

CUSTOM CRIMP



**D160-T420 / D165-T420 SERIES HYDRAULIC
HOSE CRIMPER OPERATORS MANUAL**

MODELS COVERED

This manual is applicable to different variations of the D160-T420 Series and D165-T420 Series Crimpers.

Crimping, calibration and repair procedures are similar for all models.



SAFETY PRECAUTIONS



- READ INSTRUCTIONS AND IDENTIFY ALL COMPONENT PARTS BEFORE USING CRIMPER
- CRIMPER CAN PRODUCE 60 TONS OF FORCE. KEEP BOTH HANDS AWAY FROM PINCH POINTS
- CONSULT HOSE AND FITTING MANUFACTURER FOR CORRECT MACHINE SETTINGS AND CRIMP MEASUREMENTS
- ALWAYS WEAR EYE PROTECTION

For Parts and Service, Contact:
Custom Machining Services, Inc.
Valparaiso, In 46383
(219) 462-6128

Die Series-----T420 Series

Maximum Cylinder Force-----60 Ton

Maximum Hose Diameter (2 Wire)-----1 1/4 Inch

Maximum Hose Diameter (4 Wire)-----1 1/4 Inch

Maximum Hose Diameter (6 Wire)-----1 Inch

Crimper Depth - D165 Series-----22 Inches
 - D160 Series-----14 Inches

Crimper Width - D165 Series-----12.5
 Inches
 - D160 Series -----11 Inches

Crimper Height - D165 Series-----22.25 Inches
 - D160 Series-----23.5 Inches

Weight - D165-----140 Lb.
 - D160 Series-----50 Lb.

Pump - D165-----Electric
 - D160 Series-----Pump Not included - Manual, Pneumatic or Electric Available)

Pump HP- D165 Series-----1 HP(110V)

Reservoir Capacity - D165-----1 Gal

Oil Type-----ISO Viscosity Grade 46

Electric Power Requirement - D165-----110V-15 Amp

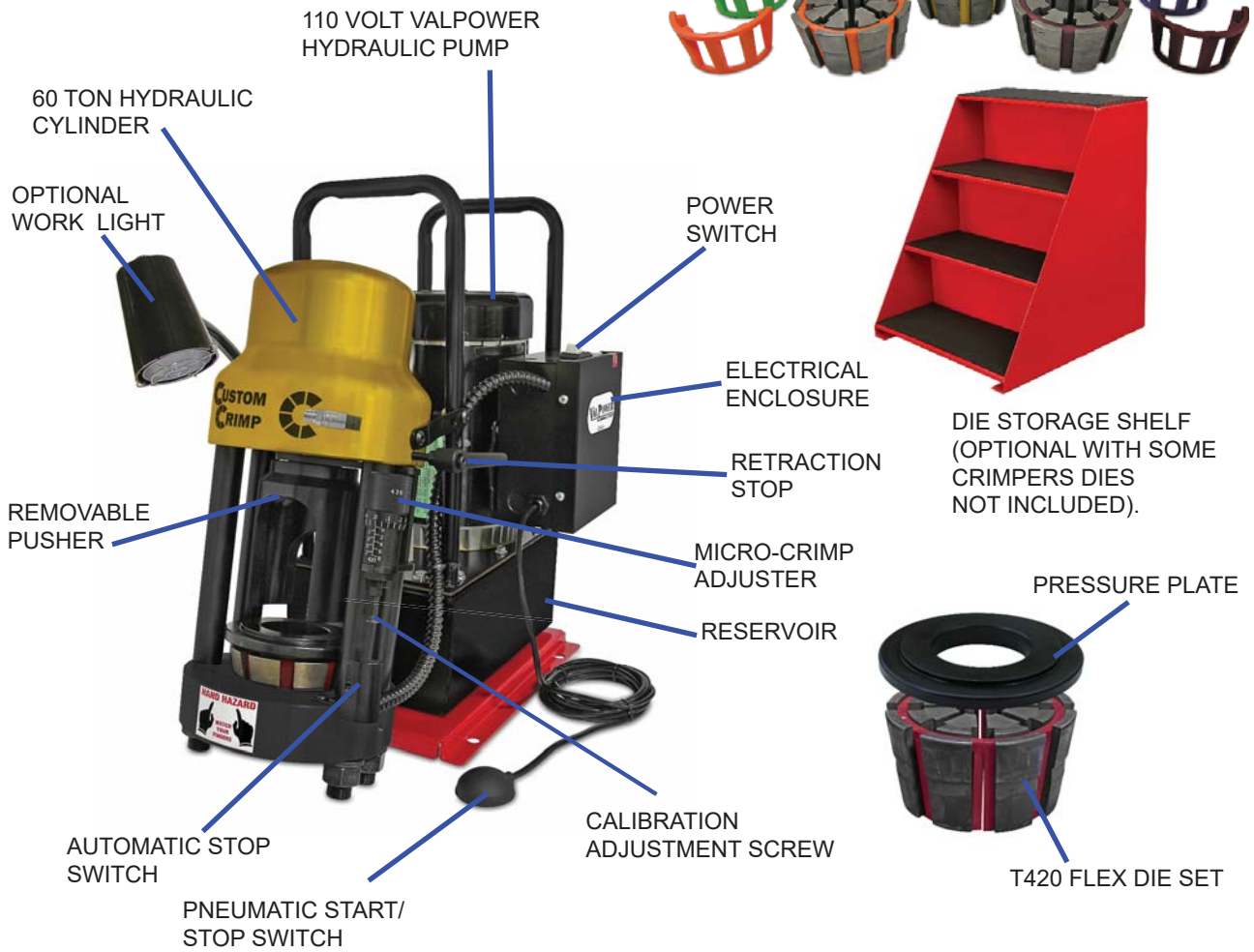


D165-T420 Series Crimper



D160-T420 Series Crimper

D165-T420 SERIES CRIMPER



D160-T420 SERIES CRIMPER



MANUAL, PNEUMATIC AND ELECTRIC POWER SOURCES ARE AVAILABLE FOR THE D160-T420 SERIES

CALIBRATION CHECK PROCEDURE

FOLLOW THESE STEPS BEFORE USING THE CRIMPER FOR THE FIRST TIME

- Plug the D165-T420 crimper directly into a 110 volt wall outlet.

CAUTION: DO NOT RUN THE CRIMPER ON AN EXTENSION CORD AS LOW VOLTAGE CAN DAMAGE THE MOTOR.

- Oil level in the D165-T420 pump should be 1-1/2 to 2 inches below the fill plug and should be visible in the sight glass window of the pump reservoir
- Check to be certain that the shipping plug in the pump reservoir has been replaced with the Oil Fill and Vent Plug shipped with the crimper.

- Place any **Die Set** and the **Pressure Plate** in the crimper bottom flange in the order shown. (A hose and fitting are not required for a calibration check)

- Lubricate the die set as shown in Crimping Instructions.

NOTE: FAILURE TO LUBRICATE THE DIE SET AND COMPRESSION CONE COULD RESULT IN THE DIE SET SEIZING IN THE COMPRESSION CONE.

- Slide the **Pusher** onto the stud on the hydraulic cylinder.
- Set the Micrometer at "0".
- Depress and hold the **Start/Stop** switch on the D165 Series or continue to apply pressure to the D160 Series until the Die set is completely closed and oil pressure has built up in the hydraulic cylinder.
- **For the D165 Series:** If the ram extends and shuts off the motor approximately 1 second after the die fingers are completely closed and the pump builds pressure (The sound of the pump will change) the crimper is correctly calibrated.
- **For the D160 Series:** If the white line is just visible as shown in the illustration after the dies are completely closed and pressure has built up in the hydraulic cylinder the crimper is correctly calibrated.
- If the above conditions are not met, the crimper must be recalibrated. See calibration instructions on P 7.



T420 MICROMETER

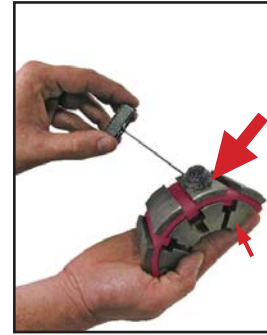




Make certain that the cone base is clean and lubricated prior to inserting the die set.



Select the correct die set for the hose-fitting combination from the manufacturers specification sheet



Lubricate the die fingers with the moly disulfide grease furnished with the crimper.



Place the lubricated die set squarely in the cone base as shown.



Align the fitting in the die set according to the hose and fitting manufacturers recommendation.



Place the Compression Plate over the die set and compress the die set by hand to hold the hose and fitting in place. *See micrometer setting example.*



Slide the Pusher onto the stud on the ram and press the start stop switch or apply pressure to the D160 Series. The crimper will shut off when the crimp cycle is complete.



When the crimp is complete in the D160 series, a white indicator line will be visible.



Check the final crimp diameter to confirm that it is within manufacturers specifications.

Micrometer Setting Example: With a 30mm die and the micrometer set at 3.0mm, the final crimp diameter will be 33mm (30mm + 3mm)

CALIBRATION INSTRUCTIONS

- Insert any die set and the Compression Plate in the cone base as shown.
Note: There should not be a fitting in the die set when checking calibration.

- Set the Micro Crimp Adjuster as follows at "0".
- Slide the Pusher onto the stud of the hydraulic ram.



- Press and hold the start/stop switch until the crimper shuts off for the D165 or apply pressure to the D160 Series until the die set is completely closed and the white indicator on the Micro Sight button is just visible.



- If the D165 motor shuts off in approximately 1 second after the die set is fully closed or the white line on the Micro Sight button is just visible, the crimper is correctly calibrated.

- If the crimper requires recalibration, hold the micrometer barrel with a 5/16 inch open end wrench and rotate the stem either in or out with a 5/32 inch hex key wrench.



- Rotating the stem out of the barrel decrease the time required for the pump to shut off.
- Recheck calibration.

SPECIAL FEATURES



An easily removable Coupling Stop makes repetitive crimps faster by not having to visually align the fitting before each crimp.



The adjustable Retraction Stop limits ram retraction to only the amount required to remove the hose and coupling saving time on multiple crimps.

PROBLEM: CRIMPER WILL NOT RUN AT ALL

- The white rocker switch is also a circuit breaker. Check to see that the circuit breaker has not been tripped
- Check the wall outlet. The crimper comes from the factory wired for a 115 volt single phase circuit. Use of extension cords or outlets with inadequate power can damage the motor . Do not run the crimper from a portable power source.
- Check the stop switch mounted to the switch bracket under the Micro-Crimp Adjuster. This is a normally closed switch and if it does not close the crimper will not operate.
CAUTION: Do not operate the crimper with this switch jumpered as the pump will not shut off and the brackets can be damaged.
- Check the pneumatically actuated switch in the electrical box mounted on the motor. This switch controls power to the motor and is actuated with air pressure from the pendant switch bulb.

PROBLEM: CRIMP DIAMETER TOO LARGE

- Incorrect setting of the Micro-Crimp Adjuster. Check crimp specifications.
(NOTE: All published machine settings are approximate. To correct for slight variances, the gauge settings may need to be adjusted for the specific hose, fitting and size combination.)
- Incorrect die being used. Each die has a useable range of approximately 3mm (.120 in) above the closed diameter of the die. The closed diameter is the die size stamped on the die ring.
- Check crimper calibration and re-calibrate if required.
- Inadequate pump pressure. Check oil level in the pump. It should be 1-1/2 to 2 inches below the fill plug and should be showing in the sight glass window. Fill with ISO 46 weight hydraulic oil if required.
- Inadequate lubrication of the dies and compression ring causing the pump to work harder than normal to reach the required diameter. Use only the grease shipped with the machine or equivalent.
- Inadequate pressure being generated by the pump. This is most likely if the crimper can crimp the smaller size hoses and not the larger hoses. When correctly adjusted, the pump should generate approximately 10,000 psi.
Do Not adjust pump to produce in excess of 10,000 psi as damage to components or personal injury may result.
- No pressure being generated by the pump. There should be a definite change in pitch of the pump as it cycles into high pressure mode and begins to “work” harder.

PROBLEM: CRIMP DIAMETER TOO SMALL

- Incorrect setting of the Micro-Crimp Adjuster. Check crimp specifications.
(NOTE: All published machine settings are approximate. To correct for slight variances, the gauge settings may be adjusted for the specific hose, fitting and size combination.)
- Incorrect die being used (See die range under Crimp Diameter too Large)
- Check crimp diameter and re-calibrate if necessary

PROBLEM: DIES STICKING IN COMPRESSION CONE

- Inadequate lubrication of the compression cone and die surfaces. Use only the grease shipped with the machine or equivalent.

CustomCrimp “No-Nonsense” Warranty Statement

All CustomCrimp Products are warranted to be free of defects in workmanship and materials for one year from the date of installation. This warranty ends when the product becomes unusable for reasons other than defects in workmanship or material.

Any CustomCrimp Product proven to be defective in workmanship or material will be repaired or replaced at no charge. To obtain benefits of this warranty, first, contact Warranty Repair Department at Custom Machining Services at **(219) 462-6128** and then deliver via prepaid transportation the complete hydraulic product to:

**ATTN: WARRANTY REPAIR DEPT.
Custom Machining Services, Inc.
326 North Co. Rd 400 East
Valparaiso IN 46383**

If any product or part manufactured by CustomCrimp is found to be defective by CustomCrimp, at its option, CustomCrimp will either repair or replace the defective part or product and return via ground transportation, freight prepaid. **Custom Crimp will not cover any incoming or outgoing freight charges for machines sold outside The United States.**

This warranty does not cover any product or part which is worn out, abused, altered, used for a purpose other than for which it was intended, or used in a manner which was inconsistent with any instructions regarding its use.

Electric motors are separately warranted by their manufacturer under the conditions stated in their separate warranty.

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CustomCrimp®

See the complete line of CustomCrimp® Crimpers and Accessories at:
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