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CT-3001/STBT Tool Specification

I. SCOPE: This specification defines the requirements for a battery operated, hydraulic tool and related components for terminating compression connectors. The tool uses CD-2001, KA22, KC22 and CD-920-Fxx dies to crimp applicable product. This tool meant for intermittent use. The tool shall have 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. Approximate cycle time to be 9 seconds without product.
4. Tool ram to retract when the tool has reached its maximum output load.
5. Tool head to open for removal for contiguous wire terminations.
6. Tool to have built in locking feature to secure battery in place.
7. Tool to operate on 18.0 VDC.
8. Requires an adapter to be used in conjunction with CD-2001 dies.

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 330 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 shall have digital screen at 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. If tool does not reach maximum crimp force, the tool has flashing LED light and audible signal.
8. The operator removes the compression connector from the tool.

IV. TECHNICAL / PERFORMANCE SPECIFICATIONS:

1. #8 AWG – 600 MCM (kcmil) Copper lugs and splices
2. #8 AWG – 373 kcmil Copper flex lugs and splices

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3. #6 AWG – 350 kcmil Aluminum lugs and splices
4. 10 mm2 – 240 mm2 Copper Class 2R Metric Lugs and Splices
5. 10 mm2 – 95 mm2 Class 5 and 6 metric lugs and splices.

V. LIFETIME PERFOMANCE:

C. Lifetime Performance to be 50,000 cycles minimum of the tool. 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" (430 mm)
2. Width: 2.9" (75 mm)
3. Height: 4.9" (125 mm)

B. Weight: 6.8 lbs. (3.1 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 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. Tool is 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.

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.

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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 for CD-2001 dies

XII. ACCESSORIES (SOLD SEPARATELY):

A. Li-Ion 18.0 VDC rechargeable batteries (4.0Ah).

B. Charger to be 115 VAC (US).

C. CD-2001 Dies

D. Die Adapter Set for CD-2001 dies

E. KC22 crimp die set

F. KA22 crimp die sets.

G. CD-920-Fxx die sets.