

INSTRUCTION MANUAL

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Mini Lite Tools

 **HURST**
JAWS OF LIFE®

TROUBLESHOOTING GUIDE

....continued

PUMP

PROBLEM	CAUSE	SOLUTION
Pump not delivering	<ol style="list-style-type: none"> 1. Low fluid level in reservoir 2. Dirt in pump body 3. Seats worn and not seating properly 4. Reservoir overfilled with fluid 	<ol style="list-style-type: none"> A. Check fluid level per instructions B. Disassemble pump body and clean all parts C. Reseat required seats in casting D. Check fluid level per reservoir instructions
Pump losing pressure	<ol style="list-style-type: none"> 1. Fluid leaking past outlet ball seat(s) 2. Pressure control knob leaks, not adjusted properly 	<ol style="list-style-type: none"> A. Reseat ball seat(s) B. Reseat pressure control assembly or replace assembly
Pump does not reach full pressure	<ol style="list-style-type: none"> 1. Low fluid level 2. Reservoir overfilled with fluid 	<ol style="list-style-type: none"> A. Check fluid level per reservoir instructions B. Check fluid level per reservoir instructions
Handle raises after each stroke	<ol style="list-style-type: none"> 1. Fluid leaking past outlet ball seat(s) 	<ol style="list-style-type: none"> A. Replace ball and /or reseat
Pump handle can be pushed down (slowly) without raising the load	<ol style="list-style-type: none"> 1. The inlet ball is not seating 	<ol style="list-style-type: none"> A. Check for dirt and or reseat valve seat
Pump handle operates with a spongy action	<ol style="list-style-type: none"> 1. Air has been trapped in the line 2. Reservoir overfilled with fluid 	<ol style="list-style-type: none"> A. Set Rabbit Tool lower than the pump and extend and return tool several times B. Check fluid level per reservoir instructions

* BLEEDING THE SYSTEM

After all connections are made correctly, the hydraulic system should be bled. Relieve pressure of the pump and loosen the fitting at the tool. Then activate the pump until fluid spurts from the loose connection. Repeat this operation until a continuous clear flow of hydraulic fluid is seen. Relieve pressure and tighten the loosened fitting. You must be sure to refill the pump reservoir to the correct level.

With no load on the system and the pump higher than the tool, cycle the system several times to remove any air which may be trapped in the system.

*** Call your authorized Jaws of Life Distributor for maintenance and annual inspection care.**



TROUBLESHOOTING GUIDE*

IMPORTANT: The troubleshooting and repair procedures listed below should only be performed by qualified personnel familiar with this equipment. Use the proper equipment when troubleshooting!

CYLINDER ASSEMBLY

PROBLEM	CAUSE	SOLUTION
I. Erratic Action	1. Air in system	<i>A. Bleed* air and check for leaks.</i>
	2. Internal leakage in cylinder	<i>B. Replace worn packings. Check for excessive contamination or wear.</i>
	3. Cylinder sticking or binding	<i>C. Check for dirt, gummy deposits or leaks as above. Check for misalignment, worn parts or d defective packing.</i>
II. Cylinder does not advance	1. Pump release valve open	<i>A. Close release valve</i>
	2. Low or no fluid in pump reservoir	<i>B. Fill with fluid and bleed the system</i>
	3. Air locked pump	<i>C. Bleed* the system</i>
	4. Loose couplers	<i>D. Tighten couplers & bleed*</i>
	5. Plugged hydraulic line	<i>E. Rush and clean system</i>
	6. Pump not operating	<i>F. See pump troubleshooting</i>
	7. Load is above the capacity of the system	<i>G. Use other means for entry</i>
III. Cylinder extends only partially	1. Pump reservoir is low on fluid	<i>A. Fill and bleed*</i>
	2. Cylinder piston rod binding	<i>B. Check for dirt, gummy deposits or leaks as above. Check for misalignment, worn parts or defective packing</i>
IV. Cylinder advances slower than normal	1. Loose connection	<i>A. Tighten and bleed*</i>
	2. Leaky connection	<i>B. Clean connection and use a non-hardening pipe thread compound or teflon tape if needed</i>
	3. Restricted hydraulic line or fitting	<i>C. Clean or replace if damaged.</i>
	4. Pump not working correctly	<i>D. See pump troubleshooting</i>
	5. Leaking seals	<i>E. Replace seals</i>
V. Cylinder advances but does not maintain pressure	1. Leaky connection	<i>A. Clean connection and use a non-hardening pipe thread compound or teflon tape if needed</i>
	2. Cylinder seals leaking	<i>B. Replace seals</i>
	3. Pump valve malfunctioning	<i>C. See pump troubleshooting</i>
VI. Cylinder leaks fluid	1. Worn or damaged seals	<i>A. Replace seals</i>
	2. Loose connections	<i>B. Tighten fittings</i>
VII. Cylinder will not retract or retracts slower than normal	1. Pump release valve closed	<i>A. Open pump release valve</i>
	2. Couplers not fastened	<i>B. Fasten couplers</i>
	3. Blocked hydraulic lines	<i>C. Clean and flush</i>
	4. Weak or broken retraction springs	<i>D. Send to service center for repair</i>
	5. Cylinder damaged internally	<i>E. Send to service center for repair</i>
	6. Pump reservoir too full	<i>F. Drain fluid to correct level</i>

continued....

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PRODUCT SAFETY POLICY

Jaws of Life® products are designed and manufactured to provide excellent service when used for their intended purpose. Operator safety is a major consideration in the product design and operator manuals are provided to promote their safe usage. Additionally, operator training programs are offered by all authorized Jaws of Life Distributors and this company.

Hale Products, Inc. urges all users of Jaws of Life products to read the Instruction Manual and to seek operating instructions from qualified instructors before attempting to use the products. Although most safety precautions are addressed in factory authorized training programs, as well as throughout this manual, particular attention is directed to the following:

- Power units and tools should be operated by qualified personnel only.
- Proper protective clothing should be worn. (i.e. bunker gear, gloves, helmets, face shields, etc.)
- Inspect the equipment for obvious broken or missing parts or damaged hose before and after each use.
- Keep clear of all moving parts.
- When lifting, always use cribbing to shore and stabilize the object being lifted.
- When storing tool, compensate for possible pressure buildup from thermal expansion of hydraulic fluid by connecting the two short hoses on the tool, completing the circuit. Move trigger in both directions to equalize the pressure on both sides of the piston.
- Be sure to follow all maintenance procedures.
- Return your warranty registration card.
- Use only factory authorized service parts.
- **Use only Jaws of Life fire resistant hydraulic fluid.* Do not substitute other brands of hydraulic fluid because characteristics may differ.** Fluid such as brake fluid or automatic transmission fluid will not work in the Jaws of Life system and will damage the equipment.
- Ear protection should be worn when operating the 2-cycle and 4-cycle units.

HYDRAULIC FLUID:

Jaws Of Life® hydraulic fluid* is a custom blended phosphate ester fluid. In case of skin contact, wash off with soap and water. In case of eye contact, flush with generous amounts of running water. If discomfort persists following flushing, see physician for symptomatic treatment.

DO NOT OPERATE EQUIPMENT WHEN TIRED, STAY ALERT.

*Solutia product name MCS-2361 - MSDS on file.

OPERATION

1

Remove the Mini Lite Tool from carton. Inspect unit and confirm that all bolts and screws are securely fastened and the unit has not been damaged in shipment



2

Connect the coupling on the tool to the pump.



3 Spreading

Actuate the Mini-Lite Spreader by advancing the tool with the Hurst Hand Pump or Battery Power Unit. To retract the tool, open the return valve on the power source by rotating the valve counterclockwise.



4 Lifting

Actuate the Mini-Lite 8" and 10" Rams by advancing the tool with the Hurst Hand Pump or Battery Power Unit. To retract the rams, open the return valve on the power source by rotating the valve counterclockwise.

Remember: Lift an inch, crib an inch!



5 Cutting

Actuate the Mini-Lite Cutter by closing the blades with the Hurst Hand Pump or Battery Power Unit. To open the cutter blades, open the return valve on the power source by rotating the valve counterclockwise.

Caution: Always cut perpendicular to the cutter blades. Do not allow material to roll between the blades.