

USER MANUAL

DE625N-E

Cordless spreader

MDC390N-E

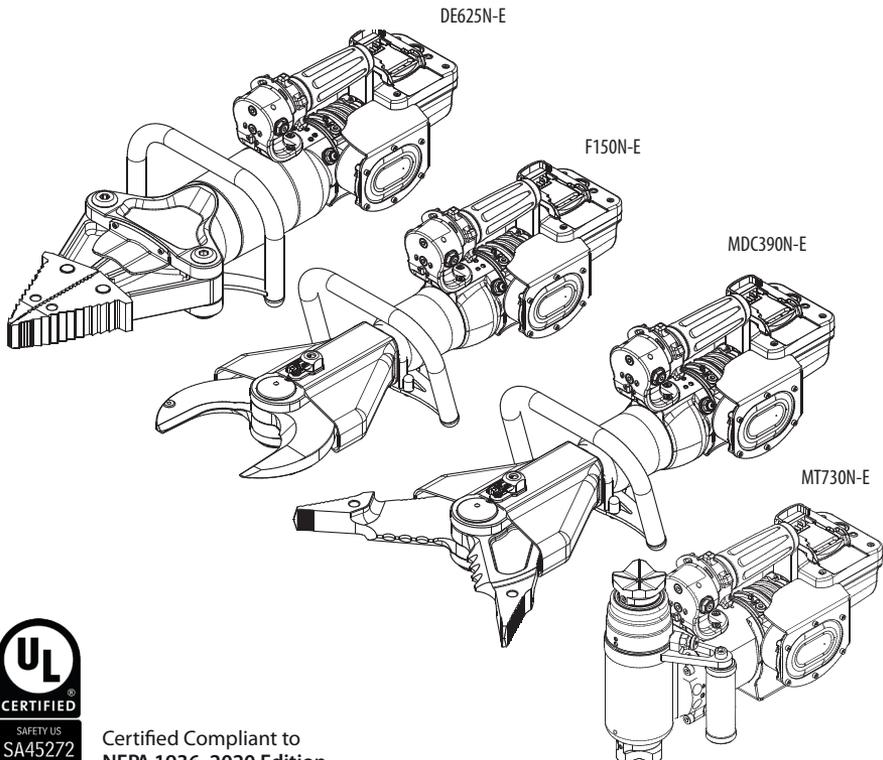
Cordless combi-tool

F150N-E

Cordless cutter

MT730N-E

Cordless telescopic ram



Certified Compliant to
NFPA 1936, 2020 Edition

TYPE	MODEL	LIGHTING
SPREADER	DE625N-E	USB LIGHT
CUTTER	F150N-E	USB LIGHT
COMBI-TOOL	MDC390N-E	USB LIGHT
TELESCOPIC RAM	MT730N-E	NO LIGHT

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1. GENERAL INFORMATION

1.1 FOREWORD

This manual was drawn up to allow customers to optimise machine operation and should therefore be read in its entirety before use.

The following chapters contain useful use and maintenance information. Knowledge and careful observance of current occupational safety and plant engineering legislation are fundamental requirements for the correct use. Cost-saving and safe machine operation can be achieved through rational use and careful maintenance. In case of faults or inefficient operation, call in specialist staff and order original spare parts from the manufacturer, their service network and engineers.

This manual forms an integral part of the machine. Users must strictly follow all the instructions it contains.

As the contents of this manual may change over time following modifications to reference legislation and/or technical improvements deriving from technological developments, its validity is determined from the date it was issued.

Pursuant to EEC Directive 85/374, the machine manufacturer is not liable for harm to people, property or animals deriving from the negligent use or installation of the machine or failure to observe legislation. The manufacturer also declines all liability if the machine is tampered with, if original parts are modified or if the machine is damaged due to incorrect storage or transport operations..

1.2 CONDITIONS OF SALE AND WARRANTY

Starting from the date of delivery, the Maker grants the purchaser a 12 (twelve) month warranty covering product quality and performance as follows:

The warranty covers faulty spare parts but does not cover labour and any transport costs.

Repairs will only be made under warranty if manufacturing faults are found or if the quality of the material is poor.

The warranty shall automatically be considered void if the fault is caused by:

- a fault in the power supply
- unauthorized tampering, repairs or modifications
- improper use of the tool
- lack of maintenance

No damage deriving from machine downtime or damage caused to third parties shall be recognized.

1.3 SPECIAL MARKINGS

A brief legend indicating the most important symbols used in this manual is shown below.



WARNING: highlights situations or problems that could lead to injury or death.



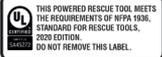
NOTICE: highlights situations and problems connected with the efficiency of the machine that do not affect personal safety.

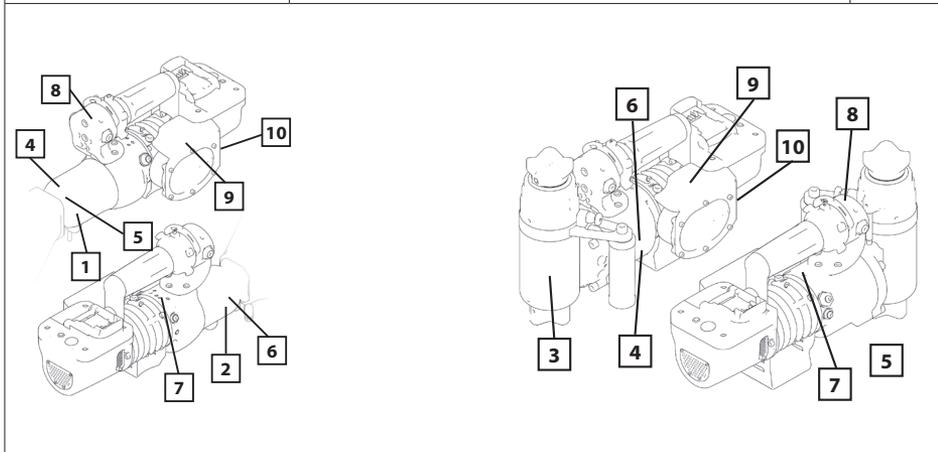
BEFORE WORKING ON THE MACHINE, CAREFULLY READ ALL THE INSTRUCTIONS, ESPECIALLY THOSE CONTAINED IN BOXES

- OPERATOR:** A person suitably trained and authorised to operate, adjust, clean and transport the machine.
- MAINTENANCE TECHNICIAN:** A person trained and authorised to perform routine maintenance on the machine and replace certain components.
- MACHINE:** The equipment described in this manual
- ELECTRIC TOOL:** Used in the safety precautions, it is a more general definition of the machine in question as it refers to battery-powered electric tools (cordless).

1.4 SAFETY MARKINGS

Position of plate and safety and danger stickers on the machine.

	<p>Projectile hazard Objects may be ejected from the cutter during operation. Stay clear of cutting area. Wear eye and face protection.</p>	<p>1</p>
	<p>Crush hazard Keep hands, fingers and other body parts away from the cutting head during operation.</p>	<p>2</p>
	<p>Crush hazard Keep hands, fingers and other body parts away from the pistons during operation.</p>	<p>3</p>
	<p>General warning marking</p>	<p>4</p>
	<p>Manual Read and understand operator's manual and all other safety instructions before using this machine.</p>	<p>5</p>
	<p>PPE Alert Wear personal protective equipment (PPE) when using or servicing equipment.</p>	<p>6</p>
	<p>Oil marking</p>	<p>7</p>
	<p>Open / close marking</p>	<p>8</p>
	<p>DATA plate</p>	<p>9</p>
	<p>NFPA certification marking</p>	<p>10</p>



 **WARNING** Observe the warnings on the plates and stickers. Failure to do so could lead to injury or death. Make sure that all markings are attached and legible. If not, replace them or request the manufacturer for replacements.

1.5 LIST OF ACCESSORIES INCLUDED IN THE SUPPLY

- Case
- Use and maintenance instructions
- Declaration of conformity
- Warranty certificate

2. REFERENCE NORMS

Technical data are in compliance with:

2006/42/EC, EN62841-1:2015+AC-2015, EN60745-2-22:2011+A11:2013

These products also comply with Directive 2014/30/EU and 2011/65/EU. The electrical parts are compliant with the European “low voltage” directive 2014/35/UE. The raw materials used and their processing during the product manufacturing cycle do not contain any toxic or hazardous materials referred to in EU Directives 2000/53/EC, n° 2011/65/EC (RoHS directive) and 2002/96/EC, as indicated in the relevant raw materials test certificate.

3. GENERAL SAFETY WARNINGS FOR ELECTRICAL TOOLS

Failure to observe these warnings and instructions can lead to electrocution, fire and/or serious personal injury. Keep all warnings and instructions for future consultation. Scrupulously observe the instructions contained in this manual and keep it in a suitable and accessible place. Keep the manual for future consultation until the machine is demolished. If the machine is sold, the manual must be given to the new owner. Given the intended use and, therefore, the environments in which these tools can be used, scrupulously follow the instructions shown below. Consult DEWALT safety data sheet for risk associated with DEWALT DCB battery and charger. Observe warnings provided with the battery and charger. **Keep all warnings and instructions for future consultation.** Scrupulously observe the instructions contained in this manual and keep it in a suitable and accessible place. Keep the manual for future consultation until the machine is demolished. If the machine is sold, the manual must be given to the new owner. Given the intended use and, therefore, the environments in which these tools can be used, scrupulously follow the instructions shown below.

3.1 SAFETY OF THE WORKPLACE

The workplace must comply with current occupational health and safety regulations.

Untidy or poorly lit areas can cause accidents.

- **Keep the work area clean and well-illuminated.**

Electric tools generate sparks that can ignite gas and powders.

- **Do not use electric tools in explosive atmospheres, for example, in the presence of liquids, gas or flammable powders. Do not use on live electric lines, on pressure vessels or ducts, on vessels containing corrosive and/or toxic substances.**

 **WARNING** Do not use naked flames or the like near the machine.

 **WARNING** Do not use the machine in areas subject to the risk of fire or explosion.

Foresee the possible consequences deriving from the use of the equipment in order not to be involved or involve other people in potentially hazardous situations.

- **Keep children and observers at a safe distance when using electric tools. Any distractions can lead to loss of control.**
- Ensure other people remain at a safe distance when the machine is working (at least 5 metres).
Cordon off the work area.
- Stop the machine if people and/or animals enter the work area.
- Periodically clean the machine and remove foreign bodies that could damage it or injure the operator.

3.2 ELECTRICAL SAFETY

Concerning the battery charger, consult the relative use and maintenance manual.

3.3 PERSONAL SAFETY

 **WARNING** The operator is responsible for safe machine operation.

 **WARNING** Only allow the machine to be used by suitably trained and authorised adults.

- When using an electric tool, operators must be alert, observe what they are doing and work with care. Do not use electric tools when tired or under the effect of drugs, alcohol or medicines. A moment of distraction when using electric tools can cause serious personal injury.
- Use personal protective equipment. Always protect the eyes.

Protective equipment, such as dust masks, non-slip safety shoes, helmets or ear protectors, used in suitable circumstances, will reduce the risk of personal injury.

- Do not switch the tool on accidentally. Make sure the switch is in the "OFF" position before connecting the tool to the mains power supply and/or batteries before picking it up or before moving it. If electric tools are transported while the operator's finger is on the switch or if they are connected to the mains power supply with the switch in the "ON" position, accidents may occur.
- Remove all adjustment tools and wrenches before switching on the tool.
- Do not lose your balance. Always stay in a stable and balanced position. This improves tool control in unforeseen situations.
- Wear suitable clothing. Do not wear loose clothing or jewellery. Keep hair, clothes and gloves away from moving parts. Loose clothing, jewellery or long hair can get caught up in moving parts.
- If devices for connection to dust extraction and capture systems are present, make sure they are correctly used and connected. The use of these devices can reduce dust-related risks.

3.4 USE AND MAINTENANCE OF ELECTRIC TOOLS

- Do not misuse the tool. Use the right tool for the job to be done. Using the correct tool will assure improved and safer performance if used at the speed it was designed for.
- Do not use the tool if it cannot be switched on and off from its switch.
- Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the tool from the mains power supply and/or batteries before adjusting it, changing accessories and putting it down. These preventive safety measures reduce the risk of the tool being operated by accident.
- Keep electric tools out of the reach of children and do not allow inexperienced people or people who have not read these instructions to use them. Electric tools are dangerous in the hands of inexperienced users.
- Perform maintenance on electric tools. Check for misaligned or jammed moving parts, broken components and any other condition that could make the electric tool work incorrectly. If damaged, have the electric tool repaired before using it again.
- Many accidents derive from poor maintenance.
- Keep cutting tools sharp and clean. Suitably maintained cutting tools with sharp edges are less likely to jam and are easier to control.
- Use the cutting tool, accessories and heads, etc. in accordance with these instructions, bearing in mind operating conditions and the type of work to carry out.

 **WARNING** The unforeseen use of electric tools could give rise to hazardous situations.

3.5 SERVICE

Electric tools may only be serviced by a qualified technician using original spare parts.

3.6 SPECIFIC OPERATING INSTRUCTIONS

 **When the oil temperature exceeds approx. 70°C, turn off the tool until the oil cools down.**

- As the machine has been designed for non-continuous use, sufficiently long pauses must be made to allow the oil to cool to room temperature.

FOR UNINTERRUPTED AND PROLONGED USE, CONSULT THE MANUFACTURER

- Make sure the cooling circuits are unobstructed and the cooling surfaces clean in order to avoid dangerous overheating.
- Do not alter the calibration of the safety devices (relief valves)
- Do not service or clean the machine, or replace tools or guards while it is working.

 **WARNING** Do not remove the guards installed on the equipment and accessories.

- Pursuant to the standards indicated and followed by the maker, the equipment components that also perform a safety function (insulators, guards, etc.) must not be repaired but replaced with original spare parts.
- Always make sure there are no traces of oil, grease or corrosive substances on the equipment (especially the grips).
- Use a damp cloth and soapy water to clean plastic components.

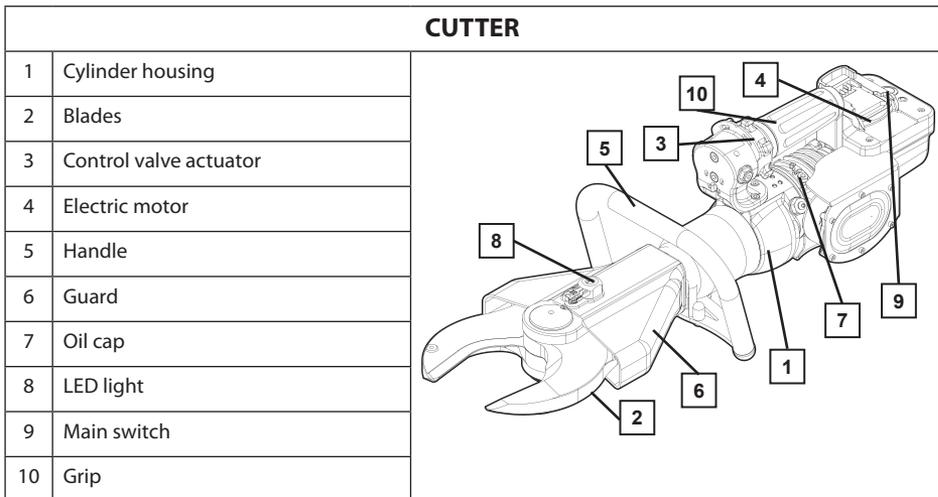
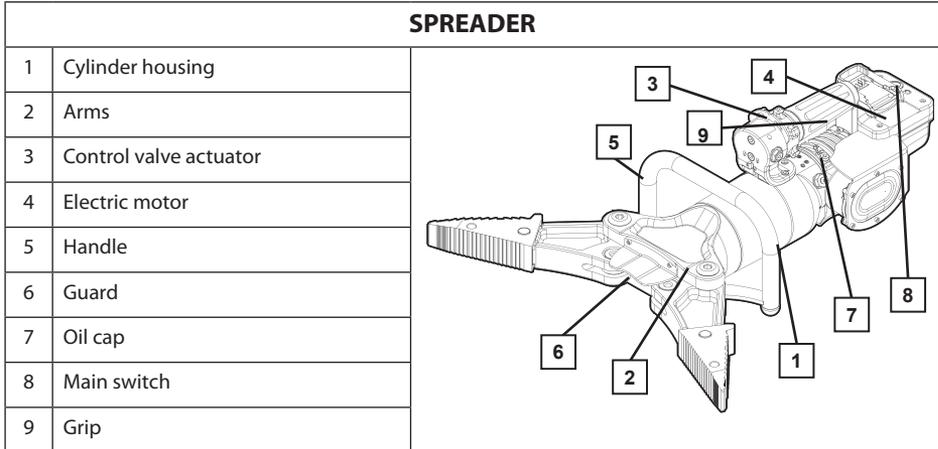
 **WARNING** Do not use petrol or thinner to clean the machine.

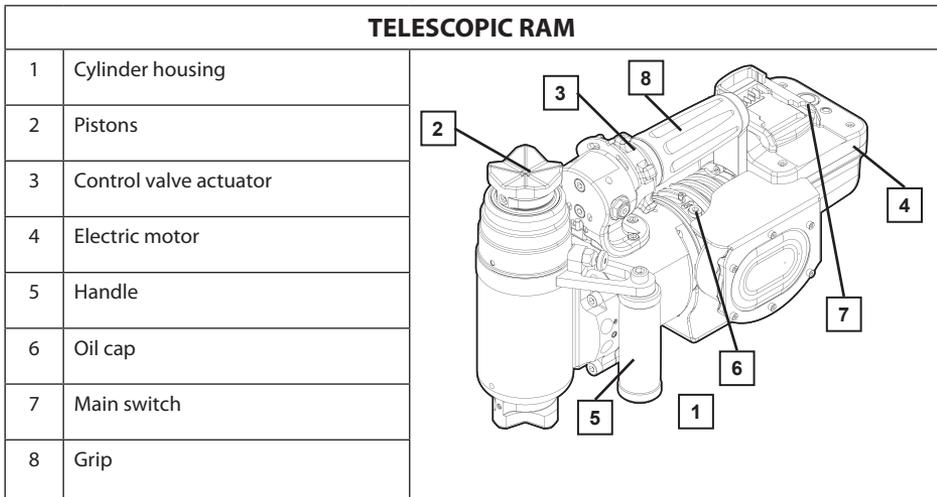
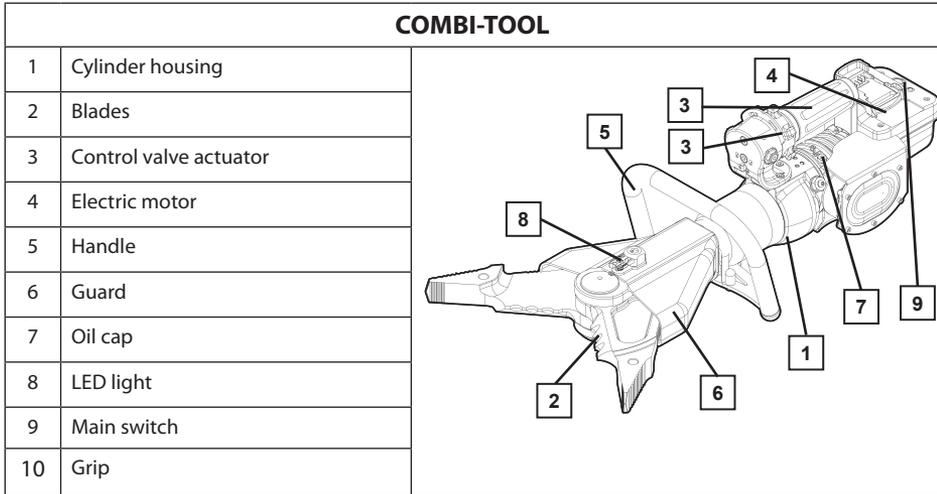
- Store electric tools in a dry place that can only be accessed by authorised staff.

4. DESCRIPTION OF MACHINE

4.1 MACHINES COMPONENTS

EDILGRAPPA rescue tools have a 54V direct current brushless motor, which drives a hydraulic pump. Pressurized hydraulic fluid moves a piston to operate the tool.





4.2 ACCESSORIES

This type of tool can be fitted with the following accessories:

PULLING KIT: 2 TIPS WITH HOOKS + CHAINS (3 + 1.5 m) for DE625N-E SPREADER (not for MDC390N-E)
RAM EXTENSION 254 mm (10 in)
RAM EXTENSION 457 mm (18 in)
RAM EXTENSION 686 mm (27 in)

5. TECHNICAL SPECIFICATIONS

5.1 GENERAL SPECIFICATIONS

BATTERY SPECIFICATIONS	
Model	DEWALT DCB546-XJ
Battery	18/54V FLEXVOLT - 6.0 Ah
Dimensions (Length x Width x Height)	124 x 84 x 91 mm (4.9 x 3.3 x 3.6 in)
Weight	1.0 kg (2.25 lb)
CHARGER SPECIFICATIONS	
Model	DEWALT DCB118-QW
Input power (AC)	230 V
Output (DC)	18 V
Charge current	8 A
Dimensions (Length x Width x Height)	193 x 120 x 84 mm (7.6 x 4.7 x 3.3 in)
Charge time	60 min
OPERATING LIMITS	
Operating temperature range degrees	-20 °C ÷ 49 °C (-4 °F ÷ 120 °F)
ELECTRIC DRIVE SPECIFICATIONS	
Motor type	Brushless
Input voltage (DC)	54 V
Rated input current (min / max)	9.8 / 25.0 A
HYDRAULIC SPECIFICATIONS	
Oil type	Shell Tellus S2 VX 15
Max operating pressure	700 bar (10.150 psi)

Also compatible with:

- DEWALT DCB547-XJ 18/54V FLEXVOLT 9.0 Ah
- DEWALT DCB548-XJ 18V/54V FLEXVOLT 12 Ah BATTERY
- Vehicle charger: DCB119

5.2 MECHANICAL SPECIFICATIONS

SPREADER MODEL	DE625N-E
Dimensions (Length x Width x Height)	787 x 282 x 244 mm (31.0 x 11.1 x 9.6 in)
Weight (w/o battery)	21.5 kg (47.4 lb)
Weight (w/ battery)	22.5 kg (49.7 lb)
Max spreading distance	625 mm (24.6 in)
Max spreading force	174 kN (39 120 lb)
Highest spreading force (HSF)	60.6 kN (13 620 lb)
Lowest spreading force (LSF)	32.9 kN (7 410 lb)
Highest pulling force (HPF)	46.0 kN (10 350 lb)
Lowest pulling force (LPF)	26.0 kN (5 850 lb)
Protection rating	IP54

CUTTER MODEL	F150N-E
Dimensions (Length x Width x Height)	777 x 274x 241 mm (30.6 x 10.8 x 9.5 in)
Weight (w/o battery)	20.9 kg (46.15 lb)
Weight (w/ battery)	22.0 kg (48.45 lb)
Cutter opening	147 mm (5.8 in)
Cutter rating NFPA 1936	A6 / B5 / C6 / D7 / E7
Protection rating	IP54

COMBI-TOOL MODEL	MDC390N-E
Dimensions (Length x Width x Height)	861 x 274 x 241 mm (33.9 x 10.8 x 9.5 in)
Weight (w/o battery)	22.2 kg (49.0 lb)
Weight (w/ battery)	23.3 kg (51.3 lb)
Max spreading distance	394 mm (15.5 in)
Highest spreading force (HSF)	39.7 kN (8 920 lb)
Lowest spreading force (LSF)	29.6 kN (6 650 lb)
Cutter opening	185 mm (7.3 in)
Cutter rating NFPA 1936	A6 / B7 / C6 / D7 / E7
Protection rating	IP54

TELESCOPIC RAM MODEL	MT730N-E
Dimensions (Length x Width x Height)	452 x 185 x 290 mm (17.8 x 7.3 x 11.4 in)
Weight (w/o battery)	16.7 kg (36.9 lb)
Weight (w/ battery)	17.8 kg (39.2 lb)
Length (retracted)	290 mm (11.4 in)
Length (extended)	574 mm (22.6 in)
Highest spreading force (HSF) Piston 1	215.1 kN (48 360 lb)
Lowest spreading force (HSF) Piston 2	76.4 kN (17 170 lb)
Extension lengths available	254 - 457 - 686 mm (10 - 18 - 27 in)
Max extension length (achieved with 685 mm extension)	1 260 mm (49.6 in)
Protection rating	IP54

6. DELIVERY AND SET-UP

6.1 DELIVERY

The machine is normally shipped and delivered inside appropriate packing, well secured and in a stable position. All materials shipped are checked prior to delivery. Upon receipt remove equipment from the packing and carefully inspect for damage. Damage occurred during shipment should be reported immediately to the carrier.

 **WARNING** Loads must be moved in compliance with current occupational safety regulations.

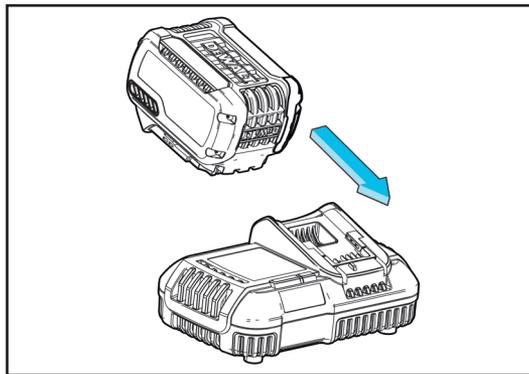
After use, put the machine back into its case or place it on a stable surface.

6.2 SET-UP AND GENERAL OPERATIONS

6.2.1 CHARGING THE BATTERY

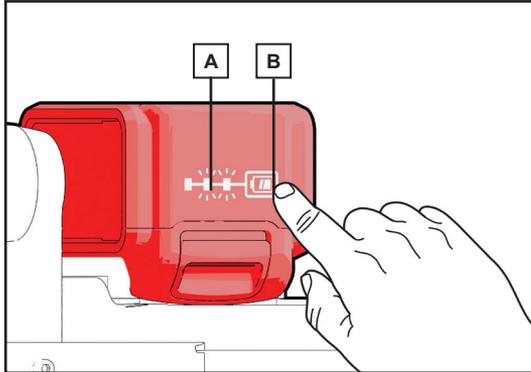
Charge the battery before use.

- Plug the charger into power outlet before inserting a battery pack.
- Insert the battery pack into the charger.
- The charger has a light charge indicator that blinks according to the state of the charge of the battery pack.
- Charging is complete when the red light remains ON.
- The battery is fully charged and may be used, or left in the charger.



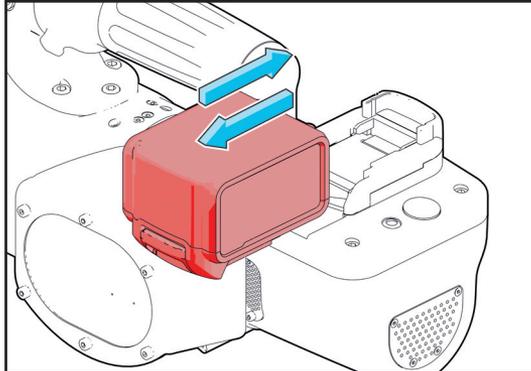
6.2.2 BATTERY CHARGE STATUS

Check the battery charge status using the indicator lights **A** on the battery by pushing the status button on the battery **B**.



6.2.3 INSTALLING THE BATTERY

Install the battery into the tool, sliding it onto the all the way until the latch clicks.



6.2.4 WHEN TO CHANGE THE BATTERY

Operations can continue until motor starts to slow down, When the motor sounds slower, stop & change to a charged battery. The battery management system maintains power until the battery is drained. Allow the battery to cool before charging. Charge the battery before it runs down completely. Wait for it to cool down before charging. Also allow the battery to fully charge before using it again.

⚠ Draining a battery's charge completely may result in overheating or battery damage reducing the battery's longevity. Wait for the battery to cool down before placing the battery in a charger. Ensure the battery is completely charged before installation in a tool.

⚠ WARNING Shorting the battery terminals together may cause burns or a fire. 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.

⚠ WARNING Liquid ejected from the battery may cause irritation or burns. Under abusive conditions, liquid may be ejected from the battery; avoid contact. If skin or eye contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.

6.2.5 CONTROL VALVE ACTUATOR

The control valve actuator is equipped with a deadman safety feature, which causes the control valve actuator to return to the OFF position (neutral) when released. The movement of the tool will stop and hold its position and load. The control valve actuator controls the motor and hydraulic pump. The tool contains electronics that prevent overload during operation. The control valve actuator has three positions.

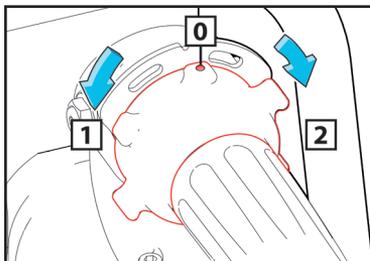
SPREADER - CUTTER - COMBI-TOOL

- Position 1: CLOSE: clockwise rotation closes the tool
- Position 2: OPEN: counter clockwise rotation opens the tool
- Position 0: OFF (Neutral position): The control valve actuator returns to the center with motor stopped

TELESCOPIC RAM

- Position 1: OPEN: counter clockwise rotation opens the tool
- Position 2: CLOSE: clockwise rotation closes the tool
- Position 0: OFF (Neutral position): The control valve actuator returns to the center with motor stopped

⚠ WARNING Always check that the automatic return (of the actuation flange) to neutral position is correct. Check that the reference in the flange is lined up with the longitudinal axis of the hand grip (see **O** in fig. below).



6.2.6 USB LIGHT

Cutter (F150N-E) and combi-tools (MDC390N-E) come equipped with a USB light.

LOW OUTPUT: Press the button to produce low output of 1 lumen.

HIGH OUTPUT: Press the button twice in quick successions to produce high output of 45 lumen.

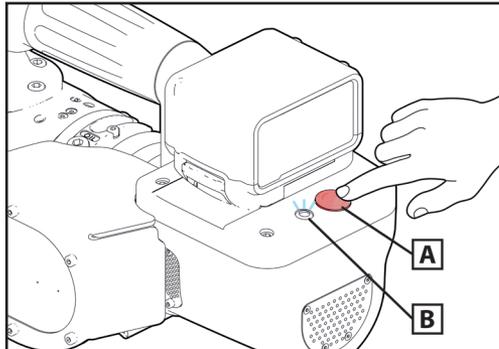
MOMENTARY ILLUMINATION: With the light turned off, press and hold the button for more than 1 second to enter momentary-on in high mode (45 lumen). Simply release the button to turn the light off.

VARIABLE BRIGHTNESS: When in low output mode, press and hold the button for more than 1 second to access variable brightness mode. To set a desired brightness level, simply release the button when it is displayed.

CHARGING THE LIGHT: For charging the light, simply plug a USB cable in the USB port.

6.2.7 ON/OFF

Press and hold the silver power button **A** momentarily. Release the button when the light **B** stays lit. Press and hold the power button to shut off the tool. The power is off when the lights are off. The rescue tool will power off automatically after 20 minutes of inactivity.

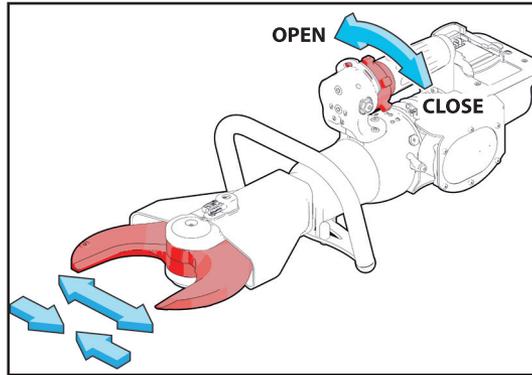


6.3 SPECIFIC OPERATIONS

6.3.1 CUTTING (CUTTER AND COMBI-TOOL)

To perform a cutting operation, open the cutter blades. Place the blades around the object to be cut. Close the blades to cut the object. Maximum cutting forces are obtained nearest the pivot point. Start the cut with the blades engaged as deep as possible. After making the cut, open the blades and remove the tool. When operating the cutter, take care to be positioned to the side of the cutter. As the cutter blades meet resistance, the rescue tool may rotate (drift). If tool rotation places the user or others in jeopardy, immediately release the control valve actuator. The deadman safety feature of the control valve actuator should immediately return the control valve actuator to the center (neutral) position,

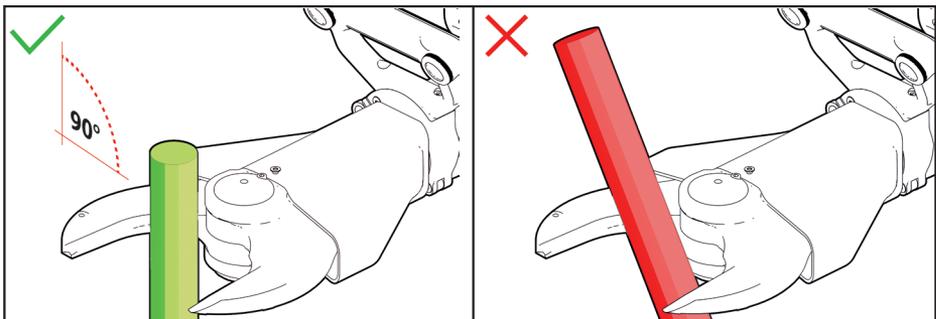
and the movement of the blades will stop. Reposition cutter as needed to maintain optimum cutting performance.

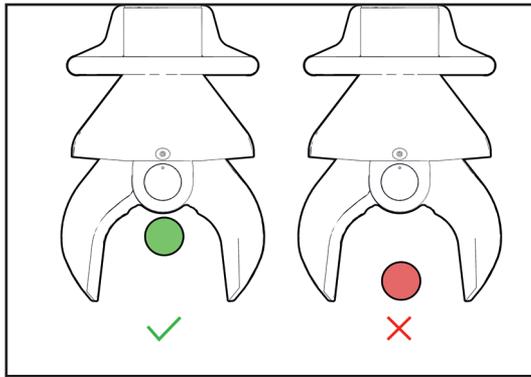


The cutter and the combi-tool are not intended as piercing tools for heavy metal. Therefore, when cutting, care must be taken to insure that the tips of the blades have a clear path of travel. The tips of the blades will pierce the sheet metal body panels of most automobiles, but care must be taken to avoid obstacles like the heavy metal backing plates behind seat belt mounts, door hinges, and latching mechanisms or locks.

Blades can break if positioned incorrectly. If blades start to flex sideways (tool rolls as space between blades increases), stop immediately and reconsider cutting strategies.

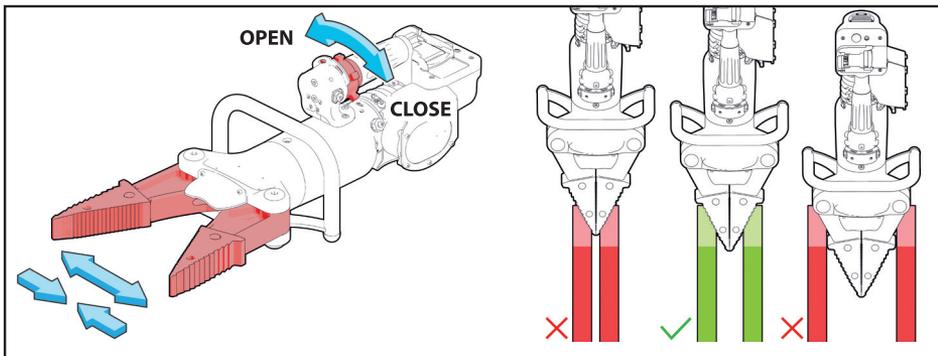
ⓘ Cutting hardened solids can potentially dent or deform the blade's cutting edge. Blades may break at these weak spots on subsequent cuts, especially if cutting near the tips. Avoid cutting hardened solids of unknown strength such as padlock shackles, tie rods, leaf springs, spindles, hardened bolts, tool steel, and heat treated chain. Blade damage or breakage that results from cutting these hardened solids is not covered by the EDILGRAPPA rescue tools warranty. The blades are intended and designed to cut hardened auto bodies and components without damage. We recommend an Authorized EDILGRAPPA rescue tools Dealer inspect, evaluate and replace dented blades as necessary.





6.3.2 SPREADING – SQUEEZING – LIFTING (SPREADER AND COMBI-TOOL)

The spreader can be used for spreading, squeezing, pulling and lifting operations. When spreading, squeezing or lifting, make sure that the spreader tips are positioned to maintain maximum contact with the surfaces to be spread or gripped. Always stabilize the object being lifted. When operating the spreader, the tool may rotate as it meets resistance. If tool rotation places the user or others in jeopardy, immediately release the control valve actuator and modify your procedure. The deadman safety feature should immediately return the control valve actuator to the center (neutral) position, and the movement of the arms will stop. Then seek another purchase point that does not cause the same problem.



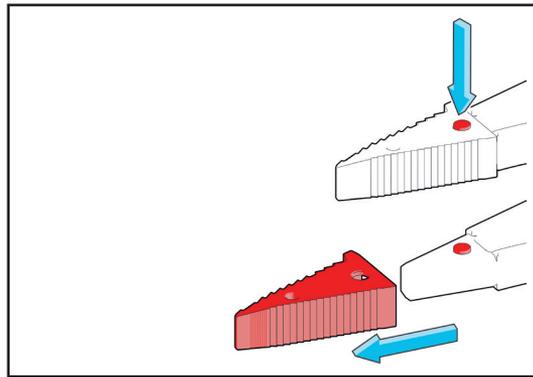
6.3.3 PULLING

- Fully open the blades.
- Assemble both tips (see 6.2.14), making sure that the openings of the shortening hooks are pointing upwards (to make sure the chains cannot fall out of place).

- Connect the chains to the objects to pull so they cannot slip.
- Slightly tighten the chains and make sure the connections are stable and safe.
- Close the spreader arms.

6.3.4 CHANGING THE TIPS

The spreaders use removable tips. To remove the spreader tip, use a thumb and finger to depress the spring loaded tip pins, and remove the tips. To re-install the spreader tip, slide the tip back into place. Be sure that both pins return fully to their original positions.



6.3.5 HOOKS AND CHAIN USE

WARNING The PULLING KIT is designed ONLY FOR DE625N-E SPREADER! Never use with MDC390N-E.

To assemble the tips, proceed as follows:

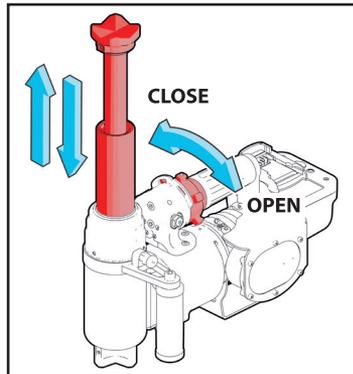
- Open the blades slightly.
- Position the tip so that the hole at the end of the blade exactly matches the hole in the tip.
- Insert the pin and push it down until the automatic locking mechanism engages (see 6.2.14).
- Tension the chain slightly and check to see that the connections are stable and safe.
- Activate the control valve actuator to close the arms and draw the load.

WARNING Transport chain is NOT rated for overhead lifting. Injury or death may occur from improper chain use. Observe chain safety guidelines established by the Authority Having Jurisdiction. This accessory is exclusively designed to pull loads horizontally.

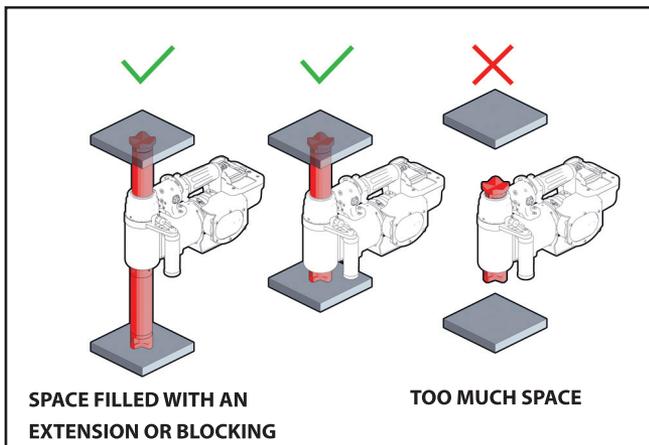
Chain rating: Ø 10 mm (0.4 in) - Grade 100 Transport chain, working load limit 39 kN (8 800 lbs)

6.3.6 TELESCOPIC RAM OPERATIONS

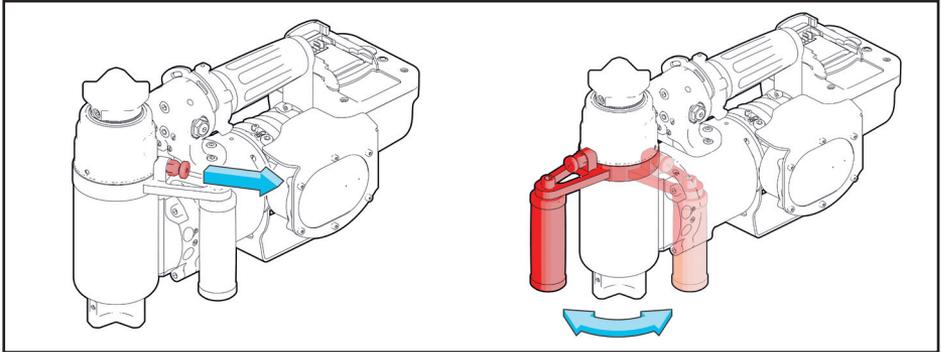
The telescopic ram has two stages that extend out in sequence. The larger diameter first stage has a higher force than the second stage due to its larger diameter. The head on the second stage is permanently installed, whereas the base of the ram is removable so an extension may be added (see 6.2.17).



Identify the crush zone. These are areas under the load and around the load with risk of crushing from a falling or rolling load. Position the ram base securely against a support surface. Excess space may be taken up using cribbing, or a ram extension. Extend the lifting head to the object being displaced. Ensure nearby people are clear of the crush zone before lifting or retracting. Displace the object only as far as needed. Stop to stabilize the load in increments as the load is lifted or lowered. The telescoping ram is used in pushing and lifting objects with pistons extending. The load is held when the control valve actuator is in OFF (neutral) position. The ram is NOT to be used for pulling tension loads with pistons retracting.



The handle position is adjustable by pulling out the spring loaded handle release and rotating the handle as needed. Re-position the carrying handle to avoid interference with the load. The tool may be carried with the handle in any locked position.



6.3.7 RAM EXTENSIONS

Ram extensions are available in three lengths and fit onto the telescopic ram.

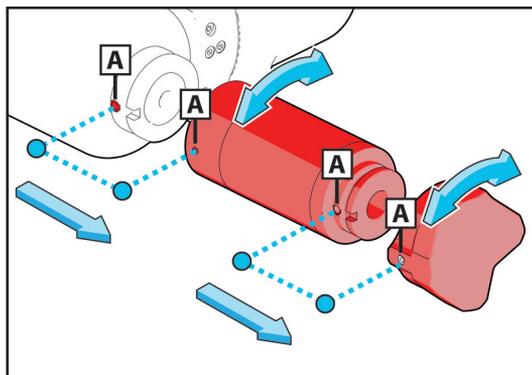
Stacking extensions adds pivot points that may cause the load to become unstable. Sudden movement can occur in unstable loads having potential to cause severe injury or death. Only use one extension at a time.

RAM EXTENSION 254 mm (10 in)

RAM EXTENSION 457 mm (18 in)

RAM EXTENSION 686 mm (27 in)

- **TO REMOVE:** Line up the dots (A) and pull.
- **TO INSTALL:** Line up the dots (A), push on and twist.



6.4 FORESEEN AND RESIDUAL RISKS

The machine must only be used to cut items in metal, such as rods, sections, small pipes, sheet metal, for widening objects, for pulling and crushing, bearing in mind the data listed in the technical specifications. It is used in various sectors, including servicing and demolition. The machine cannot be used for cutting parts not specified above. Any use other than that expressly indicated shall be considered as improper and therefore not permitted. Edilgrappa S.r.l. declines all liability for any improper use of the machine and for any modification or change made to it. Operators must observe the instructions in this manual in order to minimise the risk of accidents. In particular, they must pay attention when working in conditions that could cause:

- Possible burns from overheated metal parts;
- Injury due to incorrect positioning or inadequate lifting or moving;
- Injury caused by splinters discharged from the work piece.

People remaining in the vicinities of the machine while it is working are subject to the following risks:

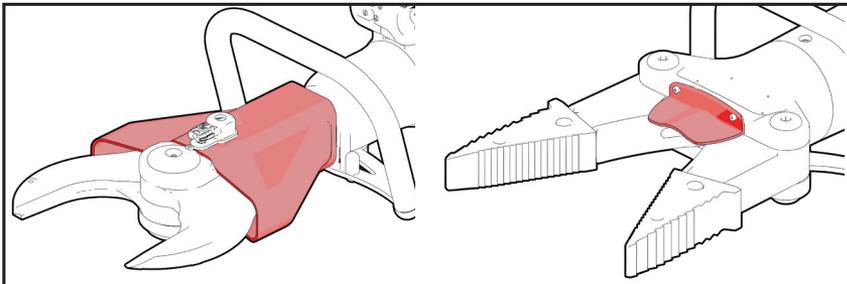
- Flying debris (dangerous objects, etc...);
- Hand/arm vibration. Standard applied: EN ISO 5349
- The mechanical vibrations transmitted to the hands and arms generate a risk to the health and safety of workers, especially as concerns vascular, osteoarticular, neurological and muscular ailments. The Employer is responsible for assessing the risk generated by mechanical vibrations, pursuant to Directive 2002/44/EC.

Operating temperature range degree	-20 °C ÷ 49 °C (-4 °F ÷ 120 °F)
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6.5 SAFETY GUARDS

Tools with moving blades or arms have a guard over the moving parts. The guard is secured with screws which can be removed to clear debris during maintenance. Replace guards after maintenance.

⚠ WARNING Operating rescue tools can result in injury or death from laceration, projectile (high speed flying debris) and pinch point injuries. Stay clear of the path of travel. Do not operate without guards. Avoid unnecessary risk.



7. ROUTINE MAINTENANCE

⚠ WARNING All maintenance, inspection and cleaning operations must be performed with the power supply disconnected and the machine cool (see the person responsible in the maintenance schedule); Maintenance operations must be performed in a suitable place according to current safety regulations; Carefully clean the machine before starting maintenance work; Wear suitable personal protective equipment while performing maintenance work.

⚠ WARNING AFTER MAINTENANCE WORK, MAKE SURE THE GUARDS ARE PUT BACK INTO THEIR CORRECT PLACE

PERIODIC MAINTENANCE SCHEDULE

Frequency	Operation	Method	Person in charge
AFTER USE	CHECK BLADES, TIPS AND ARMS FOR WEAR OR DAMAGE	Visual	Operator
EVERY 8 HOURS	CHECK THE TOOL FOR DAMAGE, VERIFY OPERATING CONTROLS	Visual	Operator
EVERY 8 HOURS	ENSURE ALL NUTS AND BOLTS ARE SECURE	Visual	Operator

Perform all maintenance, inspection, and cleaning operations with the battery removed and the tool cool (see the person responsible in the maintenance schedule); Annual tool maintenance shall be completed regardless of how many hours the tool has been used since it's last maintenance. Clean and inspect the tool before starting any maintenance work.

7.1 CHECK THE BLADES

The use of damaged blades decreases the cutting efficiency of the tool and can overheat the motor. Replace the blades when they become: worn, cracked, or gouged.

7.2 HYDRAULIC MAINTENANCE

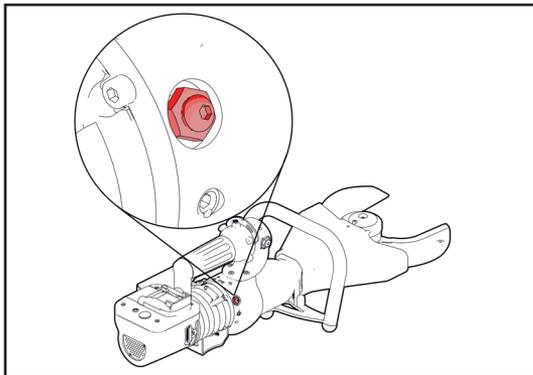
🔧 Immediately remove malfunctioning or damaged tools from service. Consult your dealer or EDILGRAPPA Rescue Tools

🔧 Do not adjust pressure relief valve . User adjustment of the pressure relief valve voids the warranty.

⚠ WARNING Misuse of EDILGRAPPA Rescue Tools can result in a wide variety of hazards and consequences. Remain aware of and avoid misuse situations.

EDILGRAPPA rescue tools are equipped with an internal relief valve. In case of an unexpected pressure drop have a qualified repair technician check the pressure relief valve to ensure that it's operating properly.

 **User adjustment of the pressure relief valve is a misuse of the tool.**



7.3 MOTOR MAINTENANCE

Keep the motor cooling vents clean and unobstructed.

7.4 LUBRICATION

Cutter blades, combi blades, spreader arms, links, and pins are lubricated with white lithium grease. Annual re-lubrication is recommended for average service conditions. More frequent lubrication may be required for severe or frequent usage conditions.

8. TROUBLESHOOTING

Malfunctions can be divided into three sections:

- Malfunction of the electric motor
- Malfunction of the hydraulic system
- Malfunctions related to other rescue tool.

 **ALL SERVICE MUST BE PERFORMED BY QUALIFIED SERVICE TECHNICIANS IN OBSERVANCE OF SAFETY REGULATIONS**

Remedies marked by the letter **M** require the intervention of the Maintenance technician. Remedies marked with the letter **O** can be performed by the Operator.

8.1 TROUBLESHOOTING THE MOTOR

Fault	Possible reason	Possible remedy	Performed by
MOTOR DOES NOT START	Battery defective	Replace	O
	Tool not turned on	Press power button for 3 seconds	O
	Battery not charged	Charge battery	O

Fault	Possible reason	Possible remedy	Performed by
ELECTRIC MOTOR OVERHEATED	Battery overheated	Wait for it to cool down	O
	Cooling vents obstructed	Clean	O

8.2 TROUBLESHOOTING THE HYDRAULICS

Fault	Possible reason	Possible remedy	Performed by
OUTWARD STROKE DOES NOT BEGIN	Control valve actuator damaged	Replace	M
MOTOR DOES NOT STOP	Battery shorted	Replace battery	O
	Control valve actuator stuck	Blow out control valve with air (consult authorized Edilgrappa technician)	M, O
OUTWARD STROKE DISCONTINUOUS	Relief valve fault	Consult authorized Edilgrappa service department	M, O

9. PARTS, SERVICE AND TECHNICAL INFORMATION

Parts, service, and technical information may be obtained from your local EDILGRAPPA dealer, or by contacting EDILGRAPPA.

10. DECOMMISSIONING

When decommissioning any EDILGRAPPA Tool or power supply, local regulations shall be followed. For proper disposal information, contact your local EDILGRAPPA dealer.

11. INSPECTION, CLEANING, DECONTAMINATION AND STORAGE

- Always store the tool securely in a clean, dry space.
- Relieve the pressure on the tools after use by backing off the end stop.
- Charge the battery.

BEFORE BEING PLACED BACK IN SERVICE, the rescue tool must be inspected to this list:

- Check to see that all rescue tool markings are legible. Contact your local dealer or EDILGRAPPA for replacement labels.
- Wipe the tool clean.
- If the rescue tool becomes contaminated, determine the nature of the contamination. Follow the decontamination guidelines provided by the authority having jurisdiction. Technical advice may be requested from EDILGRAPPA.
- Inspect the tool, controls and battery after each use for damage, leakage and excessive wear.
- If rescue tool damage or excessive wear is noticed, remove the rescue tool from service immediately; contact your local dealer or EDILGRAPPA for service.
- Install battery and verify tool operation.



⚠ WARNING Any rescue tool failing any part of the checklist is unsafe for use and must have the problem corrected before use or being placed back into service. Operating a rescue tool that has failed the checklist is a misuse of this equipment. Contact your local dealer or EDILGRAPPA



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