Operating Instructions

Diamond Core Drill
EHD 2000 S

Technical Characteristics

- rated voltage: 110/120 V AC
- rated power input: 1500 W
- load speed:
  - 1st speed: 0 - 1000
  - 2nd speed: 0 - 2000
- drilling capacity up to: 132 mm
- protection class: II
- interference suppression: as per DIN VDE 0875, EN 55014 and 89/336/EWG
- collet: M 18
- weight (net): 5.5 kg
- collar clamping diam.: 53 mm

Diamond drill motors are designed for professionals and should only be used by authorized persons

The conformity with the 73/23/EEC and 89/336/EEC guidelines is indicated by the CE symbol.

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Safety Instructions

1. Safe work with the machine is only possible if you read this operating instruction completely and strictly follow the instructions contained herein.

2. When drilling through ceilings or walls, make sure you will not cut through electric mains, gas or water pipes. Use metal detection systems if needed.

3. Check the drilling machine, cable and plug prior to every use of the tool. Have damages eliminated only by an authorised specialist. Take care that the tool is switched off when the plug is inserted into a power receptacle.
4. The machine must neither be wet, nor be used in humid ambient conditions.

5. Be careful for long hairs. Work only with tight fitted clothes.

6. Extension cords and plugs must be approved for works on the exterior.

7. Stay alert and watch what you are doing.

For further safety instructions, refer to the enclosure.

Main Instructions

Auxiliary Handle

In hand held drilling operations, only use the EHD 2000 S machine with the auxiliary handle fixed. This handle must be tighten on the collar, by turning the lever.

ON-OFF Setting

The machine is equipped with an electronic ON/OFF switch. The more the switch is pressed, the higher is the speed. This allows very precise drilling. In normal working conditions, always work at maximum speed.

Gear Shifting

Choose the proper speed according to the drill bit size used. Select at the speed selector by pressing-in, shifting and engaging. If the selector is on "o" position, the speed can vary up to 1000 rpm. This speed is recommended for diameter between 82 and 132mm. If the selector is on "oo" position, the speed can vary up to 2000 rpm and this speed is recommended for diameter up to 80 mm.

CAUTION: - always check the drill bit manufactures recommendation for use
          - gear shifting only when the machine is stopped and clockwise!

Starting a Hole

It is always easier to start a hole with centering bit. The electronic switch allows to drill at slow speeds in order to safely introduce the bit in the material (5-10mm). Once engaged in the material the centering device (bit) can be removed from the machine and drilling at full speed can start then.

Overload Protection

In order to protect the operator and the machine, the unit is equipped with 3 protections against overload:

- mechanical
- electronic
- thermal
Extension Cord Selection

If an extension cord is used, make sure the conductor size is large enough to prevent excessive voltage drop which will cause loss of power and possible motor damage. A table of recommended extension cord sizes will be found in this section. This table is based on limiting line voltage drop to 5 volts (10 volts for 230 volts) at 150% of rated amperes.

If an extension cord is to be used outdoors it must be marked with the suffix W-A following the cord type designation. For example – SJTW-A to indicate it is acceptable for outdoor use.

*Recommended extension cord sizes for use with portable electric tools:*

| Nameplate Ampere Rating | 115 V 230 V | 25 Ft. 50 Ft. 100 Ft. 150 Ft. 200 Ft. 250 Ft. 300 Ft. 400 Ft. 500 Ft. 600 Ft. 800 Ft. 1000 Ft. |
|------------------------|-------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 0-2                    | 18          | 18            | 18            | 16            | 16            | 14            | 14            | 12            | 12            | 12            | 12            | 12            |
| 2-3                    | 18          | 18            | 16            | 14            | 14            | 12            | 12            | 10            | 10            | 10            | 10            | 10            |
| 3-4                    | 18          | 18            | 16            | 14            | 12            | 12            | 10            | 10            | 8             | 8             | 8             | 8             |
| 4-5                    | 18          | 18            | 14            | 12            | 12            | 10            | 10            | 8             | 8             | 8             | 8             | 6             |
| 5-6                    | 18          | 16            | 14            | 12            | 10            | 10            | 8             | 6             | 6             | 6             | 6             | 6             |
| 6-8                    | 18          | 16            | 12            | 10            | 10            | 8             | 6             | 6             | 6             | 6             | 6             | 6             |
| 8-10                   | 18          | 14            | 12            | 10            | 8             | 8             | 6             | 6             | 6             | 6             | 4             | 4             |
| 10-12                  | 16          | 14            | 10            | 8             | 8             | 6             | 6             | 4             | 4             | 4             | 4             | 4             |
| 12-14                  | 16          | 12            | 10            | 8             | 6             | 6             | 6             | 4             | 4             | 2             | 2             | 2             |
| 14-16                  | 16          | 12            | 10            | 8             | 6             | 6             | 4             | 4             | 2             | 2             | 2             | 2             |
| 16-18                  | 14          | 12            | 8             | 8             | 6             | 4             | 4             | 2             | 2             | 2             | 2             | 2             |
| 18-20                  | 14          | 12            | 8             | 6             | 6             | 4             | 4             | 2             | 2             | 2             | 2             | 2             |
* mechanical:  If the drill bit is suddenly blocked in the hole, a clutch will slip, disengaging the bit from the motor.

CAUTION!  In case of sudden blocking there may occur a strong turning back torque. Therefore, for handheld use, the machine must be held with both hands and it must be worked with full concentration. Ensure a safe stand.

* electronic:  If the operator overloads the machine because of excessive penetration speed, the electronic protection will stop the electric supply for a short while. After discharge and reengagement, one can drill again.

* thermal:  When continuous overload is applied (despite the electronic device) a thermal protection will protect the motor from destruction.

When the thermal overload protection has worked, it is not possible to start the machine immediately after.

It is only after some cooling time that the machine can be restarted.

The time needed to be able to restart the machine will vary to the overheating of the coil and the ambient temperature.

* acoustic warning:  In case of overload, a continuous acoustic signal sounds.

When this occurs, it is recommended to decrease the load and/or cool it down while rotating without load.

Important notice: The stop of the machine caused by overload protection is no failure. After an adequate time it is possible to restart working!

Dust Exhaust

We recommend a dust exhaust for dry drilling. This is for health protection, protection against soiling and a condition for optimal cutting conditions.

We offer fitting to the EHD 2000 S a dust exhaust and a vacuum cleaner as special accessories.

Care and Maintenance

Before all works at the machine, make sure that the plug is off the mains socket.

Due to its design, the machine needs a minimum of care and maintenance.

Nevertheless you should always observe the following:

- Keep the electric tool clean.

- Avoid any particle or part to penetrate inside the tool.

- If the machine is defect let carry out a repair only through an authorised service workshop.
Environmental Protection

Raw Material Recycling instead of Waste Disposal

In order to avoid damages on transport, the tool has to come in a stable packing. Packing as well as unit and accessories are made of recyclable materials and can be disposed accordingly. Plastic components are marked; this enables environmentally friendly and differentiated removal through the available collecting facilities.

Noise Emission

The indication of noise emission is measured according DIN 45 635, part 21. The level of acoustic pressure on work site could exceed 85 db (A); in this case protection means must be used.

Warranty

Tools from Eibenstock are covered by a warranty according to the legal and national regulations (to be verified by invoice or delivery note). Damages caused by natural wear, overload and incorrect use are excluded from warranty. Only damages in the result of material and manufacturing faults will be eliminated free of charge, either by replacement or by repair. Complaints will be recognised only when the tool was transferred in assembled condition to the supplier or one of Eibenstock's authorised service workshops.