

CT-2920/CCPBT Tool Specification

I. SCOPE: This specification defines the requirements for a battery operated, hydraulic tool and related components for terminating compression connectors. The tool will use currently available CD-920 and CD-930 style dies to crimp applicable product. This tool meant for intermittent use. This tool now includes Blue Tooth connectivity to a cellular phone application that monitors tool performance.

II. TOOL FUNCTION & FEATURES:

A. Mechanical Function:

1. Tool output to be 12 tons (108 kN).
2. Minimum crimp jaw opening to be 1.65" (41.9mm).
3. Approximate cycle time to be 10 seconds without product.
4. Tool ram to retract when the tool has reached its maximum output load.
5. Tool head to have featured that locks dies in place. Dies are removed by activating release buttons located on the tool head and ram.
6. Tool head is an enclosed flip-top crimp head. Note: Tool should not be used on live circuits.
7. Tool to have built in locking feature to secure battery in place.
8. Tool to operate on 18.0 VDC.
9. Tool design head to accept cutting blades and punch drive adapters.

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. Tool to have shoulder strap rings.
6. Crimp head to rotate at least 350 degrees fully.
7. No additional pinch points.
8. MAKITA Battery voltage to be 18.0 VDC 4 Ah Lithium-Ion. Battery will recharge in about one hour or less.
9. Tool shall have digital screen on lower back edge of tool. Tool is connected by Blue Tooth to a cellular phone app. The app will be available in Android, iOS and Windows PC platforms.

III. DESCRIPTION OF USE:

1. The operator installs the appropriate dies into the tool head.
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 operation, the user must stop the tool after the operation is complete by removing their finger from the tool trigger. After the operation is complete, the tools is retracted by the manual release button.

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IV. TECHNICAL / PERFORMANCE SPECIFICATIONS:

1. #8 AWG – 750 MCM (kcmil) Copper lugs and splices
2. #6 AWG – 600 MCM (kcmil) Aluminum lugs and splices
3. Copper HTCT250-2 and smaller Taps
4. #6 AWG – 4/0 AWG Copper CTAPS
5. Copper GCE1/0-1/0 and GCC6X61/0-1/0 Grounding connectors
6. 8 AWG – 535 Kcmil Copper lugs and splices for flex wire
7. 10 mm² – 400 mm² copper lugs and splices for metric Class 2 wire
8. 10 mm² – 300 mm² copper lugs and splices for Class 5F and 6F metric flex wire.
9. 10 AWG – 3/0 AWG Copper CTAPF taps
10. Cutter blades for up to 1.57” (40 mm) cable diameter – Copper, aluminum and ACSR.
11. Cutter blades for M5 to M12 and ¼”, 3/8”, and ½” mild steel threaded rod.
12. Uses standard Greenlee hole punches using Panduit Punch Drive Adapter.

V. LIFETIME PERFORMANCE:

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

VI. PHYSICAL CHARACTERISTICS:

A. Approximate Overall Dimensions (with battery):

1. Length: 17.4” (443 mm)
2. Width: 3” (76 mm)
3. Height: 13.2” (337 mm)

B. Weight: 14.3 lbs. (6.5 kg)

C. Color and Texture:

1. Tool housing to be black.

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 CE compliant. Tool to be UL/CSA listed under UL 60745-1. Tool shall meet IEC/EN6284-1, ENV 61000 and ISO 12100. Tool to be registered with Bluetooth SIG.

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- 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.
- X. WARRANTY**
- 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.** Shoulder Strap
 - G.** Die Adapter Set
- XII. ACCESSORIES (SOLD SEPARATELY):**
- A.** Li-Ion 18.0 VDC rechargeable batteries (4.0 Ah).
 - B.** Crimp Dies.
 - C.** Charger to be available in 115 VAC (US).
 - D.** Cutter blades for Copper, Aluminum and ACSR cable
 - H.** Cutter blades for Threaded Rod
 - I.** Punch Drive Adapters