T & S Equipment Company

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Revised 12-97

A company dedicated to solving ergonomic and material handling problems since 1953.

OWNER'S MANUAL

Low Profile Scissor Table • Series EHLTX

WARNINGS & SAFETY INSTRUCTIONS

Read owner's manual completely before operating unit!

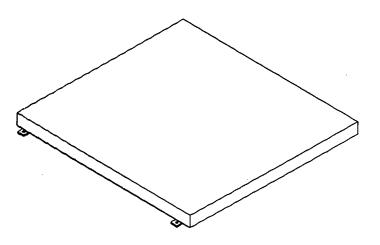
- * Not a personnel lift.
- * Be sure maintenance stop is locked in place before getting under platform.
- * Never go under platform if there is weight on unit.
- * Remove weight & disconnect power before working on unit.
- * Use only maintenance parts supplied or approved by the manufacturer.
- * Do not change pressure relief valve setting.
- * Do not clamp hydraulic cylinder in a vise as you may distort the barrel.
- * Never operate the lift unless you are watching it.
- * Load the lift as uniformly as possible.
- * Consult the factory for uneven loading.
- * Do not continue to operate the UP control if unit is not raising.
- * Relieve system pressure by operating the DOWN control after the unit has come to rest.
- * Consult factory if adding or performing any modification to the original equipment.
- * Do not use brake fluids or jack oils. Use AW-32 Hydraulic oil or equal.
- * Make sure all operator safety labels and guards are in place.

RECEIVING INSTRUCTIONS

Every unit is thoroughly tested and inspected prior to shipment. However, it is possible that the unit may incur damage during transit. If you see damage when unloading make a note of it on the SHIPPER RECEIVER. Remove all packing and strapping material, inspect for damage. IF DAMAGE IS EVIDENT, FILE A CLAIM WITH THE CARRIER IMMEDIATLY! Also, check the unit size, type of power unit, etc., to ensure the unit is correct for the intended application.

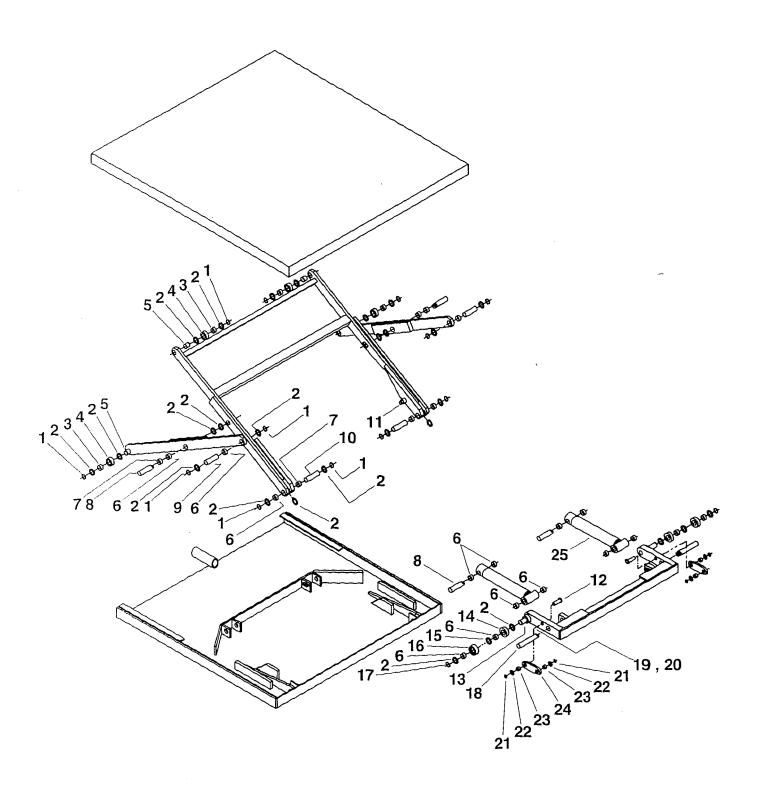
SERIAL NUMBER AND CAPACITY

The serial number and capacity are inscribed on the nameplate. Please remember to include these numbers in any correspondence with your dealer or the factory.



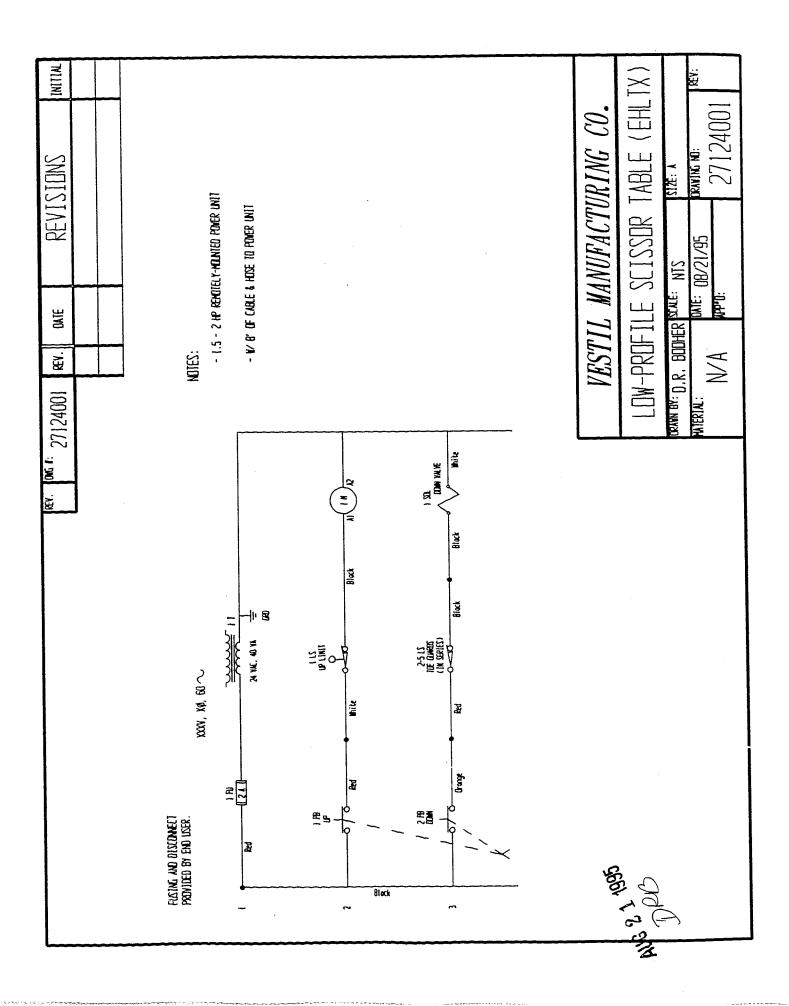
Low Profile Scissor Table • Series EHLTX

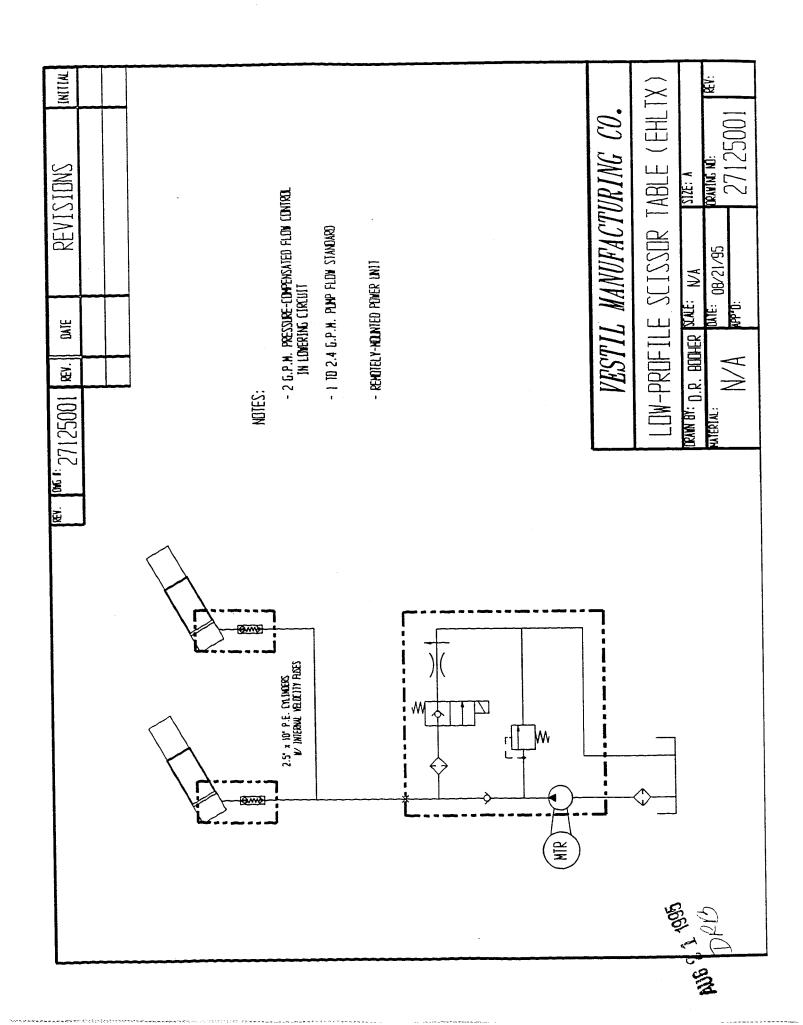
EHLTX (2000 POUNDS) SERIES • LOW PROFILE SCISSOR TABLE



PARTS IDENTIFICATION EHLTX (2000 POUNDS) SERIES • LOW PROFILE SCISSOR TABLE

ITEM NO.	DESCRIPTION	PART NO.	QTY
1	Snap Ring, 1-1/8" dia. (Fastenal)		12
2	Spacer, 1-1/8" I.D. x 18 ga.		26
3	Bearing, 1-1/8" I.D. x 5/8"	01111001	4
4	Roller, 2" dia. x 3/4"	27027001	4
5	Front Roller Pin, 1-1/8" x 1-5/8" (weldment required)	01112003	4
6	Bearing, 1-1/8" I.D. x 3/4"	01111002	18
7	Bearing, 1-1/8" I.D. x 1"	01111005	4
8	Axle / Upper Cylinder Pin, 1-1/8" dia. x 4.28"	05112003	4
9	Hinge Pin, 1-1/8" dia. x 1.81"	01112004	2
10	Leg Hinge Pin, 1-1/8" dia. x 3.62"	27112001	2
11	Lower Leg Pin, 3/4" dia. x 2-3/4" (weldment required)	27112002	2
12	Connecting Link Pin, 3/4" dia. x 2-3/4"	27612002	2
13	Back Roller Pin, 1-1/8" dia. x 4.20" (weldment required)	27112003	2
14	Roller, 2-3/8" dia. x 3/4"	27027003	2
15	Thrust Bearing, 1-1/8" I.D. x 2" O.D. x 0.058 thk	01115001	2
16	Roller, 2-3/8" dia. x 7/8"	27027002	2
17	Snap Ring, 1-1/8" dia. (Spirolox)	•	2
18	Lower Cylinder Pin, 1-1/8" dia. x 6"	01112001	2
19	Spacer, 3/4" dia. x 18 ga.		2
20	Spacer, 3/4" dia. x 10 ga.		6
21	Snap Ring, 3/4" dia. (Spirolox)		4
22	Spacer, 3/4" I.D. x 18 ga.		4
23	Bearing, 3/4" I.D. x 1/2"	01111008	4
24	Cylinder Connecting Link	27040001	2
25	Hydraulic Cylinder, 2" dia. x 10"	27021002	2





HYDRAULIC EQUIPMENT

Trouble Shooting Quick Reference Guide (For further information, refer to the owners manual, or contact the factory)

<u>BEFOREPERFORMINGANYMAINTENANCEWORKALWAYSUNLOADLIFTANDINSTALLMAINTENANCESAFETYBLOCK</u>

Observation	Possible Cause	Remedy	
Lift does not raise but pump is running or humming.	a, Motor may be single phasing (humming) if three phase unit.	a. Check wiring and overloads, fuses, etc. Ascertain that a 3 phase lines are present at the motor.	
	b. Voltage at motor terminals may be too low to run pump at existing load.	 b. Measure voltage at motor terminals or as near as possible, while pump is running under load. If voltage is sufficient, check for inadequate or incorred wiring as this can starve the motor. (Refer to chart in Owner's Manual for recommendations.) Correct as necessary. 	
	c. Hose or hydraulic line is leaking.	c. Correct as necessary.	
	d. Fluid level in reservoir is low.	d. Add fluid. Refer to Owner's Manual for proper fluid Levels.	
	e. Load exceeds capacity requirements. Relief Valve is bypassing the fluid back into the reservoir.	e. DO NOT CHANGE RELIEF VALVE SETTING. Instead, reduce the load to rated capacity.	
	f. Suction filter is clogged, starving pump.	f. Remove and clean.	
	g. Suction line may be leaking air, due to loose fittings.	g. Inspect all fittings for proper fit.	
	h. Filler/Breather cap on tank may be clogged.	h. Remove and clean.	
	i. Down Valve may be energized by faulty wiring or stuck open.	i. Remove Solenoid Valve. Check and clean. (Refer to Hydraulic Section of Owner's Manual.)	
	j. Hydraulic pump may be inoperative.	j. Disconnect hydrautic line at power unit. Put pressure line in a large container and cycle pump. If no output, check the pump motor coupling, which may be defective, and correct as necessary. If pump is worn, consult factory for replacement parts service.	
2.) Platform raises too slowly.	Foreign material stuck in Down Solenoid, causing some fluid to bypass back into tank.	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, 1(f), (h).	
	c. Low motor voltage.	c. See 1(b).	
	d. Lift overloaded.	d. See 1(e).	
	e. Pump is inoperative.	e. See 1(j).	
	a. Voltage may be low.	a. See 1(b).	
3.) Motor labors, or is excessively hot.	b, Incorrect wiring.	b. Check that one leg of the motor lines is not connected to ground.	
	 c. Oil starvation causes pump to bind. High internal heat is developed. If this occurs, pump may be permanently damaged. 	c. See 1(d), (f), (g), (h), (j).	
	d. Binding cylinders.	d. Align cylinders correctly.	
"Spongy" or "Jerky" Lift operation. Do not confuse spongy operation with small surges caused by foreign material on table wheel roller plate.	a. Fluid starvation.	a. See 1(d), (f), (g), (j).	
	a. Down Valve filter clogged.	a. Remove Solenoid Valve and clean filter.	
5.) Lift lowers too slowly when loaded.	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.	

6. Lift 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 Solenoid 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. Lift 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 may 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 may be worn or damaged.	d. Replace packings. (Refer to Hydraulic Section of Owner's Manual. Consult Factory for replacement parts.)
8. Lift has raised, but does not lower.	a. Blown electrical fuse.	a. Check and replace.
	b. Incorrect Down Solenoid Valve wiring.	b. Correct as necessary. (Refer to Electrical Section of Owner's Manual.)
	c. Down Solenoid Valve is stuck.	c. Lightly tap down 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 as the unit will come down at a dangerous speed.
	d. Faulty Down Solenoid Coil.	 d. Remove and replace. (Refer to Electrical Section of Owner's Manual.
	e. Maintenance safety bar, or some other object blocking down trave.	 Raise table and remove the safety bar, or whatever object is blocking the down travel, then press the down button.
	f. Binding cylinders.	f. See 2(e).
	g. In case of excessive down speeds, the Velocity Fuse will become operative and shut off the oil flow from the cylinders, thus the platform will remain stationary.	g. To unlock, repressurize the hydraulic system.
	 h. Check if the Limit Switch is inoperative and the platform has raised all the way so that the mechanical stops are engaged. If mechanical stops are engaged, the Velocity Fuse has been locked up. 	h. Refer to Velocity Fuse Section of the Owner's Manual.
9. Erratic or uncontrolled operation.	a. Low battery (DC units only).	Adequately charge battery before further operation. (Refer to Charging Section of Owner's Manual.)

Notes:

LIMITED WARRANTY

ONE YEAR LIMITED WARRANTY. The manufacturer warrants for the original purchaser against defects in materials and workmanship under normal use one year after date of purchase. (Not to exceed 15 months after date of manufacture.) Any part which is determined by the manufacturer to be defective in material or workmanship and returned to the factory, shipping costs prepaid, will be, as the exclusive remedy, repaired or replaced at our option. Labor costs for warranty repairs and/or modifications are not covered unless done at manufacturer's facilities. Any modifications performed without written approval of the manufacturer may void warranty. This limited warranty gives purchaser specific legal rights which vary from state to state.

LIMITATION OF LIABILITY. To the extent allowable under applicable law, the manufacturer's liability for consequential and incidental damages is expressly disclaimed. The manufacturer's liability in any event is limited to, and shall not exceed, the purchase price paid.

Misuse or modification may void warranty.

WARRANTY DISCLAIMER. Our company has made a diligent effort to illustrate and describe the products shown accurately; however, such illustrations and descriptions are for the sole purpose of identification, and do not express or imply a warranty that the products are merchantable, or fit for a particular purpose, or that the products will necessarily conform to the illustrations or descriptions.

The provisions of the warranty shall be construed and enforced in accordance with the UNIFORM COMMERCIAL CODE and laws as enacted in the State of Indiana.

DISPOSITION. Our company will make a good faith effort for prompt correction or other adjustment with respect to any product which proves to be defective within the Limited Warranty. Warranty claims must be made in writing within said year.

SERVICE RECORD

DATE OF SERVICE:/ WORK DONE BY: SERVICE PER- FORMED:
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