



CEMBRE

BATTERY OPERATED HYDRAULIC CRIMPING TOOL

B540ND-BVA B540ND-BVE B540NDK-BV

CE

UK
CA



ENGLISH

OPERATION AND MAINTENANCE MANUAL

FIG. 1a
B540ND-BVA
B540ND-BVE

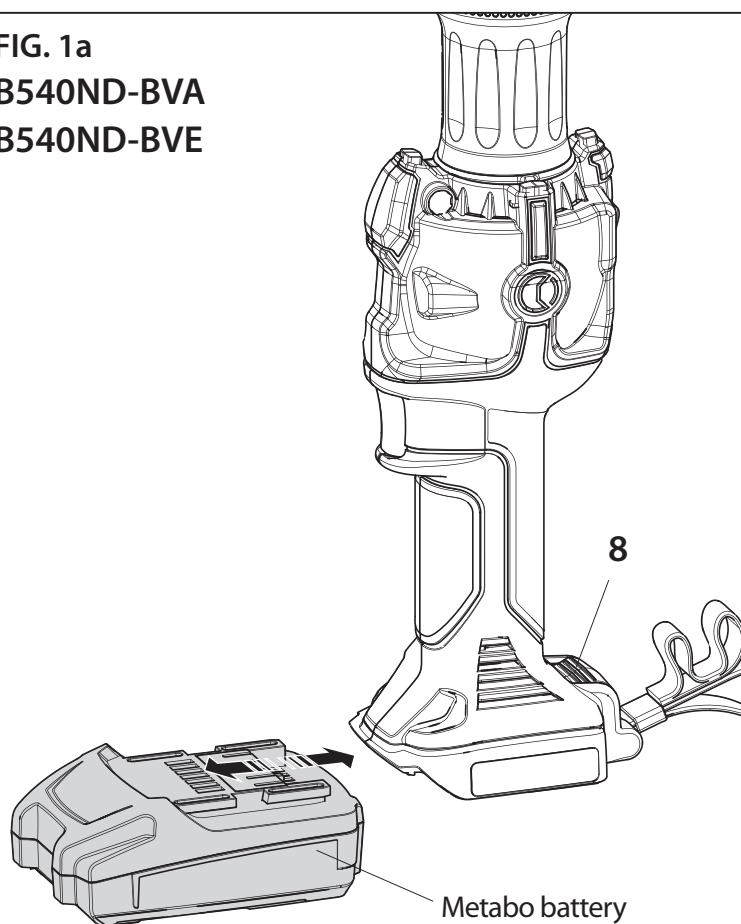


FIG. 2

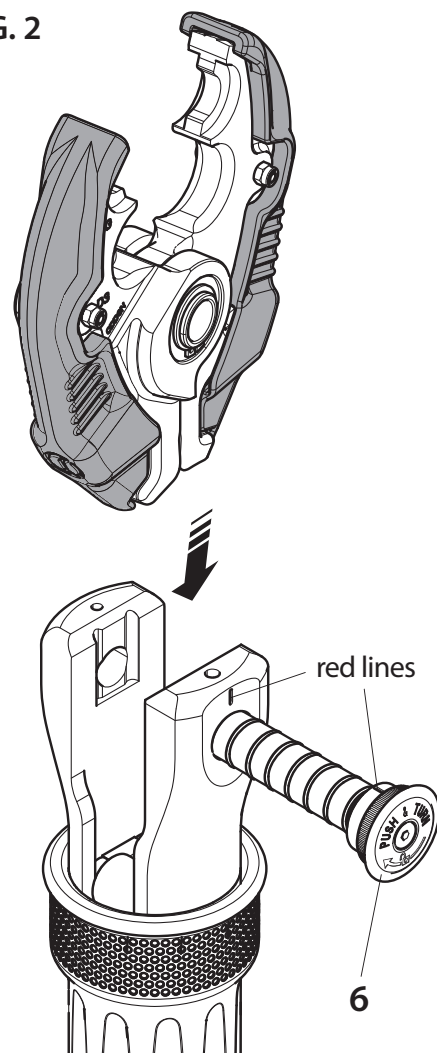


FIG. 1b
B540NDK-BV

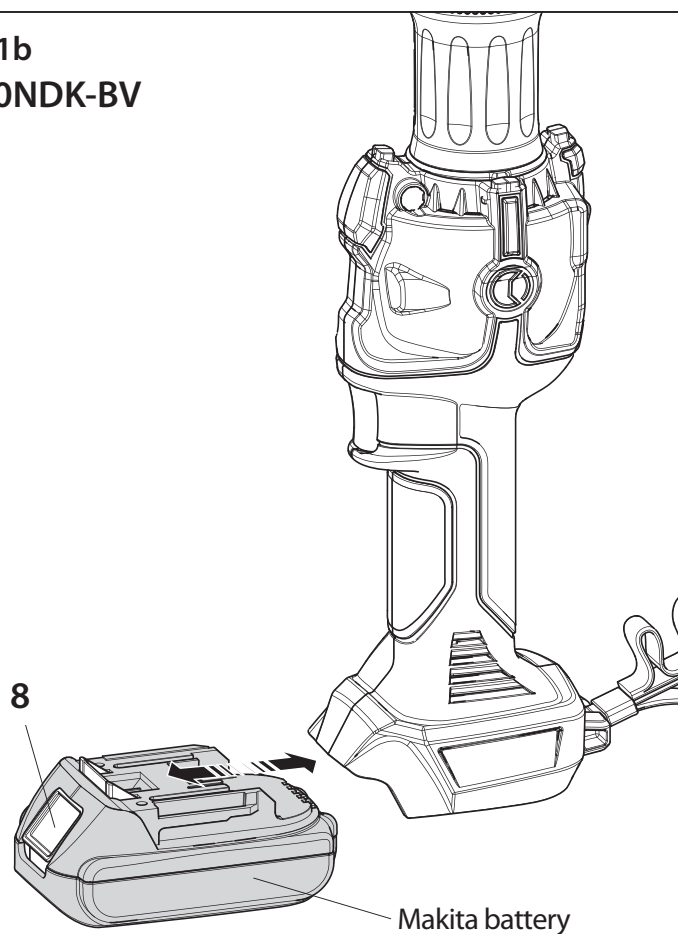
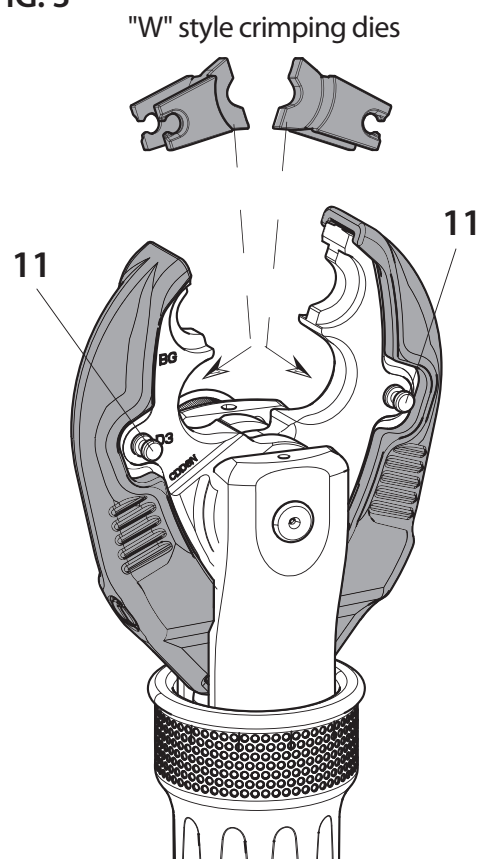


FIG. 3



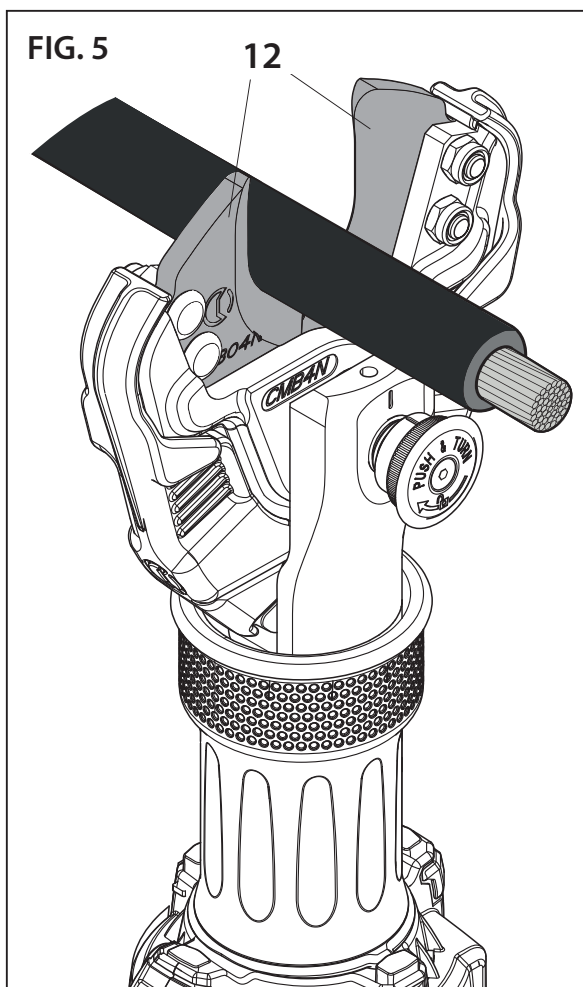
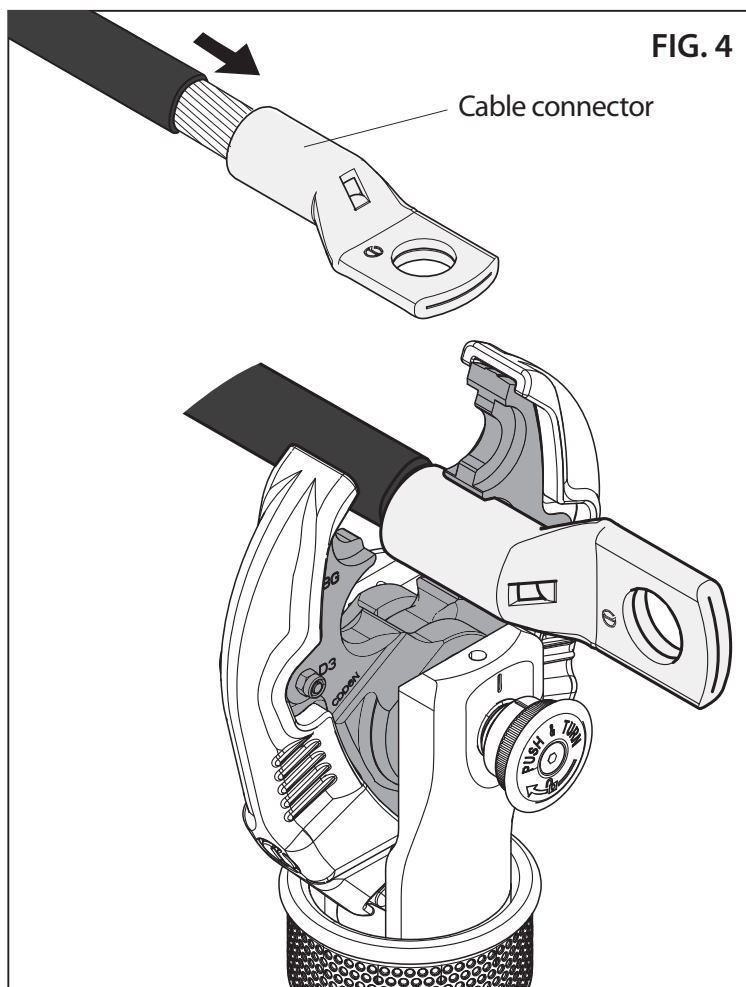
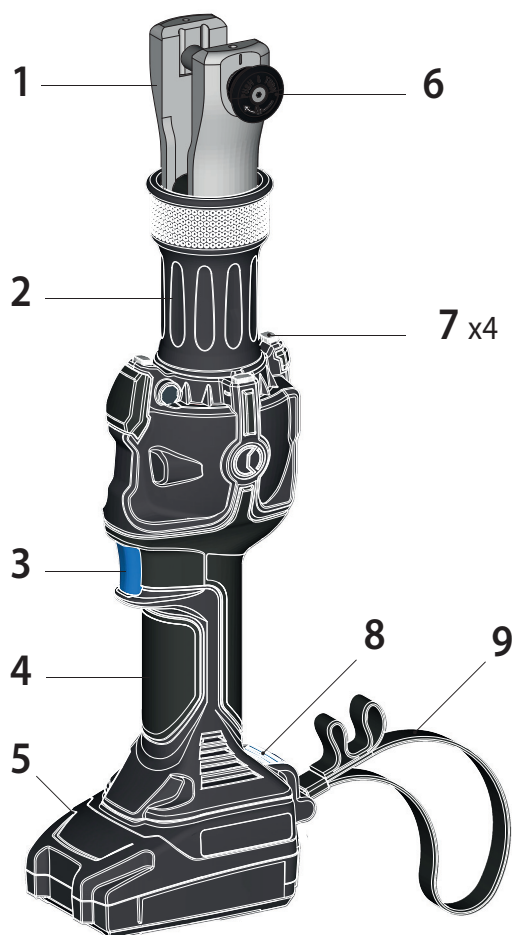


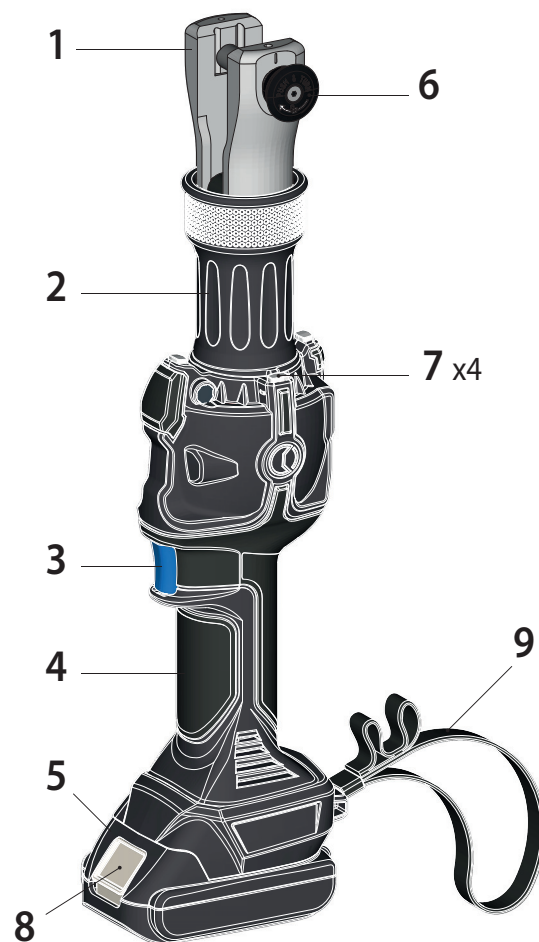
FIG. 6

Tool components in configuration B540ND-BV..





B540ND-BVA
B540ND-BVE
 Metabo battery



B540NDK-BV
 Makita battery

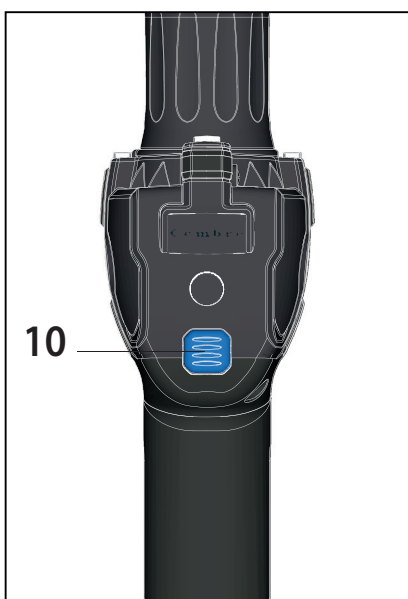






FIG. 7

1	JAWS SUPPORT
2	RUBBER GRIP
3	OPERATING BUTTON
4	HANDLE
5	BATTERY
6	JAW LOCKING PIN
7	LED WORKLIGHT
8	BATTERY RELEASE
9	WRIST STRAP
10	PRESSURE RELEASE BUTTON

WARNING SYMBOLS

 <p>Before using the tool, carefully read the instructions contained in this manual. SAVE THESE INSTRUCTIONS: this manual contains important safety and operating instructions for the tool.</p>	 <p>When operating the tool, keep hands away from the danger zone.</p>	 <p>Always wear safety gloves when operating the tool.</p>	 <p>User information (Directives 2011/65/UE and 2012/19/UE), see page 12.</p>
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Use and Care of rechargeable batteries

Recharge the supplied battery using the specific manufacturer's charger only.

A charger intended for a specific type of battery may become a fire hazard if used with other types of battery.

Use the tool with the specific intended battery pack only. The use of any other type of battery may lead to a risk of injury or fire.

When the battery is not in use, store it away from other metal objects, such as paperclips, coins, keys, nails, screws or other small metal objects that can create a connection between two terminals. Keep batteries out of reach of children.

Short-circuiting the battery terminals can cause burns or fire.

If in very poor condition, a battery can leak liquid. Avoid contact with the eyes.

In the case of accidental contact, rinse immediately under running water.

If the liquid comes into contact with the eyes, seek medical assistance immediately. Battery liquid can cause irritation or burns.



Keep batteries dry!
Keep batteries away from fire!
Never throw batteries into fire or water.



Always recycle batteries after use.



Never dispose of batteries with household waste. They must be deposited at the dedicated collection points for disposal.

Transporting Li-Ion batteries

Lithium-Ion rechargeable batteries are subject to the legal requirements on hazardous goods. In the event of road transport by the user, no further precautions are necessary.

In the event of third-party transport (e.g. transported by airplane or courier), transportation must comply with the special requirements concerning packaging and labelling. We recommend that you consult an expert.

Rechargeable batteries can only be transported if undamaged.

The packaging must prevent the batteries from moving around and exposed contacts must be covered with adhesive tape.



WARNINGS

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, live conductors without proper personal protective equipment.

Electrical Shock Hazard: The tool is not insulated and the jaws will conduct electricity. This product should be used only by persons knowledgeable in the safe use of jaws and crimpers. Failure to observe this warning could result in injury or death.

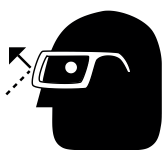
Do not use the tool for purposes other than those intended by CEMBRE.

The operator should concentrate on the work being performed and be careful to maintain a balanced working position.

Avoid dirty surfaces as dust and sand are a danger to any electro-hydraulic equipment. Protect the tool and accessories from rain and moisture. Water will damage the tool and battery. Electro-hydraulic tools should not be operated in pouring rain.

Work in a clean, uncluttered area and keep persons away from immediate work area.

Before each use, verify the integrity of the tool. Replace any worn, possibly damaged or missing parts with original CEMBRE spares.



Inspect the blades before each use of the cutting jaw.

Do not use damaged blades.

Damaged blades can break and cause injury or damage to the tool.

Wear eye protection as metal chips can fly from blades when cutting.

Pay attention when cutting short, free pieces of steel rod or rope as they may fly off dangerously, causing injury to the operator or persons nearby.

Do not cut live cables or conductors.

The tool is unsuitable for continuous use and should be allowed to cool down following uninterrupted, successive operations. For example, having exhausted a fully charged battery in one session, delay battery replacement for a few minutes.

1. GENERAL CHARACTERISTICS

		B540ND-BVA B540ND-BVE	B540NDK-BV
Application range		suitable for installing electrical compression connectors for conductors up to 150 mm ² (300 MCM) and for cutting Copper, Aluminium, ACSR and Steel conductors, ropes and rods	
Type of acceptable jaws: (Ref. to table page 13)	Crimping Cutting	CDD6N - CDD6-6N - CDD6-8N CMB4N - CMB5N - CMB6N	
Crimping force	kN (US sh. ton)	54 (6.1)	
Operating pressure	bar (psi)	600 (8702)	
Dimensions (Ref. to FIG. 8 page 14)	mm (inches)	403 x 104 x 87 (15.9 x 4.1 x 3.4)	413 x 108 x 87 (16.3 x 4.2 x 3.4)
Weight with battery (no jaws)	kg (lbs)	2,9 (6.4)	3,1 (6.8)
Motor	V DC	18	
Operating temperature	°C (°F)	-15 to +50 (+5 to +122)	
Recommended oil		TOTAL DIEKAN 1640 or equivalents	
Safety		maximum pressure valve	
Rechargeable battery	type	METABO CB1820L	MAKITA BL1850B
	V / Ah (Wh)	18 / 2.0 (36)	18 / 5.0 (90)
	kg (lbs)	0,4 (0.9)	0,6 (1.3)
Acoustic noise ⁽¹⁾	dB	L _{pA} 67,7 (A)	L _{pCPeak} 89,2 (C) L _{WA} 74,2 (A)
Vibrations ⁽²⁾	m/s ²	a _{hv} 0,724	

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

L_{pA} = weighted continuous acoustic pressure level equivalent.

L_{pCPeak} = maximum value of the weighted acoustic displacement pressure at the work place.

L_{WA} = acoustic power level emitted by the machine.

⁽²⁾ Directive 2006/42/EC, annexe 1, point 2.2.1.1

Weighted root mean square in frequency of the acceleration the upper limbs are exposed to for each biodynamic reference axis. Tests carried out in compliance with the indications contained in EN ISO 5349-1/2 Standard and under operating conditions much more severe than those normally found.

		B540ND-BVA	B540ND-BVE	B540NDK-BV
Battery charger	type	METABO ASC30-36-USA/CA	METABO ASC55-UK	MAKITA DC18RC
Input	V / Hz	115 / 60	220 - 240 / 50 - 60	120 / 50 - 60

2. INSTRUCTIONS FOR USE

The part reference includes the following:

- Hydraulic tool fitted with Metabo or Makita battery (depends on the tool version).
- Spare battery.
- Battery charger (depends on the tool version).
- Canvas bag.
- Shoulder strap.
- USB cable (Ref. to **section 5** page 11).

The tool can be easily carried using either the main handle (4) or the shoulder strap attached to the two eyelets of the wrist strap (9) (see FIG. 7).

The tool can be held in one hand while positioning the conductor with the other.



Before starting any work, check the battery charge and recharge it if necessary following the instructions in the battery charger user manual.

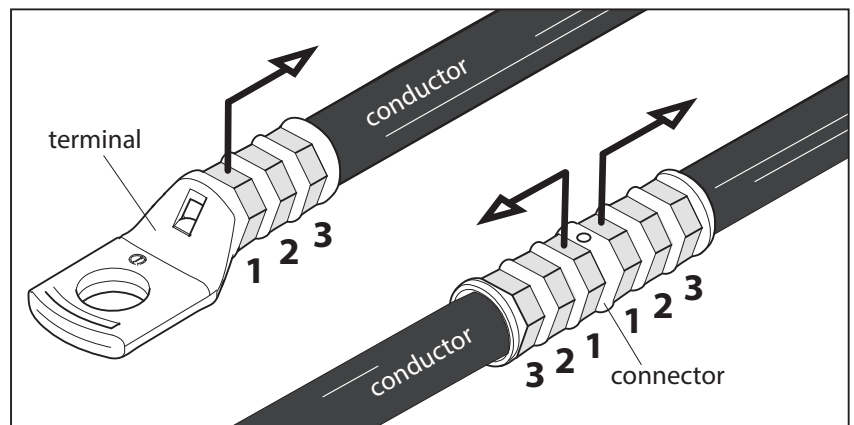
- To replace the battery, grip the tool as illustrated in the FIG. 1a or 1b
Press the release button (8) and slide the battery out unlocking it.

2.1) Crimping mode

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

- Insert the crimping jaws into the tool (see **section 3.1**).
- If necessary, select the appropriate die set for the connector to be crimped and insert the dies into the jaws (see **section 3.2**).
- Insert the conductor into the connector and position the connector between the groove or die set (see FIG. 4). Ensure the correct location of the crimp.
- Position the connector in the die groove and ensure the correct location of the crimp.

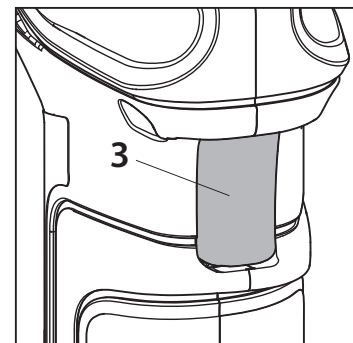
NOTE: when more than one compression is required, proceed according to the sequence and direction indicated in the figure opposite, uniformly spacing the compressions.



- Press operating button (3) to activate the motor-pump and advance the ram.
To halt the advancement, release the operating button and the motor will cut out.



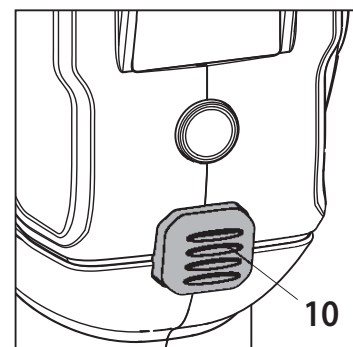
Make sure the dies are exactly positioned on the desired crimp point otherwise re-open dies by pressing the release button (10) and reposition the connector.



- ▶ By keeping the operating button (3) pressed, the motor continues to operate and the ram will gradually move forward until the two jaws touch. It is recommended to keep operating until the maximum pressure valve is activated and a "click" is heard.



To perform a full compression, press and hold the operating button (3) until the maximum pressure valve is activated and a "click" is heard.



2.1.1) Release of crimping jaws

- ▶ By operating the pressure release button (10), the ram will retract and open the jaws.

2.2) Cutting mode

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

- ▶ Insert the cutting jaws into the tool (see **section 3.1**).
- ▶ Insert the conductor between the blades, up to the desired cutting point (see FIG. 5).



To cut short pieces of steel or ACSR ropes, it is suggested to tie or wrap rope with adhesive or duct tape around the area to be cut and at its end, so to limit the projection of steel fragments which could cause damage or injure the operator.

- ▶ Press the operating button (3) to activate the motor. The ram will gradually move forward until the blades (12) touch the conductor.



Make sure the blades are exactly positioned on the desired cutting point otherwise re-open by pressing the release button (10) and reposition the conductor.

- ▶ To halt the advancement, release the operating button (3) and the motor will cut out.
- ▶ Firmly hold the tool and press the operating button (3) to gradually advance the blades (12), until the cutting operation is complete.

2.2.1) Release of cutting jaws

- ▶ By operating the pressure release button (10), the ram will retract and open the blades.

2.3) LED Worklights

Whilst the tool is in operation, the working area is illuminated by four high luminosity LED Worklights that switch off automatically at the end of the cycle.

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.



Do not attempt to rotate the head when the hydraulic circuit is pressurised.

2.5) Battery status

- ▶ Batteries are equipped with LED indicators that indicate the remaining battery life at any time by pressing the adjacent button.



When the battery voltage has dropped below a minimum safety threshold, the tool will not start and it is necessary to recharge or replace the battery.



Worklights (7) illuminated combined with an audible alarm when the operating button (3) is pressed, indicate that the battery voltage has dropped below a minimum safety threshold. Under these conditions the tool will not start, and it is necessary to recharge or replace the battery.

2.6) Using the battery charger

Carefully follow the instructions in the battery charger user manual.

3. DIE AND JAW ASSEMBLY

The interchangeable crimping jaws have plastic covers on the outside edges.



When introducing or changing jaws or dies, the battery must first be removed from the tool.

3.1) Jaw assembly

- ▶ Press the locking pin (6) and turn it to the right to release it into the fully open position (see FIG. 2).
- ▶ Insert the jaws into the support head until the hole is aligned with the locking pin.
- ▶ Push the pin (6) right in and turn it to the left to lock it (see FIG. 2) until the red lines are aligned.

3.2) Crimping die assembly

Use of "W" style crimping dies into the CDD6N, CDD6-6N, CDD6-8N jaws

- ▶ Press pins (11) and insert "W" dies into their seats (see FIG. 3).
- ▶ To disassemble, simply press the pins (11) and slide them from the jaws.



It is recommended to use the tool only with product to be crimped inserted.

4. MAINTENANCE

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

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 pivots and moveable parts.

Do not use hydrocarbons to clean the rubber parts.

4.2) Canvas bag

To protect the tool from accidental damage and dust, it should be stored with its accessories in the special canvas bag provided and sealed well.

Canvas bag **type CVB-033**: Size 740x215x200 mm (29.1x8.5x7.9 inches), weight 1,7 kg (3.7 lbs).

4.3) Routine maintenance

When the tool reaches the predetermined number of hours worked, it will signal that routine maintenance is recommended.



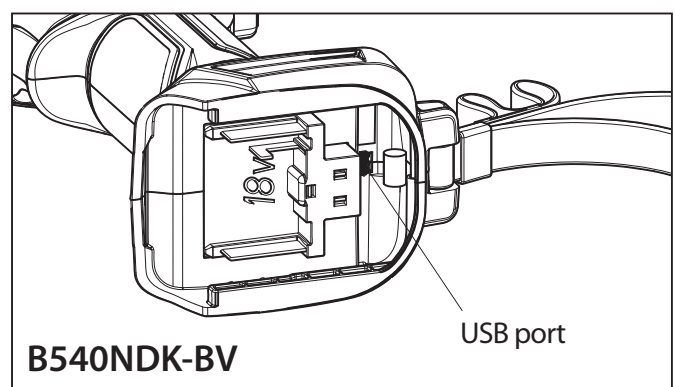
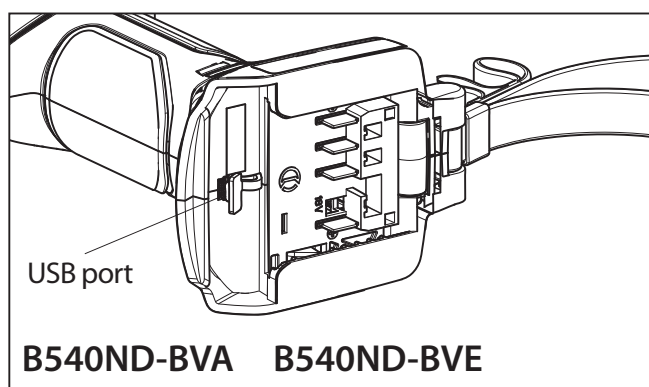
The tool will continue to work however, 15 sec. after use an alarm comprising 3 beeps combined with illumination of the worklights will signal that its return to CEMBRE for service is recommended (see section 6).

5. CONNECTION TO COMPUTER (Smartool thecnology)

The memory card integrated in the tool records operating data for transfer via the USB cable supplied.

To view and manage this data, go to **www.cembre.com** and register in the dedicated area, then download the free CEMBRE software **CEM_SWBT01**.

Keeping the Firmware of the tool updated, via free of charge download from here, will optimise the tool's performance.



6. 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 fill in and attach the form available in the “ASSISTANCE” section of the CEMBRE website.

Following information applies to member states of the European Union:

USER INFORMATION in accordance with Directives 2011/65/EU and 2012/19/EU.

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.

NOTE

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JAWS TABLES



CAUTION

- Inspect the jaws before each use. Do not use damaged jaws.
- Damaged jaws can break and cause injury or damage to the tool.
- Work in a clean, uncluttered area.
- Keep persons away from immediate work area.
- Use these jaws for the manufacturer's intended purpose only.

INTERCHANGEABLE CRIMPING JAWS

CAT. No	CRIMPING DIE COMPATIBILITY		
CDD6N	With "D3" groove to accept all "W" style crimping dies + "BG" fixed groove.	FCI Burndy Greenlee IlSCO Huskie Panduit	W, X Series KD6 Series ND Series HT-58 Series CD-2001 Series
CDD6-6N	With "D3" groove to accept all "W" style crimping dies.	FCI Burndy Greenlee IlSCO Huskie Panduit	W, X Series KD6 Series ND Series HT-58 Series CD-2001 Series
CDD6-8N	With "D3" groove to accept all "W" style crimping dies + "O" fixed groove.	FCI Burndy Greenlee IlSCO Huskie Panduit	W, X Series KD6 Series ND Series HT-58 Series CD-2001 Series

INTERCHANGEABLE CUTTING JAWS

CAT. No	CUTTING COMPATIBILITY
CMB4N	Cutting jaws for underground: Aluminum & Copper stranded cables. Max opening 1-1/4.
CMB5N	Cutting jaws for OHL: ACSR up to 556 and tree wire.
CMB6N	Cutting jaws for guy wires: Up to 7/16 EHS guy wire.

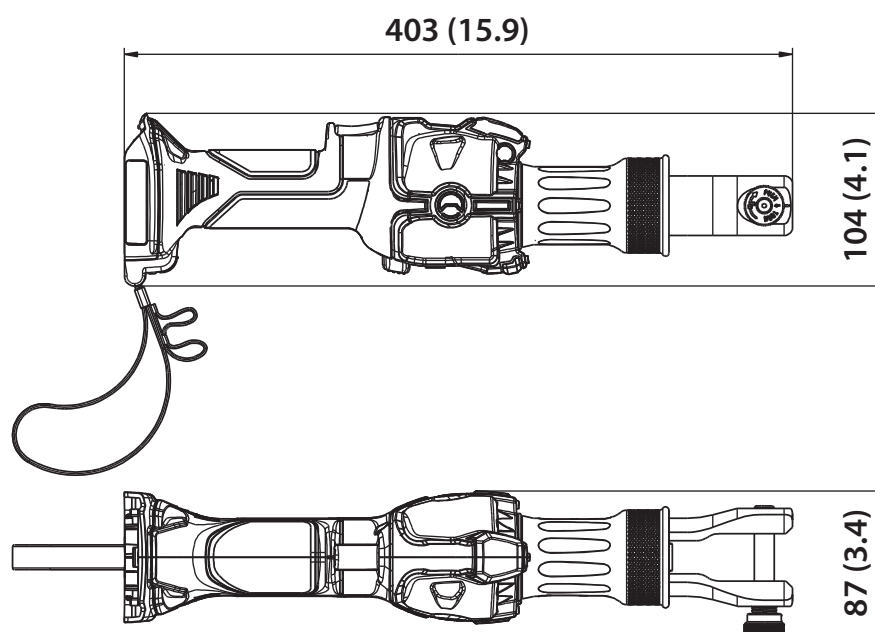


Wear eye protection. Metal chips can fly from blades when cutting.

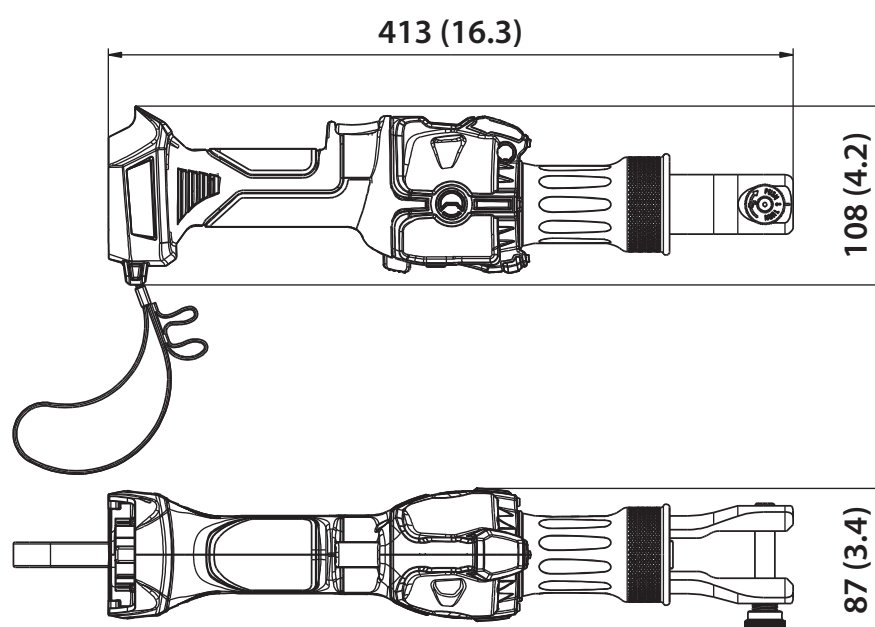
Do not cut short, free pieces of steel rods or ropes, they may dangerously fly off; injury to the operator and persons nearby may result.

FIG. 8

B540ND-BVA
B540ND-BVE



B540NDK-BV



Dimensions mm (inch)



**DECLARATION OF CONFORMITY -
DECLARATION DE CONFORMITE - KONFORMITÄTSERKLÄRUNG -
DECLARACIÓN DE CONFORMIDAD - DICHIARAZIONE DI CONFORMITÀ**

We Nous Wir Nos Noi: **CEMBRE S.p.A. Via Serenissima, 9 – 25135 Brescia (Italy)**

Declare under our sole responsibility that the product - *Déclarons sous notre seule responsabilité que le produit*
- Erklären in alleiniger Verantwortung dass das Produkt - *Declaramos bajo nuestra responsabilidad que el producto*
- Dichiariamo sotto nostra unica responsabilità che il prodotto:

B540ND-BVA B540ND-BVE B540NDK-BV

To which this declaration relates is in conformity with the following standard(s) or other normative document(s) -

Auquel cette déclaration se réfère est conforme à la (aux) norme(s) ou autre(s) document(s) normatif(s) -

Auf dass sich diese Erklärung bezieht, mit der/den folgenden Norm(en) oder dem/den normativen Dokument(en)
über einstimmt - *Al que se refiere esta declaración, cumple la(s) norma(s) u otro(s) documento(s) normativo(s) -*

Al quale si riferisce questa dichiarazione è conforme alla(e) norma(e) o altro(i) documento(i) normativo(i):

EN ISO 12100 EN ISO 3744 EN ISO 11202 EN ISO 5349-1 EN ISO 5349-2 EN55014-1/A11 EN 55014-2

Following the provisions of EU directive(s) - *Conformément aux dispositions de(s) directive(s) EU -*

Gemäß den Bestimmungen der EU Richtlinien - *De acuerdo con las disposiciones de la(s) directiva(s) EU*

Conformemente alle disposizioni della(e) direttiva(e) EU:

2006/42/EC 2011/65/EU 2014/30/EU

Person authorised to compile the technical file - *Personne autorisée à constituer le dossier technique -*

Person die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen -

Persona facultada para elaborar el expediente técnico - Persona autorizzata a costituire il file tecnico:

Gianluca Cama via Serenissima, 9 – 25135 Brescia (Italy)

Brescia 11-07-2022



CEMBRE

Felice Albertazzi

CHIEF SALES & MARKETING OFFICER

Cembre S.p.A.



DECLARATION OF CONFORMITY

We: **CEMBRE S.p.A. Via Serenissima, 9 – 25135 Brescia (Italy)**

Declare under our sole responsibility that the product:

B540ND-BVA B540ND-BVE B540NDK-BV

To which this declaration relates is in conformity with the following standard(s) or other normative document(s):

EN ISO 12100 EN ISO 3744 EN ISO 11202 EN ISO 5349-1 EN ISO 5349-2 EN55014-1/A11 EN 55014-2

Following the provisions of the UK Legislation(s):

S.I. 2008/1597 S.I. 2012/3032 S.I. 2016/1091

Brescia 11-07-2022



CEMBRE

Felice Albertazzi

CHIEF SALES & MARKETING OFFICER

Cembre S.p.A.





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