

BATTERY OPERATED HYDRAULIC CUTTING TOOL

B-TC550A B-TC550NA

CE



ENGLISH

OPERATION AND MAINTENANCE MANUAL

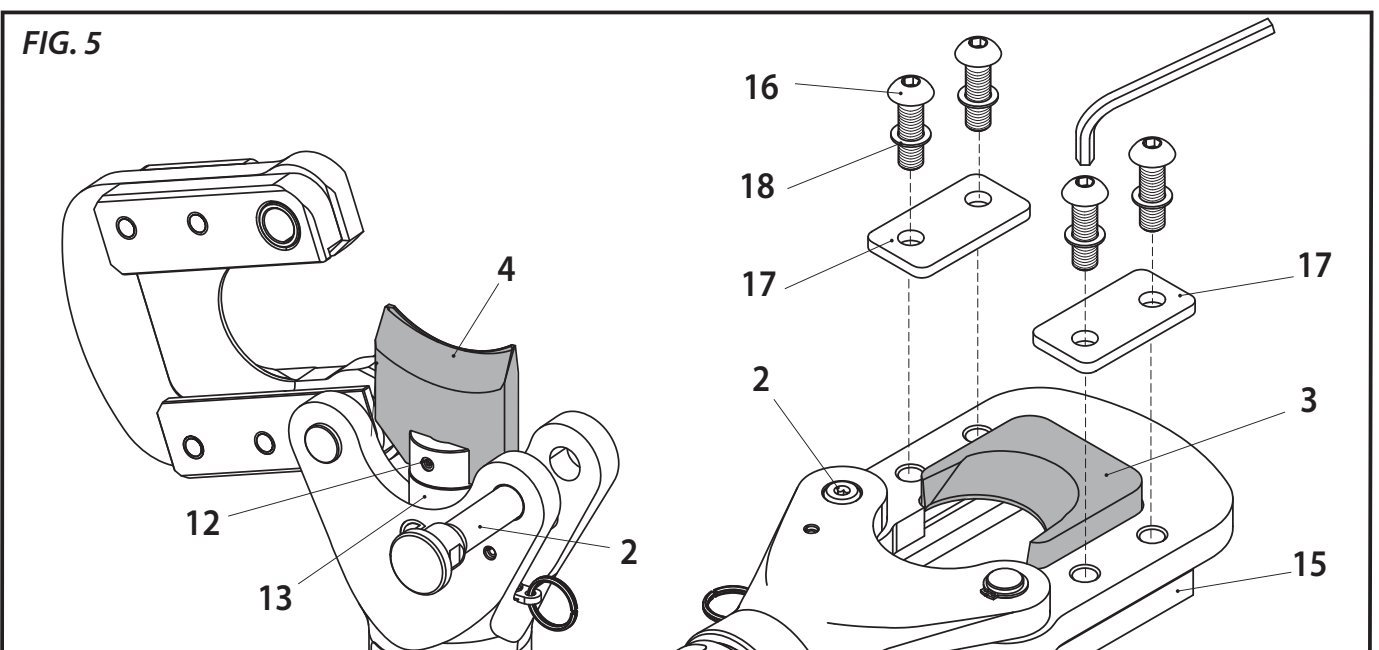
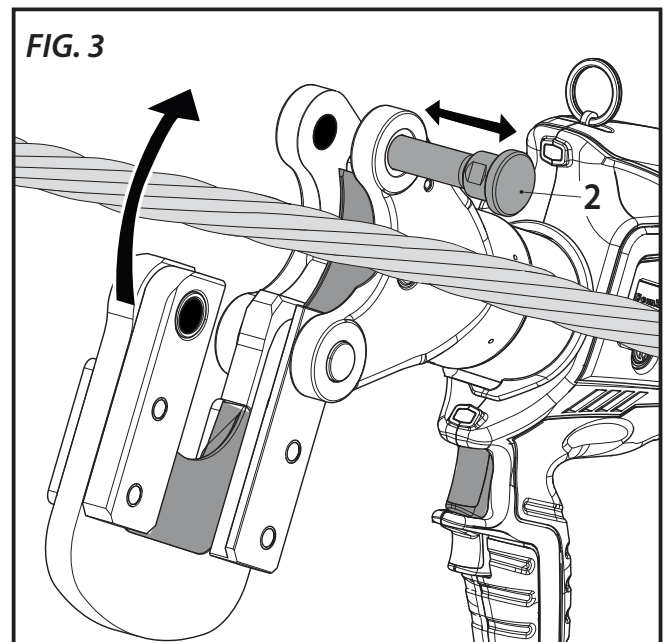
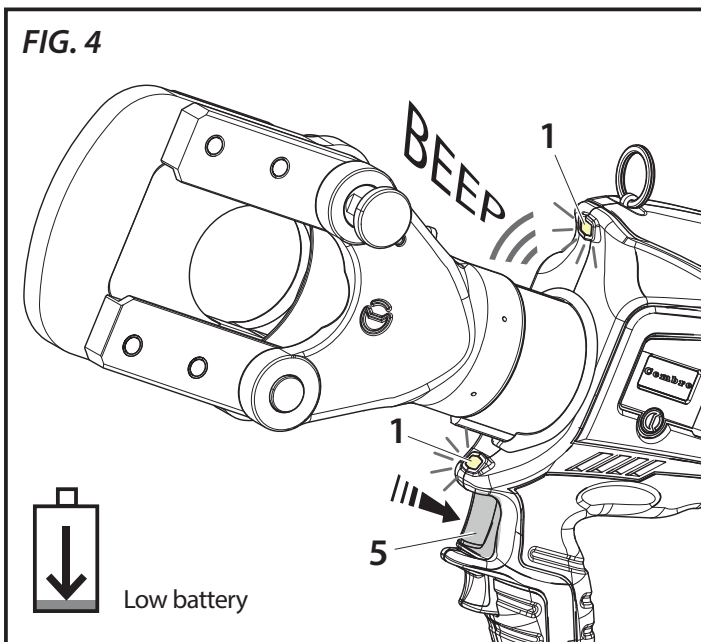
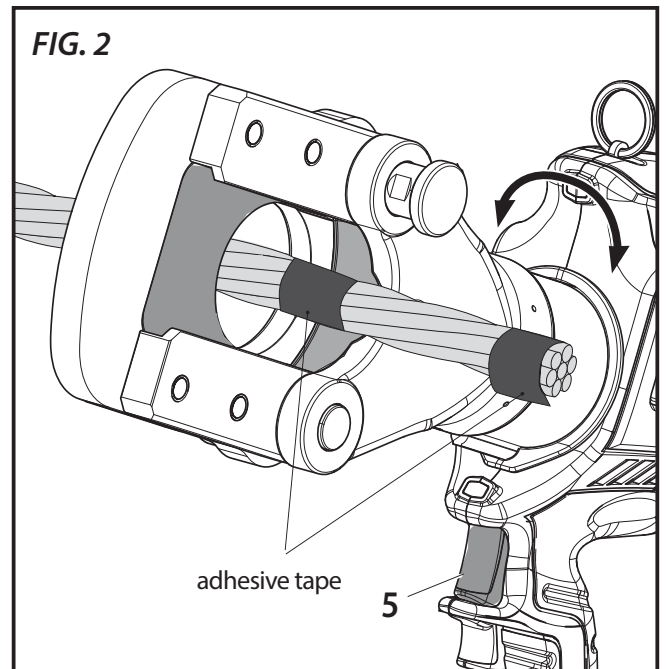
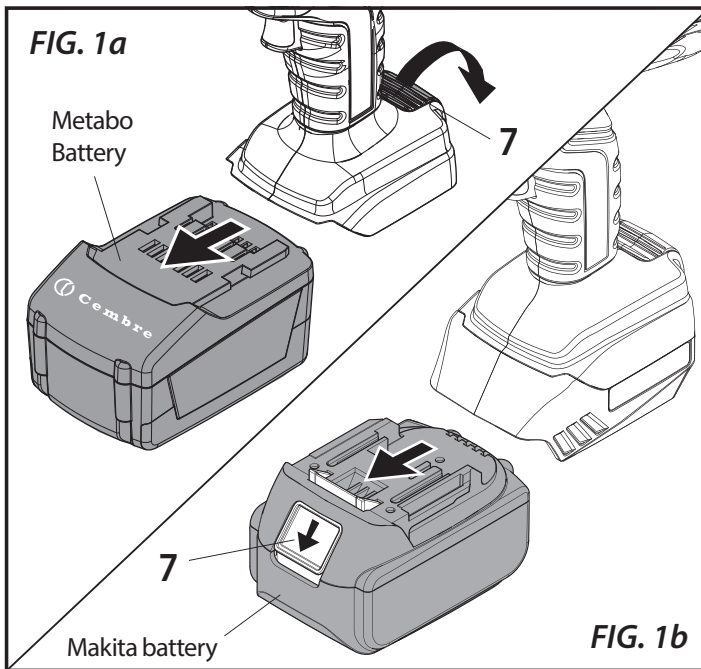
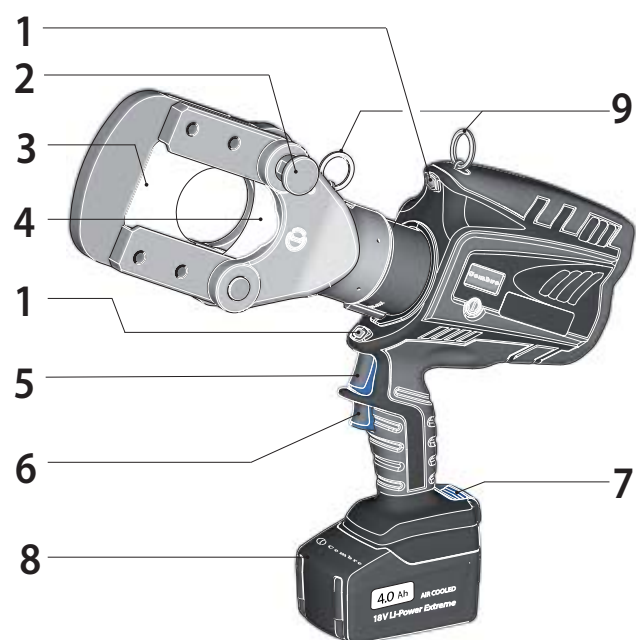
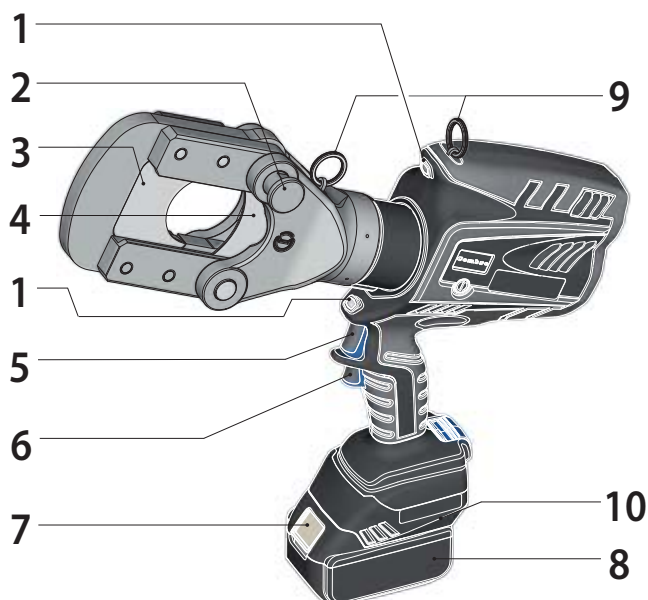


FIG. 6



B-TC550A



B-TC550NA

1	LED WORKLIGHT
2	LOCKING PIN
3	UPPER BLADE
4	LOWER BLADE
5	OPERATING BUTTON
6	PRESSURE RELEASE BUTTON
7	BATTERY RELEASE
8	BATTERY
9	RING FOR SHOULDER STRAP
10	BATTERY ADAPTER

WARNING SYMBOLS

Tool

	– Before using the tool, carefully read the instructions in this manual.
	– Keep hands clear of cutting blades.
 	– Always wear safety glasses and gloves when operating this tool.
	– User information applies in member states of the European Union (Directives 2011/65/EU and 2012/19/EU), see page 9.

Battery

 	– Never throw batteries into fire or water.
	– Always recycle the batteries.
	– Do not discard batteries into domestic refuse or waste disposal.

1. GENERAL CHARACTERISTICS

		B-TC550A	B-TC550NA
Application range		suitable for cutting Copper, Aluminium, ACSR and Steel conductors, ropes and rods	
Max. cutting diameter	mm (inches)	55 (2-3/16")	
Operating pressure	bar (psi)	880 (12,700)	
Dimensions	mm (inches)	441 x 424 x 87 (17.5 x 16.7 x 3.4)	441 x 444 x 87 (17.5 x 17.5 x 3.4)
Weight with battery	kg (lbs)	8,9 (19.6)	9,0 (19.9)
Motor	V DC	18	
Operating temperature	°C (°F)	-15 to +50 (+5 to +122)	
Recommended oil		ENI ARNICA ISO 32 or equivalents	
Operating speed		twin speed operation and automatic switching from a rapid advancing speed of the ram to a slower, more powerful speed	
Safety		maximum pressure valve	
Rechargeable battery	type	CB1840L	MAKITA BL1850B
Type	V / Ah (Wh)	18 / 4.0 / (72)	18 / 5.0 (90)
Weight	kg (lbs)	0,66 (1.45)	0,6 (1.3)
Acoustic noise ⁽¹⁾			
L _{pA}	dB (A)	73	
L _{pCPeak}	dB (C)	94.5	
L _{WA}	dB (A)	79	
Vibration ⁽²⁾	m/s ²	0.575 max.	
Battery charger	type	ASC30-36	MAKITA DC18RC
Input	V / Hz	115 / 60	120 / 50 - 60

⁽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.



WARNING

- ▶ **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 balanced working position.
Work in a clean, uncluttered area. Keep persons away from immediate work area.
- ▶ **Inspect the blades before each use. Do not use damaged blades.**
Damaged blades can break and cause injury or damage to the tool.
- ▶ **Before each use, verify the integrity of the tool; replace any worn, possibly damaged or missing parts with original Cembre spares.**
- ▶ **Wear eye protection. 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 cutting operations; for instance, having exhausted a fully charged battery in one session, delay battery replacement for a few minutes.**
- ▶ **Protect the tool from rain and moisture. Water will damage the tool and battery. Electro-hydraulic tools should not be operated in pouring rain.**

The part reference includes the following:

- ▶ Hydraulic cutting tool (B-TC550NA is fitted with adapter to use Makita battery).
- ▶ Li-Ion rechargeable battery (2 pcs) (model depends on the tool version).
- ▶ Battery charger (model depends on the tool version).
- ▶ Shoulder strap.
- ▶ Carrying case.
- ▶ USB cable (Ref. to § 5).

2. INSTRUCTIONS FOR USE

The tool can be easily carried using either the handle or the shoulder strap attached to ring (9) (Ref. to Fig. 6).



Before starting any work, check the battery charge (Ref. to § 2.7) and recharge if necessary, Refer to the manufacturer's instructions for the correct use of battery and battery charger.

To replace the battery, remove it by pressing the release button (7) (Ref. to Fig. 1a and 1b),
B-TC550A: in the fig. 1a press the release button (7) and slide the battery out unlocking it.
B-TC550NA: in the fig. 1b press the release buttons (7) and slide the battery out unlocking it.
Insert a charged battery by sliding it into the guides until it locks.

2.1) Head rotation

For ease of operation, the tool head can rotate through 180°, allowing the operator to work in the most comfortable position (Ref. to Fig. 2 and 3).



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

2.2) Setting

- Insert the conductor between the blades, up to the desired cutting point (Ref. to Fig. 2).



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 (Ref. to Fig. 2), so to limit the projection of steel fragments which could damage or hurt the operator.

- For a running conductor, remove the locking pin (4) and open the tool head.



Fully retract the lower blade (3) before attempting to open the tool head (Ref. to § 2.6).

- With the conductor on the lower blade (3), close the tool head and fully insert the locking pin (4) (Ref. to Fig. 3).



Before commencing the cutting operation ensure that the pin (4) is fully secured: partial closure may damage the tool head.

2.3) Blade advancement

- Operate the push-button (5) (Ref. to Fig. 2) to activate the motor-pump, the ram will gradually move forward until the lower blade (3) touches the conductor.
- To halt the advancement, release the push-button (6) and the motor will cut out.



Make sure the blade is exactly positioned on the desired cutting point otherwise re-open the blade following instructions as per § 2.6 and reposition it.

2.4) Cutting

- Firmly hold the tool and operate the push-button (5) to gradually move the lower blade (3) to cut through the conductor.
- When the cut is performed, release the push-button (5), otherwise after the maximum pressure relief valve has activated the motor will stop automatically.

2.5) LED Worklights

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

2.6) Blade retraction

By operating the pressure release button (6), the ram will retract and open the blades.

2.7) Battery status

The battery is equipped with LED indicators that indicate the remaining battery life at any time by pressing the adjacent button (P):

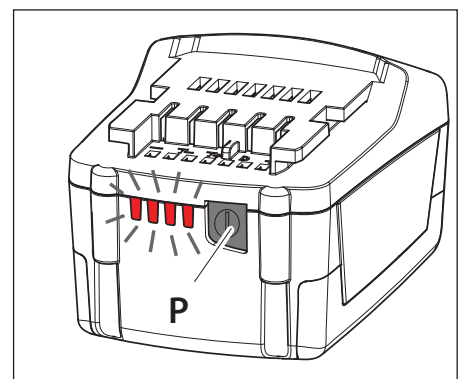
4 LEDs illuminated: fully charged

2 LEDs illuminated: 50 % capacity

1 LED flashing: minimum charge, replace the battery



Worklights (1) illuminated combined with an alarm audible when the operating button (5) is pressed (Ref. to Fig. 6), 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. The approximate time to fully recharge a battery is about 80 minutes.





After each working cycle, and after the extraction of the battery from the tool, an integrated battery cut-off device will operate after 70 s approx. Then the LED nearest to button (P) will flash 5 times each 14 s approx. The battery will be reactivated when it is reintroduced into the tool and the operating button is pressed.

2.8) Using the battery charger

- ▶ Carefully follow the instructions in the battery charger user manual.

3. 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:

3.1) 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.
- ▶ Regularly lubricate the moving parts and pivot pins of the head with a few drops of oil.

3.2) Storage case

When not in use, the tool should be stored and transported in the plastic case, to prevent damage. The case, type VAL-P40, is suitable for storing the tool and accessories.

VAL-P40: Size 520x432x126 mm (20.5x17.0x5.0 inches). Weight 2,6 kg (5.7 lbs).

3.3) 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 § 6).*

4. BLADE REPLACEMENT (Ref. to Fig. 5)



When changing blades, the battery must first be removed from the tool.

After extended use, the blades may break or loose their cutting edge.

Replace the blades as follows:

▶ Lower blade

- Remove locking pin (2), and open the tool head completely.
- Operate the tool to advance the lower blade (4) and remove the battery.
- Eject two split pins (12) from the ram (13) to release the blade (4).
- Remove the broken blade from the ram, insert the new blade and fit with two split pins.



Before closing the tool head, push the release button (6) and fully retract the lower blade, otherwise the tool head assembly may hit and damage, the lower blade.

▶ Upper blade

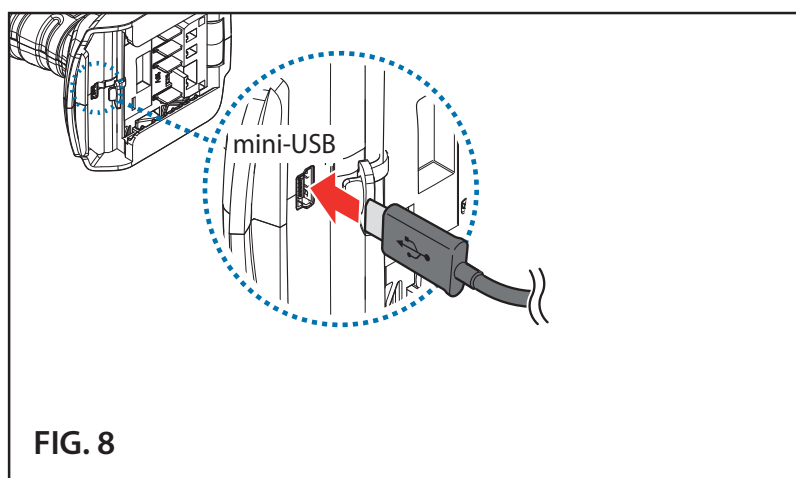
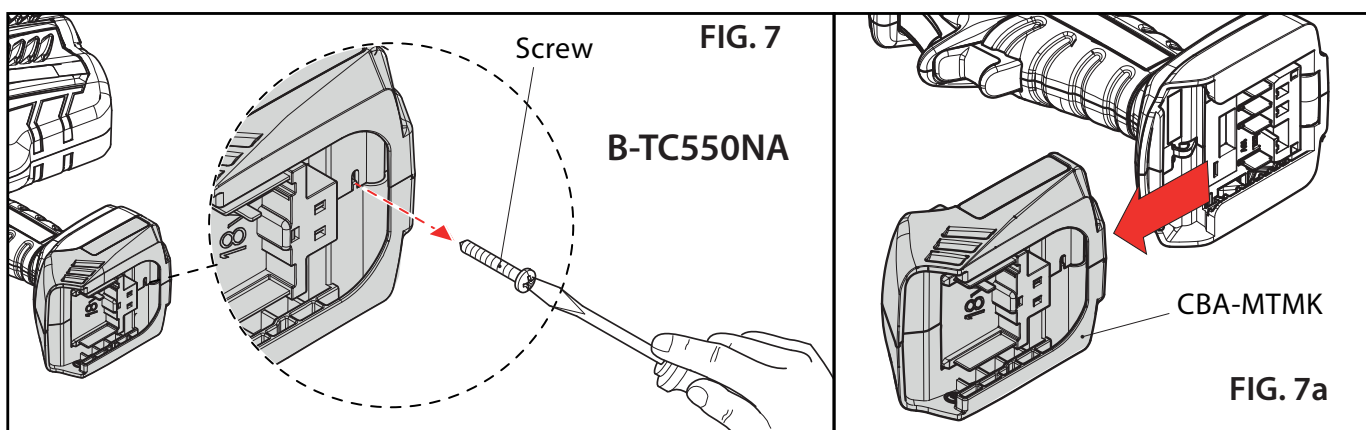
- With the lower blade (3) fully retracted, the tool head closed and the locking pin (4) fully secured, hold the head by the blade spacer (15) in a bench vice with screws (16) facing upwards.

- With an 6 mm allen key, unscrew 4 screws (16), remove the two holding plates (17) and the upper blade (2).
- Insert the new blade, noting the position of the cutting edge bevel.
- Fit the 2 holding plates (17) and secure with 4 screws (16) with relevant washer (18).

5. CONNECTION TO COMPUTER

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.



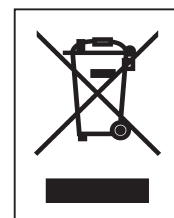
B-TC550NA: To access the mini-USB port (Ref. to fig. 8) and connect the USB cable to the computer it is necessary to remove CBA-MTMK battery adapter. Remove the screws (Ref. to fig. 7 and 7a) and slide the adapter out.

- Following information applies in 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.



6. CUTTING RANGE

	MATERIAL	TENSILE STRENGTH		MAX CUTTING DIAMETER	
		(daN/mm ²)	(lbs/sq.in.)	(mm)	(inches)
ROPE & CONDUCTORS	Copper	≤ 41	≤ 59,450	55	2-3/16"
	Aluminium	≤ 20	≤ 29,000	55	2-3/16"
	Almelec	≤ 34	≤ 49,300	55	2-3/16"
	Steel	≤ 180	≤ 261,000	(*) 7 x 3,0 : ø = 9,0 mm 19 x 2,1 : ø = 10,5 mm 19 x 2,3 : ø = 11,5 mm	(*) 7 x 0.118 = ø out.0.354 19 x 0.083 = ø out. 0.413 19 x 0.091 = ø out. 0.453
	Multi-strand Steel (strands qty. ≥ 200)	≤ 180	≤ 261,000	22	0.866
	ACSR	≤ 180	≤ 261,000	50 (*) 26 x 2,50 + 7 x 1,95 : ø = 15,85 26 x 3,06 + 7 x 2,38 : ø = 19,38 26 x 3,60 + 7 x 2,80 : ø = 22,80 54 x 3,50 + 19 x 2,10 : ø = 31,50 54 x 4,36 + 19 x 2,62 : ø = 39,20 83 x 4,60 + 16 x 2,80 : ø = 50,00	1.968 (*) 26 x 0.098 + 7 x 0.077 : ø out 0.624 26 x 0.120 + 7 x 0.094 : ø out 0.763 26 x 0.142 + 7 x 0.110 : ø out 0.897 54 x 0.138 + 19 x 0.082 : ø out 1.240 54 x 0.172 + 19 x 0.103 : ø out 1.543 83 x 0.181 + 16 x 0.110 : ø out 1.968
	Guy wire	Extra high strength grade		7 x 4,77 : ø = 14,30	7 x 0.188 : ø = 0.562
RODS	Steel	≤ 60	≤ 87,000	20	0.787
		≤ 42	≤ 60,900	22	0.866
	Copper	≤ 30	≤ 43,000	34	1.338
		≤ 25	≤ 36,250	38,5	1.515
	Aluminium	≤ 16	≤ 23,200	50	1.968

(*) TYPICAL EXAMPLES

7. 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.

Cembre Ltd.

Dunton Park
Kingsbury Road, Curdworth - Sutton Coldfield
West Midlands B76 9EB (**UK**)
Tel.: 01675 470440 - Fax: 01675 470220
E-mail: sales@cembre.co.uk
www.cembre.co.uk

Cembre S.a.r.l.

22 Avenue Ferdinand de Lesseps
91420 Morangis (**France**)
Tél.: 01 60 49 11 90 - Fax: 01 60 49 29 10
CS 92014 - 91423 Morangis Cédex
E-mail: info@cembre.fr
www.cembre.fr

Cembre España S.L.U.

Calle Verano 6 y 8
28850 Torrejón de Ardoz - Madrid (**España**)
Teléfono: 91 4852580
Telefax: 91 4852581
E-mail: comercial@cembre.es
www.cembre.es

Cembre Inc.

Raritan Center Business Park
181 Fieldcrest Avenue
Edison, New Jersey 08837 (**USA**)
Tel.: (732) 225-7415 - Fax: (732) 225-7414
E-mail: sales.US@cembreinc.com
www.cembreinc.com

Cembre GmbH

Heidemannstraße 166
80939 München (**Deutschland**)
Telefon: 089 3580676
Telefax: 089 3580677
E-mail: sales@cembre.de
www.cembre.de

IKUMA GmbH & Co. KG

Boschstraße 7
71384 Weinstadt (**Deutschland**)
Telefon: 7151 20536 - 60
Telefax: 7151 20536 - 80
E-mail: info@ikuma.de
www.ikuma.de



C e m b r e

www.cembre.com

cod. 6261457

Cembre S.p.A.

Via Serenissima, 9
25135 Brescia (**Italia**)
Telefono: 030 36921
Telefax: 030 3365766
E-mail: sales@cembre.com
www.cembre.com

