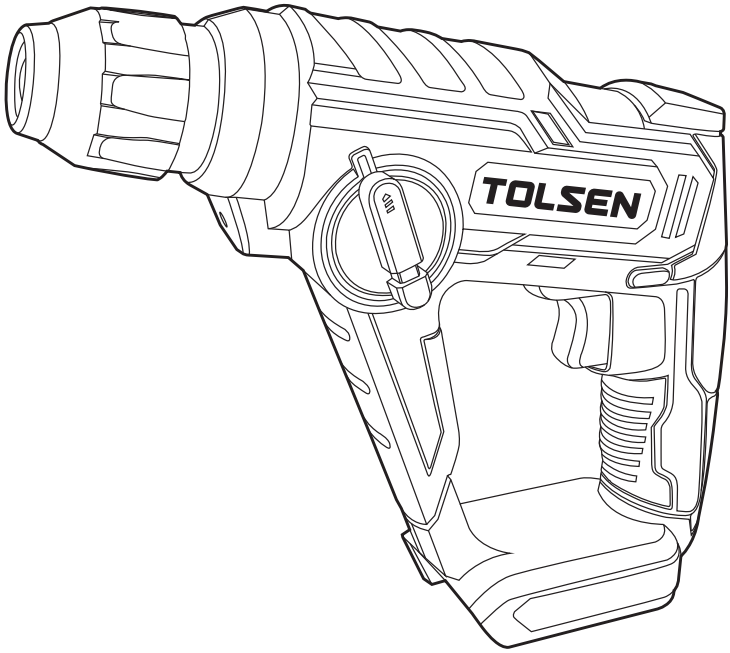
TOLSEN MP20V

87238
LI-ION CORDLESS ROTARY HAMMER

INSTRUCTION MANUAL **20V *LITHIUM-ION***

CE **RoHS**



SAVE THIS MANUAL !
You will need this manual for safety instructions, operating procedures and warranty.
Put it and the original sales receipt in a safe dry place for future reference.

IMPORTANT SAFETY INFORMATION

General 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.

WARNING: This appliance is not intended for use by persons (including children) with reduced, physical or mental capabilities or lack of experience or knowledge unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children must be supervised to ensure that they do not play with the appliance.

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

1. Keep work area clean and well lit. Cluttered or dark areas invite accidents.
2. 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 or fumes.
3. Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Electrical safety

1. 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.
2. 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.
3. Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
4. 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.
5. 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.
6. If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) or ground fault circuit interrupter (GFCI) protected supply. Use of an RCD or GFCI reduces the risk of electric shock.
7. Power tools can produce electromagnetic fields [EMF] that are not harmful to the user. However, users of pacemakers and other similar medical devices should contact the maker of their device and/or doctor for advice before operating this power tool.

Personal safety

1. 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.
2. 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.
3. 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.
4. 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.
5. Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations
6. 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.
7. 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.
8. Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

Power tool use and care

1. 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.
2. Do not use the power tool if the switch could not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
3. 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.
4. 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.
5. 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.
6. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. 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.
8. Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

Battery Tool Use and Care

1. Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
2. Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
3. When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
4. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
5. Do not use a battery pack or tool that is damaged or modified. Damaged or modified batteries may exhibit unpredictable behaviour resulting in fire, explosion or risk of injury.
6. Do not expose a battery pack or tool to fire or excessive temperature. Exposure to fire or temperature above 130 °C may cause explosion.
7. Follow all charging instructions and do not charge the battery pack or tool outside the temperature range specified in the instructions. Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

Service

1. 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.
2. Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.
3. Follow instruction for lubricating and changing accessories.

Cordless Rotary Hammer Safety Warnings

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 power tool by insulated gripping surfaces, when performing an operation where the cutting accessory may contact hidden wiring. Cutting accessory contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
4. 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.
5. Be sure the bit is secured in place before operation.
6 . 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.
7. 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.
8. Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.
9. Hold the tool firmly with both hands.
10. Keep hands away from moving parts.
11 . Do not leave the tool running. Operate the tool only when hand-held.
12. Do not point the tool at any one in the area when operating. The bit could fly out and injure someone seriously.
13. Do not touch the bit or parts close to the bit immediately after operation; they may be extremely hot and could burn your skin.
14. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.

Battery Safety

⚠ WARNING

This battery can only be used in the machines included in the TOLSEN MP20V lithium-ion power platform system.
This battery can only be used cooperatively with the designated battery charger.
Li-Ion batteries, if incorrectly used, stored or charged will cause a fire, burn and explosion hazard.
Failure to follow these instructions may cause overheating or fire.

1. Keep the battery out of reach of children.
2. The battery should be charged at ambient temperatures between 5 and 40°C (ideally around 20°C) . After charging, allow 15 minutes for the battery to cool before use.
3. The Battery Charger monitors battery temperature and voltage while charging. DO NOT leave batteries on charge for extended periods and NEVER store batteries on charge. Ensure that the charger is disconnected from the mains supply after use.
4. When not in use batteries should be stored at room temperature. Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 40°C (ideally around 20°C) .
5. Ensure that battery contacts cannot accidentally short in storage. Keep batteries clean; foreign objects or dirt may cause a short. Keep away from other metal objects, for example, paperclips, coins, keys, nails and screws.
6. **DO NOT** store lithium-ion battery packs in a discharged state over a long period as this can damage the lithium-ion cells. For long-term storage, store batteries in a high charge state disconnected from the power tool.
7. Batteries can become faulty over time, individual cells in the battery can fail and the battery could short. The charger will not charge faulty batteries. Use another battery, if possible, to check correct functionality of the charger and purchase a replacement battery if a faulty battery is indicated.
8. **DO NOT** open, disassemble, crush, heat or incinerate. Do not dispose of in fire or similar.

Battery Charger Safety

⚠ WARNING

This charger can only be used to charge the batteries which has TOLSEN MP20V symbol. If it is used to charge other kinds of batteries, there is a risk of explosion. **DO NOT** attempt to recharge non-rechargeable batteries.

1. This is class 2 power supply. It is suitable for indoor use only.
2. Before use, the input and output technical data must be checked to secure correct use.
3. Do not use the Battery Charger in the circumstances that the output polarity does not match the load polarity.
4. Do not attempt to use the charger with any batteries other than those supplied. Keep your battery charger clean; foreign objects or dirt may cause a short or block air vents. Failure to follow these instructions may cause overheating or fire
5. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

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.

Note: Symbology

	Class II Double insulated for additional protection
	CE conformity
	Read the instruction manual before using
	Wear hearing protection while operating the tool
	Wear hand protection
	Always use breathing apparatus when machining materials which generate dust.
	Wear ear protection.
	Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.
 Li-ion	Batteries and rechargeable batteries are not household waste! As a consumer, you are required by law to dispose of all batteries and accumulators, whether or not they contain harmful substances *, at a collection point in your municipality / neighborhood or in commerce so that they can be disposed of in an environmentally sound manner.
	Safety alert
	For indoor use only

SPECIFICATIONS

Rated Voltage	20VDC
No-load speed	0-900min^{-1}
Impact rate	0-5000 bpm
Impact energy	1.2J
Drill diameter in concrete	13mm(1/2")
Drill diameter in steel	10mm(3/8")
Drill diameter in wood	13mm(1/2")

CE RoHS

FUNCTIONS

OPERATING INSTRUCTIONS

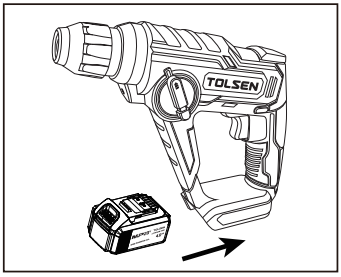
Installing or removing battery pack

⚠ CAUTION

Always be sure that Always switch off the tool before installing or removing of the battery pack.the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.

⚠ CAUTION

Hold the tool and the battery pack firmly when installing or removing battery pack. Failure to hold the tool and the battery pack firmly may cause them to slip off your hands and result in damage to the tool and battery pack and a personal injury.



To remove the battery pack, slide it from the tool while sliding the button on the front of the cartridge.

To install the battery pack, align the tongue on the battery pack with the groove in the housing and slide it into place. Insert it all the way until it locks in place with a little click.

⚠ CAUTION

Always install the battery pack fully until the red indicator cannot be seen. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

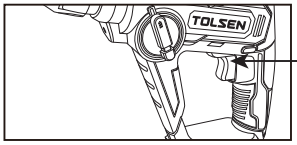
⚠ CAUTION

Do not install the battery pack forcibly. If the battery pack does not slide in easily, it is not being inserted correctly.

Start Cordless Hammer

Squeeze the switch to start the tool. And allow the tool reaches full speed before beginning drilling.

After completing your drilling release the switch, allow the bit to come to a complete stop before setting the tool down.



This tool has a variable speed switch that delivers higher speed and torque with increased tigger pressure. Speed is controlled by the amount of switch depression.

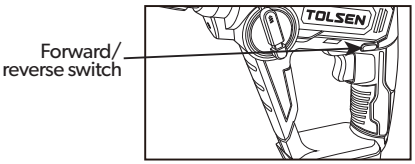
The variable speed feature is particularly useful when driving screws. It also enables you to select the best speed for a particular application.

NOTE: It is recommended to use the variable speed feature for a short time only. Do not continuously operate the tool at different speeds.It may damage the switch.

WARNING: Please start the tool for 2-3 minutes first before use, while the temperature is below zero and there is no impact function after you turn on the tool.

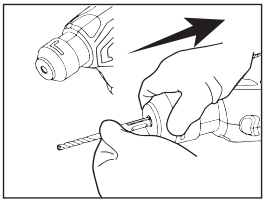
Forward/reverse Adjustment

For forward (clockwise) rotation. push the forward/reverse switch to the right position.
For reverse (counterclockwise) rotation, push the forward/reverse switch to the left position as shown.
An interlock prevents reversing the tool while the motor is running.
If forward/reverse switch is on the central position, the tool cannot be switched on.



To Install The Bit

⚠ WARNING
Always wear sturdy gloves when handling or changing drill and chisel bits as they can be very sharp.



For SDS Drill Bit

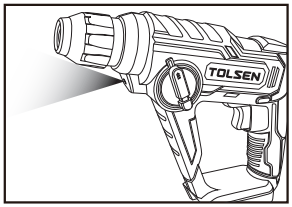
To fit a bit, pull back the locking sleeve and hold it, push and rotate the bit into the bit holder as far as it will go, taking care that the splines on the shaft of the bit locate properly within the chuck.
Test for proper location by releasing the locking sleeve and giving the bit a sharp pull. If the bit can be removed, again pull back the locking sleeve, rotate the bit a fraction of a turn and re-insert it into the chuck.
Release the locking sleeve and again test for proper location. Repeat if necessary until you are sure that the bit is properly secured.
To remove the bit, pull back the locking sleeve, remove the bit, and release the locking sleeve.

For Hss Twist Drill Bit, Screwdriver Bit And Bit Holder

To fit the bit, rotate the locking sleeve clock wise for about 90°,pull back the locking sleeve and hold it, push and rotate the bit into the bit holder as far as it will go.
To remove the bit, rotate the locking sleeve clockwise for about 90° ,pull back the locking sleeve and hold it, remove the bit, and release the locking sleeve.

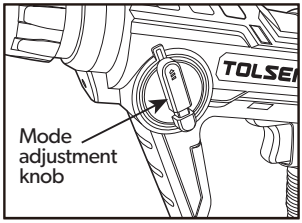
Led Worklight

The tool has an LED light to illuminate the work area and improve vision when working in areas with insufficient light.
The LED light will switch on automatically while the trigger switch is depressed.
If the LED worklight begins to rapidly and continuously flash when the switch on the tool is depressed, the battery-pack power has run out, and the battery pack should be recharged.



Mode Adjustment

It is possible to adjust the mode operation knob to hammering or drilling or hammer-drilling operations. To select the operating mode, press the mode selector button and rotate the knob until it points to the required mode. Release the mode selector button and check that the mode selector switch is locked in place.



	Rotary drilling For screw-driving and for drilling into steel, wood and plastics.
	Hammer-drilling For concrete and masonry drilling operations. **Bit rotation** Non-working position used only to rotate a flat chisel into the desired position.

It is possible to adjust the mode operation knob to hammering or drilling or hammer-drilling operations. To select the operating mode, press the mode selector button and rotate the knob until it points to the required mode. Release the mode selector button and check that the mode selector switch is locked in place.

General Operation

1 . Check the product and charger as well as accessories for damage before each use. Do not use the product if it is damaged or shows wear. Double check that the accessories and attachments are properly fixed.
2. Always hold the product on its handle. Keep the handle dry to ensure safe support.
3. 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.
4. Do not overwork yourself. Take regular breaks to ensure you can concentrate on the work and have full control over the product.

⚠ WARNING:

1. Applying force more than necessary will not only accelerate the work at all, but will worsen the tip edge of the drill bit and reduce the service life of the rotary hammer in addition.
2. Drill bit may snap off while withdrawing the hammer from the drilled hole. For withdrawing, it is important to use a push-motion.
3. Do not attempt to drill anchor holes or holes in concrete with the machine set in the rotation only function.
4. Do not attempt to use the rotary hammer in the rotation and striking function with the drill chuck and chuck adaptor attached. This would seriously shorten the service life of every component of the machine.

Rotary Drilling

1 . Set the mode adjustment knob to the "rotary drilling" position for screw-driving* and for drilling into steel, wood and plastics.
2. Depending on your tool, either you can operate with the SDS plus tool holder or using the additional drill chuck provided. (Refer 'Fitting Drill chuck and adapter' section for installation)
3. Do the same steps as described for hammer-drilling.

Hammer Drilling

1 . Set the mode adjustment knob to "hammer- drilling" position for concrete and masonry drilling operations.
2. Always hold the product perpendicular to the point to be drilled. Holding at an angle may cause slipping/jamming of the drill bit.
3. Always place the drill tip directly on the point to be drilled first and then switch the product on.
4. Pre-drill larger holes with a small diameter drill bit first. Doing so makes drilling with a larger diameter drill bit easier.
5. Do not 'always' drill at top speed. This unnecessarily increases the wear and tear of the product and drill bit.
6. Remove blocked and stuck drill bits by changing the rotational direction.
7. Adjust the auxiliary handle as required. If necessary, set the depth rod.

MAINTENANCE

WARNING: ALWAYS disconnect from the mains power supply, before carrying out any maintenance/ cleaning of the charger. Remove the battery before carrying out any maintenance/ cleaning of the tool.

Note: Both the tool and the charger contain no user-serviceable parts. If the device does not perform as outlined in this manual, return it to an authorised service centre for repair

General inspection

- Regularly check that all the fixing screws are tight
- Inspect the supply cord of the tool, prior to each use, for damage or wear. Repairs should be carried out by an authorised service centre. This advice also applies to extension cords used with this tool.

Cleaning

- Keep your tool clean at all times. Dirt and dust will cause internal parts to wear quickly, and shorten the machine' s service life. Clean the body of your machine with a soft brush, or dry cloth. If available, use clean, dry, compressed air to blow through the ventilation holes
- Clean the tool casing with a soft damp cloth using a mild detergent. Do not use alcohol, petrol or strong cleaning agents
- Never use caustic agents to clean plastic parts

Lubrication

- Slightly lubricate all moving parts at regular intervals with a suitable spray lubricant

Disposal

Always adhere to national regulations when disposing of power tools that are no longer functional and are not viable for repair.

- Do not dispose of power tools, or other waste electrical and electronic equipment (WEEE), with household waste.
- Contact your local waste disposal authority for information on the correct way to dispose of power tools

TROUBLESHOOTING

problem	possible causes	Likely Solutions
Tool will not start.	1. Battery Pack not properly connected. 2. Battery Pack not properly charged. 3. Battery Pack worn out. 4. Internal damage or wear. (Carbon brushes or Trigger, for example.) 5. Contact chips of swtich or battery pack deformed. 6. Battery is not suitable for TOLSEN MP20V lithium-ion power platform system 7. Overload operation	1. Remove Battery Pack, make sure there are no obstructions, clean battery contacts on tool, reinsert the Battery Pack according to its shape (it should only fit one way), and press firmly until the Battery Pack locks in place. 2. Make sure Charger is connected and operating properly. Give enough time for Battery Pack to recharge properly. 3. Dispose of old Battery Pack properly or recycle. Replace Battery Pack. 4. Have technician service tool. 5. Replace switch or Battery Pack 6. Replace the battery of TOLSEN MP20V 7. Stop to use and restart the machine after cooling.
Tool operates slowly.	1. Excess pressure applied to workpiece. 2. Battery Pack wearing out. 3. Low battery	1. Decrease pressure, allow tool to do the work. 2. Dispose of old Battery Pack properly or recycle. Replace Battery Pack. 3. Recharge or replace a fully charged battery
Performance decreases over time.	1. Chuck damaged. 2. Battery Pack worn out. 3. Output shaft and center shaft worn out.	1. Have qualified technician replace chuck. 2. Dispose of old Battery Pack properly or recycle. Replace Battery Pack. 3. Have technician service tool.
Excessive noise or rattling.	Internal damage or wear.(gear or bearings, for example.)	Have technician service tool.
Overheating.	1. Forcing tool to work too fast. 2. Blocked motor housing vents.	1. Allow tool to work at its own rate. 2. Clean the Blocked motor housing vents

CE DECLARATION OF CONFORMITY

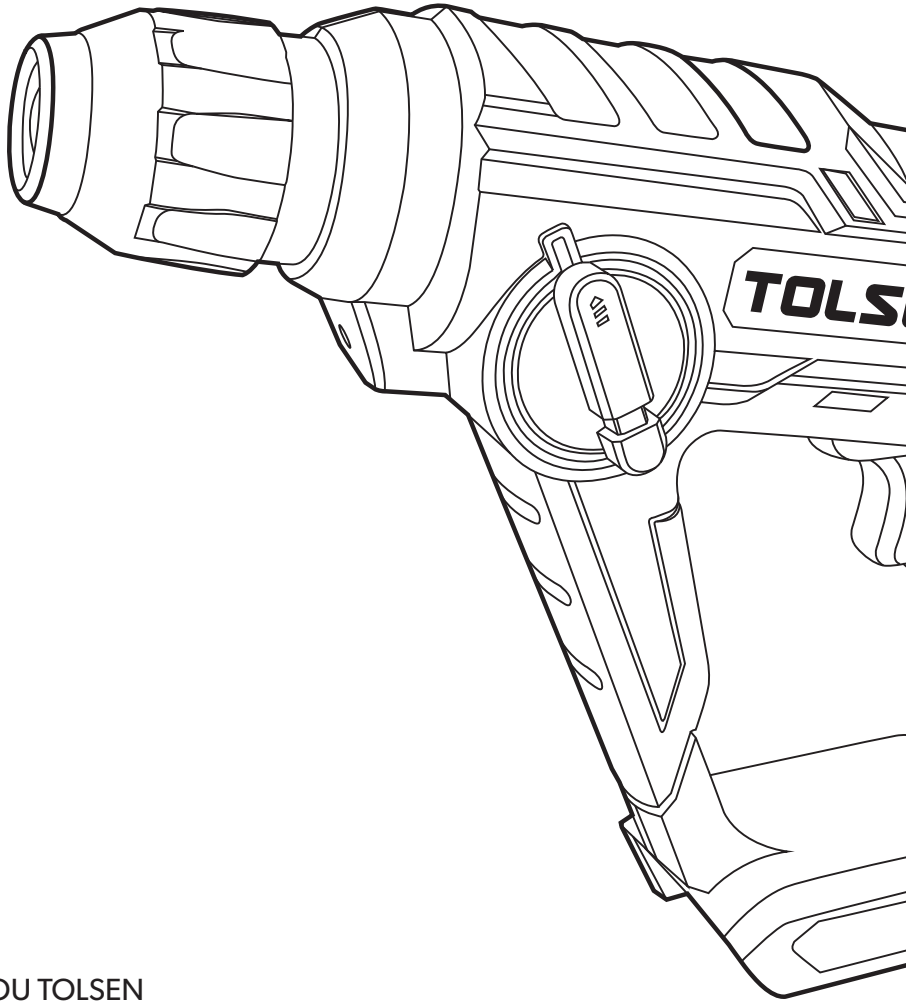
WE
SUZHOU TOLSEN TOOLS CO.,LTD.
198 HUASHAN ROAD, ZHANGJIAGANG,
JIANGSU, CHINA

Declare that the product
87238
LI-ION CORDLESS ROTARY HAMMER

Complies with the essential health and safety requirements of the following Directices:
council directive 2006/42/EC

Standards and technical specifications referred to:
EN IEC 55014-1 2021
EN IEC 55014-2 2021
EN 62841-1: 2015/A11 2022
ENIEC 62841-2-6 : 2020/A11 2020

Authorised Signatory and technical file holder
Signed for and on behalf of:
SUZHOU TOLSEN TOOLS CO.,LTD.
198 HUASHAN ROAD, ZHANGJIAGANG,
JIANGSU, CHINA
WANG QING
Group Quality Director
on:09/10/2023



SUZHOU TOLSEN
TOOLS CO.,LTD.

www.tolsentools.com

MADE IN CHINA

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PRODUCT LINK