

CC200 / CC400 CRIMPERS OPERATORS MANUAL WITH DIAL MICROMETER STYLE ADJUSTMENT



SAFETY PRECAUTIONS



SAFETY PRECAUTIONS



- READ INSTRUCTIONS AND IDENTIFY ALL COMPONENT PARTS BEFORE USING CRIMPER.
- CRIMPER CC200 CAN PRODUCE 340 TONS OF CRIMPING FORCE.
- CRIMPER CC400 CAN PRODUCE 265 TONS OF CRIMPING FORCE.
- KEEP BOTH HANDS AWAY FROM PINCH POINTS.
- CONSULT HOSE AND FITTING MANUFACTURER FOR CORRECT MACHINE SETTINGS AND CRIMP MEASUREMENTS.
- ALWAYS WEAR EYE PROTECTION.

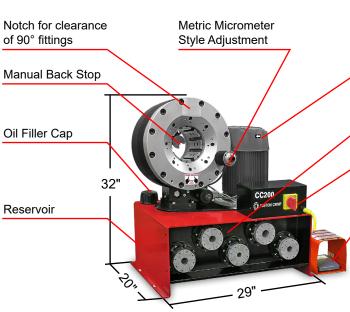


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COMPONENT PARTS & TECHNICAL DATA



The 5 HP motor delivers the power needed to get the job done quickly

Built-in die storage panel keeps frequently used die sets readily available

Power Switch

The Foot Switch permits dies to be "jogged" into position and keeps both hands free

Small Footprint for minimum use of space

Technical Data

340 Ton

Max 2SP: 2-1/2", 4SP: 2-1/2", 6SP: 2-1/2"

Max Industrial: 3"

L: 20" x W: 29" x H: 32"

Weight: 635 lbs

Power: 5HP / 230V / 3Phase (Standard)

5HP / 440V / 3Phase (Optional)

5HP / 230 / 1Phase (Optional)

1HP / 12VDC (Optional)

1HP / 24VDC (Optional)

Die series: 99S / 130S

Adjustability: Metric

Opening w/o dies: 160mm / 6.30"

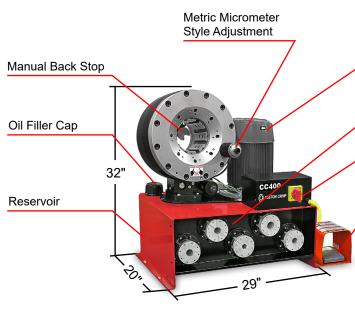
Master die inside diameter: 130mm / 5.12"

Master die travel: 38mm / 1.5"

Reservoir capacity: 8 US Gallons

Oil type: ISO 46 Hydraulic Oil

CC200 Hydraulic Hose Crimper



The 5 HP motor delivers the power needed to get the job done quickly

Built-in die storage panel keeps frequently used die sets readily available

Power Switch

The Foot Switch permits dies to be "jogged" into position and keeps both hands free

Small Footprint for minimum use of space

CC400 Hydraulic Hose Crimper

Technical Data

265 Ton

Max 2SP: 2", 4SP: 2", 6SP: 1-1/2"

Max Industrial: 4"

L: 20" x W: 29" x H: 32"

Weight: 660 lbs

Power: 5HP / 230V / 3Phase (Standard)

5HP / 440V / 3Phase (Optional)

5HP / 230 / 1Phase (Optional)

1HP / 12VDC (Optional)

1HP / 24VDC (Optional)

Die series: 99S / 145S

Adjustability: Metric

Opening w/o dies: 182mm / 7.17"

Master die inside diameter: 145mm / 5.71"

Master die travel: 60mm / 2.4"

Reservoir capacity: 8 US Gallons

Oil type: ISO 46 Hydraulic Oil



INITIAL SET UP & MAINTENANCE

Do not lift the machine by the crimper head. Lift with a fork lift under the tank.

Mount the crimper on a sturdy surface.

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

Electrical Requirements:

230 Volt 3 Phase Current (Standard) 440 Volt 3 Phase Current (Optional) 230 Volt single phase (Optional)

DO NOT RUN CRIMPER ON AN EXTENSION CORD.

Check to be certain that the motor rotates in the direction of the arrow shown on the motor housing. If motor rotation is opposite of the direction of the arrow, reverse any two hot wires in the electrical plug.

(NOTE: THIS IS APPLICABLE TO 3 PHASE CIRCUITS ONLY).

Damage to the pump can result if the motor does not rotate in the correct direction.

Check the oil level in the sight glass on the rear of the crimper. 8 U.S, gallons of ISO 46 hydraulic oil are required to completely refill the tank.

Oil can be drained from either of the two ports at the bottom of the tank.

An additional oil cooler, while not normally required, can be plumbed into the two ports at the rear of the crimper.

Front Flange Bolts: Periodically, every 6-12 months depending upon usage, the front flange bolt torque should be checked. The correct torque is 332NM (245 Ft-Lbs).

Lubricate the crimping head after each 100 crimping cycles or at the start of each shift if the crimper is used in a production setting.

- Bring the master dies to the fully closed position and lubricate the die fingers through the 8 lubrication fittings in the front flange face.
- Bring the dies to the fully open position and lubricate all 8 fittings again.

Use CRIMPX Die Lubricant Grease or high quality moly-disulfide grease. Failure to do so may result in damage to the wearing surfaces.











DIE SET UP AND INSTALLATION

B

- Dies are available for the CC200 crimper in 84S, 99S and 130S Series
- Dies are available for the CC400 crimper in 84S, 99S and 145S Series
- A set of 130mm O.D 99mm I.D. Intermediate Dies is furnished with the CC200 crimper.
- A set of 145mm O.D 99mm I.D. Intermediate Dies is furnished with the CC400 crimper.

The I.D. of the intermediate die must match the O.D. of the hydraulic die or accurate crimps are not possible.



Turn on the crimper at the master power switch.

Bring the master dies to the full open position as shown in photo A, or to the position where the die removal tool can be inserted to release the retaining spring.

Insert the die removal tool in the release hole to release the retaining spring as shown in photo B.

Attach either an Intermediate Adapter Die or an Industrial Die to the Master Die as shown in photo C.

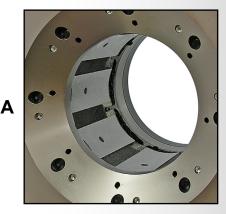
Note: The numbers stamped on the face of the die should face the operator.

Note that on some crimpers the master dies must be slightly closed in order to completely insert the die removal tool.

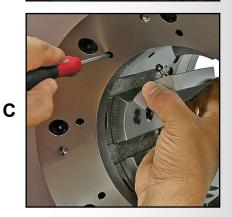
Mount all 8 dies in a similar manner as shown in photo D.

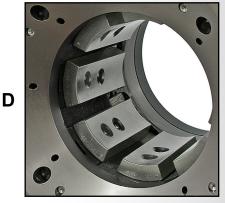
If 130mm O.D. Dies are being used, proceed to crimping Operating instructions and set up the crimper for the correct crimp diameter.

If Hydraulic Dies are being used, see Hydraulic Die Installation instructions.











HYDRAULIC DIE INSTALLATION

B

C

E

Install Intermediate Adapter Dies as shown previously making certain that the Intermediate Adapter Die I.D. matches the Hydraulic Die O.D.

Bring the crimper head to fully opened position as shown in photo A.

Install the Hydraulic Dies with the quick change tool as shown in photo B.

Note: The die size stamped on the face of the die should face toward the operator.

Align the studs of the Hydraulic Dies with the holes in the Adapter Dies and SLOWLY close the crimper head on the die set as shown in photo C.

Bring the crimper head to a fully closed position as shown in photo D.

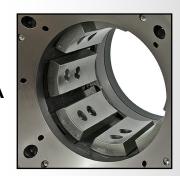
Remove the quick change tool as shown in photo E.

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.

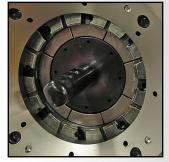
For Hydraulic Die removal, bring the crimper head to the fully closed position.

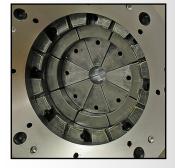
Insert the quick change tool and open the crimper head releasing the Hydraulic Dies form their spring retention holes.













AccuStop™ COUPLING STOP

The AccuStop[™] coupling 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.

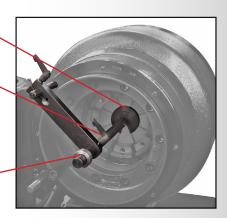
With the Coupling Stop retracted, load the appropriate set of dies and set crimp diameters as required.

With the crimper in the **MANUAL** mode, bring the dies to a fully closed position.

Coupling Stop

Coupling Stop Clamp

Coupling Stop Guide





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.



CRIMPING / CALIBRATION

CRIMPING

Select the correct die for the combination of hose and fitting being crimped. Consult the hose and fitting manufacturer's specifications for the correct die to use and the final crimp diameter required.

The final crimp diameter will be the closed diameter stamped on the face of the die plus the number shown on the micrometer gage. See the micrometer setting example below:

Micrometer Setting Example

Each 100 on the micrometer dial represents 1 mm above the closed diameter of the die set. For example, with a 57mm die set installed and the micrometer set at 240 as shown in the photo, the final crimp diameter would be 59.4 mm (57mm + 2.4mm)

Insert the hose and fitting in the crimper head to the correct depth and press and hold the foot switch until the crimper shuts off. If the $AccuStop^{TM}$ coupling stop is being used make settings according to instructions.

Check the finished crimp diameter with calipers to be certain that it is within the hose manufacturer's specifications.







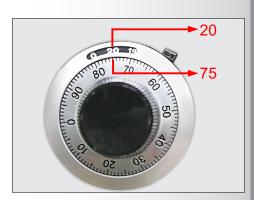
CALIBRATION



Step 1. Use a 0.050" allen wrench to loosen the set screw on the black knob to remove the micrometer dial.

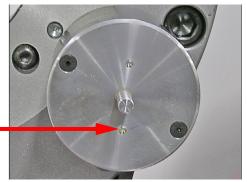


Step 2. Rotate the micrometer shaft counter clockwise until the shaft stops spinning.



Step 3. Align the numbers on the dial so that 20 is shown in the black and 75 is shown in the silver.





Step 4. Align the post on the bottom of the dial to the bottom hole on the micrometer face as shown.



Step 5. Make sure the dial is sitting flat against the micrometer then retighten the set screw on the black knob.

- **Step 6.** Load correct die set into crimper for your test crimp. Put the proper setting into the micrometer then perform test crimp. If crimp is still tight or loose follow steps 7 thru 10.
- **Step 7.** If the crimp diameter is too tight by 0.004" spin the dial to 2 at the top and 00 at the bottom. Loosen the set screw on the black knob, spin the dial to 1 at the top and 90 at the bottom and then retighten the set screw. Return the dial to your setting and crimp another fitting.
- **Step 8.** If the crimp diameter is too tight by 0.008" spin the dial to 2 at the top and 00 at the bottom. Loosen the set screw on the black knob, spin the dial to 1 at the top and 80 at the bottom and then retighten the set screw. Return the dial to your setting and crimp another fitting.
- **Step 9.** If the crimp diameter is too loose by 0.004" spin the dial to 2 at the top and 00 at the bottom. Loosen the set screw on the black knob, spin the dial to 2 at the top and 10 at the bottom and then retighten the set screw. Return the dial to your setting and crimp another fitting.
- **Step 10.** If the crimp diameter is too loosen by 0.008" spin the dial to 2 at the top and 00 at the bottom. Loosen the set screw on the black knob, spin the dial to 2 at the top and 20 at the bottom and then retighten the set screw. Return the dial to your setting and crimp another fitting.
- **Step 11.** If your crimp it outside of these numbers, or you need additional assistance please call technical service at 219.462.6128.



TROUBLESHOOTING

PROBLEM: CRIMPER RUNS BUT IS SLOW OR NON-FUNCTIONAL

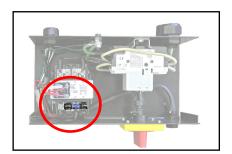
- Check supply voltage to see that it matches the voltage specified on the tag attached to the crimper.
- If the crimper is connected to a three phase circuit, check all three legs of the circuit to be certain that all legs are hot.
- Measure the voltage to the crimper when the crimper is under load.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

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: MOTOR RUNS BUT FOOT SWITCH WILL NOT OPERATE

• Power to the secondary circuit is supplied from a 24 volt step down transformer. If the motor runs normally but the foot switch will not function check the 2 amp slo blow fuse located in the control box as shown in the photo below.



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



CC200 / CC400 REPLACEMENT ACCESSORIES



Dial Micrometer Assembly CC200 Crimper P/N:102941-450 CC400 Crimper P/N:102941-60



Foot Pedal Assembly P/N:104118



99mm Quick Change Tool P/N:102571



Intermediate Die Removal Tool P/N:5691A13



Manual Back Stop P/N:MBS-60



Die Rack 9 Station Die Holders P/N:102616-99mm



Crimper Stand 16 Station Die Holders P/N:101247-99



Protective Master Die Foam Pad CC200 Crimper P/N:102529 CC400 Crimper P/N:102530



Mini Grease Gun w/ CRIMPX Die Lubricant 3 oz mini grease tube P/N:103889



CRIMPX Die Lubricant 3 oz mini grease tube P/N:103887



CRIMPX Die Lubricant 14 oz large grease tube P/N:103888



CustomCrimp® Notched Digital Caliper IN/MM P/N:CC-Caliper



Adapter Die Set 130mm OD to 99mm ID P/N:101575



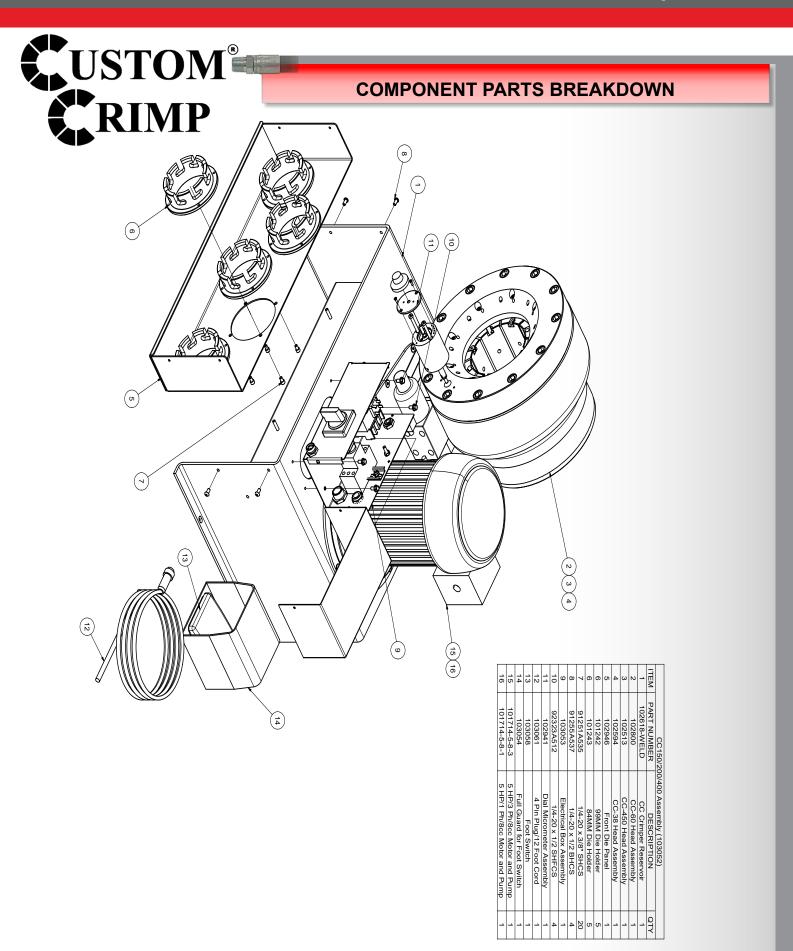
Adapter Die Set 145mm OD to 99mm ID P/N:103726



Die Lock Pin For 84S/99S Die Series P/N:101582

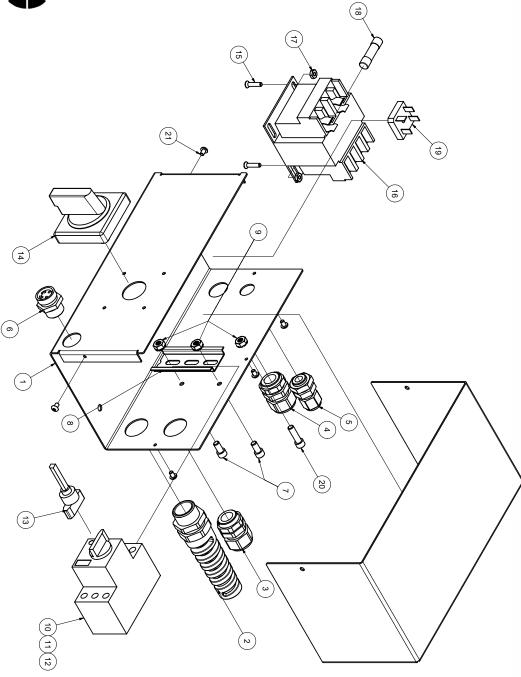


Die Lock Pin For 130S/145S Die Series P/N:101403

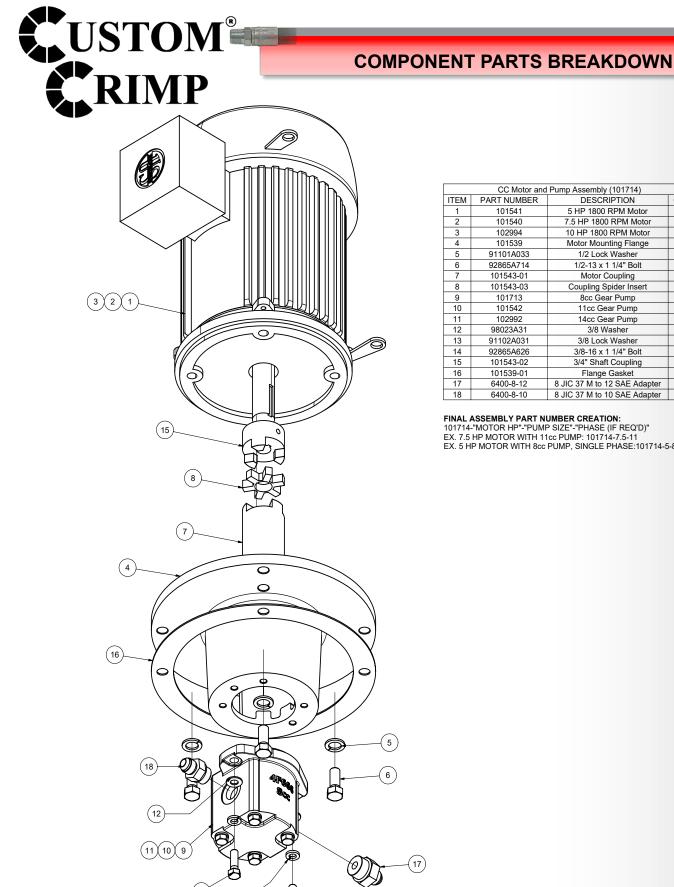




COMPONENT PARTS BREAKDOWN



CC-150/200/400 Electrical Box (103053) CC-150/200/400 CC-150/200/4	10 10:		9 90	8	7 91	6	5 6	4 7	3 6	2 6		ITEM PAR	
STOCK NUMBER OTY ITEM PART NUMBER DESCRIPTION		103057-2303	90675A029	125LDIN	251A537	103060	9915K51	7807K64	9915K56	9915K65	102945	T NUMBER	
CC-150/200/400 Electrical Box (103053) R		Manual Starter with Overload - 230V 3Ph	1/4-20 Nut with Tooth Washer	3.125 Length DIN Rail	1/4-20 x 1/2 SHCS	4 Pin Receptical	3/8 NPT Cord Grip	Multi-Wire Cord Grip	3/4 NPT Cord Grip	Cable Strain Relief	Electrical Box Metal Assembly	DESCRIPTION	CC-150/200/400 Electrical Box (103053)
CC-150/200/400 Electrical Box (103053) DESCRIPTION Manual Starter with Overload - 460V 3Ph Starter Switch Linkage External Starter Handle and Linkage #8-32 x 3/4 CS Screw 230/460-24VAC Transformer #8-32 Nut Time-Delay 2 Amp Fuse Bridge Rectifier 1/4-20 X 7/8" SHCS #8-32 x 1/4 BHCS		BM3RHB-016	90675A029	3.125LDIN	91251A537	1R4004A20A120	69915K51	7807K64	69915K56	69915K65	102945	STOCK NUMBER	
CC-150/200/400 Electrical Box (103053) DESCRIPTION Manual Starter with Overload - 460V 3Ph Starter Switch Linkage External Starter Handle and Linkage #8-32 x 3/4 CS Screw 230/460-24VAC Transformer #8-32 Nut Time-Delay 2 Amp Fuse Bridge Rectifier 1/4-20 X 7/8" SHCS #8-32 x 1/4 BHCS		_	ω	_	2	_	_	_	1	1	1	QTY	
CC-150/200/400 Electrical Box (103053) DESCRIPTION Manual Starter with Overload - 460V 3Ph Starter Switch Linkage External Starter Handle and Linkage #8-32 x 3/4 CS Screw 230/460-24VAC Transformer #8-32 Nut Time-Delay 2 Amp Fuse Bridge Rectifier 1/4-20 X 7/8" SHCS #8-32 x 1/4 BHCS		21	20	19	18	17	16	15	14	13	12	ITEM	
ox (103053) I- 460V 3Ph I- 460V 3Ph ge ge d Linkage ew former ormer use		91255A190	91251A541	103056	MEN2	90480A009	103055	90273A197	103059	103059-LINK1.355L		PART NUMBER	
STOCK NUMBER QTY BM3RHB-004 1 BZ0VYRL 1 BZ0VYRL 1 BZ0VYRL 1 90273A197 2 PT50QG 1 PT50QG 1 90480A009 2 MEN2 1 MP1505 1 91251A541 1 91255A190 5		#8-32 x 1/4 BHCS	1/4-20 X 7/8" SHCS	Bridge Rectifier	Time-Delay 2 Amp Fuse	#8-32 Nut	230/460-24VAC Transformer	#8-32 x 3/4 CS Screw		Starter Switch Linkage		DESCRIPTION	CC-150/200/400 Electrical Box (103053)
5 1 1 2 2 2 1 1 1 7		91255A190	91251A541	MP1505	MEN2	90480A009	PT50QG	90273A197	BZ0VYRL	BZ0VYRL	BM3RHB-004	STOCK NUMBER	
		5	_	_	_	2	_	2	_	_	_	QTY	

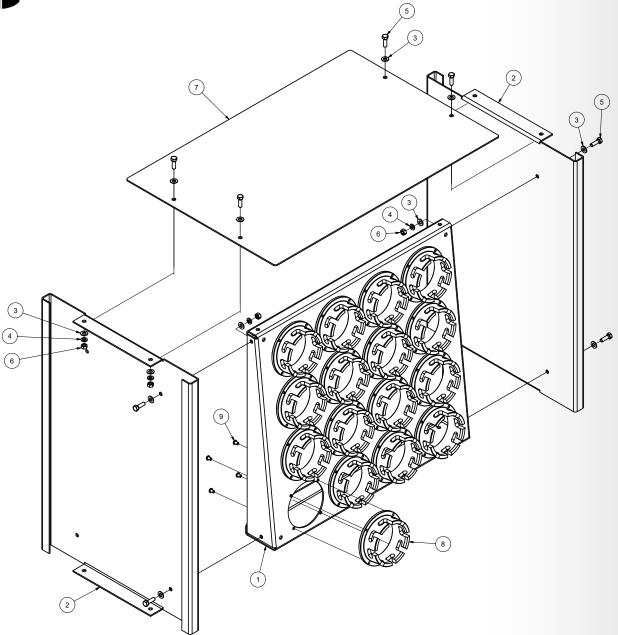


	CC Motor and Pump Assembly (101714)						
ITEM	PART NUMBER	DESCRIPTION	QTY				
1	101541	5 HP 1800 RPM Motor	1				
2	101540	7.5 HP 1800 RPM Motor	1				
3	102994	10 HP 1800 RPM Motor	1				
4	101539	Motor Mounting Flange	1				
5	91101A033	1/2 Lock Washer	4				
6	92865A714	1/2-13 x 1 1/4" Bolt	4				
7	101543-01	Motor Coupling	1				
8	101543-03	Coupling Spider Insert	1				
9	101713	8cc Gear Pump	1				
10	101542	11cc Gear Pump	1				
11	102992	14cc Gear Pump	1				
12	98023A31	3/8 Washer	2				
13	91102A031	3/8 Lock Washer	2				
14	92865A626	3/8-16 x 1 1/4" Bolt	2				
15	101543-02	3/4" Shaft Coupling	1				
16	101539-01	Flange Gasket	1				
17	6400-8-12	8 JIC 37 M to 12 SAE Adapter	1				
18	6400-8-10	8 JIC 37 M to 10 SAE Adapter	1				

FINAL ASSEMBLY PART NUMBER CREATION:
101714-"MOTOR HP"."PUMP SIZE"."PHASE (IF REQ'D)"
EX. 7.5 HP MOTOR WITH 11cc PUMP: 101714-7.5-11
EX. 5 HP MOTOR WITH 8cc PUMP, SINGLE PHASE:101714-5-8-1



COMPONENT PARTS BREAKDOWN



	CC Crimper Table Assembly (101755)					
Item	Part Number	Description	Qty			
1	101244	Die Panel	1			
2	101246	End Panel	2			
3	90108A030	5/16 Flat Washer	16			
4	91102A030	5/16 Lock Washer	8			
5	92865A581	5/16-18 X 1 Hex Bolt	8			
6	95462A030	5/16-18 Hex Nut	8			
7	101754	CC Crimper Table Top	1			
8	101242	99MM Die Holder	16			
8	101243	84MM Die Holder	16			
9	91255A535	1/4-20 X 3/8 BHCS	64			



CUSTOMCRIMP® "NO-NONSENSE" WARRANTY STATEMENT



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. 318 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.

CustomCrimp® 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.



CONTACT US

CUSTOMCRIMP®, YOURSINGLESOURCEFORHOSEASSEMBLYPRODUCTS.

Products and services to support industry wide hose assembly needs.

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Fax: (219) 464-2773
www.customcrimp.com





See the complete line of CustomCrimp® Crimpers and Accessories at: www.customcrimp.com