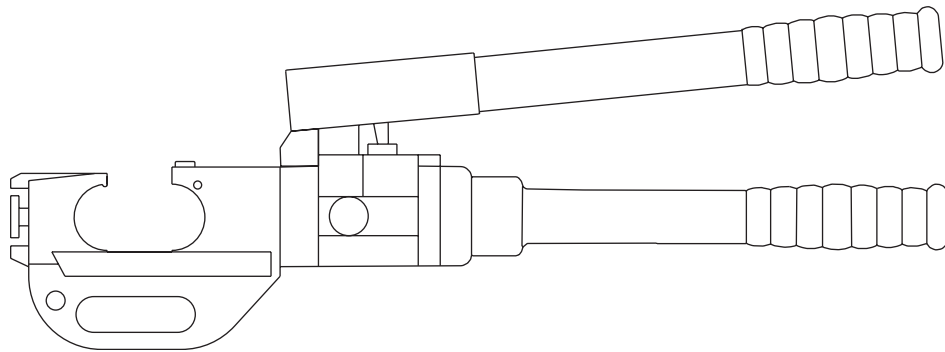


INSTRUCTION MANUAL



HKL1232 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 HKL1232 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 Greenlee 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 Greenlee tool:

HKL1232 Hydraulic Crimping Tool

Keep this manual available to all personnel.

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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.

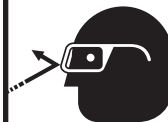
Failure to observe this warning could result in severe injury or death.

**⚠ 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 or servicing 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**

Keep hands away from the crimping tool head when crimping.

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

⚠ WARNING

An incomplete crimp can cause a fire.

- Use proper die, 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

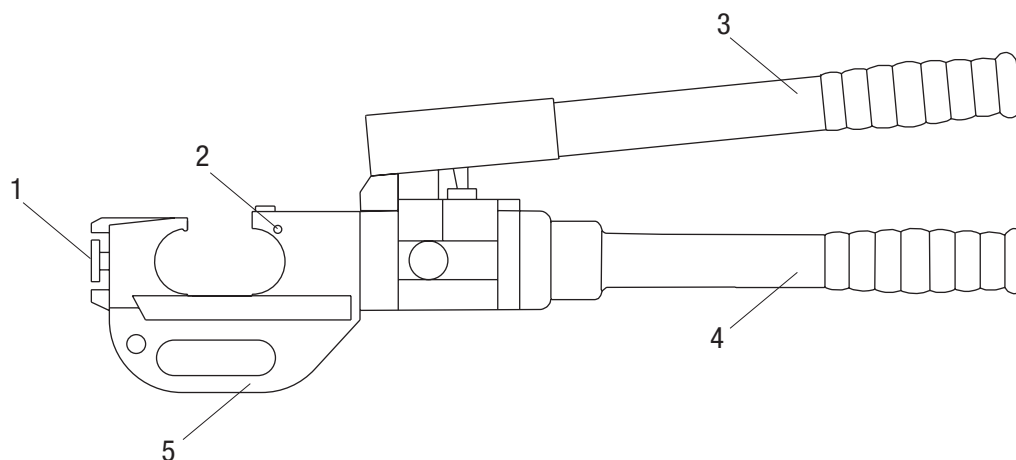
- This tool is intended for two-handed operation. Maintain a firm grip on both handles during operation. Using this tool in any other manner can result in injury or property damage.
- Do not operate the tool without a connector in place. Damage to the ram or crimping tool head can result.
- Do not perform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



HKL1232

1. Die Release Knob
2. Die Release Button
3. Handle
4. Handle with Reservoir
5. Crimping Head

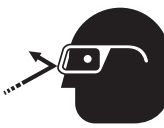
Specifications

Length	612.4 mm (24.12")
Width	150 mm (5.9")
Mass/Weight.....	6.5 kg (14.4 lb)
Crimping Range	8 AWG to 750 kcmil
Crimping Force.....	106 kN (12 tons)



Operation

	⚠ 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.
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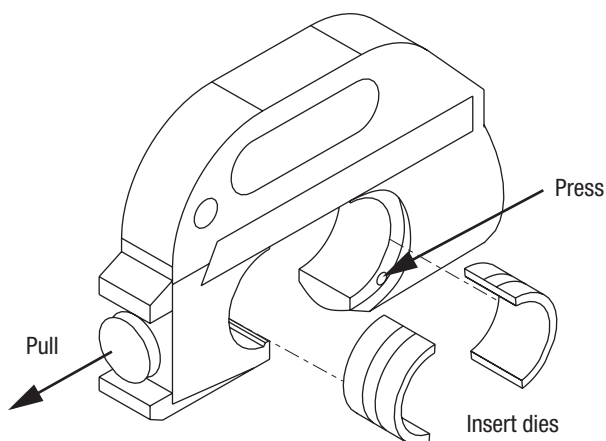
	⚠ WARNING Wear eye protection when operating or servicing this tool. Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.
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	⚠ WARNING Skin injection hazard: • Do not use hands to check for leaks. • Depressurize 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.
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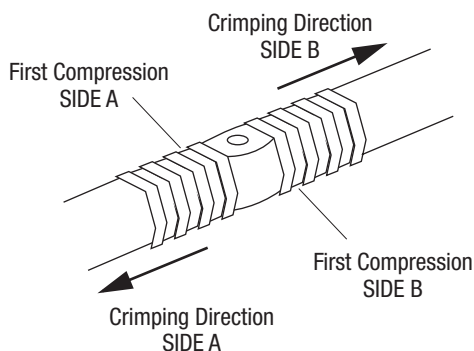
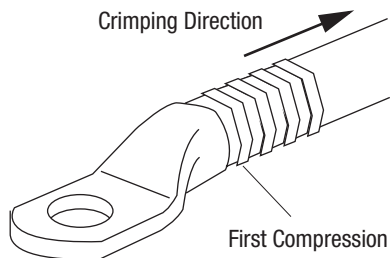
	⚠ WARNING Keep hands away from the crimping tool head when crimping. Failure to observe this warning could result in severe injury or death.
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⚠ WARNING An incomplete crimp can cause a fire. • Use proper die, connector, and cable combinations. Improper 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.	
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1. Clean the die seat area.
2. Install the proper size and type of crimping dies. Refer to the Greenlee catalog for the crimping dies available from Greenlee.
3. Pull the die release knob on the crimping head and slide one of the die halves into the jaw. Release the knob and slide the die half until the retainer snaps and locks the die into place.
4. 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 half until the retainer snaps and locks the die into place.



5. Follow the connector manufacturer's instructions for appropriate cable strip length and surface preparation.
6. Insert cable fully into the connector and center the connector between the dies.

**Operation (cont'd)**

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. Release pressure by twisting the pump handle clockwise in the open position and closing the handle to activate the release valve.
9. 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.
10. Remove connector from crimping tool.

Periodic Pressure Relief Valve Check

	⚠ WARNING Keep hands away from the crimping tool head when crimping. Failure to observe this warning could result in severe injury or death.
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The crimping tool's relief valve may require occasional adjustment. To determine whether this adjustment is necessary, periodically test the crimping tool with a Greenlee model 35887 Load Cell (purchased separately).

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 an authorized service center for adjustment.

Note: If some other type of load cell is used, the ratio between the area of the tool and the area of the load cell may be different. The appropriate corresponding pressure range depends upon this ratio.

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:

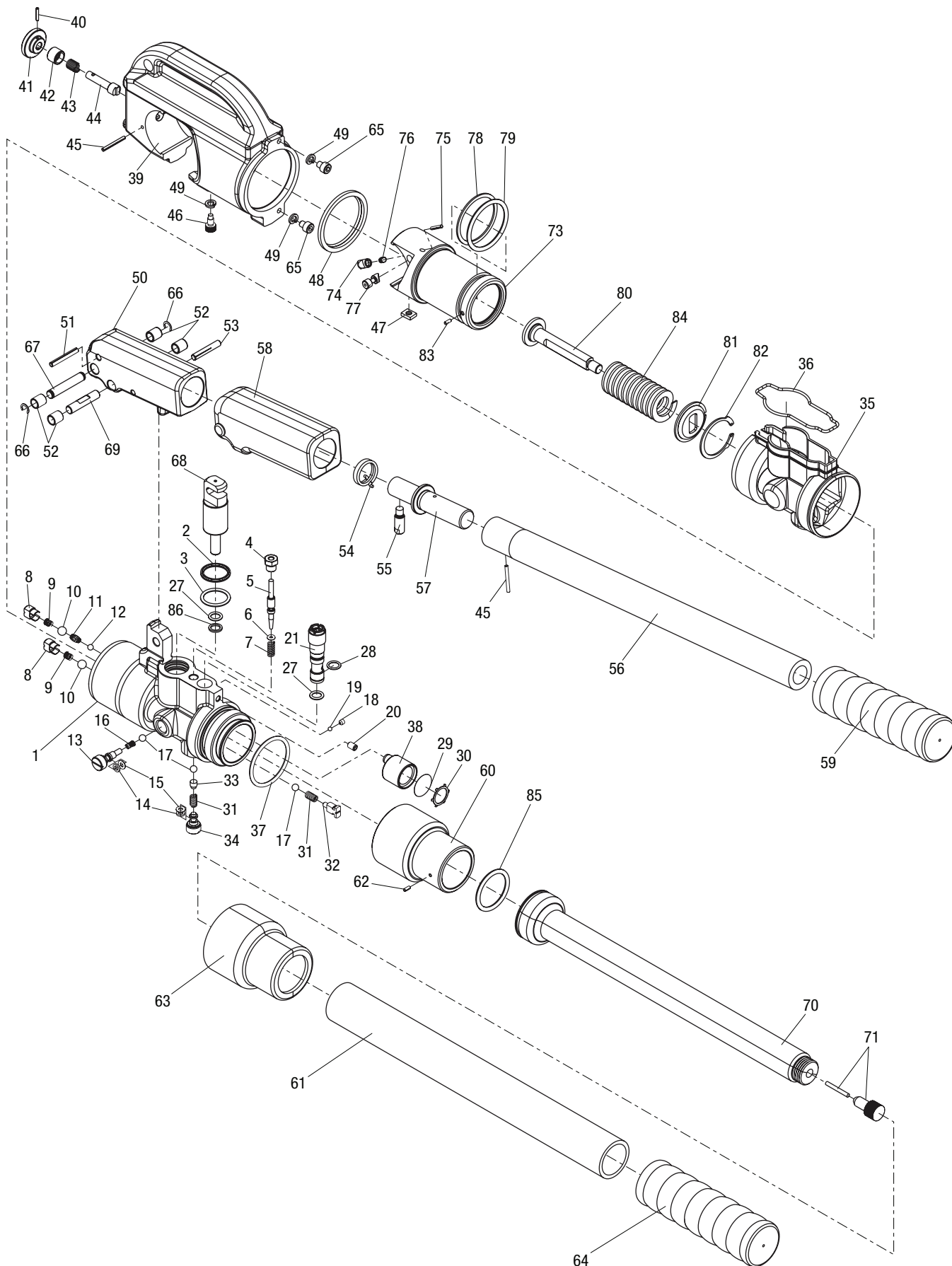
CONNECTOR TYPE	ANDERSON	BLACKBURN®	BURNDY	ILSCO	PANDUIT	T&B	PENN-UNION	NUMBER OF CRIMPS*
Dual-rated Aluminum Splices	VACS	ASP	YS-A	AS ASN	SA	60501 to 60578	PIK	8 to 1/0 AWG: 1 crimp 2/0 AWG to 350 kcmil: 2 crimps
Dual-rated Aluminum Lugs	VACL	ATL	YA-A YA-ATN	ACL/ACN 2ACL/2ACN ALNS/ALNN/ALND	LAA LAB	60101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



Illustration



Parts List

Key	Part No.	Description	Qty	Key	Part No.	Description	Qty
1	50018256	Main body	1	■ 52		Bushing.....	4
◆ 2		Backup ring.....	1	■ 53		Pin.....	1
◆ 3		O-ring.....	1	54	50018027	Return spring	1
4	50018124	Release valve screw	1	□ 55		Release stud	1
5	50018132	Release valve stem	1	□ 56		Pump handle.....	1
◆ 6		O-ring.....	1	□ 57		Connector	1
◆ 7		Spring	1	58	50018019	Handle head cover.....	1
8	50018191	Valve screw	2	□ 59		Plastic grip	1
◆ 9		Spring	2	○ 60		Body handle head.....	1
◆ 10		Ball	2	○ 61		Body handle.....	1
◆ 11		Spring	1	○ 62		Pin.....	1
◆ 12		Ball	1	○ 63		Reservoir handle cover	1
13	50018264	Valve screw	1	○ 64		Plastic grip	1
◆ 14		Oil ring.....	2	65	50017772	Screw	2
◆ 15		O-ring.....	2	■ 66		Circlip.....	2
◆ 16		Spring	1	■ 67		Pin.....	1
◆ 17		Ball	3	68	50018060	Input piston.....	1
18	50018426	Screw	1	■ 69		Pin.....	1
◆ 19		Ball	1	70	50018558	Oil reservoir.....	1
20	50018442	Screw	1	71	50018566	Fill plug.....	1
21	50018167	Relief valve assembly	1	73	52027348	Ram.....	1
◆ 27		Backup ring.....	2	* 74		Retainer pin.....	1
◆ 28		O-ring.....	1	* 75		Pin.....	1
29	50018469	Oil screen.....	1	* 76		Spring	1
30	50018477	Retaining ring.....	1	* 77		Die release pin	1
◆ 31		Spring	2	◆ 78		Backup ring.....	1
32	52027351	Valve screw	1	◆ 79		O-ring.....	1
◆ 33		Spring holder	1	80	50017888	Ram spring guide.....	1
34	50018523	Valve screw	1	81	50017900	Ram spring support	1
35	52027354	Pump block cover.....	1	82	50017918	Snap spring.....	1
36	52027355	Cover retainer	1	83	50017837	Pin.....	1
◆ 37	52027501	O-ring.....	1	84	50017896	Spring	1
38	50018450	Induction valve.....	1	◆ 85	50018540	O-ring.....	1
39	52027343	Tool head	1	◆ 86		O-ring.....	1
* 40		Pin.....	1		50112171	Decal, connector compatibility	
* 41		Release knob	1		52027336	Decal, ID	
* 42		Bushing.....	1		52027335	Decal, Case ID	
* 43		Spring	1		52027333	Case, carrying	
* 44		Retainer pin.....	1				
□* 45		Pin.....	2				
46	50017713	Screw	1				
47	50017748	Key.....	1				
◆ 48		Dust seal	1				
49	50017764	Washer.....	3				
50	50017969	Handle head.....	1				
■ 51		Pin.....	1				

Repair Kits

◆	52027508	Repair seal kit
*	52027502	Die release pin kit
□	52027504	Pump handle kit
●	52027507	Piston seal kit
■	52027503	Pivot pin kit
○	52027506	Reservoir handle kit