



HANDLE-ITTM
M I E Q U I P M E N T

Light Duty Scissor Lift Manual



PO Box 26335 · Milwaukee, WI 53226 · Toll Free 1-800-236-1080 · Fax 414-453-9975



Operation and Maintenance manual for Light Duty Lift Tables.

Introduction	2
Installation.....	2
Inspection	2
Installing.....	2
Electrical	3
Hydraulics	3
Testing	3
Operation	4
Method Of Operation	4
Operating Procedures.....	5
Maintenance	5
Routine Maintenance	5
Trouble Shooting Maintenance	6
Scissors Lift Will Not Move	6
Figure 1: For Light Duty Series Lift Tables.....	7
Frame.....	7
Pivot Pins	7
Bushings	7
Cylinders	8

Introduction

This manual attempts to provide all of the information necessary for the safe and proper installation, operation, maintenance and trouble shooting of Handle-It Light Duty Lift tables.

The Light Duty Lift has a nameplate, which provides the load capacity (lbs), serial number, drawing number, and date of manufacturing. Please refer to these numbers when ordering parts, or requesting further information.

Safety

Do not install or operate this Light Duty Lift without carefully reading this manual.

Warning

- Do not perform any repair or work on Light Duty Lift with the platform in the raised position.
- All personnel must stand clear of the machine when platform is in motion.
- Do not put hands or feet under platform when in motion.
- Do not stand, sit or climb on the scissors lift.
- Do not use on soft, uneven or unstable surfaces.
- Do not exceed load capacity.

Installation

Inspection

Upon receipt of the Light Duty Lift, inspect the equipment completely, to determine if there is any shipment damage and the Light Duty Lift is complete. Do not use the Light Duty Lift if there is any damage. With the Light Duty Lift in the Down position, check the following.

- (1) Signs of damage especially to the electrical cables, and hydraulic hoses.
- (2) Check connections for tightness. Is there hydraulic liquid visible?
- (3) Check the base frame for flatness.
- (4) Inspect for any bent or damaged metal parts.

Installing

Before starting, make sure that the electrical system is wired and there is full compliance with local electrical codes and ordinances.

Read all instruction prior to starting the Light Duty Lift.

- a) Make sure that the floor in the installation area is flat, stable and free from dirt and surface defects.
- b) Place the Light Duty Lift in exact operating position.

Caution: When moving the Light Duty Lift, it should be picked up by the base frame only, the use of straps or slings is suggested.

- c) The Light Duty Lift is provided with anchor holes or brackets, be sure the scissors lift has been placed in the exact operating position before spotting or drilling holes for anchor bolts. Bolt the lift, securely before using it.

Electrical

Caution: All wiring must conform to local codes and must be performed by licensed electricians.

The following chart recommends power supply for various motors supplied with Light Duty Lift.

Motor Size	Fuse	Breaker
1/2 HP 115V, 1 Phase	30 AMP	25 AMP
1/2 HP 208-230V, 1 Phase	25 AMP	20 AMP
1 HP 230V, 3 Phase	15 AMP	10 AMP
1 HP 460V, 3 Phase	7.5 AMP	5 AMP
1 HP 575V, 3 Phase	7.5 AMP	5 AMP

Warning: Do not tamper or remove cover of the electrical junction box. Only authorized qualified personnel should service the electrical systems.

Important: Motor direction is critical. Make sure motor rotates according to the direction arrow on motor frame.

Hydraulics

- (1) Use CSR Dextron III automatic transmission fluid or equivalent, tank capacity varies per unit.
- (2) Before using the Light Duty Lift, check the hydraulic oil level and add oil if necessary. Check fittings for tightness.

Testing:

- (1) Before testing the Light Duty Lift, clear the area of any loose material. Be sure the scissors lift has no obstructions. Using the controls provided, briefly

operate Light Duty Lift (5-10 sec.). If the Light Duty Lift begins to rise with humming sound and function properly continue to the full upright position.

Caution: If the Light Duty Lift does not rise immediately or there is any operational problem, stop it immediately. Before continuing, check the rotation of the pump and the voltage at motor terminals. If the Light Duty Lift does not move smoothly with a humming sound stop and review the procedures in the section on trouble shooting.

- (2) After raising the Light Duty Lift completely, lower the Light Duty Lift. It should move slowly and smoothly without humming sound. If the Light Duty Lift operates properly, raise and lower the Light Duty Lift and stop at different levels to get a good perspective on the Light Duty Lift operations and movements.

Operation

Method of Operation

All Handle-It Light Duty Lifts are provided with a special factory preset relief valve for maximum safe capacity (See name plate). Activating and holding the up switch will energize the motor. The motor is coupled to a positive displacement pump, which draws hydraulic fluid from the reservoir and transfers it under pressure to the cylinder. This forces the piston forward and the platform will raise. Relieving the up button will stop the Light Duty Lift. A check valve in the pump holds the Light Duty Lift in position.

Depressing and holding the down switch will energize a solenoid, which in turn, allows the oil from the cylinder to return to the reservoir through an adjustable flow control valve. This allows the Light Duty Lift to lower smoothly and at a controlled speed.

Caution: Do not maintain the switches energized if the Light Duty Lift does not move, or has reached its up or down limits. This may cause damage to the motor, pump and controls.

The Light Duty Lift is also equipped with a hydraulic velocity fuse mounted on the cylinder port. The fuse will stop the flow of oil (lock up) if it reaches 6 GPM.

This is a safety device and will stop the load from falling in case of a hose rupture.

Warning: If the manual flow control valve is set too wide open, the velocity fuse may lock up.

Operating Procedures

In order to operate the Light Duty Lift, follow these operating procedures.

Read and understand all the instructions before operating.

Load the Light Duty Lift correctly.

- a) Do not load the Light Duty Lift while its running.
- b) Do not exceed the maximum rated load.
- c) Position load, so it will be centered.
- d) Wait till the Light Duty Lift has come to complete stop before unloading the Light Duty Lift.

Stand clear of the Light Duty Lift when operating it in order to avoid injury.

- a) Do not stand, sit or climb onto the Light Duty Lift.
- b) If the Light Duty Lift fails to move or exhibits strange movement or sound, **STOP** immediately. Do not operate the Light Duty Lift until it has been checked and repaired.

Maintenance

Generally the Handle-It Light Duty Lift will require little maintenance. However routine maintenance and inspection will minimize costly repairs or hazardous conditions.

Warning: Never go under, or service a Light Duty Lift, without having safety blocks on the camfollower track (see Fig. 1).

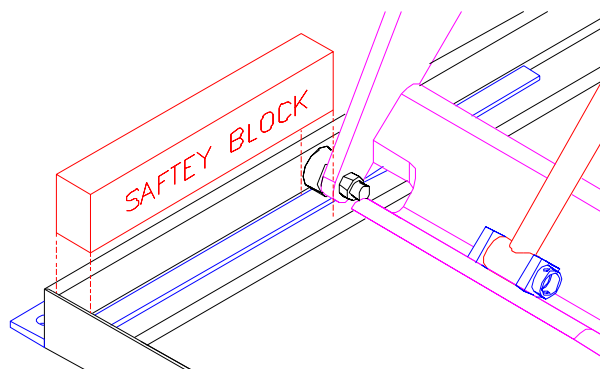


Fig. 1

Routine Maintenance

All routine maintenance should be performed monthly. Before performing any maintenance, shut the power off. Perform the routine listed checks.

- (1) Check oil level. Add oil to the reservoir if necessary.
- (2) Check pivot bushings and pins for wear.
- (3) Make sure all pins are secured and retained.

Warning: Great damage and possible injury can occur if pivot pins or cylinder pins come loose.

- (4) Check hydraulic lines for damage or leakage. Replace if damaged.
- (5) Check for wiring damage. Replace immediately if any sign of wear is evident.
- (6) Bushings on pivot pins are permanently lubricated and require no servicing.

Trouble Shooting Maintenance

Scissors Lift Will Not Move

No operational noises

- a) Check power switch, fuses and overloads.
- b) Check voltage on motor. Motor may have failed.

Operational noises:

- a) Light Duty Lift may be overloaded or jammed. Check load weight and obstruction.
- b) Motor (3 phase) single phasing. Check voltage at motor terminals.
- c) Motor (1 phase) low voltage. Check voltage at motor terminal.
- d) Oil shortage--- reservoir low or oil line failure. Repair or replace.
- e) Solenoid valve is stuck open, because of dirt, unscrew from pump and clean or replace cartridge.

Light Duty Lift will not go down:

- a) Velocity fuse may be locked up. Close flow control valve a few turns (clockwise). Press up button for a few seconds and then try again to go down. There is a distinct clicking sound if velocity fuse is locked up.
- b) Down solenoid faulty (burned out). Check continuity of coil.

Light Duty Lift will descend by itself:

- a) Cylinder seal might leak. Replace seal or cylinder.
- b) Check valve in pump, may not be seating. Requires new pump.
- c) Solenoid valve is stuck open, because of dirt. Unscrew and clean, or replace cartridge.

Figure 1: for Light Duty series Lift Tables

				Quantities Required Regardless Of Base Width by Model Number			
				<i>Light Duty Series Tables</i>			
				1 000 lbs Cap.		1 500 lbs Cap.	
				24	36	24	36
NO	Part No	Supply No	Description	Vertical Travel in Inches			
1	Frame	-	Base Assembly				
2		-	Inner Leg Assembly				
3		-	Outer Leg Assembly				
4		-	Platform Assembly				
5	0741	HHCS1.25-1	¼ Hex Bolt 1 lg		4		
6	P0014	S-PIN-1-4.375	Upper cylinder pin Ø 1 x 4 3/8 lg		1		
7	P0013	S-PIN-1-3.625	Lower Cylinder Pin Ø 1 x 3 5/8 lg		1		
8	0114	S-PIN-.75-1.5	Upper/Lower Hinge Pin Ø ¾ x 1 ½ lg		4		
9	P0012	S-PIN-1-3.25	Main Pivot Pin Ø 1 x 3 ½ lg		2		
10	Bushings	0601	B1620-16	Main Pivot Flange Bushing 1 ID x 1 ¼ OD x 1 lg		2	
11		5604	B1214-4	Upper/Lower Hinge Bushing ¾ ID x 7/8 OD x ½ lg		4	
12		0603	B1618-12	Upper cylinder Bushing 1 ID x 1 1/8 OD x 1 ½ lg		2	
13		0602	B1618-16	Lower cylinder Bushing 1 ID x 1 1/8 OD x 2 lg		1	
14		5634	CF-LDL-1.875	Upper/Lower Cam Roller Ø 1 7/8		4	
15		0630	SS3236-16	Bushing 1 x 1 1/8 x 1 lg		4	
16	0702	CP-1.125-2	Cotter Pin 1 1/8 x 2		2		
17	0742	W-1.25	Plain Washer		2		
18	0701		3/16 Roll pin		2		
19	0320	F18	Breather Plug ¼		1		
20	2302	CYL-257.5-45-1	Cylinder 2 ½ x 7.5 Stroke-45° Ports		1		1
	5370	CYL-255.5-45-1	Cylinder 2 ½ x 5.5 Stroke-45° Ports	1		1	
21	0305	VF5	Velocity Fuse 5 GPM		1		
22	0310	Seal Kit	Please Provide Serial #				
23	0307	5500-4-4	Elbow Fitting ¼ - 90°				
24	0306		Male-male elbow				
25	0315		Hydraulic hose				
26	0312		Female-female elbow				
27	0308	5504-4-4	Hex nipple				
28	0317		Bushing 3/8 male ¼ female				
29							

*Note Part NO are Subject to Change.

Figure 2: Power Types for Light Duty series Lift Tables

				Quantities Required Regardless Of Base Width by Model Number			
				<i>Light Duty Series Tables</i>			
				1 000 lbs Cap.		1 500 lbs Cap.	
				24	36	24	36
				Vertical Travel in Inches			
NO	Part No	Supply No	Description				
1	2501**	27M	12 Volt Battery (Deep Cycle)	1			
2	0529		12 Volt 5 Amp Charger (c/w ring Terminals)	1			
3	06412		Power Pack 12 Volt	1			
4	2608		6" Swivel Caster	1			
5			PB Cover	1			
6	0450		Manual Foot Pump	1			
7	5610		Front 5" Wheel	2			
8	P0011		Front Roller Pin	2			

*Note Part NO are Subject to Change.

**For Battery Purchases Please consult Factory.