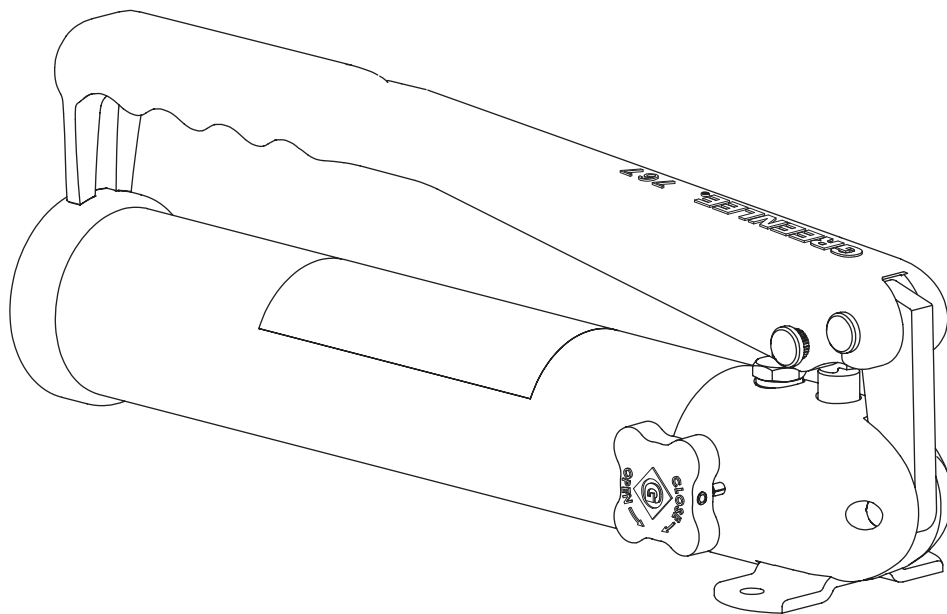


INSTRUCTION MANUAL



767 Hydraulic Hand Pump

Serial Code ABM



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

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Description

The 767 Hydraulic Hand Pump develops 6500 psi (44,818 kPa) at 0.0823 in³ (1.3 cm³) per stroke and is intended to power Greenlee model 746 and model 15631 single-acting hydraulic rams. These pump/ram combinations are used in the following Greenlee punch driver and cable cutter kits:

Cable Cutter: model 750

Punch Drivers: model 1731

model 7306 and 7306SB

model 7310 and 7310SB

model 7506

model 7646

Fill with Greenlee hydraulic oil or Mobil DTE-13 only.

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 instruction manual is intended to familiarize operators and maintenance personnel with safe operating and maintenance procedures associated with the 767 Hydraulic Hand Pump.

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge at www.greenlee.com.

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.

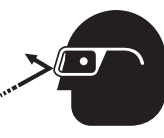
⚠ **CAUTION**


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

	⚠ WARNING
	<p>Skin injection hazard:</p> <ul style="list-style-type: none"> • Hand-tighten all couplers completely before operating the pump. Do not use tools to tighten the couplers. • Do not use hands to check for leaks while operating the pump. • Do not hold hose or couplers while operating the pump. • Release the hydraulic pressure before disconnecting hoses or couplers, and before servicing the pump or accessory. <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>

⚠ WARNING
<p>Inspect pump, hoses and couplers. Replace any worn, damaged or missing components with Greenlee replacement parts.</p> <p>A damaged or improperly assembled tool can break and strike nearby personnel with sufficient force to cause severe injury or death.</p>

	⚠ WARNING
	<p>Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.</p> <p>Failure to observe this warning could result in severe injury or death.</p>

	⚠ WARNING
	<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>

	⚠ WARNING
	<p>Electric shock hazard:</p> <p>Do not use near live circuits.</p> <p>Contact with live circuits could result in severe injury or death.</p>

⚠ WARNING
<p>Follow the operating instructions and safety information supplied with the hydraulic ram or accessory.</p> <p>Failure to observe this warning could result in severe injury or death.</p>

⚠ CAUTION
<p>Use this tool for manufacturer's intended purpose only.</p> <p>Use other than that which is described in this manual may result in injury or property damage.</p>

Operation

1. Remove the dust cap.
2. Connect the hose to the punch driver or cable cutter.
Note: Hand-tighten the couplers completely. Do not use tools.
3. Twist the release knob (16) to CLOSE.
4. Pump the lever (1) until the operation is complete.
5. Twist the release knob (16) to OPEN.
6. Disconnect the hose from the punch driver or cable cutter. Replace all dust caps.

Note: After replacing any component of the hydraulic system, the reservoir may not have enough oil to complete the operation. Refer to Filling the Pump with Oil.

Filling the Pump with Oil

1. Clamp the pump into a vise with the machined reservoir end upward.
2. Unscrew machined reservoir (22) from the pump block (23) and gently remove machined reservoir.
3. Inspect rubber bladder (12), bladder plug (14) and position and condition of O-ring (13). Replace if damaged or worn.
4. Pour Greenlee hydraulic oil* into the rubber bladder (12) until oil comes to the top of the plug hole.
5. Turn the release knob (16) to OPEN. Pump the lever (1) two or three times.
6. Turn the release knob (16) to CLOSE. Pump the lever (1) two or three times.
7. Slowly turn the release knob (16) to OPEN. This will allow any trapped air to escape.

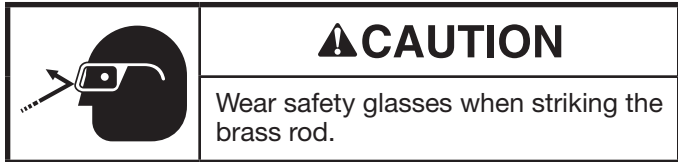
Note: Do this slowly to prevent the oil from suddenly gushing up through the bladder plug hole.

8. Repeat steps 5 through 7 one or two more times.
 9. To eliminate all air from the bladder, do one of the following:
 - Slowly add oil to the bladder until the oil level rises to the plug hole.
 - Squeeze the bladder until the oil level rises to the plug hole.
 10. Replace the bladder plug (14) in hole in the rubber bladder (12) being careful not to spill any oil.
 11. Carefully wipe any excess oil from the outside of the rubber bladder (12) and replace the machined reservoir (22). Wipe any excess oil from outside of machined reservoir (22).
- * Order Greenlee hydraulic oil by the gallon (90510593) or by the quart (90508068).

Ball Seat Repair

Reseating:

Minor seat imperfections may be corrected by reseating. Use a soft brass rod and hammer to tap the ball against its seat.



Re-drilling:

Badly worn or damaged seats may be reworked by re-drilling and then re-seating.

The pump block is manufactured with seats of 118°, the standard drill point angle; use standard drills for re-drilling.

- To re-drill the 3/16" ball seats (10):
Use an "F" drill and a 7/32" diameter reamer
- To re-drill the 1/4" ball seat (11):
Use a "Q" drill and a 13/64" diameter reamer

When drilling; remove a minimum of material to obtain maximum seat life. Reseat the balls before reassembly.

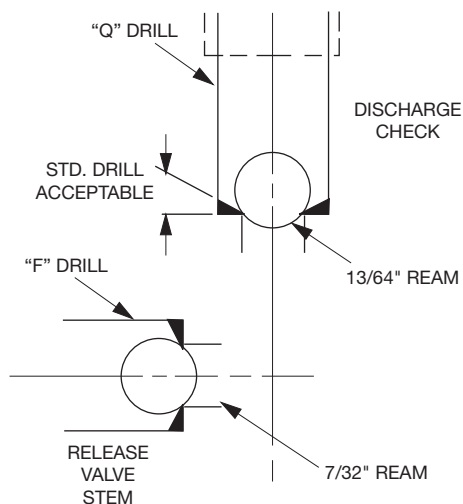
Reassembly

Reassembly is done in reverse sequence of disassembly. Use repair kit 50034349 to replace all O-ring seals, balls and springs.

Before installing O-rings, lightly coat O-ring seals and bores of the cylinder with clean hydraulic oil.

Coat the discharge check spring (5) with a petroleum gel before installation.

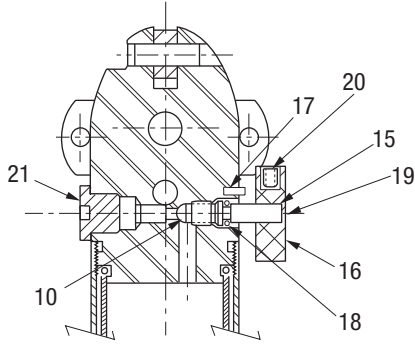
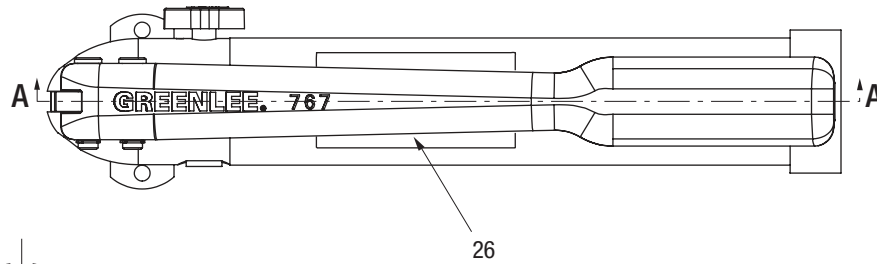
Fill unit with clean oil and purge air per instructions under the Filling the Pump with Oil section of this manual.



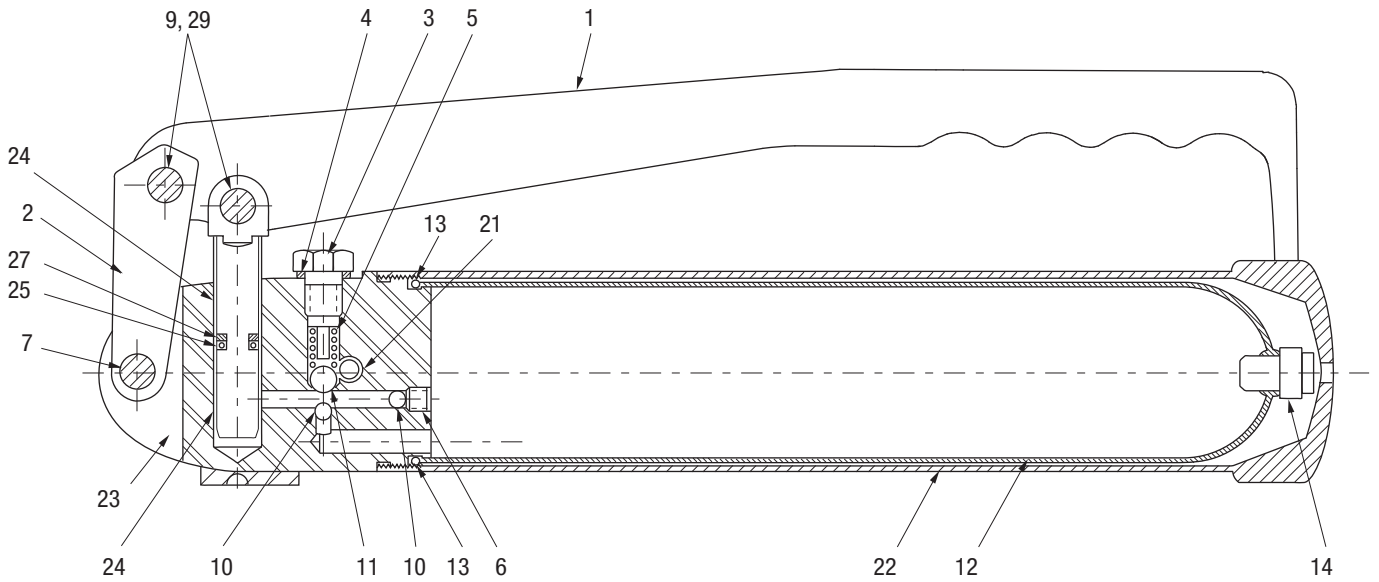
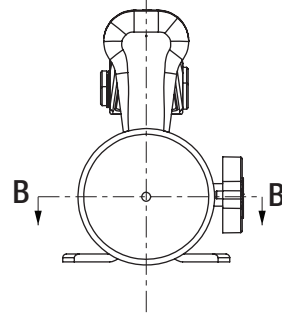
Troubleshooting

Problem	Possible Cause	Probable Remedy
Oil leak at coupler.	Fitting loose or damaged.	Tighten or replace fitting and/or coupler.
	O-ring is worn or damaged.	Replace O-ring.
Pump builds pressure, but ram does not advance, or ram will not return.	Coupler is not tightened sufficiently, and check balls are not engaged.	Hand-tighten coupler completely so check balls engage. Replace coupler if necessary.
Oil leak at OPEN/CLOSE release knob (16).	O-ring (18) is worn or damaged.	Replace O-ring (18).
	Release stem (15) is bent.	Replace release stem (15) and/or release knob (16).
Oil leak at pump plunger (24). (Attached to handle.)	O-ring (25) and/or backup ring (27) are worn or damaged.	Replace O-ring (25) and backup ring (27).
Oil leak at reservoir end.	Bladder plug (14) or rubber bladder (12) is punctured or worn.	Replace bladder plug (14) and/or rubber bladder (12).
	O-ring (13) damaged or out of position.	Replace or reposition O-ring (13).
Can't hold load or excessive pumping is required.	Ball (10) in release knob (16) leaking. Discharge ball (11) or intake ball (10) below discharge ball (11) is leaking.	Check seat for scratches or contamination. Reseat ball or return to an authorized Greenlee service center for repair.
Can't raise load with excessive pumping but handle is rigid.	Intake ball (10) below discharge ball (11) is leaking.	Check seat for scratches or contamination. Reseat ball or return to an authorized Greenlee service center for repair.
Load on system causes handle to lift.	Discharge ball (11) is leaking.	Check seat for scratches or contamination. Reseat ball or return to an authorized Greenlee service center for repair.
Pump builds pressure when held in horizontal position but does not if release knob is in an up (vertical) position.	Air in rubber bladder (12).	Refill pump with oil.

Illustration



SECTION B-B



SECTION A-A

Parts List

Key	Catalog No.	Description	Qty
1	10001	Lever, hand pump	1
2	04263	Link, lever	1
3	2417AA	Screw, valve 3/8-24	1
4*		Washer, flat .375 x .500 x .031 copper	1
5*		Spring, compression .194 x .218 x .750	1
6	704GB	Screw, set 1/4-20 x .250 socket	1
7	1038GB	Pin, drive .312 x .875 type C zinc	1
8		Oil, hydraulic (not shown).....	0.08 gal.
9		Pin, clevis .313 x 1.25	2
10*†		Ball, steel ø .187 grade #25	3
11*		Ball, steel ø .250 grade #25	1
12	01436	Bladder, rubber	1
13*		O-ring, 1.312 x 1.562 x .125 7OD	1
14	32488	Plug, bladder rubber BK	1
15†		Stem, release valve	1
16†		Knob, release valve	1
17†		Pin, roll .125 x .375	1
18*†		O-ring, .250 x .375 x .062	1
19†		Decal, release.....	1
20†		Screw, set #8-32 x .187 socket cup PT.....	1
21	54017	Plug, O-ring boss 7/16-20 x .450	1
22		Tube, reservoir.....	1
23	01434	Block weldment, pump	1
24	01435	Plunger, pump	1
25*		O-ring, .312 x .437 x .062 9OD	1
26*	00247	Decal, identification.....	1
27*		BU ring, spiral .312 x .437 x .062.....	1
28		Packet, information	1
29	1189GB	Ring, retaining	2
30*		O-ring, .625 x .812 x .093 (not shown).....	1
*	04343	Packing kit (includes items marked with an asterisk)	
†	37160	Stem release kit (includes items marked with †)	
	06945	Pin kit (includes two of item 9 and two of item 29)	