



D165NP SERIES HYDRAULIC HOSE CRIMPER OPERATORS MANUAL



SAFETY PRECAUTIONS



**READ INSTRUCTIONS AND IDENTIFY ALL
COMPONENT PARTS BEFORE USING CRIMPER**

**CRIMPER CAN PRODUCE 60 TONS OF FORCE
KEEP HANDS AWAY FROM PINCH POINTS**

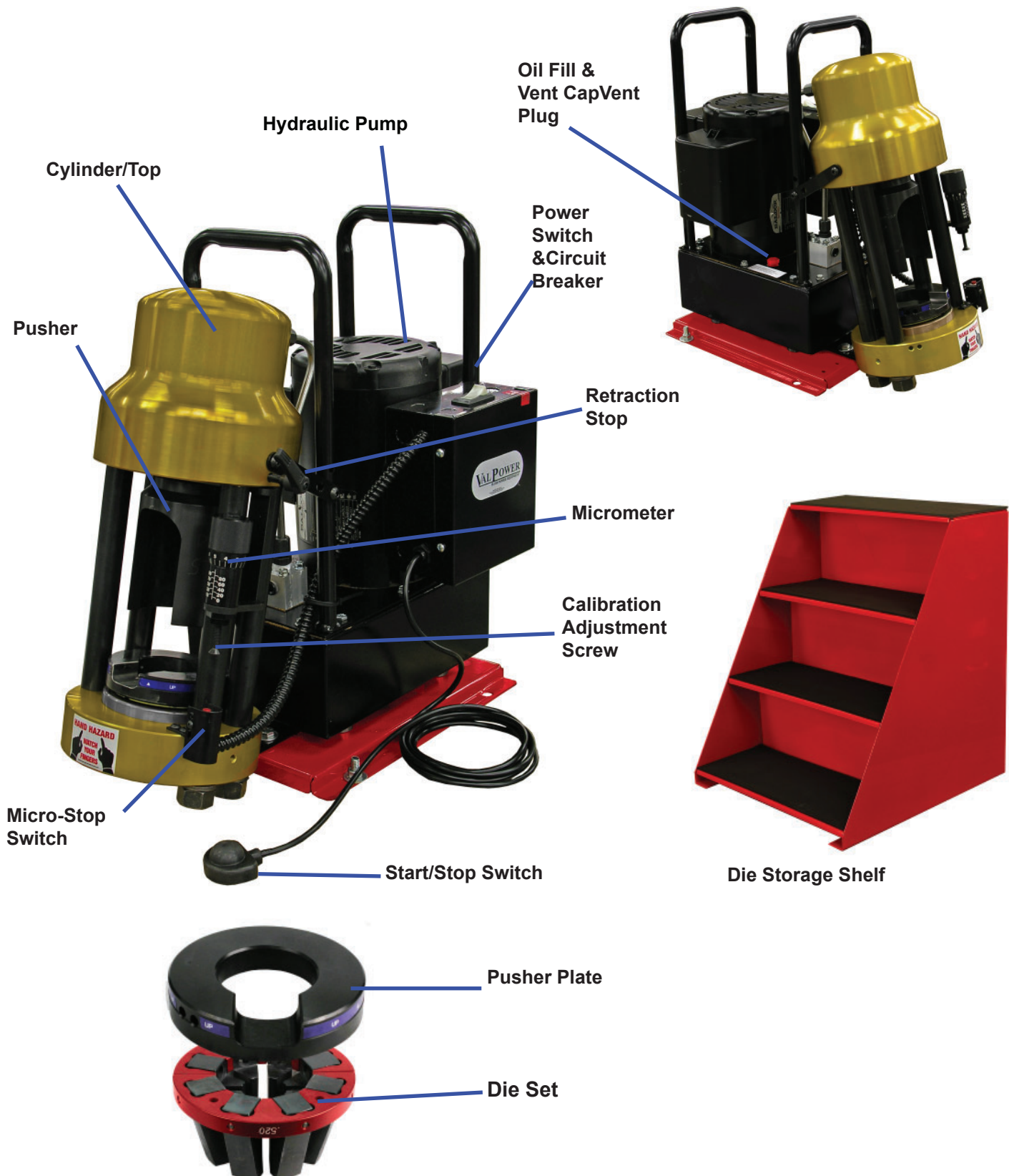
**CONSULT CRIMP SPECIFICATIONS FOR CORRECT
MACHINE SETTINGS AND CRIMP MEASUREMENTS**

ALWAYS WEAR EYE PROTECTION

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

Die Series-----	CC020/NP60 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 -----	22"
Crimper Width-----	12.5"
Crimper Height-----	22.25"
Weight-----	140 Lb
Pump-----	Electric
Pump HP-----	1 HP(110V)
Reservoir Capacity-----	1 Gal
Oil Type-----	ISO Viscosity Grade 46
Electric Power Requirement-----	110V





FOLLOW THESE STEPS BEFORE USING THE CRIMPER FOR THE FIRST TIME

CALIBRATION CHECK PROCEDURE

- Remove reservoir plug and replace with Oil Fill and Vent Cap. The Oil Fill and Vent cap and the work light bulb are found in the accessories box.

- Place the crimper on a sturdy bench in a well lit area, and plug the crimper directly into a 115 V 15 Amp wall outlet. *Do not run the crimper on an extension cord as low voltage can damage the motor.*

- The oil level in the pump should be approximately 1-1/2 inches below the fill plug. If necessary, replenish with ISO Viscosity Grade 46 hydraulic oil.

Note: The crimper is calibrated prior to shipment, but a calibration check is recommended prior to using the crimper for the first time.



- Lubricate all contact surfaces and place the Cone Insert, any Small Series die set and the Standard Pusher in the crimper in the order shown. Note that a hose and fitting are not required for an initial calibration check. *Note: failure to lubricate all contact surfaces can cause the Cone Insert and/or the dies to seize in the cone base.*

- Slide the Pusher onto the stud on the hydraulic ram.
- Set the Micro-Crimp adjuster at “95”
- Press and hold the start switch bulb.



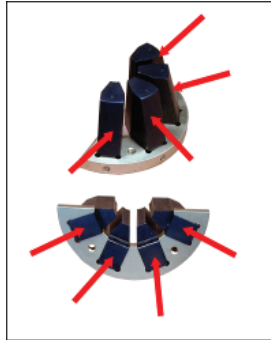
STANDARD
MICROMETER

- If the ram extends and the crimper shuts off approximately 1 second after the dies are completely closed and the pump starts to build pressure, the crimper is correctly calibrated.

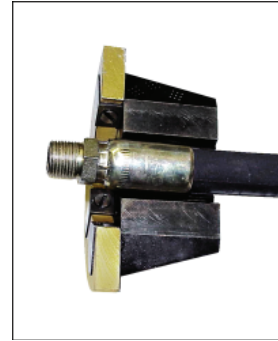
- If the time to shut off is not approximately 1 second, the crimper must be recalibrated. Recalibrate per instructions in this manual



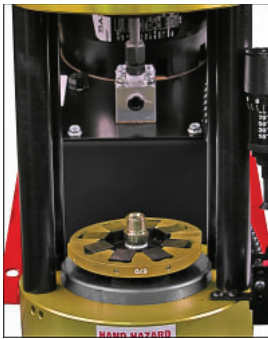
Lubrication of the cone must be done prior using for the first time.



Lubricate die fingers, all contact surfaces and die cones.



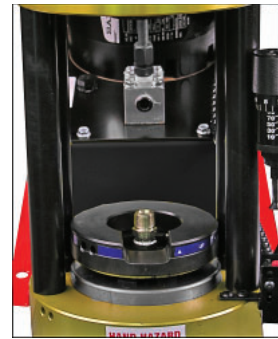
Correct alignment of the hose and fitting in the die set is shown. Reference crimp specifications for fitting locations.



Place the die set and hose and fitting loosely in the cone insert.



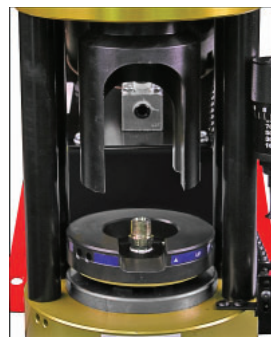
Use care to be certain that the die halves do not overlap.



Place the Pusher Plate on top of the die set.



Adjust Micrometer per hose and fitting specification.



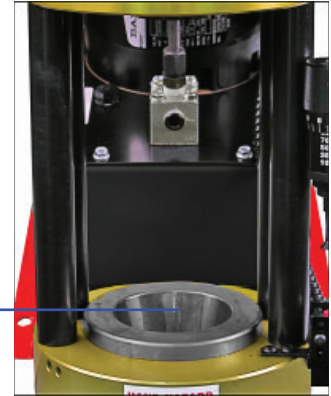
Slide the Pusher onto the stud on the hydraulic ram and press and hold the start switch until the motor shuts off.



Check the finished crimp diameter to be certain that it is within the crimp specification limits.

CALIBRATION INSTRUCTIONS

- After proper lubrication, place any standard die set in the compression cone and the pusher plate on top.
- Set the Micro-Crimp adjuster at “95”
- Press and hold the start switch bulb.
- If the ram extends and the crimper shuts off approximately 1 second after the dies are completely closed and the pump starts to build pressure, the crimper is correctly calibrated.
- If the time to shut off is not approximately 1 second, the crimper must be recalibrated. Recalibrate as follows:



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- 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.
- If the motor shuts off too quickly or before the dies are completely closed, rotate the stem in.
- If the motor does not shut off or shuts off in substantially more than 1 second, rotate the stem out.



CRIMPER FEATURES



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



The adjustable retraction stop limits the retraction of the ram to only the amount required to easily remove the hose and fitting. This feature saves time when doing 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

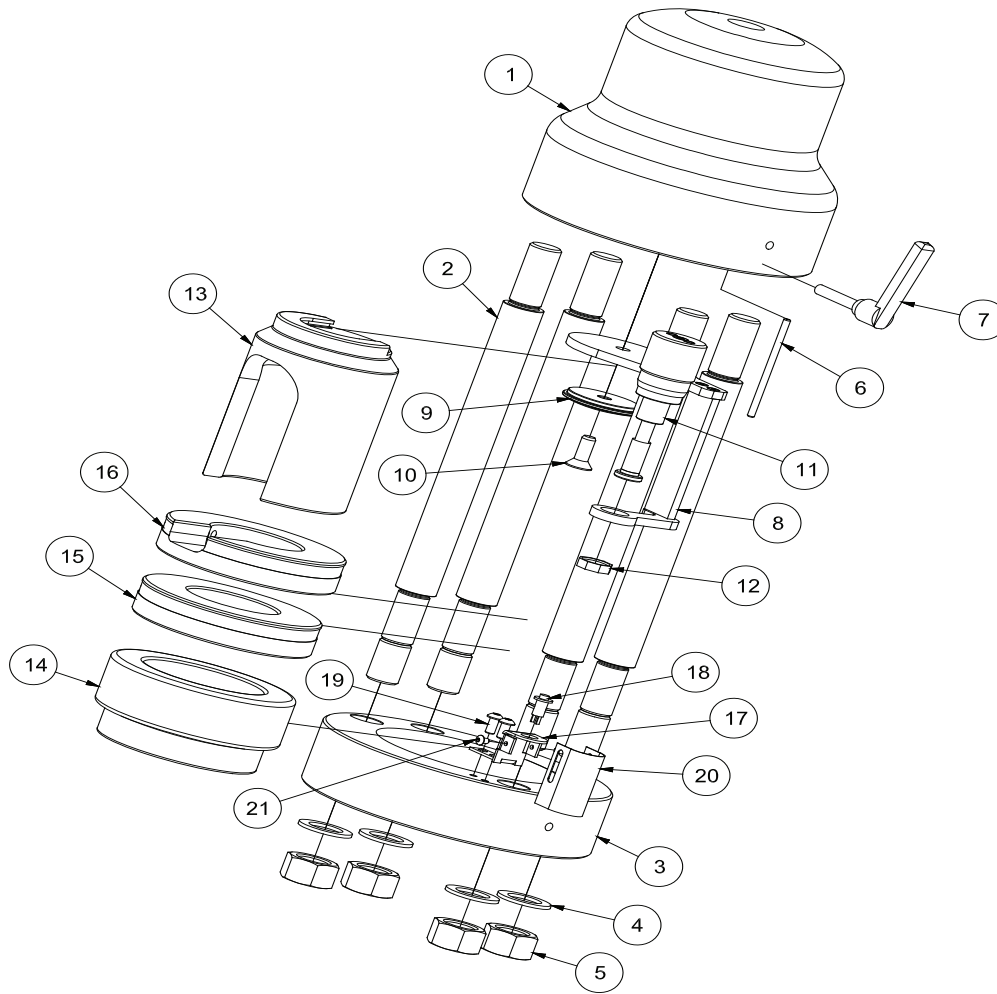
- Incorrect setting of the Micro-Crimp Adjuster. Check crimp specifications.
(NOTE: All published machine settings are approximate. To correct for slight variances, the gauge settings may be adjusted for the specific hose, fitting and size combination.)
- Incorrect die being used. Each die has a range 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. Replenish with ISO Viscosity Grade 46 hydraulic oil.
- 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

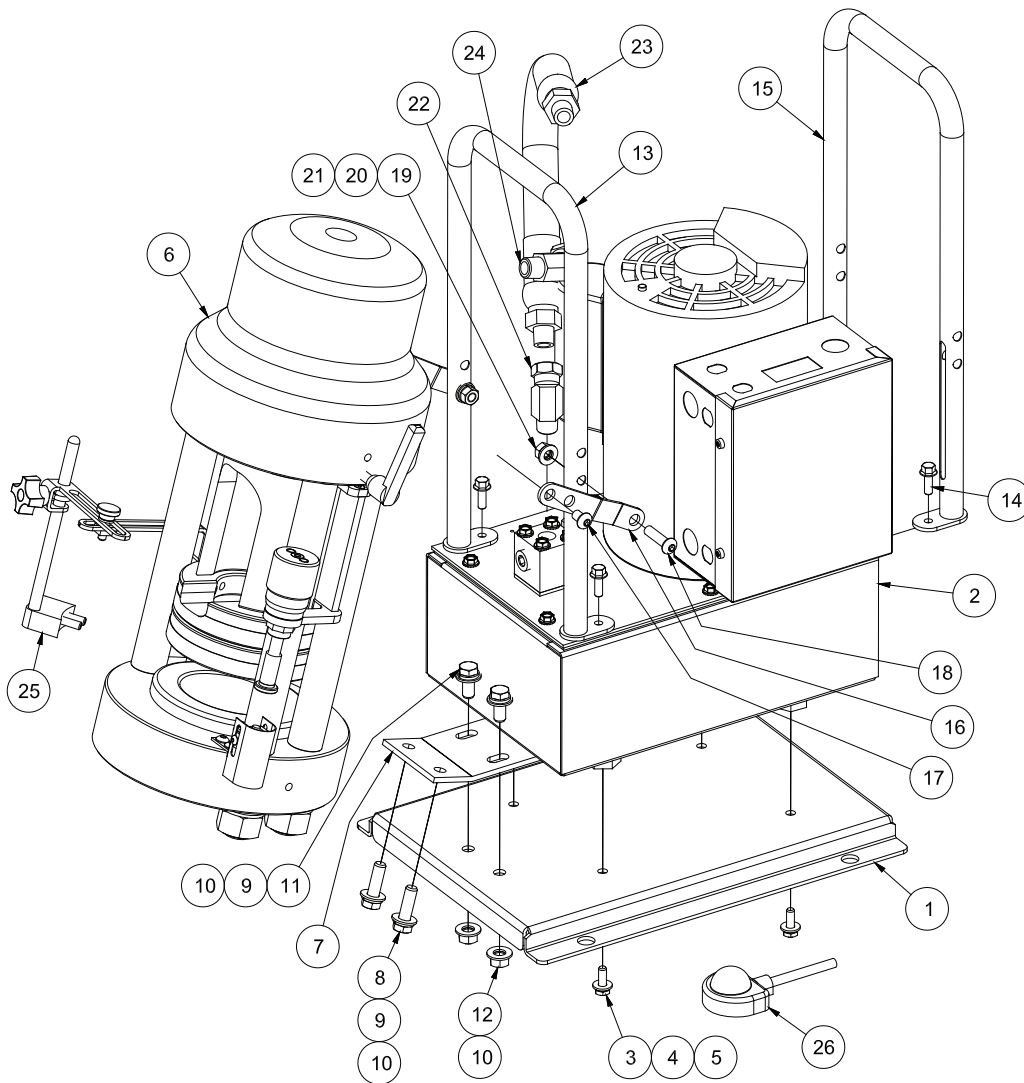
- Incorrect setting of the Micro-Crimp Adjuster. Check crimp specifications.
(NOTE: All published machine settings are approximate. To correct for slight variances, the gauge settings may be adjusted for the specific hose, fitting and size combination.)
- Incorrect die being used (See die range under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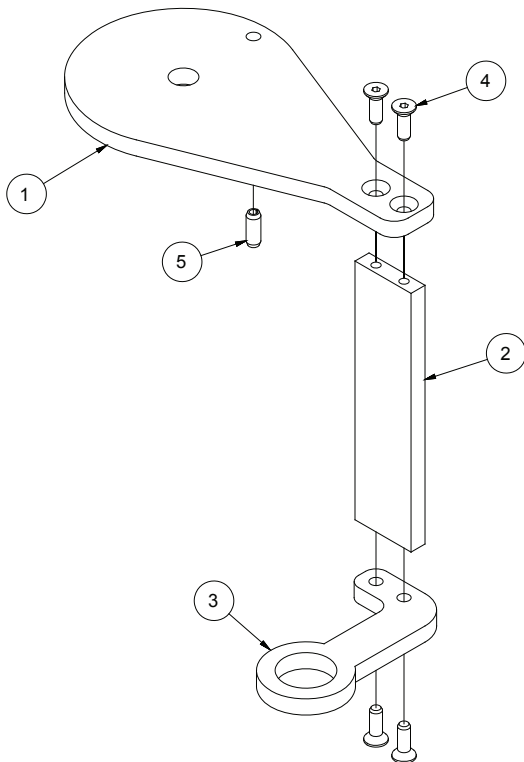
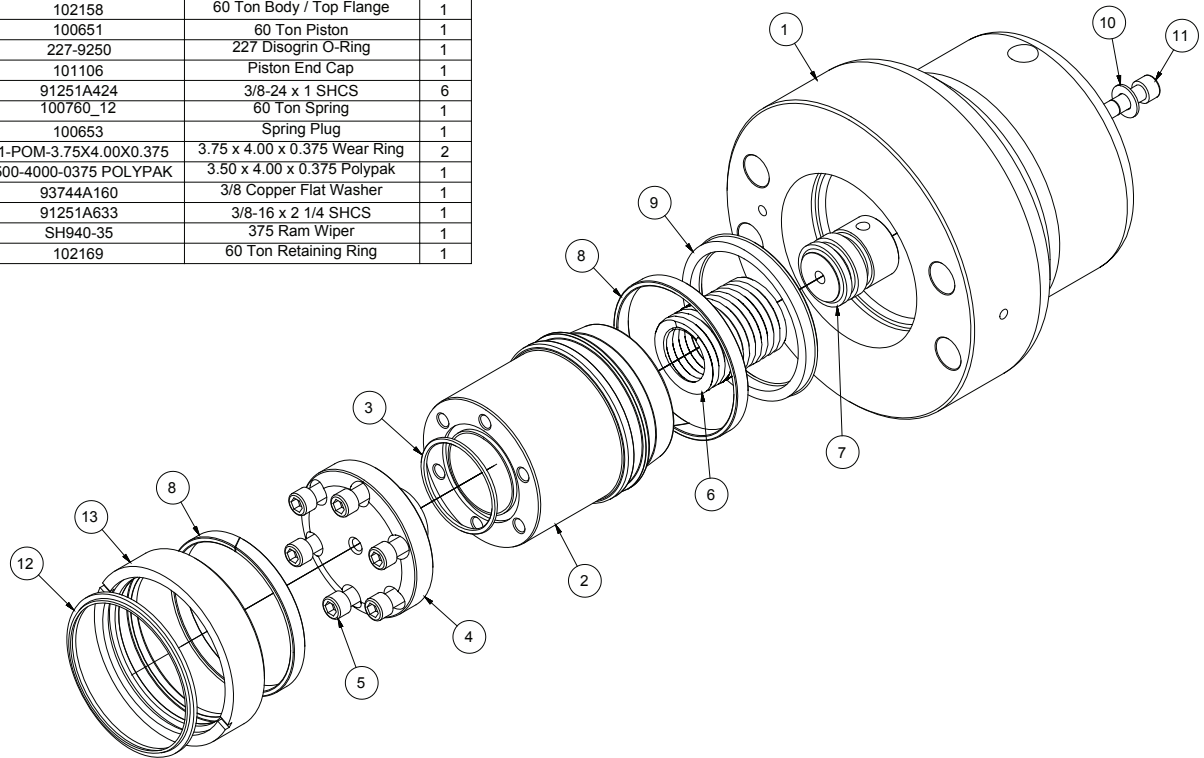


D165NP Crimper Head Assembly (102472)			
Item	Part Number	Description	Qty
1	102219	60 Ton Cylinder / Top Flange	1
2	102212	Strain Rod	4
3	102159	Bottom Flange	1
4	11038	7/8 Narrow Rim Washer	4
5	90499A845	7/8 - 14 Hex Nut	4
6	102224	Retraction Stop Rod	1
7	KHA-126	Stop Rod Locking Handle	1
8	102220	Micrometer Mount Assembly	1
9	100812	Pusher Retaining Disc	1
10	91253A624	3/8-16 x 1 HSFHCS	1
11	100628	Standard Micrometer Assembly	1
12	100727	Micrometer Nut	1
13	100825	Pusher (no magnets)	1
14	102226	Cone Insert	1
15	100915	Pressure Plate	1
16	100960	Notched Pressure Plate	1
17	101092	Limit Switch Bracket	1
18	903 Switch	Limit Switch	1
19	91255A537	1/4-20 x 1/2 BHCS	2
20	100692	Limit Switch Guard	1
21	91255A190	8-32 x 1/4 BHCS	2



D165NP Crimper Assembly (102473)			
Item	Part Number	Description	Qty
1	101430	D165 Base Plate	1
2	101633	Pump Assembly	1
3	92865A540	1/4-20 x 3/4 HHCS	4
4	91102A029	1/4 Lock Washer	4
5	90126A029	1/4 Flat Washer	4
6	102472	D165NP Crimper Head Assembly	1
7	101429	Crimper Head Mounting Bracket	1
8	92865A626	3/8-16 x 1 1/4 HHCS	2
9	91102A031	3/8 Lock Washer	4
10	90126A031	3/8 Flat Washer	6
11	92865A623	3/8-16 x 7/8 HHCS	2
12	95462A031	3/8-16 Hex Nut	2
13	102160	Front Handle Assembly	1
14	92323A516	1/4-20 x 3/4 HHFCS	4
15	102222	Rear Handle Assembly	1
16	102052	Crimper Head Brace	2
17	91255A578	5/16-18 x 1/2 BHCS	2
18	91255A585	5/16-18 x 1 1/4 BHCS	2
19	95462A030	5/16-18 Hex Nut	2
20	91102A030	5/16 Lock Washer	2
21	90126A030	5/16 Flat Washer	2
22	60TA-06X08	45 Deg Swivel Fitting	1
23	102225	D165 High Pressure 1/2" Hose	1
24	60TA-08X08	45 Deg Swivel Fitting	1
25	100954	Coupling Stop Assembly	1
26	101349	Pneumatic Pendant Switch	1

60 Ton Cylinder / Top Flange Assembly (102219)			
Item	Part Number	Description	Qty
1	102158	60 Ton Body / Top Flange	1
2	100651	60 Ton Piston	1
3	227-9250	227 Disogrin O-Ring	1
4	101106	Piston End Cap	1
5	91251A424	3/8-24 x 1 SHCS	6
6	100760_12	60 Ton Spring	1
7	100653	Spring Plug	1
8	F1-POM-3.75X4.00X0.375	3.75 x 4.00 x 0.375 Wear Ring	2
9	3500-4000-0375 POLYPAK	3.50 x 4.00 x 0.375 Polypak	1
10	93744A160	3/8 Copper Flat Washer	1
11	91251A633	3/8-16 x 2 1/4 SHCS	1
12	SH940-35	375 Ram Wiper	1
13	102169	60 Ton Retaining Ring	1



D165 Micrometer Mount Assembly (102220)			
Item	Part Number	Description	Qty
1	102214	Micrometer Suspension Flange	1
2	102217	Micrometer Brace	1
3	102215	Micrometer Base Bracket	1
4	91253A194	8-32 x 1/2 HSFHCS	4
5	98296A245	3/16 Dia. x 1/2 Spring Pin	1