INSTRUCTION MANUAL

RESCUE

STRUTS

HURST JAWS OF LIFE® AIRSHORE

HALE
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HURST Jaws of Life
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ISO-9001
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HURST JAWS OF LIFE® AIRSHORE

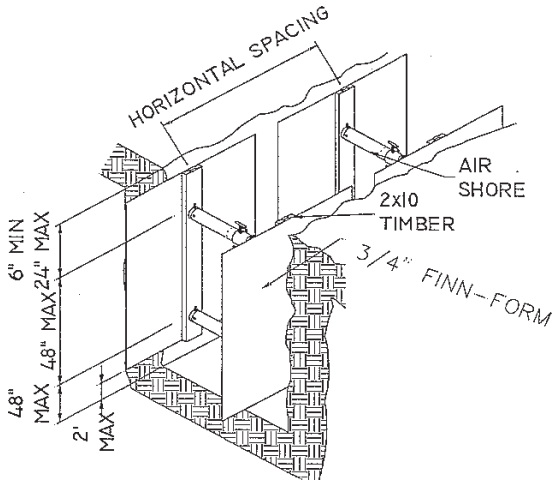
The Hurst-Airshore rescue strut is a lightweight, positive locking, aluminum support strut which can be activated manually or by air. There are a wide variety of removeable attachments and bases that can adapt to most shapes, surfaces and rescue scenarios. The struts can be used in numerous applications such as Trench Rescue, Building Collapse, Vehicle Stabilization, Confined Space and Heavy Lift Rescue.

FEATURES

- TROUBLE FREE
  Our rescue struts will operate under the worst rescue site conditions. Mud, dirt, sand or water will not affect the tools operation.
- MAINTENANCE FREE
  Only a periodic cleaning is necessary to keep the struts in good working order.
- MATERIALS
  We use materials that are lightweight and will sustain long life and weatherproof operation.
- OPERATION
  Struts can be operated manually or pneumatically (air). This is safe, clean and involves no contaminants.
- INSTALLATION
  Fast, simple and fool proof. No special tools are required.
- PORTABILITY
  Easy to handle and transport.
- ADAPTABLE
  A large variety of attachments and bases allows the struts to be used in a wide range of applications.

The intent of this manual is to give basic instructions and information on the rescue struts. All federal and local regulations must be followed. For more information and certified tabulated data pertaining to specific situations please contact your local dealer. Ask for the Red Operations Manual (ART-AOM). Tabulated data is also available on our website www.jawsoflife.com.

Tabulated Data for use in Excavations with Plywood & Plank cont.



Installation Procedure:

1. Soil must first be classified by a competent person in accordance with OSHA appendix A.
2. Tabulated Data allows for a 200 PSF surcharge load. Move surcharge away from excavation or space shores closer together to allow for larger surcharge loads.
3. Inspect equipment to ensure it is in proper working order.
4. Struts are to be placed and pressurized from outside the trench or from within a shored area. Under no circumstances is a worker allowed to enter an unshored area.
5. Pressurize struts to the minimum recommended pressure (200 psi / 14 BAR).
6. There should be a minimum of three columns of shoring in excavations over ten feet long and two columns if it is less than ten feet long. Shoring columns shall be placed in accordance with the tabulated data.
7. Plywood shall be 3/4" FinnForm. Planks should be 2" thick timber DF #2 or better.

Removal Procedure:

1. Shores are to be removed from the bottom of the trench up. Workers should be outside the trench or inside shored areas when removing shoring.
2. Previously shored trenches are more prone to collapse and should be backfilled or barricaded to prevent workers or equipment from falling into the trench if it collapses.

Tabulated data for Spot Shore Rails, Columns, Tripods, Raker Rails and Gantry are available upon request or from our website www.jawsoflife.com.

Rescue Struts Tabulated Data

LENGTH		CAPACITY *	
Size (in)	**Size (ft)**	**2 Pins**	**1 Pin**
13-18	1 to 1.5	30,000 lbs	19,000 lbs
21-28	2	30,000 lbs	19,000 lbs
26-37	2 to 3	30,000 lbs	19,000 lbs
33-49	3 to 4	30,000 lbs	19,000 lbs
45-67	4 to 5.5	25,000 lbs	19,000 lbs
63-97	5 to 8	25,000 lbs	19,000 lbs
93-144	8 to 12	20,000 lbs	14,000 lbs
114-144	10 to 12	20,000 lbs	14,000 lbs
114-168	12 to 14	10,000 lbs	10,000 lbs
168-198	14 to 16	5,000 lbs	5,000 lbs

* Safety Factor is 2:1

The Rescue Strut can be used at any angle from horizontal to vertical provided the ends bear on a surface perpendicular to the shore.

Tabulated Data for use in Excavations with Plywood & Plank

Table 1

MAXIMUM ALLOWABLE SPACING

Soil Type	Trench Depth (ft)	Trench Width (ft)	Horizontal Spacing (ft)	Vertical Spacing (ft)
A-25	4 to 10	to 6	8	4
		6 to 12	8	4
		12 to 16	5	4
	10 to 15	to 6	8	4
		6 to 12	8	4
		12 to 16	4	4
	15 to 20	to 6	8	4
		6 to 12	6	4
		12 to 16	2	4
B-45	4 to 10	to 6	8	4
		6 to 12	8	4
		12 to 16	4	4
	10 to 15	to 6	7	4
		6 to 12	6	4
		12 to 16	4	4
	15 to 20	to 6	5	4
		6 to 12	5	4
		12 to 16	4	4
C-60	4 to 10	to 6	8	4
		6 to 12	6	4
		12 to 16	4	4
	10 to 15	to 6	5	4
		6 to 12	4	4
		12 to 16	4	4
	15 to 20	to 6	4	4
		6 to 12	4	4
		12 to 16	4	4

Recommended Strut Pressures (min.)

SOIL TYPE A & B 4 to 20 feet 116 psi SOIL TYPE C 4 to 20 feet 116 psi

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:

- Rescue struts should be operated by qualified personnel only.
- Personnel not directly involved in the operation should keep at a safe distance from the compromised area.
- Proper protective clothing should be worn. (i.e. bunker gear, gloves, helmets, face shields, etc.)
- Keep hands and feet clear of the rescue strut when stabilizing or supporting with air pressure.
- Rescue struts can be operated manually or with compressed air or CO2 gas only. **Under no circumstances should any other gases be used.**
- Be sure to follow all maintenance procedures.
- Return your warranty registration card.
- Use only factory authorized service parts.
- The rescue strut has been designed and tested for trench rescue, structural collapse, support and stabilization of light and heavy vehicles.
- Improvising or adapting the ART struts for other purposes could cause serious injury.
- Inspect the equipment for obvious broken or missing parts or damaged hose before and after each use.

HURST JAWS OF LIFE® AIRSHORE

DO NOT OPERATE EQUIPMENT WHEN TIRED, STAY ALERT.

Basic Rescue Strut Instructions

1 Determine the proper size and support configuration that will be required.

2 Select the individual accessory heads and bases. Insert them into the rescue strut making sure the hole in the attachment lines up with the quick connect. Pull on the attachment to make sure it has locked into place.

3 Make sure pins are out of piston and lock collar.

4 Place the rescue strut in the desired position.

5a MANUAL - Extend the rescue strut until the accessory heads and/or base plates are in contact with the surfaces to be held apart. Place a pin in the closest piston hole, turn collar up using t-handle until it is snug against the pin. Tighten t-handles and insert second pin in the next closest hole to the collar. If required, secure accessory heads and bases with nails, screw or bolts.

5b AIR - Connect the regulator of the AIR-049R or AIR-051R to the air bottle. Slowly turn the air bottle on. Check the regulator to ensure there is adequate pressure in the bottle. Set regulator to the desired pressure (200psi for trench rescue, 100psi for building collapse). Attach quick couplers on the end of each hose to the air nipple on each strut.

Trench Rescue: Minimum - 116psi / 8.12 BAR, Maximum - 300psi / 21 BAR
Recommended - 200psi / 14 BAR

Building Collapse & Confined Space: Minimum - 35psi / 2.45 BAR
Set regulator at 100psi

Using the dump valve or dual strut controller pressurize the strut until heads and/or base plates are in contact with surfaces to be held apart. Place a pin in the closest piston hole, turn collar up using t-handle until it is snug against the pin. Tighten t-handles and insert second pin in the next closest hole to the collar. Release the pressure and disconnect the air supply hose. If required, secure accessory heads and bases with nails, screw or bolts.

It is not necessary to insert the second pin for TRENCH RESCUE.

6 Confirm the strut is secure then continue with the rescue.

*** Take down is accomplished by removing the load pressure ***

MANUAL: Unscrew t-handles and turn collar downward taking pressure off of the pins; pull pins out of piston, place rescue strut out of your way.

AIR: Reconnect quick coupler to the strut and re-pressurize. Unscrew t-handles and turn collar downward taking pressure off of the pins. Pull pins out of piston and de-pressurize system. Disconnect quick coupler and place rescue strut out of your way.

NOTE: HOLE THROUGH COLLAR: When the pin is put through the collar hole it also goes through the hole in the piston, this prevents the piston and barrel from separating when storing the strut or when carrying to a rescue scene.

GENERAL MAINTENANCE INFORMATION

Periodic cleaning and inspection should be standard procedure. This should be done after EVERY use.

1. Pull piston complete with collar out of barrel

2. Remove any dirt, sand or water

NOTE: Place a pin thru the hole in the collar into the piston. This will keep the collar from sliding or separating from the piston.

3. Inspect for any signs of damage. Be sure to check the following:

Nipple and Air Ports in barrel. Make sure there is no debris blocking any air holes.

Make sure threads on collar and T-handles are free of dirt and debris.

Check the rubber cup attached to the bottom of the piston. It should be secure and round. Every 2-3 months “flare” out the rubber cup by hand. This will help the cup retain its shape. Periodically spray the cup with a non-petroleum based silicon.

4. Clean strut by wiping, washing or steam cleaning. DO NOT immerse piston cup rubber in solvents or petroleum based products.

5. Assemble piston and barrel.

6. Pull piston up and down to ensure free, smooth movement.

7. Clean and inspect all accessories and bases. Ensure all adjusting screws, bolts, pins and connectors are in place and in good working order.