metabo KHE 5-40 2 Functions Combination Hammer Instructions

metabo®

PROFESSIONAL POWER TOOL SOLUTIONS

KHE 5-40 2 Functions Combination Hammer Instructions

KHE 5-40, MHE 5, MH 5

Original instructions

Contents

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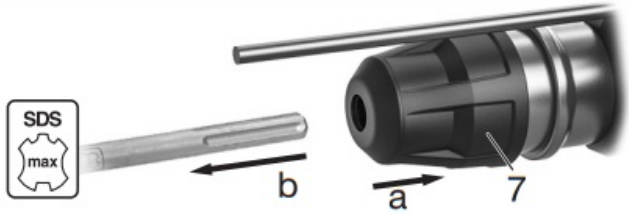
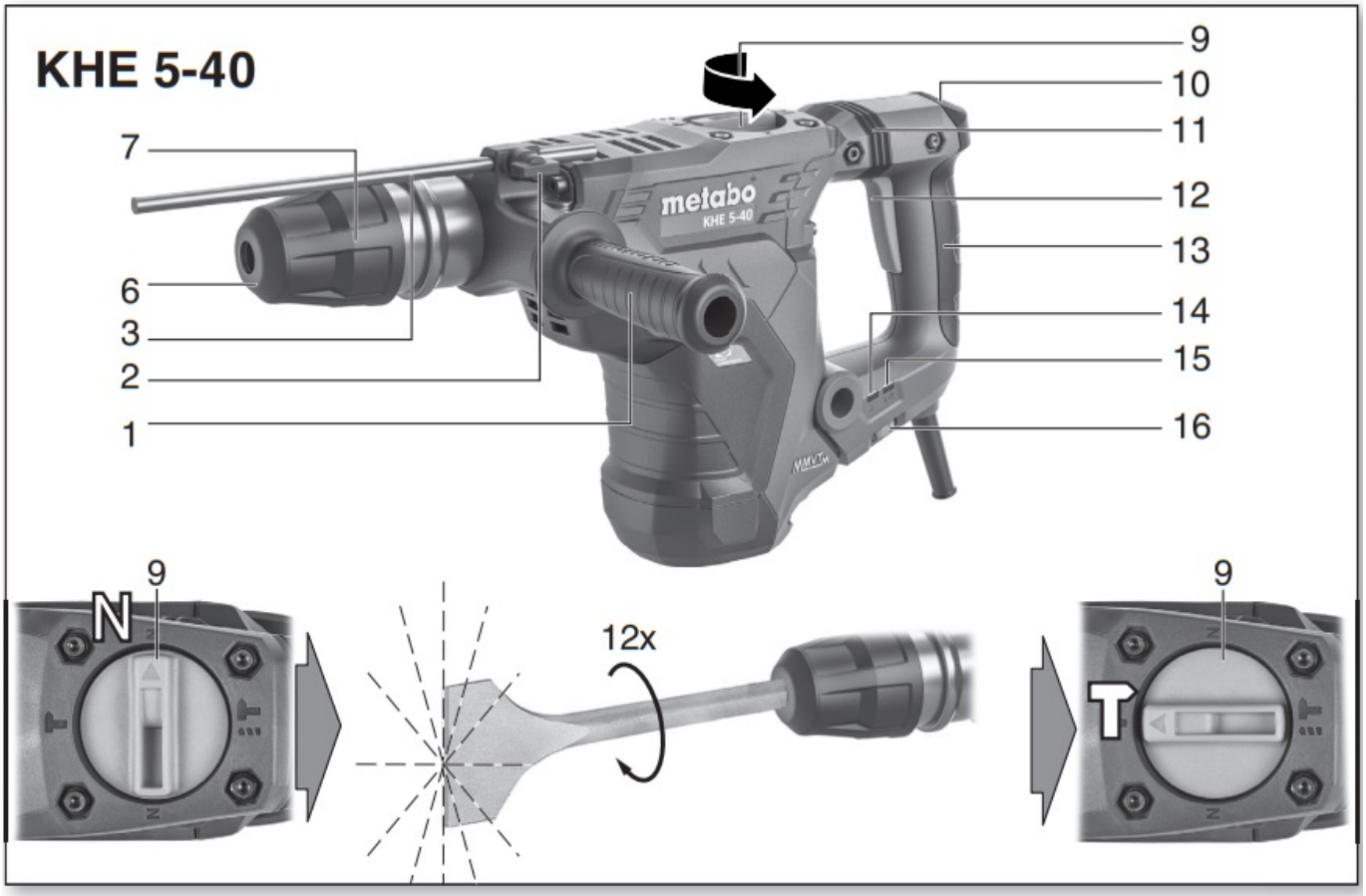
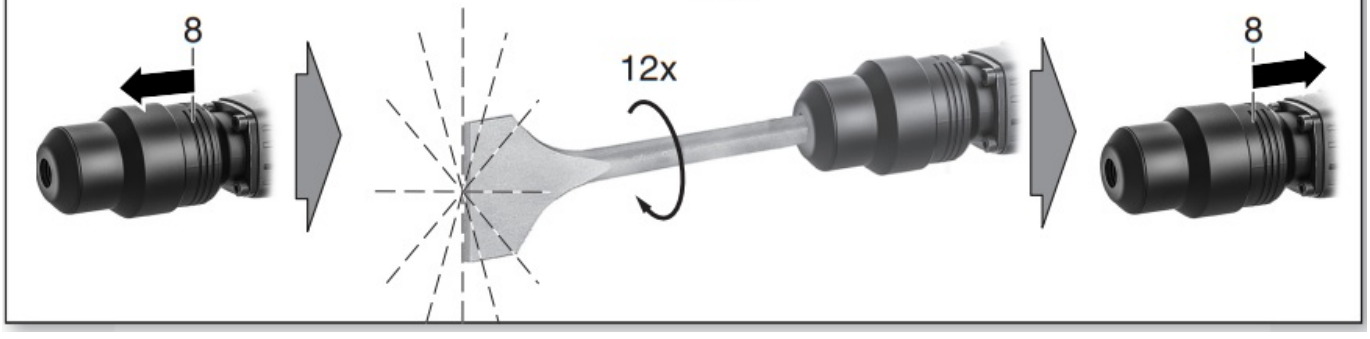
MH 5 , MHE 5

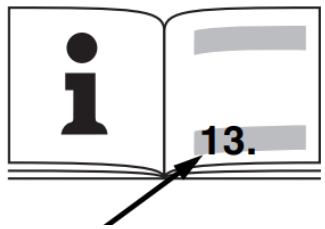


KHE 5-40



MH 5, MHE 5



		**KHE 5-40** *1) Serial Number: 003 91.	**THE 5** *1) Serial Number: 001 48.	**MH 5** *1) Serial Number: 001 47.
		SDS-max	SDS-max	SDS-max
P_1	**W**	1100	1100	1100
P_2	**W**	450	730	730
T	**Nm (in-lbs)**	46 (407)	–	–
n_1	**/min**	350 – 540	–	–
D_1	**mm (in)**	40 (1 $^9/_{16}$)	–	–
D_2	**mm (in)**	105 (4 $^1/_8$)	–	–
D_3	**mm (in)**	55 (2 $^5/_{32}$)	–	–
smax	**/min bpm**	3000	3000	3000
W (EPTA 05/2009)	**J**	8,5	7,1	7,1
C	**–**	12	12	12
m	**kg (lbs)**	7,1 (15.7)	5,7 (12.6)	5,6 (12.3)
ah,HD/Kh,HD	**m/s2**	14,6 / 1,5	–	–
ah, Cheq/Kh, Ch eq	**m/s2**	9,7 / 1,5	12,3 / 1,5	12,3 / 1,5

LpA/KpA	**dB (A)**	95 / 3	95 / 3	95 / 3
LWA/KWA	**dB (A)**	106 / 3	106 / 3	106 / 3
LAW(M)	**dB (A)**	–	98	95
WA(G)*5)	**dB (A)**	–	100	106

CE 2) 2011/65/EU, 2006/42/EC, 2014/30/EU
*3) EN 60745-1:2009+A11:2010, EN 60745-2-6:2010, EN 50581:2012
*4) MH 5, MHE 5: 3F #250 Jiangchangsan Road Building 16 Headquarter Economy Park Shibei Hi-Tech Park, Jing'an District Shanghai 200436 CHINA

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Declaration of Conformity

On our own responsibility, we hereby declare that this drilling and chisel hammer, identified by type and serial number *1), meets all relevant requirements of directives *2) and standards *3). Technical documents for *6) – see page 3.
MH 5, MHE 5: 2000/14/EC: Conformity assessment procedures in accordance with Annex VI. Named body *4), Guaranteed sound power level LWA(G) *5), – see page 3.

Specified Conditions of Use

The KHE 5-40 is designed for hammer drilling and chiseling in concrete, bricks, stone, and similar materials when used in combination with appropriate accessories.
The MH 5, MHE 5 is designed for chiseling in concrete, bricks, stone, and similar materials when used in combination with appropriate accessories.
The user bears sole responsibility for any damage caused by inappropriate use.
Generally accepted accident prevention regulations and the enclosed safety information must be observed.

General Safety Information

⚠ For your own protection and for the protection of your power tool, pay attention to all parts of the text that are marked with this symbol!

WARNING – Read the operating instructions to reduce the risk of injury.

⚠ **WARNING** Read all safety warnings and instructions. Failure to follow all safety warnings and instructions may result in electric shock, fire and/or serious injury.
Keep all safety instructions and information for future reference.

Always include these documents when passing on your power tool.

Special Safety Instructions

Wear ear protectors. Exposure to noise can cause hearing loss.
Use the additional handles supplied with the tool. Loss of control can cause personal injury.
Hold the power tool by the insulated gripping surfaces when performing an operation where the cutting accessory may contact hidden wiring or its own cord. Cutting accessory
contacting a “live” wire may make exposed metal parts of the power tool “live” and could give the operator an electric shock.
Pull the plug out of the socket before making any adjustments, changing tools, maintaining or cleaning.
Always work with the additional handle correctly installed.
Always hold the machine with both hands on the intended handles, take a secure stance and concentrate on the work.
Always wear protective goggles, gloves, a dust mask, and sturdy shoes when working with this tool. Ensure that the place where you wish to work is free of power cables, gas lines, or water pipes (e.g. check using a metal detector).
Work only with a correctly fitted tool. Pull on the tool to check that it is correctly seated. (It must be possible to move the tool a few centimeters in an axial direction.)
When working above ground level, ensure that the area below you is clear.
Never touch the tool or parts near the tool directly after work because they may be extremely hot and can cause burns to the skin,
Always position the power cable so that it leads away from the back of the machine.
A damaged or cracked additional handle must be replaced. Never operate a machine with a defective additional handle.
Secure the workpiece to prevent slipping or rotation (e.g. by securing it with screw clamps).
Reducing dust exposure:

⚠ **WARNING** – Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
– Lead from lead-based paints,
– Crystalline silica from bricks and cement and other masonry products, and
– Arsenic and chromium from chemically treated lumber.
Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well-ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.
This also applies to dust from other materials such as some timber types (like oak or beech dust), metals, and asbestos.
Other known diseases are e.g. allergic reactions and respiratory diseases. Do not let dust enter the body.
Observe the relevant guidelines and national regulations for your material, staff, application, and place of application (e.g. occupational health and safety regulations, disposal).
Collect the particles generated at the source, and avoid deposits in the surrounding area.
Use suitable accessories for special work. In this way, fewer particles enter the environment in an uncontrolled manner.
Use a suitable extraction unit.
Reduce dust exposure with the following measures:
– do not direct the escaping particles and the exhaust air stream towards yourself or nearby persons or towards dust deposits,
– use an extraction unit and/or an air purifier,
– ensure good ventilation of the workplace and keep it clean using a vacuum cleaner. Sweeping or blowing stirs up dust.
– Vacuum or wash protective clothing. Do not blow, beat or brush protective gear.

Overview

See page 2.

1. Additional handle *
2. Wing screw (for adjusting the depth stop) *
3. Depth stop *
4. Clamping knob *
5. Bar handle (additional handle) *
6. Dust protection cap
7. Tool lock
8. Sleeve *
9. Knob *
10. Button for continuous operation (KHE…: only in chisel operating mode)
11. Metabo VibraTech (MVT): integrated damping system
12. Trigger
13. Handle
14. Operation display*
15. Signal display *
16. Adjustment wheel *

* equipment-specific

Initial Operation

Before commissioning, check that the rated mains voltage and mains frequency stated on the type plate match your power supply.

Always install an RCD with a maximum trip current of 30 mA upstream.
Use only extension cables with a minimum cross-section of 1.5 mm2
Extension cables must correspond to the power consumption of the machine (cf Technical Specifications). If a cable roller is used, always roll up the cable completely.

6.1 Assembly of the bow handle or additional handle

For safety reasons, always use the bow handle (5) or additional handle (1) supplied. MH 5, MHE 5:
Release the clamping ring by turning the clamping knob (4) anticlockwise. Adjust the bow handle (5) to the required position and angle. Tighten the clamping knob firmly.
KHE 5-40:
Open the clamping ring by turning the additional handle (1) anticlockwise. Secure the additional handle at the required angle. Tighten the additional handle.

Use

7.1 Depth Stop Setting (only for KHE 5-40)
Release the wing (2) screw. Set the depth stop (3) to the required drilling depth. Retighten the wing screw (2).

7.2 Positioning, removing tool

Before inserting, clean the tool shank and apply supplied special grease (accessories: Order no. 6.31800)! Use only SDS-max tools.

The dust protection cap (6) prevents the ingress of drilling dust during operation. When inserting the tool, pay attention to ensure that the dust protection cap (6) is not damaged.

Positioning tool:
Hold the tool lock (7) in the front position when inserting the tool. Turn the tool and insert it until it engages. The tool is being locked.

Pull on the tool to check that it is correctly seated. (It must be possible to move the tool a few centimeters in an axial direction.)

Remove the tool:
Pull the tool lock (7) backward in the direction indicated by arrow (a) and remove tool (b). See page 2.

7.3 Setting operating mode and chisel position

Avoid levering the machine when a chisel is fitted.

KHE 5-40:

Do not activate the switch button (9) until the motor has completely stopped.
Turn the switch button (9) to select the desired operating mode.


Hammer drilling


Chiseling

Setting which enables the chisel to be rotated to the desired position.
Setting the position of the chisel: The chisel can be locked in different positions.
– Insert the chisel.
– Turn the knob (9) to the interim position
– Turn the chisel to the required position.
– Turn the switch button (9) to the position.
– Turn the chisel until it engages.

When a chisel is fitted, only operate the machine in the chiseling operating mode.

MH 5, MHE 5:
The chisel can be locked in different positions.
– Insert the chisel.
– Push the sleeve (8) forwards and turn the chisel until it is in the desired position.
– Push/ release the sleeve (8) backward.
– Turn the chisel until it engages.

7.4 Switching on and off
Torque setting:
Press the trigger switch (12) to switch on the machine.
To switch it off release the trigger switch (12).
Continuous operation (only in chiseling mode):
The machine can be switched to continuous mode (KHE…: only in chiseling mode) by pressing the button (10) .
To switch it off, press the (10) button once again.

In continuous operation, the machine continues running if it is forced out of your hands. Therefore, always hold the machine with both hands using the handles provided, stand securely and concentrate.

7.5 Setting impact force
Rotate the adjustment wheel (16) to change the impact strength (and speed). The impact strength is increased from setting 1 to 5 and the mode display (14) flashes. In setting 6, the tool delivers the maximum impact strength, in this setting, the mode display (14) is constantly lit.
Scope of application wheel
Plaster/light construction materials …….. 1-2
Brickwork/removing tiles…….. 3-4
Drilling/chiseling into concrete …….. 5-6

7.6 Metabo VibraTech (MVT)
For reduced vibrations and less stress on the hands.
Always apply a moderate amount of pressure to the handle when pushing down the machine and do not force. Vibrations are reduced most effectively at the central position (11).

Cleaning, Maintenance

The power tool should be cleaned regularly, often, and thoroughly through all air vents using a vacuum cleaner or by blowing in dry air. Prior to this operation, separate the power tool from the power source and wear protective glasses and a dust mask.

A damaged dust protection cap (6) must be replaced immediately.
To replace the dust protection cap (6) slide the tool lock (7) back. Grasp the dust protection cap and pull firmly

forwards and off. Fit the new dust protection cap onto the spindle at an angle and press hard to secure.

Troubleshooting

Overload:
The machine has shut down by itself. The signal indicator (15) flashes. The machine was overloaded (30%)! Let the machine cool down, only then can you continue to work. Avoid further overloading.
Restart protection:
The machine does not start. The signal indicator (15) flashes. Restart protection is active. If the mains plug is inserted with the machine switched on or if the power supply is restored following an interruption, the machine does not start up. Switch the machine off and back on again.
Carbon brushes worn:
The signal indicator (15) flashes:
The carbon brushes are almost completely worn (remaining operating time approx. 8 hours). If the brushes are completely worn, the machine switches off automatically. Have the brushes replaced by an authorized service centre.

Accessories

Use only genuine Metabo accessories.
Use only accessories that fulfill the requirements and specifications listed in these operating instructions.
See **www.metabo.com** or the catalog for a complete range of accessories.

Repairs

 Repairs to electrical tools must ONLY be carried out by qualified electricians!
Contact your local Metabo representative if you have Metabo power tools requiring repairs. For addresses see www.metabo.com.
You can download a list of spare parts from **www.metabo.com**.

Environmental Protection

Observe national regulations on environmentally compatible disposal and on the recycling of disused machines, packaging, and accessories.
 Only for EU countries: never dispose of power tools in your household waste!
According to European Directive 2012/19/EU on Waste from Electric and Electronic Equipment and implementation in national law, used power tools must be collected separately and recycled in an environmentally-friendly manner.

Technical Specifications

Explanatory notes on the specifications on page 3.
Changes due to technological progress reserved.
P1 =Rated input power
P2 = Power output
T=Torque
n1 = No-load speed
D1 = Max. drilling diameter in concrete with impact masonry bits
D2 = Max. drilling diameter in concrete with impact core cutters
= Max. drilling diameter in concrete with milling cutters
Smax =Maximum impact rate
WD3 = Single impact force

C = Number of chisel positions
m = Weight without mains cable

Measured values determined in conformity with EN 60745.
Machine in protection class II ~ AC power
The technical specifications quoted are subject to tolerances (in compliance with relevant valid standards).

Emission values

These values make it possible to assess the emissions from the power tool and to compare different power tools. The actual load may be higher or lower depending on operating conditions, the condition of the power tool, or the accessories used. Please allow for breaks and periods when the load is lower for assessment purposes. Arrange protective measures for the user, such as organizational measures based on the adjusted estimates.
Vibration total value (vector sum of three directions) determined in accordance with EN 60745:
ah, HD = Vibration emission value (hammer drilling into concrete)
ah, Cheq = Vibration emission value (chiselling)
Kh,HD/Cheq = Uncertainty (vibration)
Typical A-effective perceived sound levels:
Lpa = sound-pressure level
LWA =Acoustic power level
KpA, KWA = Uncertainty
Values measured as per EN 60745.
LWA(M) = Measured acoustic power level as per 2000/14/EG

LWA(G) = Guaranteed acoustic power level as per 2000/14/EC
During operation, the noise level can exceed 80 dB(A).

Wear ear protectors!

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Documents / Resources

	metabo KHE 5-40 2 Functions Combination Hammer [pdf] Instructions KHE 5-40, MHE 5, 2 Functions Combination Hammer, Combination Hammer, 2 Functions Hammer, Hammer, KHE 5-40

References

- Neu am Niederrhein: AAN Unternehmensverband
- Сайт в разработке
- Metabo - Power Tools for professional users