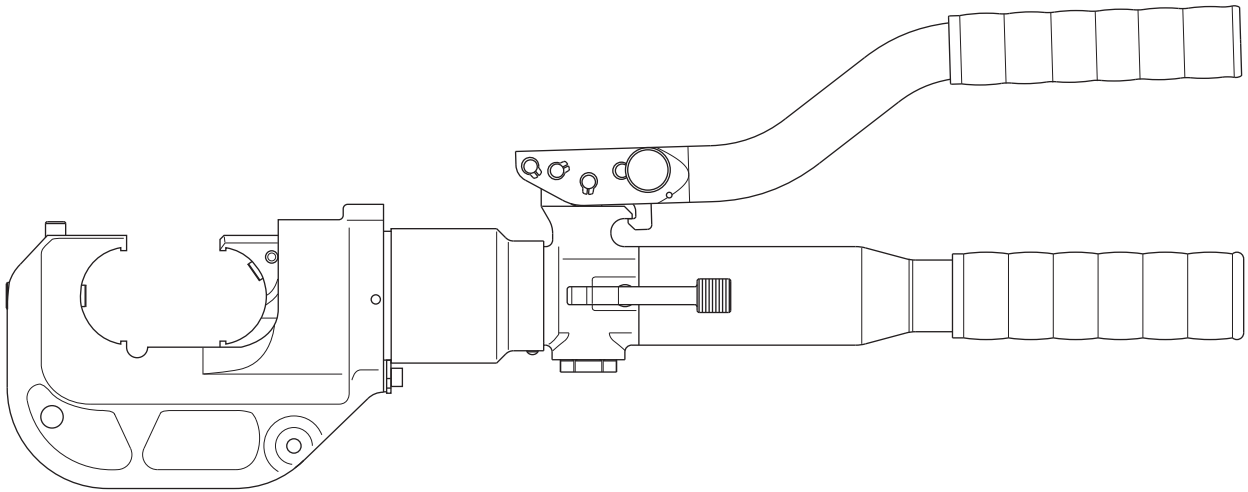


INSTRUCTION MANUAL

ILSCO®



ILC-12-N Hydraulic Crimping Tool



Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

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Description

The ILC-12-N Hydraulic Crimping Tool is a hand-held, self-contained crimping tool intended to crimp aluminum and copper connectors onto electrical cable. It uses industry standard 12-ton U-type dies, purchased separately.

Safety

Safety is essential in the use and maintenance of ILSCO tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Purpose of this Manual

This manual is intended to familiarize all personnel with the safe operation and maintenance procedures for the following ILSCO tool:

ILC-12-N Hydraulic Crimping Tool

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge.

Warranty and Service

ILSCO warrants this tool to the original purchaser for a period of one year from the date of purchase, provided the tool is operated, maintained and used in accordance with ILSCO's written instructions. Ordinary wear and tear, damage from abuse, neglect or alterations are not covered by this warranty. This warranty is null and void if instructions and operating procedures are not followed. Contact ILSCO for all warranty and service issues at 800-776-9775.

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KEEP THIS MANUAL

IMPORTANT SAFETY INFORMATION



**SAFETY
ALERT
SYMBOL**

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

⚠ DANGER

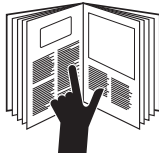
Immediate hazards which, if not avoided, **WILL** result in severe injury or death.

⚠ WARNING

Hazards which, if not avoided, **COULD** result in severe injury or death.

⚠ CAUTION

Hazards or unsafe practices which, if not avoided, **MAY** result in injury or property damage.



⚠ WARNING

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Failure to observe this warning could result in severe injury or death.

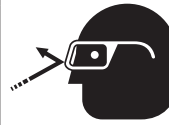


⚠ WARNING

Electric shock hazard:

This tool is not insulated. When using this unit on or near energized electrical lines, use proper personal protective equipment.

Failure to observe this warning could result in severe injury or death.



⚠ WARNING

Wear eye protection when operating this tool.

Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.



⚠ WARNING

Skin injection hazard:

- Do not use hands to check for leaks.
- Depressurize the hydraulic system before servicing.

Oil under pressure easily punctures skin causing serious injury, gangrene, or death. If you are injured by escaping oil, seek medical attention immediately.

IMPORTANT SAFETY INFORMATION**⚠ WARNING**

An incomplete crimp can cause a fire. Use proper connector and cable combinations.

- Improper combinations can result in an incomplete crimp.
- The handle load will drop suddenly to indicate a completed crimp. If the handle load does not drop suddenly, the crimp is not complete.

Failure to observe these warnings could result in severe injury or death.

⚠ WARNING

Inspect tool before use. Replace any worn or damaged parts. A damaged or improperly assembled tool can break and strike nearby personnel.

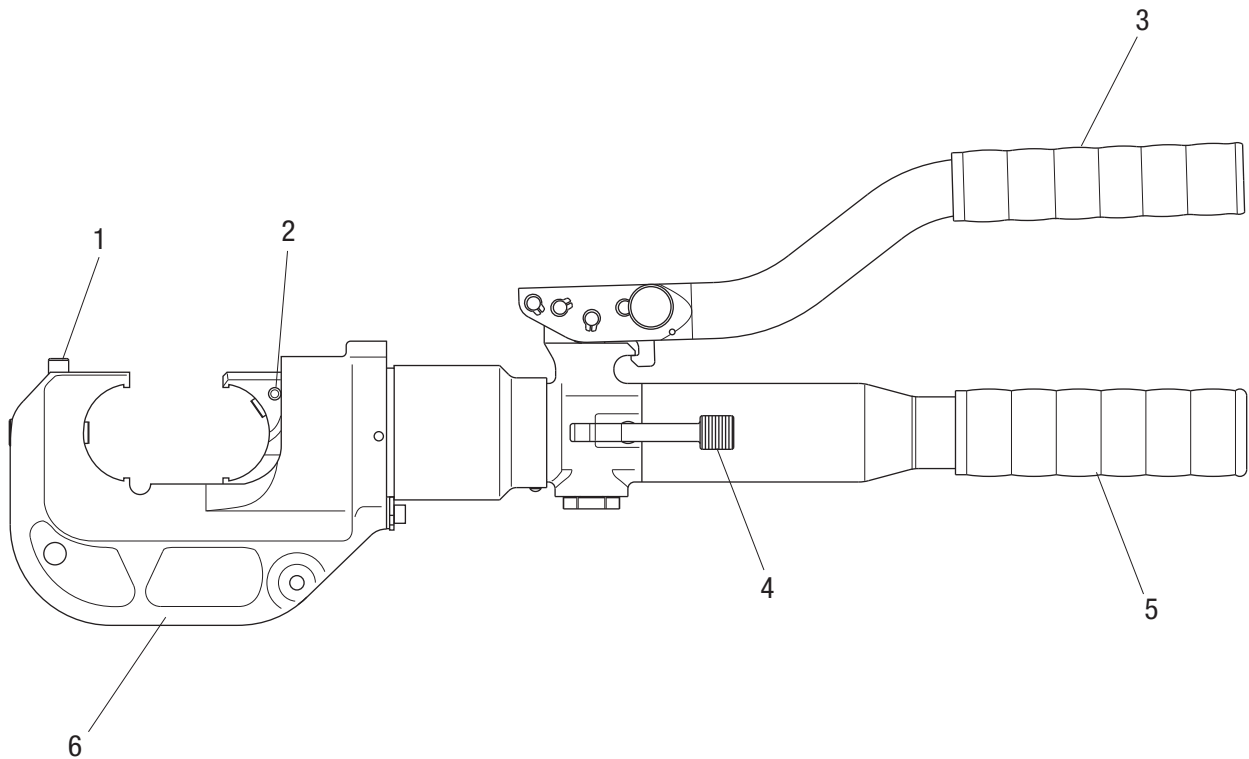
Failure to observe this warning could result in severe injury or death.

⚠ CAUTION

- This tool is intended for two-handed operation. Maintain a firm grip on both handles during operation. Using this tool in any other manner can result in injury or property damage.
- Do not operate the tool without a connector in place. Damage to the ram or crimping tool head can result.
- Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.

Failure to observe these precautions may result in injury and property damage.

Note: Keep all decals clean and legible, and replace when necessary.

Identification**ILC-12-N**

- | | |
|-----------------------|--------------------------|
| 1. Die Release Button | 4. Return Lever |
| 2. Die Release Button | 5. Handle with Reservoir |
| 3. Handle | 6. Crimping Head |

Specifications

Crimping Tool

Length552 mm (21.75")

Width74 mm (2.9")

Mass/Weight6.1 kg (13.4 lb)


Hydraulic Oil.....50 ml (0.1 pint) of Shell Tellus® T 15

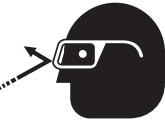
Crimping Capacities


Crimping Range 8 AWG to 750 kcmil

Crimping Force..... 106 kN (12 tons)

Operation

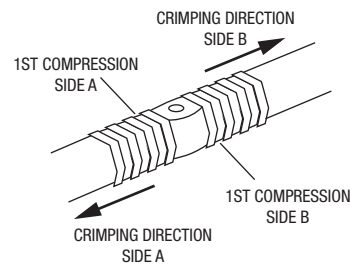
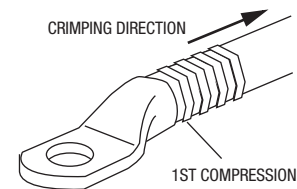
	<h3>⚠ WARNING</h3>
	<p>Electric shock hazard:</p> <p>This tool is not insulated. When using this unit on or near energized electrical lines, use proper personal protective equipment.</p> <p>Failure to observe this warning could result in severe injury or death.</p>

	<h3>⚠ WARNING</h3>
	<p>Wear eye protection when operating this tool.</p> <p>Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.</p>

	<h3>⚠ WARNING</h3>
	<p>Skin injection hazard:</p> <ul style="list-style-type: none"> • Do not use hands to check for leaks. • Depressurize the hydraulic system before servicing. <p>Oil under pressure easily punctures skin causing serious injury, gangrene, or death. If you are injured by escaping oil, seek medical attention immediately.</p>

<h3>⚠ WARNING</h3>
<p>An incomplete crimp can cause a fire. Use proper connector and cable combinations.</p> <ul style="list-style-type: none"> • Improper combinations can result in an incomplete crimp. • The handle load will drop suddenly to indicate a completed crimp. If the handle load does not drop suddenly, the crimp is not complete. <p>Failure to observe these warnings could result in severe injury or death.</p>

1. Clean the die seat area.
2. Install the proper size and type of crimping dies.
3. Press the release button on the C-head and slide one of the die halves into the jaw. Release the button and slide the die half until the retainer snaps and locks the die into place.
4. Press the release button on the ram body (located in the cutout) and slide the other die half in. Release the button and slide the die half until the retainer snaps and locks the die into place.
5. Follow the instructions in the ILSCO stuffer sheet for appropriate cable strip length and surface preparation.
6. Insert cable fully into connector and center the connector between the dies.




7. Using the sequence illustrated here, pump the handles to advance the dies. Continue to pump until the pressure relief valve activates.

Note: Pressure relief occurs at approximately 106 kN (12 tons) and is indicated by an audible "pop".
8. After achieving pressure relief, the ram automatically returns to the start position and the dies retract.
9. Complete the number of crimps specified in the ILSCO stuffer sheet.
10. Remove the connector from the crimping tool.
11. Press the trigger lock upward to lock the trigger.

Note: After completing the last crimp on an aluminum connector, wipe off the excess oxide inhibitor.

Periodic Pressure Relief Valve Check

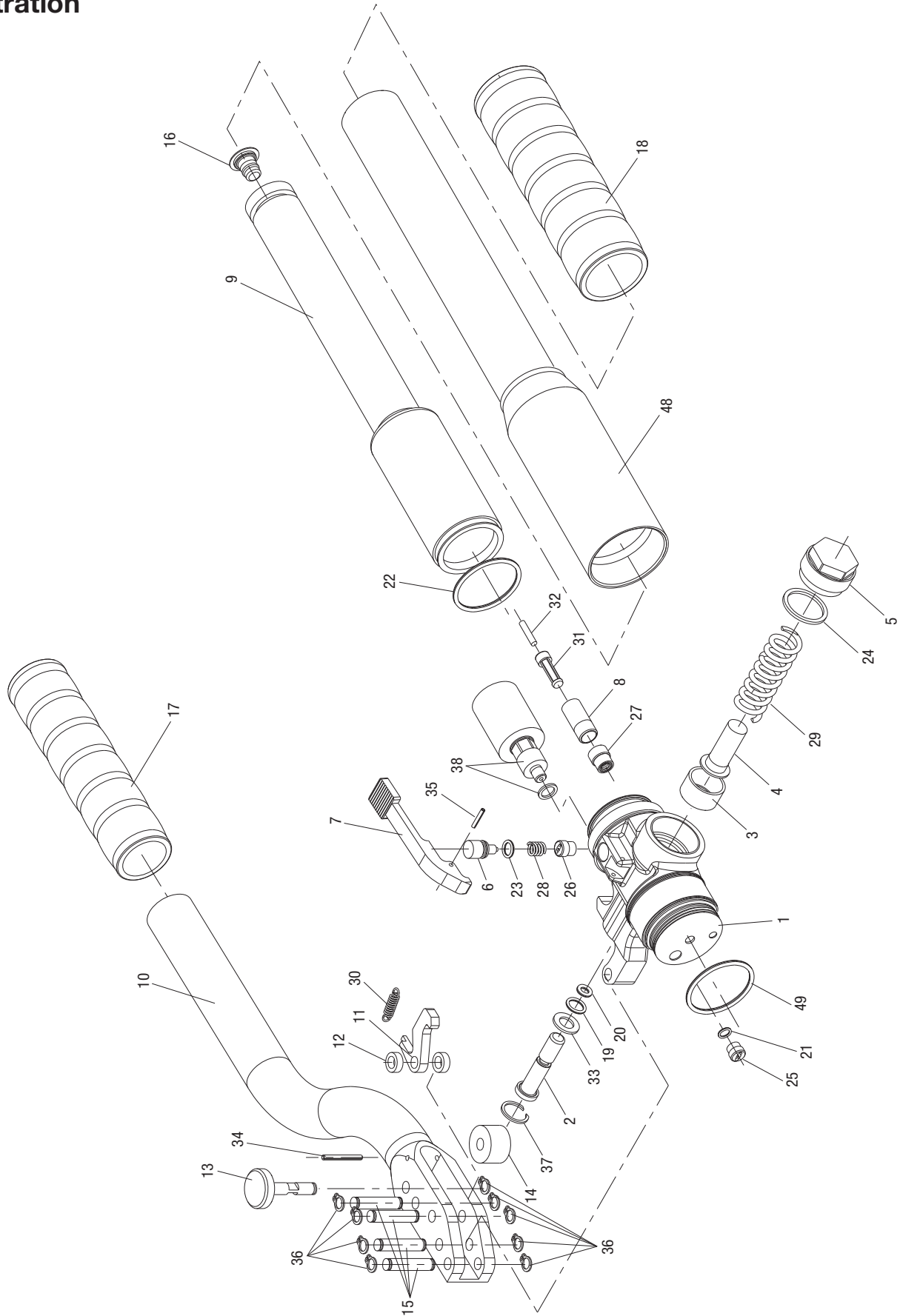
	⚠ WARNING
	Pinch points: Keep hands away from closing dies. Failure to observe this warning could result in severe injury or death.

The crimping tool's relief valve may require occasional adjustment. To determine whether this adjustment is necessary, periodically test the crimping tool with a load cell.

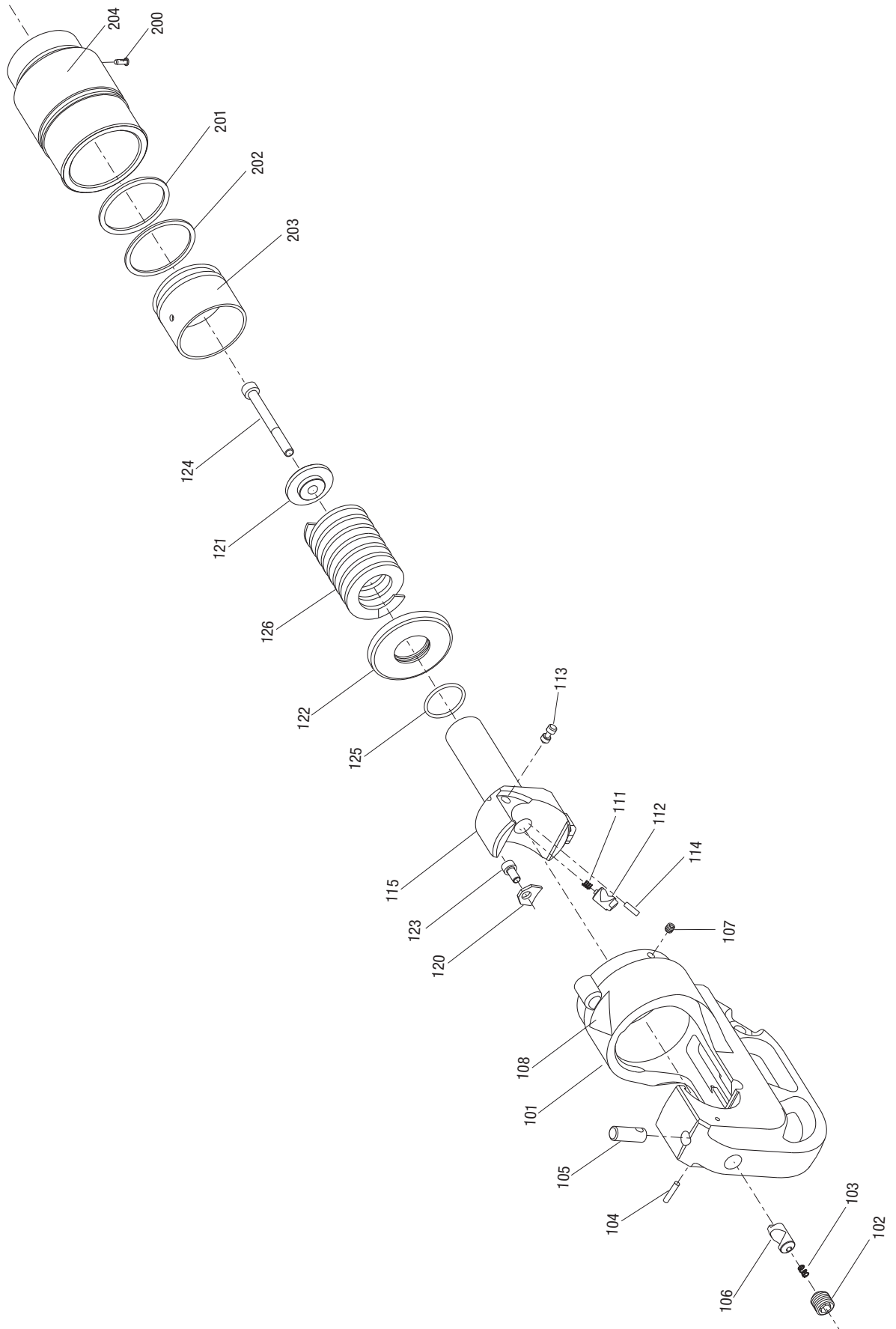
1. Insert the test dies into the tool (refer to steps 3 and 4 under "Operation" in this manual). Position the load cell so that the load cell piston is centered between the two test dies.
2. Pump the lever until the crimping tool achieves pressure relief and note the position of the needle when the pressure relief is achieved. The needle should indicate the "12T" range. If the needle is outside of this range, send the crimping tool to ILSCO.

Note: Some types of load cells have a different ratio between the area of the tool and the area of the load cell. The appropriate corresponding pressure range depends upon this ratio.

Illustration



Illustration



Parts List

Key	Part No.	Description	Qty
1	50067800	Body.....	1
2	50063456	Pump piston.....	1
3	50063464	Sleeve	1
4	50063480	Ram.....	1
5	50063499	Screw plug	1
6	50063545	Release pin	1
7	50063553	Release lever.....	1
8	50058827	Filter adapter.....	1
9	50063448	Reservoir	1
10	50063561	Pump lever.....	1
11	50063570	Handle lock	1
12	50063588	Spacer.....	2
13	50063600	Release knob	1
14	50063618	Roller.....	1
15	50063642	Handle pin.....	4
16	50058789	Reservoir plug.....	1
17	50063421	Grip 25 mm	1
18	50063430	Grip 32 mm	1
19*	50063685	O-ring	1
20*	50063693	O-ring	1
21*	50041436	O-ring	1
22*	50058860	O-ring	1
23*	50063707	O-ring	1
24*	50063715	Copper washer.....	1
25	50041444	Threaded bushing	1
26	50041452	Threaded bushing	1
27	50058851	Threaded bushing	1
28	50063723	Spring, compression.....	1
29	50063731	Spring, compression.....	1
30	50063740	Spring, extension	1
31*	50058800	Filter	1
32	50058983	Magnet.....	1
33	50063758	Washer	1
34	50067818	Roll, pin	1
35*	50063774	Roll, pin	1
36*	50058762	Retaining ring	9
37*	50063359	Retaining ring	1
38	50063316	Pressure adj cartridge (includes items 39–47)	1
39	50063782	Cartridge body	1
40	50058630	Valve seat	1

Parts List (cont'd)

Key	Part No.	Description	Qty
41	50058649	Plunger.....	1
42	50063790	Needle valve.....	1
43	50063804	Press adj screw.....	1
44	50058940	Spring.....	1
45	50058690	O-ring.....	1
46	50058622	Seal.....	2
47	50058606	Washer.....	2
48	50067826	Handle.....	1
49*	50069179	O-ring.....	1
100	50053736	C-head assembly 42 mm (includes items 101–108)	
101	50053299	C-head 42 mm.....	1
102	90550609	Set screw.....	1
103	50038214	Spring, compression.....	1
104	90550633	Groove pin.....	1
105	50053175	Die release button.....	1
106	50053191	Die release pin.....	1
107	90550617	Set screw.....	1
108	50062140	Decal.....	1
110	50053787	Ram-spring assembly (includes items 111–115)	
111	50038214	Spring, compression.....	1
112	50053167	Die release pin.....	1
113	50053183	Release shaft.....	1
114	90550641	Spring pin.....	1
115	50066706	Ram.....	1
120	50066943	Stop.....	1
121	50066900	Disc.....	1
122	50066927	Spring stop.....	1
123	50043676	Screw M5 x 10.....	1
124	50066897	Screw M6 x 80.....	1
125	50066931	O-ring.....	1
126	50066919	Ram spring.....	1
200	50058720	Rivet.....	1
201	50067770	O-ring.....	1
202*	50067761	Back-up ring.....	1
203*	50067796	Piston.....	1
204	52031411	Cylinder tube.....	1
205	50014633	Decal.....	1
	50014668	Carrying case, metal.....	1
*	5006790.7	Seal kit (includes items marked with an asterisk)	

ILSCO[®]

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