



INSTRUCTION MANUAL
HYDRAULIC ELEVATING CART
MODELS: CART-550-SS & CART-1100-SS



MODEL NO. _____
SERIAL NO. _____

VESTIL MANUFACTURING CORP.

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We produce two models of stainless steel hydraulic elevating cart: CART-550-SS & CART-1100-SS. Both models are equipped with a two speed hydraulic pump. Each unit conforms to the generalized specifications disclosed in this manual and fulfills our demanding standards for quality, safety and durability.

SAFETY PRINCIPLES

Vestil Manufacturing Corp. recognizes the critical importance of workplace safety. Each person who **might** participate in the assembly, use, operation, or maintenance of the product must read this manual. **Read the entire manual and fully understand the directions BEFORE using or maintaining the cart. If you do not understand an instruction, contact Vestil for clarification. Failure to adhere to the directions in this manual might lead to serious personal injury or even death.**

Vestil is **not liable** for any injury or property damage that occurs as a consequence of failing to apply the safe operation and maintenance procedures explained in this manual or that appear on labels affixed to the product. Failure to exercise good judgment and common sense may result in property damage, serious personal injury, or death, and also are **not the responsibility of Vestil.**

This manual applies the hazard identification methods suggested for instruction manuals by the American National Standards Institute (ANSI) in ANSI standard Z535.6-2006. In accordance with ANSI guidelines for hazard warning language, this manual identifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. These signal words announce an associated safety message. The reader must understand that the signal word chosen to identify a particular safety hazard categorizes the seriousness of that hazard according to the following convention:

These symbols identify hazards that may result in personal injury

DANGER

Identifies a hazardous situation which, if not avoided, **WILL** result in **DEATH** or **SERIOUS INJURY**. Use of this signal word is limited to the most extreme situations.

WARNING

Identifies a hazardous situation which, if not avoided, **COULD** result in **DEATH** or **SERIOUS INJURY**.

CAUTION

Indicates a hazardous situation which, if not avoided, **COULD** result in **MINOR** or **MODERATE** injury. Although Z535.6-2006 approves the use of "CAUTION" without an accompanying safety alert symbol (black equilateral triangle with yellow exclamation point) as an alternative to "NOTICE", this manual differentiates between hazards that pose a risk of personal injury and those that create mere property damage situations. In this manual, "**CAUTION**" appears exclusively in conjunction with the safety alert symbol to identify injury risks.

NOTICE

Identifies practices not related to personal injury, such as operation that could damage the cart. No safety alert symbol (equilateral triangle enclosing an exclamation point) accompanies this signal word.

TABLE OF CONTENTS

	<u>PAGE</u>
Safety Principles	2
Product Introduction	4
Safety Guidelines	4
Parts List	6, 8
Use Instructions	10-12
Loading	10
Lift Table Operation	11
Hydraulic System Operation	11-12
Maintenance & Inspections	13
Troubleshooting	14

TABLE OF FIGURES

FIG. 1:	CART-550-SS Exploded Parts Diagram	5
FIG. 2:	CART-110-SS Exploded Parts Diagram	7
FIG. 3:	Hydraulics Diagram	9
FIG. 4:	Spline and Pin Connection	9
FIG. 5:	Handle Insertion	9
FIG. 6:	Pedal Attachment	9
FIG. 7A & 7B:	Proper Load Positioning (Top View & Side View)	10
FIG. 8:	Caster Brake Lever	11
FIG. 9:	Hydraulic Control Pedal Positions	12
FIG. 10:	Maintenance Prop Installation	12
FIG. 11:	Label Placement	15

PRODUCT INTRODUCTION



Thank you for purchasing a hydraulic elevating cart (“cart,” “scissor lift cart,” “product,” “unit,” or simply referenced by model number) made by Vestil Manufacturing Corporation (“Vestil”). Our carts are durable, high-quality products that combine safety features and low-maintenance stainless steel mechanisms. Despite the product’s relatively simple mechanics, all personnel must familiarize themselves with the safe operation instructions provided in this manual.

Specifications for the two stainless steel cart models appear in the table below:

	Net Wt. (lbs.)	Platform Size (W x L) in inches	Vertical Range of Motion (in.)	Capacity (lbs.)
CART-550-SS	160	19 -1/2" x 31-1/2"	9-3/4" to 33-1/2"	550
CART-1100-SS	240	23-1/2" x 35-1/2"	13" to 38 1/2 "	1,100

Vestil Manufacturing Corp. created this manual to acquaint owners and users of our stainless steel carts with safe use and maintenance procedures. **Employers are responsible for instructing employees to use the product properly. Employees and any other persons, who might foreseeably use, repair, or perform maintenance on the cart must read and understand every instruction before using the device. Cart operators should have access to the manual at all times and should review the directions before each use. Contact Vestil for answers to any question you have after reading the entire manual.**

Although Vestil strives to identify foreseeable hazardous situations, this manual cannot address every conceivable danger. The end-user is ultimately responsible for exercising sound judgment at all times.

SAFETY GUIDELINES

Failure to read and understand the instructions included in this manual before using or servicing the cart constitutes misuse of the product.

Study the entire manual before you use the cart for the first time and before each subsequent use. Read the manual to refresh your understanding of the safe use and maintenance procedures that appear on p. 10-13. If questions remain after you finish reading the manual, contact Vestil for answers. DO NOT attempt to resolve any problems with the cart unless you are certain that it will be safe to use afterwards.



Electrocution Risk: DO NOT contact live electrical wires with the cart or the load!



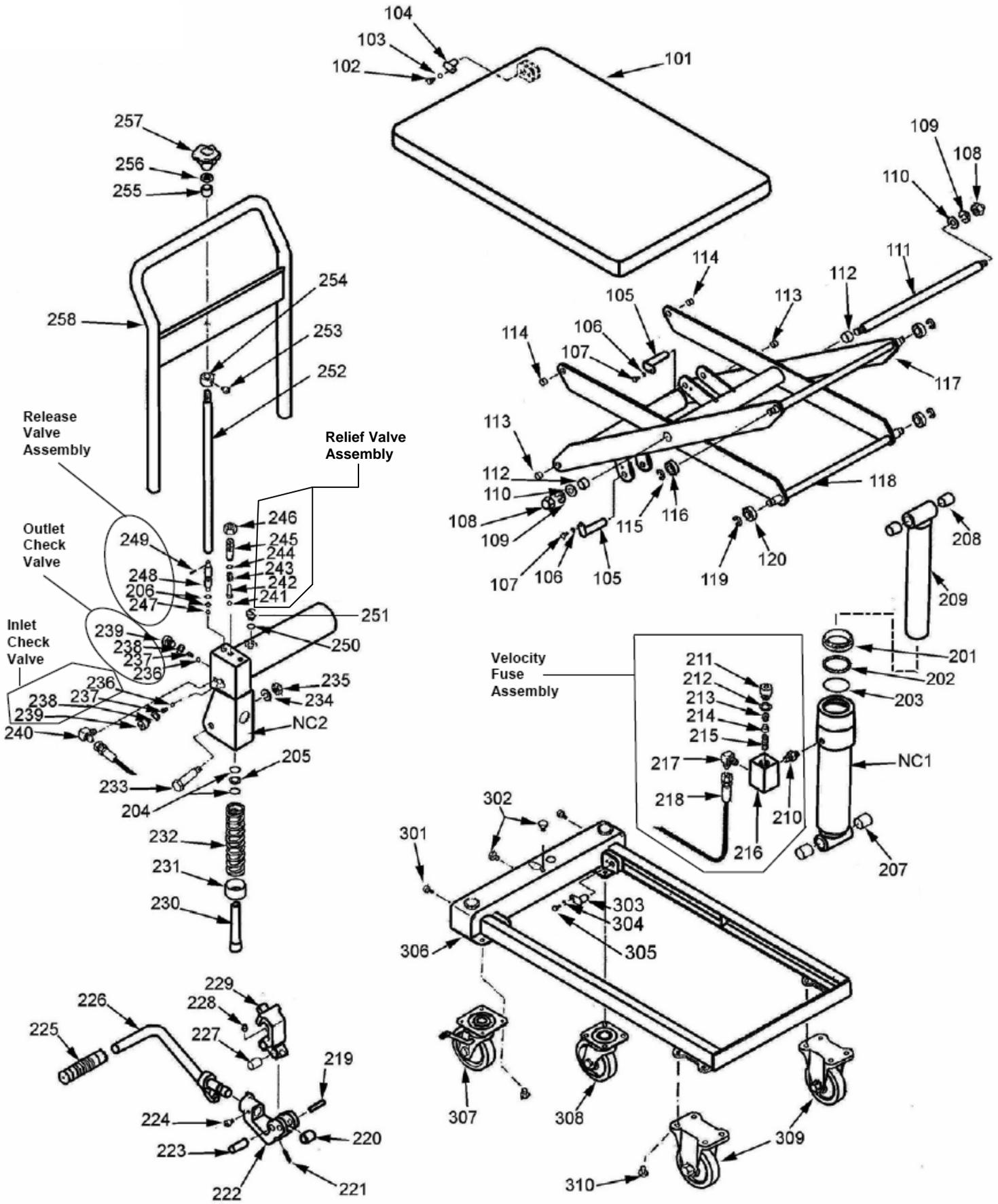
Safe operation is the responsibility of the operator! To minimize the possibility of serious bodily injury:

- DO NOT attempt to service a loaded cart. Unload the cart and install maintenance props according to the directions on p. 13 BEFORE working on the cart. DO NOT work under the lift without using the maintenance devices.
- DO NOT attempt to lift or transport loads that exceed the capacity of the cart.
- DO NOT stand, sit or ride on the cart.
- DO NOT put hands or feet under the deck at any time UNLESS the maintenance props are in place.
- Stand clear of the cart while the lift table is moving.
- Keep clear of pinch points! As the deck rises and lowers, pinch points occur between the leg weldments (see Fig. 11, p. 15). NEVER reach into or put any part of your body inside the scissors mechanism.
- DO NOT use the scissors lift cart UNLESS all safety labels are in place and readable.
- DO NOT use the cart if you hear unusual sounds while raising or lowering the deck.
- Always watch the load carefully while raising or lowering the deck.
- ONLY use the cart on compacted, improved surfaces.
- DO NOT leave a loaded cart unattended. ALWAYS unload the cart, and return it to the designated storage location BEFORE you leave the cart unattended.
- DO NOT store the cart outdoors or in corrosive environments.
- **DO NOT modify the cart without the express, written approval from Vestil. Unauthorized modifications could render the cart unsafe to use. Additionally, unauthorized modification(s) automatically voids the warranty.**

CART-550-SS Parts List:

Item No.	Part No.	Description	Item No.	Part No.	Description
101	C-500-SS-101	Table Deck	227	C-500-SS-227	Washer
102	C-500-SS-102	Arm Pin	228	C-500-SS-228	Nut
103	C-500-SS-103	Washer	Inlet & Outlet Check Valves		
104	C-500-SS-104	Bolt	229	C-500-SS-229	Steel Ball
105	C-500-SS-105	Cylinder Pin	230	C-500-SS-230	Spring
106	C-500-SS-106	Washer	231	C-500-SS-231	Washer
107	C-500-SS-107	Bolt	232	C-500-SS-232	Threaded Cavity Plug
108	C-500-SS-108	Cap Nut	233	C-500-SS-233	Elbow
109	C-500-SS-109	Washer	Relief Valve Assembly		
110	C-500-SS-110	Washer	234	C-500-SS-234	Steel Ball
111	C-500-SS-111	Scissor Pivot Shaft	235	C-500-SS-235	Relief Spring Guide
112	C-500-SS-112	Bushing	236	C-500-SS-236	Relief Spring
113	C-500-SS-113	Bushing	237	C-500-SS-237	O-Ring
114	C-500-SS-114	Bushing	238	C-500-SS-238	Adjustment Screw
115	C-500-SS-115	Snap Ring	239	C-500-SS-239	Nut
116	C-500-SS-116	Roller (bearing)	Release Valve Mechanism		
117	C-500-SS-117	Outer Scissor Arm	206	C-500-SS-206	O-Ring
118	C-500-SS-118	Roller Bearing Shaft	240	C-500-SS-240	¼ inch Steel Ball
119	C-500-SS-119	Snap Ring	241	C-500-SS-241	Release Valve Stem
120	C-500-SS-120	Roller (bearing)	242	C-500-SS-242	Roll Pin
201	C-500-SS-201	Dust Seal	243	C-500-SS-243	Oil Fill Plug O-Ring
202	C-500-SS-202	Backup Ring	244	C-500-SS-244	Oil Reservoir Fill Plug
203	C-500-SS-203	O-Ring	245	C-500-SS-245	Release Valve Shaft
204	C-500-SS-204	O-Ring	246	C-500-SS-246	Bushing Retaining Bolt
205	C-500-SS-205	Backup Ring	247	C-500-SS-247	Shaft Retaining Bushing
206	C-500-SS-206	O-Ring	248	C-500-SS-248	Guide
207	C-500-SS-207	Bushing	249	C-500-SS-249	Nut
208	C-500-SS-208	Bushing	250	C-500-SS-250	Release Knob
209	C-500-SS-209	Piston Ring	251	C-500-SS-251	Handle
211	C-500-SS-211	Hose	Velocity Fuse Assembly		
212	C-500-SS-212	Spring Pin	252	C-500-SS-252	Adjustment Screw + Nut
213	C-500-SS-213	Plunger Roller	253	C-500-SS-253	Washer
214	C-500-SS-214	Spring Pin	254	C-500-SS-254	Spring
215	C-500-SS-215	Pedal Boss	255	C-500-SS-255	Safety Velocity Spool
216	C-500-SS-216	Pedal Boss Pin	256	C-500-SS-256	Spring
217	C-500-SS-217	Socket Bolt	257	C-500-SS-257	Valve Base
218	C-500-SS-218	Pedal Cover	258	C-500-SS-258	Nipple
219	C-500-SS-219	Pedal shaft	259	C-500-SS-259	Elbow
220	C-500-SS-220	Bushing			
221	C-500-SS-221	Grease Nipple	301	C-500-SS-301	Socket Bolt
222	C-500-SS-222	Pedal Link	302	C-500-SS-302	Bolt
223	C-500-SS-223	Plunger Piston	303	C-500-SS-303	Arm Pin
224	C-500-SS-224	Spring Cap	304	C-500-SS-304	Washer
225	C-500-SS-225	Return Spring	305	C-500-SS-305	Bolt
226	C-500-SS-226	Pedal Pin	306	C-500-SS-306	Reservoir Housing
			307	C-500-SS-307	Locking Swivel Caster
			308	C-500-SS-308	Swivel Caster
			309	C-500-SS-308	Rigid Caster
			310	C-500-SS-310	Bolt
Replacement Parts Kits:					
901	C-500-SS-901	Seal Kit			
941	C-500-SS-941	Cylinder Assembly			
942	C-500-SS-942	Pump Assembly			

FIG. 2: CART-1100-SS EXPLODED PARTS DIAGRAM

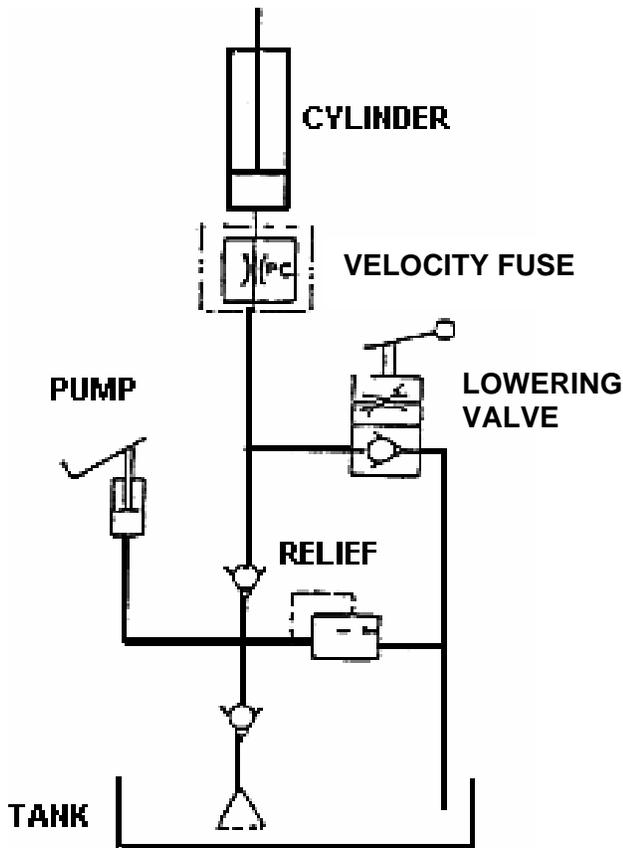


CART-1100-SS Parts List:

Item No.	Part No.	Description	Item No.	Part No.	Description
101	C-1100-SS-101	Deck (of table)	227	C-1100-SS-227	Bushing
102	C-1100-SS-102	Bolt	228	C-1100-SS-228	Grease Nipple
103	C-1100-SS-103	Stainless Washer	229	C-1100-SS-229	Pedal Link
104	C-1100-SS-104	Arm Pin	230	C-1100-SS-230	Plunger Piston
105	C-1100-SS-105	Cylinder Pin	231	C-1100-SS-231	Spring Cap
106	C-1100-SS-106	Stainless Washer	232	C-1100-SS-232	Return Spring
107	C-1100-SS-107	Bolt	233	C-1100-SS-233	Pedal Pin
108	C-1100-SS-108	Cap Nut	234	C-1100-SS-234	Stainless Washer
109	C-1100-SS-109	Stainless Washer	235	C-1100-SS-235	Nut
110	C-1100-SS-110	Washer	Inlet & Outlet Check Valve Assembly		
111	C-1100-SS-111	Scissor Pivot Shaft	236	C-1100-SS-236	Steel Bearing
112	C-1100-SS-112	Bushing	237	C-1100-SS-237	Spring
113	C-1100-SS-113	Bushing	238	C-1100-SS-238	Washer
114	C-1100-SS-114	Bushing	239	C-1100-SS-239	Valve Plug
115	C-1100-SS-115	Snap Ring	240	C-1100-SS-240	Elbow
116	C-1100-SS-116	Roller (bearing)	Relief Valve Assembly		
117	C-1100-SS-117	Outer Scissor Arm	241	C-1100-SS-241	Steel Bearing
118	C-1100-SS-118	Roller Bearing Shaft	242	C-1100-SS-242	Spring Guide
119	C-1100-SS-119	Snap ring	243	C-1100-SS-243	Spring
120	C-1100-SS-120	Roller (bearing)	244	C-1100-SS-244	O-Ring
			245	C-1100-SS-245	Adjustment Screw
201	C-1100-SS-201	Dust Seal	246	C-1100-SS-246	Nut
202	C-1100-SS-202	Backup Ring	Release Valve Assembly		
203	C-1100-SS-203	O-Ring	206	C-1100-SS-206	O-Ring
204	C-1100-SS-204	O-Ring	247	C-1100-SS-247	Steel Bearing
205	C-1100-SS-205	Backup Ring	248	C-1100-SS-248	Release Valve Stem
206	C-1100-SS-206	O-Ring			
207	C-1100-SS-207	Bushing	249	C-1100-SS-249	Roll Pin
208	C-1100-SS-208	Bushing			
209	C-1100-SS-209	Piston Rod	250	C-1100-SS-250	Fill Plug O-Ring
Velocity Fuse Assembly			251	C-1100-SS-251	Oil Fill Plug
210	C-1100-SS-210	Nipple	252	C-1100-SS-252	Pressure Release Shaft
211	C-1100-SS-211	Valve Plug	253	C-1100-SS-253	Socket Bolt
212	C-1100-SS-212	Washer	254	C-1100-SS-254	Shaft Retaining Bushing
213	C-1100-SS-213	Spring	255	C-1100-SS-255	Guide
214	C-1100-SS-214	Spool	256	C-1100-SS-256	Nut
215	C-1100-SS-215	Spring	257	C-1100-SS-257	Release Knob
216	C-1100-SS-216	Valve Base	258	C-1100-SS-258	Handle
217	C-1100-SS-217	Nipple			
218	C-1100-SS-218	Hose	301	C-1100-SS-301	Socket Bolt
			302	C-1100-SS-302	Bolt
219	C-1100-SS-219	Spring Pin	303	C-1100-SS-303	Arm Pin
220	C-1100-SS-220	Plunger Roller	304	C-1100-SS-304	Stainless Washer
221	C-1100-SS-221	Spring Pin	305	C-1100-SS-305	Bolt
222	C-1100-SS-222	Pedal Boss	306	C-1100-SS-306	Frame
223	C-1100-SS-223	Pedal Boss Pin	307	C-1100-SS-307	Locking Caster
224	C-1100-SS-224	Socket Bolt	308	C-1100-SS-308	Swivel Caster
225	C-1100-SS-225	Pedal Cover	309	C-1100-SS-309	Rigid Caster
226	C-1100-SS-226	Pedal	310	C-1100-SS-310	Bolt

Replacement Parts Kits:		
901	C-1100-SS-901	Seal Kit
941	C-1100-SS-941	Cylinder Assembly
942	C-1100-SS-942	Pump Assembly

FIG. 3: HYDRAULICS DIAGRAM



⚠ WARNING To reduce the possibility of injury, BEFORE working on the hydraulic system:

1. Fully lower and secure the deck;
2. Release system pressure and disconnect all power sources;
3. DO NOT work on the hydraulic components UNLESS you are trained and authorized to do so.

NOTICE DO NOT use brake fluid or jack oils in the hydraulic system. Replace the oil with anti-wear hydraulic oil having a viscosity of 150 SUS at 100°F (ISO 32 @ 40°C), or non-synthetic transmission fluid.

ASSEMBLY INSTRUCTIONS:

As shipped, the cart requires minimal assembly. In addition to the deck and chassis assembly, you should receive the following hardware:

- 3 Socket-head cap screws
- 1 L-shaped hex wrench (to tighten bolts)
- 1 Hydraulic pump foot pedal
- 1 Handle assembly

1. Close the release valve by turning it clockwise until it is snug.
2. Insert the open end of the handle into the openings in the frame (FIG. 5). Fix the handle into position using the socket-head cap-screws and supplied hex-wrench.
3. Insert the end of the pressure relief shaft (item #245 in FIG. 1; item #252 in FIG. 2) over the release-valve stem (item #241 in FIG. 1; item #249 in FIG. 2) The slot in the shaft and the roll pin on the valve stem must align. Proper fit is shown in FIG. 5.
4. Attach the foot pedal to the receptacle and secure the pedal with a socket-head cap-screw. (see FIG. 6) When properly installed and secured, the pedal will be able to rotate 90° to the right and left of center allowing the use of the 2-speed pump feature.

FIG. 4: Spline & Roll Pin Connection



FIG. 5: Handle Insertion

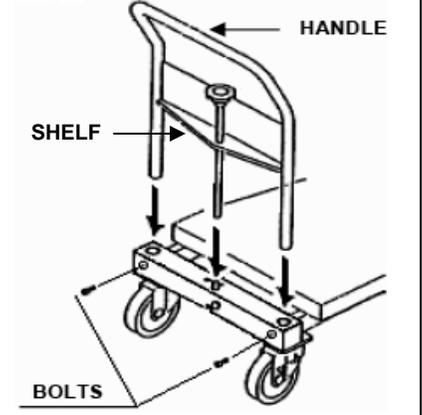
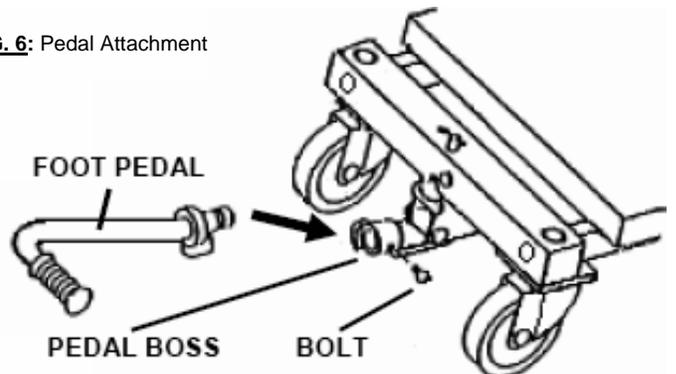


FIG. 6: Pedal Attachment



USE INSTRUCTIONS:

The cart is suitable for use in most industrial and commercial settings. Only *authorized persons* should use the scissors lift cart. "Authorized person" means someone the end-user approves or assigns to use the cart because he/she is either:

1. **Qualified:** Someone with demonstrated ability to deal with problems relating to the scissors lift cart by virtue of having a recognized degree, certificate, or professional standing, and who additionally has knowledge of, training related to, and experience with scissor lifts carts; AND/OR
2. **Trained:** Someone trained by a qualified person and who has demonstrated the ability to perform particular function(s) on or around a scissor lift.

Only use the cart to transport and lift stable, evenly distributed, non-hazardous loads and containers with rigid sides.

LOADING:

Any load put on the cart should be approximately the same size as the deck or smaller.

Center and evenly distribute a load on the deck. Position the center of the load between the scissor legs and on the deck midline as shown in figures 7A & 7B below.

⚠ WARNING If the cart is improperly loaded, the operator and/or bystanders might be seriously injured:

1. The rated load (in pounds) of the cart appears on the product data label, which is affixed to the left corner of the operator end of the deck. The rated load indicates the **net capacity** of the cart, i.e. the weight of all accessory equipment added to the cart must be added to the weight of the load. The total weight must be less than or equal to the rated capacity of the cart:
$$\text{Weight of load} + \text{weight of accessories} = (\text{or less than}) \text{ Cart Capacity}$$
2. Always properly stabilize the cart and the load:
 - a. If the load might roll or slide off of the deck, immobilize it and secure it to the deck before moving the cart. For example, round material like pipe might roll off of the deck. Immobilize the pipe with chocks and use one or more straps to secure the pipe and chocks in place on the deck.
 - b. **DO NOT** front load or rear load the cart. This means that you should not center a load on the portions of the deck highlighted in FIG.'s 7A & 7B, "DO NOT center load here". For applications involving side or end edge loading, contact the factory.

FIG. 7A: Proper Load Positioning (Side View)

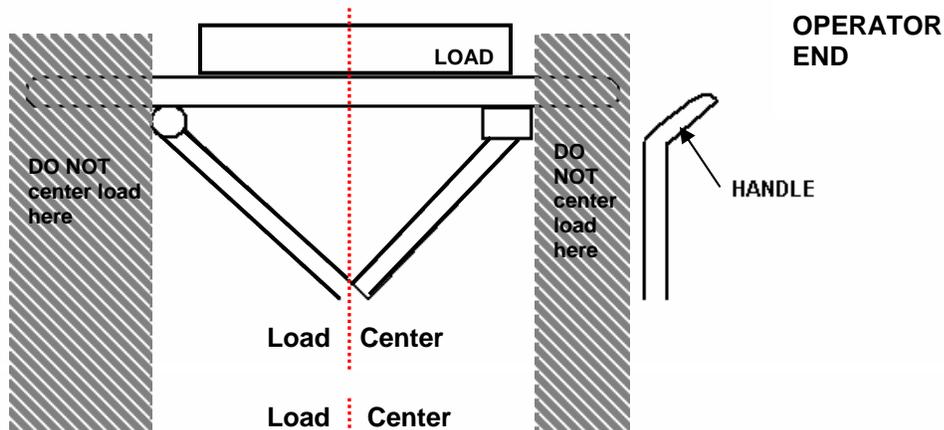
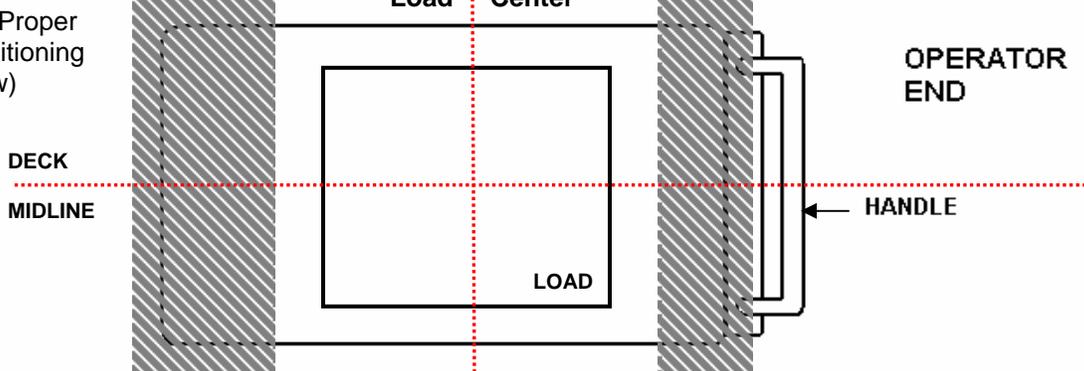


FIG. 7B: Proper Load Positioning (Top View)



LIFT TABLE OPERATION :

WARNING

Take reasonable precautions to avoid the **obvious potential hazards** of using a cart:

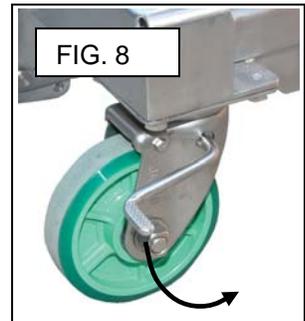
1. Instruct other persons in the area to stand at a safe distance while raising or lowering the deck. Be certain no part of any person, clothing, or object is under any part of the cart before lowering the deck.
2. DO NOT use the cart if:
 - (a) You notice any damage or hear unusual noise(s) while raising or lowering the deck;
 - (b) It requires maintenance or repairs;
- OR -
 - (c) The cart malfunctions in any way.Tag the cart "Out of Service" and immediately notify your supervisor or maintenance personnel.
3. DO NOT park on or push the cart across inclined surfaces. Drive the cart straight up or straight down inclined surfaces. The load may shift while traversing an incline, so secure the load to the deck, for example with straps, BEFORE attempting to drive the cart over the incline. ALWAYS push the cart up/down an incline.
4. DO NOT transport a load with the deck in the fully raised position. Always transport loads with the deck fully lowered. Transport the load to the unloading point, and then raise the deck to the necessary height. After unloading the cart, fully lower the deck.
5. Do not over-tighten the release valve!



To raise the deck:

1. Make sure that the release valve is closed by turning the release knob clockwise until it is tight.
2. Step on the brake lever to apply the caster brake. (Fig. 9)
3. Put the load on the deck using the "LOADING" instructions on p. 10.
4. Turn the pedal to Position 2 (see below Fig. 9).
5. Pump the pedal with your foot and continue to do so until the deck reaches the desired elevation. The table has an upper travel limit; the deck will not rise above ~33 inches.

NOTE: If the table is unloaded, you may use the high speed option for raising the deck. Turn the pedal to Position 1; then pump the pedal until the desired deck position is achieved.



To lower the deck: slowly turn the release knob counterclockwise to open the release valve. The deck will lower more rapidly the farther you turn the knob. Do not let the deck descend rapidly, but rather allow the deck to slowly lower to the fully lowered position. Once the deck is fully lowered, close the release valve by turning the release knob clockwise. **NOTE:** The hydraulic system cannot pressurize, and the deck will not rise in response to pumping the pedal, if the release valve is open. Always make sure to turn the knob clockwise after the deck is fully lowered to close the valve.

The cart is manually propelled. After loading the cart and properly securing the load to the deck, push the cart to the desired location. Do not exceed a rate of two feet per second when transporting a load with the cart.

HYDRAULIC SYSTEM OPERATION:

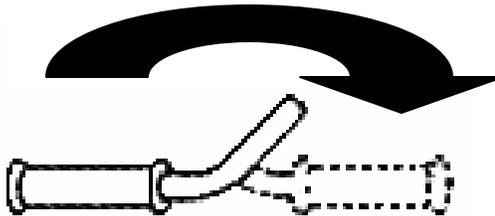
Hydraulic components are all rated for 2,500 psi working pressure.

Key components and specifications of the hydraulic system include:

- Check valve: prevents backflow of fluid through the pump. It allows the deck to hold a given elevation. However, leaks in the system will cause the deck to lower over time.
- Pressure relief valve: opens a path for fluid to follow to the reservoir if the fluid pressure exceeds a threshold (maximum).
- Safety velocity fuse: installed in the housing connected to the cylinder. It closes automatically if a catastrophic hose failure occurs, and closing the fuse prevents the lift table from collapsing. The velocity fuse is designed to slowly lower the deck by allowing gradual depressurization of the hydraulic system.
- 2 Pump Speeds: To raise the deck, pump the pedal with your foot. 2 speeds are available for raising the deck. When the pedal is in position 1, the deck will rise at a faster rate; in position 2, the deck rises more slowly. To switch between speeds, rotate the handle.
- Release/Lowering Valve: turn the release knob to lower the deck.

FIG. 9: Hydraulic Control Pedal Positions

POSITION 1: HIGH SPEED FOR RAISING DECK ONLY (UNLOADED)



POSITION 2: LOW SPEED FOR LIFTING

To lower the deck, open the release valve by turning the release knob counterclockwise. The release knob is item #250 in FIG. 1, and item #257 in FIG. 2. As you turn the knob, the lowering valve opens, which creates a bypass around the check valve and the oil in the cylinder returns to the reservoir through the return hose.

If the deck continues to slowly lose elevation even though the release valve is closed, remove the lowering (release) valve for inspection and cleaning.

Release Valve Removal & Cleaning Procedure:

1. Unload the cart.
2. Raise the deck and then install maintenance props in the roller channel (both sides) as indicated in FIG. 10 on page 13.
3. Unscrew and remove the valve (Item 241 in FIG. 1; Item 248 in FIG. 2) from the manifold
4. Use a small diameter magnet to remove the steel ball at the bottom of the valve cavity (Item 240 in FIG. 1; Item 247 in FIG. 2).
5. Inspect the valve stem and ball for contaminants.
6. Inspect the o-rings and back-up washers located on the valve stem for cuts, tears or other damage
7. Use mineral spirits (or kerosene) to clean contaminants from the valve stem, o-rings, back-up washers, steel ball and valve cavity.
8. Inspect the ball seat at the bottom of the valve cavity. The ball seat should be a crisp, donut-shaped shiny area with a hole in the center. If it is not, it may be necessary to "stake" the ball into place. This is done by inserting the ball into the cavity and striking it using a 1/4" grade-2 bolt and a small hammer. This will create a new seat on which the ball will seal and prevent the oil from leaking.

There are 2 reasons why the deck might continue to slowly lose elevation even after cleaning and reinstalling the release valve:

- Outlet check valve requires cleaning: Remove and clean the outlet check valve assembly (items #229-232 in FIG. 1; items # 236-239 in FIG. 2). Follow steps 3 through 8 of the "Release Valve Removal & Cleaning Procedure" above;
- Trapped air might be present in the cylinder.

Air Removal Procedure:

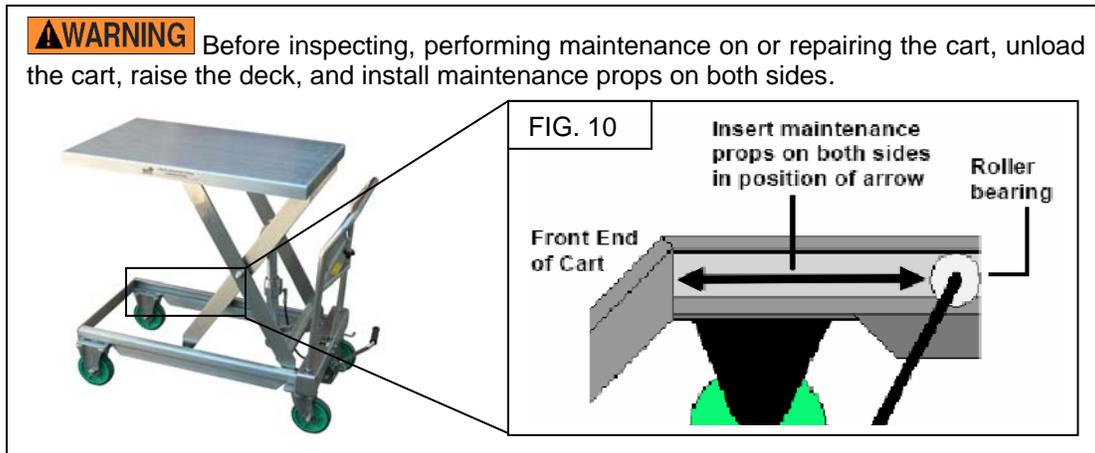
1. Unload the cart;
2. Raise the deck slightly (approx 5-6 inches);
3. Turn the release knob counterclockwise to lower the deck;
4. With the release knob held open, pump the pedal a few times;
5. Turn the release knob clockwise until it is snug;
6. Pump the pedal until the deck has elevated to approx 5-6 inches;
7. Again lower the deck while performing steps 4, 5 & 6.

Steps 1-7 should purge air from the system.

MAINTENANCE AND INSPECTIONS:

Only trained and authorized persons should maintain, repair, adjust and inspect the scissor lift cart. Maintenance and inspection personnel should verify that the cart complies with all regulations, codes, and standards that apply to Industrial Scissors Lifts in the location where the cart is *used*. The person(s) designated to conduct inspections **by your employer** must inspect the cart **BEFORE** it is used for the first time and prior to EACH use thereafter.

Maintenance Props: Use two (one for each side) pieces of 1in. x 1in. timber or two sections of square bar (at least 1in on a side) as maintenance props. Proper maintenance prop placement is illustrated in FIG. 10 below. Fully raise the deck; then insert the props between each roller and the front of the frame. Lower the deck until the rollers firmly contact the props and the deck stops descending.



After maintenance/repair work is complete, fully raise the deck, and then remove the props.

INSPECTIONS:

(A) Inspect daily for:

- 1.) Oil leaks from the hydraulic system;
- 2.) Pinched or chafed hydraulic lines;
- 3.) Damage to or structural deformation of:
 - scissor leg weldments, pins, rollers, leg brackets (that connect legs to deck or frame), and all fastening hardware;
 - cylinder or cylinder retention brackets;
 - frame weldment;
 - castors;
- 4.) Unusual noise or binding, or evidence thereof;
- 5.) Labels affixed to the cart.

(B) Inspect monthly for:

- 1.) Oil level ($\frac{1}{2}$ " below the fill hole in the reservoir with the deck fully lowered);
- 2.) Oil leaks;
- 3.) Worn or damaged hydraulic hoses;
- 4.) Pivot point wear;
- 5.) Roller looseness and wear;
- 6.) Integrity of the retaining hardware on all rollers and on all pivot point pins.
- 7.) Looseness, wear, or damage to the caster bearings and/or mounting hardware.
- 8.) Unusual noises.
- 9.) All the information, safety, and warning labels being in place and in good condition.
- 10.) Dirt and debris on the deck, in the roller channels, on the scissor legs.

(C) Yearly inspection:

Change the oil if it darkens, becomes gritty, or turns a milky color (caused by water). Replace the contaminated oil with 150 SUS at 100°F (ISO 32 at 40°C) viscosity grade anti-wear hydraulic oil, such as AW 32 or HO 150 hydraulic oil, or a non-synthetic transmission fluid. You may use a synthetic transmission fluid if you flush the system with the synthetic fluid before filling the reservoir.

⚠ WARNING DO NOT use a cart that is structurally damaged in any way. Structural damage includes, but is not limited to, bending, warping, cracking or other deformation of one or more of the scissor legs, the frame, rollers, or the deck. Restore the cart to normal operating condition **BEFORE** using it again.

NOTICE DO NOT use brake fluid or jack oils in the hydraulic system. If oil is needed, use an anti-wear hydraulic oil with a viscosity grade of 150 SUS at 100°F, (ISO 32 cSt @ 40°C), or Dexron transmission fluid.

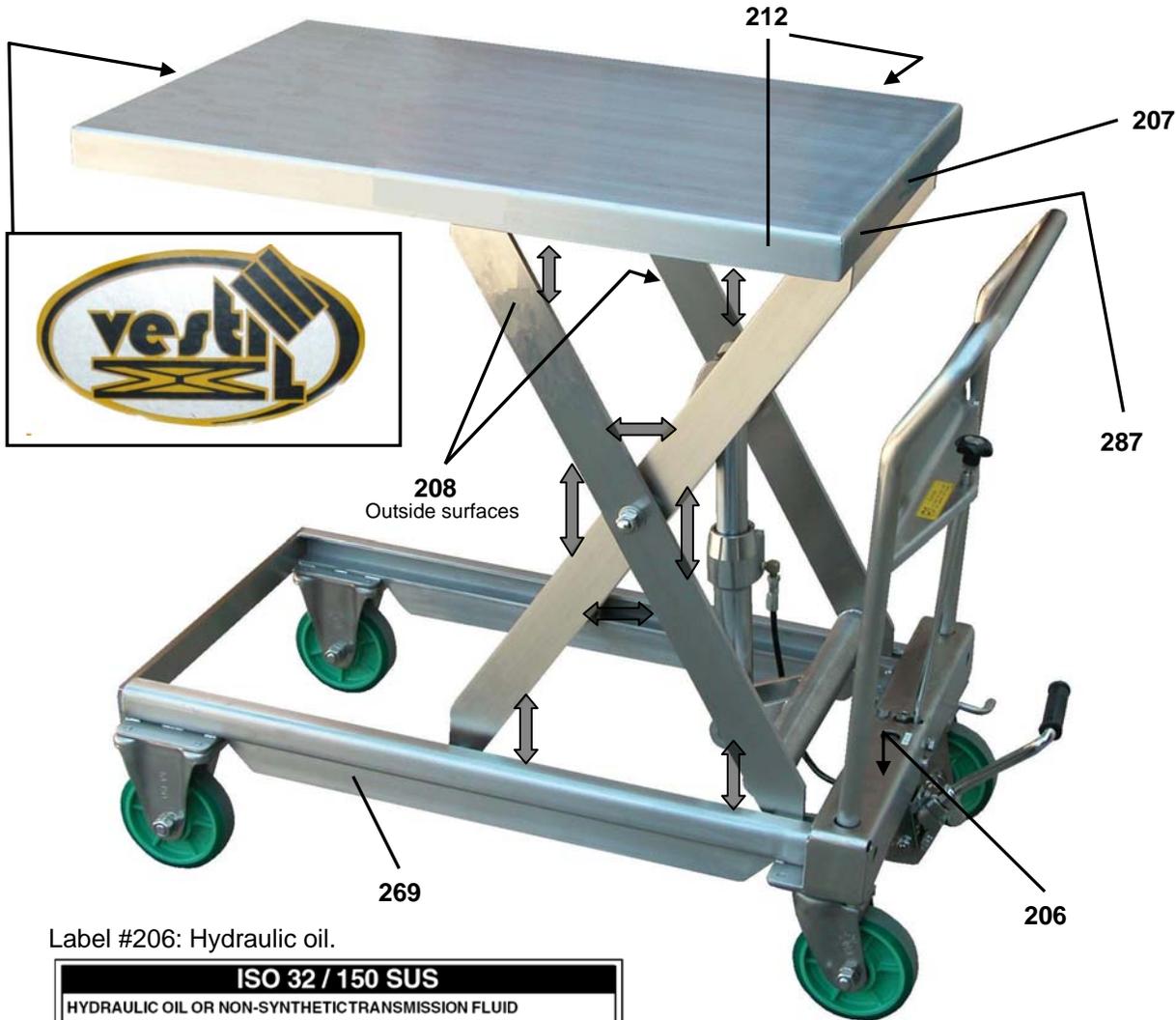
TROUBLESHOOTING:

Problem	Possible Causes	Action
Deck does not elevate	a. Load weight exceeds lifting capacity	a. Remove load and use another cart with greater lifting capacity
	b. relief valve set too low	b. remove part of the load
		c. load cart with rated load, increase the relief-valve setting until the rated load will rise.
Deck rises when the pedal is pressed down but lowers when the pedal is returned to the raised position	a. inlet check-valve is leaking	a. clean ball and seat
Spongy or jerky deck movement	a. Excessive air in cylinder	a. Bleed air as described in this manual (see "Air Removal Procedure" on p. 12).
	b. debris in roller channel(s)	b. inspect rollers, clean channels
	c. hydraulic oil level low	c. add oil to within ½" of the top of the reservoir
Deck lowers too quickly	a. release-valve opened too far.	a. Do not over-tighten
		b. open slowly
Platform lowers too slow	a. pinched hose	a. check hose for kinks or chaffing
	b. foreign matter in one or more roller channels	b. clean roller channels
	c. Velocity fuse locking up	c. bleed air from system (see "Air Removal Procedure" on p. 12).
Deck rises when the pump pedal is pressed down but will not lower	a. scissor legs binding	a. lubricate pivot points
	b. scissor legs bent	b. replace bent components
	c. release rod not connected to release-valve	c. repair as necessary

MARKINGS:

Only use the lifter if ALL labels are readable and undamaged. Contact Vestil for replacement labels if necessary, and DO NOT use the lifter until all replacement labels are affixed to the device.

FIG. 11: Label placement



Label #206: Hydraulic oil.



Label #212:



Label #208: The scissor legs create pinch points (displayed as double-ended arrows) as the deck rises and lowers.



Label #269: "Install both maintenance props..."



Label #287: Product capacity label



Label #207: "Read Owner's manual"; "Do not put hands, feet...under top"; "Do not work under lift without safety block"; "Do not sit, stand, or ride on lift."

