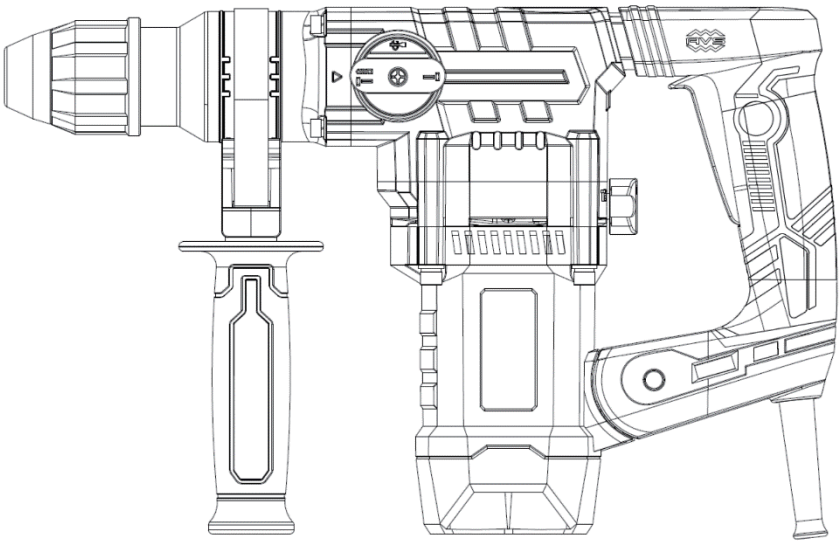
GLORITY

Rotary Hammer
SDS+13 AMP



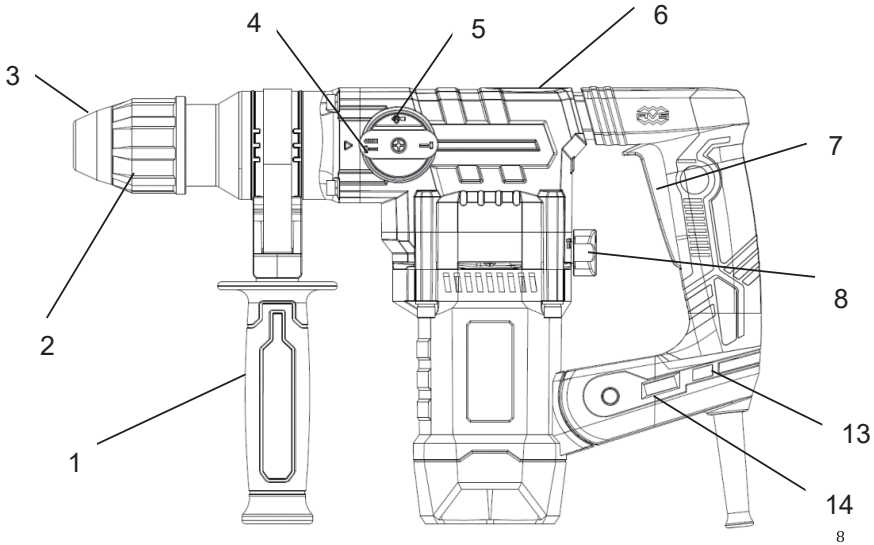
Instruction Manual

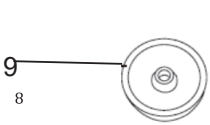
WARNING! Read the instructions before using this power tool

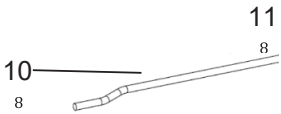
Let's
get started...

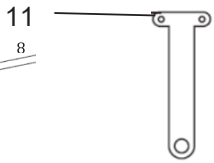
These instructions are for your safety. Please read through them thoroughly before use and retain them for future reference.

Your product









1. Auxiliary handle
2. Chuck sleeve
3. SDS PLUS drill chuck
4. Function selector
5. Lock button
6. Gearbox cover
7. On/off switch
8. Rear function selector
9. Dust collector
10. Depth gauge
11. Wrench

12. SDS drill bits 5/6 - 110 mm (X2)
    drill bits 8/10/12 - 150 mm (X3)
    SDS flat chisel bit 250 mm (X1)
    SDS point chisel bit 250 mm (X1)
13. Power indicator light
14. Variable speed selector

Technical and legal information

>	**Rated voltage**	: 120 V~, 60 Hz
>	**Rated input**	: 13AMP
>	**Rated no load speed n_0**	: 0–850 min^{-1}
>	**Drill chuck type**	: SDS PLUS
>	**Drilling capacity**	
	• **into masonry**	: 1-1/4 inch/ 32 mm
	• **into wood (with keyed chuck)**	: 1-3/4 inch/ 45 mm
	• **into steel (with keyed chuck)**	: 1-1/2 inch/ 13 mm
>	**Protection class**	: II
>	**Weight**	: 11 lb/ 5 kg

Wear hearing protection, especially when sound pressure is over 80 dB(A).
The declared vibration value has been measured in accordance with a standard test method and may be used for comparing one product with another. The declared vibration value may also be used to evaluate the exposure for the user caused by vibration in advance.

Symbol


Caution/Warning.


Read the instruction manual.


Wear safety footwear.


Wear protective gloves.


Switch the product off and disconnect it from the power supply before assembly, cleaning, adjustments, maintenance, storage and transportation.


This product is of protection class II. That means it is equipped with enhanced or double insulation.


The product complies with the applicable European directives and an evaluation method of conformity for these directives was done.


WEEE symbol. Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or local store for recycling advice.


Wear hearing protection.


Wear eye protection.


Wear respiratory protection.

Safety warnings

This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety.
Children should be supervised to ensure that they do not play with the product.

Power tool safety warnings

WARNING! Read all safety warnings and all instructions. Failure to follow the warnings and instructions 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.

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 dust or fumes.
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 shock.

Safety warnings

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,or 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.

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

Safety warnings

Important note

Due to the power input of this product on start up, voltage drops may occur and this can influence other equipment (e.g. dimming lights). So for technical reasons we advise, if the mains-impedance is Zmax<0.453Ohm, these disturbances are not expected. If you require further clarification, you may contact your local power supply authority.

Hammer safety warnings

Wear ear protection. 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.

When using this product it is essential that the following rules for use are followed:

- When drilling it is common that the core / drill bit jams in the material being drilled. This will result in the drill trying to rotate around the drill bit and potentially come out of your grip. This SDS Drill has a safety clutch mechanism. This safety clutch mechanism will be activated and stop the drive to the drill bit BUT only if you resist the initial forces caused by the jamming by securely holding the drill with both hands. As this is a very powerful drill these forces are significant.
- ALWAYS ensure that the auxiliary handle is firmly affixed and secure.
- The auxiliary and main handle must be firmly held to resist any movement of the drill when the core drill or drill bit becomes jammed.

- ALWAYS use this product when standing on a firm and secure platform or the ground.(DO NOT USE ON LADDERS OR STEPS)
- NEVER Start the product with the core or drill jammed in position.
- DO NOT stretch to hold the product. Do not drill above shoulder height or below knee height, as the product cannot be securely held.

Vibration and noise reduction

To reduce the impact of noise and vibration emission, limit the time of operation, use low-vibration and low-noise operating modes as well as wear personal protective equipment.
Take the following points into account to minimize the vibration and noise exposure risks:

Only use the product as intended by its design and these instructions.

Ensure that the product is in good condition and well maintained.

Use correct application tools for the product and ensure they in good condition.

Keep tight grip on the handles/grip surface.

Maintain this product in accordance with these instructions and keep it well lubricated (where appropriate).

Plan your work schedule to spread any high vibration tool use across a number of days.

Emergency

Familiarise yourself with the use of this product by means of this instruction manual. Memorise the safety directions and follow them to the letter. This will help to prevent risks and hazards.

Always be alert when using this product, so that you can recognise and handle risks early. Fast intervention can prevent serious injury and damage to property.

Switch off and disconnect from the power supply if there is any malfunction. Have the product checked by a qualified specialist and repaired, if necessary, before you put it into operation again.

Residual risks

Even if you are operating this product in accordance with all the safety requirements, potential risks of injury and damage remain. The following dangers can arise in connection with the structure and design of this product:

Health defects resulting from vibration emission if the product is being used over long periods of time or not adequately managed and properly maintained.

Injuries and damage to property due to broken accessories or the sudden impact of hidden objects during use.

Danger of injury and property damage caused by flying objects.

WARNING! This product produces an electromagnetic field during operation! This field may under some circumstances interfere with active or passive medical implants! To reduce the risk of serious or fatal injury, we recommend persons with medical implants to consult their doctor and the medical implant manufacturer before operating this product.

Intended use

This rotary hammer is designated with a rated power of 1500 Watts. This product is intended for hammer drilling and light chiselling work into concrete, brick and stone when equipped with bits with an SDS PLUS shaft. It is also suitable for coarse drilling operations into wood, similar wood materials, plastic and metal when using a keyed drill chuck.
The product is not suitable for fine drilling operations and should not be used for working on materials that are dangerous for health.
This product is intended for private domestic use only, not for any commercial trade use. It must not be used for any purposes other than those described.

Auxiliary handle

Adjust the auxiliary handle (1) according to the desired application. It improves the control when using the product.
Turn the auxiliary handle (1) anti-clockwise to loosen the clamp (Fig. 6).

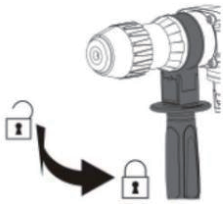


Fig. 6

Adjust the auxiliary handle (1) so that you can hold the product safely during operation (Fig.7-9)

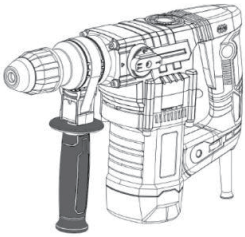


Fig. 7

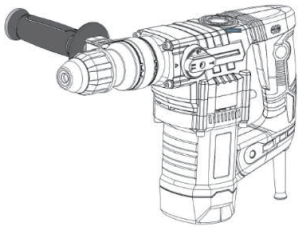


Fig. 8

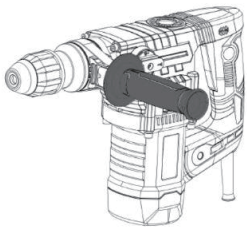


Fig. 9

Turn the auxiliary handle (1) clockwise to tighten the clamp.

WARNING! Never operate the product without the auxiliary handle to avoid accidents and injury! Always ensure that the auxiliary handle is attached and secured correctly before operation! The auxiliary handle provides better control of the product in case of sudden jams during use when considerable forces are released!

Depth Gauge

The depth gauge can be positioned on the right side or on the top of the rotary hammer. The body of the hammer will interfere with the depth gauge if the handle is in the bottom or left position.

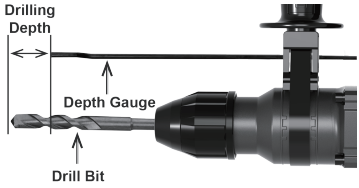


Fig. 10

1. Rotate the auxiliary handle counterclockwise to open the depth gauge slot and slide the depth gauge through the depth gauge slot on the auxiliary handle.
2. Position the depth gauge as needed, then rotate the auxiliary handle clockwise to secure the depth gauge in place.

Note: the drilling depth is the distance from the tip of the drill bit to the tip of the depth gauge.

Changing Drill Bits

Caution! Wear heavy-duty work gloves to provide protection when inserting and removing drill bits. Drill bits become very hot during use. Do not remove drill bits until the bit has cooled. Do not strike stuck bits with a hammer.

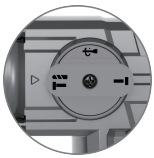
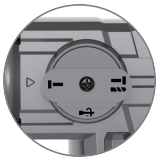
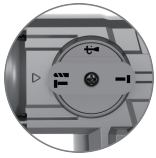
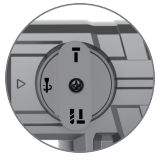
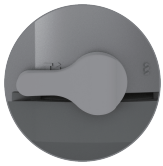
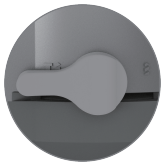
1. Pull back on the chuck and insert or remove the drill bit. If inserting the drill bit, make sure it slides all the way into the opening.
2. Release the chuck.
3. Check that the drill bit is secured in place. It should not be able to be pulled out of the chuck.

Mode selector

Select the operation mode with Function space required. and Rear function selector (8) before operation. This product can be operated either in drilling, hammer drilling or chiselling mode. Press the lock button (5) and turn the selector to set the function selector (4). Ensure it snaps into place.

WARNING! Only change the mode settings when the product is switched off and has come to a complete stop! Always ensure that the mode selectors are adjusted to the correct position depending on the intended operation! Always move the Rear and Function selectors as far as they will go and ensure they are completely in position! Do not use the product with the switches in any intermediate position!

WARNING! Always set the mode selectors according to the required operation and use the correct drill chuck! Do not attempt to use a keyed chuck for SDS hammer drilling or vice versa!

Operating mode	hammer drilling	Chiselling	Drilling	Chisel/drill bit adjust
Function selector (4)				
Rear function selector (8)				

On/off switch

Switch the product on by pressing the on/off
Switch the product off by releasing the
on/off switch (7).

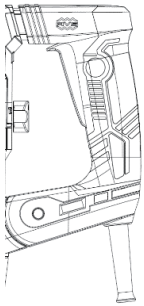


Fig. 11

Dust cup

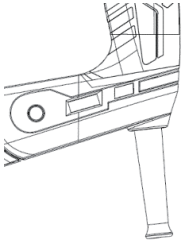
Slide the dust collector (9) over the drill bit to protect the user and the product from dust or debris (Fig. 12).

Fig. 12

Power indicator light& Variable speed selector

Power: the indicator light will be green when the power is switched on.

Carbon brush wear:
when the red indicator light shows, this indicates that the carbon brushes need replacing.



Select the proper speed when starting the machine for different using conditions from speed 1-5.

Fig.13

General operation

Check the product, its power cord, and plug as well as accessories for damage before each use. Do not use the product if it is damaged or shows wear.
Double check that accessories or drill bits are properly fixed.

Always hold the product by its main handle and auxiliary handle at all times (Fig. 14). Keep the handle surfaces dry to ensure safe support.

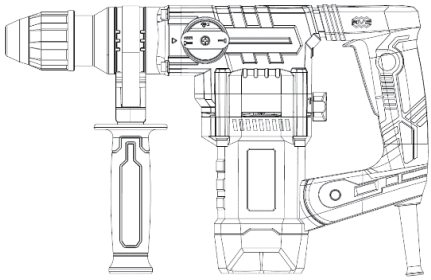


Fig. 14

Ensure that the air vents are always unobstructed and clean.

Clean them if necessary with a soft brush. Blocked air vents may lead to overheating and damage the product.

Switch the product off immediately if you are disturbed while working by other people entering the working area. Always let the product come to complete stop before putting it down.

Do not overwork yourself. Take regular breaks to ensure you can concentrate on the work and have full control over the product.

WARNING! Keep in mind that there are buried objects hidden in every household! Ensure that there are no gas, water or power lines hidden in the working area that may be hit before operation – danger of electrical shock and serious damage to people and property! Use a suitable detector to trace such objects in advance!

Drilling

Always hold the product perpendicular to the point to be drilled. Holding it at an angle may cause slipping or jamming of the drill bit.
Always place the drill bit tip directly on the point to be drilled first and then switch the product on.
Pre-drill larger holes with a small diameter drill bit first. Doing so makes drilling with large diameter drill bits easier.

Hammer drilling mode

Use this function to drill holes in masonry.

NOTE: In principle, drill masonry in the hammer drilling operation mode. However, in the first few seconds of operation, the drill bit may deviate from the original desired position due to the hammer action. To avoid this, turn the hammer function off and pre-drill the hole in the drilling mode.

Choose the SDS drill chuck and set the mode selectors to the correct position.
Insert a suitable SDS drill bit.

Drilling mode

Use this function for drilling holes into wood, sheet timber, plastic,or metal.
Use a keyed drill chuck and set the mode selectors to the correct position.
Insert a suitable drill bit.
Punch the drilling point before operation in order to avoid slipping of the drill bit.
Use a metal drill bit for drilling into plastic and metal. Where necessary use a cooling lubricant that is available at your specialist dealer.

Chiselling

Choose a suitable SDS chisel for your application.
Use shorter chisels when a larger striking impact is required
Mark the chiselling route when you plan to chisel slots.
Start near the edge and then proceed towards the inside.

Chiselling mode

Use this function for light chiselling applications including carving or cutting masonry.
Choose the SDS drill chuck and set the mode selectors to the correct position.
Insert a suitable SDS chisel.

After use

Switch the product off, disconnect it from the power supply and let it cool down.
Check, clean and store the product as described below.

The golden rules for care

WARNING! Always switch the product off, disconnect it from the power supply and let the product cool down before performing inspection, maintenance, and cleaning work!

Keep the product clean. Remove debris from it after each use and before storage.
Regular and proper cleaning will help ensure safe use and prolong the life of the product.
Inspect the product before each use for worn and damaged parts. Do not operate it if you find broken and worn parts.

WARNING! Only perform repairs and maintenance work according to these instructions! All further works must be performed by a qualified specialist!

General cleaning

Clean the product with a dry cloth. Use a brush for areas that are hard to reach.
Remove stubborn dirt with high pressure air (max. 3 bar).

NOTE: Do not use chemical, alkaline, abrasive or other aggressive detergents or disinfectants to clean this product as they might be harmful to its surfaces.

Check for worn or damaged parts. Replace worn parts as necessary or contact an authorised service centre for repair before using the product again.

Lubrication

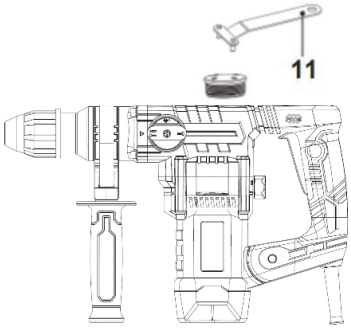


Fig.15

Regularly check the grease in the gearbox.
Refill with suitable grease (not supplied) if necessary.
Unscrew the gearbox cover with the wrench (11) and remove it (Fig. 15).
Fill the gearbox cover (6) with suitable grease.
Fit the cover back onto the product.
Make sure they are properly fastened.

Power cord

If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a safety hazard.

Repair

This product does not contain any parts that can be repaired by the consumer. Contact a qualified specialist to have it checked and repaired.

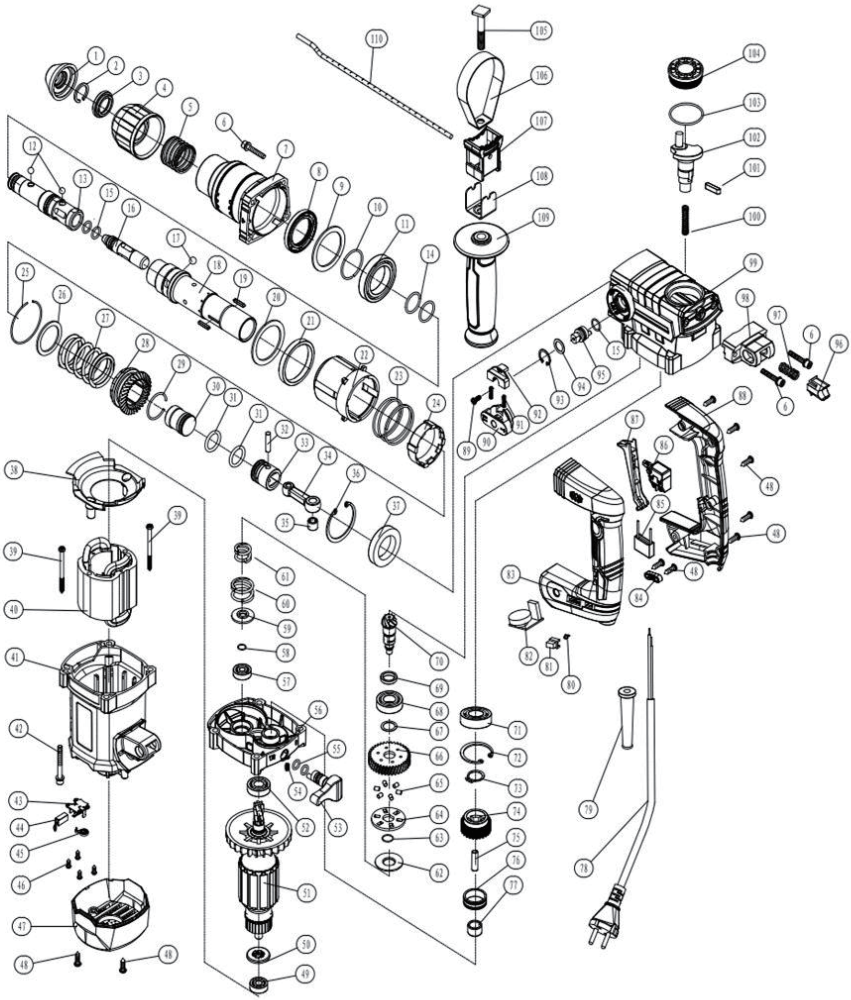
Storage

Clean the product as described above.
Store the product and its accessories in a dry, frost-free place.
Always store the product in a place that is inaccessible to children.
The ideal storage temperature is between 10 and 30°C.
We recommend using the original package for storage or covering the product with a suitable cloth to protect it against dust.

Transportation

Switch the product off and disconnect it from power supply before transporting it anywhere.
Attach transportation guards, if applicable. Always carry the product by its handles.
Protect the product from any heavy impact or strong vibrations which may occur during transportation in vehicles.
Secure the product to prevent it from slipping or falling over.

Exploded view



Spare part list					
Part no.	Part description	Qty	Part no.	Part description	Qty
1	Front cover	1	56	Middle Cover	1
2	Clip ring	1	57	Bearing 627	1
3	Distance sleeve	1	58	Clip ring D10×1	1
4	Steel rack	1	59	Spring clamp	1
5	Steel rack spring	1	60	Outer spring	1
6	Screw M5×30	6	61	Inner spring	1
7	front placket	1	62	Roller plate	1
8	Oil seal	1	63	Clip ring D14×1	1
9	Washer φ43×φ54.9×2	1	64	Roller retainer plate	1
10	Clip ring	1	65	Roller pin	6
11	Bearing 61907	1	66	Torque release gear	1
12	Steel ballφ7.14	5	67	Washer φ14.2×φ19×0.5	1
13	Rotary sleeve	1	68	Bearing 16002	1
14	Oringφ20.8×φ2.1	2	69	3# Distance Sleeve	1
15	Oringφ11×φ1.9	3	70	Gear No.3 tooth	1
16	Impact shaft	1	71	Bearing 6003	1
17	Steel ballφ7.938	1	72	D35 C-ring	1
18	Cylinder	1	73	D17 C-ring	1
19	Flat washer3×3×18	2	74	Crankshaft gear	1
20	Washerφ43×φ54.9×1	1	75	Push rod	1
21	Damping washerφ54.5×φ47×7	1	76	shaft sleeve φ22×φ26×9	1
22	Cylinder Case	1	77	Oil Bearing φ12×φ16×10	1
23	Spring	1	78	Cable and plug	1
24	Locking ring	1	79	Cable Sheath	1
25	Clip ring D50×1.6	1	80	Power indicator	1
26	Washerφ32.2×φ41.8×2	1	81	Power indicator cover	1
27	Springφ37.2×φ3.2×80	1	82	Speed selector	1
28	Gamp Gear	1	83	Left handle	1

29	D30 C-ring	1	84	Cable clamp	1
30	Impact Hammer	1	85	Capacitance	1
31	O-ringφ19×φ3.1	2	86	Switch	1
32	Piston Pin	1	87	Switch trigger	1
33	Piston	1	88	Right handle	1
34	Connecting Rod	1	89	Screw M4×10	1
35	Oil Bearingφ8×φ12×10	1	90	Button	1
36	D47 C-ring	1	91	Spring φ4×φ0.5×18	2
37	Oil Bearing φ30×φ47×9	1	92	knob	1
38	Fan Guide	1	93	D18 Ring	1
39	Screw ST4.8×55	2	94	Washer	1
40	Stator	1	95	Knob core	1
41	Housing	1	96	Anti-vibration spring sleeve	1
42	Screw M5×55	4	97	Anti-vibration spring	1
43	Brush Holder	2	98	Anti-vibration base	1
44	Carbon Brush	2	99	Gear Box	1
45	Flat spring	2	100	Spring	1
46	Screw ST2.9×12	8	101	Flat key	1
47	Back Cover	1	102	Eccentric Shaft	1
48	Screw KA40×16	9	103	O-ring φ35×φ1.8	1
49	Bearing 608	1	104	Oil Cover	1
50	Retainer ring	1	105	Screw M8×50	1
51	Rotor	1	106	Hoop	1
52	Bearing 6001	1	107	Hoop Holder	1
53	down button assembly	1	108	Depth gauge holder	1
54	Screw	1	109	Side Handle	1
55	O-ring φ7.8×φ1.9	2	110	Depth gauge	1