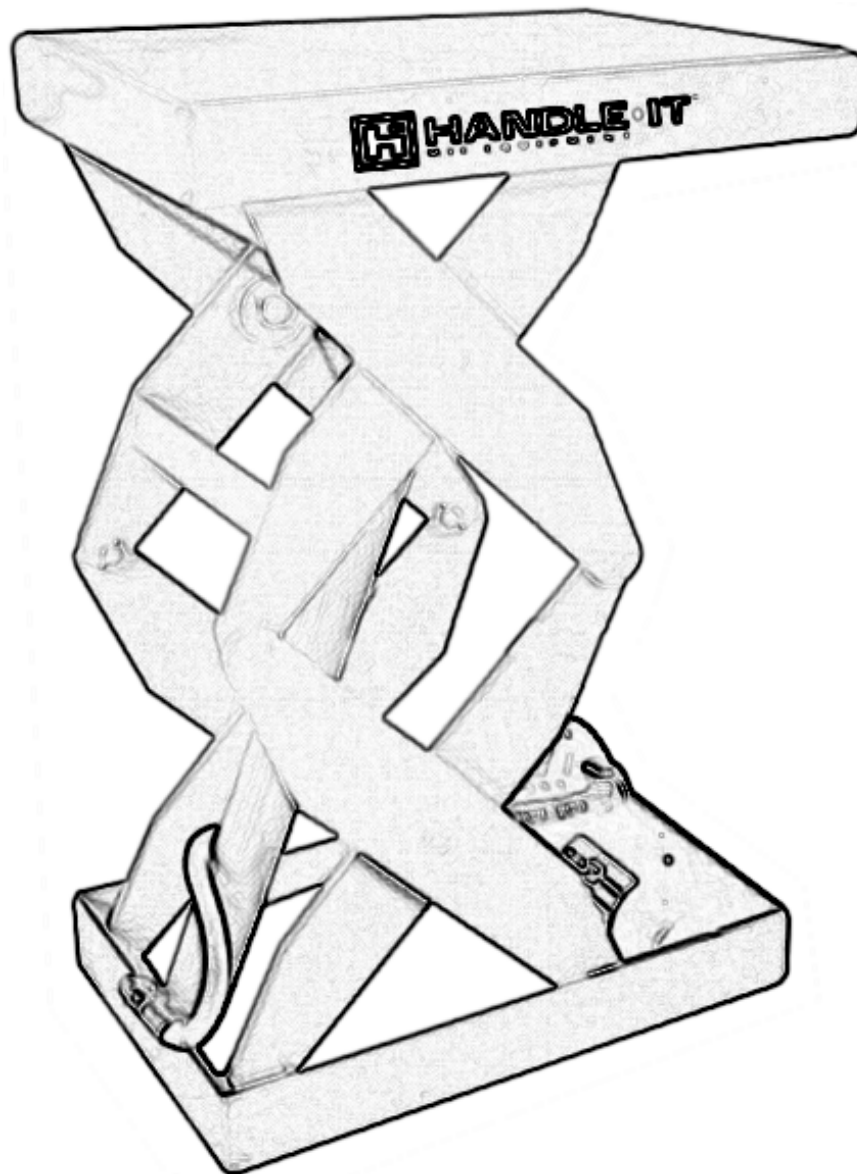




HANDLE-IT™
M I I E Q U I P M E N T

Double Scissor Lift Manual



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Operation and Maintenance manual for Double Scissor Lifts.

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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 Scissor Lift tables.

The Scissor 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 Scissor Lift without carefully reading this manual.

Warning

- **Do not perform any repair or work on this Scissor 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

A. Inspection

Upon receipt of the Scissor Lift, inspect the equipment completely, to determine if there is any shipment damage and the Scissor Lift is complete. Do not use the Scissor Lift if there is any damage. With the Scissor 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.

B. 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 Scissor Lift.

- a) Make sure that the floor in the installation area is flat, stable and free from dirt and surface defects.

- b) Place the Scissor Lift in exact operating position.

Caution

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

- c) The Scissor 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.

C. 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 this Scissor Lift.

Motor Size	Fuse	Breaker
1 HP 115V, 1 Phase	30 AMP	25 AMP
1 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.

D. Hydraulics

- (1) Use CSR Dextron III automatic transmission fluid or equivalent, tank capacity varies per unit.

- (2) Before using the Scissor Lift, check the hydraulic oil level and add oil if necessary. Check fittings for tightness.

E. Testing:

- (1) Before testing the Scissor Lift, clear the area of any loose material. Be sure the scissors lift has no obstructions. Using the controls provided, briefly operate Scissor Lift (5-10 sec.). If the Scissor Lift begins to rise with humming sound and function properly continue to the full upright position.

Caution

If the Scissor 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 Scissor Lift does not move smoothly with a humming sound stop and review the procedures in the section on trouble shooting.

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

Operation

A. Method of Operation

All Handle-It Scissor 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 Scissor Lift. A check valve in the pump holds the Scissor 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 Scissor Lift to lower smoothly and at a controlled speed.

Caution

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

The Scissor 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.

B. Operating Procedures

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

Read and understand all the instructions before operating.

Load the Scissor Lift correctly.

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

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

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

Maintenance

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

Warning

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

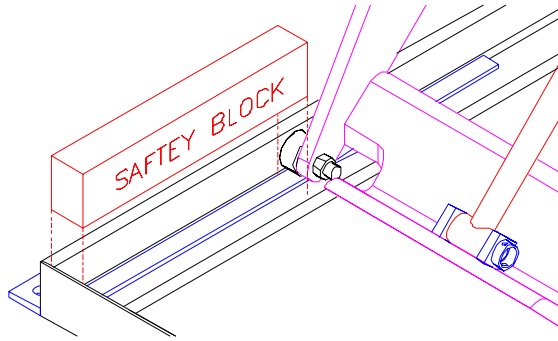


Fig. 1

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

1) No operational noises

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

2) Operational noises:

- a) Scissor 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.

3) Scissor 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.

4) Scissor 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.

