

# INSTRUCTION MANUAL

# MINI CUTTER

PART NUMBER: 362R171



Package Consists of:

- 1 Mini Cutter
- 1 Pre-Connected 6-ft Hose
- 1 Manual Pump
- 1 Mounting Board
- 1 Carrying Bag with Detachable Sling

 **HURST**  
**JAWS OF LIFE®**



# 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.

- \* **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 hoses before and after use.**
- \* **Keep clear of all moving parts.**
- \* **When pulling, keep clear of chains.**
- \* **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.**

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:

- \* **When removing the tool from a multi-tool circuit, be sure the other tools are not in use and the dump valve is in the "closed" position before disconnecting unit.**
- \* **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.

## LIMITED WARRANTY

Hale Products, Inc. warrants the Hurst Jaws of Life® Rescue Systems to be free from defects in material and workmanship under normal use conditions. During the period of this warranty, two years on all mechanical parts and labor, Hale will repair or replace the defective parts or equipment at Hale's option without charge. This includes installation of such repair or replacement parts as may be required. The warranty does not include rubber hoses or rubber products in the Hurst systems assemblies. **In no event will Hale Products, Inc. be responsible for**

**Consequential Damages.** This warranty shall not apply to units which have been subject to misuse, negligence, or alteration. Return of the warranty registration card is a condition precedent to warranty coverage and performance.

Some states do not allow the exclusion or limitation of consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

This is the exclusive warranty offered by Hale Products, Inc. for Hurst Jaws of Life® Rescue Systems. Any other warranties or representations made by a distributor or any other person shall be the responsibility of such dealer or other person.

For service, contact your local authorized Hurst distributor or Hale Products, Inc.

The Hurst MINI CUTTER  
easily removes these typical  
obstacles.



## BEFORE INITIAL USE

- 1** The MINI CUTTER comes pre-tested, assembled and ready to use. It is recommended, however, that the system be cycled a few times to test the system for proper operation. No assembly is required.
- 2** Record the serial number (stamped on the tool) onto the warranty card and mail the postage paid registration card to Hurst - Jaws of Life® care of Hale Products, Inc. Please note that return of the warranty registration card is a condition precedent to warranty coverage and performance.

## OPERATING INSTRUCTIONS

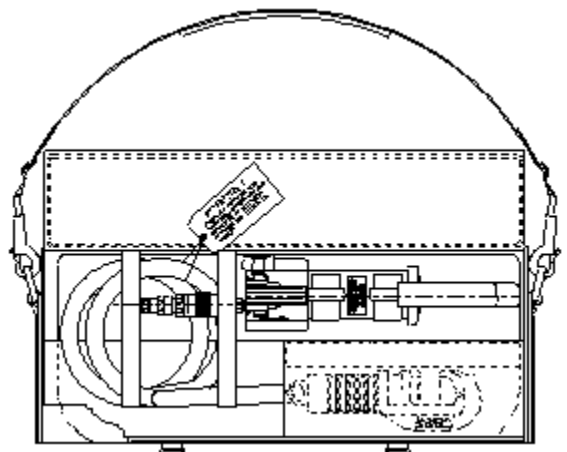
- 1** To use the MINI CUTTER, open blades and place blade opening over the object to be cut. Insure that object is deep into the blade opening as possible. While holding the MINI CUTTER in place, activate tool by turning relief valve knob fully clockwise and pumping handle up and down.
- 2** To relieve pressure and open blades, turn relief valve knob fully counter-clockwise. The blades will open automatically.

## MAINTENANCE and STORAGE

TOOL: If cutter has been exposed to water, sand or dirt, clean unit before storage. The unit should be stored in the carrying bag. When not in use, store cutter fully retracted. Inspect system before use and storage. If tool has been stored for a year or more, sequence and check system before use.

HANDPUMP: Before checking fluid level, retract tool fully to prevent overfilling system. Use only Jaws of Life® fire-resistant phosphate ester hydraulic fluid. Wipe pump exterior clean before draining and refilling pump.

TO REFILL: Remove pump from hose. NOTE: All hose fittings are LEFT-handed threads. Unscrew reservoir from pump head. The reservoir is a sealed type and overfilling is hazardous, so be sure the tool is fully retracted (open) before removing reservoir. Fill to the line only. Keep pump and tool clean. Bleed\* system after each filling or level check.



# TROUBLE-SHOOTING

## IMPORTANT:

The trouble-shooting and repair procedures listed here should only be performed by qualified personnel familiar with this equipment.  
Use the proper equipment when trouble-shooting!

<b>JAW ASSEMBLY</b>		
<b>PROBLEM</b>	<b>CAUSE</b>	<b>REMEDY</b>
<b>Erratic Action</b>	<ul style="list-style-type: none"> <li>» Air in Hydraulic System</li> <li>» Internal leakage in cylinder</li>   <li>» Cylinder sticking or binding</li> </ul>	<ul style="list-style-type: none"> <li>» Bleed* air and check for leaks</li> <li>» Replace worn packings. Check for excessive contamination or wear.</li> <li>» Check for dirt, gummy deposits or leaks as above. Check for misalignment, worn parts or defective packing.</li> </ul>
<b>Cylinder does not advance</b>	<ul style="list-style-type: none"> <li>» Pump release valve open</li> <li>» Low or no oil in pump reservoir</li> <li>» Air locked pump</li> <li>» Loose couplers</li> <li>» Plugged hydraulic line</li> <li>» Pump not operating</li> <li>» Load is above the capacity of the system</li> </ul>	<ul style="list-style-type: none"> <li>» Close release valve</li> <li>» Fill with oil and bleed* the system</li> <li>» Bleed* the system</li> <li>» Tighten couplers and bleed*</li> <li>» Flush and clean system</li> <li>» See pump trouble-shooting</li> <li>» Use other means for entry</li> </ul>
<b>Cylinder extends only partially</b>	<ul style="list-style-type: none"> <li>» Pump reservoir is low on oil</li> <li>» Cylinder piston rod binding</li> </ul>	<ul style="list-style-type: none"> <li>» Fill and bleed*</li> <li>» Check for dirt, gummy deposits or leaks as above. Check for misalignment, worn parts or defective packing.</li> </ul>
<b>Cylinder advances slower than normal</b>	<ul style="list-style-type: none"> <li>» Loose connection</li> <li>» Leaky connection</li>   <li>» Restricted hydraulic line or fitting</li> <li>» Pump not working correctly</li> <li>» Leaking seals</li> </ul>	<ul style="list-style-type: none"> <li>» Tighten and bleed*</li> <li>» Clean the connection and use a non-hardening pipe thread compound or teflon tape if needed</li> <li>» Clean or replace if damaged</li> <li>» See pump trouble-shooting</li> <li>» Replace seals</li> </ul>
<b>Cylinder advances but does not retain pressure</b>	<ul style="list-style-type: none"> <li>» Leaky connection</li>   <li>» Cylinder seals leaking</li> <li>» Pump valve malfunctioning</li> </ul>	<ul style="list-style-type: none"> <li>» Clean the connection and use a non-hardening pipe thread compound or teflon tape if needed</li> <li>» Replace seals</li> <li>» See pump trouble-shooting</li> </ul>
<b>Cylinder leaks oil</b>	<ul style="list-style-type: none"> <li>» Worn or damaged seals</li> <li>» Loose connection</li> </ul>	<ul style="list-style-type: none"> <li>» Replace seals</li> <li>» Tighten fittings</li> </ul>
<b>Cylinder will not retract or retracts slowly</b>	<ul style="list-style-type: none"> <li>» Pump release valve closed</li> <li>» Couplers not fastened</li> <li>» Blocked hydraulic lines</li> <li>» Weak or broken retraction springs</li> <li>» Cylinder damaged internally</li> <li>» Pump reservoir too full</li> </ul>	<ul style="list-style-type: none"> <li>» Open pump release valve</li> <li>» Fasten couplers</li> <li>» Clean and flush</li> <li>» Send to service center for repair</li> <li>» Send to service center for repair</li> <li>» Drain oil to correct fluid level</li> </ul>
<b>PUMP</b>		
<b>PROBLEM</b>	<b>CAUSE</b>	<b>REMEDY</b>
<b>Pump not delivering oil</b>	<ul style="list-style-type: none"> <li>» Low oil level in reservoir</li> <li>» Dirt in pump body</li> <li>» Seats worn and not seating properly</li> <li>» Reservoir overfilled with oil</li> </ul>	<ul style="list-style-type: none"> <li>» Check oil level per instructions</li> <li>» Disassemble pump body and clean all parts</li> <li>» Reseat required seats in casting</li> <li>» Check oil level per reservoir instructions</li> </ul>
<b>Pump losing pressure</b>	<ul style="list-style-type: none"> <li>» Oil leaking past outlet ball seat(s)</li> <li>» Pressure control knob leaks, not adjusted properly</li> </ul>	<ul style="list-style-type: none"> <li>» Reseat ball seat(s)</li> <li>» Reseat pressure control assembly or replace assembly</li> </ul>
<b>Pump does not reach full pressure</b>	<ul style="list-style-type: none"> <li>» Low oil level</li> <li>» Reservoir overfilled with oil</li> </ul>	<ul style="list-style-type: none"> <li>» Check oil level per reservoir instructions</li> <li>» Check oil level per reservoir instructions</li> </ul>
<b>Handle raises after each stroke</b>	<ul style="list-style-type: none"> <li>» Oil leaking past outlet ball seat(s)</li> </ul>	<ul style="list-style-type: none"> <li>» Replace ball and/or reseat</li> </ul>
<b>Pump handle can be pushed down (slowly) without raising the load</b>	<ul style="list-style-type: none"> <li>» The inlet ball is not seating</li> </ul>	<ul style="list-style-type: none"> <li>» Check for dirt and/or reseat valve seat</li> </ul>
<b>Pump operates with a spongy action</b>	<ul style="list-style-type: none"> <li>» Air trapped in the line</li> <li>» Reservoir overfilled with oil</li> </ul>	<ul style="list-style-type: none"> <li>» Bleed* the system. Fill and re-bleed if necessary</li> <li>» Check oil per reservoir instructions</li> </ul>

### \* BLEEDING THE SYSTEM

After all connections are made correctly, the hydraulic system should be bled. 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.

***\*Use only Jaws of Life® fire-resistant phosphate ester hydraulic***



# ***HALE***

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