



## D100 SERIES HYDRAULIC HOSE CRIMPER OPERATORS MANUAL

## **MODELS COVERED**

This manual is applicable to different versions of the D\_100\_ Series Crimpers. A “Standard”, “Metric” and “DC” micrometer is available on different models. Crimping, calibration and repair procedures are similar for all models. See specific instructions and parts breakdown for the model in question



D100P SERIES CRIMPER



D100H SERIES CRIMPER



D100S SERIES  
CRIMPER

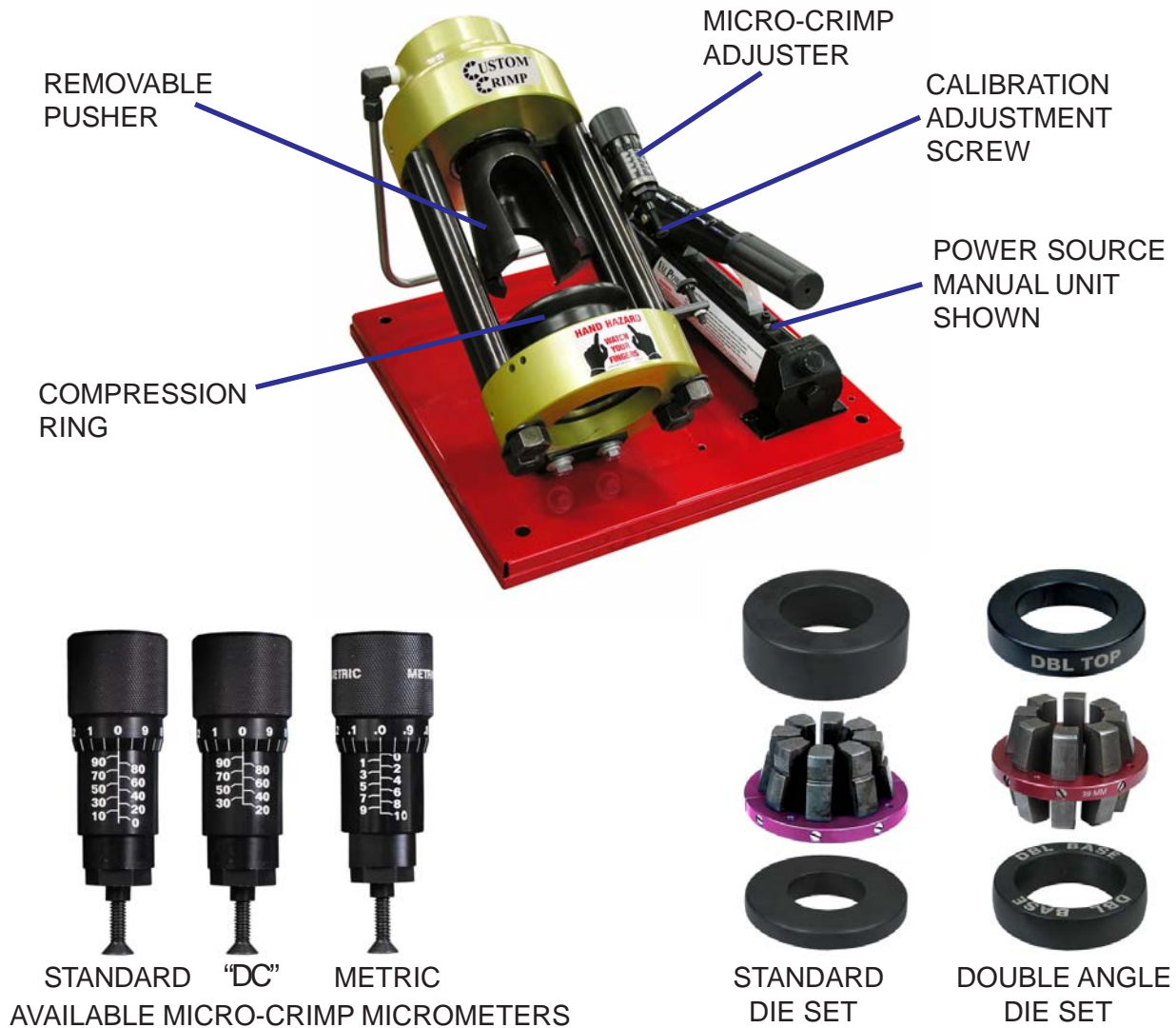


D101S SERIES  
CRIMPER



VALPOWER PUMP  
(OPTIONAL)

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



## SAFETY PRECAUTIONS



READ INSTRUCTIONS AND IDENTIFY ALL COMPONENT PARTS BEFORE USING CRIMPER.

CRIMPER CAN PRODUCE 35 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.

**TO ASSURE ACCURATE CRIMP DIAMETERS FOLLOW THESE STEPS  
BEFORE YOU USE THE CRIMPER FOR THE FIRST TIME**

**CALIBRATION CHECK PROCEDURE**

- Position the crimper on a sturdy surface in a well lighted area
- Check crimper calibration prior to initial operation
- Seat the Pressure Plate (flat plate) in the base of the crimper
- Place any D100 series die set on top of the Pressure Plate making certain that the die set is firmly seated against the Pressure Plate.

*Note: Do Not use Double Angle Die set for calibration check*

- Place the Compression Ring on top of the die set in the order shown and slide the pusher onto the ram.

- Set the Micro-crimp adjuster as follows:

Standard Micrometer: "100"

"DC" Micrometer: "95"

Metric Micrometer: "0"

- Bring the Pusher into contact with the Compression Ring and continue to apply force until the die set is fully closed and the white line is flush with the surface of the micro crimp adjuster as shown.

- Note that for the D101S series, the electric switch will shut off the power source at the point at which the die set is fully closed and the pump starts to build pressure.

- If the white line is not just visible as shown or the pump does not shut off at the point where the die set is fully closed, the crimper must be recalibrated. See calibration instructions.





- Place the Pressure Plate, any D100 Series Standard Die Set and the Compression Ring in the crimper in the order shown. *Do Not use Double Angle Components*

- Set the Micro-Crimp Adjuster as follows:

Standard Micrometer: "100"  
 "DC" Micrometer: "95"  
 Metric Micrometer: "0"

- Bring the ram and pusher down on top of the compression cone and increase the pump pressure until the die set is completely closed and the pump starts to build pressure.



## All D100 Series Crimpers

- Continue increasing the pressure on the compression Cone until the circumferential white line on the Micro-Crimp Sight Button just becomes visible above the Micro-Crimp Adjuster as shown in the illustration.

## D101S Series Crimpers (with electric pump)

- The Electric pump should completely close the die set before the pump shuts off.
- If the white line is not visible or the electric pump does not shut off when the dies are completely closed, adjust the calibration adjustment screw under the Micro-Crimp Adjuster contact button as illustrated. Repeat the calibration procedure until the above conditions are satisfied.
- When the above conditions are met, the crimper is calibrated and ready for use.



- Place the flat pressure plate in the bottom flange and select the correct die set for the combination of hose and fitting to be crimped. Refer to the hose and fitting manufacturer's recommendation for the correct die set to use.

- Lubricate the contact surfaces of the die fingers and compression cone thoroughly with the die lubricant furnished with the crimper (EZCRIMP M).

*Failure to lubricate the contact surfaces with the proper lubricant will cause the dies to seize in the compression cone.*

- Set the Micro-Crimp Adjuster to the setting recommended by the hose and fitting manufacturer for the combination of hose and fitting being crimped.

*NOTE: The Metric Micro-Crimp Adjuster is a direct reading micrometer. Add the setting on the micrometer to the closed diameter of the die set to obtain the finished crimp diameter. For example: With a 39mm die and the Micro-Crimp Adjuster set at 3 the finished crimp diameter would be 42mm*

- Place the Compression Ring over the die set and align the fitting to the correct position.

- Slowly bring the Pusher in contact with the Compression Ring until the hose and fitting are held in position with a very light pressure. Recheck the fitting for correct alignment.

- Continue to apply pressure until the white circumferential line on the Micro-Crimp Sight Button just appears above the Micro-Crimp Adjuster (See illustration on P 5) or the electric power unit shuts off for the 101S crimper.

- Check the diameter of the finished crimp to be certain that it is within the specifications of the hose and fitting manufacturer.

*NOTE: Each die set has a limited range of diameters for which it can be used. A "Rule of Thumb" is that if you can see the notches on the die fingers under the Compression Ring prior to crimping, you must select a larger die size.*



- The Double Angle Dies are special purpose dies designed to double the crimping force thus allowing larger fittings to be crimped with less vertical force.

*The limitation, however, is that they must crimp to a near fully closed position and therefore a given die set can crimp only limited range above the diameter shown on the die ring.*

- To use the Double Angle Die set, remove the flat pressure plate from the cone base and replace it with the compression plate labeled 'DBL BASE' whose angle matches that on the Double Angle Die.

- Seat the Double Angle Die in the conical recess of the 'DBL BASE' cone and position the hose and fitting as specified by the fitting manufacturer.

- Place the 'DBL TOP' Compression Ring on top of the die set making sure that the fitting is still correctly positioned. Slide the pusher into place on the cylinder ram.

*Note: the angles on the Double Angle compression ring and the Standard Compression ring are not the same. The DBL Top compression ring must be used with the Double Angle Die set.*

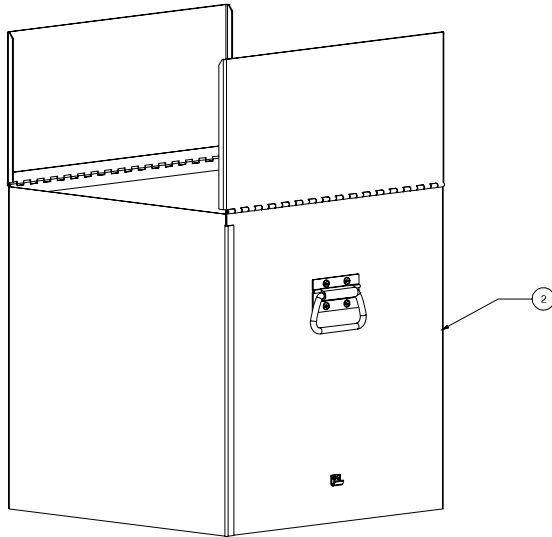
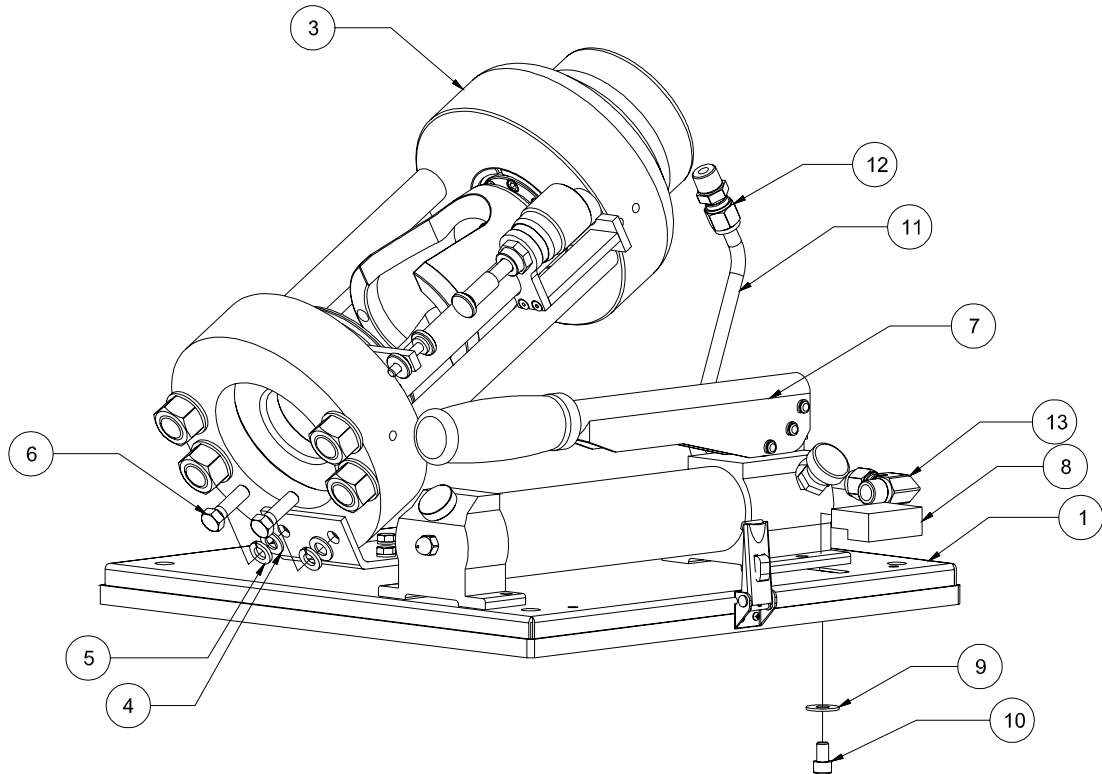
- Set the Micro-Crimp Adjuster at the recommended setting specified by the hose and fitting manufacturer.

*Note: The direct reading feature of the Micro-Crimp Adjuster is not applicable with Double Angle Dies. Follow the hose and fitting manufacturer's recommendations*

- Cycle the crimper until the white circumferential line on the Micro-Crimp Sight Button just appears on the top of the Micro-Crimp Adjuster or the power unit shuts off for the D101S unit. Note that if the die is not brought to a near fully closed condition, there is the possibility that the crimps will be tapered along the length of the crimp diameter.

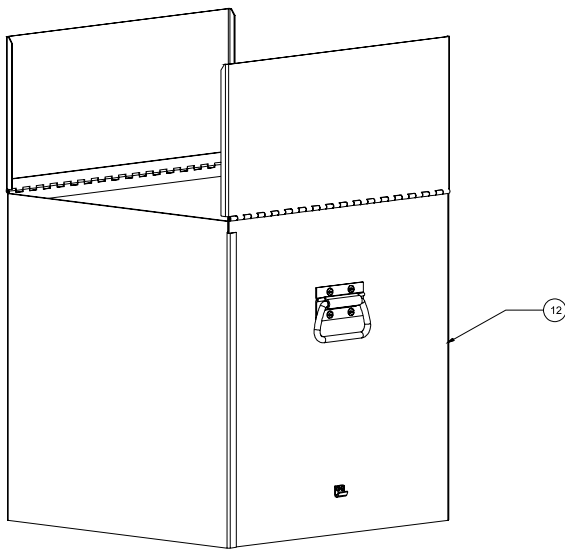
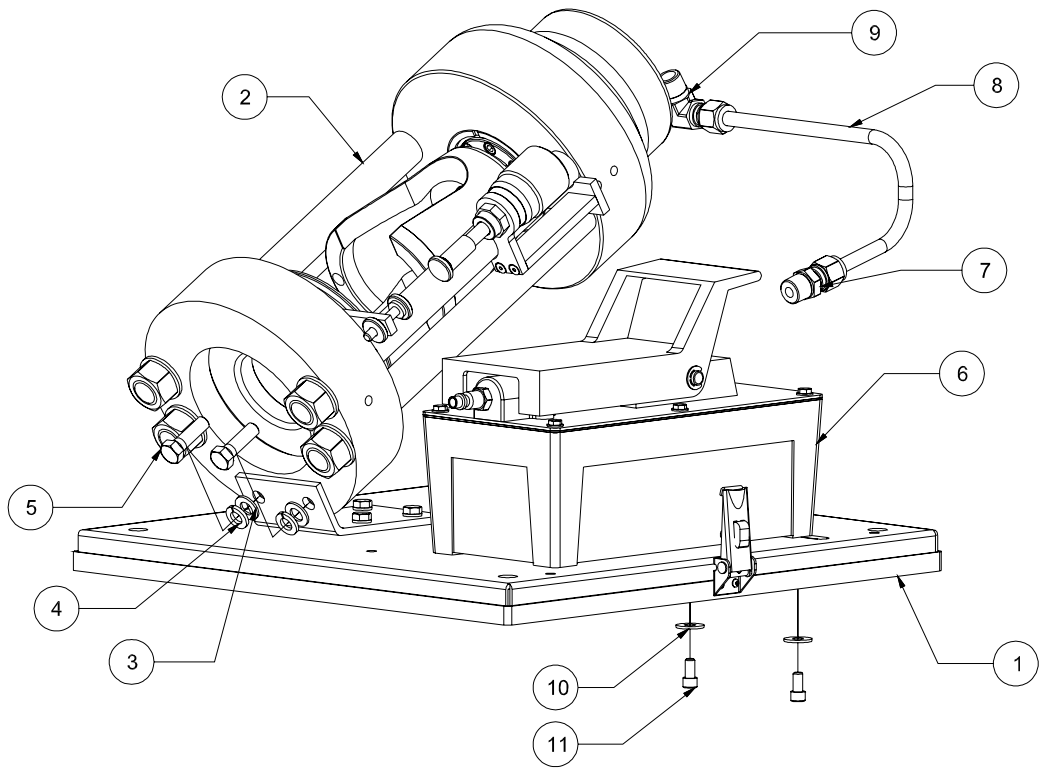
- Check the crimp diameter to be certain that it is within the specifications of the hose and fitting manufacturer.



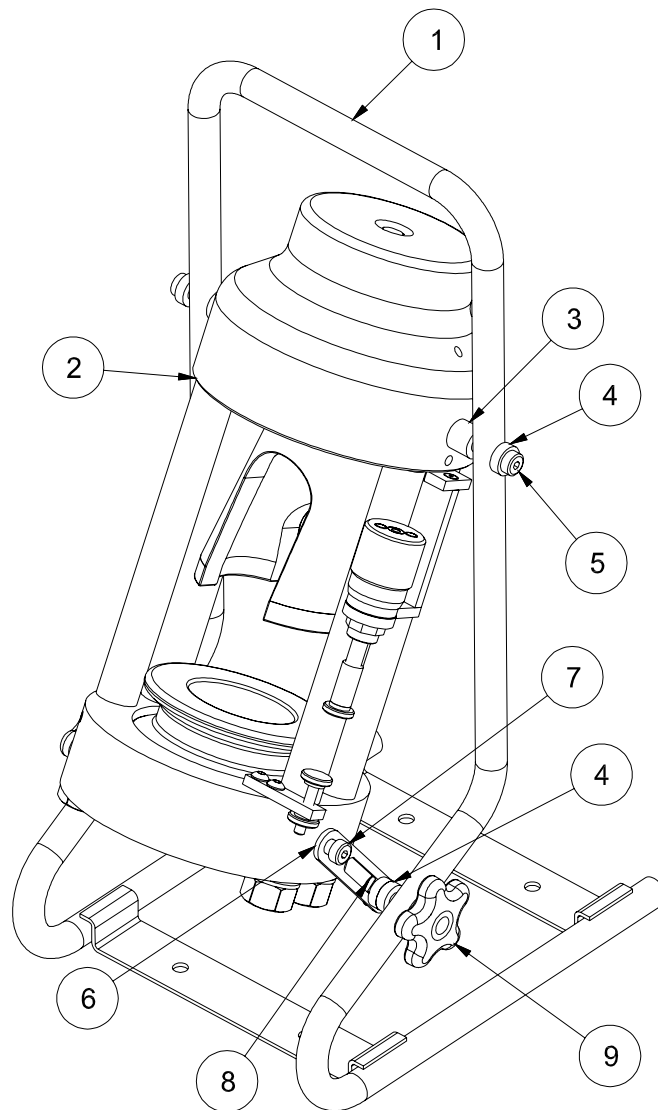


D100H Assembly (100935)			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	100930	Base Assembly	1
2	100931	Cover Assembly	1
3	100929	D100 Head Assembly	1
4	90126A031	3/8 Plain Washer	2
5	91102A031	3/8 Lock Washer	2
6	92865A626	3/8-16 x 1 1/4 Hex Bolt	2
7	100934	Hand Pump Assembly	1
8	100338	Hand Pump Clamp	2
9	91090A111	5/16 Plain Washer	2
10	91251A578	5/16-18 x 1/2 SHCS	2
11	100935-01	Hand Pump Tube	1
12	52215K624	Straight Comp Fitting	1
13	52215K634	Elbow Comp Fitting	1

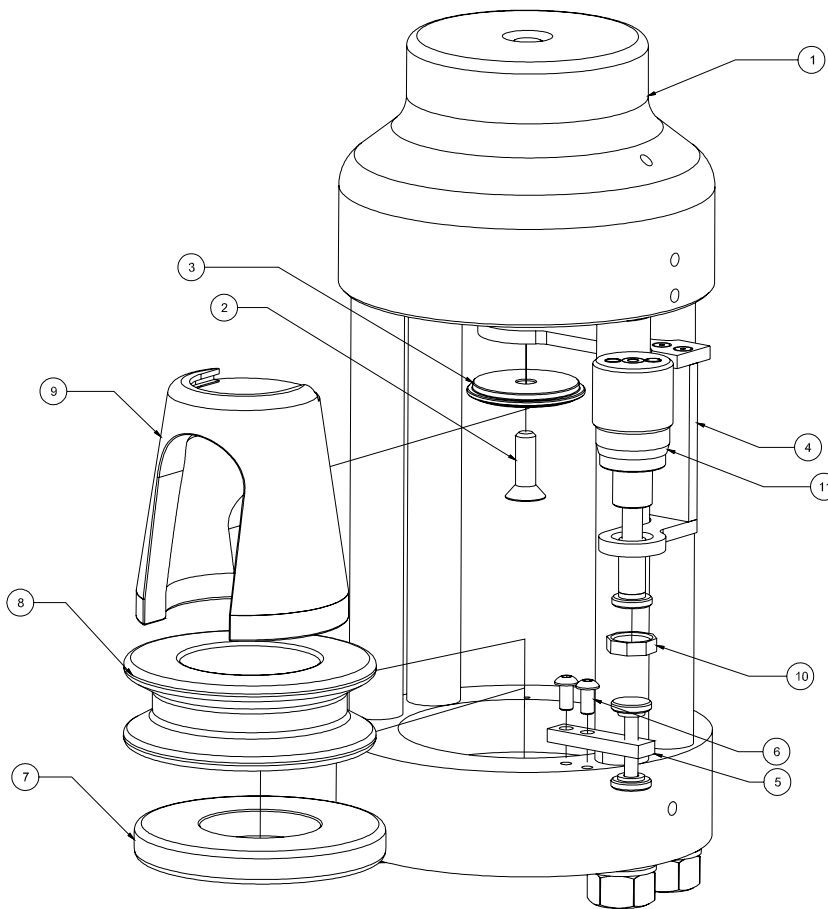




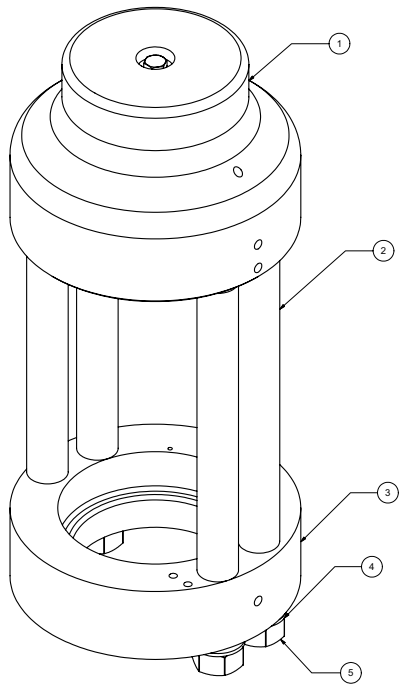
D100P Assembly (100937)			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	100930	Base Assembly	1
2	100929	Head Assembly	1
3	90126A031	3/8 Plain Washer	2
4	91102A031	3/8 Lock Washer	2
5	92865A626	3/8-16 x 1 1/4 Hex Bolt	2
6	100620	Pneumatic Pump	1
7	52215K624	Straight Comp Fitting	1
8	100620-01	Pneumatic Pump Tube	1
9	52215K634	Elbow Comp Fitting	1
10	90108A029	1/4 Plain Washer	2
11	91251A537	1/4-20 x 1/2 SHCS	2
12	100931	Cover Assembly	1



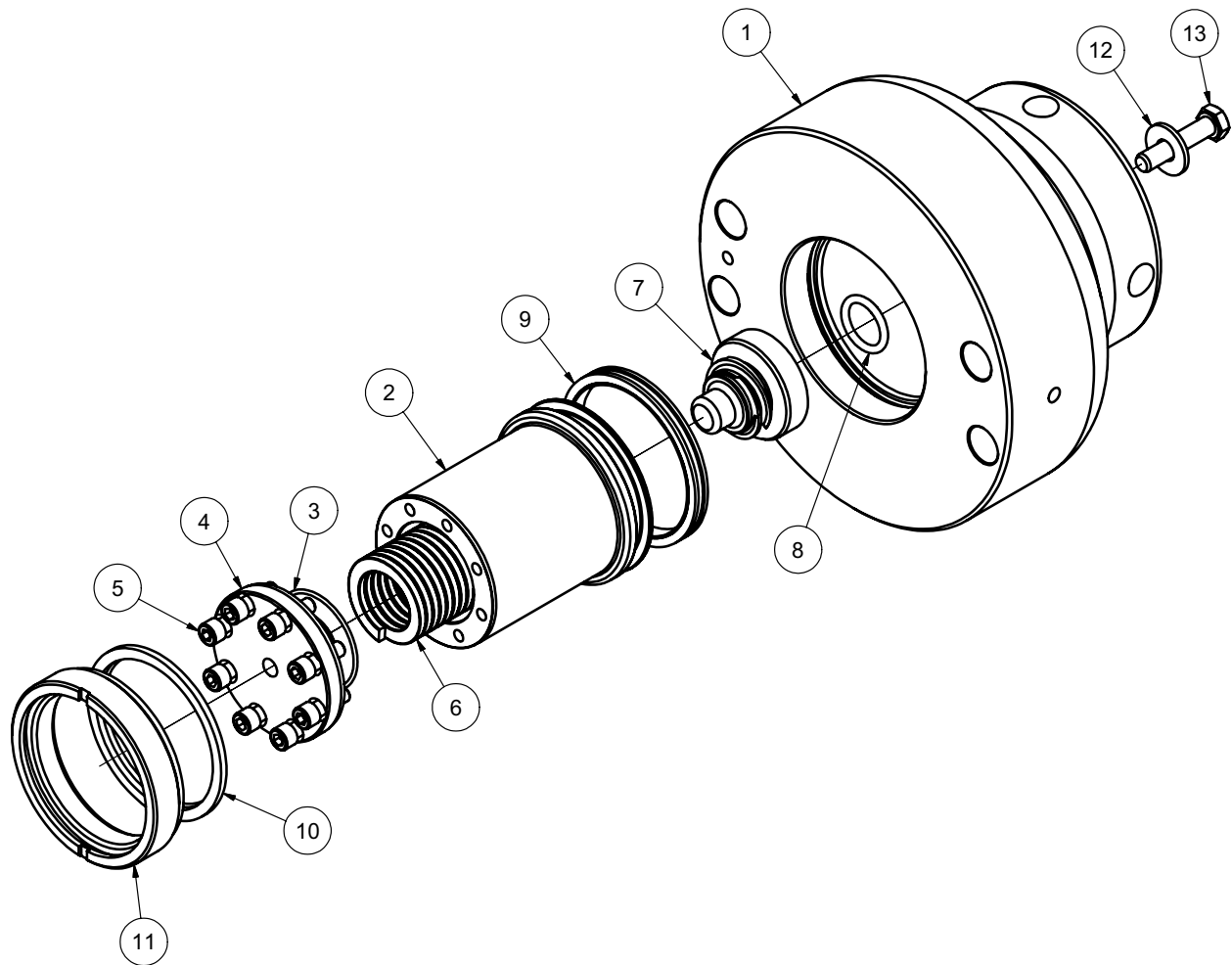
D100S Portable Crimper Assembly (101013)			
Item	Part Number	Description	Qty
1	100905	D100 Crimper Frame	1
2	100929	D100 Head Assembly	1
3	101040	3/8 x 3/4 x 5/8 Spacer	2
4	100956	3/8 x 3/4 x 1/4 Spacer	6
5	91259A628	3/8 x 1 1/2 Shoulder Screw	2
6	100980	Adjustment Arm	2
7	91259A617	3/8 x 3/8 Shoulder Screw	2
8	93548A628	3/8-16 x 1 1/2 Carriage Bolt	2
9	DK-186	Angle Adjustment Knob	2



D100 Head Assembly (100929)			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	101209	35-Ton Head Sub-Assembly	1
2	91253A624	3/8-16 x 1 HSFHS	1
3	100812	Pusher Retaining Pin	1
4	101788	Micrometer Mount Assembly	1
5	100898-04	Micro Pad Assembly	1
6	91255A537	1/4-20 x 1/2 BHCS	2
7	100869	Pressure Plate	1
8	100849	Compression Cone	1
9	100813	Pusher (No Magnets)	1
10	100727	Micrometer Nut	1
11	100628	Standard Micrometer Assembly	1
12	101489	DC Micrometer Assembly	1
13	101587	Metric Micrometer Assembly	1



35-Ton Head Sub-Assembly (101209)			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	103122	35-Ton Cylinder/Flange	1
2	100329	Strain Rod - 8 1/2"	4
3	100325	Bottom Flange	1
4	750SPCL	3/4 Flat Washer - Special	4
5	95462A538	3/4-10 Hex Nut	4



35 Ton Cylinder / Flange Assembly (103122)			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	102511	Cylinder Body	1
2	101515	Cylinder Piston	1
3	030D90	030 Disogrin O-Ring	1
4	100689	Cylinder Piston Cap	1
5	91251A540	1/4-20 X 3/4 SHCS	8
6	101282	Cylinder Spring	1
7	101516	Spring Plug	1
8	210D90	210 Disogrin O-Ring	1
9	TP032	T-Seal	1
10	SH959-26	Ram Wiper	1
11	101514	Cylinder Retaining Ring	1
12	90108A415	5/16 Flat Washer	1
13	92865A587	5/16-18 x 1.50 HHCS	1





