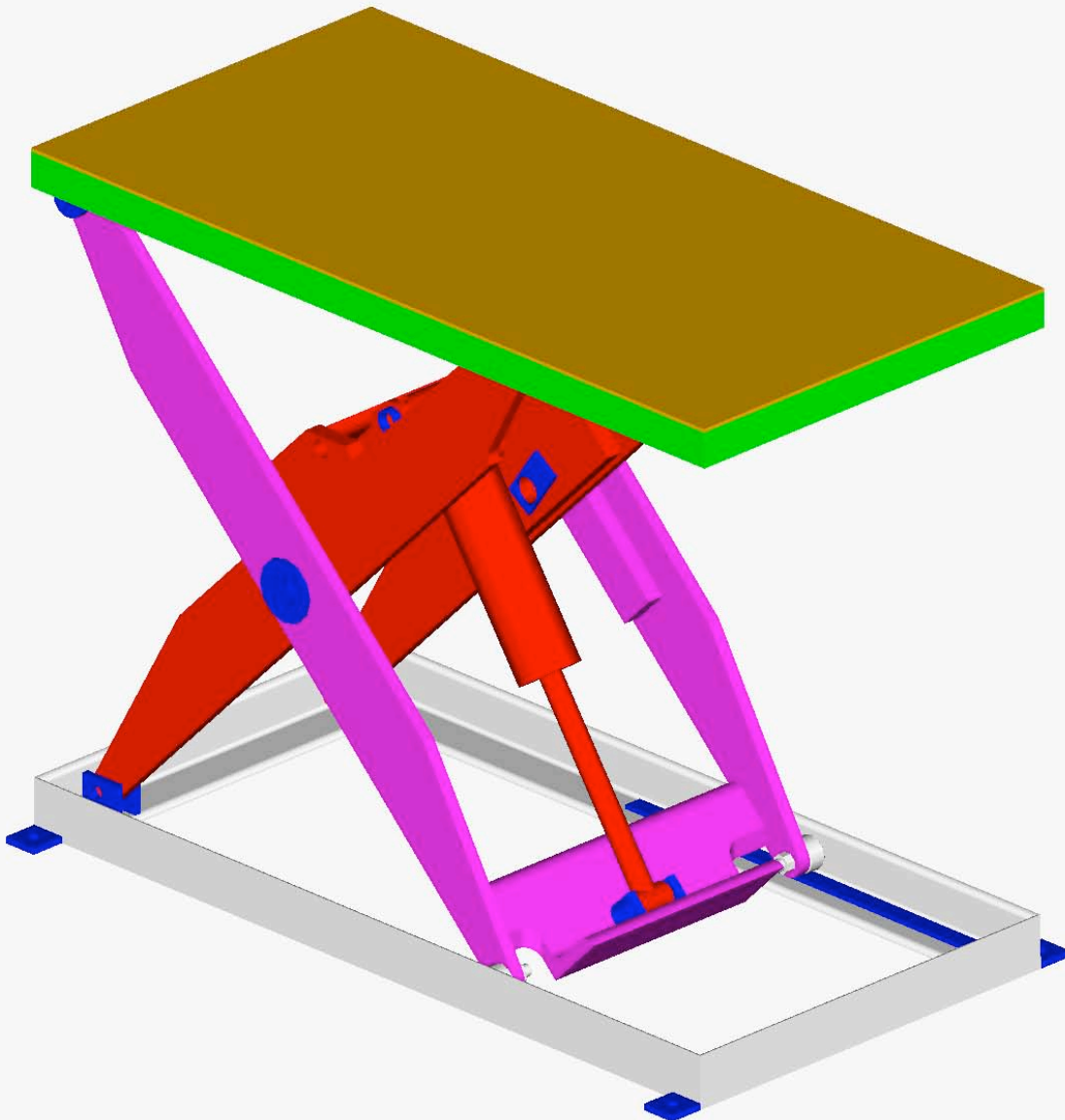


**ECONO LIFT “SL” SERIES SCISSOR LIFT
OWNERS MANUAL**



**Operation and Maintenance manual for
“SL” Series Scissors Lift.**

INTRODUCTION	3
INSTALLATION	3
<u>A. INSPECTION</u>	<u>3</u>
<u>B. INSTALLING</u>	<u>3</u>
<u>C. ELECTRICAL</u>	<u>4</u>
<u>D. HYDRAULICS</u>	<u>4</u>
<u>E. TESTING:</u>	<u>4</u>
OPERATION	5
<u>A. METHOD OF OPERATION</u>	<u>5</u>
<u>B. OPERATING PROCEDURES</u>	<u>5</u>
READ AND UNDERSTAND ALL THE INSTRUCTIONS BEFORE OPERATING.	6
LOAD THE SCISSOR LIFT CORRECTLY.	6
STAND CLEAR OF THE SCISSOR LIFT WHEN OPERATING IT IN ORDER TO AVOID INJURY.	6
MAINTENANCE	6
<u>ROUTINE MAINTENANCE</u>	<u>6</u>
TROUBLE SHOOTING MAINTENANCE	7
<u>SCISSORS LIFT WILL NOT MOVE</u>	<u>7</u>
ECONOLIFT WARRANTY POLICY	8
FIGURE 1: FOR “SL” SERIES LIFT TABLES	9
SL SERIES TABLES	9
<i>Frame</i>	9
<i>Pivot Pins</i>	9
<i>Bushings</i>	9
<i>Cylinders</i>	9

Introduction

This manual attempts to provide all of the information necessary for the safe and proper installation, operation, maintenance and trouble shooting of Econolift **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 **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 **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 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 Econolift **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 Econolift **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).

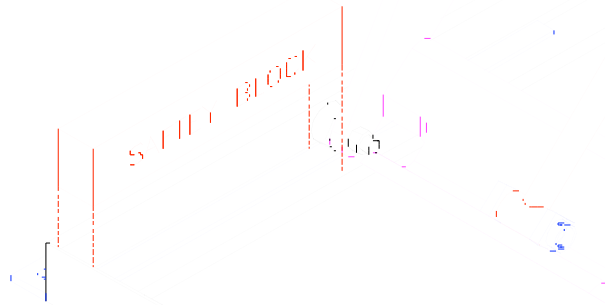


Fig. 1

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.

Note:

For **Scissor Lifts** with internally mounted Power Packs the platform might have to be tilted up to gain access to the electrical box and Power Pack.

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.

Econolift Warranty Policy

If any materials, parts or complete units prove defective, and providing claim is made within 80 days after shipment, we will replace or repair, at our option, the defective items.

Service is not covered by the factory, service is the dealer's responsibility. On purchased parts, we pass along the manufactures warranty.

Individual part warranties are also passed along i.e.:

1. Pump (power systems) one year warranty.
2. Battery
 - First six months, straight exchange.
 - Six months to twenty four months, exchange on pro-rated schedule.
3. Cylinder
 - One year warranty

All warranties are subject to the individual manufactures exclusions.

Figure 1: for “SL” series Lift Tables

				Quantities Required Regardless Of Base Width by Model Number															
				<i>SL Series Tables</i>															
				2 000 lbs Cap.			4 000 lbs Cap.			6 000 lbs Cap.			8 000 lbs Cap.			10 000 lbs Cap.			
				Vertical Travel in Inches															
NO	Part No	Supply No	Description	36	42	48	36	42	48	36	42	48	36	42	48	36	42	48	
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	6															
6	Pivot Pins	0111	S-PIN-1-5.5	Upper cylinder pin □ 1 x 5 ½ lg	1			2			3								
		0112	S-PIN-1.25-7.25	Upper Cylinder Pin □ 1 ¼ x 7 ¼ lg										2	3	2	3		
7		0110	S-PIN-1.25-7.25	Lower Cylinder Pin □ 1 x 3 3/8 lg	1			2			3								
		0113	S-PIN-1.25-3.25	Lower Cylinder Pin □ 1 ¼ x 3 ¼ lg										2	3	2	3		
8		0114	S-PIN-.75-2.25	Upper/Lower Hinge Pin □ ¾ x 2 ¼ lg	4														
		0115	S-PIN-1.25-2.625	Upper /Lower Hinge Pin □ 1 ¼ x 2 5/8 lg	4														
9		0116	S-PIN-1.25-4.25	Main Pivot Pin □ 1 ¼ x 4 ½ lg	2														
		0117	S-PIN-1.5-4.5	Main Pivot Pin □ 1 ½ x 6 ¼ lg	2														
	0118	S-PIN-1.75-5.375	Main Pivot Pin □ 1 ¾ x 5 3/8 lg	2															
10	Bushings	5601	FB2024-6	Main Pivot Flange Bushing 1 ¼ ID x 1 ½ OD x ¾ lg	2														
		5602	FB2428-12	Main Pivot Flange Bushing 1 ½ ID x 1 ¾ OD x 1 ½ lg	2														
		5603	FB5672-40	Main Pivot Flange Bushing 1 ¾ ID x 2 ¼ OD x 2 ½ lg	2														
		11	5604	B1214-4	Upper/Lower Hinge Bushing ¾ ID x 7/8 OD x ½ lg	4													
5605			SS-4048-20	Upper/Lower Hinge Bushing 1 ¼ ID x 1 ½ OD x 1 ¼ lg	4														
12		0603	B1618-12	Upper cylinder Bushing 1 ID x 1 1/8 OD x 1 ½ lg	1			2			3								
		0627	B1618-16	Upper cylinder Bushing 1 ¼ ID x 1 ½ OD x 2 lg										2	3	2	3		
13		0602	B1618-16	Lower cylinder Bushing 1 ID x 1 1/8 OD x 2 lg	2			4			6								
	0627	B2024-16	Lower Cylinder Bushing 1 ¼ ID x 1 ½ OD x 2 lg										4	6	4	6			
14	6604	CF 1 7/8	Upper/Lower Camfollower □ 1 7/8 c/w nut	4															
	6605	CF 3	Upper/Lower Camfollower □ 3 c/w nut	4															
15	0702	CP-1.125-2	Cotter Pin 1 1/8 x 2	4															
16	0742	W-1.25	Plain Washer	4															
17	746	SCC-.375-.5	Socket set Screw 3/8 x ½ lg Cone Point							3			2	3	2	3			
18	0320	F18	Breather Plug ¼	1			2			3			2	3	2	3			
19	Cylinders	5361	CYL-3010-180-1	Cylinder 3 x 10 Stroke-45° Ports (SK197)	1			2			3								
		6302	CYL-3014-180-1	Cylinder 3 x 14 Stroke - 45° Ports (SK197)			1			2			3						
		2302	CYL-4010-180-1	Cylinder 4 x 10 Stroke - 180° Ports											2			2	
		2303	CYL-4075-180-1	Cylinder 4 x 7 ½ Stroke - 180° Ports											2			2	
		2307	CYL-4014-180-1	Cylinder 4 x 14 Stroke - 180° Ports												3		3	
20	0305	VF5	Velocity Fuse 5 GPM	1			2			3			2	3	2	3			
21	0310	Seal Kit	Please Provide Serial #	1			2			3			2	3	2	3			
22	0307	5500-4-4	Elbow Fitting ¼ - 90°	1			2			3			2	3	2	3			
23	0306		Male-male elbow																
24	0315		Hydraulic hose	1			1			1			1	3	1	3			
25	0312		Female-female elbow	1			2			3			2	3	2	3			
26	0308	5504-4-4	Hex nipple																
27	0317		Bushing 3/8 male ¼ female																

Note Part NO are Subject to Change.

Figure 1: for "SL" series Lift Tables

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				2 000 lbs Cap.			4 000 lbs Cap.			6 000 lbs Cap.			8 000 lbs Cap.			10 000 lbs Cap.			
				Vertical Travel in Inches															
NO	Part No	Supply No	Description	36	42	48	36	42	48	36	42	48	36	42	48	36	42	48	
28	Turn Table Attachments	SK420-3-0	Pin for Bearing (6205-2RS)																8
29		5623	Bearing																8
30			¼ Hex head bolt																16
31			¼ flat washer																32
32			¼ lock washer																32
33			¼ nut																32
34			0103	Arm spring detent for															1
35			5624	Bearing															1
36			0650	Spring															1
37			CSK420-5-0A	Manual locking spring detent															1
38			0628	½ flange bushing															1
39			5625	Snap sing															1
40			0744	½ shoulder bolt															1
41				½ lock washer															1
42				½ flat washer															1
43																			

Note Part **NO** are Subject to Change.

