



THE WORLD'S FIRST

**WATERPROOF
CORDLESS
ROTARY
HAMMER**

Functional Description and Specifications

Intended Use

The Nemo Rotary Hammer can be used underwater, in wet conditions, and on dry land. This tool is a valuable asset to any professional who works in and around water.

Packing List

Your Nemo Rotary Hammer is packaged together with the following accessories:

- ◆ Two rechargeable Lithium-ion (Li-ion) battery packs
- ◆ Hand pump
- ◆ Battery charger
- ◆ Carrying case
- ◆ Two drill bits - 6mm and 10mm

Technical Specifications

Nemo Submersible Rotary Hammer

Model	RH-22-6Li-50
Battery pack voltage	22V Li-ion
Battery cell specification	3Ah / 6Ah
No load speed (two speeds)	0 – 1040 RPM
Single impact energy	2.0 J
Full hammering frequency	0 – 4200 IPM
Net weight (with battery)	9.9lbs (4.5kg)
Maximum in steel diameter	1/8 – 1/2 in (3 – 13mm)
Maximum in wood diameter	1/8 – 1 in (3 – 26mm)
Maximum in concrete diameter	1/8 – 7/8 in (3 – 20mm)
Working temperature	32-140°F (0-60°C)
Submersible up to	164 ft (50m)

Battery Charger

Model	XVE-2520300
Approximate charging time	50 minutes
Charging output voltage	25.2V
Charging input voltage	100V – 240V



Caution: You must pressurize the Rotary Hammer before you can use it underwater, as described in *Pressurizing the Rotary Hammer for Underwater Use*, pages 9-11.

Safety Warnings



Warning: Read all safety warnings and instructions, and save them for future reference. Failure to adhere to these warnings can result in serious injury and damage to equipment.

Work Area Safety

- ◆ All work should be done in accordance with the local, state, and government occupational safety and health guidelines.
- ◆ Keep your work area clean and well lit.
- ◆ Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- ◆ Keep bystanders away when operating power tools.
- ◆ When using the tool on raised or high surfaces, make sure that no one is underneath you when operating the tool.

Personal Safety

- ◆ Stay alert and use common sense when operating power tools. Do not use power tools when you are tired or under the influence of drugs, alcohol, or medication.
- ◆ Use personal protective equipment. It is recommended to always wear eye protection, as well as a P2 filter-class respirator.
- ◆ Dust from materials such as lead-containing coating, some wood types, minerals, and metal can be harmful to one's health. Observe the relevant regulations in your country for the materials to be worked.

Power Tool Safety

- ◆ Store idle power tools out of reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
- ◆ Maintain your 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 by an authorized service technician.



Caution: Under no circumstances should the power tool be opened for repairs or any other purpose by anyone other than an after-sales service technician authorized by Nemo Power Tools. Opening the power tool invalidates the manufacturer warranty.

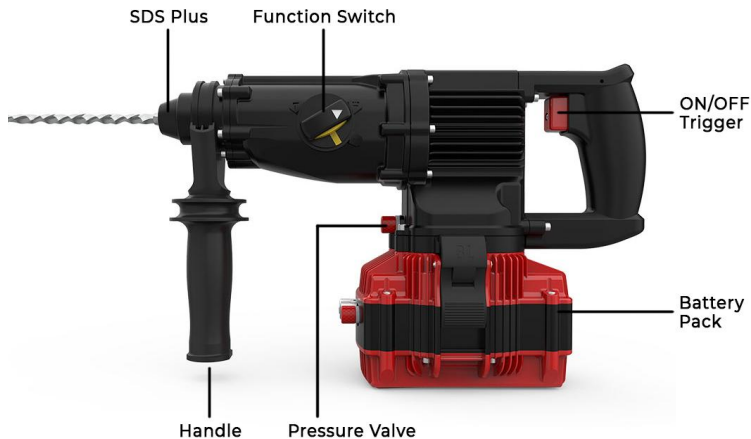
- ◆ Use power tools, accessories, and tool bits in accordance with these instructions and in the manner intended for the particular type of power tool, taking into account the working conditions and the work to be performed. Consult local, state, and government occupational safety and health guidelines before operating a power tool.
- ◆ Switch off the power immediately if the tool bit jams. Be prepared for high reaction torque that can cause kickback. The tool bit can jam when the power tool is subject to overload, or if it becomes wedged in the workpiece.
- ◆ Hold the power tool with a firm grip. High reaction torque can briefly occur while driving in and loosening screws.
- ◆ Work only on secured, stable items. Do not hold any item to be worked on by the power tool in your hand. Secure the workpiece, clamped with clamping devices or in a vice, to ensure safety.
- ◆ Always wait until the power tool has come to a complete stop before placing it down. The tool bit can jam and lead to loss of control over the power tool.
- ◆ If using the rotary hammer above water or in hot conditions, cool the tool down by dipping it in cool water regularly to prevent overheating.

Rechargeable Battery Safety

- ◆ Use only the battery pack supplied with your power tool.
- ◆ When the battery pack is not in use, keep it away from other metal objects like paper clips, coins, keys, nails, and screws, which can make a connection from one terminal to another.
- ◆ Store the battery pack only within a temperature range of 32°F - 113°F (0°C - 45°C) .
- ◆ Before any work on the power tool, such as a tool change, as well as during transportation and storage, remove the battery pack from the power tool. There is danger of injury when accidentally activating the On/Off trigger.
- ◆ Do not open the battery.
- ◆ Protect the battery against heat, including continuous sun irradiation and fire.
- ◆ When the battery is defective, liquid can escape and come into contact with adjacent components.
- ◆ Use only original batteries with the voltage listed on the nameplate of your power tool. When using other batteries, such as imitations, reconditioned batteries, or other brands, there is danger of injury as well as property damage through exploding batteries.
- ◆ Use only the battery charger provided with the power tool to recharge the batteries. Only this battery charger is matched to the lithium-ion (Li-ion) battery of your power tool.
- ◆ Protect the battery charger from rain and moisture. The battery charger is not waterproof.
- ◆ Do not charge other batteries. The battery charger is suitable only for charging the battery pack supplied with the tool.
- ◆ Before use, always check the battery charger, cable, and plug. If defects are detected, do not use the battery charger. Never open the battery charger. Instead, have it opened and repaired only by qualified personnel who will use original spare parts.

Getting Started with the Rotary Hammer

Your Nemo Rotary Hammer (RH-22-6Li-50) includes the following main components:



Charging the Battery

The Li-ion batteries are supplied partially charged, and must be charged to full capacity using the battery charger provided with the rotary hammer before using the rotary hammer for the first time.



Caution: Only use the battery charger provided with the rotary hammer. Only this battery charger is matched to the Li-ion batteries supplied with your power tool.



Danger: Ensure that the voltage of the power supply corresponds with the data given on the nameplate of the battery charger.



Danger: Only use the charger in a dry environment. The charger is not waterproof. Never attempt to charge the battery under water.

Stock: Make sure there is no metal or other things to block the connector after every dive and keep the brass pin dry when storing.

A battery can be charged at any time without reducing its service life. This is because the battery charger detects the charging condition of the battery, and charges it with the optimum current according to its temperature and voltage. This lengthens the battery life and leaves it fully charged when stored in the charger. Interrupting the charging procedure does not damage the battery.

1. Connect the mains plug of the battery charger to an electrical outlet. A steady green light on the battery charger indicates that the charger is ready for operation.
2. Press the battery charger's connector into the socket on the top of the battery pack. There is only one way to insert the connector into the battery socket.



The battery begins charging as soon as it is connected to the charger.

- ◆ A steady red light on the battery charger indicates that the battery is charging.
- ◆ A steady green light on the battery charger indicates that the battery is fully charged.



Note: The battery is equipped with an NTC temperature controller that only allows it to be charged when its

temperature is between 32° F - 113° F (0°C- 45°C) ,
ensuring a long battery service life.

3. When you are ready to use the battery, pull it vertically out of the charger.

Inserting a Battery into the Rotary Hammer

Before inserting the battery, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.



Caution: To minimize the risk of accidental activation, always ensure the tool is switched off before performing any maintenance work on the rotary hammer, as well as during transportation and storage.

1. Ensure the 3-prong connector is in alignment with the 3 holes on top of the battery .
2. Insert the battery into the bottom of the rotary hammer base.
3. Close the two plastic clips on the side to secure the rotary hammer into position .



Caution: Use only a Li-ion battery from the original factory with the voltage listed on the nameplate of your rotary hammer. Using other batteries not suitable for the rotary hammer can lead to malfunctions, cause damage to the power tool, and pose a fire hazard.

Removing a Battery from the Rotary Hammer

1. Unfasten the two plastic clips on the side.
2. Pull the battery pack down.

Fitting the Rotary Hammer Handle

The handle enables you to hold the rotary hammer securely.

1. Ensure the On/Off trigger is in the Off position.

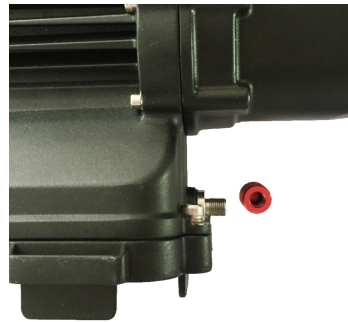
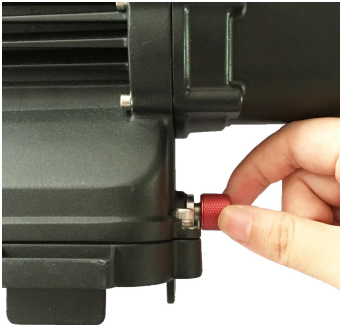


Caution: To minimize the risk of accidental activation, always ensure the tool is switched off before performing any maintenance work on the rotary hammer, as well as during transportation and storage.

2. To attach front auxiliary safety handle, twist the bottom of the handle to the left to loosen the metal ring
3. Slide the metal ring over the chuck. Tighten the bottom of the handle to the right, to secure the front safety handle in place.

Pressurizing the Rotary Hammer for Underwater Use

Your rotary hammer can be used in any wet conditions, and can be submerged and used underwater at depths of up to 164ft (50m). Before submerging the rotary hammer to any depth, it must be pressurized.



1. Remove the red cap from the pressure valve on the base of the rotary hammer.
2. Attach a pump, such as the hand pump supplied with the rotary hammer, to the valve.



3. Pressurize the rotary hammer according to the depth to which you are going to submerge it, as follows:

Depth in meters	Depth in feet	Pressure
Up to 5m	16 feet	Minimum 15 psi (1 Bar)
Up to 10m	33 feet	Minimum 29 psi (2 Bars)
Up to 20m	66 feet	Minimum 44 psi (3 Bars)
Up to 30m	98 feet	Minimum 58 psi (4 Bars)
Up to 40m	131 feet	Minimum 73 psi (5 Bars)
Up to 50m	164 feet	Maximum 87psi (6 Bar)



Caution: Never add more than 87 psi (6 Bars) of pressure to the rotary hammer.

Pressurizing the Battery for underwater use

You must pressurize the battery before using the Angle Grinder underwater . To pressurize , remove the red cap covering the Schrader valve and attach a suitable pump to the Schrader valve . Pressurize the battery to at least 3 bars . Pressurizing over 3 bars may activate the over-pressure relief valve and release too much air from the battery. (If the over-pressure relief valve releases air before reaching 3 bars , contact Nemo Power Tools for a replacement relief valve .) After pressurizing the battery, replace the red cap on the Schrader valve.

Best Practices for Underwater Operation

Your Nemo Submersible Rotary Hammer is designed to be waterproof, so that it can be used both on land and underwater. To obtain the maximum serviceable life of your rotary hammer, adhere to the following best practices when using the rotary hammer underwater:

- ◆ You must pressurize the rotary hammer before using it underwater, as described in *Pressurizing the Rotary Hammer for Underwater Use*, pages 9-11.
- ◆ Do not exceed the maximum operational depth as recommended by the manufacturer.
- ◆ The rotary hammer is a hi-tech piece of equipment and should be treated with care. Its watertight seals may be damaged if it is dropped.

- ◆ The rotary hammer can be used in salt water.



Note: After using the rotary hammer in salt water, immediately rinse it in fresh water to remove all salt residue.

- ◆ Before storing the rotary hammer in the carrying case after use in water , rinse it with fresh water and dry it off .
- ◆ Treat the high quality battery with care .Keep the battery fully charged and dry and ready for use , and always store it in the carrying case when not in use .
- ◆ Post dive maintenance. : Water trapped inside the female battery connection may corrode the terminals . Use compressed air to flush out any remaining water trapped in the 3 large holes on the battery connection.

Operating the Rotary Hammer

Switching the Rotary Hammer On or Off

- ◆ Press the On/Off trigger, and keep it pressed. You can increase the speed of the rotary hammer by increasing the pressure on the switch. To switch off the rotary hammer, release the On/Off trigger.

Inserting Tools

The rotary hammer utilizes an SDS-plus attachment system for easy, secure tool insertion.

1. Clean tools and apply a thin layer of machine grease before fitting.
2. Pull back the fastening sleeve and hold it in place.
3. Push the tool into the holder and rotate it until it locks.

4. Test the tool by pulling it straight out to make sure it remains securely in place.

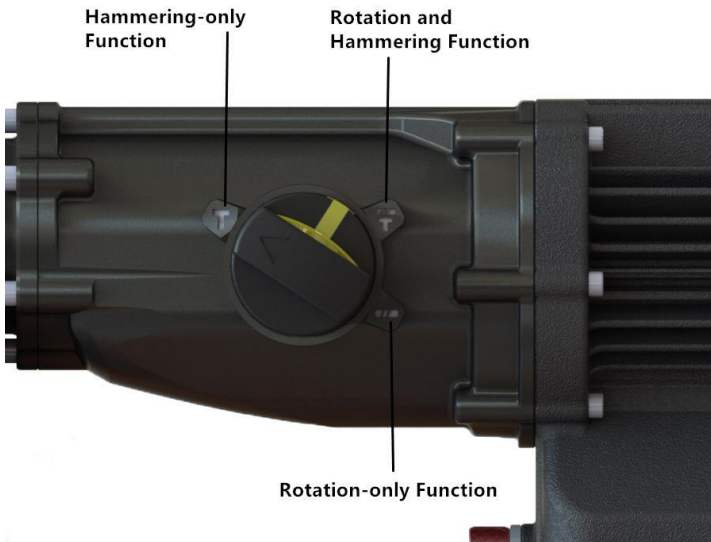
Removing Tools



Pull the fastening sleeve back, hold it in place, and remove the tool.

Choosing Your Function

Use the dial on the rotary hammer to choose your function. The rotary hammer comes with three separate functions: rotation and hammering; rotation-only; hammering-only. To switch to your chosen mode, hold down the push button and move the lever to the desired mode.



Choose the rotation and hammering function to rotary hammer:

- ◆ anchor holes
- ◆ holes in concrete
- ◆ holes in tile

Choose the rotation-only function to:

- ◆ drill holes in steel or wood
- ◆ tighten machine screws and wood screws

Choose the hammering-only function for:

- ◆ Light concrete chiseling
- ◆ groove digging
- ◆ edging

Tips for Use

- ◆ Always put the bit in contact with the surface you're working on prior to pulling the trigger for maximum control.
- ◆ Always hold the rotary hammer firmly and use moderate, even pressure. Applying too much pressure, especially at lower speeds, will cause the hammer to stall. Utilizing too little pressure or uneven pressure can cause the bit to skip and slide over the surface and/or prevent it from cutting through the work surface.
- ◆ Wipe the shanks of the bits clean prior to installation and immediately after removing them from the rotary hammer.

Maintenance

Rotary Hammer Care

- ◆ When working in cold weather or when operating the tool after it has been stored for a long time, run the tool under no load for several minutes. This lubricates the tool and warms it up. If it is not properly warmed and lubricated, the rotary hammer will be difficult to operate.

- ◆ Blow air through the tool housing after every use to remove dust.
- ◆ Rinse the rotary hammer with fresh water after exposure to salt water. The rotary hammer can be used in salt water, but allowing salt to build-up on the tool shortens its lifespan.
- ◆ Do not use solvents or cleaning supplies to clean the rotary hammer. Fresh water and soft, lint-free cloths are all that are necessary.
- ◆ Post dive maintenance. :Water trapped inside the female battery connection may corrode the terminals . Use compressed air to flush out any remaining water trapped in the 3 large holes on the battery connection.

Servicing the Rotary Hammer

If your rotary hammer is damaged or faulty, have it repaired by an authorized service technician.



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Transporting the Rotary Hammer

For maximum protection, always transport your rotary hammer secured in its carrying case, with the battery removed.

The battery pack has effective protection against internal over-pressure and short-circuiting, as well as devices preventing violent rupture and dangerous reverse current flow.

The lithium-equivalent content in the batteries is below applicable limit values. Therefore, the batteries are not subject to national or international regulations pertaining to dangerous mediums, either as individual components or when inserted into a power tool.

However, the regulations governing dangerous goods may be relevant when transporting several batteries. In this case, it might be necessary to comply with special conditions, such as those governing packaging.

Disposing of the Rotary Hammer

At the end of its lifecycle, the rotary hammer, its accessories, and packaging should be sorted for environmentally friendly recycling.

Do not dispose of the battery pack in household waste, fire, or water. Battery packs should be collected, recycled, or disposed of in an environmentally friendly manner.

Troubleshooting Battery and Charger

Problem: The battery is not charging, and there is a blinking red light on the battery charger.	
Possible Cause	Corrective Action
The battery is not correctly inserted into the charger.	Remove the battery from the charger, then re-insert it correctly.
The battery contacts are contaminated.	Clean the battery contacts, for example by removing and inserting the battery several times, or replace the battery.
The battery is defective.	Replace the battery.

Problem: The battery charger indicator does not light up.	
Possible Cause	Corrective Action
The mains plug of the battery charger is not correctly plugged into the socket.	Insert the mains plug fully into the socket outlet, and ensure that the socket is functional.
The socket outlet, mains cable, or battery charger are defective.	Check the voltage power; have the battery charger checked by an authorized after-service agent.



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Problem: The battery charger is warm to the touch.

Possible Cause	Corrective Action
Continuous or repetitive charging cycles without a break may cause the charger to warm up.	No corrective action is required as this does not indicate a fault with the battery charger.

Problem: The battery operation time is significantly reduced, even after the battery is fully charged.

Possible Cause	Corrective Action
The battery is defective, or has reached the end of its life (approximately 1000 charging cycles).	Replace the battery.

Problem: The rotary hammer does not rotate.	
Possible Cause	Corrective Action
The rotational direction switch is in a neutral (middle) position, which operates only the LED light.	Push the rotational direction switch all the way to one side.
The battery has not been charged sufficiently.	Charge the battery and then try to use the rotary hammer again.

Battery Safety Feature

A battery that " fails " or seems to have a short life before it shuts down , may simply be a battery that has gone into its SAFE mode .

A battery that has experienced an excessive current draw from a short circuit , or a high current draw when the tool was under an excessive load , may shut down prematurely . This is a built-in safety feature.

If the battery contacts are not damaged , recharging the battery for a short period (even a few minutes) will reset the battery's electronics and restore the battery voltage to the voltage level before it shut down.

If this battery or another battery experiences the same problem immediately upon restarting the tool , then a short circuit should be suspected and the tool should be inspected for needed repair .

Disclaimer :

Nemo Power Tools Ltd reserves the right to change the contents of this manual at any time without prior notice .

Nemo Power Tools Ltd
www.nemopowertools.com