



KERNLOCHBOHRER[®]
PROFESSIONAL POWER TOOLS



Operating instructions

DKB-132/2H

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Version 0 6. Output 05/2023

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Introduction and description

The core drilling equipment of the DKB series is intended for professional use and may only be operated by instructed persons. Strictly adhere to the instructions in the operating manual to avoid electric shock or fire.

Our company declines all responsibility in the event of violations of the operating instructions that may result in injury or machine damage. In addition, all currently applicable regulations of the Accident Prevention Regulations (UVV) and the Employer's Liability Insurance Association (BG) must be observed.

In conjunction with the appropriate drill bits, the machine is intended for drilling concrete, stone and masonry in wet and dry cutting. However, you must ensure that you select the correct drill bit for the corresponding drilling technique in each case.

The machine may only be serviced by persons who have the appropriate qualification and certification.

About this guide

These operating instructions are for the models
DKB-132/2H

Check the machine model against the type plate.



Thanks to the buyer

Thank you for purchasing a core drill of the DKB series from Kernlochbohrer GmbH. Please read the operating instructions carefully and observe the safety instructions. By operating it correctly, you will fully appreciate the outstanding performance of our products. Keep this manual in a safe place for future reference.

If you have any questions about the operation of the core drill, please contact the company Kernlochbohrer GmbH directly. We are always available to answer your questions.

Note:

Kernlochbohrer GmbH reserves the right to change the design and appearance of the products and their operating instructions. Future changes to the operating instructions will be made without prior notice.

Explanation of symbols



Warning of general danger. Failure to observe these safety precautions and instructions may result in electric shock, fire and/or serious injury.

Safety regulations

- ❖ Read all precautions before commissioning and keep the operating instructions. In addition, all currently applicable regulations of the Accident Prevention Regulations (UVV) and the Employer's Liability Insurance Association (BG) must be observed.
- ❖ Please follow the operating instructions carefully, as failure to observe these safety precautions and instructions may cause electric shock, fire and/or serious injury.

1. Keep your work area clean and well lit. Disorder or unlit work areas can lead to accidents.
2. Do not work with the power tool near flammable liquids, gases or dust. Power tools produce sparks that can ignite dust or vapours, causing explosions.
3. Keep children and other people away while using the power tool. If you are distracted, you may lose control of the tool.
4. Be attentive, work with concentration and pay attention to what you are doing. Do not use a power tool when you are tired or under the influence of drugs, alcohol or medicines. A moment of inattention can lead to serious injury.
5. Wear suitable protective equipment and always safety glasses. Wearing suitable protective equipment such as a dust mask, non-slip safety shoes, hard hat or hearing protection reduces the risk of injury.

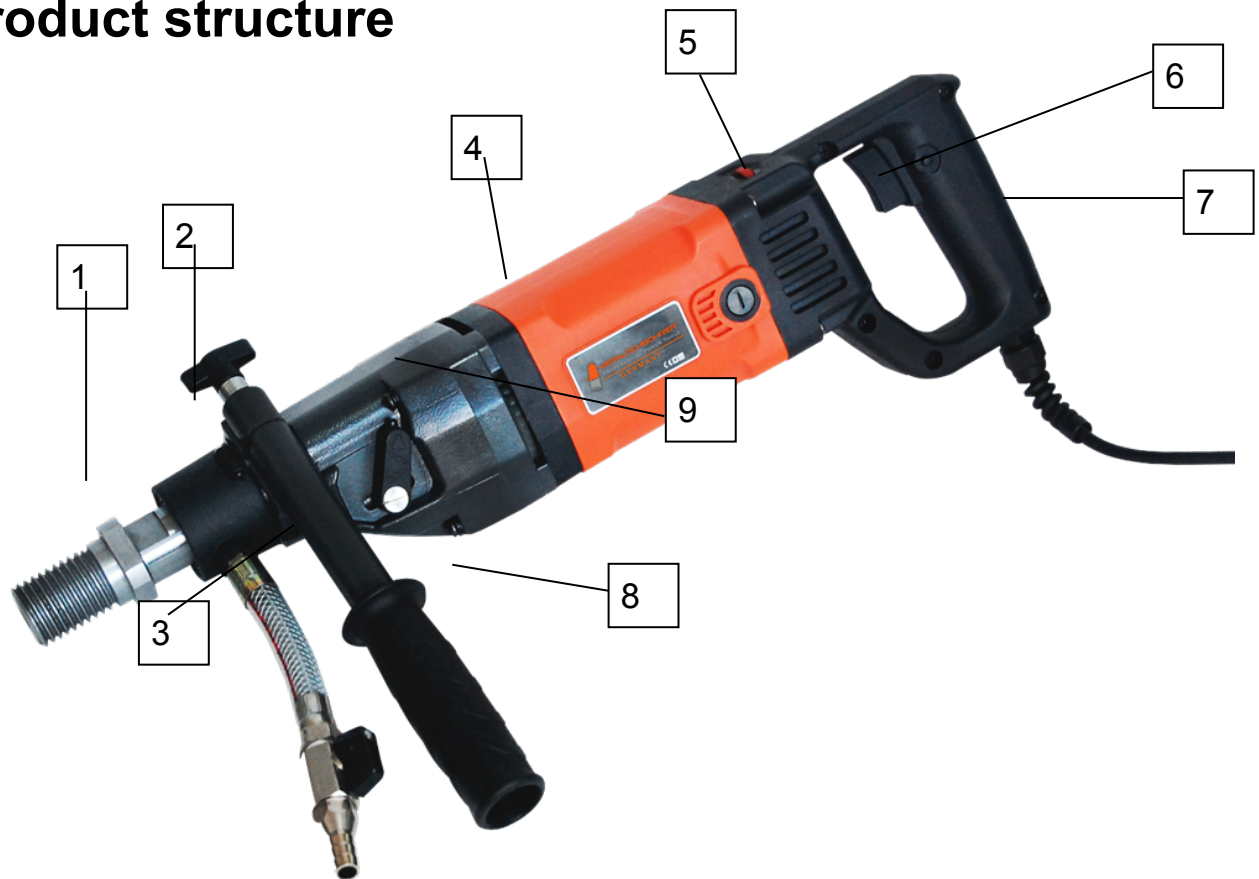


6. Avoid unintentional starting of the machine. Make sure that the power tool is switched off before connecting it to the power supply. If you have your finger on the switch when carrying the power tool or connect the machine to the power supply when it is switched on, this can lead to accidents.
7. Remove adjusting tools or spanners before switching on the power tool. A tool or spanner that is on a rotary device can cause injury.
8. Avoid unusual postures. Make sure you stand securely and keep your balance at all times. Do not work on a ladder. This will help you control the power tool in unexpected situations.

9. Wear appropriate clothing. Do not wear loose clothing or jewellery. Keep hair, clothing and gloves away from moving parts. Loose clothing, jewellery or long hair can be caught by moving parts.
10. Do not overload the appliance. Use the appropriate power tool for your work. With the appropriate power tool, you will work better and more gently in the specified power range.
11. Do not use a power tool whose switch is damaged. A power tool that cannot be switched on and off is dangerous and must be repaired.
12. Unplug the appliance from the mains before making any adjustments, replacing accessories or putting the appliance aside. This safety measure prevents the power tool from starting unintentionally.
13. Keep unused power tools out of reach of children. Do not allow persons to use the appliance who are not familiar with it or have not read these instructions. Power tools are dangerous when used by inexperienced persons.
14. Note that the voltage must not exceed +/-5% of the nominal voltage. Higher voltages can cause irreparable damage. Note that higher voltage peaks are not generated when operating the machine via a generator.
15. The plug of the power tool must match the socket. Do not change the plug under any circumstances. Do not use adapter plugs with earthed forces. Unmodified plugs and matching sockets reduce the risk of electric shock.
16. Avoid body contact with earthed surfaces or earthed components such as pipes, radiators, areas and refrigerators.
17. Do not expose power tools to rain or wet conditions. Water entering a power tool increases the risk of electric shock.

18. Never use the cord to carry or pull the power tool or to unplug it from the wall socket. Keep it away from heat, oil, sharp edges or moving parts. Damaged, crushed or twisted cables increase the risk of electric shock.
19. When using a power tool outdoors, only use an extension cord that is suitable for outdoor use. Using a cord that is suitable for outdoor use reduces the risk of electric shock. When using with an extension cord, also make sure that the extension cord has the same cross-section as the cord on the machine.
20. The use of products such as cutters, grinders, drills that work sand or other materials can generate dust and fumes that may contain hazardous chemicals. Check the type of material you are going to work on and use a suitable respirator.
21. Non-approved spare parts and any modification are prohibited on our products.
22. If operating a power tool in a humid environment is unavoidable, use a ground fault circuit interrupter. The use of a ground fault circuit interrupter reduces the risk of electric shock.
23. If a hoover and extractor are required, ensure that they are connected and used correctly. The use of a hoover can reduce dust-related hazards.

Product structure



- | | | | |
|----|------------------|----|------------------------|
| 1. | Tool holder | 6. | Start switch |
| 2. | Oil seal | 7. | Main handle |
| 3. | Water connection | 8. | Guide handle |
| 4. | Motor housing | 9. | Switch for gears 1 / 2 |
| 5. | Cruise control | | |

Technical data

Model	DKB-132/2H
Art no.	1894/1
Power	1900W
Voltage	230V
Weight	3kg
Frequency	50-60HZ
Max. Drilling diameter brick	132mm
Max. Drilling diameter concrete without stand	80mm
Max. Drilling diameter concrete with stand	100mm
Speed	720-1230/1780 1/min
Spindle thread	M16 (Adapter 1 ¼" UNC)
Compatible stands	KBS-200/M, 46mm clamp holder KBS-280/M, 46mm clamp holder

In order to constantly improve the product, our company reserves the right to change the technical data without prior notice.

Use and care

Only use diamond core bits that are in a sharp and undamaged condition. Properly maintained diamond core bits with sharp cutting segments do not get bent so quickly and are easier to guide.

Use the power tool, accessories and drill bits etc. in accordance with these operating instructions, taking into account the working conditions and the work to be done. Using the power tool for operations other than its intended use could lead to a dangerous situation.

Have your power tool repaired only by qualified personnel and only with original spare parts.

Precautions

1. ALWAYS wear hearing protection! When using drill motors, the loud drilling noise in the working area can cause hearing damage.
2. When drilling, keep a sufficient distance from the core drill and do not touch any rotating parts. Protect the danger zone and keep children and other persons away from it. Falling and splashing parts can cause injuries.
3. This diamond core drill is intended for professional use only and may only be operated by trained personnel. Appropriate use of the core drill includes drilling rock, reinforced concrete and masonry.
4. The drill motor must be checked regularly (approx. every 6 months) by a certified electrician according to VDE.
5. When used for overhead drilling, a functional water collection ring must be used. Make sure that no water can get into the motor.
6. Switch off the core drill immediately if it stops for any reason. After you have determined and eliminated the cause and carried out a visual inspection of the drill and core bit, the core drill can be restarted.

Preparation

Before each start, subject the core drill to a brief visual inspection. Also check that the network voltage corresponds to the voltage indicated on the tool's type plate.

Operation on drill rig

All DKB/H series drills are designed for use with a drill stand. Only place the machine in a stable drill stand with precise guides. Make sure that the machine axis is parallel to the drill stand column. Only use drill stands with sufficient stability.

Mounting and assembly of core drill rig and stand

Make sure that the core drill is not attached to the drill stand before mounting the drill stand.

The core drill DKB-132/2H can be operated in manual mode or also with a core drill stand. When mounting, a \varnothing 46mm clamp holder must be used.

Please observe the operating instructions of the core drill rig used.

Should you use our vacuum base plate VGP-420/PRO for mounting the core drill stand, make sure that the vacuum is at least -0.9bar and also make sure that the seal is not worn or damaged.

Changing drill bits

A diamond core bit is a cylinder that is fitted with brazed or laser-welded segments. There are 2 types of diamond core bits, wet drill bits and dry drill bits. These usually have a 1 1/4UNC or an M16 female thread connection. Our DKB-H series core drills can do both wet and dry drilling. The drive spindle has an M16 connection. An adapter to 1 1/4" UNC is included in the accessories.

For easier removal of the core bit, you can apply waterproof grease to the spindle thread of the machine.

To mount a drill bit on the core drill, simply screw it onto the drill spindle. With the help of a copper ring (not included in the accessories) you can loosen the core bit more easily.

Make sure that you have disconnected the mains plug from the mains before changing or removing core bits.

The core drill and the drill bit are relatively heavy. For this reason, always wear protective gloves to prevent injuries to your hand from the sharp tool.

For the core drill DKB-132/2H, use an open-end spanner with SW24 for loosening. Never loosen the core bit with (hammer) blows, as this will damage the core drill.

After mounting the drill on the machine, let it run briefly and check the radial run-out of the core bit.

Cooling of drill and machine

The gearbox of the drill motor has splash lubrication for cooling.

The diamond segments of the wet drill bit are cooled with water.

The electric motor is air-cooled.

Electrical connection

To reduce the risk of electric shock and to protect the operator, the core drill rig DKB-132/2H must only be operated via a Portable Residual Current Device, or PRCD personal circuit breaker.

After connecting to the power supply, first press the "RESET" button on the PRCD circuit breaker to energise the circuit to the core drill. In the event of a voltage drop, the PRCD circuit breaker switches off and must be switched on again as soon as the power supply is restored. The fault current at which the PRCD circuit breaker switches off is 10mA.



Never place or put the PRCD circuit breaker in water. Before starting work, check for proper operation by pressing the TEST button on the PRCD circuit breaker. Never operate the core drill directly from the mains power source without a PRCD circuit breaker.

Before commissioning, check that the mains voltage and frequency correspond to the data on the type plate. Use only 3-core extension cable with protective earth and sufficient cross-section (min. 2.5mm²). A cross-section that is too weak can lead to excessive power loss and overheating of the machine and cable. The machine has a start-up current limiter that prevents the automatic safety device from being triggered unintentionally.

Water supply connection

If the core bit is not cooled sufficiently with water, the diamond segments can heat up, which damages them and considerably reduces the service life of the core bit. Therefore, you should always make sure that a steady water supply is ensured.

To connect the water supply, attach the quick coupling to a water hose. Use clean water. Using water that is contaminated speeds up the process of wearing out the water seal.

The maximum water pressure must not exceed 3 bar.

The water serves as a coolant to prevent the drill from heating up excessively during drilling.

Dust and particles that form during drilling can clog the water supply system. If necessary, this must be checked and cleaned.

Never let water get into the motor. It could cause an electric shock.

Gearbox shift

The core drilling machines of the DKB-132/2H have a mechanical 2-speed gearbox. Adjust the speed of the machine to the drill diameter.

Turn the transmission switch to the faster or slower gear until it engages. Only change the speed when the machine is at a standstill. If necessary, support the shifting process by slightly turning the work spindle. If the machine stalls due to the hardness of the material, select a lower gear to protect the machine from overload. If the spindle does not turn after starting or if there is noise, the gear may not be engaged properly. Stop the machine immediately and adjust the gear accordingly until it engages. Turn the spindle back and forth at the same time until it is engaged. Never change the machine to another gear during operation.



WARNING!

- **Only shift the gearbox when the vehicle is at a standstill!**
- **Never switch over by force!**
- **Do not use tools such as pliers or a hammer to switch!**

Drilling

Always switch on the machine without a load.

After switching on, next open the water line valve.

When water flows out of the centre of the drill, you can carefully start drilling.

Should you operate the core drill without a drill stand, start the notch by not approaching the drill diameter with the full cutting face of the drill. Once a V-notch cut is drilled on the drill face, line up the drill at a right angle while increasing the feed pressure.

Increase the feed pressure as soon as the cutting depth reaches approx. 10mm.

Always keep an eye on the condition of the drill motor. If you notice that it starts to smoke slightly or if you notice the smell of an electric motor, relieve the core drill by withdrawing it from the core hole. Then continue drilling slowly and carefully. In this way, you prevent the carbon brushes from burning off due to a prolonged overload of the electric motor.

When you have almost reached the end of the through-hole, please reduce the feed pressure at this point until the core bit exits at the other side.

There is vertical drilling and angle drilling. When drilling at an angle, use the angle adjustment function of the drill stand.

If you have selected too high a speed when drilling or you are working with too high a feed pressure, this can cause the drill to jam.

If, during the drilling process, you notice that the feed speed decreases at the same force and the water coming out of the drill hole is clear and has some metal splinters, you have hit rebar. Reduce the pressure on the drill bit to cut through this easily. You can increase the pressure again when you have cut through the reinforcing iron.

If wooden beams, thick asphalt or bitumen are cut, this will increase the current. In this case, reduce the feed to continue drilling.

If you need to drill deeper than the effective length of your drill allows, an optional extension can be used. First, drill only as far as the usable length of the crown allows. Remove the crown and loosen the drill core from the hole without moving the core drill unit. Now screw the required extension between the core bit and the core drill unit to the drill spindle. Now attach the core bit to the extension. Push the crown back into the drill hole.

Note:

A copper ring can facilitate loosening the diamond core bit and extension. (Not included in the scope of delivery).

Electronic overload protection

The DKB-132/2H is equipped with electronic overload protection. If the core drill is in an overload state for a long time, the machine switches off for its own protection. Disconnect the machine from the power supply. Carry out a visual inspection of the machine.

Mechanical overload protection

This machine is equipped with a mechanical slip clutch to protect the operator and the machine from excessive torque forces. If the drill suddenly jams in the hole, the safety clutch disengages and the drill spindle stops.

Make sure that the load on the clutch is not more than max. 3-4 seconds. Unload the machine immediately. Otherwise the safety clutch may be destroyed by the high wear. Do not continue drilling if the slipping clutch has been triggered, reduce the feed immediately and wait until the drill bit has reached the desired speed again.



Caution!

A worn clutch must be replaced immediately by a specialist at an authorised workshop. Working with a worn slipping clutch can lead to serious injuries.

Shutdown carbons

The power tool is equipped with a self-shutting carbon brush to protect the motor. If the brushes are worn, the machine switches off automatically. In this case, both carbon brushes must be replaced at the same time by original carbon brushes from our shop by a trained electrician according to VDE.

Segment break

If a diamond segment, parts of the reinforcement or similar come loose during drilling and jam the drill bit as a result, stop working on this hole and drill a hole with the same centre and a 15-20mm larger diameter.

Note:

Do not try to finish the drilling with another core bit of the same diameter!

After drilling

When the drilling process is completed:

1. Pull the drill bit out of the hole.
2. Switch off the motor. Use the motor switch for this purpose and not the PRCD circuit breaker.
3. Close the water supply.

Remove the drill core if it remains in the drill bit:

1. Disconnect the core bit from the core drill (if possible).
2. Set the drill bit vertically.
3. Tap lightly against the core drill cylinder with a wooden hammer handle or a rubber mallet until the drill core slips out. Never hit the core bit with force against a wall or similar or hit it with tools such as a hammer or open-ended spanner, as otherwise the core barrel can become distorted and neither the core can be removed nor the core bit can be reused.

Remove drill core from a blind hole

Break off the core with a wedge or lever. Lift out the core with suitable pliers or drill a hole in the core. Screw in an eyebolt with the aid of a suitable dowel and pull out the core from it.

Daily maintenance of the power tool

Before starting maintenance or repair work, be sure to pull out the mains plug!

Repairs may only be carried out by qualified personnel who are suitable on the basis of their training and experience. The tool must be checked by a trained electrician according to VDE after each repair. The power tool is designed to require a minimum of care and maintenance. However, the following points must always be observed:

1. Check that all screws and nuts are well tightened.
2. Check that the water seals are intact.
4. Check that the PRCD circuit breaker is working properly.
5. Always keep all accessories and the machine clean and dry.
6. The DKB-132/2H has a grease gear. It is filled with high-performance grease MoS₂ and is maintenance-free.

7. After approx. 300 hours of operation, the carbon brushes must be checked by a trained electrician according to VDE and replaced if necessary (only use original carbon brushes from our shop).
8. If cooling water leaks uncontrollably from the oil seal, have it replaced by a specialist workshop and only use original spare parts from our shop.
9. After finishing the work, remove the drill bit and then clean the entire machine. Do not forget to lubricate the spindle thread. Keep the power tool out of reach of children and in a dry environment.

Behaviour in the event of disruptions

Switch off the machine in case of malfunctions, disconnect it from the mains. Work on the machine's electrical system may only be carried out by a qualified electrician in accordance with VDE.

Troubleshooting

Error	Possible cause	Remedy
Unit does not run	Mains power supply interrupted Mains cable or plug defective Switch defective PRCD switch switched off	Plug in the other electrical appliance and check its function. Have it checked by a trained electrician in accordance with VDE and replaced if necessary. Check by a trained electrician according to VDE and have replaced if necessary. Switch on PRCD switch (RESET)
Motor running - drill bit stationary	Gear not engaged properly or unintentionally jumped out. Gearbox defective	Engage the required gear by pressing the gear switch Have the unit repaired by a specialist workshop
Motor running - drill bit stops at low load	Locking screw on the slipping clutch has come loose	Have the slipping clutch readjusted by a specialist workshop
Drilling speed decreases	Drill bit defective Too high water flow prevents self-sharpening of the core bit Drill bit polished	Check the drill bit for damage and replace if necessary. Regulate water quantity Sharpen the core bit on a sharpening stone
Motor switches off	Unit comes to a standstill Unit too warm - motor overload protection has tripped Carbon brushes worn out - Cut-off carbons switch off	Guide the unit straight Unload the unit and raise it again by pressing the switch. Have both carbon brushes changed by a trained electrician in accordance with VDE
Water leaks from the gearbox housing	Shaft sealing rings defective	Have the unit repaired by a specialist workshop

Environmental protection

Raw material recovery instead of waste disposal!

To avoid transport damage, the unit must be delivered in sturdy packaging. Packaging as well as the unit and accessories are made of recyclable materials.

The plastic parts of the unit are labelled according to the material. This enables environmentally friendly, sorted disposal via the collection facilities offered.

For EU countries only

Do not dispose of power tools in household waste! According to the European Directive 2012/19/EU on waste electrical and electronic equipment and its implementation in national law, used power tools must be collected separately and recycled in an environmentally sound manner.

Noise / Vibration

The noise of this power tool is measured according to DIN 45 635, part 21. The sound pressure level at the workplace may exceed 85dB (A); in this case, sound protection measures for the operator are required.

Wear ear protection!



Hand/arm vibration is typically lower than 2.5m/s^2 . Measured values determined according to EN 61 029.

The indicated vibration level represents the actual applications of the power tool. However, if the power tool is used for other applications, with deviating application tools or insufficient maintenance, the vibration level may deviate. This can significantly increase the vibration load over the entire working period.

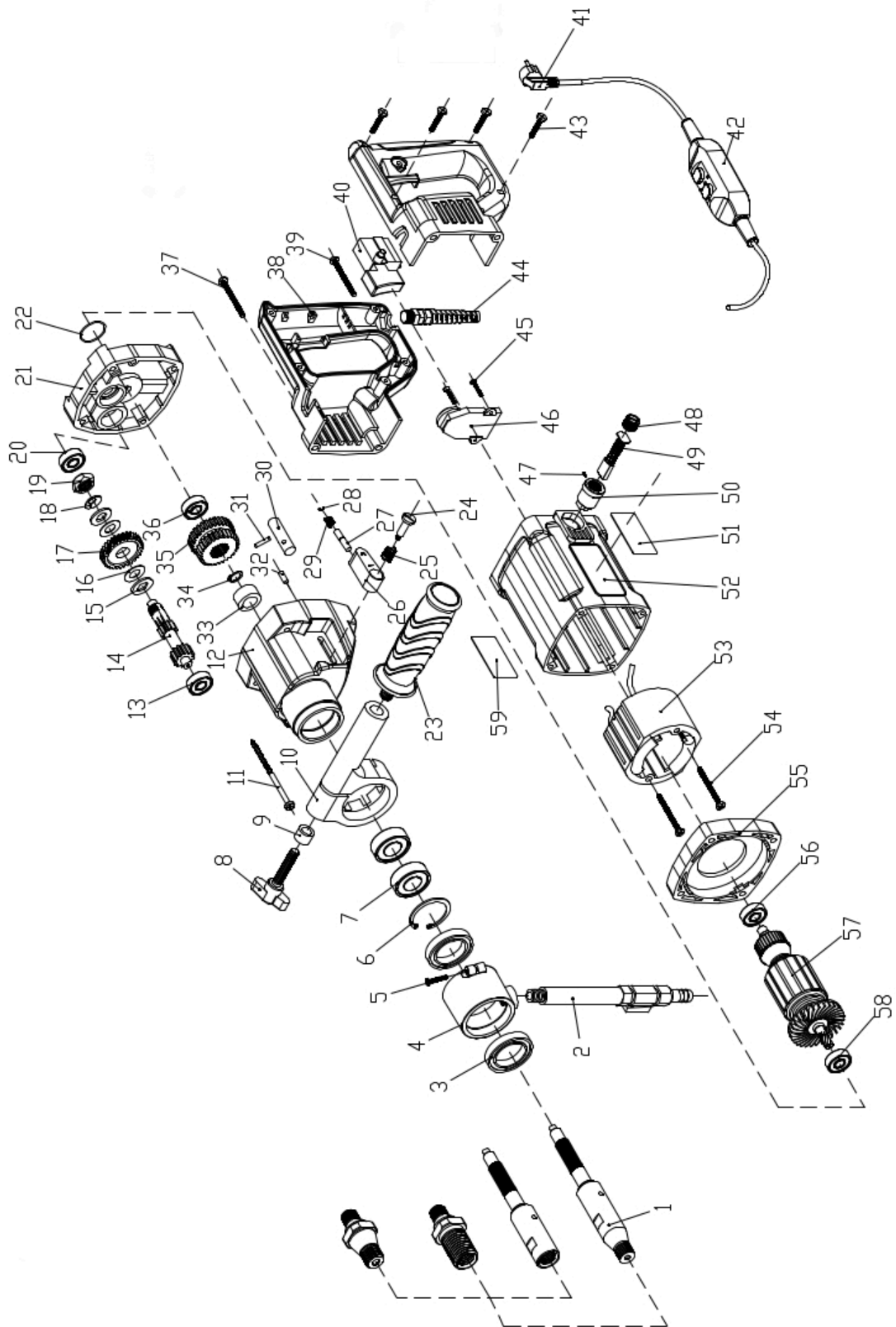
For an accurate estimation of vibration exposure, the times when the unit is switched off or running but not actually in use should also be taken into account. This can significantly reduce the vibration exposure over the entire working period. Establish additional safety measures to protect the operator from the effects of vibration, such as: Maintenance of power tool and insert tools, keeping hands warm, organisation of work procedures.

Warranty

In accordance with our general terms and conditions of delivery, a warranty period of 12 months applies for material defects in business transactions with companies (proof by invoice or delivery note). Damage caused by natural wear and tear, overloading or improper handling shall remain excluded from this. Damage caused by material or manufacturer defects shall be remedied free of charge by repair or replacement. Complaints can only be accepted if the unit is sent to the supplier unassembled. Wear parts, such as rotor stator, circuit board, bearings, water seals, oil seals, etc. are not covered.

Exploded view

DKB-132/2H



No.	Designation		Number	No.	Designation		Number
1	Spindle		1	31	Round key	10*10*30	1
2	Water tap		1	32	Round key	4*12	1
3	Water seal	30*42*7	2	33	Iron ring	17*22*13. 5	1
4	Water ring		1	34	Outer circlip		1
5	Hexagon socket screws	M4*16	2	35	Spindle gear		1
6	Circlip, inside		1	36	Camp		1
7	Camp	#6003	2	37	Round-head cross-recess screws	M5*35	2
8	Screw	M8*45	1	38	Main handle		1
9	Worm wheel	8*14*10	1	39	Cross-recess threaded screws with round head	M5*30	2
10	Handle clamp		1	40	Switch		1
11	Round-head cross-recess screws	M5*80	4	41	Power cable	3*1.0*3.5 m	1
12	Gearbox		1	42	PRCD		1
13	Camp	#608	1	43	Phillips screws with round head	M4*20	4
14	Gear shaft		1	44	Bending protection sleeve	M12*1.5	1
15	Seal		2	45	Phillips screws with round head	M4*12	2
16	Clutch disc		2	46	Speed controller		1
17	Gearbox		1	47	Screw	M5*6	2
18	Washer		1	48	Brush cover		2
19	Mother	M12*1.0-6	1	49	Carbon brush		2
20	Camp	#608	1	50	Brush holder		2
21	Medium cover		1	51	Branding plate	60.3*29.5	1
22	O-ring	25.8*1.8	1	52	Stator housing		1
23	Auxiliary handle		1	53	Stator		1
24	Screw		1	54	Round-head cross-recess screws	M4*65	2
25	Spring		1	55	Deflector		1
26	Lever		1	56	Camp	#608	1

27	Key	5*30	1	57	Rotor		1
28	E Snap ring		1	58	Camp	#6000	1
29	Spring	5*10	1	59	Parameter plate		1
30	Shift shaft		1				

EC Declaration of Conformity

The manufacturer/marketer
Kernlochbohrer GmbH
Geigersbühlweg 52
72663 Großbettlingen
hereby declares that the following product

Product designation: Core drill
Type: DKB-132/2H; DKB-165/3SH; DKB-180/3H, DKB-200/3SH

complies with all relevant provisions of the applied legal regulations (hereinafter) - including their amendments in force at the time of the declaration. The sole responsibility for issuing this declaration of conformity lies with the manufacturer. This declaration relates only to the machine in the condition in which it was placed on the market; parts and/or interventions subsequently fitted by the end user are not taken into account.

The following legislation was applied:
Machinery Directive 2006/42/EG
EMC Directive 2014/30/EU
RoHS Directive 2011/65/EU

The protection goals of the following additional legal regulations were met:
Low Voltage Directive 2014/35/EU

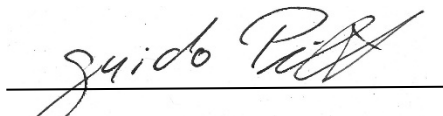
The following harmonised standards were applied:

EN 60204-1:2006/AC:2010	Safety of machinery - Electrical equipment of machines - Part 1: General requirements (IEC 60204-1:2005 (Modified))
EN ISO 12100:2010	Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)
BS EN 62841-2-1	Electric motor-driven hand-held tools, portable tools and lawn and garden machinery. Safety Special requirements for hand-held drills and impact drills
EN 61000-6-1:2007	Electromagnetic compatibility (EMC) - Generic standards; Immunity for residential, commercial and light-industrial environments
BS EN 61000-6-3+A1	Electromagnetic compatibility (EMC). Basic technical standards. Interference emission for residential, business and commercial areas as well as small businesses.

Name and address of the person authorised to compile the technical file:

Kernlochbohrer GmbH
Geigersbühlweg 52
72663 Großbettlingen

Location: Großbettlingen
Date: 24.05.2023



Guido Pillat, Chief Executive Officer