

CT-3001/CCPBT Tool Specification

I. SCOPE: This specification defines the requirements for a battery operated, hydraulic tool and related components for terminating compression connectors, cutting cable and threaded rod, and punching shapes into sheet metal. The tool uses CD-2001, KC22, KA22 and CD-920-Fxx dies to crimp applicable product. This tool meant for intermittent use. This tool will include Blue Tooth connectivity to a cellular phone app that monitors tool performance.

II. TOOL FUNCTION & FEATURES:

A. Mechanical Function:

1. Tool output to be 6.7 tons (60 kN).
2. Minimum diametrical diameter opening to be .6" (16 mm).
3. Tool to have multiple uses for crimping, cutting and punching.
4. Approximate cycle time to be 10 seconds without product.
5. Tool ram to retract when the tool has reached its maximum output load.
6. Tool head to open for removal for contiguous wire terminations.
7. Tool to have built in locking feature to secure battery in place.
8. Tool to operate on Lithium-Ion 18.0 VDC.
9. Requires an adapter to be used in conjunction with CD-2001 dies.
10. Can cut copper and aluminum cable up to .98" (25mm).
11. Can cut M5-M12 and ¼" 3/8" and 1/2" mild steel threaded rod.
12. Punches up to 2" (50 mm) conduit diameter holes using Panduit punch driver adapter and standard Greenlee punches.

B. Operational Features:

1. Tool does not require any operator adjustments.
2. Tool or battery to have a "low Battery" indicator light.
3. Tool ram activated by depressing trigger. Tool ram while advancing holds position when trigger is released. Tool ram may have feature to "teach" the tool to a user set position.
4. Tool to have manual retract/release button. Tool ram while retracting holds position when button is activated.
5. Crimp head to rotate at least 350 degrees fully.
6. No additional pinch points.
7. MAKITA Battery voltage to be 18.0 VDC 4 A-Hr Lithium-Ion. Battery will recharge in about one hour or less.
8. Tool will have a digital readout on lower back edge of tool. Tool is connected by Blue Tooth to a cellular phone app. The app is to be available in Android, iOS and Windows PC platforms.

III. DESCRIPTION OF USE:

1. The operator pre-assembles the desired compression connector.
2. The operator properly positions the tool over the compression connector and activates the crimp cycle multiple times to position and hold the connector by pressing the ram advance trigger.
3. Assemble wire into connector.
4. Press trigger to operate the tool ram. The tool ram continues to close as long as the operator holds the trigger, and stops as soon as maximum output force is reached
5. The tool crimps the compression connector until the maximum output force is reached. The operator may retract the tool ram by releasing the trigger and/or pushing retract button. After maximum output force is reached the tool ram returns automatically.
6. When the maximum output force is reached, the tool ram starts to retract to indicate the crimp cycle is complete.
7. The operator presses the ram retract trigger to open the dies. After maximum output force is reached the tool ram returns automatically.
8. The operator removes the compression connector from the tool.
9. For cutting and punching operations, the tool is to be stopped after the operation is complete by releasing the trigger. The tool ram is to be manually retracted.

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IV. TECHNICAL / PERFORMANCE SPECIFICATIONS:

1. #4 AWG – 600 MCM (kcmil) Copper lugs and splices
2. #8 AWG – 373 kcmil Copper flex cable lugs and splices
3. #6 AWG – 350 kcmil Aluminum lugs and splices.
4. 10 mm² – 95 mm² Class 5 & 6 metric lugs and splices
5. Cuts copper and aluminum cable up to .98” (25 mm) in diameter.
6. Cuts ACSR cable up to .98” (25 mm) in diameter.
7. Cuts mild steel threaded rod in M5-M12 and ¼”, 3/8”, and ½” diameter threaded rod.

V. LIFETIME PERFORMANCE:

Lifetime Performance to be 50,000 cycles minimum of the tool. Performance is based on standard usage making sure all preventative maintenance requirements have been met on time.

VI. PHYSICAL CHARACTERISTICS:

A. Approximate Overall Dimensions (with battery):

1. Length: 18.7” (475 mm)
2. Width: 3” (76 mm)
3. Height: 4.6” (116 mm)

B. Weight: 7.1 lbs. (3.2 kg)

C. Color and Texture:

1. Tool housing to be black/grey.

D. Environmental Requirements:

1. 50° to 104°F (Battery Charging Temp.)
2. -4° to 104°F (Tool Operating Temp, w/o battery warmer)
3. 10% to 95% Relative Humidity
4. Must work in an indoor and outdoor environment.

E. Minimum Rate of Operation

1. Minimum of 4 crimps per minute with 3 trigger pulls per crimp.

VII. PACKAGING

- A. Tool to be packaged in a hard plastic case.
- B. Tool case must hold tool, dies, two batteries and charger.
- C. Batteries are to conform to regulatory specification for packaging.

VIII. REGULATORY COMPLIANCE

- A. **Tool:** UL/CSA power connector/terminal compliance. Tool is to be CE tool compliant. Tool to be UL/CSA listed under UL 60745-1. Tool shall conform to IEC/EN 62841-1, ENV 61000 and ISO 12100. Tools are to be registered with Bluetooth SIG.
- B. **Charger:** UL/CSA power compliance. CE compliant charger.
- C. **Battery:** CE compliance required.

IX. OPERATION INSTRUCTIONS

- A. Existing operating instructions with modifications are to be used.
- B. Alternate source Manufacturer’s Battery and Charger manual to be used.

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X. WARRANTY

- A.** Tool warranty is 5 years. Battery is 1 year and Charger warranty is 2 years.

XI. ACCESSORIES (PROVIDED WITH TOOL):

- A.** 2- Li-Ion 18.0 VDC rechargeable batteries.
- B.** Manufacturer's battery charger and manual.
- C.** Tool Case with storage for batteries, charger, crimp dies and tool.
- D.** Operating Instructions (see section IX).
- E.** Tool Safety Booklet
- F.** Die Adapter Set

XII. ACCESSORIES (SOLD SEPARATELY):

- A.** Li-Ion 18.0 VDC rechargeable batteries (4.0Ah).
- B.** Charger to be 115 VAC (US).
- C.** Cable Cutting Blades
- D.** Threaded Rod Cutting Blades
- E.** Punch Drive Adapter
- F.** CD-2001 crimp die sets
- G.** UA22 die adapter for KA22, KC22, and CD-920-Fxx dies
- H.** Adapter for Cutting Blades.