



# Cembre



Certified Quality  
Management System



Certified Environmental  
Management System



Certified Occupational  
Health & Safety  
Management System

**ENGLISH**

## BATTERY OPERATED HYDRAULIC CRIMPING TOOL

### B54D-D6



## OPERATION AND MAINTENANCE MANUAL

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cod. 6261329

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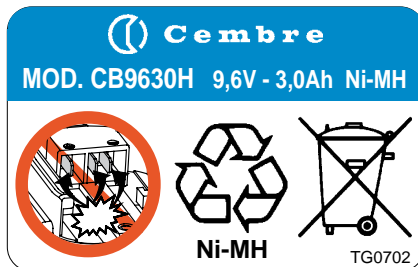
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# ! WARNING



TG-0704



Ni-MH

TG0702



Before using the tool, carefully read the instructions in this manual.



When operating the tool, keep hands away from the danger zone.

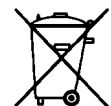


Do not short circuit the batteries.



Ni-MH

Always recycle the batteries.



Do not discard batteries into domestic refuse or waste disposal.

Following information applies in member states of the European Union:



**USER INFORMATION** in accordance with "Directives 2002/95/EC and 2002/96/EC regarding the reduction of hazardous substances in electrical and electronic equipment, including the disposal of waste".

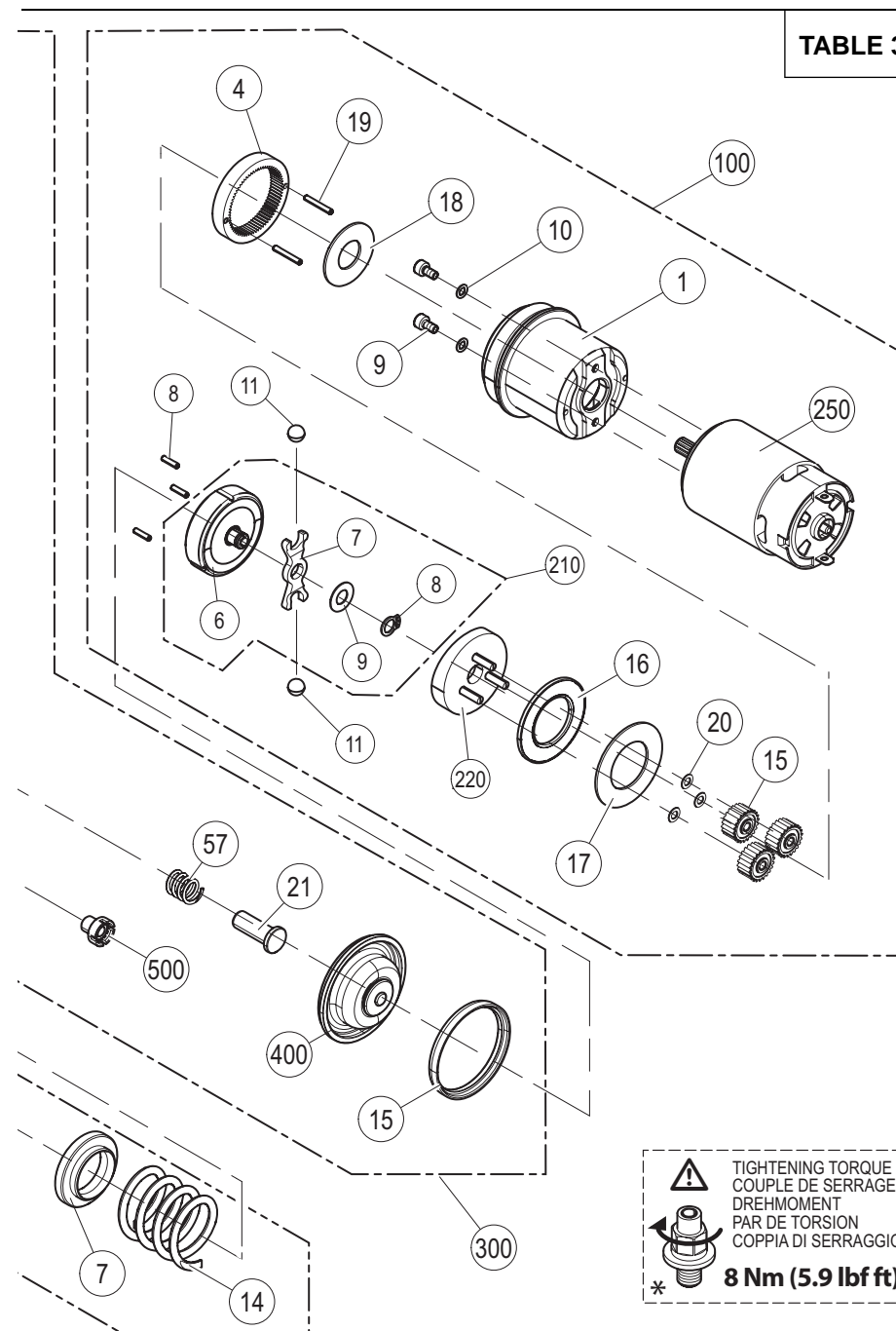
The 'Not in the bin' symbol above when shown on equipment or packaging means that the equipment must, at the end of its life, be disposed of separately from other waste. The separate waste collection of such equipment is organised and managed by the manufacturer.

Users wishing to dispose of such equipment must contact the manufacturer and follow the prescribed guidelines for its separate collection.

Appropriate waste separation, collection, environmentally compatible treatment and disposal is intended to reduce harmful environmental effects and promote the reuse and recycling of materials contained in the equipment.

Unlawful disposal of such equipment will be subject to the application of administrative sanctions provided by current legislation.

TABLE 3 (ITEM 10)



**TIGHTENING TORQUE**  
COUPLE DE SERRAGE  
DREHMOMENT  
PAR DE TORSION  
COPPIA DI SERRAGGIO

**\* 8 Nm (5.9 lbf ft)**

# BATTERY OPERATED HYDRAULIC CRIMPING TOOL

## 1. GENERAL CHARACTERISTICS

|  |  |
|--|--|
| <b>Application range:</b>                  | suitable for installing electrical compression connectors for conductors up to 150 mm <sup>2</sup> (300 MCM) |
| <b>Crimping force</b> kN (sh ton):         | 54 (6)   |
| <b>Rated operating pressure</b> bar (psi): | 340 (4,900)  |
| <b>Dimensions</b> LxWxH mm (inches):       | 450 x 119 x 66 (17.7 x 4.7 x 2.6)  |
| <b>Weight with battery</b> kg (lbs):       | 2,9 (6.4)  |
| <b>Motor</b> Volt DC:                      | 9.6  |
| <b>Battery type</b> CB9630H Volt / Ah:     | 9.6 / 3.0 Ni-MH  |
| <b>Battery charger supply</b> Volt / Hz:   | 220-240 / 50-60  |
| <b>Recommended oil:</b>                    | AGIP ARNICA 22 or ESSO INVAROL EP22 or equivalent.   |
| <b>Safety:</b>                             | the tool is equipped with a maximum pressure valve.  |
| <b>Types of jaw supplied:</b>              | <b>CDD 6</b> with D3 groove to accept all "W" style crimping dies + "BG" fixed groove                        |

### Acoustic Noise (Directive 2006/42/EC, annexe 1, point 1.7.4.2 letter u)

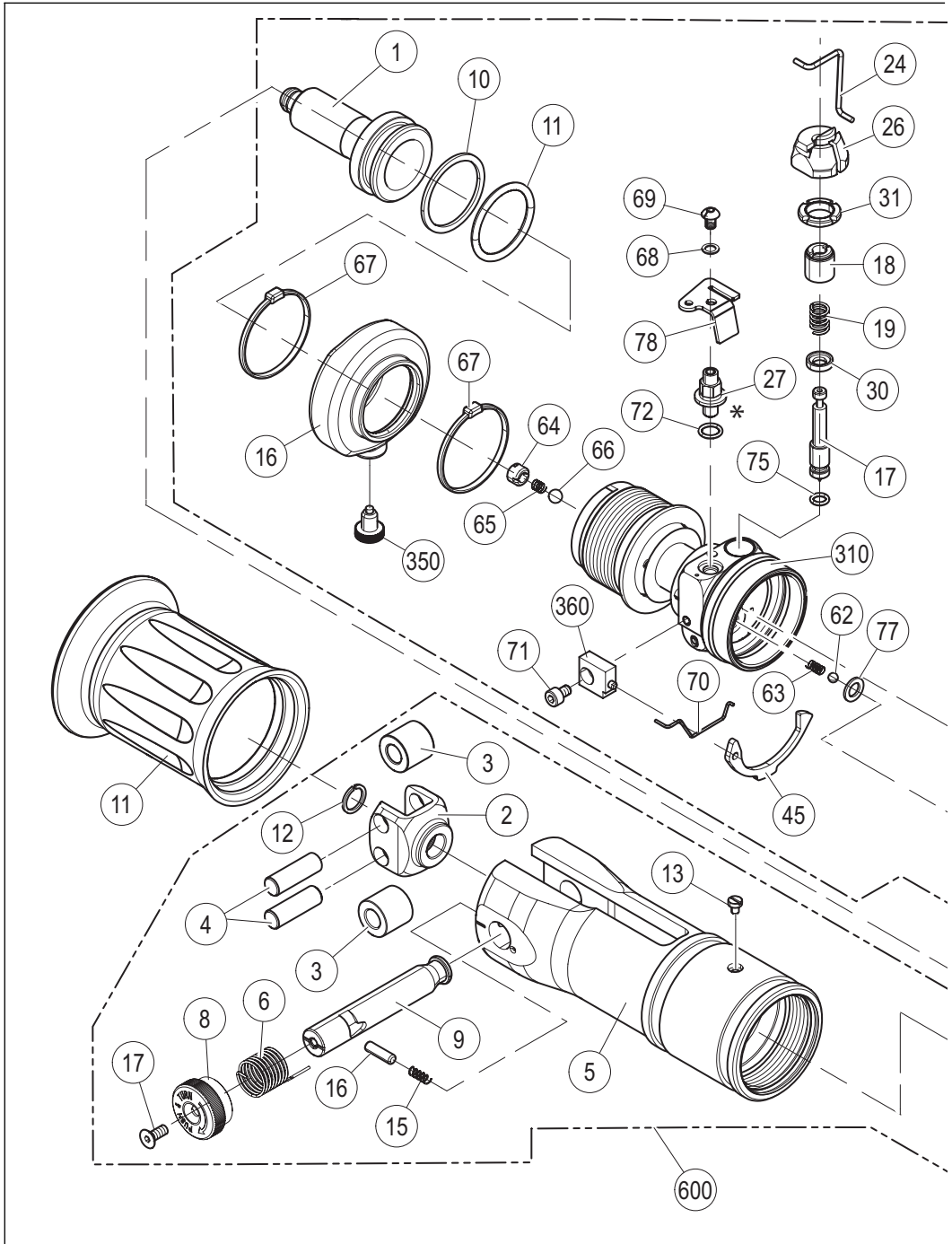
- The weighted continuous acoustic pressure level equivalent A at the work place  $L_{pA}$  is equal to ..... 66,8 dB (A)
- The maximum value of the weighted acoustic displacement pressure C at the work place  $L_{pCPeak}$  is ..... < 130 dB (C)
- The acoustic power level emitted by the machine  $L_{WA}$  is equal to ..... 75 dB (A)

### Risks due to vibration (Directive 2006/42/EC, annexe 1, point 2.2.1.1).

Tests carried out in compliance with the indications contained in UNI ENV 25349 and UNI EN 28662 part 1<sup>st</sup> Standards, and under operating conditions much more severe than those normally found, certify that **the weighted root mean square in frequency of the acceleration the upper limbs are exposed to for each biodynamic reference axis does not exceed 2.5 m/sec<sup>2</sup>.**

## INTERCHANGEABLE CRIMPING JAWS

| JAW TYPE    | GROOVES  | CRIMPING DIE COMPATIBILITY                           |  |
|-------------|--|--|--|
| <b>CDD6</b> | "D3" TO ACCEPT ALL "W" STYLE CRIMPING DIES + "BG" FIXED GROOVE | FCI Burndy<br>Greenlee<br>IlSCO<br>Huskie<br>Panduit | W, X Series<br>KD6 Series<br>ND Series<br>HT-58 Series<br>CD-2001 series |



2. INSTRUCTIONS FOR USE

The tool can be held in one hand while positioning the connector with the other. Residual battery capacity level is automatically displayed after every cycle.

The part reference “B54D-D6” includes the following:

- Basic tool complete with crimping jaws with thermoplastic protection.
- 2 batteries type **CB9630H** .
- Battery charger type **CFC230** complete with **CBA96-144** adapter.
- Plastic carrying case type **VAL P25**.

2.1) Preparation

With the tool in the rest position (the ram fully retracted) proceed as follows:

- Select the appropriate groove or die set for the connector to be crimped.
- Insert the dies into the jaws of the tool (see § 2.8).
- Insert the conductor into the connector.

2.2) Die advancement (Ref. to Fig. 1)

Grip the tool firmly and comfortably.

- Position the connector in the groove dies and ensure the correct location of the crimp.
- Press operating button (3) to activate the motor-pump group for the advancement of the ram. To halt the advancement, release the operating button and the motor will cut out.

**Make sure the dies are exactly positioned on the desired crimp point otherwise re-open dies following instructions as per § 2.5 and reposition the connector.**



FIG. 1

2.3) Compression

Insert the conductor in to the connector and press the operating button (3): the ram will gradually move forward until the two dies touch. It is recommended to keep operating until the maximum pressure valve is activated and a "click" is heard.

2.4) Head rotation

For ease of operation the tool head can rotate through 180°, allowing the operator to work in the most comfortable position.

**Warning: do not attempt to rotate the head when the hydraulic circuit is pressurised.**

TABLE 3 (ITEM 10 IN TABLE 2)

| Code N° | Item |     | DESCRIPTION            | Qty |
|---------|------|-----|------------------------|-----|
| 6640205 | 300  | 68  | D. 4 SCHNORR WASHER    | 1   |
| 6900052 | 300  | 69  | M4x6 SCREW             | 1   |
| 6000602 | 300  | 70  | LEVER SPRING           | 1   |
| 6900054 | 300  | 71  | M4x6 SCREW             | 1   |
| 6360022 | 300  | 72  | O-RING                 | 1   |
| 6360125 | 300  | 75  | O-RING                 | 1   |
| 6641020 | 300  | 77  | Ø 6 CU WASHER          | 1   |
| 6000318 | 300  | 78  | SPRING GUIDE           | 1   |
| 6160081 | 300  | 310 | BODY                   | 1   |
| 6000596 | 300  | 350 | RESERVOIR CAP          | 1   |
| 6000588 | 300  | 360 | COMPLETE LEVER SUPPORT | 1   |
| 6000601 | 300  | 400 | COMPLETE MEMBRANE      | 1   |
| 6900602 | 300  | 500 | COMPLETE SUCTION SCREW | 1   |
| 6000620 | 600  |     | COMPLETE JAW SUPPORT   | 1   |
| 6000621 | 600  | 2   | SUPPORT                | 1   |
| 6000632 | 600  | 3   | ROLL                   | 2   |
| 6560200 | 600  | 4   | PIN ROLL               | 2   |
| 6000622 | 600  | 5   | JAW SUPPORT            | 1   |
| 6000623 | 600  | 6   | SPRING                 | 1   |
| 6040564 | 600  | 7   | RAM GUIDE RING         | 1   |
| 6000624 | 600  | 8   | PIN GRIP               | 1   |
| 6000633 | 600  | 9   | JAW LOCKING PIN        | 1   |
| 6700051 | 600  | 12  | Ø 10 CIRCLIP           | 1   |
| 6900013 | 600  | 13  | M3x4 SCREW             | 1   |
| 6520030 | 600  | 14  | RAM RETURN SPRING      | 1   |
| 6520601 | 600  | 15  | SPRING                 | 1   |
| 6760420 | 600  | 16  | CYLINDRICAL PIN        | 1   |
| 6900180 | 600  | 17  | M4x10 SCREW            | 1   |

**TABLE 3 (ITEM 10 IN TABLE 2)**

| Code N° | Item    | DESCRIPTION                | Qty |
|---------|---------|----------------------------|-----|
| 6000625 | 11      | RUBBER GRIP                | 1   |
| 6000233 | 100     | ACTUATING MECHANICAL GROUP | 1   |
| 6000357 | 100 1   | HOUSING                    | 1   |
| 6000358 | 100 4   | GEAR                       | 1   |
| 6760004 | 100 8   | Ø 2X8 CYLINDRICAL PIN      | 3   |
| 6900008 | 100 9   | M3x6 SCREW                 | 2   |
| 6000849 | 100 10  | Ø 3 SCHNORR WASHER         | 2   |
| 6740020 | 100 11  | 1/4" BALL                  | 2   |
| 6000363 | 100 15  | GEAR                       | 3   |
| 6402009 | 100 16  | BEARING                    | 1   |
| 6402006 | 100 17  | WASHER                     | 1   |
| 6000328 | 100 18  | WASHER                     | 1   |
| 6760012 | 100 19  | CYLINDRICAL PIN            | 2   |
| 6000315 | 100 20  | SPACER                     | 3   |
| 6000231 | 100 210 | COMPLETE DISC              | 1   |
| 6000229 | 100 6   | DISC                       | 1   |
| 6000227 | 100 7   | BALL SUPPORT               | 1   |
| 6700080 | 100 8   | Ø 6 CIRCLIP                | 1   |
| 6650136 | 100 9   | WASHER                     | 1   |
| 6000232 | 100 220 | COMPLETE CAM               | 1   |
| 6000595 | 100 250 | COMPLETE MOTOR             | 1   |
| 6000254 | 300     | COMPLETE HYDRAULIC GROUP   | 1   |
| 6620122 | 300 1   | RAM                        | 1   |
| 6040240 | 300 10  | BACK-UP RING               | 1   |
| 6360300 | 300 11  | O-RING                     | 1   |
| 6000560 | 300 15  | MEMBRANE RING              | 1   |
| 6720072 | 300 16  | OIL RESERVOIR              | 1   |
| 6300027 | 300 17  | VALVE PISTON               | 1   |
| 6000561 | 300 18  | GRUB SCREW                 | 1   |
| 6520232 | 300 19  | VALVE SPRING               | 1   |
| 6620378 | 300 21  | PUMPING RAM                | 1   |
| 6000563 | 300 24  | VALVE ROD                  | 1   |
| 6000575 | 300 26  | SPRING SUPPORT             | 1   |
| 6000565 | 300 27  | TEST PRESSURE CAP          | 1   |
| 6641027 | 300 30  | WASHER                     | 1   |
| 6000567 | 300 31  | SETTING VALVE LOCKNUT      | 1   |
| 6000603 | 300 45  | PRESSURE RELEASE LEVER     | 1   |
| 6000570 | 300 57  | PUMPING RAM RETURN SPRING  | 1   |
| 6740100 | 300 62  | 5/32" BALL                 | 1   |
| 6520160 | 300 63  | SPRING                     | 1   |
| 6340590 | 300 64  | GRUB SCREW                 | 1   |
| 6520200 | 300 65  | SPRING                     | 1   |
| 6740120 | 300 66  | 7/32" BALL                 | 1   |
| 3041735 | 300 67  | TIE                        | 2   |

## 2.5) Release of dies (Ref. to Fig. 1)

Press the pressure release button (8), the ram will retract and open the jaws.

## 2.6) Battery status (Ref. to Fig. 2)

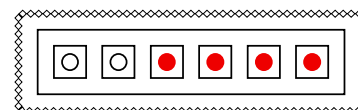
Inserting the battery into the tool or releasing the operating button causes the residual battery capacity to be automatically displayed for 5 seconds on the indicator.

The number of LEDs illuminated indicates the residual capacity.

6 LEDs illuminated: Fully charged

3 LEDs illuminated: 50 % capacity

1 LED illuminated: Minimum charge



**FIG. 2**



## 2.7) Insertion/replacement of battery

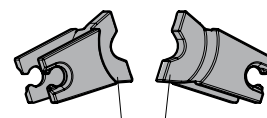
To insert the battery, slide it into its seat until it locks (Ref. to Fig. 3).

To replace an exhausted battery, press both lateral red buttons simultaneously and slide it forward.

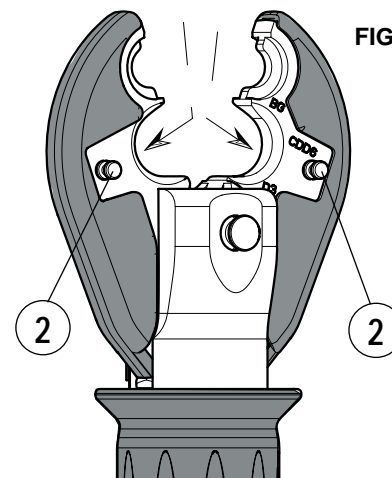
**FIG. 3**



"W" style crimping dies



**FIG. 4**



## 2.8) "W" style crimping dies assemblies

– Press pins (2) and insert "W" dies into their seats (Ref. to Fig. 4).

– To disassemble them simply press the pins and slip them from the jaws.

**⚠ IT IS RECOMMENDED TO USE THE TOOL ONLY WITH PRODUCT TO BE CRIMPED INSERTED.**



## 2.9) Jaw replacement

The tool is supplied with the interchangeable CDD 6 jaw. Other types of jaw can also be supplied separately, for replacement proceed as follows:

- Push and turn clockwise the locking pin (9) so that the jaws are released.
- Slide the jaws out of the top of the tool and insert the new ones (Ref. to Fig. 5).
- Fully insert the locking pin (9) into the tool and lock it by turning clockwise until the red lines are aligned.

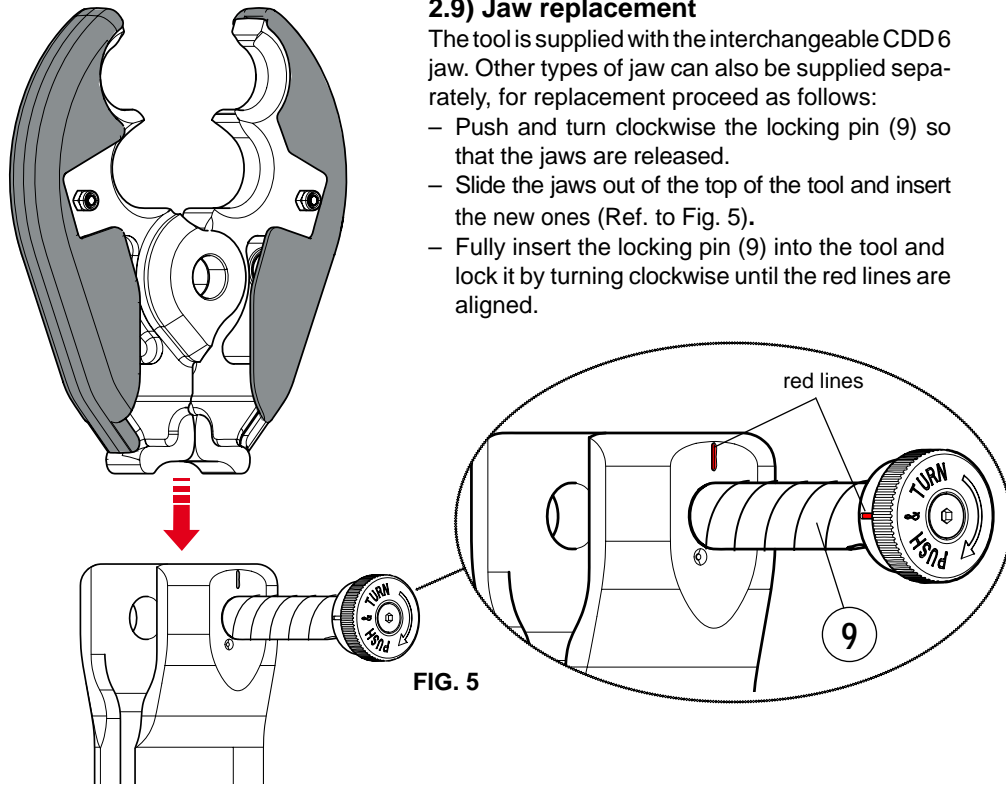


FIG. 5

## 2.10) Using the battery charger

Carefully follow the instructions in the battery charger manual.

The tool is supplied with a battery charger complete with adapter type **CBA96-144** required for 9,6V batteries (eg. **CB9630H**) (Ref. to Fig. 6).

With the adaptor removed, the same charger may be used with the 14,4V batteries (eg. **CB1430L**) common to the other **Cembre** battery operated tools.

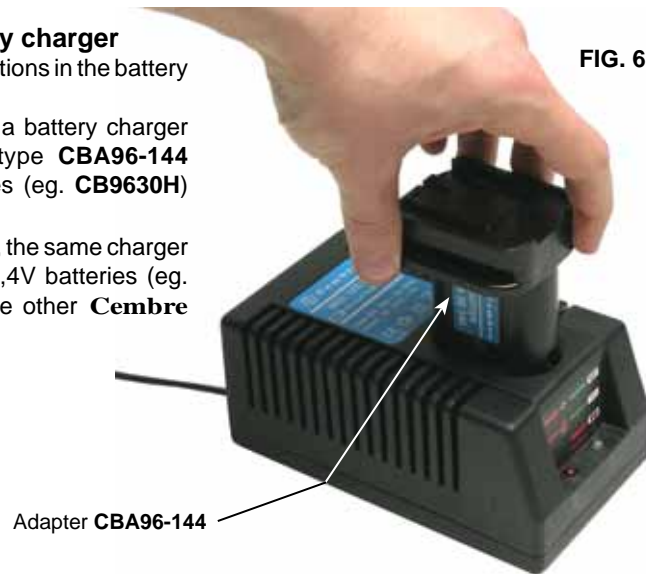


FIG. 6

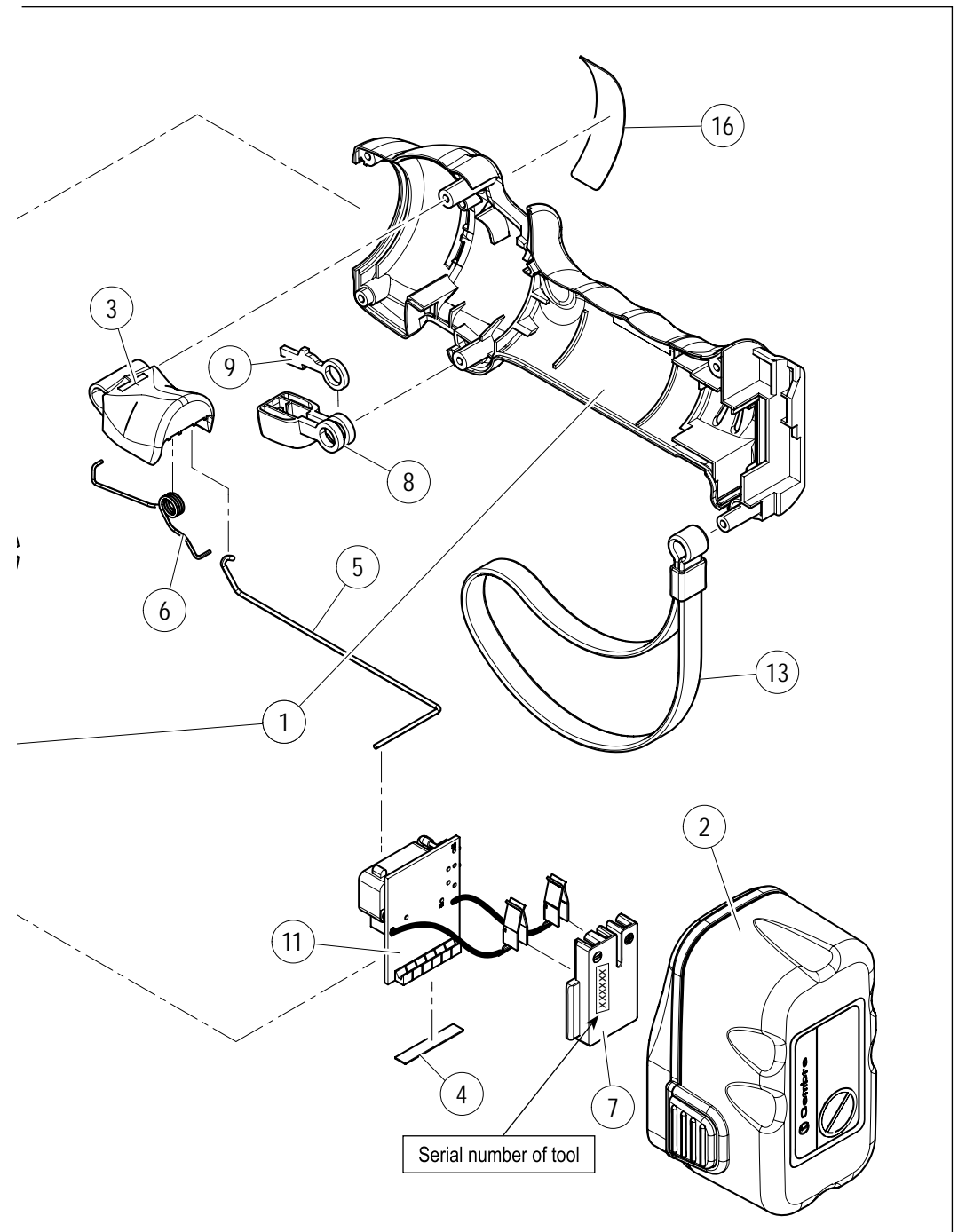
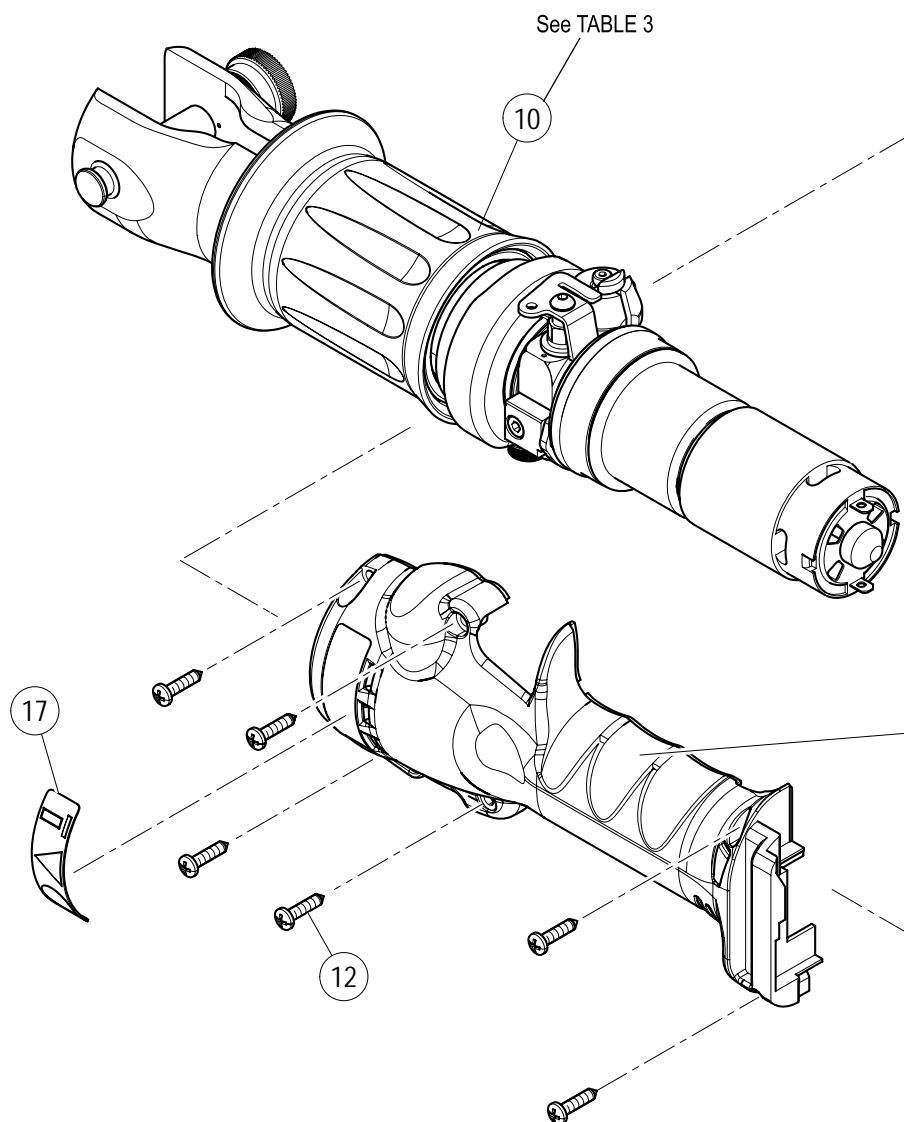


TABLE 2



### 3. WARNING

Before starting work on electrical equipment, please ensure that either there are no live parts in the immediate working area or that precautions are taken for working near live parts in accordance with EN50110-1.

**⚠ DO NOT USE THIS TOOL ON OR NEAR ENERGISED CONDUCTORS WITHOUT PROPER PERSONAL PROTECTIVE EQUIPMENT. FAILURE TO OBSERVE THIS WARNING COULD RESULT IN SEVERE INJURY OR DEATH.**

**⚠ THE TOOL IS UNSUITABLE FOR CONTINUOUS USE AND SHOULD BE ALLOWED TO COOL DOWN FOLLOWING UNINTERRUPTED, SUCCESSIVE CRIMPING OPERATIONS; FOR INSTANCE, HAVING EXHAUSTED A FULLY CHARGED BATTERY IN ONE SESSION, DELAY BATTERY REPLACEMENT FOR A FEW MINUTES. OBSERVE RECOMMENDED REST PERIODS ALSO WHEN USING AN EXTERNAL POWER SUPPLY.**

**⚠ PROTECT THE TOOL FROM RAIN AND MOISTURE. WATER WILL DAMAGE THE TOOL AND BATTERY. ELECTRO-HYDRAULIC TOOLS SHOULD NOT BE OPERATED IN POURING RAIN OR UNDER WATER.**

#### 3.1) General information on how to use batteries

In order to maximise battery life, please follow these rules:

- Use the battery until the automatic residual energy display still has 1-2 red LEDs showing: this means the battery is almost completely discharged and no loss in the life of the battery has been caused.
- Be particularly careful when charging a new battery the first 2-3 times in order to be certain of maximising the available energy level.
- Allow the battery to cool down to ambient temperature prior to recharging.
- Rest the battery charger for at least 15 minutes between charges.

### 4. MAINTENANCE

The tool is robust, completely sealed, and requires very little daily maintenance. Compliance with the following points, should help to maintain the optimum performance of the tool:

#### 4.1) Thorough cleaning

Dust, sand and dirt are a danger for any hydraulic device.

Every day, after use, the tool must be wiped with a clean cloth taking care to remove any residue, especially close to moveable parts.



FIG. 7

#### 4.2) Storage (Ref. to Fig. 7)

When not in use, the tool should be stored and transported in the plastic case, to prevent damage. The case is suitable for storing the tool, the accessories and die sets.

Plastic case: **VAL P25**, size 497x370x137 mm, (19.5x14.5x5.4 inches) weighs 2,3 kg (5 lbs.).

## 5. RETURN TO Cembre FOR OVERHAUL

In the case of a breakdown contact our **Area Agent** who will advise you on the problem and give you the necessary instructions on how to dispatch the tool to our **nearest service Centre**; if possible, attach a copy of the Test Certificate supplied by **Cembre** together with the tool or, if no other references are available, indicate the approximate purchase date and the tool serial number.

## SPARE PARTS LIST

The guarantee is void if parts used are not **Cembre** original spares.

When ordering spare parts always specify the following:

- **code number of item**
- **name of item**
- **type of tool**
- **serial number of tool**

TABLE 1 (CDD6 JAW)

| Code N° | Item | DESCRIPTION        | Qty |
|---------|------|--------------------|-----|
| 6000630 | 1    | RUBBER COVER       | 2   |
| 6600022 | 2    | DIE RETAINER PIN   | 2   |
| 6520404 | 3    | SPRING             | 2   |
| 6520630 | 4    | SPRING             | 1   |
| 6180171 | 5    | M3 AUTOLOCK NUT    | 1   |
| 6760085 | 6    | Ø 3x12 ELASTIC PIN | 2   |

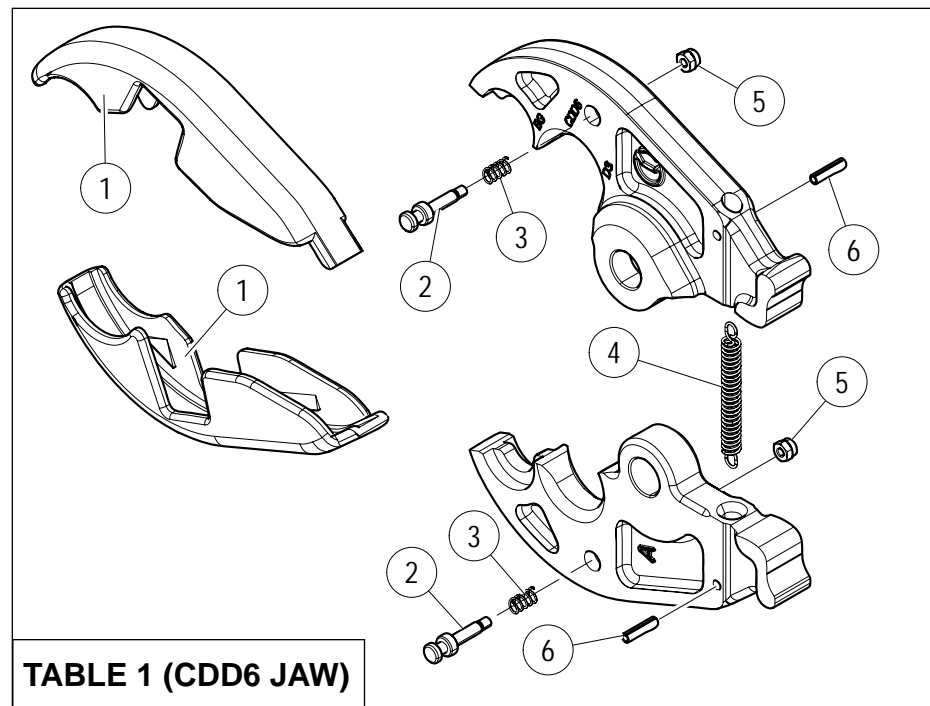


TABLE 1 (CDD6 JAW)

TABLE 2

| Code N° | Item | DESCRIPTION                    | Qty |
|---------|------|--------------------------------|-----|
| 6000577 | 1    | RIGHT + LEFT SHELL             | 1   |
| 2598504 | 2    | CB9630H BATTERY                | 1   |
| 6000579 | 3    | OPERATING BUTTON               | 1   |
| 6000584 | 4    | PROTECTION                     | 1   |
| 6000591 | 5    | ROD                            | 1   |
| 6000593 | 6    | SPRING                         | 1   |
| 6000580 | 7    | CONTACT SUPPORT                | 1   |
| 6000581 | 8    | PRESSURE RELEASE BUTTON        | 1   |
| 6000582 | 9    | BUTTON REINFORCEMENT           | 1   |
| 6000255 | 10   | MECHANICAL GROUP (see table 2) | 1   |
| 6000586 | 11   | COMPLETE ELECTRICAL CIRCUIT    | 1   |
| 6900650 | 12   | 3,5X16 SCREW                   | 6   |
| 6000589 | 13   | WRIST STRAP                    | 1   |
| 6232599 | 16   | TG.0814 LABEL                  | 1   |
| 6232500 | 17   | TG.0704 LABEL                  | 1   |