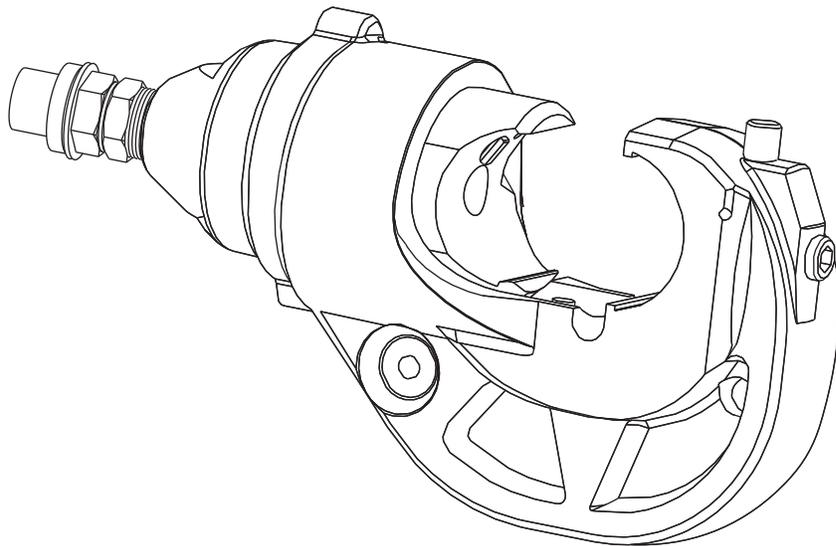


# INSTRUCTION MANUAL



## **RK1240 and RK1240C 12-ton, Single-acting, Die-type Crimping Tools**

Serial Codes GAB and ADL



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

Register this product at [www.greenlee.com](http://www.greenlee.com)

## Table of Contents

Description .....	2
Safety .....	2
Purpose of this Manual .....	2
Important Safety Information .....	3-4
Identification .....	5
Specifications .....	5
Setup .....	6
Operation .....	7
Die Selection .....	8
Connector Selection.....	8
Maintenance .....	9
Periodic Relief Valve Check .....	9
Assembly.....	10
Illustration and Parts List .....	11-12

## Description

The Greenlee RK1240 12-ton, Single-acting, Die-type Crimping Tool is intended to crimp splicing sleeves and termination lugs using industry standard dies.

The single-acting ram requires hydraulic pressure to advance, and uses an internal spring to return.

The RK1240C has a PVC-covered crimping head.

These crimping tools require an external 700 bar (10,000 psi) hydraulic power source, such as Greenlee 975, 976-22, 980, and 980-22. They may also be powered using a hydraulic intensifier capable of developing 700 bar (10,000 psi), such as the Greenlee Utility Dynapress.

Optional accessories include the following hydraulic hoses with one male and one female coupler:

- 90558509 3 m (10') Conductive
- 90558517 3 m (10') Non-Conductive
- 90558522 7.6 m (25') Non-Conductive

## Safety

Safety is essential in the use and maintenance of Greenlee tools and equipment. This instruction 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 Greenlee tools:

- RK1240 — Serial Code GAB
- RK1240C — Serial Code ADL

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge at [www.greenlee.com](http://www.greenlee.com).

All specifications are nominal and may change as design improvements occur. Greenlee Tools, Inc. shall not be liable for damages resulting from misapplication or misuse of its products. Loctite is a registered trademark of the Loctite Corporation.

# **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**

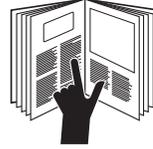
Immediate hazards which, if not avoided, **WILL** result in severe injury or death.

**⚠ 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.

**⚠ DANGER**

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

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

**⚠ DANGER**

Do not use this crimping tool with any hydraulic hoses or other hydraulic components rated at less than 700 bar (10,000 psi).

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

## IMPORTANT SAFETY INFORMATION

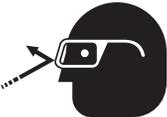
	<b>⚠ WARNING</b>
<p>Electrical shock hazard:</p> <p>This tool is not insulated. When using this unit near energized electrical lines, use only certified non-conductive hoses and proper personal protective equipment.</p> <p>Failure to observe this warning could result in severe injury or death.</p>	

<b>⚠ WARNING</b>
<p>Use proper die, connector, and wire combinations. Mismatched components can result in an incomplete crimp. Failure to complete a crimp could result in severe injury, death, or fire if a connection separates or if it has high electrical resistance.</p>

	<b>⚠ WARNING</b>
<p>Skin injection hazard:</p> <ul style="list-style-type: none"> <li>• Do not use fingers or hands to check for leaks.</li> <li>• Depressurize hydraulic system before servicing.</li> </ul> <p>High pressure oil easily punctures skin causing serious injury, gangrene or death. If injured seek medical help immediately to remove oil.</p>	

<b>⚠ WARNING</b>
<p>Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool could break and strike nearby personnel with sufficient force to cause severe injury or death.</p>

<b>⚠ CAUTION</b>
<ul style="list-style-type: none"> <li>• Do not operate crimping tool without dies in place. Damage to the ram or crimping tool head may result.</li> <li>• Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.</li> </ul>

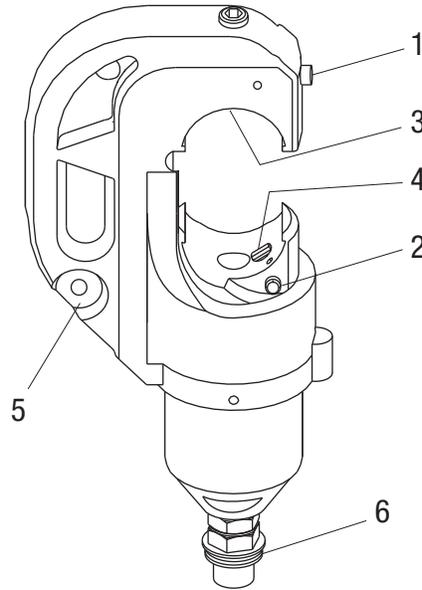
	<b>⚠ WARNING</b>
<p>Wear eye protection when using this tool.</p> <p>Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.</p>	

<b>IMPORTANT</b>
<p>Follow the operating instructions and safety information supplied with the hydraulic power source.</p>

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

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

**Identification**



**RK1240 and RK1240C**

- |                           |   |
|---------------------------|---|
| 1. Die Release Button     | 5. Hot Stick Adapter<br>(thread size 5/16-18 UNC) |
| 2. Die Release Button     | 6. Hydraulic Coupling<br>(3/8 threaded)           |
| 3. Head Die Retaining Pin |   |
| 4. Ram Die Retaining Pin  |   |

**Specifications**

Weight.....	4.4 kg (9.7 lb)
Length.....	302 mm (11.88")
Width .....	74.2 mm (2.92")
Height .....	127 mm (5")
Stroke (with dies).....	42 mm (1.65")
Die Type.....	Standard U-type
Crimp Force.....	10.9 metric tons (12 tons)
Crimp Capacity.....	750 kcmil copper and aluminum lugs, taps, and splices
Power Source Required .....	700 bar (10,000 psi)

## Setup

### **⚠ DANGER**

Do not use this crimping tool with any hydraulic hoses or other hydraulic components rated at less than 700 bar (10,000 psi).

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

### **⚠ CAUTION**

Do not operate crimping tool without dies in place. Damage to the ram or crimping tool head may result.

### **IMPORTANT**

Follow the operating instructions and safety information supplied with the hydraulic power source.

### **⚠ WARNING**

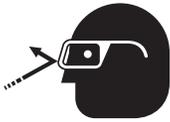


Skin injection hazard:

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

High pressure oil easily punctures skin causing serious injury, gangrene or death. If injured seek medical help immediately to remove oil.

### **⚠ WARNING**



Wear eye protection when using this tool.

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

### **⚠ WARNING**

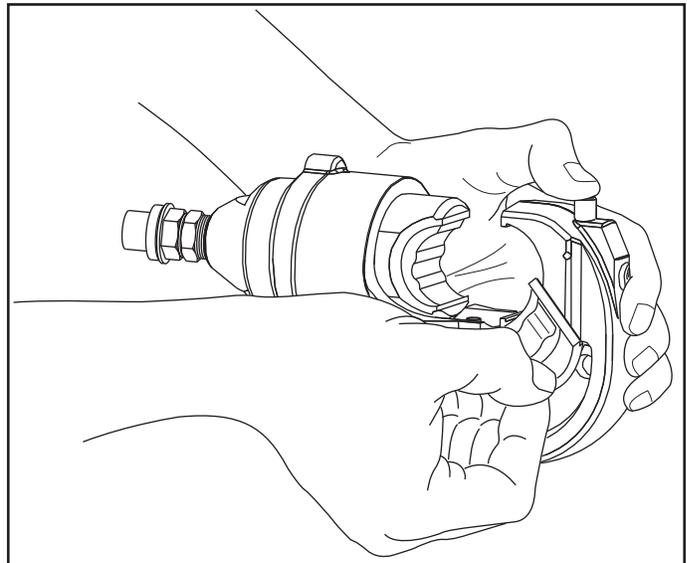
Use proper die, connector, and wire combinations. Mismatched components can result in an incomplete crimp. Failure to complete a crimp could result in severe injury, death, or fire if a connection separates or if it has high electrical resistance.

### **⚠ WARNING**

Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool could break and strike nearby personnel with sufficient force to cause severe injury or death.

1. Select the die set that corresponds to the size, type, and manufacturer of connector to be crimped.
2. 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.

Press the die release button on the ram body (located in the cutout) and slide the other die half in. Release the button and slide the die until the retainer snaps and locks into place.



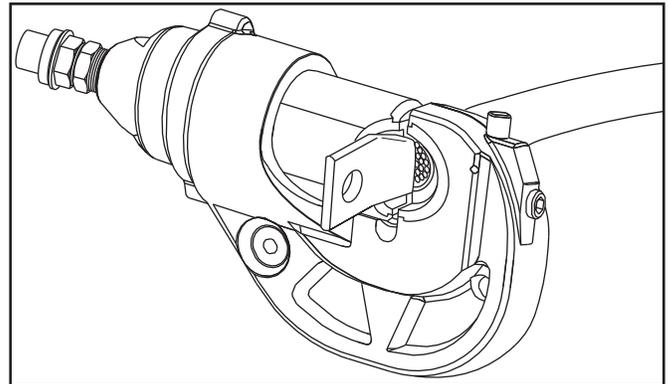
**Operation**

	<b>⚠ WARNING</b>
	<p>Electrical shock hazard:</p> <p>This tool is not insulated. When using this unit near energized electrical lines, use only certified non-conductive hoses and proper personal protective equipment.</p> <p>Failure to observe this warning could result in severe injury or death.</p>

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

*Note: When using KC12-type dies, complete the number of crimps listed on the “Connector Selection” chart in this manual. For other dies, complete the number of crimps specified by the manufacturer.*

1. Prepare the cable by stripping off the appropriate amount of insulation.
2. Select a connector that corresponds to the conductor and the application.
3. Insert the conductor into the connector. Position the connector as shown.



4. Activate the hydraulic power source until the ram has advanced and the crimp is completed.

*Note: To assure a complete crimp, verify that the power source has reached 700 bar (10,000 psi). Refer to the “Periodic Relief Valve Check” in this manual.*

5. Stop the power source and allow the ram to retract.

## Die Selection

Refer to “Connector Selection” for brand names and model numbers of appropriate lugs as well as crimping instructions. Crimps made with this tool and KC12-type or KA12-type dies are cUL and UL classified when used with the appropriate conductor and connectors listed below.

### Dies for Copper Connectors

Catalog Number	UPC Number	Cable Size	Color Code	No. of Crimps
KC12-8	10996	8 AWG	Red	1
KC12-6	10997	6 AWG	Blue	1
KC12-4	10998	4 AWG	Gray	1
KC12-2	10999	2 AWG	Brown	1
KC12-1	11003	1 AWG	Green	1
KC12-1/0	11004	1/0 AWG	Pink	1
KC12-2/0	11007	2/0 AWG	Black	1
KC12-3/0	11010	3/0 AWG	Orange	1
KC12-4/0	11011	4/0 AWG	Purple	1
KC12-250	11012	250 kcmil	Yellow	1
KC12-300	11013	300 kcmil	White	2
KC12-350	11014	350 kcmil	Red	2
KC12-400	11015	400 kcmil	Blue	2
KC12-500	11016	500 kcmil	Brown	2
KC12-600	11018	600 kcmil	Green	2
KC12-750	11020	750 kcmil	Black	2

### Dies for Aluminum Connectors

Catalog Number	UPC Number	Cable Size	Color Code	No. of Crimps
KA12-8	22084	8 AWG	Blue	1
KA12-6	22085	6 AWG	Gray	1
KA12-4	22086	4 AWG	Green	1
KA12-2	22087	2 AWG	Pink	1
KA12-1	22088	1 AWG	Gold	1
KA12-1/0	22089	1/0 AWG	Tan	1
KA12-2/0	22090	2/0 AWG	Olive	2
KA12-3/0	22121	3/0 AWG	Ruby	2
KA12-4/0	22122	4/0 AWG	White	2
KA12-250	22123	250 kcmil	Red	2
KA12-300	22124	300 kcmil	Blue	2
KA12-350	22125	350 kcmil	Brown	2
KA12-400	22126	400 kcmil	Green	3
KA12-500	22127	500 kcmil	Pink	3
KA12-600	22128	600 kcmil	Black	3
KA12-750	22129	750 kcmil	Yellow	3

## Connector Selection

**Tool Range:** 8 AWG to 750 kcmil

When used with KC12-type dies, this tool is cUL and UL classified for use with the following connector brands:

CONNECTOR TYPE	BARREL TYPE	ANDERSON	BLACKBURN®	BURNDY	ILSCO	PANDUIT	T&B	PENN-UNION	NUMBER OF CRIMPS*
Copper Splices	Short	VHSS	CSP	YS-L	CT	SCSS SCS	54504 to 54523-TB	BCU	8 AWG to 250 kcmil: 1 crimp  300 to 750 kcmil: 2 crimps
	Long	VHS	CU	YS	CTL	SCL SCH	54804 to 54823	BBCU	
Copper Lugs	Short	VHCS	CTL-2/CTL	YA-2LN/ YA-L/YA-2L; YA/YA-L-TC/ YA-L-2TC	CSW CRA/CRB CRC	LCAS LCA LCD LCAN	54104 to 54123-TB; 54204 to 54223	BLU	
	Long	VHCL	CTL-L/LCN	YA/YAZ YA-2N/YA-2TC YAZ-2N/YAZ-2TC	CLN, CLW CRA-L/CRB-L CRA-2/CRB-2L CRC-2L	LCB LCC	54930BE to 54923BE; 54850BE to 54880BE	BBLU	

When used with KA12-type dies, this tool is cUL and UL classified for use with the following connector brands:

CONNECTOR TYPE	ANDERSON	BLACKBURN®	BURNDY	ILSCO	PANDUIT	T&B	PENN-UNION	NUMBER OF CRIMPS*
Dual-rated Aluminum Splices	VACS	ASP	YS-A	AS ASN	SA	60501 to 60578	PIK	8 to 1/0 AWG: 1 crimp  2/0 AWG to 350 kcmil: 2 crimps
Dual-rated Aluminum Lugs	VACL	ATL	YA-A YA-ATN	ACL/ACN 2ACL/2ACN ALNS/ALNN/ALND	LAA LAB	60101 to 60176; 60230 to 60278	BLUA	400 to 750 kcmil: 3 crimps



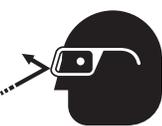
\* Use the number of crimps listed in this column instead of the number provided with the connector.

## Maintenance

- Keep the tool clean. Use the tool with care to keep dirt and grit out of the hydraulic system. Contamination is the most common cause of failure for hydraulic tools.
- Store the tool in its original case with the ram fully retracted.
- Occasionally lubricate the die release button assemblies. A molybdenum disulfide grease is recommended.
- Inspect the hydraulic hoses periodically.
- Periodically verify that the power source reaches 700 bar (10,000 psi). Refer to the “Periodic Relief Valve Check” in this manual.

## Periodic Relief Valve Check

	<b>⚠ WARNING</b>
	<p>Skin injection hazard:</p> <ul style="list-style-type: none"> <li>• Do not use fingers or hands to check for leaks.</li> <li>• Depressurize hydraulic system before servicing.</li> </ul> <p>High pressure oil easily punctures skin causing serious injury, gangrene or death. If injured seek medical help immediately to remove oil.</p>

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

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

<b>⚠ WARNING</b>
<p>Inspect tool and dies before use. Replace any worn or damaged parts. A damaged or improperly assembled tool could break and strike nearby personnel with sufficient force to cause severe injury or death.</p>

<b>⚠ CAUTION</b>
<ul style="list-style-type: none"> <li>• Do not operate crimping tool without dies in place. Damage to the ram or crimping tool head may result.</li> <li>• Do not perform any service or maintenance other than as described in this manual. Injury or damage to the tool may result.</li> </ul>

Periodically verify that your hydraulic power source is supplying between 9600 and 10,400 psi (662 and 717 bar).

Use a test-quality pressure gauge on the supply line from the hydraulic power source.

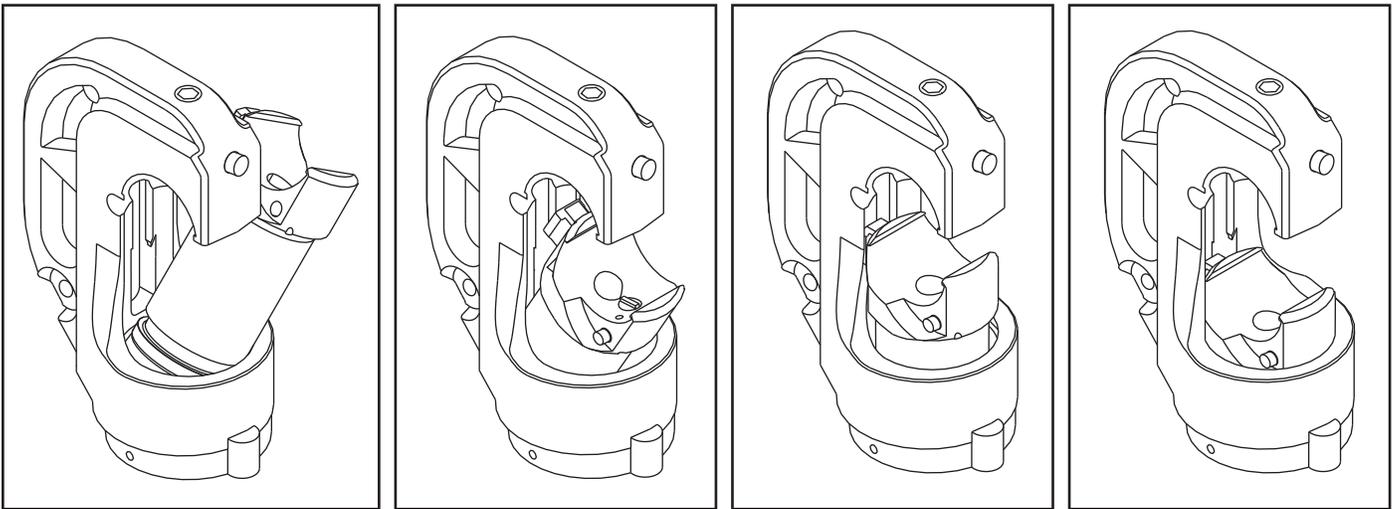
1. Refer to the instructions supplied with the pressure gauge.
2. Stop the flow of hydraulic oil from the power source.
3. Connect the pressure gauge to the supply line of the power source.
4. Install the set of test dies into the crimping tool.
5. Activate the power source until the ram has advanced and the power source reaches relief pressure. The pressure gauge should read between 9600 psi and 10,400 psi (662 bar and 717 bar).
6. Release the pressure by stopping flow from your power source. The ram will retract.

If crimp pressures are low, the hydraulic power source relief valve may need adjustment.

<b>IMPORTANT</b>
<p>Relief valve adjustments must be performed according to the instructions provided with the hydraulic power source.</p>

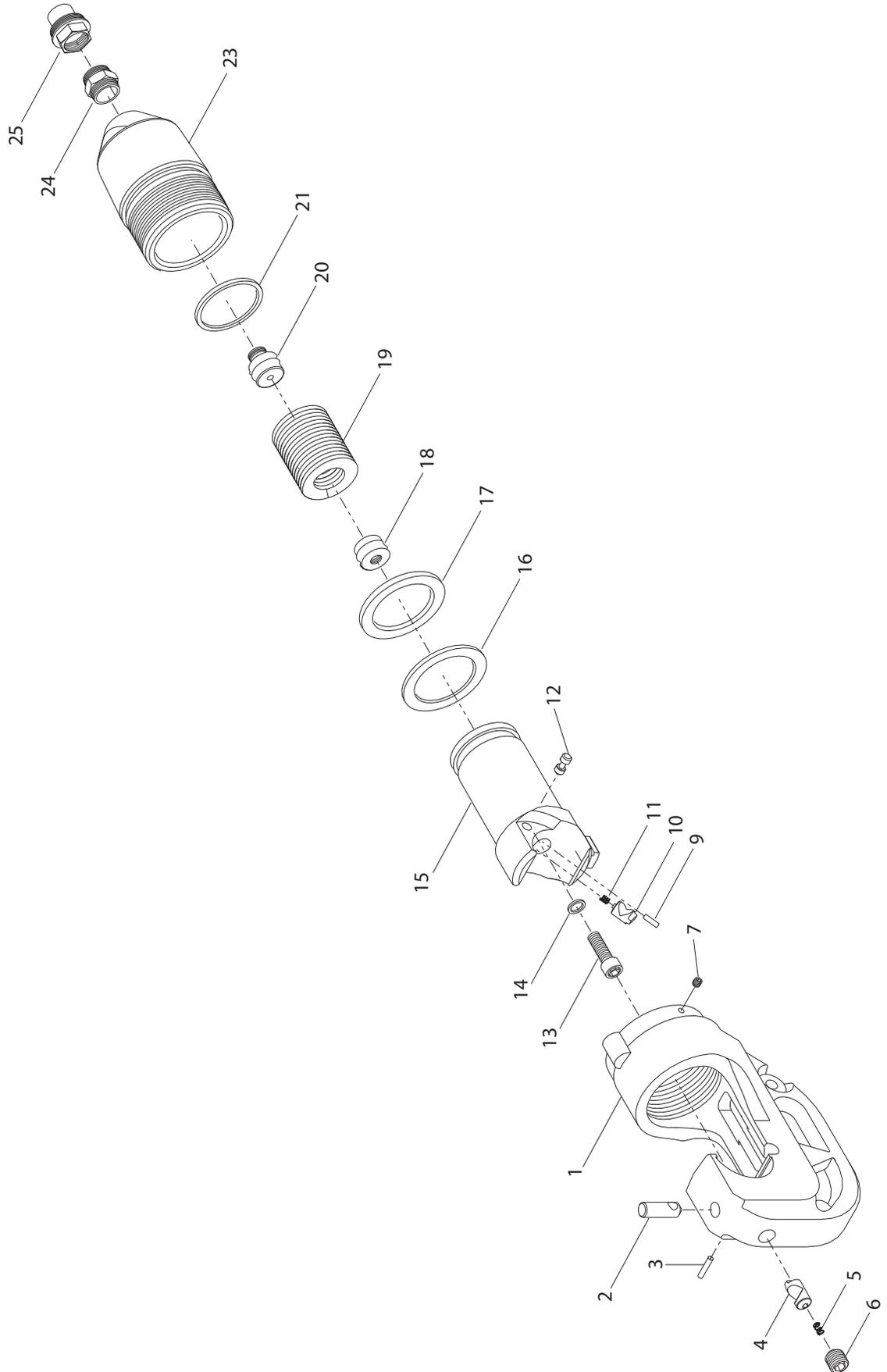
## Assembly (refer to the Illustration)

1. Lubricate the Die Retainer (4) and Die Release Button (2) with a Molybdenum Disulfide grease. Assemble them into the C-head and install Drive Pin (3). Add two drops of Loctite® 242® Threadlocker to Screw (6), install Spring (5) from the top of the C-head and retain with Screw (6). Adjust the Screw (6) so that the Die Retainer (4) is flush with the head when the Die Release Button (2) is pressed.
2. Inspect the external surface of the ram and the inside surface of the cylinder for nicks, gouges or other imperfections. Replace the ram or cylinder if necessary.
3. Assemble Spring (11), Die Retaining Pin (10) and Die Release Button (12) to the Ram (15). Retain with the Roll Pin (9).
4. Tilt and slide the ram (15) through the opening in the C-head (1). Align the T-shaped protrusion on the ram with the T-shaped groove in the C-head and assemble the ram to the head (see below).
5. Slide the Washer (16) and Wiper (17) onto the Ram (15) as far as they will go. Place the U-cup Seal (21) on the Ram.
6. Assemble the Extension Spring (19) to the two Spring Retainers (18,20).
7. Thread the Spring Retainer (20) into the base of the Cylinder (23), use a 5mm Allen wrench to tighten the spring retainer.
8. Lubricate the O-ring (22) and Backup Ring (21) and threads on the cylinder and C-head.
9. Slide the ram assembly down the C-head and assemble into the cylinder (23) far enough for full O-ring and Backup ring engagement.
10. Slip the cylinder into the base of the C-head and start threading them together. Continue to thread the cylinder into the C-head until the cylinder contacts the C-head.
11. Lock the C-head in place with the Set Screw (7) .
12. Install Nylon Washer (14) and 8mm Screw (13) through the ram and tighten securely.
13. Use Pipe Sealer and assemble the 3/8" NPT Pipe (24) to the 3/8 Coupler (25). Assemble to the cylinder.



**Step 4. Installing the Ram**

**Illustration**



## Parts List

Key	Part No.	Description	Qty
1	50053299	Head, crimping.....	1
	50072226	Head, PVC-covered .....	1
2	50053175	Button, release .....	1
3	90550633	Pin, groove 3 mm x 16 mm.....	1
4	50053191	Pin, die retaining .....	1
5	50038214	Spring, compression.....	1
6	90550609	Screw, set M12 x 1.75 x 12 mm .....	1
7	90550617	Screw, set M5 x .8 x 5 mm .....	1
9	90550641	Pin, roll 3 mm x 10 mm.....	1
10	50053167	Pin, die retaining .....	1
11	50038214	Spring, compression.....	1
12	50053183	Shaft, release .....	1
13	90550650	Screw, socket head cap M8 x 1.75 x 30 mm.....	1
14	50134965	Washer, nylon.....	1
15	50053329	Ram, 42 mm.....	1
16	50052632	Washer, steel.....	1
17	50053019	Wiper, leather .....	1
18	50053345	Retainer, spring .....	1
19	50053361	Spring, extension .....	1
20	50053388	Retainer, spring.....	1
21	90552067	Seal, U-cup .....	1
23	50053396	Cylinder, 42 mm.....	1
24	50413642	Nipple, pipe, 3/8 NPT hex.....	1
25	50419411	Coupler, hydraulic, Parker #3010-3 .....	1
	50418341	Cap, plastic	
	50487426	Decal, warning	
	50054686	Carrying case, metal	
	50054694	Lid liner, warning	
	50054716	Lid liner, instructions	
	50054732	Decal, identification	
	50062140	Decal, warning	
	50112171	Decal, connector compatibility	