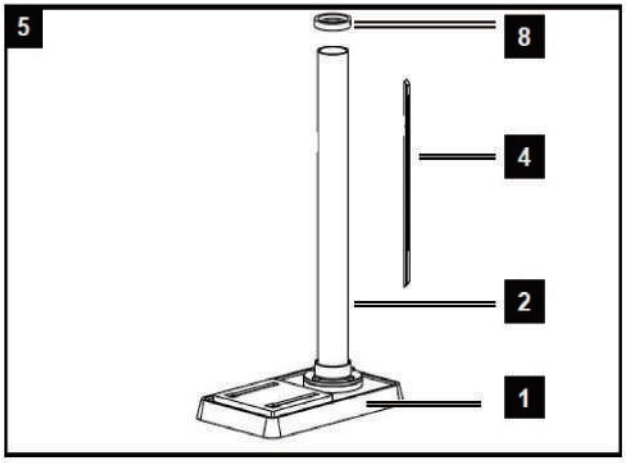
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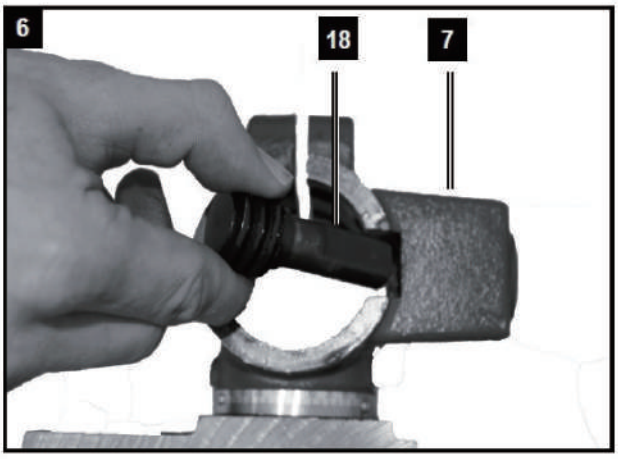
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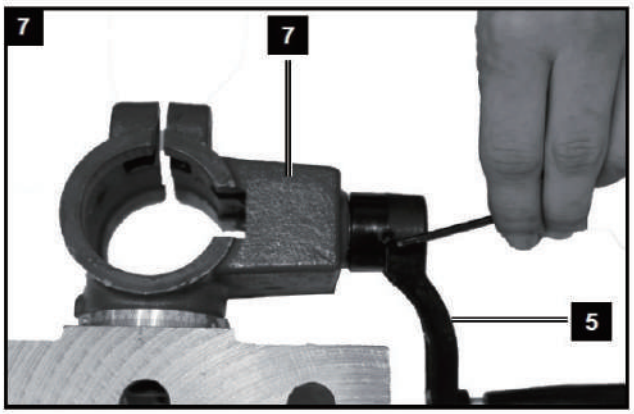
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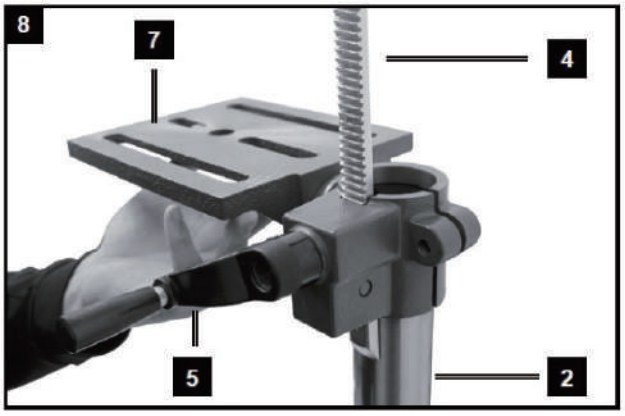
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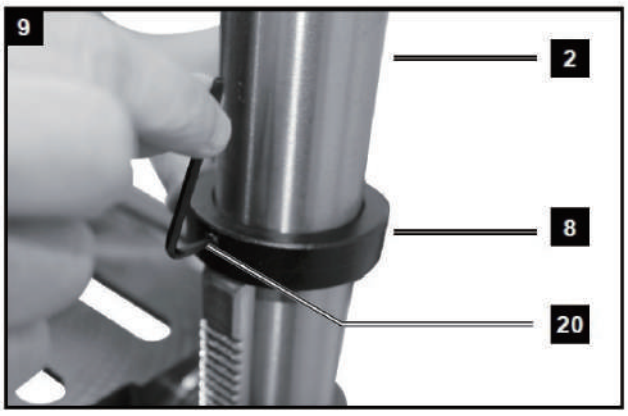
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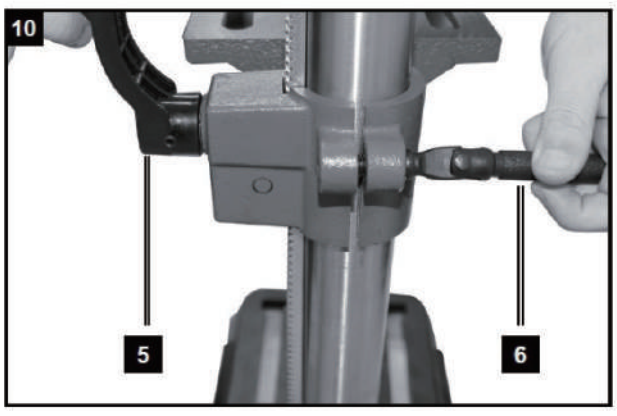
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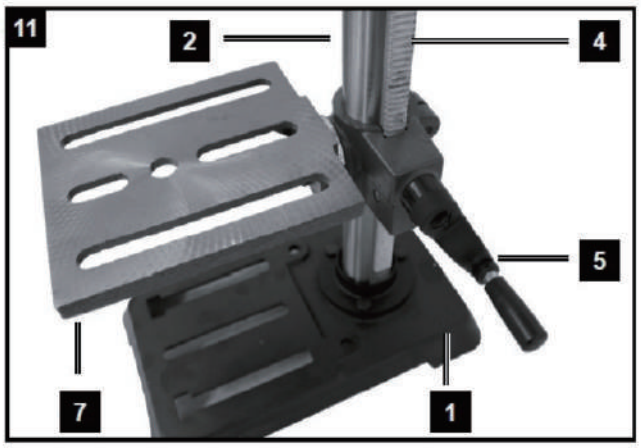
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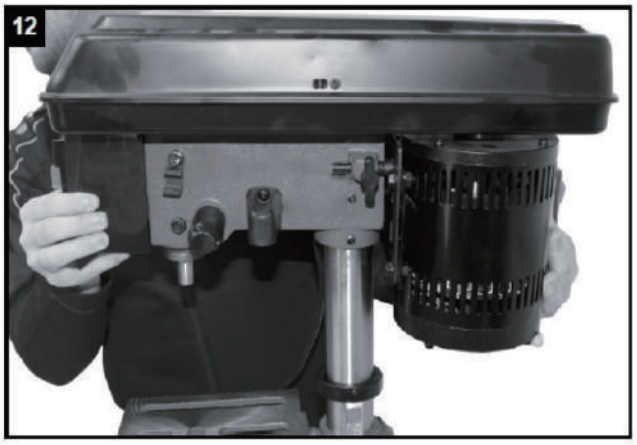
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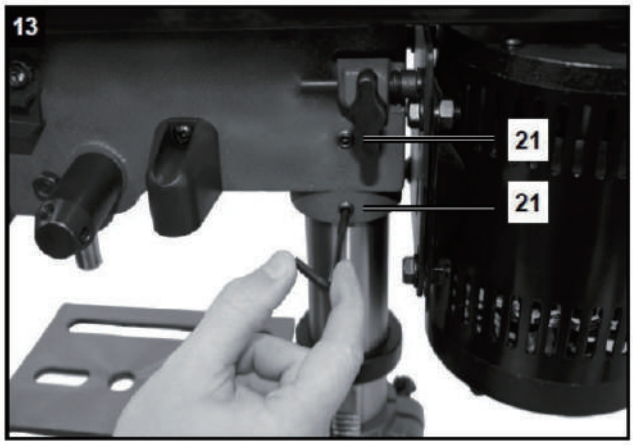
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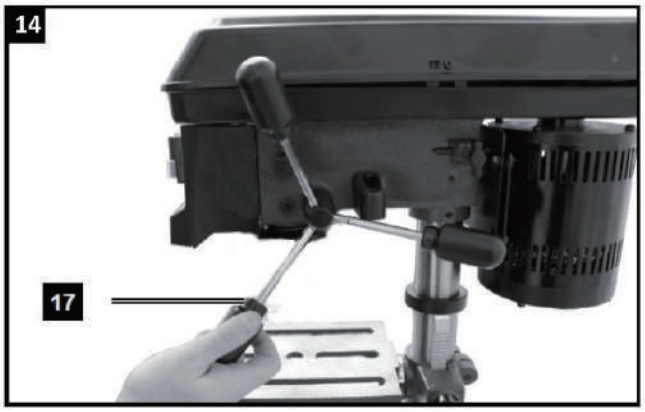
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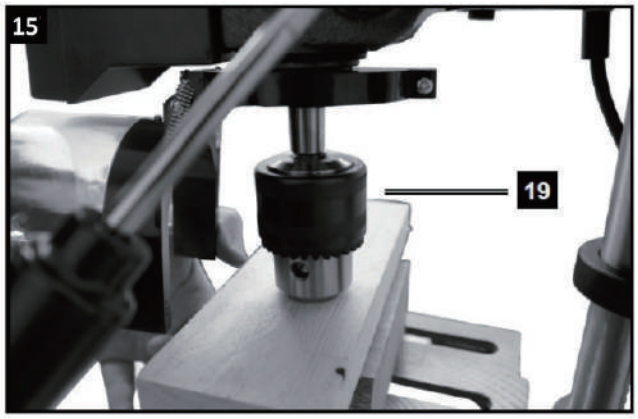
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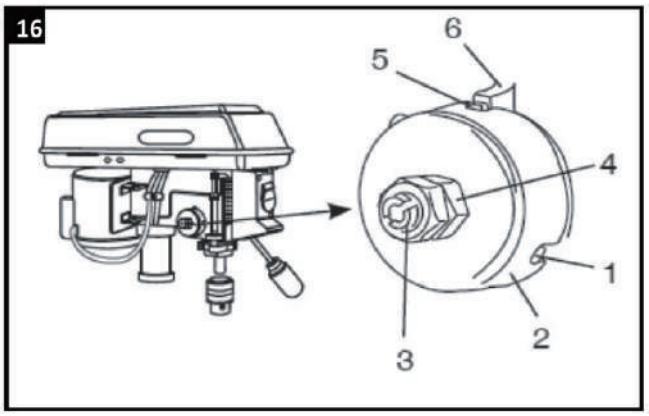
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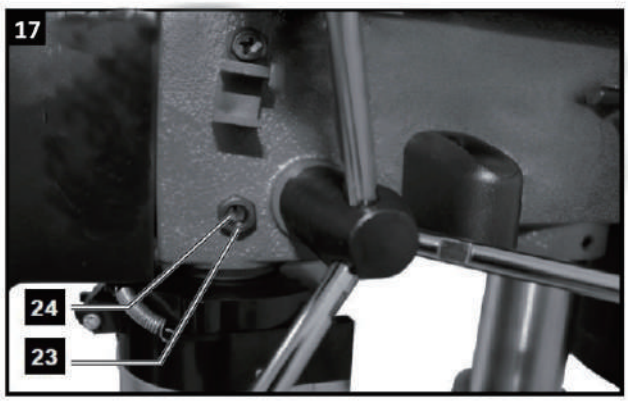
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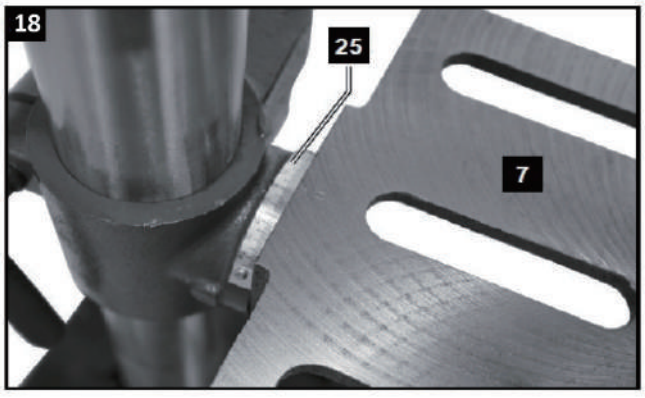
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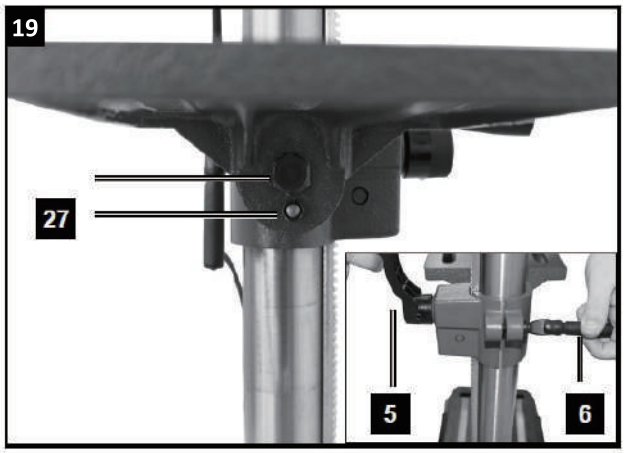

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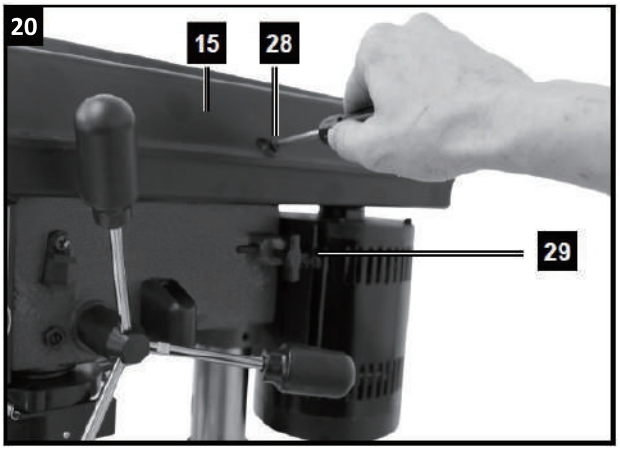

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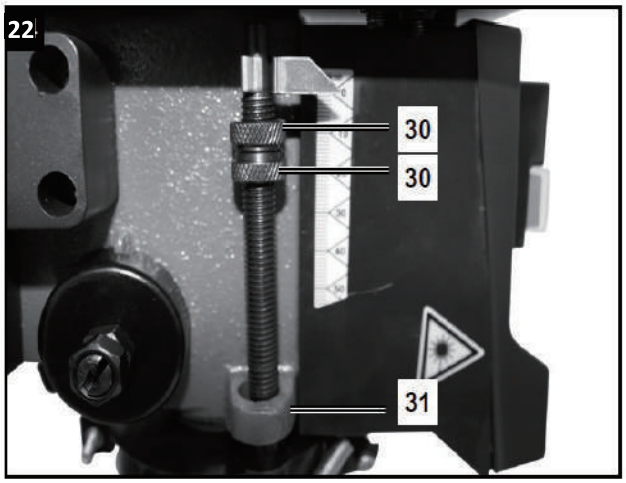

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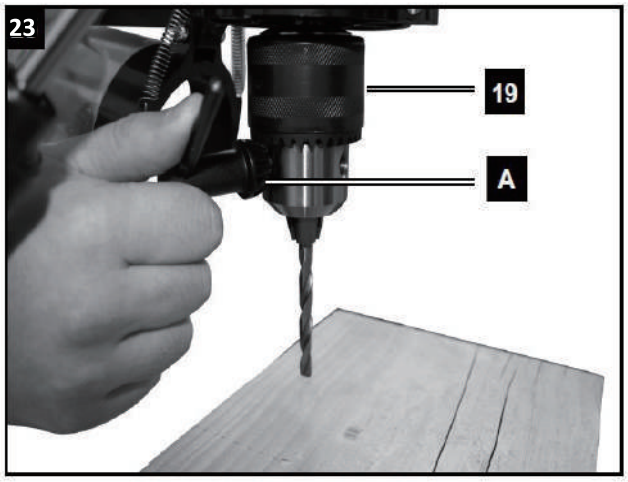

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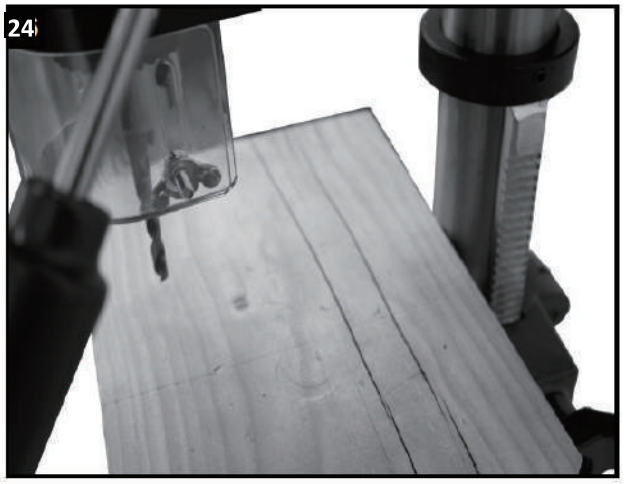

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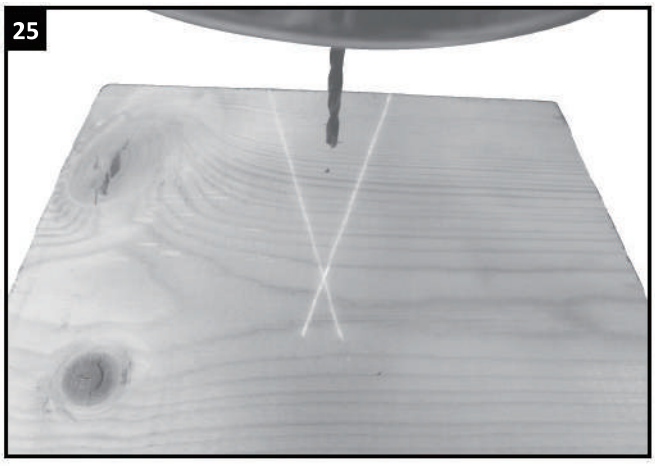


IV. Safety instructions


Warning! Danger to life, risk of injury or damage to the tool are possible by ignoring.


Caution - Read the operating instructions to reduce the risk.


Wear safety goggles!


Wear ear muffs!


Wear a breathing mask!


Use a hair net in order to cover your hair.


Do not wear gloves!

Warning! Please read the instructions manual before using your bench drill.
Read all safety regulations and instructions. Any errors made in following the safety regulations and instructions may result in an electric shock, fire and/ or serious injury. Keep all safety regulations and instructions in a safe place for future use.

Warning! To protect against electric shock, injury and fire the following basic safety precautions must be observed when using power tools. Read and follow these Instructions before using the equipment and keep the safety information in a safe place.

Keep work area clean; Cluttered areas and benches invite injuries.
Consider work area environment; Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit. Don't use power tools in presence of flammable liquids or gases.
Guard against electric shock; Prevent body contact with grounded surfaces (e.g. pipes, radiators, ranges refrigerators).
Keep children away; Do not al ow other persons to touch the equipment or cable, keep them away from your work area.
Store idle tools; When not is use, tools should be stored in dry, high, or locked-up place, out of the reach of children.
Don't force tool; It will do the job better and safer at the rate for which it was intended.
Use right tool; Don't force small tools or attachments to do the job Of heavy duty tool. Don't use tools for purposes not intended.
Dress properly; Do not wear loose clothing or jewellery. They can be caught in moving parts. Non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
Use safety glasses; A so use face or dust mask if cutting operation is dusty.
Don't abuse cord; Never carry tool by cord or yank it to disconnect it from receptacle. Keep cord from heat, oil and sharp edges.
Secure work; Use clamps or a vice to hold work. It's safer than using your hand and it frees both hands to operate tool.
Don't overreach; Keep proper footing and balance at all times.
Maintain tools With care; Keep too s sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have repaired by authorized service facility. Inspect extension cords periodically and
replace if damaged. Keep handles dry, clean and free from Oil and grease.
Disconnect tools; When not in use, before servicing, and when changing accessories.
Remove adjusting keys and wrenches; Form the habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
Avoid unintentional starting; Don't carry plugged-in too with finger on switch. Be sure switch is off when plugging in.
Outdoor use extension cords; When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
Stay alert; Watch what you are doing. Use common sense. Do not operate tool when you are tired.
Check damaged parts; Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function.
Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service-center unless otherwise Indicated elsewhere in this instructions manual. Have defective switches replaced by an authorized service-center. Do not use tool if switch does not turn it on and off.

Warning! The use of any other accessory or attachment other than recommended it this operating instruction manual may present a risk of personal injury.
Have your tool repaired by an expert; This electric appliance is in accordance with the relevant safety rules repairing of electric appliances may be carried out only by experts otherwise it may cause considerable danger for the user.
Connect the dust extraction device; Wherever there are facilities for fitting a dust extraction system, make sure it is connected and used.

Warning! This electric tool generates an electromagnetic field during operation. This field can impair active or passive medical implants under certain conditions. In order to prevent the risk of serious or deadly injuries, we recommend that persons with medical implants consult with their physician and the manufacturer of the medical implant prior to operating the electric tool.

IVa. General safety instructions for accident prevention

It is essential that you read the safety regulations and operating instructions in their entirety and follow the information contained therein in order to eliminate the possibility of an accident or potentially dangerous situation from occurring while working with the machine
- Always check the device, the mains cable and the plug before using the device. Only operate the tool when it is in good working order and is not damaged in any way.
Damaged parts have to be replaced immediately by a qualified electrician.
- Always pull the power plug out of the socket outlet before doing any work on the machine, before changing tools and whenever the machine is not being used
- To prevent damage to the power cable, always lead the power cable away from the rear of the machine.
- Keep the tools in a safe place and out of the reach of children.

Attention!
The device and packaging materials are not toys!
Children must not be allowed to play with plastic bags, film and small parts! There is a risk of swallowing and suffocation!

Electrical connection
The installed electric motor is completely wired ready tor operation. The customer's connection to the power supply system, and any extension cables that may be used, must conform with local regulations.

Defective electrical connection cables
Electrical connection cables often suffer insulation damage.
Possible causes are:
Pinch points when connection cables are run through window or door gaps.
Kinks resulting from Incorrect attachment or laying of the connection cable.
Cuts resulting from running over the connecting cable.
Insulation damage resulting from forcefully pulling out of the wall socket.
- Cracks through aging of insulation.
Such defective electrical connection cables must not be used as the insulation damage makes them extremely hazardous.

Check electrical connection cables regularly for damage. Make sure the cable is disconnected from the mains when checking.
Electrical connection cables must comply with the regulations applicable in your country.


Warning: The machine must have an earth Cable to protect the operator from electrical shocks.

INTENDED USE: This drill is designed for drilling metal, plastic, wood and similar materials. Food and harmful materials may not be processed with the equipment, the drill chuck is only designed for use with drill bits and tools with a shaft diameter of 1,5 to 16 mm, and for cylindrical tool shanks. The equipment is intended for use by adults only. The equipment is allowed to be used only for the prescribed purpose. Any other use is deemed to be a case of misuse, the user/operator and not the manufacturer will be liable for any damage or injuries of any kind resulting from such misuse, please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the equipment is used in commercial, trade or industrial businesses or for equivalent purposes. The bench drill was designed in such a way so as to all but eliminate potential hazards when the machine is properly used. However, there are a few safety precautions to observe in order ta ensure that all residual hazards are ruled out.

IVb. Safety instructions for bench drills

Ensure proper voltage; the voltage must comply with the specifications an the rating plate.
Use a socket-outlet with earthing contact; the device may only be operated from an cutlet with the properly installed earthing contact.
Extension cable; the cord cross section of an extension cable must measure at least 1.5mm². Always completely unwind a cable reel prior to use, check the cable far defects.
Protection against electrical shock; keep the device away from moisture the device must neither be damp nor be operated n a humid environment. Prior to every use, check the device and the mains cable with plug for damage. Avoid bodily contact with earthed parts e.g. Pipes, heat elements, etc.
Protection against fire and explosion; there are spark producing components inside the device. Do not use the device in the vicinity of combustible liquids or gases. Otherwise there is a risk of fire or explosion.
Handle the device with care; do not use the cable to pull the plug out of the socket. Protect the cable from heat, and sharp edges keep your tools sharp and clean so that you can work efficiently and safely. Follow the maintenance regulations and the instructions for changing tools.
Wear suitable work clothes and personal protection equipment; loose clothing s not suitable. As can be caught by moving parts, causing to become entangled. Wear a hair net it you have long hair. As a general rule, jewellery should not be worn when working with machine tools. Ensure that you wear safety goggles. Not doing so could result in eye injury.
Keep your work area neat and tidy; Disorder in the work area can easily lead to accidents. Do not leave any tools, objects, or cable in the direct vicinity of the work area, as this poses a tripping hazard. Ensure that there is sufficient lighting.
Watch out for other persons; Watch out for other persons (especially children) when using the device, and keep them away from your work area. DO not let anyone touch the device or the power cable.
Store the tools in a safe location; Store unused devices in a dry, locked location that is out of the reach of children.
Avoid overloading the device; Operate the device only within the specified output range. Do not use any low-powered machines for heavy duty work. Do not use tools to perform work for which they were not intended.
Maintain a steady foothold; Ensure that you maintain a steady foothold while working. Avoid abnormal body positions and always keep your balance.
Pull out the mains plug; pull Out the mains plug when not using the tool, prior to maintenance, and when changing the drill bit.
Pull out the power plug; Ensure that the mains connection is protected by at least a 10 A-rated fuse.
Avoid unintentional start up; Ensure that switch is turned off when plugging the plug into the socket.
Keep an eye on your work; A ways keep an eye on your machine and the object you are working on. Never use the machine when you are not concentrating or are distracted. Never use the machine when you are under the influence Of alcohol or are taking medication.
Check the tool for damage; Before using the tool, safety devices and any slightly damaged parts must be carefully checked to ensure that they are in good working order, visually examine the tool's power cable on a regular basis. All parts must be correctly assembled and meet all the conditions required to ensure proper operation.

Unless otherwise specified In the operating instructions, any damaged safety devices and parts must be properly repaired or replaced by a professionally recognized workshop. Never use tools with defective On/Off switches.

Warning: Using any plug-in tools and accessories other than those specified in these operating instructions can lead to injury. **Maximum workpiece size;** Workpieces (max. 20 x 20 cm) may only be processed if they can be clamped securely on the drill table or in the vise.

Remaining hazards

The machine has been built using modern technology in accordance with recognized safety rules. Some remaining hazards however, may still exist.
- Long hair and loose clothing can be hazardous when the work piece is rotating. Wear personal protective gear such as a hair net and tight fitting work clothes.
- Wood chips and saw dust can be health hazard. Be sure to wear personal protective gear such as safety goggles and a dust mask. Use a vacuum exhaust system.
- Thrown work-pieces lead to injury if the work piece is not properly secured fed, such as working without a limit stop,
- the use of incorrect or damaged mains cables can lead to injuries caused by electricity,
- even when all safety measures are taken, some remaining hazards which are not yet evident may still be present.

Remaining hazards can be minimised by following the instructions in “safety instructions and in the entire operating manual.
Keep this safety information in a safe place.

Laser

Protect yourself and you environment from accidents using suitable precautionary measures!
• Do not look directly into the laser beam with unprotected eyes.
• Never look into the path of the beam.
• Never point the laser beam towards reflecting surfaces and persons or animals. Even a laser beam with a low output can cause damage to the eyes.
• Caution - methods other than those specified here can result in dangerous radiation exposure.ww
• Never open the laser module. Unexpected exposure to the beam can occur.
• If the mitre saw is not used for an extended period of time, the batteries should be removed.
• The laser may not be replaced with a different type of laser.
• Repairs of the laser may only be carried out by the laser manufacturer or an authorised representative.

Attention: Laser radiation
Do not stare into the beam
Class 2 laser

V. Technical Data

Model	DP2501A
Voltage/Frequency	110V/60Hz
Power	S2 3/4HP

* The manufacturer reserves the right to make minor changes to product design and technical specifications without prior notice unless these changes significantly affect the performance and safety of the products. The parts described / illustrated in the pages of the manual that you hold in your hands may also concern other models of the manufacturer's product line with similar features and may not be included in the product you just acquired.

* Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

* To ensure the safety and reliability of the product and the warranty validity, all repair, inspection, repair or replacement work, including maintenance and special adjustments, must only be carried out by technicians of the authorized service department of the manufacturer.

* Always use the product with the supplied equipment. Operation of the product with non-provided equipment may cause malfunctions or even serious injury or death. The manufacturer and the importer shall not be liable for injuries and damages resulting from the use of non-conforming equipment.

VI. Assembly

WARNING: For your own safety never connect plug to power source outlet until all assembly steps are completed and you have read and understood the safety and op-erational instructions

Column to base (Fig. 4)
1. Position base (1) on floor or bench.
2. Place column assembly (2) on base and align holes in column support with holes in base.
3. To attach and fasten the pillar unit, screw the 3 screws (3) into the base plate (1) and tighten them with a wrench SW13.

Remove the rack (Fig. 5)
To be able to mount your drill, you must first remove the rack (4).
1. Remove the ring (8) using an Allen wrench (SW3) and pull it from the pillar (2).
2. Now pull out the rack (4).

Preinstalling the drilling table holder, (Fig. 6+7)
1. Push the crank holder (18) through the hole in the drilling table holder (7) from the inside.
2. Put the crank handle (5) on the crank holder and use the Allen key (B) to secure the crank handle (5).

Assembly holder drilling table (Fig. 8-11)
1. Insert the toothed rack (4) into the groove of the holder drilling table (7).
2. Align the toothed rack (4) centered to the drill ta-ble (7).
3. When merging the toothed rack (4) give attention of correct toothing from holder drilling table (7) and toothed rack (4) within the groove.
4. Now place the drill table (7) with the toothed rack (4) onto the pillar (2) and run the toothed rack (4) in the lower rack guide on base plate.
5. Secure the toothed rack (4) by means of the ring (8). Note here that the toothed rack guide shows down on the ring (8). Fix the ring (8) by tightening the grub screw (20) integrated.
6. Screw the clamping handle (6) into the drilling ta-ble holder (7).

Machine head and pillar (Fig. 12+13)
1. Place the machine head onto the pillar (2).
2. Put the spindle of the drilling machine with the ta-ble and the base plate in the cover and fasten the 2 Allen screws (21).

Feed handles to the shaft hub (Fig. 14)
Screw the feed handles (17) tightly into the threaded holes in the hub.

Installing the chuck (Fig. 15)

1. Clean the conical hole in the chuck (19) and the spindle cone with a clean piece of fabric. Make sure there are no foreign particles sticking to the surfaces. The slightest piece of dirt on any of these surfaces will prevent the chuck from seat-ing properly. This will cause the drill bit to wobble“. If tapered hole in the chuck is extremely dirty, use a cleaning solvent on the clean cloth.
2. Push the drilling chuck onto the spindle nose as far as possible.
3. Turn the chuck sleeve anti-clockwise (when viewed from above) and open the jaws of the drilling chuck.
4. Place a piece of wood on the table and lower the spindle onto the piece of wood. Press tightly so the chuck fits precisely.

Fastening radial drill press to supporting surface. Tighten the drill on a work bench with the holes of the base plate to prevent tipping of the machine. For your own safety, it is highly recommended to in-stall the machine on a bench or similar.

VII. Operating instructions

WARNING:
If you are not familiar with this kind of machine, take advice from an experimented person. In any case you should have read and understood the safety and operational instruction before attempting to operate this product.

Pivoting the table (Fig. 18+19)
Tip: The inclination display (25) only serves as orien-tation for a rough angular adjustment. For precision work suitable goniometers must be used.
In order to place the drilling table (23) in the tilted position, loosen the hex-nut (24) which serves for 90° fixation with a flat spanner (SW19), remove the clamping nut (27) and set the desired table angle. Retighten the clamping-nut (27).

Adjusting table height (Fig. 19)

1. Loosen the clamping handles (6).
2. Adjust the table (7) to the desired height. Use the adjustment handle for height adjustment (5).
3. Re-tighten the table locking (6)

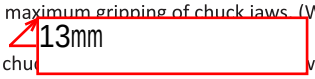
Note: it is better to lock the table to the column in a po-sition so that the tip of the drill bit is just slightly above the top of the workpiece.

Choosing speed and tensioning belt Fig. (20+21)

Attention! Before opening the hood belt guard always switch off the power plug. Wait before maintenance / adjustment operations always full stop of the machine (risk of injury)! Never run the drill with open V-belt covering. Never touch in the running V-belt.

Tip: Safety switch If you want to adjust speed you have to open the pulley cover. The device switches off immediately to avoid the risk of injuries.
1. You can set different spindle speeds on your pillar drilling machine:
2. Once you have turned off the machine, you can open the cover (15) by loosening the screw (28). You will find all adjustment options for the spindle speed on the cover (15) of the machine.
3. Relieve the drive belt pressure on the right side of the machine head by loosening the wing screw (23). Pull the right side of the motor towards the spindle slightly to relieve fan belt pressure.
4. Place the fan belt around the relevant pulleys.
5. Push the right side of the motor back to tighten the fan belt.
6. Retighten the wing screw (29). The fan belt should have about 13 mm play when it is squeezed in the middle.
7. Close the cover.
8. If the fan belt slips during operation, adjust the belt tension.

Depth stop (Fig. 22)
NOTE: When the clamping device is in the upper position, the tip of the drill has to be slightly above the top of the work piece.
The depth stop enables control of the drilling depth. To do this, set the desired drilling depth and secure it using the knurled nuts (30) against the lower stop (31).

Installing drill bits (Fig. 23)
1.Insert drill bit into chuck far enough to obtain maximum gripping of chuck jaws. (When using a small drill bit do not insert it so far that the jaws touch the flutes -spiral grooves of the drill bit.


2. Make sure that the drill bit is centered in the chu vith the chuck key. (optional)
3. Tighten the chuck with the key so that the drill bit can-not slip during the work.

Removing the chuck.
Open jaws of chuck as wide as they go by turning chuck sleeve anticlockwise (when viewed from above). Carefully tap chuck with mallet in one hand while hold-ing chuck in other hand to prevent dropping it when released from spindle nose.

Positioning table and workpiece (Fig. 24)
Always place a piece of back up material ('wood) on the table undemeath the workpiece. This will prevent splitering or making a heavy burr on the underside of the workpieces as the drill bit breaks through. To keep the back up material from spinning out of control it must contact the left side of the column (2) as illustrated.

Warning:
To prevent the work piece or the backup material from being torn from your hand while drilling, position them to the left side of the column. If the work piece or the backup material are not long enough to reach the col-umn, clamp them to the table. Failure to do this could result in personal injury.
Note: for small pieces that cannot be clamped to the table, use a drill press vise (accessory).
The vice must be clamp or bolt to the table to avoid injury from spinning work and vise or tool breakage.

Drilling a hole
Make a dent in the workpiece where you want the hole, using a center punch or a sharp nail. Before turn-ing the switch on, bring the drill down to the work-piece lining it up with the hole location. Turn the switch on and pull down on the feed handles with only enough effort to allow the drill to cut. Feeding Too Slowly might cause the drill bit to burn. Feeding Too Rapidly might stop the motor, cause the bett or drill to slip, tear the workpiece loose, or break the drill bit. When drilling metal, it may be necessary to lubricate the tip of the drill with motor oil to prevent burning the drill bit.

Working with the laser (Fig. 25)
To turn on the laser press switch (13). Align the illustrated borehole in the focal point of the laser, place the drill and begin drilling.

VIII. Electrical connection

The electrical motor installed is connected and ready for operation. The connection complies with the applicable VDE and DIN provisions. The customer‘s mains connection as well as the extension cable used must also comply with these regulations. When working with this electric tool and during temporary use outdoors, the device must be connected **a residual current circuit breaker** with a triger current of 30 mA or less.

Important information
In the event of overloading, the motor will switch itself off. After a cool-down period (time varies) the motor can be switched back on again.

Damaged electrical connection cable
The insulation on electrical connection cables is often damaged. This may have the following causes:

- Pressure points, where connection cables are passed through windows or doors.
- Kinks where the connection cable has been improperly fastened or routed.
- Places where the connection cables have been cut due to being driven over.
- Insulation damage due to being ripped out of the wall outlet.
- Cracks due to the insulation ageing.

Such damaged electrical connection cables must not be used and are life-threatening due to the insulation damage. Check the electrical connection cables for damage regularly. Ensure that the connection cables are disconnected from electrical power when checking for damage. Electrical connection cables must comply with the applicable VDE, DIN provisions & your country's respective regulations.

Single-phase motor
- The mains voltage must coincide with the voltage specified on the motor's rating plate
- Extension cables up to 25m long must have a cross-section of 1.5 mm², beyond 25 m at 2,5 mm²
- The connection to the mains must be protected with a 16A slow acting fuse.

Connections and repairs of electrical equipment may only be carried out by an electrician**.**

WARNING: The drill press must not be operated in the open air. The machine must have an earth cable to protect the operator from eletrical shocks.

IX. Maintenance/Cleaning

WARNING: For you own safety pull out the mains plug before carrying out any adjustments, maintenance or repair work!

Have maintenance and repair tasks that are not described in this operating manual, carried out by our service centre. Use only original parts. Let the device cool down before all maintenance and cleaning tasks. There is a risk of burns!

Each time before using the device, check it for obvious defects such as loose, worn or damaged parts, or that screws or other parts are tight. Replace damaged parts (for example replace a power cord which is damaged).

Cleaning
Do not use cleaning agents or solvents. Chemical substances* could damage the plastic parts of the device.Never clean the device under running water.
- Clean the device thoroughly after each use.
- Clean the ventilation holes and the surface of the device with a soft brush or cloth**.**
- Remove swarf, dust and dirt with a vacuum cleaner if necessary.
- Lubricate the moving parts regularly.
- Do not allow any lubricants to come into contact with switches, V-belts, drive pulleys and drill lifting arms.

* Benzine, trichloroethene, chloride, ammonium, etc can damage plastic parts.

Maintenance

Setting the laser, Fig. 21+25
Clamp a drill bit in the chuck (12). The laser forms a crosshair in the centre of the drill. If the laser line does not meet in the centre of the drill, the laser must be adjusted. Position the drilling table (4) as close as possible to the drill. Loosen the locknuts. The laser lines can be adjusted by turning the adjustment screws on both sides. Set the laser lines such that they cross in the middle of the drill tip.

Spindle retaining spring adjustment
Warning: All the necessary adjustments for the good working of your drill press have been done at the factory .Please do not modify them. However, because of a normal wear and tear of your tool, some readjustments might be necessary . Always pull the plug from the socket when carrying out adjustment work.

Setting the spindle return spring, Fig. 16
The spindle return spring may have to be set, as its tension has changed and therefore, the spindle moves back too quickly or too slowly.
1. Lower the table for more space to work.
2. Work on the left of the drill.
3. Insert a screwdriver into the front groove (1) and keep this in position.
4. Use an open-ended spanner (SW14) to remove the outer nut (3)
5. With the screwdriver still in the groove, loosen the inner nut (4) until the notch releases from the hub (6). ATTENTION! Spring is unter tension!
6. Turn the spring cap (2) carefully in an anti-clockwise direction using the screwdriver until you can press the groove (1) into the hub (6).
7. Lower the spindle into the lowest position and keep the spring cap (2) in position. Once the spindle moves up and down as require,d re-tighten the inner nut (4).
8. If it is too loose, repeat steps 3-5. If it is too tight, repeat step 6 in reverse order
9. Use a flat spanner to secure the outer nut (3) against the inner nut (4).
10. NOTE: Do not over-turn and do not limit the range of movement of the spindle!

X. Storage

Store the equipment and accessories out of children's reach in a dark and dry place at above freezing temperature. The ideal storage temperature is between 5 and 30 ºC. Store the electric tool in its original packaging.

Attention! Unplug the machine!

The appliance must unconditionally be secured against falling or turning down during transport. The appliance can be lifted on the left and right grinding wheel / belt sander cover. Power cable, flexible lamp shaft etc. should not be used for transport purposes.

XI. Trouble Shooting

WARNING: Always switch the machine off and pull the plug out of the socket prior to troubleshooting.

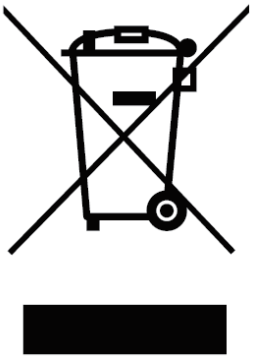
Fault	Possible cause	Remedy
The axle moves into its starting position too quickly or too slowly.	The spring pre-tension is set incorrectly.	Set the pre-tension, see “Setting the spindle return spring”.
The chuck keeps loosening from the spindle despite being reattached.	Dirt, grease or oil on the spindle or on the inside of the chuck.	Use a household detergent to clean the surface of the spindle and chuck. Also see “Installing the chuck”.
High noise level during operation.	Incorrect V-belt tension.	Set the V-belt tension again. Also see “Setting the speed and V-belt tension”.
	The spindle is too dry.	Test the spindle.
	The pulley on the spindle is loose.	Check that the nuts on the pulley are tight and re-tighten if necessary.
	The pulley on the motor is loose.	Tighten the set screw on the motor pulley.
Wood splinters on underside.	No backup material behind workpiece.	Use "backup material".
Workpiece gets loose from hand.	Not supported or clamped properly.	Support work piece or clamp it.
The drill bitt is too hot.	Incorrect speed.	Change the speed. Also see “Selecting the speed and V-belt tension”.
	No chips come out of the hole.	Move the drill bit out of the hole regularly in order to pull the chips out.
	The drill bit is blunt.	Sharpen the drill bit.
	Insufficient downward pressure.	Increase the downward pressure.
The drill bit slips or the hole is not round.	Hard places in the wood or the length and angle of the drill bit is different.	Sharpen the drill bit.
	The drill bit is bent.	Replace the drill bit.
The drill bit gets stuck in the workpiece.	The workpiece and drill bit are twisted or the downward pressure is too great.	Place something underneath the workpiece or secure it. Also see “Positioning the workpiece”.
	Insufficient V-belt tension.	Set the V-belt tension. Also see “Selecting the speed and V-belt tension”.
The drill bit drifts and vibrates excessively.	The drill bit is bent.	Use a straight drill bit.
	The spindle bearing is worn excessively.	Have the spindle bearing replaced.
	The drill is not centred in the chuck.	Check the centring. Also see “Inserting the tool into the chuck”
	Chuck is not firmly fixed.	Correctly fix the chuck. Also see “Installing the chuck”.

XII. Disposal and recycling

The device is supplied in packaging to avoid transport damages. This packaging is raw material and can thus be used again or can be reintegrated into the raw material cycle.

The device and its accessories are made of different materials, such as metals and plastics. Take defective components to special waste disposal sites. Check with your specialist dealer or municipal administration!

Do not throw old equiment away with household waste!



This symbol indicates that this product must not be disposed of in household waste as per Waste Electrical and Electronic Equipment directive (2012/19/EU) and national laws. This product must be handed over at the intended collection point. This can be done, for example, by returning it when purchasing a similar product or delivering it to an authorised collection point for the recycling of old electrical and electronic devices. Improper handling of waste equipment may have negative consequences for the environment and human health due to potentially hazardous substances that are often contained in electrical and electronic equipment. By disposing of this product properly, you are also contributing to the effective use of natural resources. Information about collection points for old devices can be found at your municipal authority, the local disposal provider, an authorised location for the disposal of old electrical and electronic devices or your waste collection service.

Exploded view