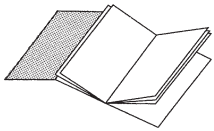
GB **Operating Instructions**
Pillar Drill

POWER CRAFT

CE

BD 501

Art.-Nr.: 42.505.23; I-Nr.: 01011



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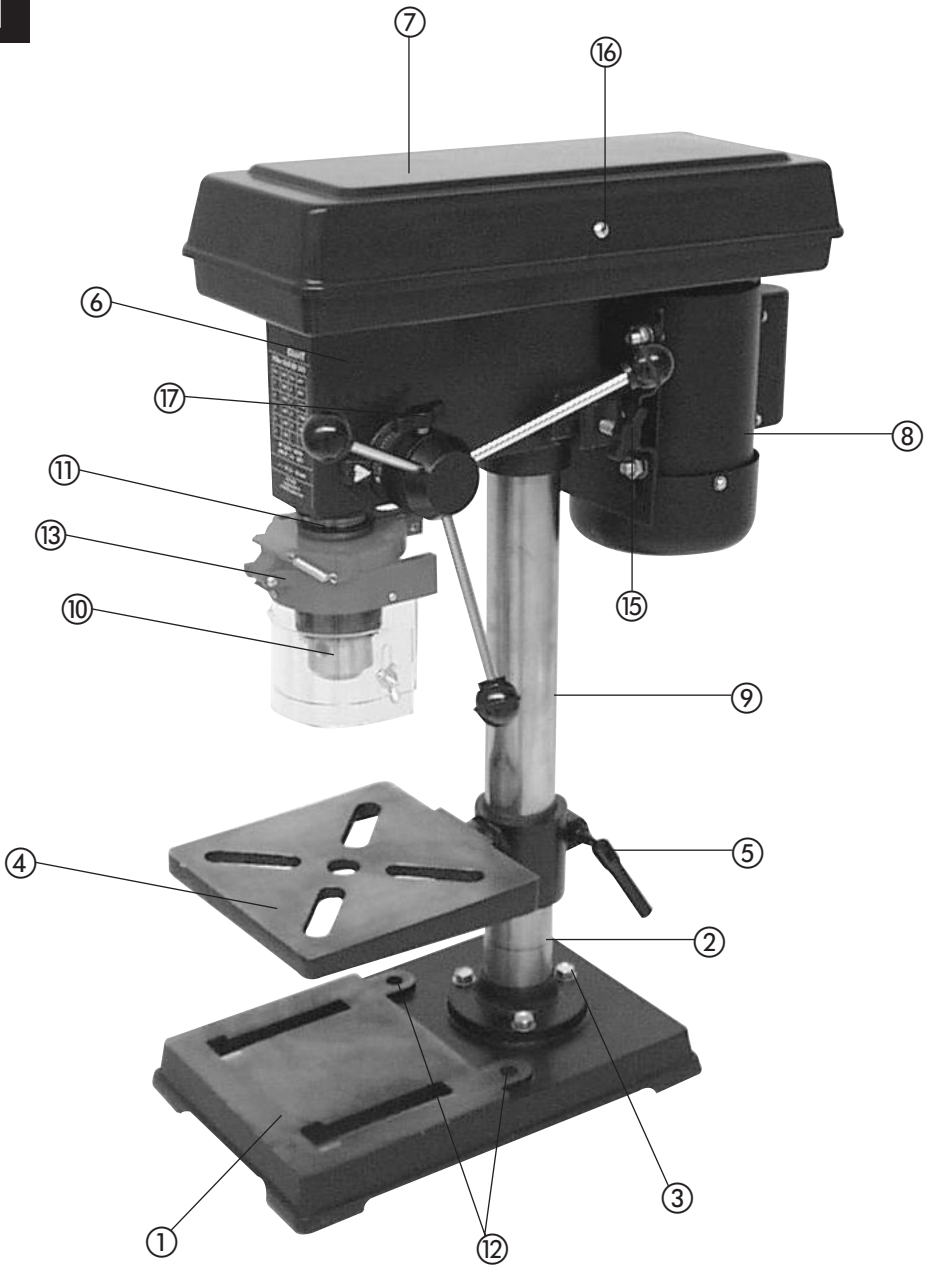

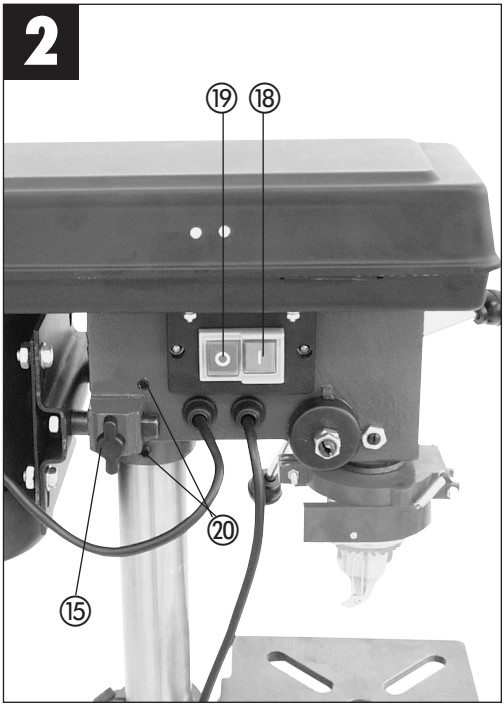
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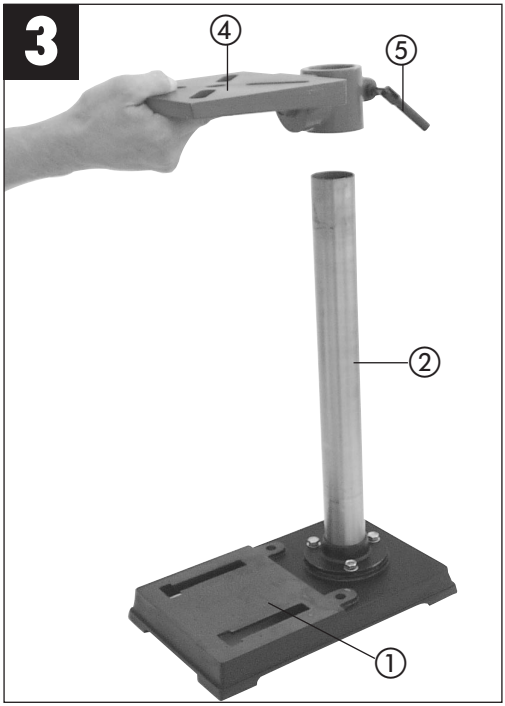
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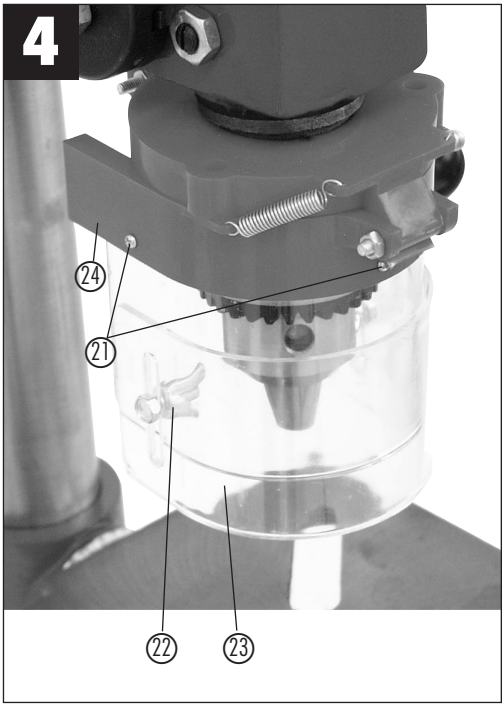
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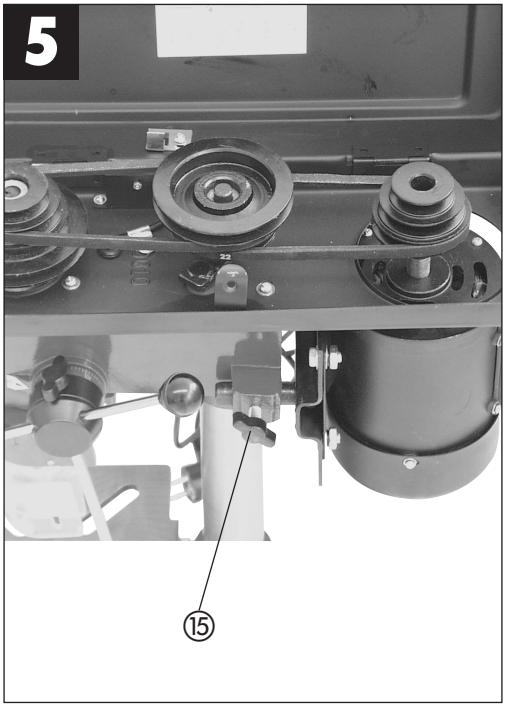
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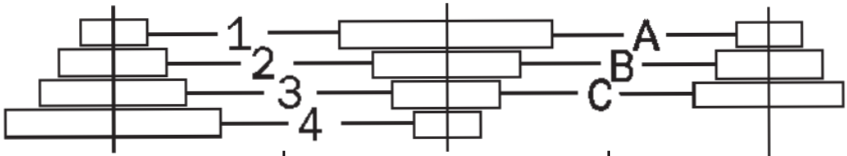

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A-4	280	B-4	450	A-3	540
C-4	620	A-2	720	B-3	870
C-2	1550	B-1	1700	C-1	2350

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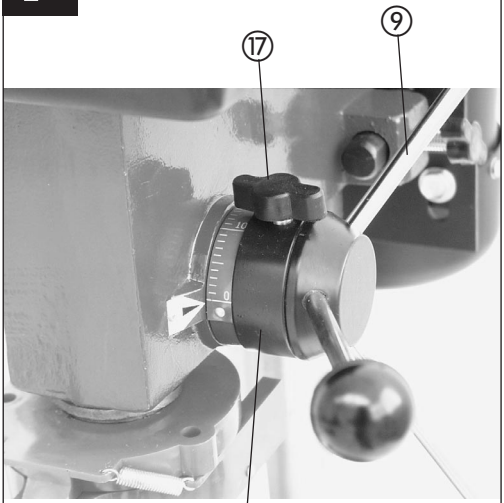

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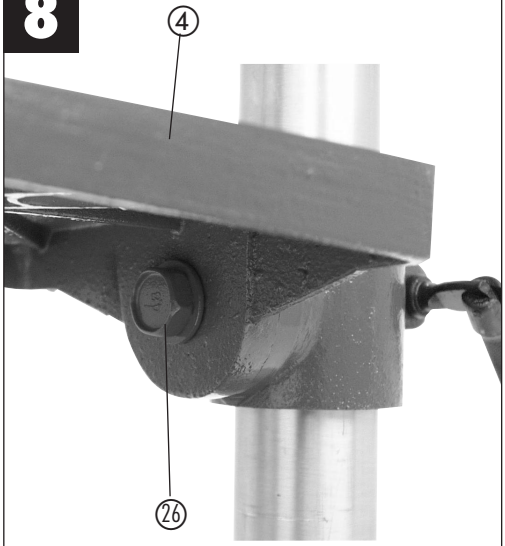


1.0. Layout (Fig. 1/2)

1. Machine base
2. Pillar
3. Fixing screw
4. Drill table
5. Clamping screw
6. Machine head
7. V-belt
8. Motor
9. Grip knobs
10. Scroll chuck
11. Spindle
12. Mounting holes
13. Hinged chip guard
15. Tightening screw
16. Screw
17. Clamping screw
18. On button
19. Off button
20. Grub screw

2.0. Items supplied

- Pillar drill
- Scroll chuck
- Drill chuck key
- Hinged chip guard

3.0. Proper use

This table drilling machine is designed for drilling metal, plastic, wood, and similar materials. Neither food nor materials that present a health hazard may not be processed with the machine. 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 device is for adult use only. The machine is designed for continuous operation with intermittent load (S6 50 %). Any use of the machine other than that stipulated in these operating instructions releases the manufacturer from all liability and voids all warranty claims.

4.0. Safety information

The pillar 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 to ensure that all residual hazards are ruled out.

Ensure proper voltage

The voltage must comply with the specifications on the rating plate.

Use a socket-outlet with earthing contact

The device may only be operated from an outlet with the properly installed earthing contact.

Extension cable

The cord cross section of an extension cable must measure at least 1.0 mm_. Always completely unwind a cable reel prior to use. Check the cable for defects.

Protection against electrical shock

Keep the device away from moisture. The device must neither be damp nor be operated in 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, hot 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, oil 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 is not suitable, as it can be caught by moving parts, causing you to become entangled. Wear a hair net if you have long hair. As a general rule, jewelry 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.

Avoid unintentional start-up

Ensure that switch is turned off when plugging the plug into the socket.

Keep an eye on your work

Always 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.

Now, please read and follow all steps and procedures included in the operating instructions.

5.0. Technical data

Nominal input voltage	230V ~ / 50 Hz
Nominal output	400 Watts
Operating mode	S6 50 %
Nominal idle speed	280 - 2,350 min^{-1}
Speed levels	9
Drill chuck mount	B 16
Scroll chuck	Ø 1.5 - 16 mm
Max. shaft diameter	16 mm
Reach	115 mm
Drill depth	50 mm
Pillar diameter	46 mm
Height	610 mm
Weight approx.	22 kg

Technical and visual enhancements may be made without prior notice. All dimensions, notes and specifications contained in these operating instructions are therefore subject to change.

Noise/vibration

Sound pressure level LpA: 75.5 dB (A) at idle and 78.7 dB (A) in operation.
Hand/arm vibration is typically less than 2.5 m/s^2.
Noise and vibration were determined in accordance with prEN 61029-1 requirements.

6.0. Set-up

6.1. Assembly (Fig. 1-3)

Assemble the machine as follows:

- Position the machine base (1).
- Fasten the mounting flange with pillar (2) to machine base (1) using three screws (3) and washers.
- Push the drill table (4) with drill table clamp shaft onto the pillar (2) (Fig. 3).
- Lock the drill table into the desired position using the clamping screw (5).
- Place the drill head (6) with V-belt cover (7) and motor (8) onto the drill pillar and fasten using the grub screw (20).
- Screw the three ball-shaped handles (9) onto the feeder cross handle.

Note: All bare parts are greased in order to protect them from corrosion. Before mounting the drill chuck (10) onto the spindle (11), both parts must be completely degreased using an environmentally friendly solvent. This ensures optimal transmission of power.

- Mount the drill chuck onto the spindle.

6.2. Installing the machine (Fig. 1)

Before the drill is started for the first time, it must be solidly and fully mounted on the work area of a stable workbench. Use both mounting holes (12) in the base plate to do this. Ensure that the machine is freely accessible for operation, adjustment and maintenance.
Note: The fixing screws may only be tightened to a point where they do not distort or deform the base plate. Excessive tension can lead to fracture.

6.3. Hinged chip guard (Fig. 4)

Unscrew the three recessed head screws (21).
Push the transparent cover (23) into the groove of the red mounting frame (24) and fasten it again with the recessed head screws (21).
The height of the cover (23) is infinitely adjustable and can be locked using the two thumb screws (22).
The chip guard (13) can be flipped upwards to change drill bits; ensure, however, that the chip guard (13) is back in its initial position before restarting the machine.

6.4. Prior to starting

Ensure that the voltage of the mains supply complies with the specifications on the rating plate. Connect the machine only to a socket with the properly installed earthing contact.
The table drill is equipped with a no-volt trip that is designed to protect the operator from an undesired restart following a drop in voltage. Should this occur, the machine must be manually restarted.

7.0. Operation

Wear suitable, protective clothing (i.e. rugged and tight-fitting) when working with the table drill.

Always wear safety goggles!

Long hair should always be bound back with a hair net or a cap!

7.1. General (Fig. 2)

To switch on the machine, push in the green On button „I“ (18); the machine starts up. To switch off, press the red Off button „O“ (19); the device shuts down. Ensure that you do not overload the device. If the sound of the motor drops in pitch during operation, it is being overloaded. Do not overload the device to the point where the motor comes to a standstill.
The machine is designed for continuous operation with intermittent load (S6 50 %).
The machine may be operated under a full load for a maximum of 5 minutes, at which time the machine needs to idle for 5 minutes. This prevents the motor from overheating.

7.2. Tool insertion (Fig. 1)

Ensure that the mains plug is pulled out before changing tools. Only cylindrical tools with a maximum shaft diameter of Ø 1.5 - 16 mm may be clamped in the scroll chuck (10). Only use a tool that is sharp and free of defects. Do not use tools whose shaft is damaged or which are deformed or flawed in any other way. Only insert accessories and attachments that are specified in the operating instructions or have been approved by the manufacturer.

7.3. Handling the drill chuck (Fig. 1)

Your table drill is equipped with a scroll chuck (10). In order to insert a drill bit, flip up the chip guard (13), insert the drill bit, then tighten down the drill chuck using the supplied chuck key.
Pull out the chuck key. Ensure that the clamped in tool is firmly seated.
Caution! Do not leave the chuck key in the clamp hole.
Doing so will cause it to shoot out, which could cause injury.

7.4. Setting the speed (Fig. 1/5/6)

First switch the machine off, then pull out the mains plug.
The various spindle speeds can be set by moving the V-belt.
Proceed as follows:

- Remove the screw (16) in order to open the V-belt cover (7).
- Slacken the tightening screw (15) and push the motor (8) in the direction of the machine head.
- Move the V-belt to the desired position.
- Refer to the table for the recommended speeds for different drill bit materials.
- Tighten the V-belt by pushing the motor (8) back from the machine head (6). Screw the tightening screw (16) back down again. The tension is properly set when the V-belt flexes in the middle by approx. 1 cm when pressed.
- Close the V-belt cover and screw down using the screw (16).

The V-belt cover (7) must always be locked tight, as the machine is equipped with a safety switch that only allows the machine to be turned on when the V-belt cover (7) is closed.

Caution! Never let the pillar drill run when the V-belt cover is open. Always pull out the mains plug before opening the cover. Never touch the V-belt when it is rotating.

7.5. Drill depth stop point (Fig. 7)

The drilling spindle has a swiveling scale ring for setting the drill depth. Only adjust the setting when the machine is at a standstill.
-Lower the drilling spindle (11) until the tip of the drill bit touches the workpiece.
-Slacken the clamping screw (17) and turn the scale ring (25) forwards until it stops.
-Turn the scale ring (25) back to the desired drill depth, then lock this setting into place using the clamping screw (17).

7.6. Setting the angle of the drill table (Fig. 8)

- Slacken the carriage bolt (26) under the drill table (4).
- Set the drill table (4) to the desired angle (which can be read off the scale on the top side of the drill table).
- Tighten down the carriage bolt (26) in order to lock the drill table (4) into this position.

7.7. Setting the height of the drill table (Fig. 1)

- Slacken the tightening screw (5).
- Set the drill table (4) to the desired height by pressing down or lifting up and simultaneously (gently) pushing to the left or right.
- Screw the tightening screw (5) back down again.

7.8. Locking the workpiece into position (Fig. 1)

As a general rule, use a machine vice (14) or another suitable clamping device to lock a workpiece into position.
Never hold the workpiece in place with your hand!
When drilling, the workpiece should be able to travel on the drill table (4) for self-centering purposes. Ensure that the workpiece cannot rotate. This is best achieved by placing the workpiece/machine vice on a sturdy block.
Caution! Sheet metal parts must be clamped to prevent them from being torn up. Properly set the height and angle of the drill table for each workpiece. There must be enough distance between the upper edge of the workpiece and the tip of the drill bit.

7.9. Drilling wood

Please note that sawdust must be properly extracted when working with wood, as it can pose a health hazard. Ensure that you wear a suitable dust mask when performing work that generates dust.

7.10. Working speeds

Ensure that you drill at the proper speed. Drill speed is dependent on the diameter of the drill bit and the material in question.

The table below acts as a guide for selecting the proper speed for various materials.

Note: The drill speeds specified are merely suggested values.

Drill bit Ø	Cast iron	Steel	Iron	Aluminium	Bronze
3	2550	1600	2230	9500	8000
4	1900	1200	1680	7200	6000
5	1530	955	1340	5700	4800
6	1270	800	1100	4800	4000
7	1090	680	960	4100	3400
8	960	600	840	3600	3000
9	850	530	740	3200	2650
10	765	480	670	2860	2400
11	700	435	610	2600	2170
12	640	400	560	2400	2000
13	590	370	515	2200	1840
14	545	340	480	2000	1700
16	480	300	420	1800	1500
18	425	265	370	1600	1300
20	380	240	335	1400	1200
22	350	220	305	1300	1100
25	305	190	270	1150	950

7.11. Countersinking and center-drilling

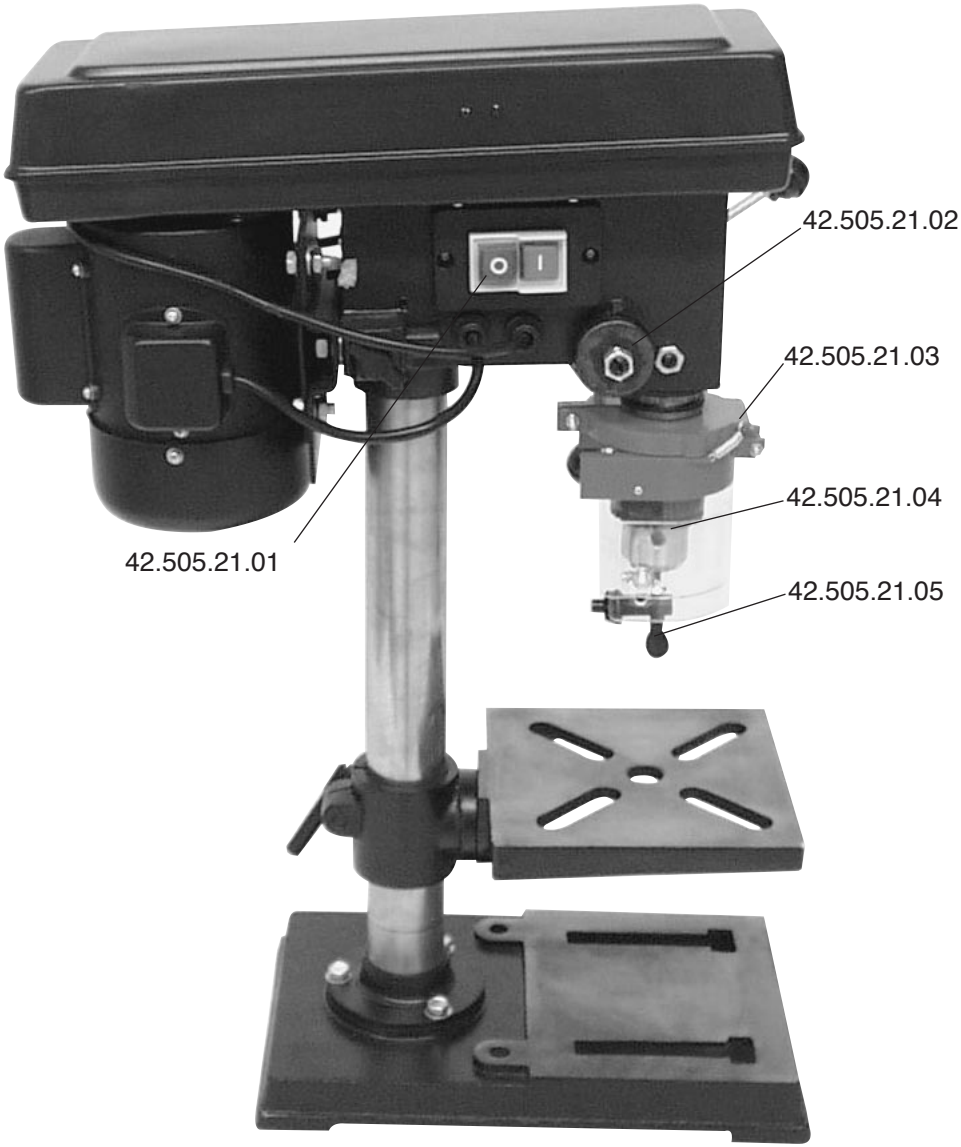
With this table drill, you can also countersink and center-drill. Please observe that countersinking should be performed at the lowest speed, while a high speed is required for center-drilling.

8.0. Care and maintenance

The table drill is to a large extent maintenance-free.
Keep the device clean.
Pull out the mains plug before doing any cleaning and maintenance work on the machine.
Do not use any harsh, abrasive cleaning solvents.
Ensure that no liquid seeps into the device.
Regrease all bare parts when the work is finished.
The drill pillar, blank parts of the column, and the drill table especially should be regreased at regular intervals. Use a standard, acid-free lubricating grease to do this.
Caution: Do not use your household refuse bin as a receptacle for oil and grease-soaked cleaning rags or grease and oil sludge. Dispose of these toxic materials in an environmentally-friendly fashion.
Regularly check and clean the ventilation holes.
Store the device in a dry room. Should the device become damaged, do not try to repair it yourself; leave this work to the hands of a qualified electrical technician.

9.0. Ordering replacement parts

Replacement parts can be ordered through ISC GmbH (see the warranty declaration for the address). The following information should be provided when placing an order:
-Model/type of device
-Item number of device
-I.D. number of device
-Number of the required replacement part



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o. Abb.	Montagebeutel incl. Griffe	42.505.21.08

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EG Konformitätserklärung Der Unterzeichnende erklärt im Namen der Firma	**EC Declaration of Conformity** The Undersigned declares, on behalf of	**Déclaration de Conformité CE** Le soussigné déclare, au nom de	**EC Conformiteitsverklaring** De ondertekenaar verklaart in naam van de firma	**Declaracion CE de Conformidad** Por la presente, el abajo firmante declara en nombre de la empresa	**EC Overensstemmelses-erklæring** Undertegnede erklærer på vegne af firmaet
ISC GmbH · Eschenstaße 6 · D-94405 Landau/Isar					
daß die	**that the**	**que**	**dat de**	**que el/la**	**at**
Maschine/Produkt	**Machine / Product**	**la machine / le produit**	**machine/produkt**	**máquina/producto**	**maskine/produkt**
Säulenbohrmaschine	**Pillar Drill**	**Perceuse à colonne**	**Kolomboormachine**	**Taladradora de columna**	**Søjleboremaskine**
Marke	**produced by:**	**du fabricant**	**merk**	**marca**	**mærke**
	POWER CRAFT				
Typ	**Type**	**Type**	**type**	**tipo**	**type**
BD 501					
– Seriennummer auf dem Produkt – der ☒ EG Maschinenrichtlinie 98/37/EG mit Änderungen ☒ EG Niederspannungs-richtlinie 73/23 EWG ☒ EG Richtlinie Elektro-magnetische Verträglichkeit 89/336 EWG mit Änderungen entspricht.	– Serial number specified on the product - is in accordance with the ☒ EC Directive regarding machinery 98/37 EC, as amended; ☒ EC Directive regarding low-voltage equipment 73/23 EEC; ☒ EC Directive regarding electromagnetic compatibility 89/336 EEC, as amended.	– no. série indiqué sur le produit - correspond(ent) à la ☒ Directive CE relative aux machines 98/37 CE avec les modifications y apportées; ☒ Directive CE relative aux basses tensions 73/23 CEE; ☒ Directive CE relative à la compatibilité électro-magnétique 89/336 CEE avec les modifications y apportées.	– serienummer op het produkt-conform de volgende richtlijnen is: ☒ EG machinerichtlijn 98/37/EG met wijzigingen ☒ EG laagspanningsrichtlijn 73/23 EWG ☒ EG richtlijn Elektro-magnetische compatibiliteit 89/336 EWG met wijzigingen	– No. de serie en el producto: satisface las disposiciones pertinentes siguientes: ☒ Disposición de maquinaria de la CE 98/37/CE con modificaciones ☒ Disposición de baja tensión de la CE 73/23 CEE ☒ Disposición de la compatibilidad electro-magnética de la CE 89/336 CEE con modificaciones.	– Serienummer på produktet - opfylder ☒ EU-maskindirektiv 98/37/EF med ændringer ☒ EU-lavspændingsdirektiv 73/23/EØF ☒ EU-direktiv vedr. elektromagnetisk støj (EMC) 89/336/EØF med ændringer.
DIN EN 292 Teil 1; DIN EN 292 Teil 2; DIN EN 55014-1; DIN EN 55014-2; DIN EN 61000-3-2; DIN EN 61000-3-3; DIN EN 61029-1					
Landau/Isar, den 16.10.2001 Brunhölzl Produkt-Management	Landau/Isar, (date) 16.10.2001 Brunhölzl Head of Product Management	Landau/Isar, (date) 16.10.2001 Brunhölzl Direction Gestion Produits	Landau/Isar, datum 16.10.2001 Brunhölzl Hoofd produkt management	Landau/Isar 16.10.2001 Brunhölzl Director de gestión productos	Landau/Isar 16.10.2001 Brunhölzl Chefe da Gestão de Produtos

Achivierung / For archives: **4250520-4155050-E**

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GB WARRANTY CERTIFICATE

The guarantee period begins on the date of sale and is valid for 2 years.
Responsibility is assumed for faulty construction or material or functional defects.
Any necessary replacement parts and necessary repair work are free of charge.
We do not assume responsibility for consequential damage. Your statutory rights are not affected.

Your customer service partner

Service UK:

GB Einhell UK Ltd
Brook House, Brookway
North Chesire Trading Estate
Prenton, Wirral, Chesire
CH 43 3DS
Tel. 0151 6084802, Fax 0151 6086339

Technical specification subject to change

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