### **VESTIL MANUFACTURING CORP.**

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**Ergonomic Solutions** 

#### Revised 11-13

A company dedicated to solving ergonomic and material handling problems since 1955.

## **OWNER'S MANUAL**

# AHLT-SERIES AIR HYDRAULIC SCISSOR TABLES

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#### **SAFETY GUIDELINES:**

Material handling is dangerous. To reduce the likelihood of injury to person or property:

- •Read this manual in its entirety before installing, using and maintaining this table for the first time!
- •The capacity of your table is based on a uniformly distributed, centered load. DO NOT exceed the capacity because permanent damage and/or personnel injury could result. Contact the factory for side-loading and end-loading capacities.
- •DO NOT lower the unit onto the maintenance prop(s) while the table is loaded.
- •DO NOT go under the platform unless the maintenance prop is in position.
- •ONLY use AW-32 hydraulic oil (or equivalent), or Dexron II transmission fluid in the tables reservoir. Do not use brake fluids or jack oils.
- Check the settings and conditions of all safety switches and stickers frequently.
- •Never operate the table if it (or any component) is in need of repair. Tag the unit "Out-of-service" and notify maintenance personnel if, during operation, any unusual noises, movements, or noticeable damage to the understructure of controls, or if the table fails to respond normally to control commands.

#### **OPERATION**

The table is equipped with a "dead man" style push button controler. This type of operation, also called "push-to- run", allows the operator to move the deck of the table as much or as little as necessary.

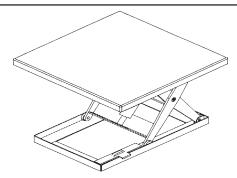
The air motor of the power unit requires a minimum air supply of 70 CFM at 70 PSI.

#### **RECEIVING INSTRUCTIONS:**

After delivery, IMMEDIATELY remove the packaging from the product in a manner that preserves the packaging and maintains the orientation of the product in the packaging; then inspect the product closely to determine whether it sustained damage during transport. If damage is discovered during the inspection, immediately record a complete description of the damage on the bill of lading. If the product is undamaged, discard the packaging.

#### NOTES:

- 1) Compliance with laws, regulations, codes, and non-voluntary standards enforced in the location where the product is used is exclusively the responsibility of the owner/end-user.
- 2) VESTIL is not liable for any injury or property damage that occurs as a consequence of failing to apply either: a) the instructions in this manual; or b) information provided on labels affixed to the product. Neither is Vestil responsible for any consequential damages sustained as a result of failing to exercise sound judgment while assembling, installing, using or maintaining this product



AIR HYDRAULIC SCISSOR TABLE MODEL AHLT

## **INSTALLATION INSTRUCTIONS**

Review this Owner's Manual in its entirety before beginning the installation.

The following tools are required to install the table:

- A fork truck or hoisting means.
- Lag bolts, masonry drill, masonry bit, wrench for lag bolt, grout, and steel shims.

## **INSTALLATION PROCEDURE**

- 1) Read each label applied to the table (see "Label placement diagram" on p. 11). Confirm that every label shown in the diagram is present.
- 2) Move the table to the desired installation location. Support the base of the table while moving it.
- 3) Be sure maintenance prop is in place before getting under platform.
- 4) If mounting the power unit externally, blow out the connecting hydraulic line with compressed air.
- 5) Install the lift table on a level, even surface.
  - a) Anchor the table to the floor with appropriately-matched anchor bolts.
  - b) Measure the diameter of the bolt holes in the base of the frame, and install bolts that are at least 4in. long to anchor the table to the floor.
  - c) Shim the table to level it. Grout under the base of the table to provide additional resistance to warping and bending forces applied to the base between shims. Grout around the entire perimeter of the base frame.
- 6) Connect main air supply to the control pedestal. If no control pedestal is supplied, see schematic for air inlet. NOTE: Use only clean, dry air. Use of a filter/regulator is recommended.
- 7) Operate the table through a few RAISE-LOWER cycles (fully raise the deck and then lower it completely according to the instructions on p. 3); then check the oil level. Add oil if necessary [see Oil specifications on p. 10 (under "Yearly") of this manual].

## **Hydraulic Circuit & Component Operation**

To raise the deck of the table, press the "RAISE" button of the hand controller. This opens the air motor supply valve and flowing air turns the hydraulic pump. Oil from the reservoir moves through the suction filter and into the pump. From the pump, pressurized oil flows through the check valve and then enters the cylinders.

The function of the check valve is to restrict oil flow to one direction, i.e. towards the cylinders. It prevents oil from flowing back into the pump circuit when the pump stops running. This traps oil in the cylinders and maintains the desired elevation of the deck.

If the weight of a load on the table exceeds the capacity of your table, then although the "RAISE" button might be pressed the deck cannot ascend. Instead, pressure builds in the circuit between the pump and the cylinders. This pressure causes the "ball" (or "poppet") in the relief valve to unseat and directs the pump output to the reservoir through the return pipe rather than to the cylinders.

To lower the deck, press the **"LOWER"** control button. This opens a hydraulic dump valve. The poppet in the solenoid valve unseats and oil flows from the cylinders through the flow control valve, return filter, solenoid valve, and the oil return pipe to the reservoir.

The flow control valve controls the lowering speed of the table. It is preset and cannot be changed.

Releasing the **"LOWER"** control button deenergizes the solenoid and closes the valve poppet. This prevents oil from returning to the reservoir and consequently the cylinders stop retracting. The deck will maintain its elevation.

## **Cartridge Valves**

The lowering valve, as discussed above, is of cartridge construction and is virtually maintenance free. If a malfunction occurs, refer to the trouble shooting section.

To clean the cartridge valve:

- 1.) Use a thin tool to push the poppet in from the bottom to open the valve.
- 2.) Repeat several times while valve is immersed in kerosene or mineral spirits. Blow the valve dry.
- 3.) Inspect O-rings and the polytetrafluoroethylene (PTFE) extrusion washer.
- 4.) Reinstall the valve. Tighten the valve in its seat to approximately 30 ft-lb.

## **Velocity Fuse**

There is a brass velocity fuse with a stainless steel spring in the base of each cylinder. The fuse is a safety feature that activates if a pump failure occurs. If the pump were to fail, the deck would lower much more rapidly. However, as soon as the descent speed exceeds a preset threshold speed, the velocity fuse closes and prevents oil from flowing. When the fuse shuts, the platform stops lowering and maintains position until hydrualic pressure is reestablished. This safety feature reduces the likelihood of personal injury or property damage as a result of pump failure. To reset the velocity fuse, briefly activate the pump by pressing the **"RAISE"** button.

## LOADING INSTRUCTIONS

The load capacity, which appears on the data label (see p. 11, label 287) of your unit, is the net maximum weight the table will support. All loads applied to the table must be centered and evenly distributed, and assumes the load is centered. DO NOT exceed the capacity because permanent damage or injury might occur.

## **OPERATING INSTRUCTIONS**

This unit is equipped with a constant pressure ("deadman" type) push button controller. The buttons are marked, "RAISE" and "LOWER". Press the "RAISE" button to elevate the deck of the table. When the button is pressed, the motor air supply valve opens and air pressure causes the cylinder to extend. Cylinder extension raises the deck. Always stand to the side of the table while operating the cylinder and keep clear of moving parts. The platform will rise as long as the "RAISE" control is pressed. When the button is released, the deck will maintain its present position. Releasing the button allows the valve to close and prevents further air flow, i.e. closes the pilot-operated motor air supply valve.

Pressing the "LOWER" control button energizes the lowering solenoid valve. This allows the cylinders to retract as oil returns to the reservoir. As with the RAISE button, releasing the LOWER button causes the deck to stop moving and to maintain its current elevation. Be certain no person or object is in the way while the unit descends.

If the unit is overloaded, the deck will not rise. Instead, the relief valve will open due to excessive pressure buildup and oil will bypass the cylinder and flow into the reservoir.

Always remember: 1) the motor operates only while the "RAISE" button is pressed; and 2) the lowering solenoid valve is energized only while the "LOWER" button is pressed.

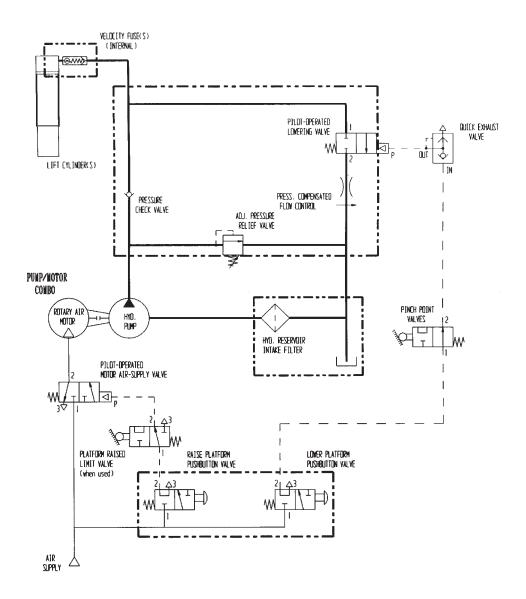
## SAFETY INSTRUCTIONS TO THE OPERATOR

- 1.) Always center and evenly distribute loads placed on the table.
- DO NOT use the table if repairs are necessary.
   Only use the table if it is in normal operating condition.
- Tag the unit "Out of service" and notify maintenance personnel if you notice anything unusual during operation, such as binding, odd pump noises, etc.
- 4.) Do not continue to press the "UP" control if the unit does not elevate. The motor and/or pump might be permanently damaged as a consequence.

## ORDERING REPLACEMENT OR EXTRA PARTS

Vestil Manufacturing Co. company is committed to using high quality parts in all of our products. Vestil is not responsible for any equipment failure that results from the use of unapproved replacement parts. To order replacement (or spare) parts contact Customer Service at the telephone number of email address published on the cover page of theis manual. To expedite your request, be prepared with the serial number of your table, which appears on the data label (#287 on p. 11). Only refer to part numbers listed in this Owner's Manual.

## PNEUMATIC/HYDRAULIC CIRCUIT DIAGRAM

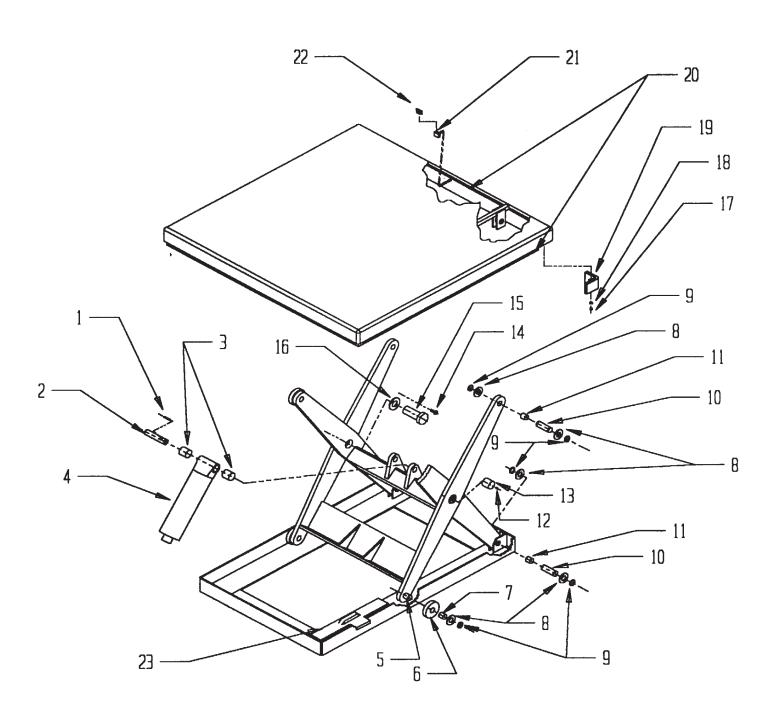


MINIMUM AIR SUPPLY: 70 SCFM @ 80 PSI -- RECOMMENDED AIR LINE SIZE 3/4"Ø

HYDRAULIIC LINE								
AIR SUPPLY LINE	_							
AIR PILOT LINE	_	_	_	_	_	_	_	_

**NOTE:** Operation of this machine without a filter/lubricator will void the warranty!

## **AHLT-SREIES AIR HYDRAULIC SCISSOR TABLES**



# AIR HYDRAULIC SCISSOR TABLE MODEL AHLT

1         CYLINDER MOUNT SPRING PIN         ST-SPRGPIN         1           2         CYLINDER MOUNT PIVOT PIN         ST-CYLPIN         1           3         CYLINDER MOUNT BEARING         ST-CYLBRG         2           4         HYDRAULIC CYLINDER         ST-CYL         1           4A         CYLINDER SEAL KIT (NOT PICTURED)         ST-CYLSLKT         1           5         ROLLER PIN         ST-RLPIN         4           6         ROLLER PIN         ST-RLPIN         4           7         ROLLER BEARING         ST-RLRBRG         4           8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNGG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGPIN         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN GREASE ZERK         ST-PVTBRG         2           14         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN BEARING         ST-PVTBR         2           15         PIVOT PIN ROLL PIN         ST-PVTBR         2	ITEM NUMBER	DESCRIPTION	PART NUMBER	QTY
3         CYLINDER MOUNT BEARING         ST-CYLBRG         2           4         HYDRAULIC CYLINDER         ST-CYL         1           4A         CYLINDER SEAL KIT (NOT PICTURED)         ST-CYLSLKT         1           5         ROLLER PIN         ST-RLPIN         4           6         ROLLER         ST-RLR         4           7         ROLLER BEARING         ST-RLRBRG         4           8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-PVTBRG         2           14         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PVTBR         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19 <td>1</td> <td>CYLINDER MOUNT SPRING PIN</td> <td>ST-SPRGPIN</td> <td>1</td>	1	CYLINDER MOUNT SPRING PIN	ST-SPRGPIN	1
4         HYDRAULIC CYLINDER         ST-CYL         1           4A         CYLINDER SEAL KIT (NOT PICTURED)         ST-CYLSLKT         1           5         ROLLER PIN         ST-RLPIN         4           6         ROLLER         ST-RLR         4           7         ROLLER BEARING         ST-RLRBRG         4           8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN         ST-HNGBRG         4           12         PIVOT PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-PVTBRG         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PVTBR         2           15         PIVOT PIN ROLL PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRWSH         4           19	2	CYLINDER MOUNT PIVOT PIN	ST-CYLPIN	1
4A         CYLINDER SEAL KIT (NOT PICTURED)         ST-CYLSLKT         1           5         ROLLER PIN         ST-RLPIN         4           6         ROLLER         ST-RLR         4           7         ROLLER BEARING         ST-RLRBRG         4           8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PVTBR         2           15         PIVOT PIN WASHER         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRWSH         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4	3	CYLINDER MOUNT BEARING	ST-CYLBRG	2
5         ROLLER PIN         ST-RLPIN         4           6         ROLLER         ST-RLR         4           7         ROLLER BEARING         ST-RLRBRG         4           8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PVTBR         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDSW         2           21	4	HYDRAULIC CYLINDER	ST-CYL	1
6         ROLLER         ST-RLR         4           7         ROLLER BEARING         ST-RLRBRG         4           8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PVTPIN         2           15         PIVOT PIN WASHER         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDSW         2           21         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	4A	CYLINDER SEAL KIT (NOT PICTURED)	ST-CYLSLKT	1
7         ROLLER BEARING         ST-RLRBRG         4           8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PVTBRG         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSCR         4	5	ROLLER PIN	ST-RLPIN	4
8         ROLLER WASHER         ST-RLRWSHR         4           9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PPRP         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDSW         2           21         TOE GUARD SWITCH         ST-TGRDSCR         4	6	ROLLER	ST-RLR	4
9         ROLLER SNAP RING         ST-RLRNRG         4           10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PPRP         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSCR         4           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	7	ROLLER BEARING	ST-RLRBRG	4
10         HINGE PIN         ST-HNGPIN         4           11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PPRP         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDAIL         4           21         TOE GUARD SWITCH         ST-TGRDSW         2           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	8	ROLLER WASHER	ST-RLRWSHR	4
11         HINGE PIN BEARING         ST-HNGBRG         4           12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PPRP         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSW         2           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	9	ROLLER SNAP RING	ST-RLRNRG	4
12         PIVOT PIN GREASE ZERK         ST-GRSZRK         2           13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PPRP         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSW         2           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	10	HINGE PIN	ST-HNGPIN	4
13         PIVOT PIN BEARING         ST-PVTBRG         2           14         PIVOT PIN ROLL PIN         ST-PPRP         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSCR         4           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	11	HINGE PIN BEARING	ST-HNGBRG	4
14         PIVOT PIN ROLL PIN         ST-PPRP         2           15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSW         2           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	12	PIVOT PIN GREASE ZERK	ST-GRSZRK	2
15         PIVOT PIN         ST-PVTPIN         2           16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSW         2           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	13	PIVOT PIN BEARING	ST-PVTBRG	2
16         PIVOT PIN WASHER         ST-PVTPIN         2           17         TOE GUARD HANGER NUT         ST-HNGRNUT         4           18         TOE GUARD HANGER WASHER         ST-HNGRWSH         4           19         TOE GUARD CORNER PIECE         ST-TGRDCNR         4           20         TOE GUARD ALUMINUM RAIL         ST-TGRDRAIL         4           21         TOE GUARD SWITCH         ST-TGRDSW         2           22         TOE GUARD SWITCH RETAINING SCREW         ST-TGRDSCR         4	14	PIVOT PIN ROLL PIN	ST-PPRP	2
17 TOE GUARD HANGER NUT ST-HNGRNUT 4  18 TOE GUARD HANGER WASHER ST-HNGRWSH 4  19 TOE GUARD CORNER PIECE ST-TGRDCNR 4  20 TOE GUARD ALUMINUM RAIL ST-TGRDRAIL 4  21 TOE GUARD SWITCH ST-TGRDSW 2  22 TOE GUARD SWITCH RETAINING SCREW ST-TGRDSCR 4	15	PIVOT PIN	ST-PVTPIN	2
18 TOE GUARD HANGER WASHER ST-HNGRWSH 4  19 TOE GUARD CORNER PIECE ST-TGRDCNR 4  20 TOE GUARD ALUMINUM RAIL ST-TGRDRAIL 4  21 TOE GUARD SWITCH ST-TGRDSW 2  22 TOE GUARD SWITCH RETAINING SCREW ST-TGRDSCR 4	16	PIVOT PIN WASHER	ST-PVTPIN	2
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20 TOE GUARD ALUMINUM RAIL ST-TGRDRAIL 4 21 TOE GUARD SWITCH ST-TGRDSW 2 22 TOE GUARD SWITCH RETAINING SCREW ST-TGRDSCR 4	18	TOE GUARD HANGER WASHER	ST-HNGRWSH	4
21 TOE GUARD SWITCH ST-TGRDSW 2 22 TOE GUARD SWITCH RETAINING SCREW ST-TGRDSCR 4	19	TOE GUARD CORNER PIECE	ST-TGRDCNR	4
22 TOE GUARD SWITCH RETAINING SCREW ST-TGRDSCR 4	20	TOE GUARD ALUMINUM RAIL	ST-TGRDRAIL	4
	21	TOE GUARD SWITCH	ST-TGRDSW	2
23 SAFETY STOP BLOCK ST-STBLK 1	22	TOE GUARD SWITCH RETAINING SCREW	ST-TGRDSCR	4
	23	SAFETY STOP BLOCK	ST-STBLK	1

<sup>\*\*</sup>PLEASE SUPPLY SERIAL NUMBER AT TIME OF ORDER\*\*

## Hydraulic System Troubleshooting Guide

(For additional information, contact the factory)

\*\*\*\*INSTALL MAINTENANCE SAFETY BLOCKS OR DEPLOY MAINTENANCE PROPS BEFORE BEGINNING MAINTENANCE OPERATIONS\*\*\*\*

Observation	Possible Cause	Remedy
1.) Pump runs but table does not rise	a. Hose or hydraulic line is leaking.	a. Correct as necessary.
	b. Fluid level in reservoir is low.	b. Add fluid. Refer p. 10, parts B1 and C for proper fluid level and type.
	c. Load exceeds capacity requirements. Relief Valve is bypassing the fluid back into the reservoir.	c. DO NOT CHANGE RELIEF VALVE SETTING. Instead, reduce the load to rated capacity.
	d. Suction filter is clogged, starving pump.	d. Remove and clean.
	e. Suction line may be leaking air, due to loose fittings.	e. Inspect all fittings for proper fit.
	f. Filler/Breather cap on tank might be clogged.	f. Remove and clean.
	g. Lowering solenoid valve might be energized by faulty wiring or might be stuck open.	g. Remove solenoid valve. Check and clean. (Refer to p. 3).
	h. Hydraulic pump may be inoperative.	h. Disconnect hydraulic line at power unit. Put pressure line in a large container and cycle pump. If no output, check the pump motor coupline, which may be defective, and correct as necessary. If pump is worn, consult factory for replacement parts service.
2.) Table rises slowly.	A. Foreign material stuck in lowering solenoid, causing some fluid to bypass back into tank.	a. Lower the platform. Remove the solenoid valve and clean. (Refer to Hydraulic Section of Owner's Manual).
	b. Foreign material clogging suction filter, breather cap, or a pinched hose.	b. Correct as necessary. (See also Remedies 1(d) & 1(f).
	c. Table overloaded.	c. See Remedy 1(c).
	e. Pump is inoperative.	e. See Remedy 1(h).
3.) Motor labors or is extremely hot.	<ul> <li>a. Oil starvation causes pump to bind. High internal heat is developed. If this occurs, pump may be permanently damaged.</li> </ul>	a. See 1(b), (d), (e), (f), (h).
	b. Binding cylinders.	b. Align cylinders correctly.
4.) "Spongy" or "Jerky" table operation. Do not	a. Fluid starvation.	a. See 1(b), (d), (e), (h).
confuse spongy operation with small surges caused by foreign material on table wheel roller plate.	b. Air in system.	b. Bleed air from the hydraulic system. Unload the table. Insta maintenance props and lower the deck until it is supported by the props; then hold a rag over the bleeder valve (it looks like a grease zirk) and open the valve by approximately 1/2 turn with a 1/4 in. wrench. Oil and air wi sputter from the valve. Once no more air is observed. close the valve.
5.) Table lowers too slowly when loaded.	a. Down Valve filter clogged.	a. Remove solenoid valve and clean filter.
	b. Pinched tube or hose.	b. Correct as necessary. (In case of pipe, check for obstruction in line.)
	c. Foreign material in flow control valve.	c. Remove and clean Flow Control Valve. (Refer to Hydraulic Section of Owner's Manual).
	d. Binding cylinders	d. Align cylinders correctly.
	e. Foreign material in velocity fuse.	e. Remove and clean velocity fuse. (Refer to Hydraulic Section of Owner's Manual.)

Issue	Possible Cause	Remedy
6.) Table lowers too quickly.	a. Leaking hoses and/or cracked fittings.	a. Correct as necessary.
	b. Check valve is stuck open. (The combination of a stuck Check Valve and open Soleniod Valve will cause excessive speeds.)	b. Remove and clean Check Valve. (Refer to Hydraulic Section of Owner's Manual ).
	c. Foreign material stuck in Flow Control Valve. (In this case, table lowers initially at a normal rate then speeds up as the platform descends.)	c. Remove Flow Control Valve from the Valve Block and clean. (Refer to Hydraulic Section of Owner's Manual).
7.) Table raises then lowers slowly.	a. Down Solenoid Valve may be incorrectly wired or is stuck open due to dirt.	a. See 2(a).
	b. Check Valve might be stuck open.	b. Remove and clean Check Valve. (Refer to Hydraulic Section of Owner's Manual ).
	c. Check for leaking hoses, fittings, pipes.	c. Correct as necessary.
	d. Cylinder packings might be worn or damaged.	Replace packings. Contact Factory to order authorized replacement parts.
8.) Table elevates but does not lower.	a. Lowering Solenoid Valve is stuck.	a. Lightly tap the Solenoid Coil body to seat it properly. (DO NOT hit coil hard as it will permanently damage the internal stem). DO NOT remove the Solenoid Valve from the Block! Without the valve the deck will descend dangerously quickly.
	b. Faulty Lowering Solenoid Coil.	b. Remove and replace the coil. (Refer to Electrical Section of
	c. Maintenance safety bar, or some other object blocking down travel.	c. Raise table and remove the safety bar, or whatever object is blocking the down travel, then press the down button.
	d. Binding cylinders.	d. See 1(h).
	e. If lowering speed is too fast, the Velocity Fuse will operate. The fuse shuts off oil flow from the cylinders causing the deck to remain stationary.	e. To unlock the fuse, repressurize the hydraulic system.
	f. Check the Limit Switch. If it is inoperative and the deck has raised all the way, the mechanical stops are engaged. If mechanical stops are engaged, the Velocity Fuse has locked up.	f. Refer to p. 3 "Velocity Fuse".

## Notes:

## **Inspections & Maintenance:**

DO NOT perform any repairs or maintenance on the table unless it is properly locked and tagged out:

- 1.) Remove any load from the platform.
- 2.) Raise the deck to its full elevated height. Insert the maintenance props between the scissor leg rollers and the end of the frame. Lower the deck until the rollers rest against the maintenance props. Hold the "LOWER" control button for two seconds after the deck stops lowering.
- 3.) Disconnect power to the table at the main power supply disconnect.

## (A) Before Each Use Check For Any of the Following Conditions:

- 1.) Frayed wires
- 2.) Oil leaks
- 3.) Pinched or chafed hoses
- 4.) Structural deformation of arms, frame, and platform
- 5.) Unusual noise or binding

## (B) Monthly Inspections:

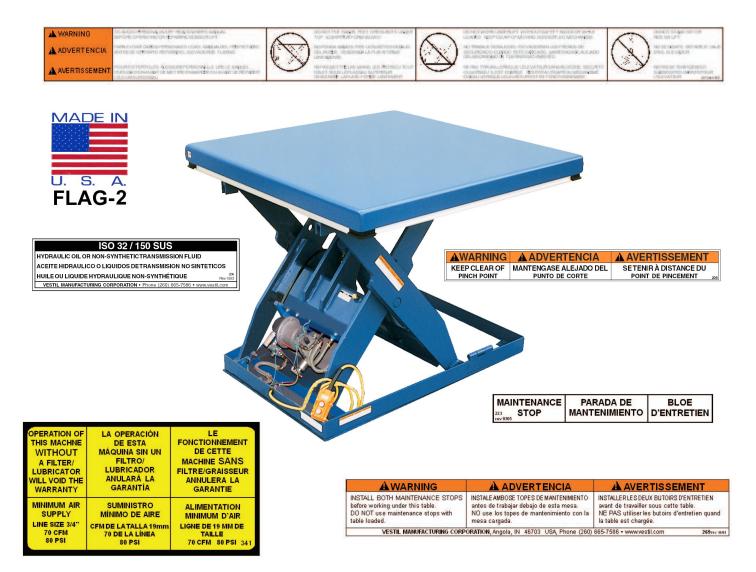
- 1.) Determine the oil level. Oil should be 1" to 1-1/2" below the top of the reservoir/tank with the deck fully lowered. Add oil, if necessary.
- 2.) Check for oil leaks (see "Troubleshooting" on p. 8-9). Resolve the issue as described.
- 3.) Check roller bushings, axle pins, clevises and pivot points for severe wear.
- 3.) Check the hydraulic system for worn or damaged hoses. Replace damaged hoses as necessary.
- 4.) Inspect each roller for looseness and severe wear. See "Troubleshooting" on p. 8-9.
- 5.) Examine the retaining rings at all axles, pivot points and clevises.
- 4.) Cycle the deck and listen for unusual noise. See "Troubleshooting" on p. 8-9.
- 5.) Make sure all labels are in place and in good condition, as shown in the label placement diagram on p. 11.
- 6.) Clean dirt and debris from all surfaces of the table.

## (C) Yearly

Change the oil at least once a year or sooner if it darkens, is gritty, or appears milky. Milky appearance indicates the presence of water. Replace the oil with AW-32 hydraulic fluid or its equivalent.

## LABEL PLACEMENT DIAGRAM

ALL LABELS MUST BE UNDAMAGED AND READABLE. ORDER REPLACEMENT LABELS WHEN NECESSARY.



CAPACITY	lbs.
CAPACIDAD/CAPACITÉ	kgs.
SERIAL/SERIE/SÉRIE	

<b>▲</b> WARNING	▲ ADVERTENCIA	<b>▲</b> AVERTISSEMENT
SECURE FRAME	ASEGURE EL	FIXER SOLIDEMENT
TO FLOOR	BASTIDOR AL PISO	LE CADRE AU PLANCHER

## LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective original part if the part is covered by the warranty, after we receive a proper request from the warrantee (you) for warranty service.

### Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

### What is an "original part"?

An original part is a part used to make the product as shipped to the warrantee.

### What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the Customer Invoice that displays the shipping date; AND 2) a written request for warranty service including your name and phone number. Send requests by any of the following methods:

Mail	<u>Fax</u>	<u>Email</u>
Vestil Manufacturing Corporation	(260) 665-1339	sales@vestil.com
2999 North Wayne Street, PO Box 507	<u>Phone</u>	
Angola, IN 46703	(260) 665-7586	

In the written request, list the parts believed to be defective and include the address where replacements should be delivered.

## What is covered under the warranty?

After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil may require you to send the entire product, or just the defective part or parts, to its facility in Angola, IN. The warranty covers defects in the following original dynamic components: motors, hydraulic pumps, electronic controllers, switches and cylinders. It also covers defects in original parts that wear under normal usage conditions ("wearing parts"), such as bearings, hoses, wheels, seals, brushes, and batteries.

#### How long is the warranty period?

The warranty period for original components is 1 year. The warranty period begins on the date when Vestil ships the product to the warrantee. If the product was purchased from an authorized distributor, the period begins when the distributor ships the product. Vestil may extend the warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

If a defective part is covered by the warranty, what will Vestil do to correct the problem? Vestil will provide an appropriate replacement for any covered part. An authorized representative of Vestil will contact you to discuss your claim.

What is not covered by the warranty?

- 1. Labor;
- 2. Freight;
- 3. Occurrence of any of the following, which automatically voids the warranty:
  - Product misuse;
  - Negligent operation or repair;
  - Corrosion or use in corrosive environments;
  - Inadequate or improper maintenance;
  - Damage sustained during shipping;
  - Collisions or other incidental contacts causing damage to the product;
  - Unauthorized modifications: DO NOT modify the product IN ANY WAY without first receiving written authorization from Vestil. Modification mght make the product unsafe to use or might cause excessive or abnormal wear.

Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope.