TBHD1M (MS25441-1)
12 TON HYDRAULIC INSTALLING HEAD DATASHEET

SEE PAGE 8 FOR IMPORTANT INFORMATION CONCERNING LIMITED WARRANTY, AND LIMITATION OF LIABILITY

Following are the operating instructions for the TBHD1M (AS5259/1-0001) installing head, using the HPU1*M hydraulic power unit, & 12-4040 (AS5259/1-0003) hydraulic connecting hose. The crimp tool system is intended to be used with MS90485 type dies for copper un-insulated terminals & contacts, MS23002 type die sets for copper insulated terminals, and MS25442 type dies sets for aluminum terminals.

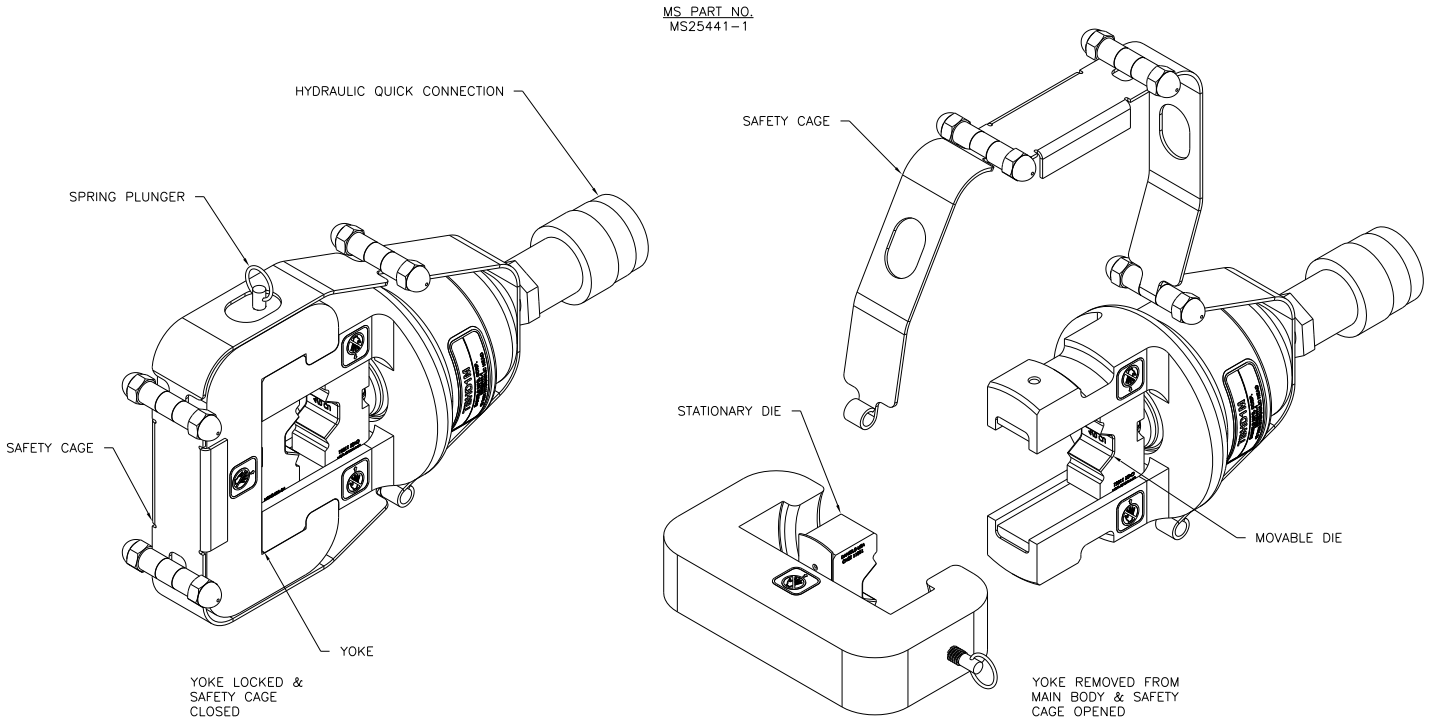

Figure 1
12 TON HYDRAULIC INSTALLING HEAD
AS5259/1-0001 (TBHD1M)

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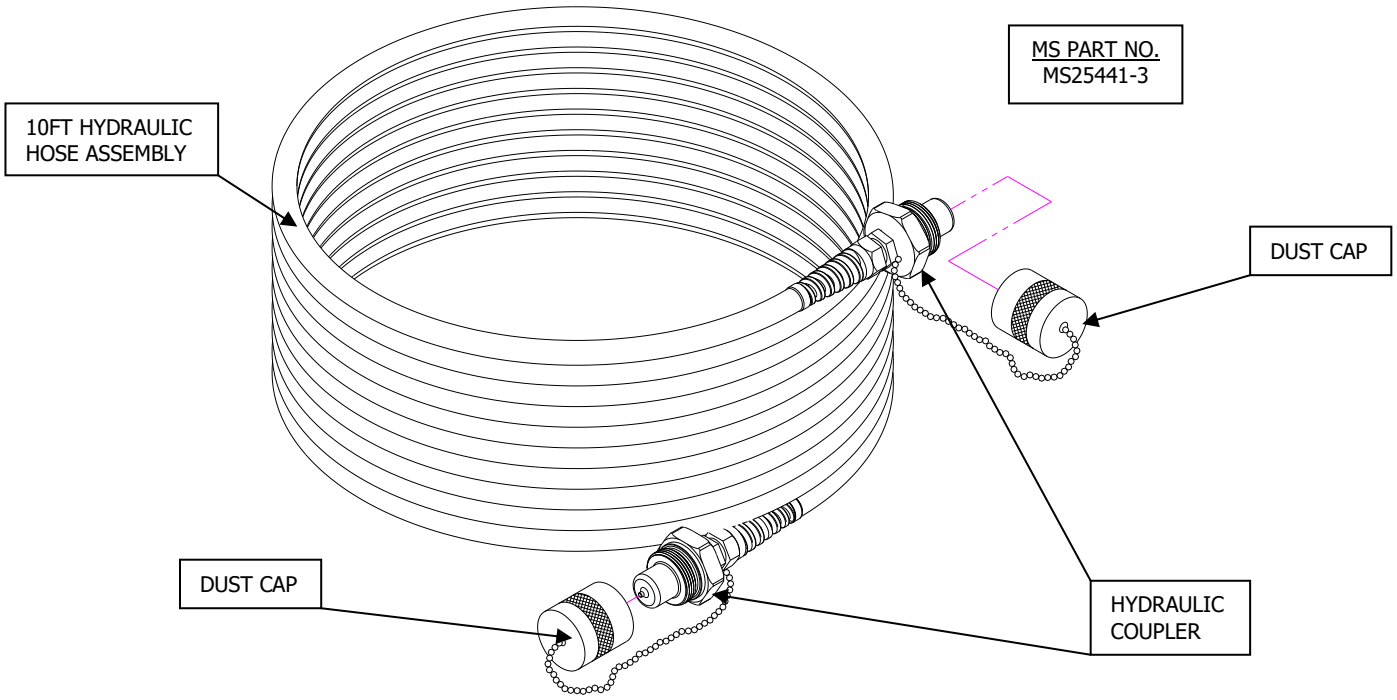

FIGURE 2
CONTROL HOSE ASSEMBLY
AS5259/1-0003 (12-4040)

Connecting to the Pump:

1. Remove the dust cap from the hydraulic crimp head's quick connection.
2. Remove one of the dust caps from the 12-4040 hydraulic connecting hose.
3. Screw the fitting on the end of the hose into the mating connector on the crimp head. Screw in until fully seated.
4. Remove the second dust cap from the 12-4040 hydraulic connecting hose.
5. Screw the fitting on the end of the hose into the mating connector on the pump. Screw in until fully seated.

See operating instructions HPU1*M-DS for pump operating instructions.

Installing a Die Set:

1. Pull the quick release pin out of the safety cage.
2. Unfold the safety cage via the built in hinge points (See Figure 1).
3. Pull the spring plunger out and rotate the yoke, as shown in Figure 1, to remove it from the main body.
4. Place the movable die half between the die rails of the main body. Carefully lower the die and mate the die snap retainer to the snap retainer located in the tool push rod.
5. Place the stationary die half into the yoke, as shown in Figure 1, and snap the die into the mating snap of the yoke.
6. With the yoke & die orientated as shown in Figure 1, place the stationary die between the die rails of the main body. The flat spring mounted on the stationary die will sit in the recessed pockets of the main body.
7. Pull the spring plunger up, so that it is out of the way, and rotate the yoke back into the locked position as shown in Figure 1.

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NOTE: The spring plunger will drop into the mating hole of the main body to prevent rotation when it is not wanted.

CAUTION! DO NOT OPERATE THIS TOOL WITHOUT A DIE SET INSTALLED AND THE YOKE PROPERLY ATTACHED, AND LOCKED IN PLACE.

Conductor Preparation:

1. Using a proper insulation stripping tool, strip the insulation from the conductor, being careful not to nick the wire strands.
2. Thoroughly clean the conductor by wire brushing until a bright and shiny surface is obtained. All oxides and foreign matter must be removed.

NOTE: Do not wire brush tin plated copper conductors.

Crimping a Terminal Lug:

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

1. Verify the correct die is installed in the tool for the lug to be crimped.
2. Place a lug with a conductor fully inserted into the wire barrel, in the nest of the stationary die. See Figure 3.
3. Operate the HPU1*M power unit start the flow of hydraulic fluid into the system.
4. Continue operating the power unit until the gage on the power unit reads 10,000 psi. DO NOT release the pressure in the system until 10,000 psi is reached, EXCEPT in cases of emergency. Crimping with less than 10,000 psi will result in insufficient compression, and produce bad crimps.
5. The manual and air driven power units will hold pressure until they are released.
6. If using the manual or air driven power unit, operate the power unit to release pressure, and retract the cylinder.
7. The battery and electric driven power units automatically retract when 10,000 psi is achieved.
8. Remove the crimped lug. Visually inspect the crimp to verify crimp quality and location.

For additional crimping instructions refer to the guidelines supplied by the terminal manufacturer, crimp die set manufacturer, or the system manager.

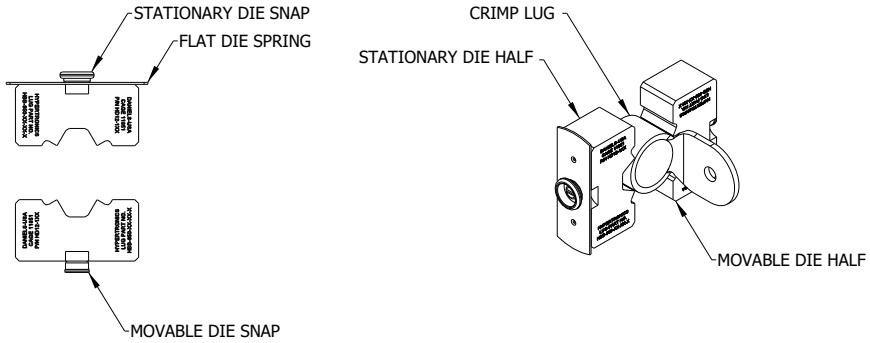

FIGURE 3
Die Set / Crimp Location

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Mounting the TBHD1M to the Optional Bench Mount (BM-2A)

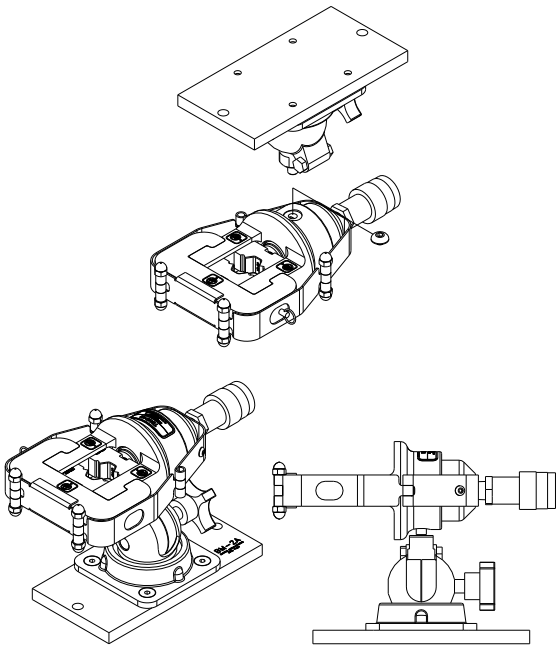

Figure 4
TBHD1M in BM-2A bench mount

Note: The BM-2A bench mount must be ordered separately.

1. Hold the TBHD1M head, either by hand or in a vise, with the cap screw oriented upwards as shown in the top view of Figure 4.
2. Remove the cap screw with a hex key wrench. Maintain the orientation as shown while the screw is out of the crimp head. Failure to do so will allow ball bearings to come out of the tool, and render it inoperable.
3. Screw the stud of the BM-2A into the threaded hole of crimp head while maintaining the upward orientation.
4. Tighten with a wrench. The stud of the BM-2A will bottom against one of the ball bearings in the tool. DO NOT over tighten.
5. The assembled unit can now be turned back over, as shown in the lower views of Figure 4, and mounted to a work surface.

Note: It is recommended that the assembled TBHD1M & BM-2A be bolted to a work surface due to the weight of the crimp head.

If it is desired to mount the TBHD1M crimp head vertically through an opening in a table or cart, the following cut out can be used. Figure 5.

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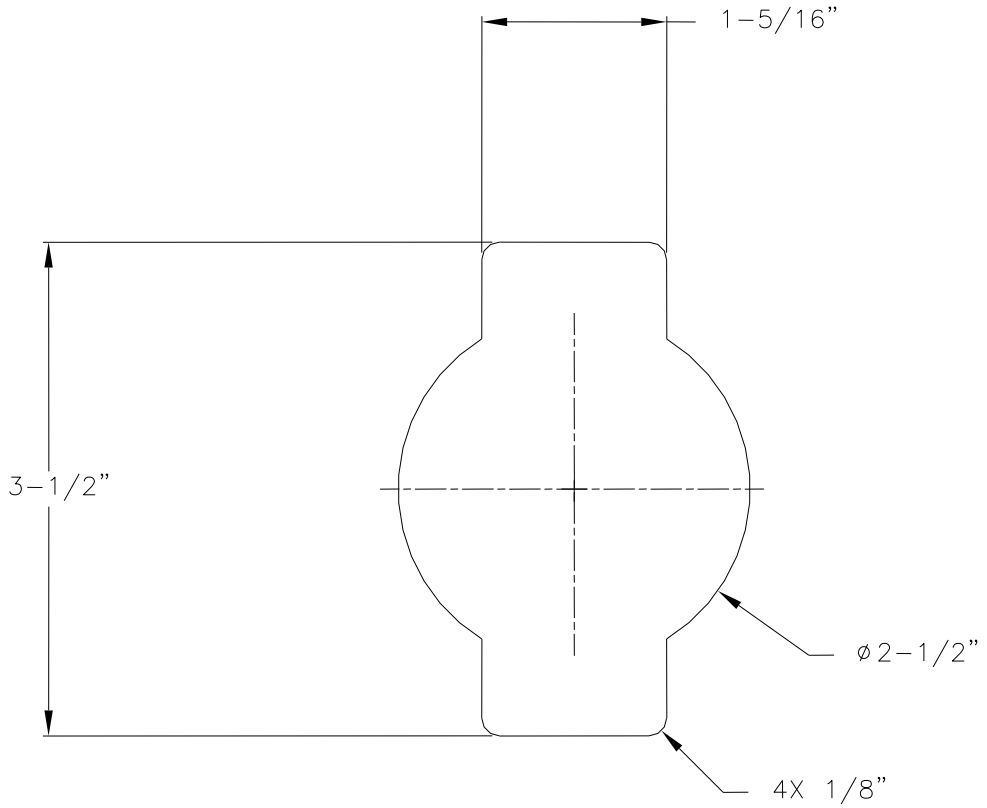

Figure 5
Cutout Template

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Die sets and gages for use with the TBHD1M crimp head

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

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GO/NO-GO gaging of die sets

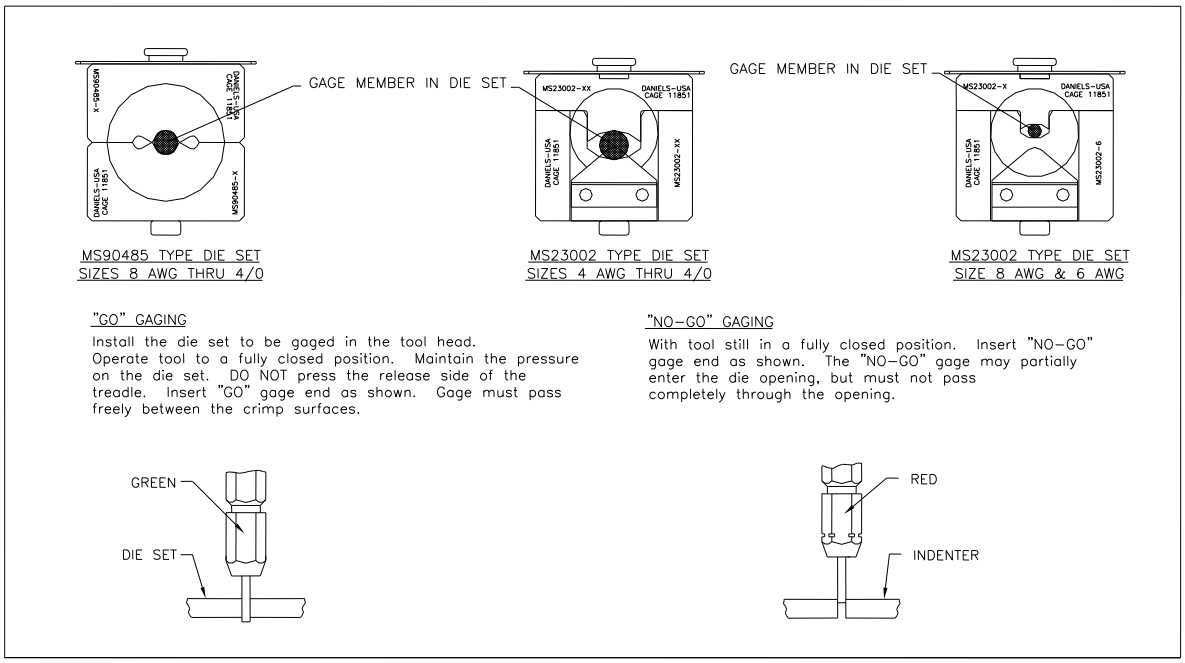

Figure 6
Gaging a die set

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.

DMC offers complete refurbishing and recalibration services.

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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

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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.

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