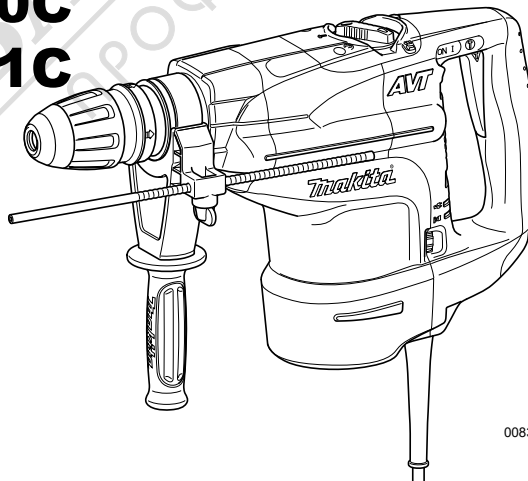




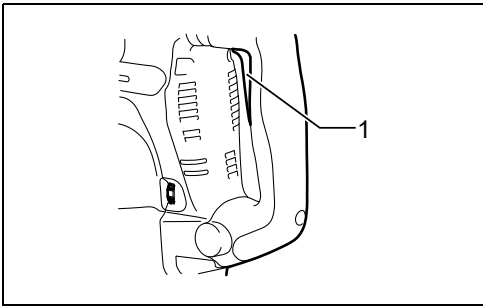
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F	Marteau rotatif	Manuel d'instructions
D	Bohrhammer	Betriebsanleitung
I	Martello rotativo	Istruzioni per l'uso
NL	Drilboor	Gebruiksaanwijzing
E	Martillo rotativo	Manual de instrucciones
P	Martelo rotativo	Manual de instruções
DK	Borehammer	Brugsanvisning
GR	Περιστροφικό δρέπανο	Οδηγίες χρήσης

HR4501C
HR4510C
HR4511C



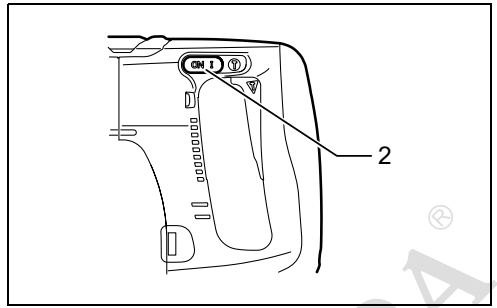
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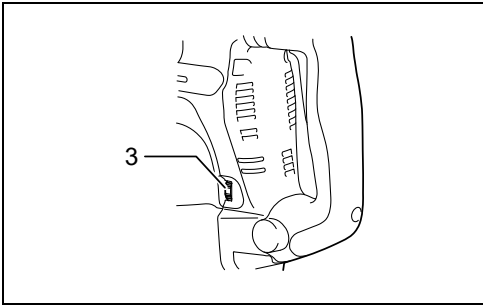
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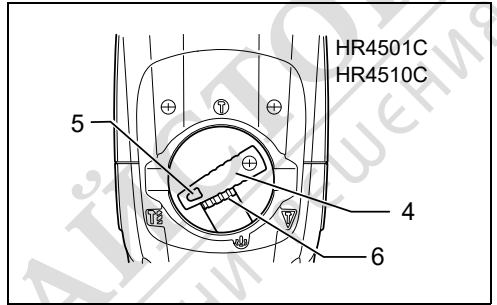
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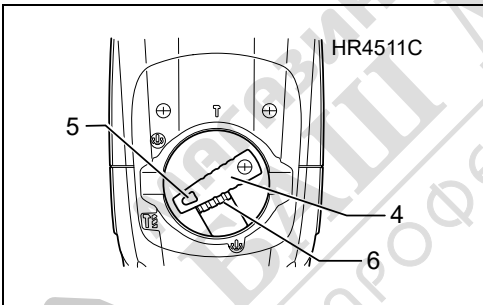
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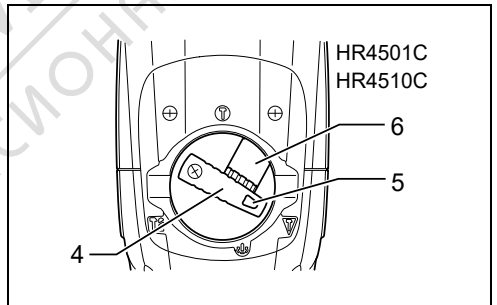
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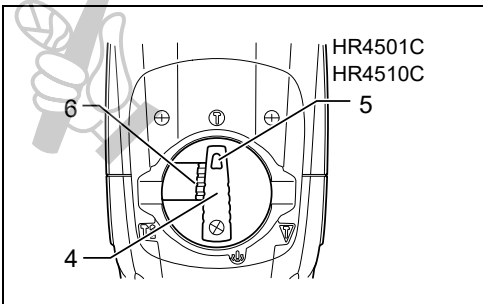
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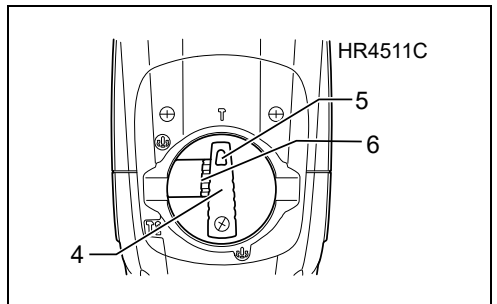
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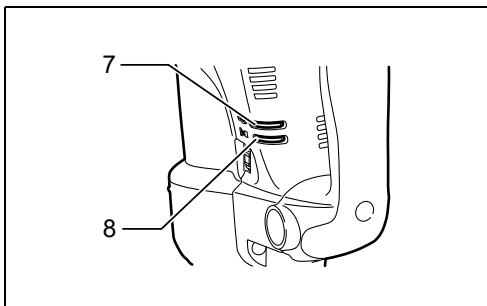
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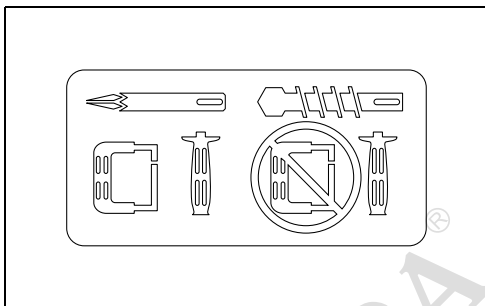
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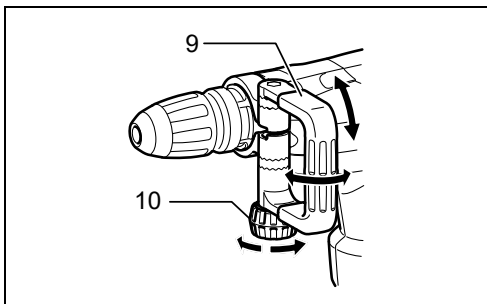
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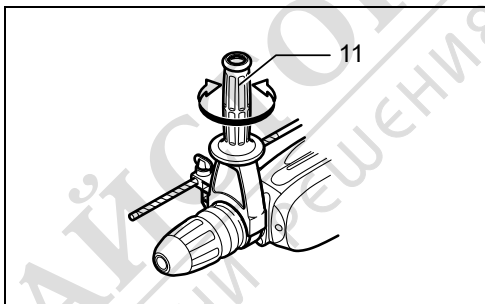
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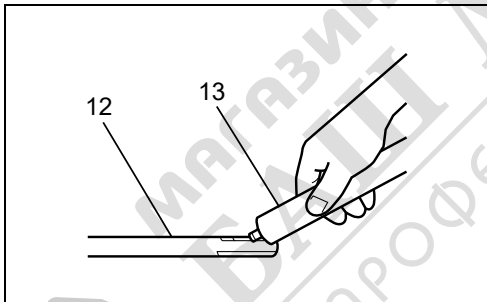
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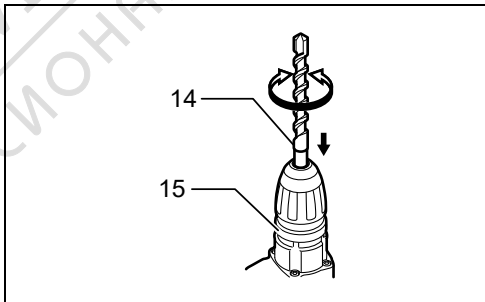
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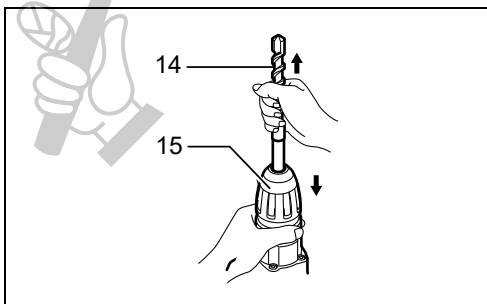
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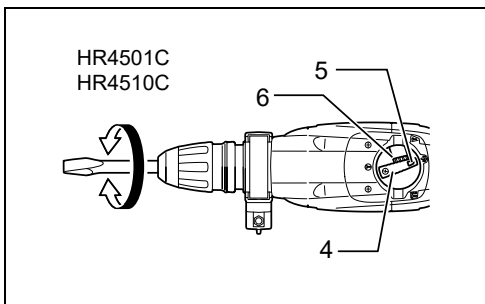
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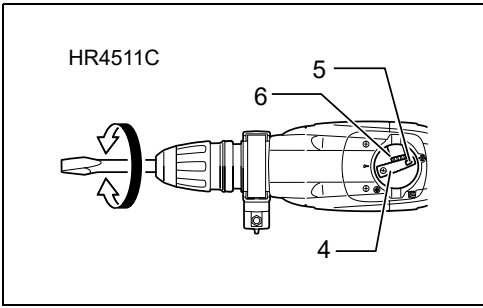
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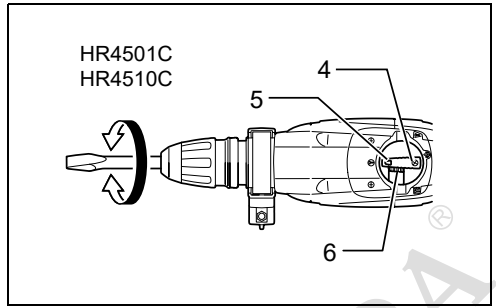
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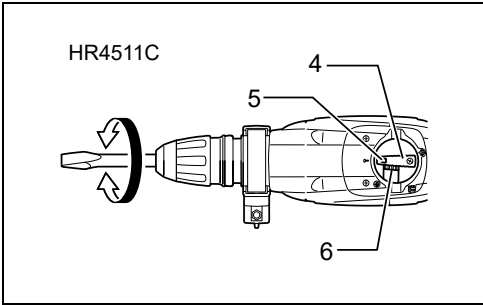
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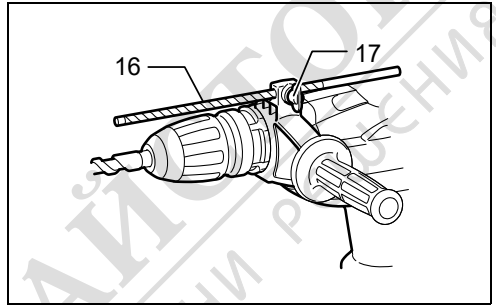
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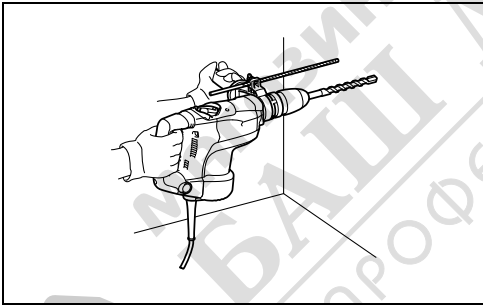
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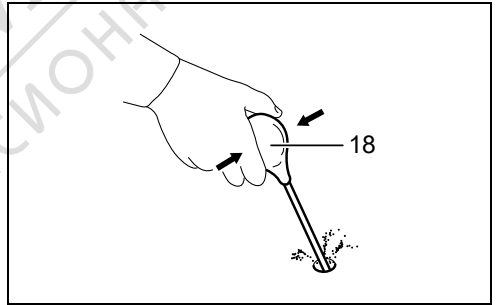


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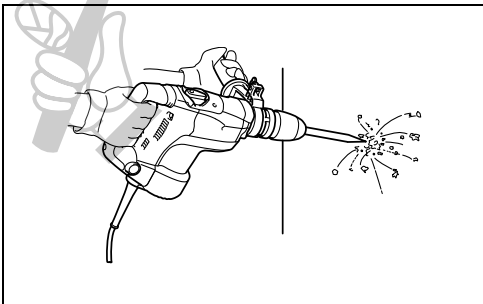


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ENGLISH (Original instructions)

Explanation of general view

- | | | |
|-------------------|------------------------------------|-------------------|
| 1. Switch trigger | 7. Power-ON indicator lamp (green) | 13. Bit grease |
| 2. Switch lever | 8. Service indicator lamp (red) | 14. Bit |
| 3. Adjusting dial | 9. Side handle | 15. Chuck cover |
| 4. Change lever | 10. Clamp nut | 16. Depth gauge |
| 5. Pointer | 11. Side grip | 17. Clamp screw |
| 6. Lock button | 12. Bit shank | 18. Blow-out bulb |

SPECIFICATIONS

Model		HR4501C	HR4510C	HR4511C
Capacities	Carbide-tipped bit	45 mm		
	Core bit	125 mm		
No load speed (min ⁻¹)		130 - 280		
Blows per minute		1,250 – 2,750		
Overall length		458 mm		
Net weight		8.2 - 8.4 kg	8.9 - 9.0 kg	9.0 - 9.1 kg
Safety class		□/II		

- Due to our continuing program of research and development, the specifications herein are subject to change without notice.
- Specifications may differ from country to country.
- The weight may differ depending on the attachment(s). The lightest and heaviest combination, according to EPTA-Procedure 01/2014, are shown in the table.

Intended use

ENE044-1

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

Power supply

ENF002-2

The tool should be connected only to a power supply of the same voltage as indicated on the nameplate, and can only be operated on single-phase AC supply. They are double-insulated and can, therefore, also be used from sockets without earth wire.

General power tool safety warnings

GEA010-2

⚠ WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

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

ROTARY HAMMER SAFETY WARNINGS

GEB243-1

Safety instructions for all operations

1. **Wear ear protectors.** Exposure to noise can cause hearing loss.

2. **Use auxiliary handle(s), if supplied with the tool.**

Loss of control can cause personal injury.

3. **Hold the 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.

Safety instructions when using long drill bits with rotary hammers

1. **Always start drilling at low speed and with the bit tip in contact with the workpiece.** At higher speeds, the bit is likely to bend if allowed to rotate freely without contacting the workpiece, resulting in personal injury.
2. **Apply pressure only in direct line with the bit and do not apply excessive pressure.** Bits can bend, causing breakage or loss of control, resulting in personal injury.

Additional safety warnings

1. **Wear a hard hat (safety helmet), safety glasses and/or face shield. Ordinary eye or sun glasses are NOT safety glasses. It is also highly recommended that you wear a dust mask and thickly padded gloves.**
2. **Be sure the bit is secured in place before operation.**
3. **Under normal operation, the tool is designed to produce vibration. The screws can come loose easily, causing a breakdown or accident. Check tightness of screws carefully before operation.**
4. **In cold weather or when the tool has not been used for a long time, let the tool warm up for a while by operating it under no load. This will**

loosen up the lubrication. Without proper warm-up, hammering operation is difficult.

5. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
6. Hold the tool firmly with both hands.
7. Keep hands away from moving parts.
8. Do not leave the tool running. Operate the tool only when hand-held.
9. Do not point the tool at any one in the area when operating. The bit could fly out and injure someone seriously.
10. Do not touch the bit, parts close to the bit, or workpiece immediately after operation; they may be extremely hot and could burn your skin.
11. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
12. Do not touch the power plug with wet hands.

SAVE THESE INSTRUCTIONS.

WARNING:

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

FUNCTIONAL DESCRIPTION

CAUTION:

- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

Switch action (Fig. 1)

FOR MODEL HR4511C

CAUTION:



- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.

To start the tool, simply pull the switch trigger. Release the switch trigger to stop.

FOR MODELS HR4510C/ HR4501C

Trigger switch


CAUTION:

- Before plugging in the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.
- This switch functions when setting the tool in  symbol and  symbol modes.

To start the tool, simply pull the switch trigger. Release the switch trigger to stop.

Slide switch

CAUTION:

- Before plugging in the tool, always check to see that the tool is switched off.
- This switch functions only when setting the tool in  symbol action mode.

When using the tool in the hammering mode for a long time, the slide switch is available. To start the tool, push

the "I (ON)" side of the switch lever. To stop the tool, push the "O (OFF)" side of the switch lever. (Fig. 2)

Speed change (Fig. 3)

The revolutions and blows per minute can be adjusted just by turning the adjusting dial. The dial is marked 1 (lowest speed) to 5 (full speed).

Refer to the table below for the relationship between the number settings on the adjusting dial and the revolutions/blows per minute.

Number on adjusting dial	Revolutions per minute	Blows per minute
5	280	2,750
4	260	2,550
3	200	1,950
2	150	1,450
1	130	1,250


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CAUTION:

- If the tool is operated continuously at low speeds for a long time, the motor will get overloaded, resulting in tool malfunction.
- The speed adjusting dial can be turned only as far as 5 and back to 1. Do not force it past 5 or 1, or the speed adjusting function may no longer work.


Selecting the action mode

Rotation with hammering (Fig. 4 & 5)


For drilling in concrete, masonry, etc., depress the lock button and rotate the change lever so that the pointer points to the  symbol. Use a tungsten-carbide tipped bit.

Hammering only


FOR MODEL HR4501C AND HR4510 (Fig. 6)

For chipping, scaling or demolition operations, depress the lock button and rotate the change lever so that the pointer points to the  symbol. Use a bull point, cold chisel, scaling chisel, etc.


For long time hammering (FOR MODELS HR4501C AND HR4510C ONLY) (Fig. 7)

For chipping, scaling or demolition operations, depress the lock button and rotate the change lever so that the pointer points to the  symbol. Use a bull point, cold chisel, scaling chisel, etc.

CAUTION:

- When using the tool in the  symbol mode, the switch trigger does not work and only the slide switch works.

FOR MODEL HR4511C (Fig. 8)

For chipping, scaling or demolition operations, depress the lock button and rotate the change lever so that the pointer points to the  symbol. Use a bull point, cold chisel, scaling chisel, etc.

CAUTION:

- Do not rotate the change lever when the tool is running under load. The tool will be damaged.
- To avoid rapid wear on the mode change mechanism, be sure that the change lever is always positively

located in one of the two or three action mode positions.

Torque limiter

The torque limiter will actuate when a certain torque level is reached. The motor will disengage from the output shaft. When this happens, the bit will stop turning.

CAUTION:

- As soon as the torque limiter actuates, switch off the tool immediately. This will help prevent premature wear of the tool.

Indicator lamp (Fig. 9)

The green power-ON indicator lamp lights up when the tool is plugged. If the indicator lamp does not light up, the mains cord or the controller may be defective. The indicator lamp is lit but the tool does not start even if the tool is switched on, the carbon brushes may be worn out, or the controller, the motor or the ON/OFF switch may be defective.

The red service indicator lamp lights up when the carbon brushes are nearly worn out to indicate that the tool needs servicing. After approx. 8 hours of use, the motor will automatically be shut off.

ASSEMBLY

CAUTION:

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.

Side handle (Fig. 10)

CAUTION:

- Use the side handle only when chipping, scaling or demolishing. Do not use it when drilling in concrete, masonry, etc. The tool cannot be held properly with this side handle when drilling.

The side handle can be swung 360° on the vertical and secured at any desired position. It also secures at eight different positions back and forth on the horizontal. Just loosen the clamp nut to swing the side handle to a desired position. Then tighten the clamp nut securely. (Fig. 11)

Side grip (Fig. 12)

CAUTION:

- Always use the side grip to ensure operating safety when drilling in concrete, masonry, etc.

The side grip swings around to either side, allowing easy handling of the tool in any position. Loosen the side grip by turning it counterclockwise, swing it to the desired position and then tighten it by turning clockwise.

Installing or removing the bit (Fig. 13)

Clean the bit shank and apply bit grease before installing the bit.


Insert the bit into the tool. Turn the bit and push it in until it engages. (Fig. 14)


If the bit cannot be pushed in, remove the bit. Pull the chuck cover down a couple of times. Then insert the bit again. Turn the bit and push it in until it engages.

After installing, always make sure that the bit is securely held in place by trying to pull it out.

To remove the bit, pull the chuck cover down all the way and pull the bit out. (Fig. 15)

Bit angle (when chipping, scaling or demolishing) (Fig. 16 & 17)

The bit can be secured at 12 different angles. To change the bit angle, depress the lock button and rotate the change lever so that the pointer points to the  symbol. Turn the bit to the desired angle.

Depress the lock button and rotate the change lever so that the pointer points to the  symbol. Then make sure that the bit is securely held in place by turning it slightly. (Fig. 18 & 19)

Depth gauge (Fig. 20)

The depth gauge is convenient for drilling holes of uniform depth. Loosen the clamp screw and adjust the depth gauge to the desired depth. After adjusting, tighten the clamp screw firmly.

NOTE:

- The depth gauge cannot be used at the position where the depth gauge strikes against the gear housing/motor housing.

OPERATION

Hammer drilling operation (Fig. 21)

Set the change lever to the  symbol.

Position the bit at the desired location for the hole, then pull the switch trigger. Do not force the tool. Light pressure gives best results. Keep the tool in position and prevent it from slipping away from the hole.

Do not apply more pressure when the hole becomes clogged with chips or particles. Instead, run the tool at an idle, then remove the bit partially from the hole. By repeating this several times, the hole will be cleaned out and normal drilling may be resumed.

CAUTION:

- When the bit begins to break through concrete or if the bit strikes reinforcing rods embedded in concrete, the tool may react dangerously. Maintain good balance and safe footing while holding the tool firmly with both hands to prevent dangerous reaction.

Blow-out bulb (optional accessory) (Fig. 22)

After drilling the hole, use the blow-out bulb to clean the dust out of the hole.

Chipping/Scaling/Demolition (Fig. 23)

Set the change lever to the  symbol.

Hold the tool firmly with both hands. Turn the tool on and apply slight pressure on the tool so that the tool will not bounce around, uncontrolled. Pressing very hard on the tool will not increase the efficiency.

MAINTENANCE

CAUTION:

- Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

- Never use gasoline, benzene, thinner, alcohol or the like. Discoloration, deformation or cracks may result.

CAUTION:

- This servicing should be performed by Makita Authorized Service Centers only.

This tool requires no hourly or daily lubrication because it has a grease-packed lubrication system. It should be lubricated every time the carbon brushes are replaced.

Send the complete tool to Makita Authorized Service Center for this lubrication service.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Makita Authorized Service Centers, always using Makita replacement parts.

OPTIONAL ACCESSORIES

⚠ CAUTION:

- These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita Service Center.

- SDS-Max Carbide-tipped bits
- SDS-Max bull point
- SDS-MAX cold chisel
- SDS-MAX scaling chisel
- SDS-MAX tile chisel
- SDS-MAX clay spade
- Hammer grease
- Bit grease
- Side handle
- Side grip
- Depth gauge
- Blow-out bulb
- Carrying case

NOTE:

- Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

Noise

The typical A-weighted noise level determined according to EN62841-2-6:

Model HR4501C

Sound pressure level (L_{pA}): 97 dB (A)

Sound power level (L_{WA}): 105 dB (A)

Uncertainty (K): 3 dB (A)

Model HR4510C

Sound pressure level (L_{pA}): 95 dB (A)

Sound power level (L_{WA}): 103 dB (A)

Uncertainty (K): 3 dB (A)

Model HR4511C

Sound pressure level (L_{pA}): 95 dB (A)

Sound power level (L_{WA}): 103 dB (A)

Uncertainty (K): 3 dB (A)

- The declared noise emission value(s) may also be used in a preliminary assessment of exposure.

⚠ WARNING:

- **Wear ear protection.**
- **The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**
- **Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).**

Vibration

The following table shows the vibration total value (tri-axial vector sum) determined according to applicable standard.

Model HR4501C

Work mode	Vibration emission	Uncertainty (K)	Applicable standard / Test condition
Hammer drilling into concrete ($a_{h, HD}$)	14.3 m/s ²	1.5 m/s ²	EN 62841-2-6
Chiselling function with side handle ($a_{h, CHeq}$)	9.9 m/s ²	1.5 m/s ²	EN 62841-2-6
Chiselling function with side grip ($a_{h, CHeq}$)	9.0 m/s ²	1.5 m/s ²	EN 62841-2-6

Model HR4510C

Work mode	Vibration emission	Uncertainty (K)	Applicable standard / Test condition
Hammer drilling into concrete ($a_{h, HD}$)	8.6 m/s ²	1.5 m/s ²	EN 62841-2-6
Chiselling function with side handle ($a_{h, CHeq}$)	7.0 m/s ²	1.5 m/s ²	EN 62841-2-6
Chiselling function with side grip ($a_{h, CHeq}$)	7.4 m/s ²	1.5 m/s ²	EN 62841-2-6

ENG907-1

- The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

Model HR4511C

Work mode	Vibration emission	Uncertainty (K)	Applicable standard / Test condition
Hammer drilling into concrete ($a_{h, HD}$)	8.3 m/s ²	1.5 m/s ²	EN 62841-2-6
	8.1 m/s ²	1.5 m/s ²	Recommended practical operation*
Chiselling function with side handle ($a_{h, CHEq}$)	7.1 m/s ²	1.5 m/s ²	EN 62841-2-6
	6.8 m/s ²	1.5 m/s ²	Recommended practical operation*
Chiselling function with side grip ($a_{h, CHEq}$)	7.0 m/s ²	1.5 m/s ²	EN 62841-2-6
	8.1 m/s ²	1.5 m/s ²	Recommended practical operation*

* The test condition of recommended practical operation meets EN 62841-2-6, except for the following points:

- Feed force is applied to the switch handle (main handle) for working accuracy and efficiency.
- The side grip/handle (auxiliary handle) is held to keep balance of the tool.

ENG901-2

- The declared vibration total value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.
- The declared vibration total value(s) may also be used in a preliminary assessment of exposure.

⚠ WARNING:

- **The vibration emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**
- **Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).**

Declarations of Conformity For European countries only

The Declarations of conformity are included in Annex A to this instruction manual.

