Continental
The Future in Motion

Perma-Crimp™ Hydraulic Hose Crimpers

PC150HD Series Operators Manual

Including PC150HD-1HP-1P and PC150HD-2HP-1P

SAFETY PRECAUTIONS

- READ INSTRUCTIONS AND IDENTIFY ALL COMPONENT PARTS BEFORE USING CRIMPER.
- CRIMPER CAN PRODUCE 240 TONS OF FORCE. KEEP BOTH HANDS AWAY FROM PINCH POINTS.
- CONSULT THE CONTINENTAL CONTITECH CRIMP SPECIFICATION MANUAL FOR CORRECT CRIMPER SETTINGS AND CRIMP MEASUREMENTS.
- ALWAYS WEAR EYE PROTECTION.

Equipment Warning

Proper assembly of Continental ContiTech hose and fittings

Continental ContiTech hose, fittings and crimping equipment work together to provide an efficient and reliable hose connection. Continental ContiTech hose and fittings are part of an engineered system and are to be used in accordance with Continental ContiTech specifications. Using non-Continental ContiTech components may produce an assembly that does not meet rated performance. **Continental ContiTech does not warrant, expressly or by implication, hose assemblies that do not incorporate Continental ContiTech hose and fittings, or are not crimped in accordance with Continental ContiTech process specifications.**

Buyers may elect to attach additional or non-standard parts or equipment, or to use different manufacturing specifications as necessary to meet the requirements of the buyer or the customer's application. In such cases, the buyer has sole responsibility to qualify the hose for the applications as necessary to ensure performance capability.

For guidance in the assembly of Continental ContiTech hose and couplings, please refer to the Continental ContiTech Crimp Specifications Manual. Information in this catalog is believed to be accurate, but is not warranted and is subject to change without prior notice. For the most current product information, check the Continental ContiTech website at www.contitech.us.

For technical assistance, call customer service at **1-800-235-4632.**

Table of Contents

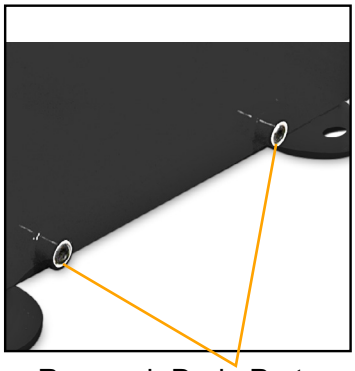
Component Identification

Small Footprint for
minimum use of space

Foot Switch Plug-in Port

Serial Tag Location

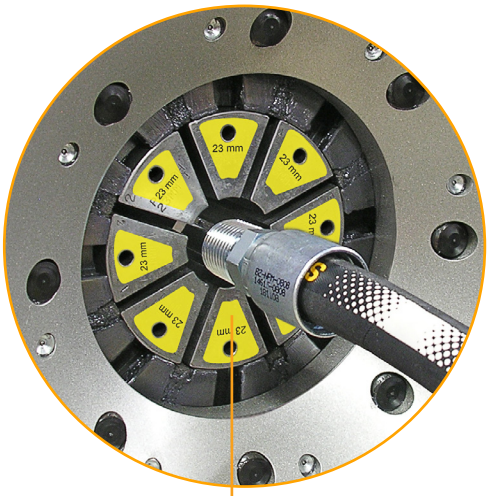
Oil Level Sight Glass



Reservoir Drain Ports

Do not operate the PC150HD until you have read and fully understand this manual and the proper use of the crimper. This manual is applicable to the PC150HD-1HP-1P and PC150HD-2HP-1P crimpers. Crimpers are identical in component and crimping procedures. Note that the PC150HD-1HP-1P and PC150HD-2HP-1P require different electrical hookups as power requirements differ from 110V to 220V, respectively.

Foot Switch Open / Close Function



Foot Switch Close Function:

The foot switch permits dies to be “jogged” into position and accurately position the fitting prior to crimping.

Foot Switch Open Function:

Allows the user to open the crimper head the amount needed to remove the crimped assembly.

The foot switch allows the user to operate the crimper head, while keeping both of their hands free to provide a quick and accurate crimp. Keeping both hands free the user can make crimps fast, accurate and much easier.

Crimper Specifications

Crimping Force	240 Tons
Hydraulic Hose Capacity	¼" through 2" ID, 2-braid hose 1-¼" 6-spiral hose
Crimper Dimensions	L: 17-½" x W:25" x H:25"
Crimper Weight	400 lbs.
Electrical Requirements	220V - 1PH (Standard) 110V - 1PH (Optional)
Hydraulic Die Series	PC150H
Adapter Die Series	N/A
Adjustability	Metric Dial Micrometer
Opening w/o Dies	120mm / 4.72"
Master Die Inside Diameter	84mm / 3.31"
Master Die Travel	38mm / 1.5"
Motor	1.5HP (110V-1PH / 220V-1PH)
Reservoir Capacity	6 US Gallons
Oil Type	ISO 46 Hydraulic Oil

Standard Dies			
Part #	ID	Part #	ID
PC150H-8.5	8.5mm	PC150H-31	31mm
PC150H-12	12mm	PC150H-34	34MM
PC150H-14	14mm	PC150H-41	41MM
PC150H-16	16mm	PC150H-45	45MM
PC150H-19	19mm	PC150H-50	50MM
PC150H-23	23mm	PC150H-56	56MM
PC150H-27	27mm		

PC150H-DCT
84mm Die Change Tool

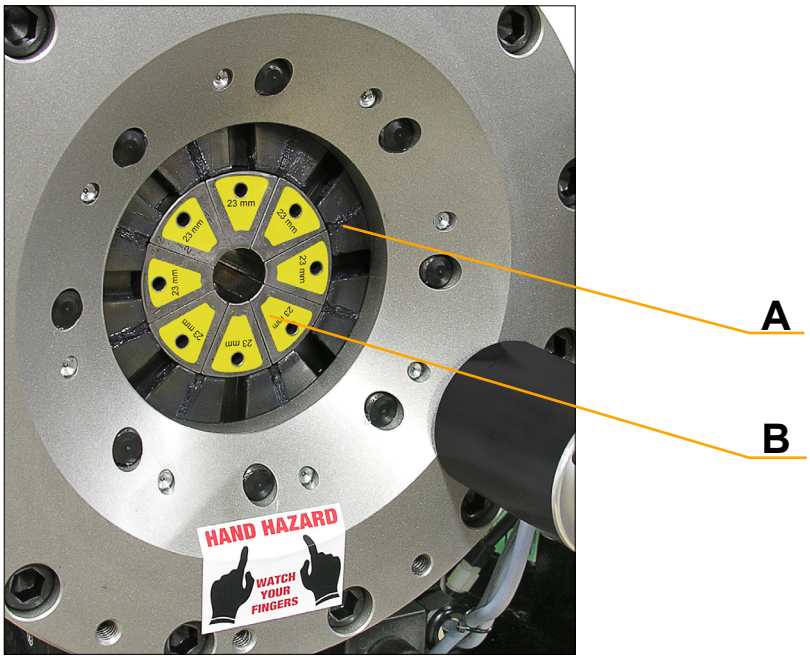
PC150H-Rack
9 Station Die Storage Rack

PC150H Die Stud
Hydraulic Dies

Miscellaneous Parts

PC200-MBS – Included Manual Back Stop
PC900-Aerosol Lube – Available High Pressure Grease in aerosol can

Die Part Identification



A) Master Die

B) 84mm Hydraulic Die

Initial Crimper Setup

Follow these steps before using the crimper for the first time

› Review instructions and identify all component parts before using crimper.
› Crimper can produce 240 tons of force.
› Keep both hands away from pinch points.
› Consult the Continental ContiTech Crimp Specification Manual for correct crimper settings and crimp measurements.
› Always wear eye protection.

#1

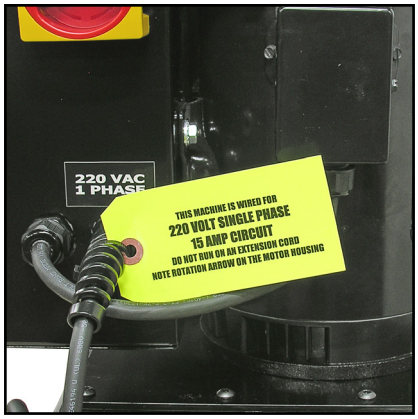
Installing crimper

› Mount the crimper on a sturdy surface. Workbench should be able to support crimper weight of 400 lbs. Do not lift machine by the crimper head. Using a fork lift, lift the crimper under the tank.

› Check reservoir oil level with sight glass at the rear of the crimper. The reservoir requires 6 gallons of ISO 46 hydraulic oil for a complete fill. If necessary, oil can be drained from either of the two ports on the rear of the reservoir.

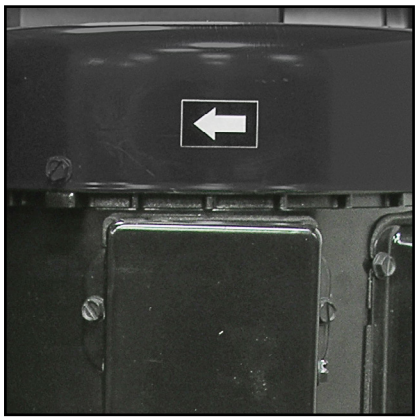
#2

› Check electrical circuit to be certain that it matches the crimper requirements shown on the tag attached to the crimper cord.



#3

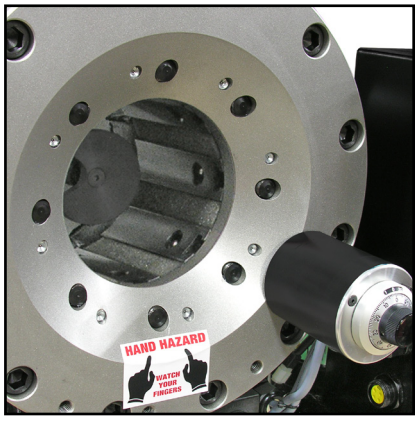
› Make certain that the motor rotates in the direction of the arrow shown on the motor housing.



#4

Hydraulic Die Installation

› Bring the crimper head to fully opened position as shown in photo #1.



#1

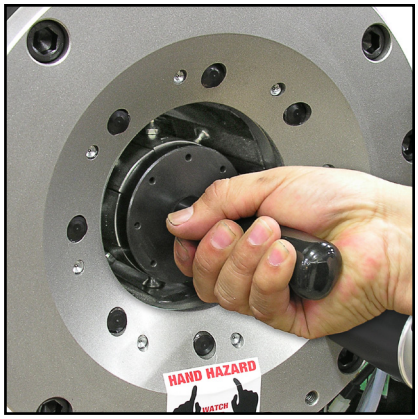
› Select the correct die set for the combination of hose and fitting being crimped as shown in photo #2. The correct die set can be found in the Continental ContiTech Crimp Specification Manual.

#2

› Install the Hydraulic Dies with the quick change tool as shown in photo #3.

› Align the studs of the Hydraulic Dies with the holes in the Master Dies and **SLOWLY** close the crimper head on the die set as shown in photo #3.

› Bring the crimper head to a fully closed position, then remove the quick change tool.

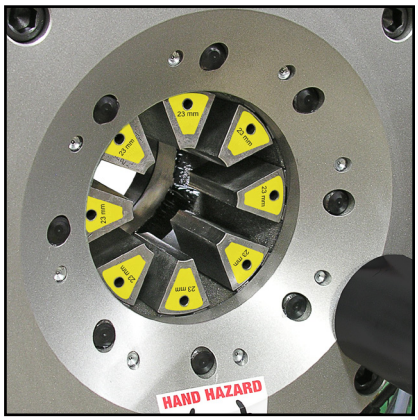


#3

› Bring the crimper head to a fully opened position as shown in photo #4.

Note: The dies may also be inserted manually with the crimper head in the fully open position.

› Proceed to the Crimping Instructions to set up the crimper for the hose and fitting being crimped.



#4

Crimping Procedure

Select the correct hose and fitting for your project as shown in photo #1.

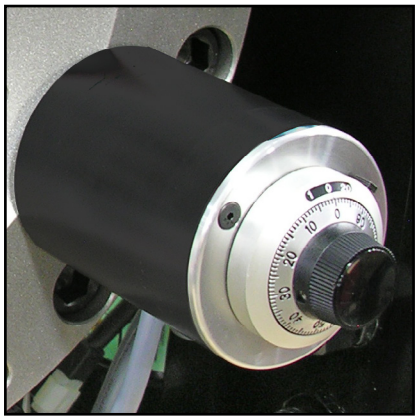
Note: Refer to the Continental ContiTech Crimp Specifications Manual.

#1

Set the dial micrometer as shown in photo #2 to the setting as shown in the most current Continental ContiTech Crimp Specifications Manual for the combination of hose and fitting being crimped, then lock the micrometer.

Micrometer Setting Example:

Each 100 on the Micrometer represents 1 mm above the closed diameter of the die set. For example, with a 50mm die installed and the Micrometer set at 250 as shown, the finished crimp diameter would be 52.5 mm. (50mm + 2.5mm)

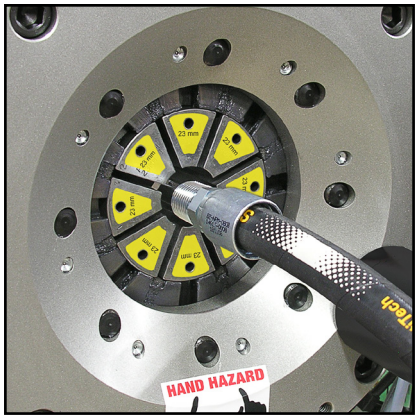


#2

Insert the hose assembly from either direction into the crimper, taking care not to disturb the die set. Hold the assembly in place until the crimp is complete as shown in photo #3.

› Activate the crimp cycle by pressing and holding the green close button or the foot switch, until the crimp is complete.

› After the dies retracted remove the hose assembly.



#3

Check the crimp diameter of the finished assembly with calipers or micrometers as shown in photo # 4, to be certain that it is within the specifications as outlined in the Continental ContiTech Crimp Specifications Manual.

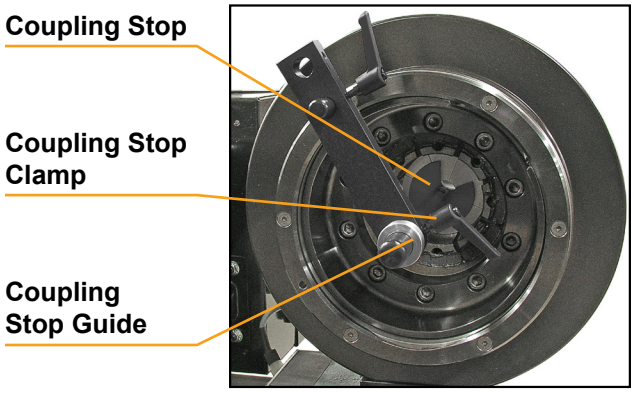
#4

Manual Back Stop Setup

The Manual Back Stop eliminates guesswork, allowing the operator to visually observe exactly where the crimp will be positioned on the fitting without the need for trial and error and product scrap due to poor crimp positioning.

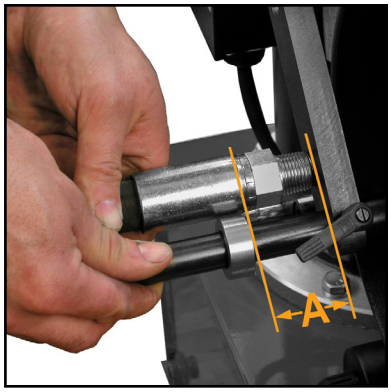
With the Manual Back Stop retracted, load the appropriate set of dies and set crimp diameters as required.

With the dial micrometer at 0, bring the dies to a fully closed position.

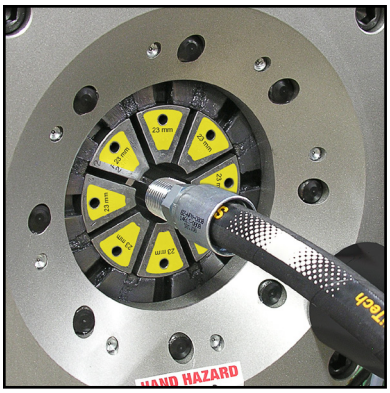


Loosen the Coupling Stop Clamp and position the Coupling Stop against the back face of the dies.

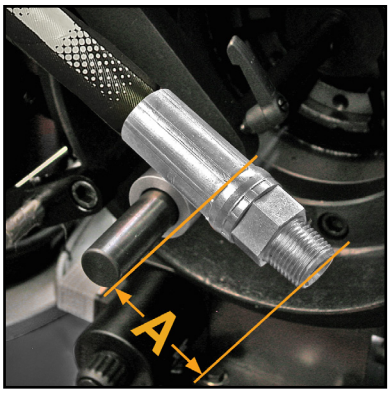
Slide the Coupling Stop Guide against the Coupling Stop Arm.



Hold the fitting against the Coupling Stop Arm withdraw the Coupling Stop Rod such that the Guide is aligned with the desired crimp position. Lock the Coupling Stop Clamp.



Position the fitting against the Coupling Stop and actuate the crimper in the normal manner.



The dimension from the face of the fitting to the crimp position will now be the dimension established in the previous step.

Calibration Check

The PC150HD Crimper is calibrated at factory using the correct hose, fitting, and die set outlined in the Continental ContiTech Crimp Specifications Manual.

Note: All settings are approximate, for minor adjustment adjust the dial as needed.
Due to variations in hose and fitting tolerances, some “offset” may required to achieve the correct crimp diameter for specific hose and fitting combinations across the range of hose and fittings being crimped. If crimp diameters are consistently too large or consistently too small, the crimper should be recalibrated.

For example, with a 50mm die set installed and the Micrometer set at 250, the finished crimp diameter would be 52.5mm.
(50mm + 2.5mm).

Step 1. Select the correct hose, fitting, and die set.

Note: Refer to the Continental ContiTech Crimp Specifications Manual.

Note: While the crimper can be calibrated using any recommended hose and fitting combination, using a hose and fitting combination close to the size most frequently crimped will minimize the offset required for other sizes and combinations of hose and fittings.

Step 2. Set the dial micrometer to the setting as shown in the most current Continental ContiTech Crimp Specifications Manual for the combination of hose and fitting being crimped.

Step 3. Check the crimp diameter of the finished assembly with calipers or micrometers, to be certain that it is within the specifications as outlined in the Continental ContiTech Crimp Specification Manual.

Calibration

Note: If the above conditions are not met, the crimper requires recalibration.

› Make a crimp with the hose and fitting combination most commonly used, and measure the finished crimp diameter.

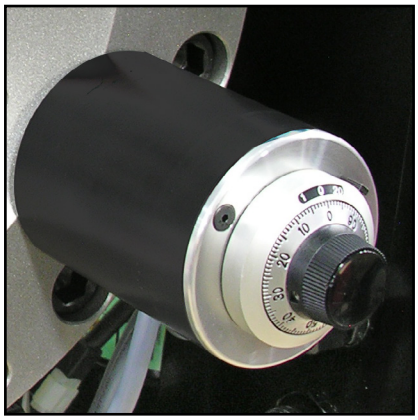
› If necessary, loosen the set screw on the adjustment knob with a .050’ hex key wrench.

› Rotate the adjustment knob so that the number on the dial matches the actual diameter of the finished crimp.

› Tighten the set screw and make another crimp to confirm that the crimper is set correctly.

#1

#2



#3

#4

Lubrication and Maintenance

Proper lubrication is essential to prevent damage to the machine and to assure accurate crimping.

› Use the mini grease gun with flush fitting adapter with grease (supplied with the crimper) or a high-pressure moly grade grease can be used as well.
› Failure to lubricate the crimper can cause premature failure, loss of accuracy and may result in damage to the crimper.
› Lubricate the crimping head after each 250 - 400 crimping cycles or at the start of each shift if the crimper is used in a production setting.

#1

› To begin, first bring the master dies to the fully opened position and lubricate the die fingers through the 8 lubrication fittings in the front flange face.

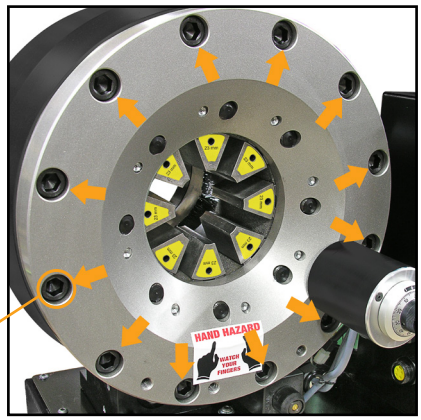
#2

› Next, bring the master dies to the fully closed position, and lubricate the master dies through the 8 lubrication fittings again.

Note: Use only a high-quality moly-disulfide grease. Failure to do so may result in damage to the wearing surfaces.

#3

Front flange bolts: Periodically, every 6-12 months depending upon usage, the front flange bolt torque should be checked. The correct torque is 199NM (147 ft-lbs).



#4

PROBLEM: CRIMPER RUNS BUT IS SLOW OR NON-FUNCTIONAL

- Check supply voltage to see that it matches the voltage specified on the tag attached to the crimper.
- If the crimper is connected to a three phase circuit, check all three legs of the circuit to be certain that all legs are hot.
- Measure the voltage to the crimper when the crimper is under load. Voltage should be a minimum of 90% of line voltage when the crimper is under load.

Note: Many performance problems are the result of low voltage or inadequate electrical service.

- Check motor rotation and be certain that the motor rotates in the direction of the arrow on the motor housing. For three phase units rotation can be reversed by switching any two wires in the plug.
- The circuit in the crimper is protected by a thermal overload relay. If the relay trips after resetting it from the master power switch, call for technical service.

PROBLEM: CRIMPER WILL CLOSE ON FITTING BUT DOES NOT DEVELOP POWER TO COMPLETE THE CRIMP

› Fitting is to large for selected crimp die. Select a crimp die that is closer to final crimp diameter. Machine has built-in safety bypass to protect internal components from damage due to incorrect die selection.

› Check oil level. Position dies to the fully open position and check oil sight gage in rear of machine. Be sure the oil level is in the middle of the sight glass. Use ISO 32 or 46 weight hydraulic oil.

If problem(s) persist contact Customer Service for additional troubleshooting assistance

Warranty

For technical assistance, call customer service at **1-800-235-4632**. The Continental ContiTech branded crimper is covered under the warranty below.

CustomCrimp® “No Nonsense” warranty

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

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.

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.

Industrial Fluid Solutions

Market segment
Hydraulic Hose

Contact
ContiTech
703 S. Cleveland Massillon Road
Fairlawn, OH 44333-3023 U.S.A.
1-800-235-4632
www.contitech.us

Your local contact
www.contitech.de/contactlocator

Canada
1-888-275-4397

Mexico
1-800-439-7373

Continental. Smart Solutions Beyond Rubber

The ContiTech division of the Continental Corporation is one of the world's leading industry specialists. As a technology partner, our name is synonymous with expertise in development and materials for components made of natural rubber and plastics and also in combination with other materials such as metal, fabrics or silicone. By integrating electronic components, we are also generating solutions for the future.

Beyond products, systems and services, we also provide holistic solutions and have a formative influence on the industrial infrastructure. We see digitalization and current trends as an opportunity to work with our customers to add sustainable value – for both sides and for good.

Rev: 04/29/2020

Continental
The Future in Motion