



Cembre



Certified Quality Management System



Certified Environmental Management System



Certified Occupational Health & Safety Management System

MECHANICAL CRIMPING TOOL

TND6-70 TNH6-70

CE



ENGLISH

OPERATION AND MAINTENANCE MANUAL

20 M 135 E

1. GENERAL CHARACTERISTICS

Application range:

TNH6-70

- Copper tube terminal lugs type HR.. for conductor sizes 6mm² to 70mm²
- Copper tube splices type HSV.. for conductor sizes 6mm² to 70mm²

TND6-70

- Copper tube terminal lugs according to DIN46235 (Cembre type DR..) for sizes 6mm² to 70mm²
- Copper tube splices according to DIN46267 Part 1 (Cembre type DSV..) for sizes 6mm² to 70mm²

Weight

kg (lbs)

2,1 (4,6)

Dimensions:

mm (inches)

length

515 (20.2)

width

132 (5.2)

2. INSTRUCTIONS FOR USE

2.1) Operator information:

- The instructions within this operation and maintenance manual should always be followed.
- The tool should only be used by competent personnel who are familiar with the instructions contained within this manual.

2.2) Application:

Not to be used for any other purpose than for which the tools were designed



Do not use these crimping tools to crimp other type of lugs or connectors.

2.3) Die profile selection:

- Fully open the tool handles
- Press down the locking-pin of the indexable die plates.
- TNH6-70: Rotate the die profiles until the stamped cross section matches the cross section on the cable lug/connector.
- TND6-70: Rotate the die profiles until the 'K' number matches the equivalent No. marked on the palm of the terminal lug or the wall of the splice.
- Release the locking-pin until the die profile is fixed.
- Adjust the second die profile in the same manner as the first by following the above instructions. Both profile dies must have the same 'K' number.



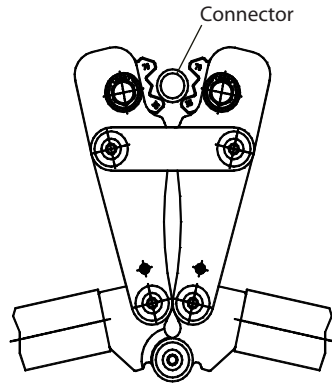
Incorrect choice of die profile will result in tool damage and/or affect the quality of the crimped joint, leading to potential failure

2.4) Cable preparation:

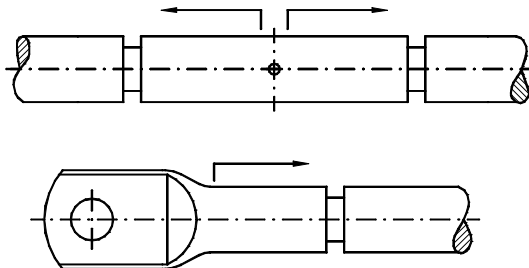
- Cut the cable perpendicular to the central axis.
- Neatly strip the insulation over a distance equal to the barrel length allowing an additional 10%. Ensure all traces of the insulation are removed. Avoid damage to the outer layer of conductor strands.
- Clean the conductor carefully.
- Sector-shaped conductors must be pre-rounded before crimping.

2.5) Crimping procedure:

Open the crimping tool handles and position the connector at the lower part of the die profile (see image). The terminal lug/splice axis should be perpendicular to the plane of the die profile



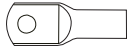
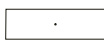
- Apply a small pressure to the handles to close the dies sufficient to trap the connector
- Fully insert the conductor into the connector barrel.
- Apply sufficient force to close the handles and cause the dies to compress the connector and conductor until the die profiles become in contact.
- Apply the correct number of compressions as defined on page 4, in the direction defined in the figure below.
- The crimping bite width is 5mm for these tools.

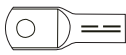
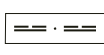


DIRECTION OF THE COMPRESSIONS

2.6) Number of compressions required:

- The table below shows the number of compressions required per conductor size.
- If only one compression is required, please position the crimp at the midpoint of the connector barrel. If several compressions are required these should be spaced evenly.

Copper cross-section mm ²	TNH6-70	
		
6	1x	1+1
10	1x	1+1
16	1x	1+1
25	2x	2+2
35	2x	2+2
50	2x	2+2
70	2x	2+2

Identification Number	Copper Cross-section mm ²	TND6-70	
			
5	6	1x	1+1
6	10	1x	1+1
8	16	2x	2+2
10	25	2x	2+2
12	35	2x	2+2
14	50	3x	3+3
16	70	3x	3+3

3. MAINTENANCE

- Remove dust, humidity and other impurities with a clean brush or a soft cotton-free cloth. Never use any items which may damage the tool.
- Take care that the bolts, any moveable parts and the tool surface are coated with a thin film of high quality oil.
- Ensure die profiles can be rotated freely prior to use
- Store the tool in a dry and clean area.

3.1) Safety advice:

- Ensure hands are free of the crimping area at all times
- Ensure that the dies are completely closed to obtain a full compression



Never work with energised conductors. Ensure that voltage has been switched off before starting work and check this with adequate instruments.

- Alteration of the tool is prohibited.
- Before operating the tool, check for any damage, the tool should not be used if damage is visible
- The tool should be returned to the nearest Cembre service centre for any repairs required.

4. TROUBLESHOOTING

PROBLEM:	CAUSE:	SOLUTION:
Excess flash (wings) on the crimped joint	<ul style="list-style-type: none">- A smaller die profile than required has been selected.- Incorrect connectors have been used- Other causes	<ul style="list-style-type: none">- Adjust die profiles to match the connector requirement
The compression is of insufficient depth and the conductor can be pulled from the joint	<ul style="list-style-type: none">- The die profile is larger than required- Incorrect connectors type have been used- Other causes	<ul style="list-style-type: none">- Verify the connector type and size is correct- Return tool to Cembre for inspection and repair
Die profile cannot be changed	<ul style="list-style-type: none">- Locking bolt has snapped in	<ul style="list-style-type: none">- Press down locking bolt
Profile dies are difficult to rotate	<ul style="list-style-type: none">- Tool is soiled- Tool is insufficient oiled	<ul style="list-style-type: none">- Clean the tool- Oil the bolts and screws- Return tool to Cembre for inspection and repair
Tool has no tension when handles are fully closed	<ul style="list-style-type: none">- Tool is worn	<ul style="list-style-type: none">- Return the tool to Cembre for inspection and repair

5. PARTS LIST (Ref. to Fig. 1)

Code	Item	DESCRIPTION	Qty
6950043	01	PROFILE DIE (TNH) 9996301	2
6950041	01	PROFILE DIE RIGHT (TND) 9018201	1
9018102	02	PLATE BAR 1	2
9018103	03	PLATE BAR 2	2
9018104	04	TOGGLE 1	1
9018105	05	TOGGLE 2	1
6950045	06	LOCKING BOLT 9018106	2
6950046	07	COMPRESSION SPRING, CONICAL 9018107	2
9018108	08	TUBE	1
9018109	09	BAR, WITH TOOL-NO. (TNH)	1
9018209	09	BAR, WITH TOOL-NO. (TND)	1
9018209L	10	BAR, WITH COMPANY LOGO	1
9018111	12	SPIRAL PIN 5X14	4
9018112	13	FILLISTER HEAD SCREW M 6X20, ZINC PLATED	1
9018113	14	FILLISTER HEAD SCREW M 6X25, ZINC PLATED	2
9018114	15	FILLISTER HEAD SCREW M 6X30, ZINC PLATED	2
9018115	16	NUT, SELF-LOCKING M6	4
9018116	17	WASHER 6,4, ZINC PLATED	8
9018117	18	GUIDE SLEEVE 1	1
9018118	19	GUIDE SLEEVE 2	2
9018119	20	GUIDE SLEEVE 3	2
9018120	21	DISTANCE SLEEVE	4
9018121	22	GRIP	2
6950044	23	CIRCLIP 12X1 9065207	4
6950042	24	PROFILE DIE LEFT (TND) 9018222	1

*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**

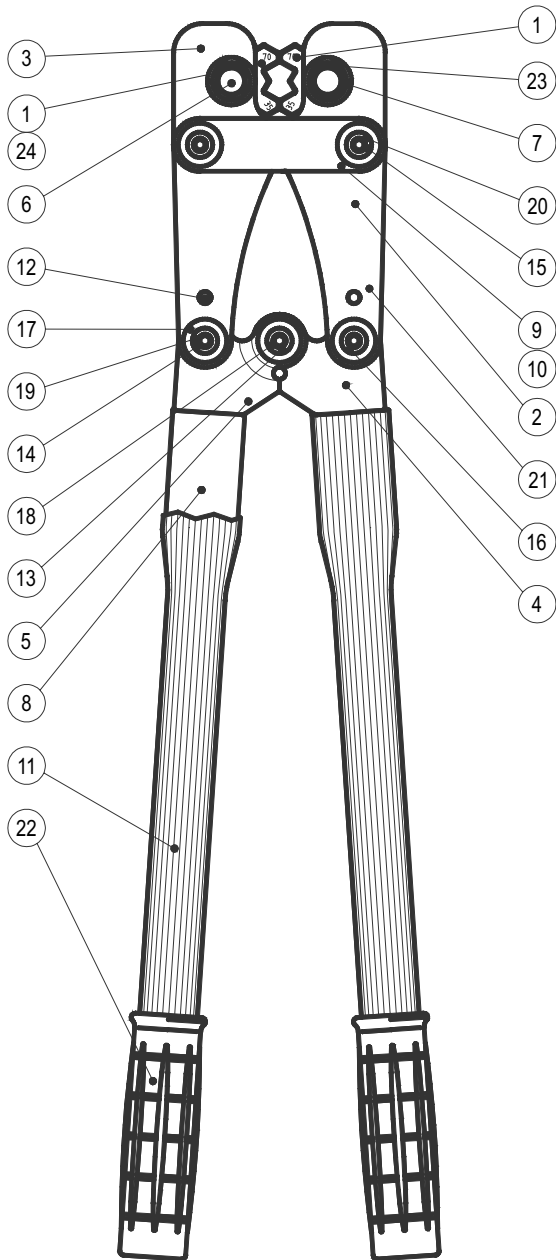


FIG. 1

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