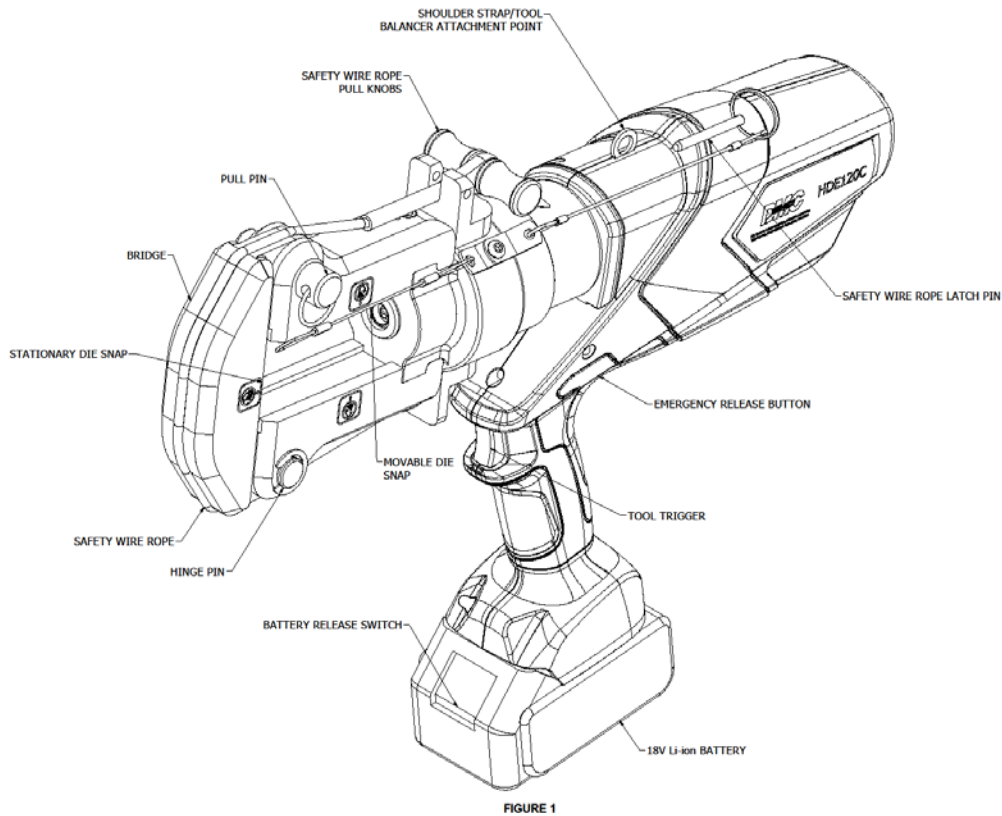


HDE120C

BATTERY POWERED HYDRAULIC CRIMP TOOL

DATASHEET



GENERAL INFORMATION

1. The HDE120C is a battery powered hydraulic crimp tool designed to use interchangeable MS23002-XX dies (for insulated lugs), MS90485-XX dies (for un-insulated lugs) and MS25442-XX dies (for aluminum lugs). It has an electric hydraulic system with automatic pressure relief to prevent over compression, and automatic die retraction after the crimp cycle.
2. This tool is a battery powered hydraulic equivalent to DMC tool part number TBHD1M (MS25441-1) 12ton Hydraulic Installing Head, or HD120 Manual 12ton Hydraulic Crimp Tool. It accepts all dies designed for use in the TBHD1M or HD120.
3. The tool's hydraulic pump is filled with biodegradable hydraulic fluid at the factory and does not need to be bled or primed.

SAFETY

1. Safety is essential in the use and maintenance of DMC tools and equipment. This datasheet and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

SPECIFICATIONS

Crimping Tool

| | |
|------------------------|---|
| Crimp Force | 12 tons (108kN) |
| Weight | 23lb (10.4kg) |
| Crimp Head (L x W x H) | 7.00in x 1.50in x 6.25in MAX (177.8mm x 38.1mm x 158.8mm MAX) |
| Overall Length | 19in (482.6mm) |
| Hydraulic Oil | .1pt (50ml) Biodegradable Hydraulic Fluid |

Crimping Capacities

| | |
|----------------|------------------|
| Crimping Range | 8 AWG to 4/0 AWG |
|----------------|------------------|

HDE120C

BATTERY POWERED HYDRAULIC CRIMP TOOL

DATASHEET

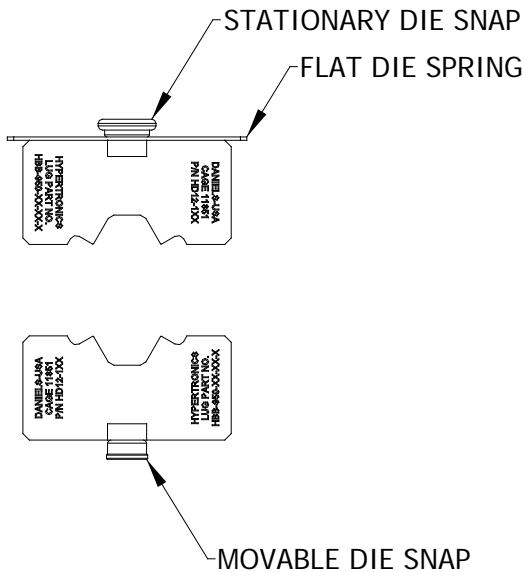


Figure 2

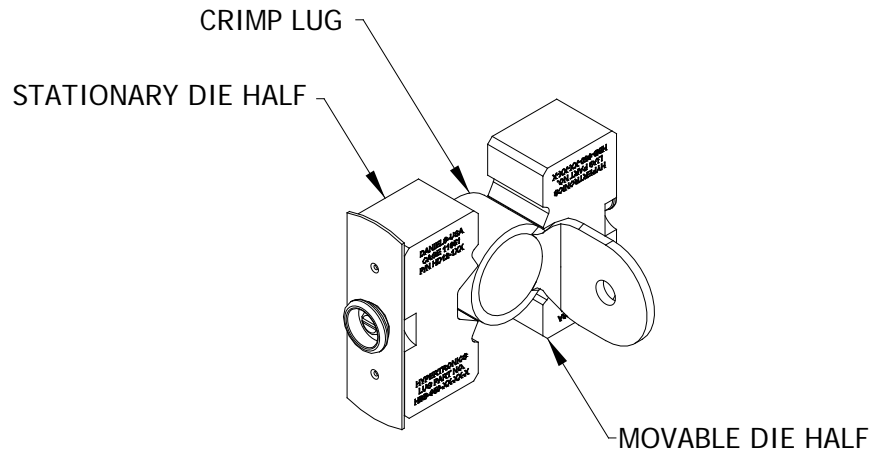


Figure 3

OPERATION

INSTALLING A DIE

1. Remove the safety wire rope latch pin. See Figure 1.
2. Pull the safety wire rope knobs and unlatch the safety wire rope. Un-wrap wire from tool head. See Figure 1.
3. Remove the pull pin to swing the bridge open on the crimp head. See Figure 1
4. Place the movable die half between the die rails. Carefully lower the die and mate the die snap retainer to the snap retainer located in tool's ram. See Figure 2
5. Place the stationary die half between the die rails and lower it so the flat die spring rests on top of the die rail ends. See Figure 2
6. Swing the bridge back in to place on the die rails and snap the stationary die into the mating snap located in the bridge.
7. Replace the pull pin.
8. Re-wrap the safety wire rope, and re-latch the safety wire rope to the tool head.

TO REMOVE DIE SETS: USE A STANDARD SCREWDRIVER IN THE RECESS UNDER THE DIE SNAP TO HOLD THE STATIONARY DIE IN PLACE WHILE OPENING THE BRIDGE DISENGAGING THE DIE SNAP

CAUTION: DO NOT OPERATE THIS TOOL WITHOUT THE SAFETY WIRE ROPE INSTALLED! PERSONAL INJURY CAN RESULT

CAUTION: DO NOT OPERATE THIS TOOL WITHOUT A DIE SET INSTALLED! DAMAGE TO THE TOOL CAN RESULT

CRIMPING A LUG

1. Verify that the proper die is installed in the tool for the lug to be crimped.
2. Place a lug in the movable die half making sure the lug is positioned as shown in Figure 3.
3. Press the tool trigger until the movable die advances to lightly clamp the lug, but not deform it.
4. Insert the conductor into the lug's wire crimp barrel making sure that the conductor is pushed fully into the lug's wire crimp barrel.
5. Press the tool's trigger to advance the movable die further and compress the lug. A positive trip will be heard and felt when the cycle is complete. The movable die will automatically retract.
6. Remove the crimped lug. Visually inspect the crimp to verify crimp quality and location.

WARNING: DURING THE CRIMP CYCLE, KEEP FINGERS AWAY FROM THE DIE CRIMPING AREA

HDE120C

BATTERY POWERED HYDRAULIC CRIMP TOOL



DATASHEET

GAGING A DIE SET

1. Install the die set to be gaged into the tool, as previously described.
2. Press the tool trigger until the die halves butt and the tool begins to make pressure. **STOP** pressing the trigger, and the dies will remain in place.
3. Using the proper gage, insert the GO gage pin in the die cavity. The gage must pass fully through the cavity.
4. Using the proper gage, insert the NO-GO gage pin in the die cavity. The gage may partially enter the cavity, but must not pass through the cavity.
5. Manually retract the movable die by pressing the emergency release button (See Figure 1).

GENERAL MAINTENANCE

1. **KEEP THE TOOL CLEAN:** Dirt and grit are the worst enemies of hydraulic equipment. Do not lay the tool on the ground. Wipe the entire tool thoroughly with a clean dry, or slightly oily cloth after each day's use.
2. **DO NOT MAKE ADJUSTMENT TO THE TOOL:** There are no adjustments on this tool that can be made in the field. If a tool becomes inoperative and the instructions in this manual do not help identify the malfunction, contact DMC or one of its authorized distributors.
3. **CAUTION: DO NOT OPERATE THIS TOOL WITHOUT A DIE SET INSTALLED!** Damage to the tool can result.

LED LIGHTS

LED Work Light (White)

This LED automatically turns on when the trigger is pulled. It remains on for 10 seconds after the trigger is released.

LED Indicator (Red)

As well as the Tool Information Display, this tool is equipped with a special circuit board incorporating several important features to inform the user about the current status of the unit. The Red LED on the side of the tool signals in the following cases:

Pressure Sensor

This tool is equipped with a pressure sensor that alerts the user of an incomplete crimp.

- If the tool is manually retracted before completion of a crimp, the red LED and audible beep will be active for 2 seconds.
- If the tool is unable to reach the required crimp force, the red LED, work light, and an audible beep will pulse until after the trigger is released.

BATTERY CHARGER OPERATING INSTRUCTIONS

Operating Environment

The charger is designed for use in dry areas. All ventilation slots must be kept free of debris. Keep away from heat sources, and if possible, out of direct sunlight. As ambient temperatures in excess of 95°F (35°C) may increase charging times significantly.

AC Connection

Before connecting the charger, check that the AC supply voltage is the same as what is indicated on the charger.

Specifications

Frequency = 50Hz – 60Hz
Output Voltage = 7.2 – 18VDC
Weight = 2.2lb (1.0kg)

Safety Instructions

The charger is designed only for Li-ion and Ni-MH batteries with voltages ranging from 9.6-18VDC, and capacities from 1.7 – 3.0Ah.

- Before you use the charger, check the power cord, and connectors for any signs of damage or aging.
- DO NOT open up the batteries, or the charger.

HDE120C

BATTERY POWERED HYDRAULIC CRIMP TOOL



DATASHEET

- DO NOT puncture, or expose to heat as there is RISK OF EXPLOSION.
- Only store in dry areas. Protect from moisture and dampness.
- Do not use if charger is defective, and never insert defective batteries.
- Observe the symbols on the charger's nameplate.
- DO NOT throw old batteries into a fire, or dispose of as domestic waste.
- Keep metal objects that could cause shorts away from the charger.
- DO NOT dismantle the charger, or batteries.

Battery Charger Operation

Green L.E.D. – If the charger is connected to AC line, the green L.E.D. will flash repeatedly until a battery is installed for charging.

Charging a Battery – When battery is inserted on to the charger, the red L.E.D. will illuminate, and stay on while charging occurs. The green L.E.D will turn off while the battery is less than 80% charged. Both green and red L.E.D.'s will illuminate when the battery is greater than 80% charged, but not fully charged. When charging is complete, the red L.E.D. will turn off, and the green L.E.D. will stay on. If you leave the battery on the charger after it is charged, the charger will switch to its trickle charge mode for 24 hours.

Yellow L.E.D. – Flashing indicates trouble with the cooling system. Ensure that all cooling vents, and the battery connections are free of dust, or debris. If flashing continues, return the unit to DMC for repair. Continuous illumination indicates that a conditioning charge is occurring. This happens when the battery being charged is at either a very low, or very high temperature. This can also occur if you attempt to charge a fully charged battery. These conditions will increase charging times.

Other Possible Conditions Displayed – Flashing red with green off indicates the charger is overheated. Unplug the charger and allow it to cool down. Flashing red with flashing green indicates a defective battery.

Spare Battery Parts

| | |
|-------------------------|-------------|
| 120 VAC Battery Charger | HDE-LI-120C |
| 230 VAC Battery Charger | HDE-LI-230C |
| 18V Replacement Battery | HDE-LI3-B |
| 120 VAC Power Adapter | HDE-120AC-A |
| 230 VAC Power Adapter | HDE-230AC-A |

BLUETOOTH CONNECTIVITY

This tool features Bluetooth connectivity for tool monitoring via Klauke i-press® software or the Klauke i-press app.

I-press® software features include:

- Exporting all tool data to check the tool status.
- Providing with proof of quality in the form of a project record.
- Free downloading

I-press® app:

- Made easy - Your Next Generation tool connects to the i-press® app via Bluetooth - you can now use the comprehensive range of functions.
- Everything under control - You can, for example, display the last service date, the last five pressure values, the device temperature or the number of crimps you can still make with the connected tool.
- Record, verify and archive - Once the project is complete, you will receive an overview containing all information and pressure values as an attachment. Very clearly arranged and revamped as a PDF for printing and submitting.

HDE120C

BATTERY POWERED HYDRAULIC CRIMP TOOL

DATASHEET

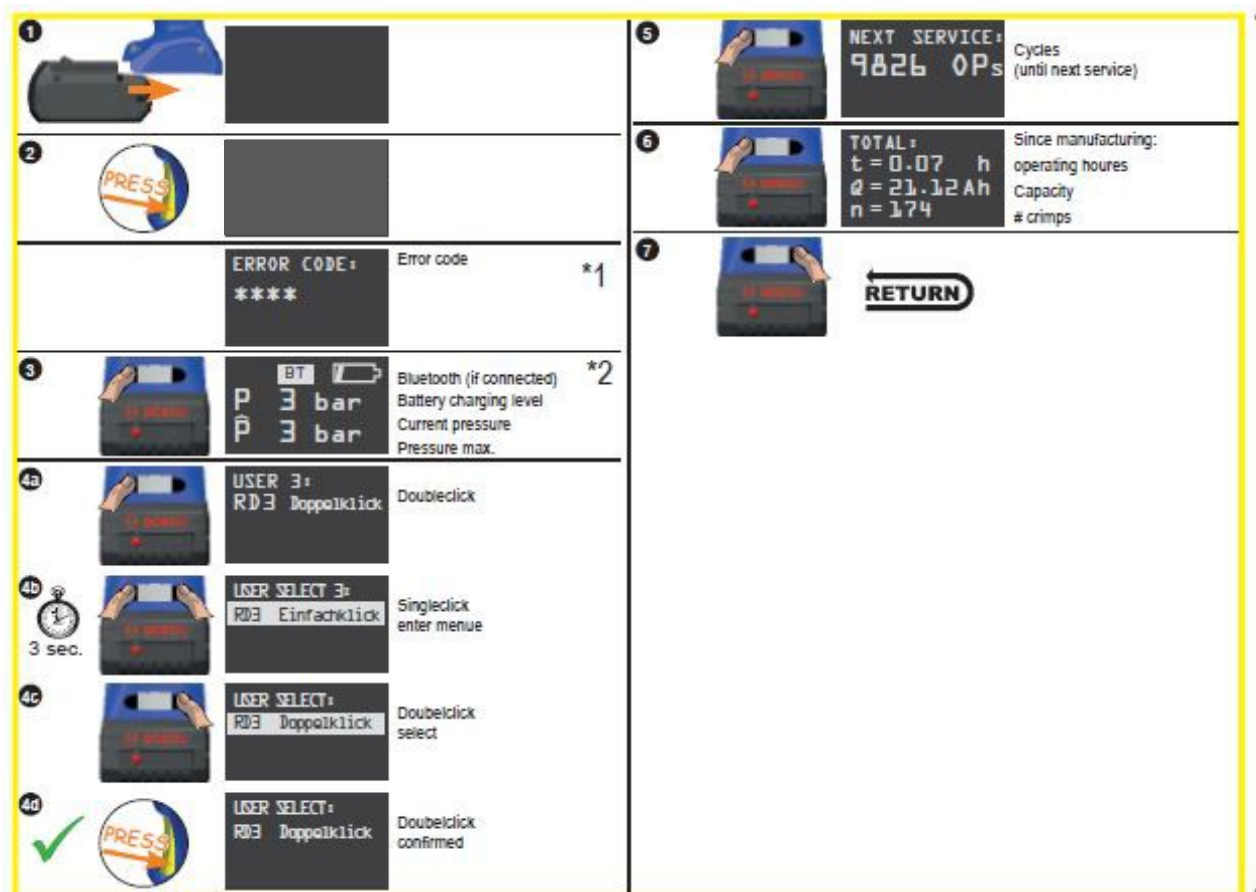
The software can be downloaded at:

<https://www.klauke.com/de/en/ipress-connectivity-software>



TOOL INFORMATIONAL DISPLAY

When a battery is installed onto the tool, the following information can be accessed.
Install a charged battery onto the tool.



1. Press the tool trigger to activate the display. Any applicable error codes will be display. The 17 possible error codes are listed below. If an error code is displayed, the tool's red LED will also flash.
2. The first screen will display whether tool is connected via Bluetooth, the battery charge level, current pressure & max pressure.
3. Pressing the left button once will display the firmware version, and tool serial number.
 - a. Pressing the left button again displays the current user.
 - b. Pressing and holding both button lets you

HDE120C

BATTERY POWERED HYDRAULIC CRIMP TOOL



DATASHEET

- c. select a current user.
- d. Use the right button to select the desired user.
- e. Press the tool trigger to confirm selection and return.

4. Pressing the left button once again will display the number of cycles and days until the next service interval.
5. Pressing the left button once again will display the total operating hours, total Amp Hours (Ah) and the total number cycles.
6. Press the right button will allow you to go back to the previous screen.

Error Codes

1. Overcurrent Fuse
2. Overcurrent Comparator
3. Overheat Board
4. Overheat Battery
5. Battery Empty, Operation Stop
6. Faulty Crimp with Motor in Operation
7. Faulty Crimp without Motor in Operation
8. Low Battery
9. Battery Empty
10. Battery Low
11. Tool Deactivated
12. Service Necessary
13. RTC not Found
14. BT Unit not Found
15. Pressure Sensor not Found
16. Burst Pressure Exceeded
17. Battery Temperature Too Low

DIE SETS FOR INSULATED LUGS

| LUG SIZE (AWG) | DMC P/N | MIL-SPEC P/N | DMC GAGE P/N | MIL-SPEC GAGE P/N |
|----------------|----------|--------------|--------------|-------------------|
| 4/0 | HD002-04 | MS23002-04 | G729 | MS23003-04 |
| 3/0 | HD002-03 | MS23002-03 | G282 | MS23003-03 |
| 2/0 | HD002-02 | MS23002-02 | G728 | MS23003-02 |
| 1/0 | HD002-01 | MS23002-01 | G727 | MS23003-01 |
| 1 | HD002-1 | MS23002-1 | G726 | MS23003-1 |
| 2 | HD002-2 | MS23002-2 | G281 | MS23003-2 |
| 4 | HD002-4 | MS23002-4 | G725 | MS23003-4 |
| 6 | HD002-6 | MS23002-6 | G725 | MS23003-6 |
| 8 | HD002-8 | MS23002-8 | G723 | MS23003-8 |

DIE SETS FOR UNINSULATED LUGS

| LUG SIZE (AWG) | DMC P/N | MIL-SPEC P/N | DMC GAGE P/N | MIL-SPEC GAGE P/N |
|----------------|----------|--------------|--------------|-------------------|
| 4/0 | HD485-04 | MS90485-04 | G838 | MS90486-04 |
| 3/0 | HD485-03 | MS90485-03 | G837 | MS90486-03 |
| 2/0 | HD485-02 | MS90485-02 | G836 | MS90486-02 |
| 1/0 | HD485-01 | MS90485-01 | G835 | MS90486-01 |
| 1 | HD485-1 | MS90485-1 | G834 | MS90486-1 |
| 2 | HD485-2 | MS90485-2 | G833 | MS90486-2 |
| 4 | HD485-4 | MS90485-4 | G722 | MS90486-4 |
| 6 | HD485-6 | MS90485-6 | G721 | MS90486-6 |
| 8 | HD485-8 | MS90485-8 | G720 | MS90486-8 |

DIE SETS FOR ALUMINUM LUGS

| LUG SIZE (AWG) | DMC P/N | MIL-SPEC P/N | DMC GAGE P/N | MIL-SPEC GAGE P/N |
|----------------|-----------|--------------|--------------|-------------------|
| 4/0 | HD442-04A | MS25442-04A | G1137 | MS25472-9 |
| 3/0 | HD442-03A | MS25442-03A | G1136 | MS25472-8 |
| 2/0 | HD442-02A | MS25442-02A | G1135 | MS25472-7 |
| 1/0 | HD442-01A | MS25442-01A | G1134 | MS25472-6 |
| 1 | HD442-1A | MS25442-1A | G1133 | MS25472-5 |
| 2 | HD442-2A | MS25442-2A | G1132 | MS25472-4 |
| 4 | HD442-4A | MS25442-4A | G1131 | MS25472-3 |
| 6 | HD442-6A | MS25442-6A | G1130 | MS25472-2 |
| 8 | HD442-8A | MS25442-8A | G1129 | MS25472-1 |

HDE120C

BATTERY POWERED HYDRAULIC CRIMP TOOL



DATASHEET

DMC offers complete refurbishing and recalibration services.

DMC specially engineers and manufactures complete tool kits to satisfy individual customer requirements, such as total aircraft support general shop maintenance or production, on board ship and vehicle service, etc.

Limitation of Liability

DANIELS MANUFACTURING CORPORATION IS NOT LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY NATURE OR KIND RESULTING FROM THE USE, OR MISUSE, OF ANY OF ITS PRODUCTS. OWNERS AND USERS OF DMC PRODUCTS ASSUME FULL RESPONSIBILITY FOR INSTRUCTING THEIR EMPLOYEES IN THE PROPER AND SAFE USE OF SUCH PRODUCTS.

Limited Warranty

DMC (Daniels Manufacturing Corporation) warrants each new product sold by it to be free from defects in material and workmanship under normal use and service. DMC's obligation under this warranty is limited to the free correction or, at DMC's option, the refund of the purchase price of any such product which proves defective in normal service within ninety (90) days after delivery to the first user, provided that the product is returned to DMC with all transportation charges prepaid and which shall appear to DMC's satisfaction, after DMC's inspection, to have been defective in material and workmanship, it being understood that DMC products are not consumer products. This warranty shall not cover any damage to any product which, in the opinion of DMC, was caused by normal wear, misuse, improper operation, tampering, neglect or accident. This warranty is in lieu of all other warranties express or implied. No warranty, express or implied, is made or authorized to be made or assumed with respect to products of Daniels Manufacturing Corporation other than those herein set forth.