

HD120 LARGE GAGE HYDRAULIC CRIMP TOOL

DATASHEET

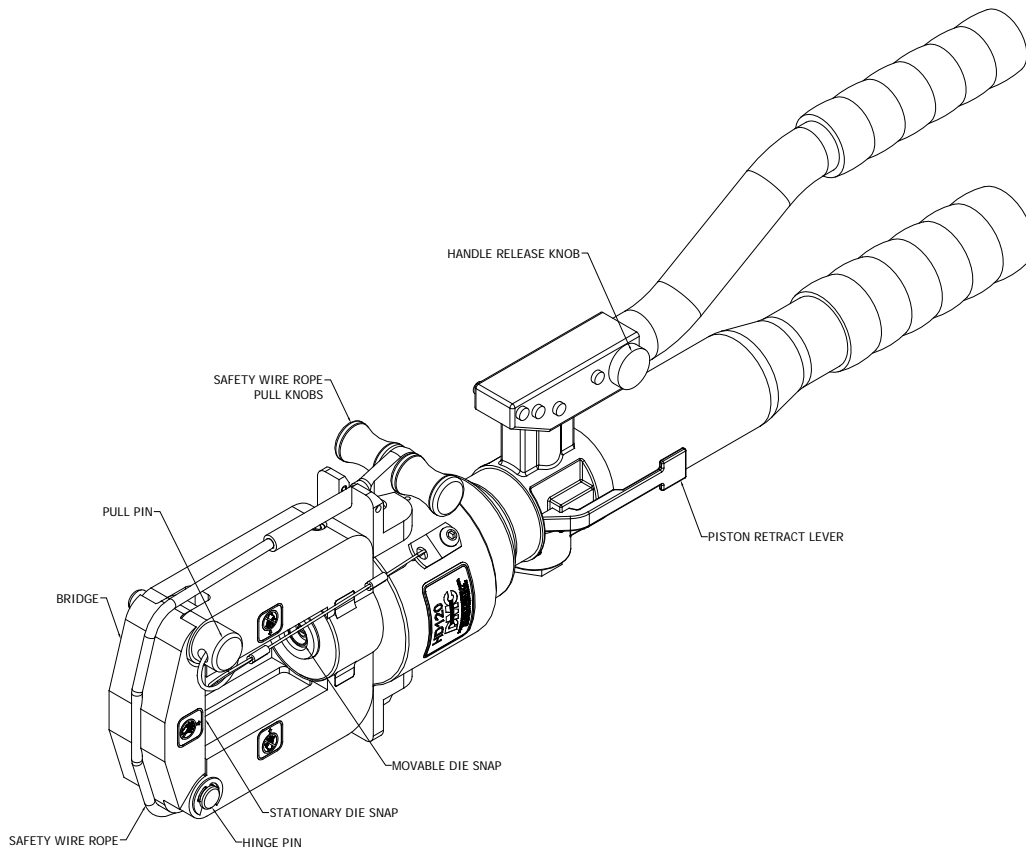


Figure 1

GENERAL INFORMATION

1. The HD120 is a hand actuated 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 a two stage hydraulic system with automatic pressure relief to prevent over compression, and automatic die retraction after the crimp cycle.
2. This tool is a hand operated hydraulic equivalent to DMC tool part number TBHD1M (MS25441-1) 12ton Hydraulic Installing Head. It accepts all dies designed for use in the TBHD1M.
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 (106kN)
Weight	14.6lb (6.6kg)
Crimp Head (L x W x H)	5.18in x 1.38in x 4.18in (131.6mm x 35.1mm x 106.2mm)
Overall Length	21.3in (541mm)
Hydraulic Oil	.1pt (50ml) Biodegradable Hydraulic Fluid

Crimping Capacities

Crimping Range	8 AWG to 4/0 AWG
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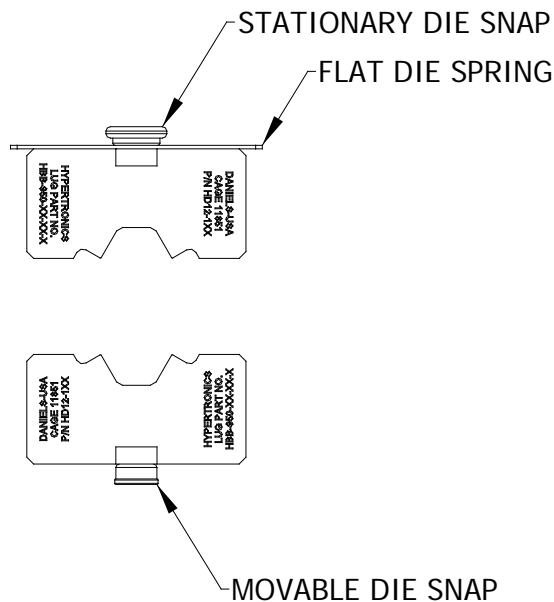


Figure 2

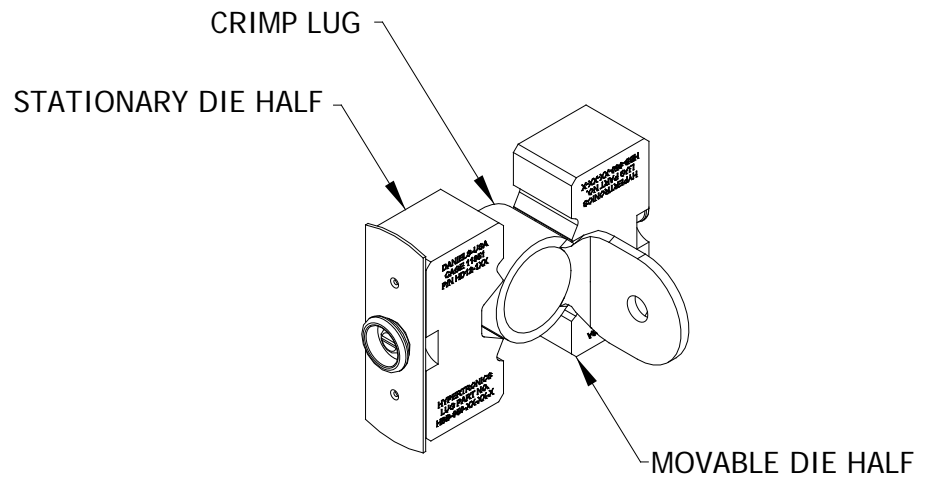


Figure 3

OPERATION

INSTALLING A DIE

1. Pull the safety wire rope knobs and unlatch the safety wire rope. Un-wrap wire from tool head. See Figure 1.
2. Remove the pull pin to swing the bridge open on the crimp head. See Figure 1
3. 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
4. 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
5. Swing the bridge back in to place on the die rails and snap the stationary die into the mating snap located in the bridge.
6. Replace the pull pin.
7. Re-wrap the safety wire rope, and re-latch the safety wire rope to the tool head.

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. Release the movable activating handle by applying closing pressure to the handles, and rotating the handle release knob 180°. When the handle pressure is released the movable handle will come up under spring pressure.
3. Place a lug in the movable die half making sure the lug is positioned as shown in Figure 3. Repeatedly cycle the tool handles 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. Actuate the tool's activating handles to advance the movable die further and compress the lug. A positive trip will be heard and felt when the cycle is complete. (Approximately 20-25 cycles) Stop actuating the handles. 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

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DATASHEET

GAGING A DIE SET

1. Install the die set to be gaged into the tool, as previously described.
2. Release the moving handle, and cycle repeatedly, until the die halves butt and the tool begins to make pressure. **STOP** cycling tool handles, 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 piston retract lever.

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.

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	G724	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

HD120

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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.