

# **Robert Bosch GmbH**

**Power Tools Division** 70745 Leinfelden-Echterdingen Germany

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1609 92A 045 (2012.12) PS / 135 UNI



# **GBH** Professional

5-38 D | 500



# **BOSCH**

- de Originalbetriebsanleitung
- en Original instructions
- fr Notice originale
- es Manual original
- pt Manual original
- it Istruzioni originali
- nl Oorspronkelijke gebruiksaanwij-
- da Original brugsanvisning
- sv Bruksanvisning i original
- **no** Original driftsinstruks
- fi Alkuperäiset ohjeet

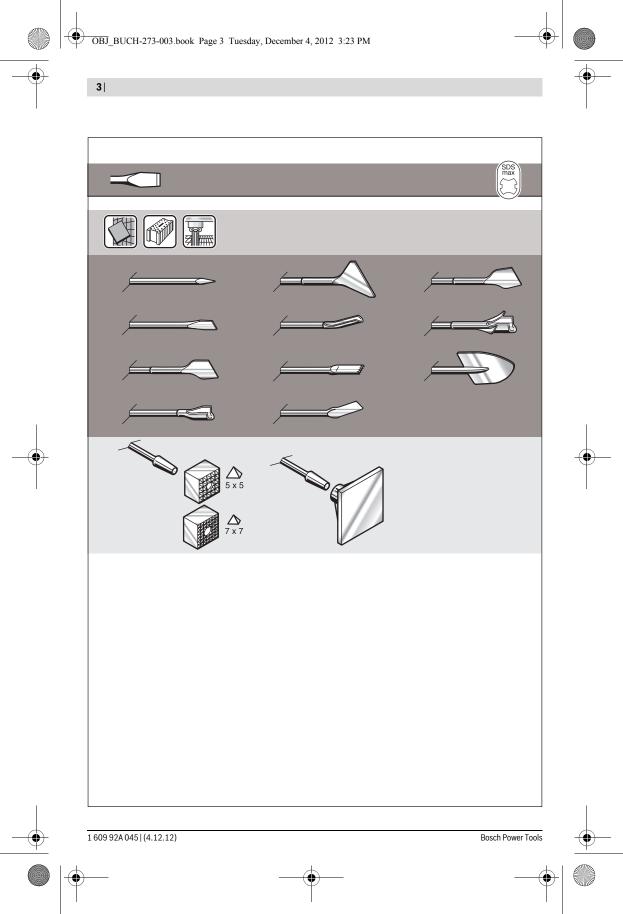
- **el** Πρωτότυπο οδηγιών χρήσης
- tr Orijinal işletme talimatı
- pl Instrukcja oryginalna
- cs Původní návod k používání
- **sk** Pôvodný návod na použitie
- hu Eredeti használati utasítás
- ru Оригинальное руководство по эксплуатации
- **uk** Оригінальна інструкція з експлуатації
- ro Instrucțiuni originale
- **bg** Оригинална инструкция

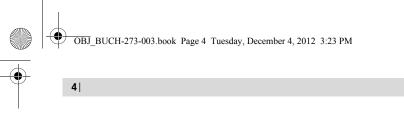
- sr Originalno uputstvo za rad
- sl Izvirna navodila
- **hr** Originalne upute za rad
- et Algupärane kasutusjuhend
- Iv Instrukcijas oriģinālvalodā
- It Originali instrukcija
- ar تعليمات التشغيل الأصلية
- دفتزچه راهنمای اصلی fa

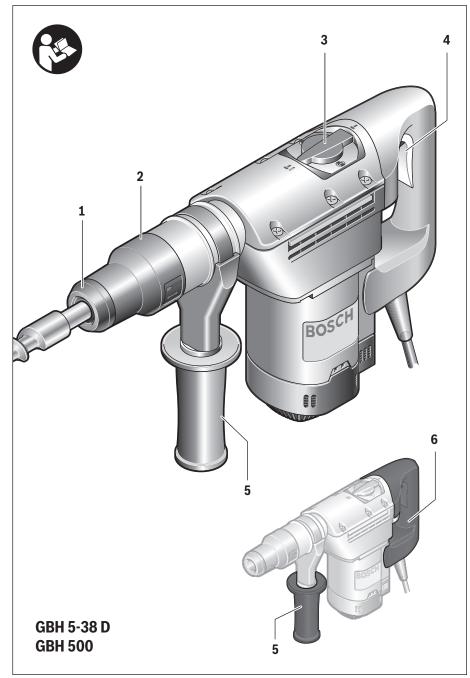










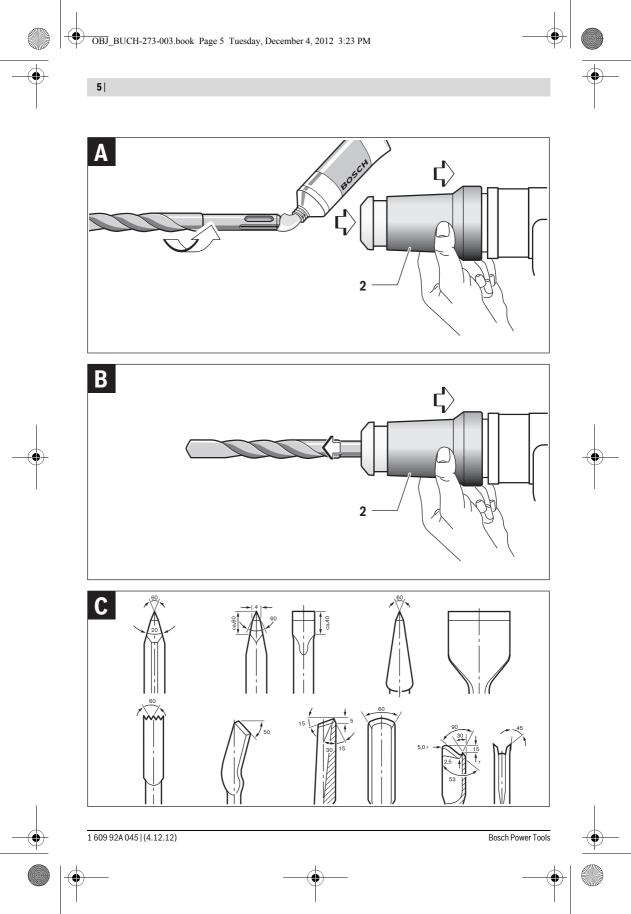




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Bosch Power Tools













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# Entsorgung

Elektrowerkzeuge, Zubehör und Verpackungen sollen einer umweltgerechten Wiederverwertung zugeführt werden. Werfen Sie Elektrowerkzeuge nicht in den Hausmüll!

#### Nur für EU-Länder:



Gemäß der Europäischen Richtlinie 2002/96/EG über Elektro- und Elektronik-Altgeräte und ihrer Umsetzung in nationales Recht müssen nicht mehr gebrauchsfähige Elektrowerkzeuge getrennt gesammelt und einer umweltgerechten Wiederverwertung zugeführt werden.

Änderungen vorbehalten.

# **English**

# Safety Notes

# **General Power Tool Safety Warnings**

**♠** WARNING

ous injury.

Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or seri-

# Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mainsoperated (corded) power tool or battery-operated (cordless) power tool.

#### Work area safety

- ► Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- ▶ Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust
- ► Keep children and bystanders away while operating a **power tool.** Distractions can cause you to lose control.

## **Electrical safety**

- ► Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- ▶ Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric
- ▶ Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts. Damaged or entangled cords increase the risk of electric shock.
- ▶ When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- ▶ If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected **supply.** Use of an RCD reduces the risk of electric shock.

# Personal safety

- ► Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- ▶ Use personal protective equipment. Always wear eye **protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- ► Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- ► Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- ▶ Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.

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- ▶ Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- ► If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.

#### Power tool use and care

- ➤ Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- ➤ Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- ➤ Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
- ➤ Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.
- Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- ► Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

## Service

► Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

# **Hammer Safety Warnings**

- Wear ear protectors. Exposure to noise can cause hearing loss.
- Use auxiliary handle(s), if supplied with the tool. Loss of control can cause personal injury.
- ► Hold power tool by 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.
- ► Use suitable detectors to determine if utility lines are hidden in the work area or call the local utility company

**for assistance.** Contact with electric lines can lead to fire and electric shock. Damaging a gas line can lead to explosion. Penetrating a water line causes property damage or may cause an electric shock.

- When working with the machine, always hold it firmly with both hands and provide for a secure stance. The power tool is guided more secure with both hands.
- Secure the workpiece. A workpiece clamped with clamping devices or in a vice is held more secure than by hand.
- ➤ Always wait until the machine has come to a complete stop before placing it down. The tool insert can jam and lead to loss of control over the power tool.

**Products sold in GB only:** Your product is fitted with an BS 1363/A approved electric plug with internal fuse (ASTA approved to BS 1362).

If the plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place by an authorised customer service agent. The replacement plug should have the same fuse rating as the original plug.

The severed plug must be disposed of to avoid a possible shock hazard and should never be inserted into a mains socket elsewhere.

**Products sold in AUS and NZ only:** Use a residual current device (RCD) with a rated residual current of 30 mA or less.

# **Product Description and Specifications**



Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

While reading the operating instructions, unfold the graphics page for the machine and leave it open.

#### **Intended Use**

The machine is intended for hammer drilling in concrete, brick and stone as well as for chiselling.

# **Product Features**

The numbering of the product features refers to the illustration of the machine on the graphics page.

- 1 Dust protection cap
- 2 Locking sleeve
- 3 Mode selector switch
- 4 On/Off switch
- **5** Auxiliary handle (insulated gripping surface)
- 6 Handle (insulated gripping surface)

Accessories shown or described are not part of the standard delivery scope of the product. A complete overview of accessories can be found in our accessories program.

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# **Technical Data**

Rotary Hammer		GBH 5-38 D
		GBH 500
Article number		0 611 240 0
Rated power input	W	1050
Rated speed	min <sup>-1</sup>	320
Impact rate	min <sup>-1</sup>	2900
Impact energy per stroke according to EPTA-Procedure 05/2009	J	5.9
Chisel positions		12
Tool holder		SDS-max
Max. drilling dia.  - Concrete (with twist drill)  - Concrete (with break-through	mm	38
drill bit)	mm	55
- Brickwork (with core bit)	mm	90
Weight according to EPTA-Procedure 01/2003	kg	5.8
Protection class	full	□/II
The values given are valid for a nominal vel	tage [11]	of 220 V For differ-

The values given are valid for a nominal voltage [U] of 230 V. For different voltages and models for specific countries, these values can vary.

# **Declaration of Conformity**



We declare under our sole responsibility that the product described under "Technical Data" is in conformity with the following standards or standardization documents: EN 60745 according to the provisions of the directives 2011/65/EU, 2004/108/EC, 2006/42/EC.

Technical file (2006/42/EC) at: Robert Bosch GmbH, PT/ETM9, D-70745 Leinfelden-Echterdingen

Dr. Egbert Schneider Senior Vice President Engineering Helmut Heinzelmann Head of Product Certification PT/ETM9



i.V. Kille

Robert Bosch GmbH, Power Tools Division D-70745 Leinfelden-Echterdingen Leinfelden, 07.12.2012

### **Noise/Vibration Information**

Measured sound values determined according to EN 60745. Typically the A-weighted noise levels of the product are: Sound pressure level 90 dB(A); Sound power level 101 dB(A). Uncertainty K = 3 dB.

#### Wear hearing protection!

Vibration total values  $a_h$  (triax vector sum) and uncertainty K determined according to EN 60745:

Hammer drilling into concrete:  $a_h = 27 \text{ m/s}^2$ , K1.6 m/s<sup>2</sup>, Chiselling:  $a_h 13 \text{ m/s}^2$ , K1.5 m/s<sup>2</sup>.

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure. The declared vibration emission level represents the main ap-

plications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period. An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period. Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep hands warm, organise work patterns.

# Assembly

► Before any work on the machine itself, pull the mains plug.

## **Auxiliary Handle**

▶ Operate your machine only with the auxiliary handle 5.

The auxiliary handle  ${\bf 5}$  can be set to any position for a secure and low-fatigue working posture.

 Turn the bottom part of the auxiliary handle 5 in counterclockwise direction and swivel the auxiliary handle 5 to the desired position. Then retighten the bottom part of the auxiliary handle 5 by turning in clockwise direction.

# **Changing the Tool**

With the SDS-max tool holder, simpler and easier tool changing is possible without additional aids.

The dust protection cap **1** largely prevents the penetration of dust into the tool holder during operation. When inserting the tool, pay attention that the dust protection cap **1** is not damaged.

 A damaged dust protection cap should be changed immediately. We recommend having this carried out by an after-sales service.

# Inserting (see figure A)

- Clean and lightly grease the shank end of the tool.
- Push back the locking sleeve 2 and insert the tool in a twisting manner into the tool holder. Release the locking sleeve
   2 again in order to lock the tool.
- Check the latching by pulling the tool.

# Removing (see figure B)

- Push back the locking sleeve 2 and remove the tool.

# **Dust/Chip Extraction**

Dusts from materials such as lead-containing coatings, some wood types, minerals and metal can be harmful to one's health. Touching or breathing-in the dusts can cause allergic reactions and/or lead to respiratory infections of the user or bystanders.

Certain dusts, such as oak or beech dust, are considered as carcinogenic, especially in connection with wood-treatment additives (chromate, wood preservative). Materials containing asbestos may only be worked by specialists.

- Provide for good ventilation of the working place.
- It is recommended to wear a P2 filter-class respirator.

Observe the relevant regulations in your country for the materials to be worked.

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# **Operation**

# **Starting Operation**

▶ Observe correct mains voltage! The voltage of the power source must agree with the voltage specified on the nameplate of the machine. Power tools marked with 230 V can also be operated with 220 V.

#### Setting the operating mode

The operating mode of the power tool is selected with the mode selector switch 3.

**Note:** Change the operating mode only when the machine is switched off! Otherwise, the machine can be damaged.

- Turn the mode selector switch 3 to the requested position.



Position for hammer drilling in concrete or

When the drilling tool does not immediately rotate upon switching on, allow the machine to run slowly until the drilling tool rotates.



Vario-Lock position for adjustment of the chiselling position



#### Position for chiselling

# **Switching On and Off**

- To **start** the machine, press the On/Off switch **4** and keep it pressed.
- To switch off the machine, release the On/Off switch 4.

For low temperatures, the machine reaches the full hammer/impact capacity only after a certain time.

This start-up time can be shortened by striking the inserted tool insert against the floor one time.

To save energy, only switch the power tool on when using it.

#### Safety Clutch

- ▶ If the tool insert becomes caught or jammed, the drive to the drill spindle is interrupted. Because of the forces that occur, always hold the power tool firmly with both hands and provide for a secure stance.
- ▶ If the power tool jams, switch the machine off and loosen the tool insert. When switching the machine on with the drilling tool jammed, high reaction torques can occur.

#### Changing the Chiselling Position (Vario-Lock)

The chisel can be locked in 12 positions. In this manner, the optimum working position can be set for each application.

- Insert the chisel into the tool holder.

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- Turn the mode selector switch 3 to the "Vario-Lock" position (see "Setting the operating mode", page 13).
- Turn the tool holder to the desired chiselling position.
- Turn the mode selector switch 3 to the "chiselling" position. The tool holder is now locked.
- ▶ The mode selector switch 3 must always be locked in the "Chiselling" position when chiselling.

## Working Advice

▶ Before any work on the machine itself, pull the mains

#### Sharpening Chisels (see figure C)

Good results are only achieved with sharp chisels: therefore. sharpen the chiselling tools in good time. This ensures a long service life of the tools and good working performance.

#### Re-sharpening

Sharpen chiselling tools using grinding wheels (e. g. ceramic bonded corundum wheel) with a steady supply of water. Reference values are shown in the figure. Take care that no annealing coloration appears on the cutting edges; this impairs the hardness of the chiselling tools.

- For forging, heat the chisel to between 850 and 1050 °C (bright red to yellow).
- For hardening, heat the chisel to approx. 900 °C and guench in oil. Then anneal in an oven for approx. one hour at 320 °C (annealing colour = light blue).

# Maintenance and Service

## **Maintenance and Cleaning**

- ▶ Before any work on the machine itself, pull the mains
- ▶ For safe and proper working, always keep the machine and ventilation slots clean.
- ► A damaged dust protection cap should be changed immediately. We recommend having this carried out by an after-sales service.

#### Lubrication

The power tool is oil-lubricated. An oil change is required only within the scope of maintenance or repair through an authorised after-sales service agent for Bosch power tools. In this, it is absolutely required to use the specified Bosch oil.

If the replacement of the supply cord is necessary, this has to be done by Bosch or an authorized Bosch service agent in order to avoid a safety hazard.

If the machine should fail despite the care taken in manufacturing and testing procedures, repair should be carried out by an after-sales service centre for Bosch power tools.

In all correspondence and spare parts order, please always include the 10-digit article number given on the type plate of the machine.







