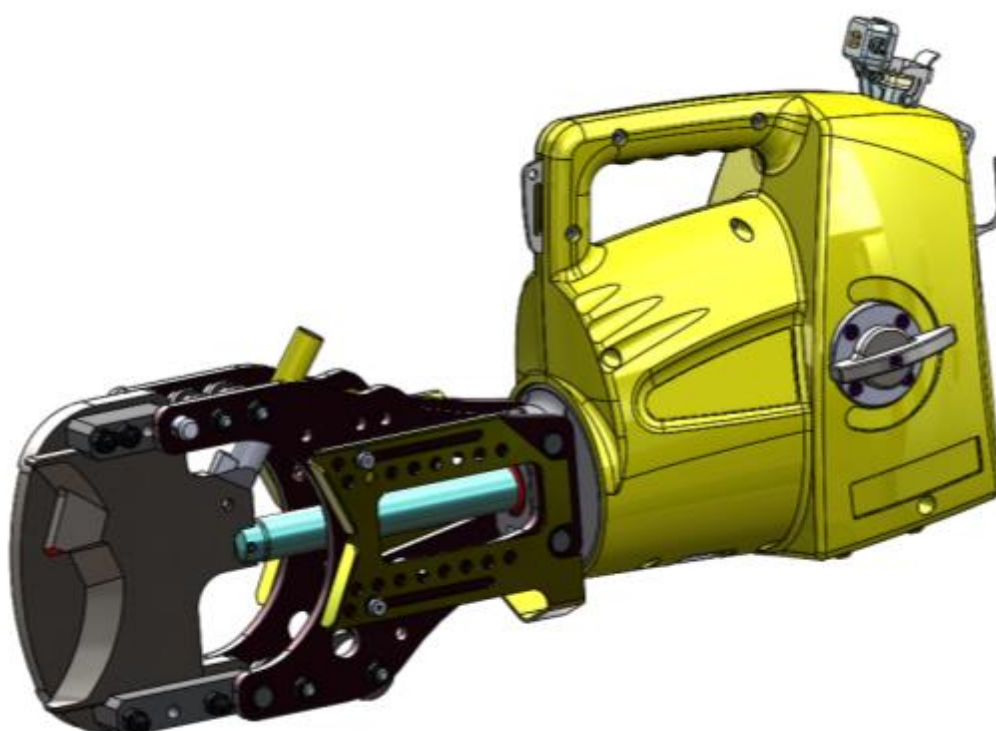


Instruction manual PICOUP 400



PICOUP 400 : hydraulic Cable Cutter

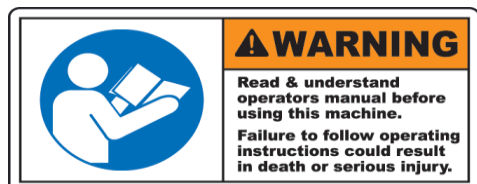
C.A.T. Networks – LV/MV

Creation : 2017/30/05

Modification :

Version : B

WARNING LABELS



1	Please read the instructions carefully before using the tool
2	Do not put your hands in the working area while operating, cleaning and testing
3	Please wear protective equipment while operating to ensure your safety
4	Do not cut steel



Symbol IEC 60417-5216 suitable for work under voltage

The marking on the components is for your security. It indicates informations about the tool. Please don't erase or remove the marking.

mos industrie

Parc d'activité Centr'Alp - 355 rue Aristide Bergès
38340 Voreppe- France - ventes.outillage@mos-industrie.com
Tel. +33 (0)4 38 02 17 10 - Fax. +33 (0)4 38 02 17 19

Division
ESP
ELECTRICAL SAFETY PRODUCTS

PURPOSE OF EQUIPEMENT

PICOUP 400 is a **Safety Tool**, developped, engineered, tested and produced by **MOS INDUSTRIE**.

The equipment in the adequacy with the NFC 18510.

The **PICOUP 400** is a tool to check and ensure the absence of tension (CAT), with integrated hydraulics.

The hydraulic group is integrated into the tool and makes possible to avoid hydraulic hoses, avoiding risk of oil leak

APPLICATION

SPIKING a cable to check and ensure the absence of tension on LV and MV underground cables before cutting them.

- LV cable 3x500mm² with reinforced steel wire
- MV cable 3x500mm² with reinforced steel wire

CUTTING (which is carried out in continuity of the phase of pricking)

Cycle of pricking & cutting is approximately 3 or 4 minutes following the nature of the cables

STRONG POINTS OF THE TOOL

- ONLY ONE OPERATION IRRESPECTIVE OF THE TYPE OF CABLE

Indeed, even with the bundle cable with plastic insulation, the three phases are caught in one operation.

- EASINESS AND SIMPLICITY OF USE

The tool is immediately ready for use.

No parts must be disassembled or assembled. Both features are best guaranteeing a correct use under any circumstance whatever.

PICOUP 400 : hydraulic Cable Cutter

C.A.T. Networks – LV/MV

Creation : 2017/30/05

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- EASINESS OF USE FOR THE USER

The **PICOUP 400** enables the user to carry out its cable cutting without the need of tools other than those arranged in the carrying case.

DUTIES PERFORMED BY THE PICOUP 400

Cutting a cable must be carried out on a de-energized cable.

When using the **PICOUP 400**, the pick check the absence of tension as it cut the cable completely.

The procedure governing the use requires that the action be carried throughout in order to guarantee the destruction of the cable by complete cutting.

The shape of the cutting blade, the speed of penetration have been defined and optimized in such a way that, should an energized cable be cut, the electric protections of the network would react as quickly and thus limit the intensity of the damage irrespective of the cable type (defined in the general description).

DESIGN FEATURES

Dimensions : L x W x H : 678x188x320 mm

Weight : 20 kg

Hydraulic pressure : 700 bar

Tension of the engine : 24 VDC

Cutting capacity : cable diameter up to 140 mm

Operating temperature : - 30°C to + 70°C

Control case :

Operating temperature: -35°C to +55°C

Approval : NFC 32-102,CEI 145-4

Protective cover :

Type of material : nitrile rubber

Dimensions : 1 m X 0.7 m, thickness : 1mm

Marking material :

The marking on the whole set PICOUP informs the operator about the main characteristics of the tool.

In fact, the legibility of markings must be preserved to avoid a bad use.

The symbol double triangle points out the insulation tools or other insulation aids suitable for projects that could be energized.

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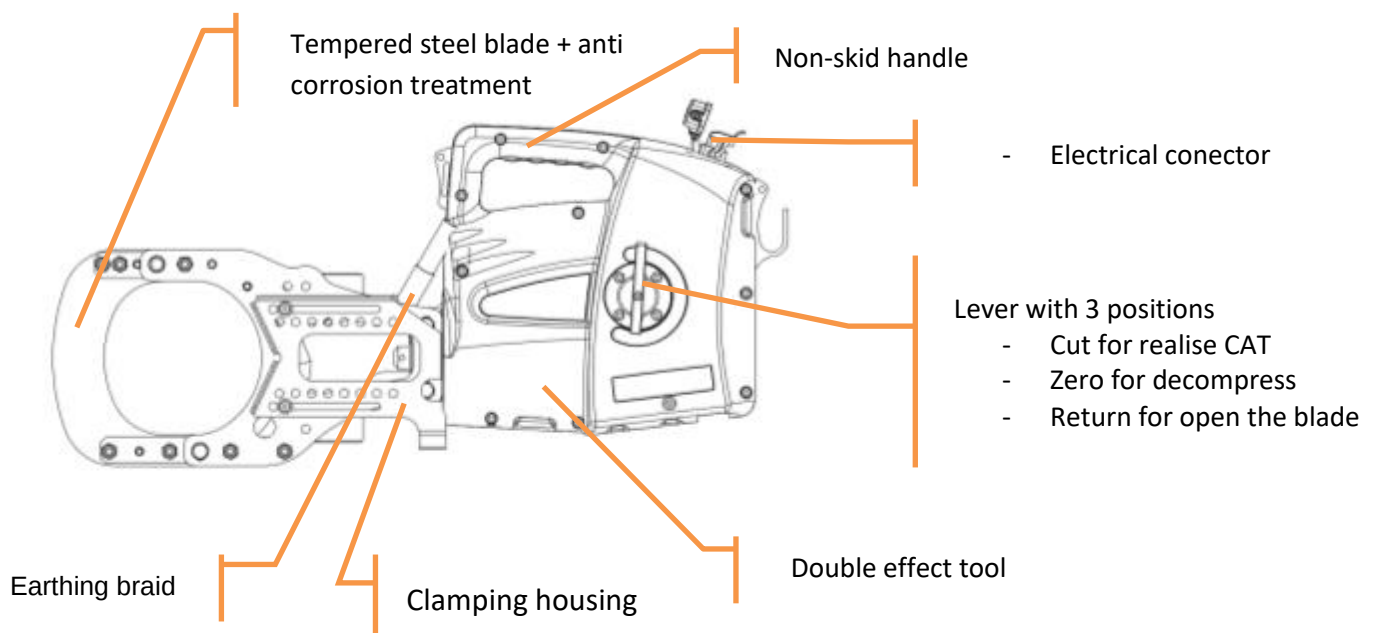
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ELECTRICAL SAFETY PRODUCTS

COMPOSITION OF THE PICOUP 400

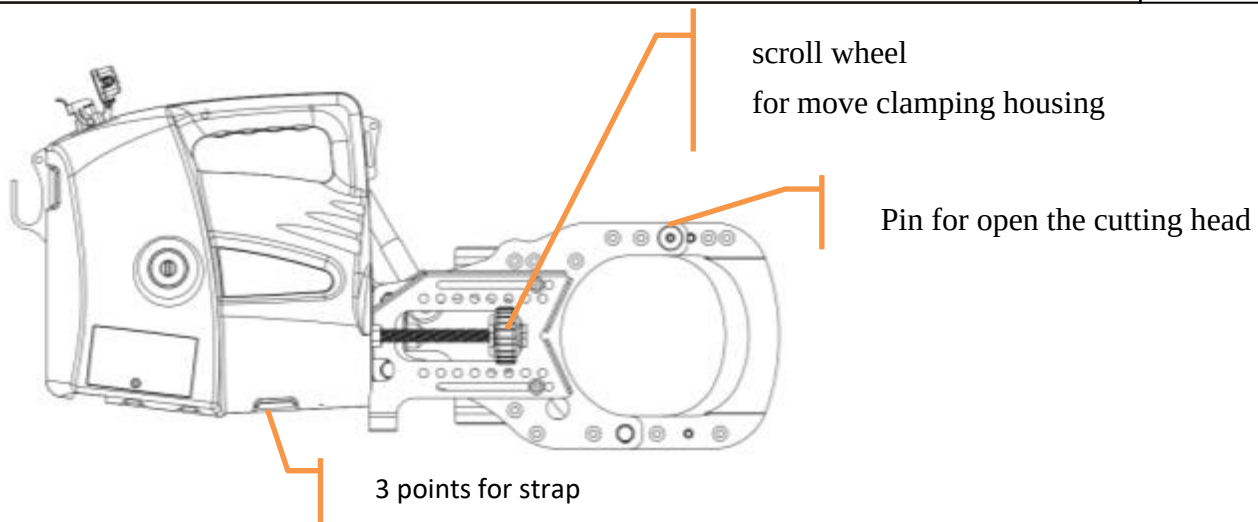
CUTTING HEAD

- Dual-stage hydraulic jack
- Earthing flexible copper braid of 2 meters long. Section 70mm²
- Cutting blades made of specific reinforced heat treated steel to cut cable
- Manual lever for opening and closing the blades
- Max cutting capacity : **up to 140 mm outer diameter**
- Can cut armored cable : **up to 4mm diameter steel wire**
- Maximum section : 3 x 500 mm² copper
- Cutting force : **21 tons**
- Nominal pressure : 700 bars
- Dimensions L x W x H : 678x188x320 mm
- Weight : 20 kg



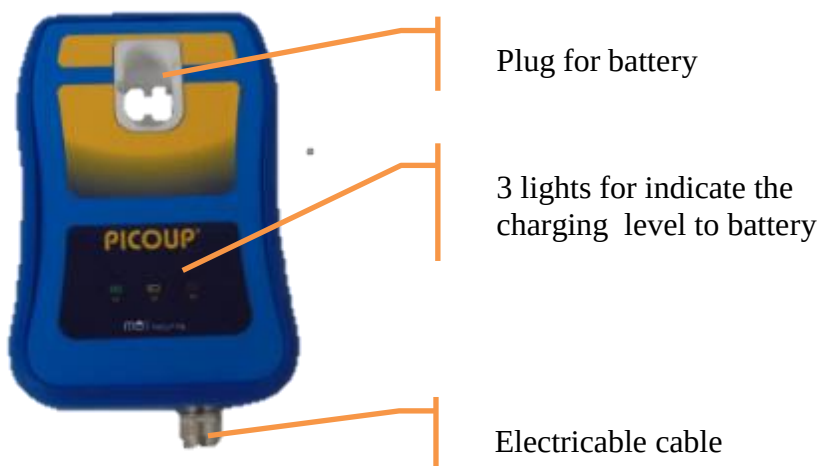
PICOUP 400 : Single Effect Cable Cutter for C.A.T. Networks – LV/MV

Creation : 2016/12/15
Modification :
Version : A



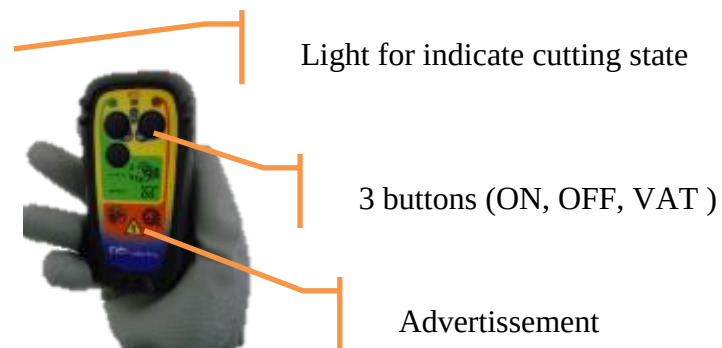
Control box

- Power cable : 5m
- Powered by 24V battery
- Battery charging control (LED)



• Remote control (868MHz)

- Powered by 1.5 V battery (AAA)
- Encoded radio (Single encoding)
- Used up to 150 meters
- Indication of cutting state (LED)



PICOUP 400 : Single Effect Cable Cutter for C.A.T. Networks – LV/MV

Creation : 2016/12/15
Modification :
Version : A

Earthing Braid:

Flexible braid made with multi-wire and copper cable.

Dimension : 2 meters long

Section : 70 mm²

Protection : translucent silicone sleeve – CEI 1230



Spike with a grounding device

Power

- Voltage : 24V 3Ah
- Battery level with LED indication
- 20 Cuts capacity



Light for indicate the battery level

PICOUP 400 : Single Effect Cable Cutter for C.A.T. Networks – LV/MV

Creation : 2016/12/15
Modification :
Version : A

• Plastic box with wheels :

Storage box compartmentalized containing all the equipment for the C.A.T.(Checking Absence of Tension)

- Spiking and cutting tool
- Earthing flexible braid & earthing rod
- 2 batteries 24V
- 1 fast charger
- Keys dismantling blades and earthing braid
- 1 replacement spiking and cutting blades
- 1 cleaning brush
- 2 straps for fixing gallery. Length : 2m
- 1 flash protective mat : 0,7m x 1m
- Procedure
- External dimensions L x W x H : 687 x 528 x 376 mm
- Total weight : 42kg
- **wheel weight : 12kg**



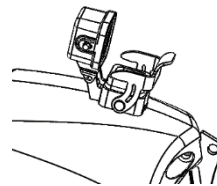
INSTRUCTIONS FOR USE

I. CHECK THE MATERIAL (before any implementation)

- Use a energized battery before each use
- check the profile of the pike : if you see a burst, a missing piece, a sawtooth appearance, the pike is to change
- In case of a CAT on a one phase cable, operate only after that the three conductors have been put together

II. INSTALL - POSITION

- Put the tool on earth, connecting the earthing braid to the rod
- Position the tool on the cable
- Block tool on the cable using the cable locator. Tighten with the shifter.
- Position the lever on "CUT"
- Connect the receiver box to the tool :
 - o Raise the jack cap on the upper part of the tool
 - o Insert the plug of the control box
 - o Lock the plug with the toggle lever
- Position the protective carpet, covering the tool
- Install the wireless receiver box on edge of the pit

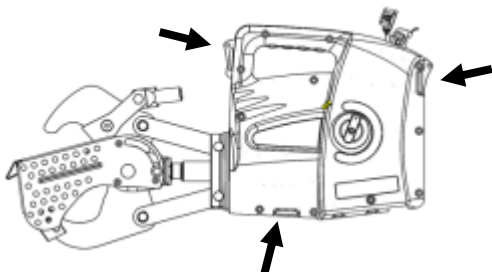


PRECAUTIONS

Mark up and make arrangements to deny access to anyone in the area of intervention (minimum radius of 10 meters around the area of the CAT)

The organizational measures in conjunction with the Centre of the Network Operations (before and after cutting) must be respected

In case of work in tunnel or trenches. Use the straps to fix the tool. 3 attachment points can be used for this purpose:



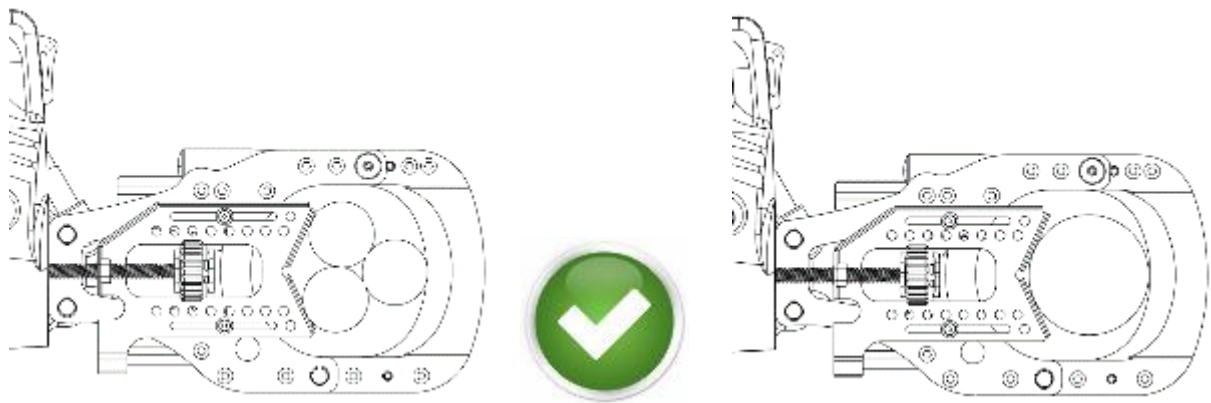


Figure 1 : Position ok.

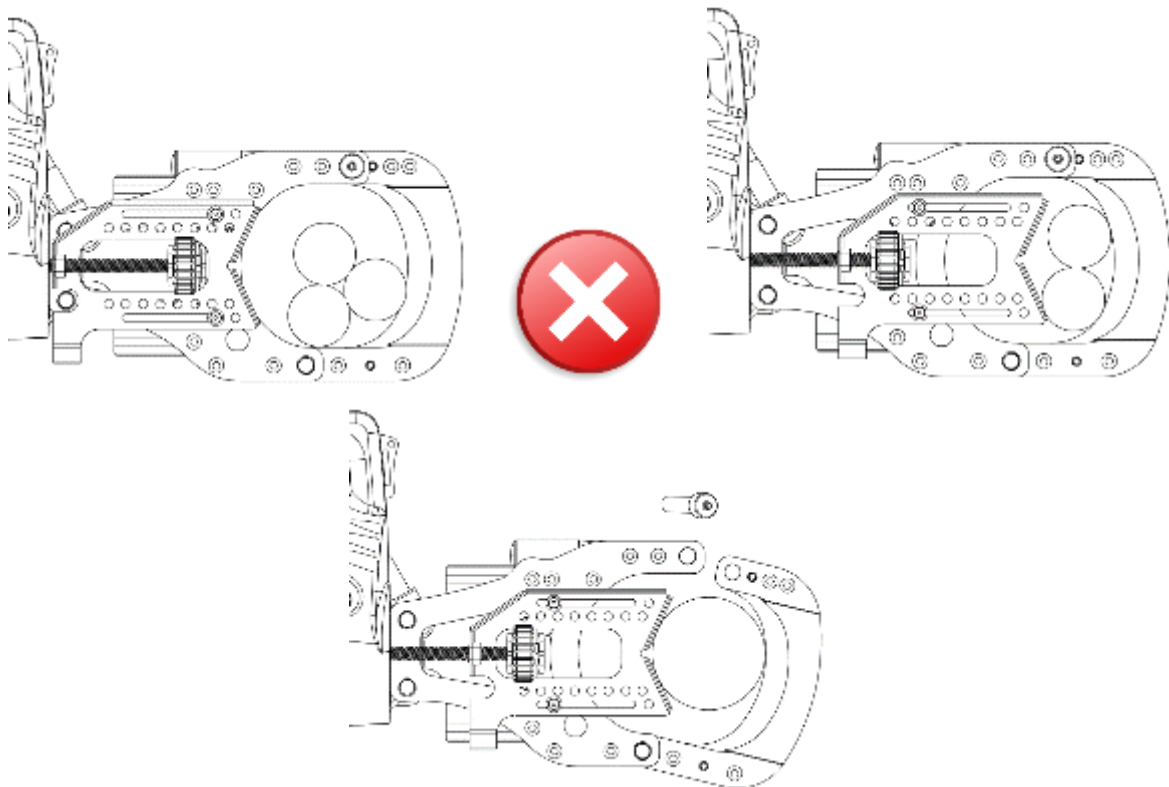


Figure 2 : Wrong Position

III. OPERATING THE C.A.T.

- Put on a battery inside the wireless receiver box. A check of the battery will automatically run. 3 lights identify the charge (figure 3) :
- Green light + double-pitched beep : charge OK
- Orange light + double-pitched beep : low load with risk of insufficient capacity. It is advisable to replace it with a new charged battery to make a complete cut
- Red light + serious long beep : insufficient charge to start cutting. It will be necessary to replace the battery



Figure 3

- Keep distant at 8 meters from the CAT area with the remote box (in case of less distance, the operator's protection must be ensured with other means – mud wall or protective wall.
- Press « ON » to activate the remote control. LED 4 lights up when the remote establishes the radio connection to the control box
- If the remote is inactive for 1 minute, it goes into standby and will need to be pressed again to reactivate « ON »
- Start the cutting cycle by pressing the Power button (bottom button)
- The flashing green LED 1 (Figure 4) accompanied by acute alternative beep indicates a smooth cut. Maintain pressure on the button throughout the C.A.T.
- The end of the C.A.T is reported when the alternative high tone becomes continuous and LED 1 green Lights. Full cycle time : approximatively 180s.

NOTE : during the C.A.T., LED 4 flashes to indicate it is in radio communication with the control box.

- In case of malfunction or battery failure, the red LED 3 & 4 light up and are accompanied by a serious sound. In this case, refer to the ordering information in Section V to identify the fault code.

ATTENTION : The occurrence of a fault code means that the pricking and cutting are incomplete.

Perform a breakpoint and inform the responsible exploitation. This may involve the use of another PICOUP to make a C.A.T. as far as possible the first tool already in place.

BLADE OPENING

- Remove the battery and store the remote control
- Join the tool and put the decompression lever to position « OPEN »
- Open the protecting casing and release the tool from the cable



Figure 4

IV. AUDIT - CLEANING

The tool must be audited before and cleaned after each use. Indeed, in the case that this elementary operation would not be done, residues of cable could accumulate and eventually caught the cradle and the cutting blade.

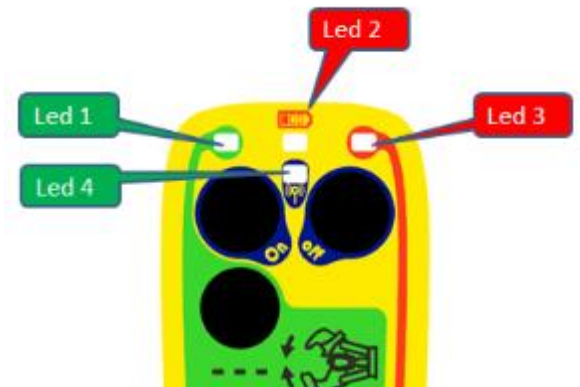
- To clean – using the furnished brush – blade, cradle and pike
- If needed, clean the tool with a brush and some oil /petroleum (only)
- Put the batteries on charge
- Tidy up the tool in its box, taking care that piece will not be damaged during the transport
- Disconnect the cable connecting the PICOUP to the control box before storing it in its packaging.

V. LED CODIFICATION TABLE OF THE REMOTE CONTROL :

REMOTE VIEWING				CODE FAULT	SIGNIFICATIONS
LED DISPLAY		BUZZER			
LED 1	---	Slow flash	- - - intermittent acute sound	C.A.T.	Current C.A.T.
	—	Continued	— Continued acute sound	END C.A.T.	Ended C.A.T.
LED 2	—	Continued	— Continued serious sound	Code 1	Discharged battery Impossible cut
	---	blink		Code 2	Low remote control batterie
LED 3	- - -	1 flash	— Continued serious sound	Code 3	Permanent OPEN position
	-- --	2 flashes		Code 4	Abnormal cut time (incomplete cutting)
	--- ---	3 flashes		Code 5	Misposition (incomplete cutting)
	-----	5 flashes		Code 6	Insufficient battery to complete the cut (incomplete cutting)
	—	Continued		Code 7	High pressure safety (incomplete cutting)
LED 4	- - -	Regular flashes			Current radio in progress
	—	Continued			Remote control in service

Creation : 2016/12/15
Modification :
Version : A

4 seconds are needed to initialize the system to clear the fault code on the remote and you can use it again.



**TAKE CARE TO RESPECT THE PROCEDURE FOR
YOUR OWN SECURITY**



INSTRUCTIONS FOR BATTERY

1. Applicability

The specification is applicable to 2-Power Nickel-Metal Hydride Rechargeable batteries (2-Power model no. : PTH0084A).

2. Ratings

2.1 Cell

2.1.1 Type of Cell : Sealed Nickel-Metal Hydride cylindrical Rechargeable battery

2.1.2 Cell Model : PSI BK-300SCEY1

2.1.3 Cell Size : 300SCEY1

2.1.4 Cell Average capacity : 3050mAh

2.1.5 Cell Minimum Capacity : 2800mAh

2.1.6 Number of cell used : 1P20S (20PCS)

2.2 Pack

2.2.1 Rated voltage : 24V

2.2.2 Average capacity : 3050mAh

2.2.3 Minimum capacity : 2800mAh

2.2.4 Standard charge : 280mA

2.2.5 Rapid charge : 3000mA

2.2.6 Maximum charging voltage : 32V

2.2.7 Standard discharge : 560mA

2.2.8 Maximum continuous discharge current : 30000mA

2.2.9 Replace No. : Bosch : BAT021, BAT019, 2607335082, 2607335216

2.2.10 Battery Pack Color : Black

2.2.11 Operating temperature :

☐ 0 – 45°C (standard charge)

☐ -10 - 65°C (discharge)

2.2.12 Storage temperature :

☐ -20 - 55°C (1 month)

☐ -20 - 45°C (6 months)

☐ -20 - 35°C (1 year)

3. Configuration and dimensions

MAINTENANCE

After each cutting operation, always bring down the oil pressure and open completely blades. Put the lever on position Zero.

Accurate cleaning

Dust and sand are always a threat to the hydraulic device. In order to extend the time of life of PICOUP 400, you must to clean regularly the blade.

After using the tool, the device must be wiped with a clean cloth to remove all the residual particles, especially around the pivots, moving pieces and blades

Storage

The cutting head should always be stored and transported in the carrying case to prevent any possible damage.

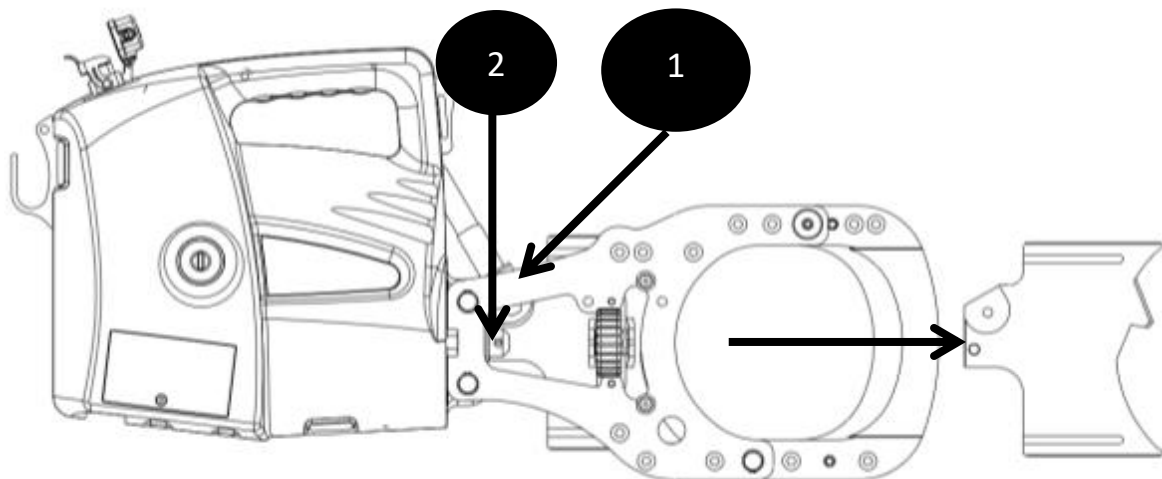
- put the tool with accessories into the plastic box.

Regular maintenance

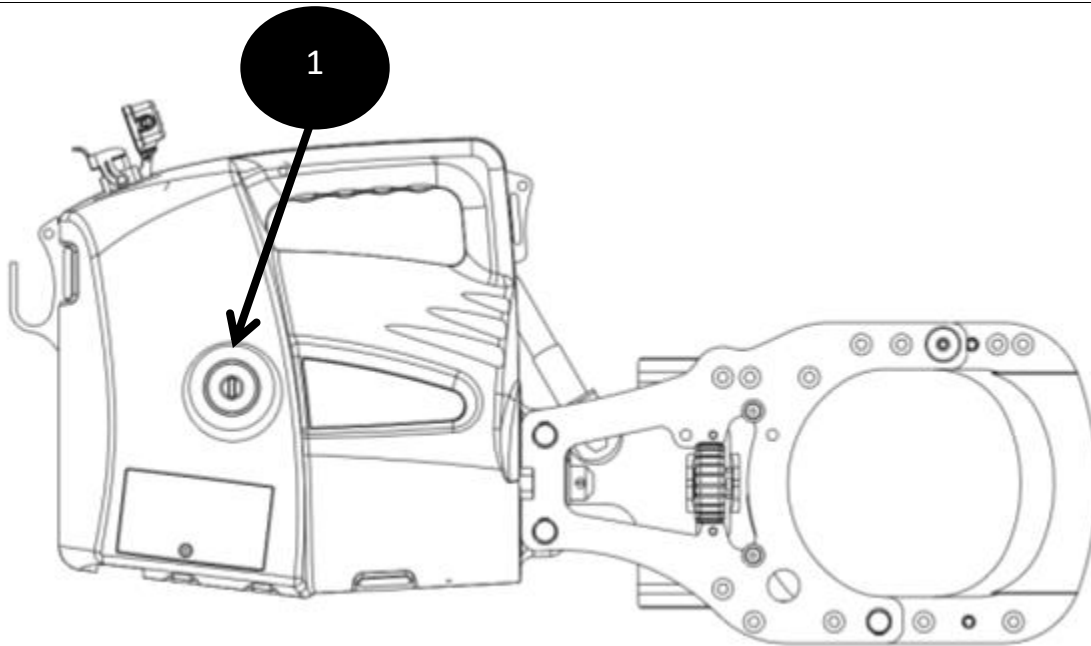
Lubricate the méchanical part with drops of oil after intensive use. Check the blade if there are not damage.

BLADE REPLACEMENT

- Firstly, remove the nuts of the underground cable (1) and remove the cable
- Secondly, put in position cut the lever and go out the blade
- Thirdly, remove the screw (2)
- Finally, remove the blade out off the cutting head slot the new blade

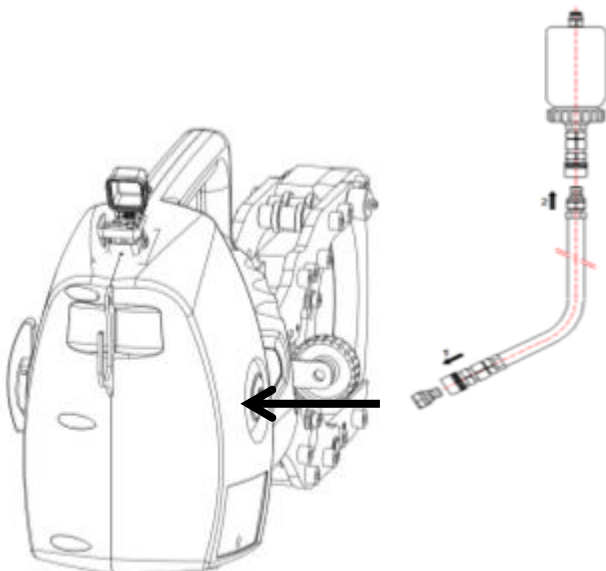


REMOVING THE AIR AND RESIDUALS FROM THE SYSTEM

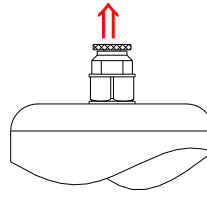


Purge the residual air from the tools

- Open the protection (1) with Flat screwdriver
- Put the tool on horizontal position.
- Connect the bottle with the spécial hoses MOS industrie to to hose with coupler.



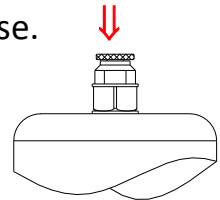
- Open the valve on the bottle.



- Keep the bottle vertical and operate the tool for open et close the cutting blade . You should see the oil level. Waiting 1 hours for sure the air is remove in the tool



- Close the valve on the bottle and disconnect the bottle from the hose.



The oil must be check every year. Please keep the date of change oil in the tool.
Oil Use is only the TOTAL EQUIVIVIS XV 32

WARRANTY: ELECTROHYDRAULIC MATERIAL

Subject: This document includes all the terms of warranty application on the equipment of the range PICOUP®. It completes our general sales conditions.

1. Scope :

PICOUP EXP 240/PICOUP FR 240/PICOUP EXP 300/PICOUP EXP 350 / PICOUP 2 / PICOUP 250 / PICOUP 400 / HYDROPIC INT
In general, all the electro-hydraulic product in closed system (without flexible).

2. Usual warranty : 2 years

Our materials are guaranteed against any vice of conception, manufacturing or material defect for a duration of 2 years from the date of the delivery “ex-works”.
Refer back to general sales conditions.

3. Validity of guarantee :

This guarantee applies to all the previously mentioned material in 1.

It concerns the remove of the spare parts, labor included, subject to a use in compliance with the prescriptions of the manufacturer, except usury parts.

Validity of guarantee following these two compulsory points:

- Respect for the current maintenance following the material notice
- Respect for the operating mode of use and for the typologies of cables

4. Out of warranty :

Pricking under tensio:

- Restoration of parts further to a pricking under tension.
- Warranty saved on the hydraulic group and control box subject to :
 - Utilization in compliance with the operating mode
 - Utilization on networks protected by circuit breaker
 - The earthing of the equipment in compliance with the modus operandi and/or with the improved earthing (saline water kit) for the grounds of an insufficient ohmic value
 - The use of a tool with blades and pricks blade in compliance with the eccentric of the delivered material.
 - Tensions assigned on product sheets.

Bad used:

- Dysfunction bound to an unsuitable use : Not corresponding electric connection, typing on the mechanical sparts with a hammer (blade, counterblade, guide blade), non-compliance with the operating mode, use of battery or charger other than those supplied by MOS INDUSTRIE,
- Not corresponding use with regard to the description of the modus operandi
- Restoration or replacement of parts due to a known report of absence of maintenance of material.
- Of a malfunction of the equipment due to a complete or partial dismantling
- Of a material left with the bad weather which would result from it a known oxidation

Consumables:

- Batteries, counterblades, blades, joints and brings of waterproofness, plait of earthing, guide blade.

5. Losses guarantee :

- Material of more than two years
- Tool having been unsettled by an other than MOS INDUSTRIE or agency approved by MOS INDUSTRIE.
- Tool having done a pricking under tension and not sent back for rehabilitation to MOS INDUSTRIE or agency approved by MOS INDUSTRIE
- Tool having undergone an unapproved modification by MOS INDUSTRIE
- Tool having undergone a misuse § 4
- Not maintained tool
- Carelessness of the user

6. Warranty terms :

MOS INDUSTRIE reserve the right in case of material under guarantee to choose between a replacement or a repair. The replacement will be made in identical or similar material, on only decision of MOS INDUSTRIE. A repair or a replacement does not give the right to a continuation of the period of the guarantee. This period will be closed at the end of the birthday date.

Generally, the guarantee entrain no acceptance of direct or indirect responsibility for any damage caused in properties or in the people because of the defective products.

Therefore, there is no possibility to request of damages or compensation of whatever nature. The manufacturer's liability is always limited to the value of the sold material.

Dispute settlement, applicable law:

The applicable law is French law. In case of contesting, which would not have been able to be amicably adjusted, the commercial court of Paris is the competent only one, in case of plurality of defendants, connectivity or intervention.

PICOUP 400 : Single Effect Cable Cutter for C.A.T. Networks – LV/MV

Creation : 2016/12/15
Modification :
Version : A

LIST OF EQUIPMENT

☐ 1 procedure	☐ 1 tool PICOUP-400
☐ 1 Control set	☐ 1 flat wrench of 13
☐ 1 earthing flexible braid	☐ 1 blade
☐ 1 earthing rod	☐ 1 Technical manual
☐ 1 protective carpet	☐ 2 straps each 2m
☐ 2 batteries	☐ 1 charger 220/24V
☐ 1 metallic brush	☐ 1 wrench of 5
☐ 1 carrying case	

SAFETY DATA

Hydraulic oil : **TOTAL EQUIVIS XV 32**

These oil meet the specifications of the world's leading hydraulic equipment manufacturers NF E 48603 class HV, DIN 51 524 part 3 class HVLP, ISO 6743/4 class HV.

HANDLING, HEALTH AND SAFETY

Lubricants consisting of highly refined mineral oils with specific additives.

In normal conditions of use, these lubricants present no particular toxic hazard.

All lubricants, of any kind, should always be handled with great care, particularly avoiding any contact with the skin. In case that an under pressure jet reaches the skin, there is a risk of introduction into the organism.

The injured person must be transported to the hospital, even without apparent injury.

CALL OF ANTI POISON CENTRE

Please note here below, the number of the anti-poison centre you depend on :

N° Outil : _____ Nom: _____ Date: _____ Visa: _____