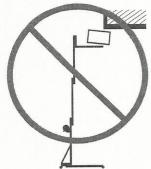
### **BEFORE OPERATION**

Follow these safety rules before operating the material lift:

**ALWAYS** position the material lift on a firm, level surface.

ALWAYS inspect the work area for potential hazards such as overhead obstructions, unstable or slippery surfaces, drop-offs, holes, debris or moving vehicles.



ALWAYS inspect the equipment before operating the material lift. Check for damaged or worn parts. NEVER operate a material lift if any damage to the equipment is observed or suspected. ALWAYS tag a damaged material lift and remove it from service until repairs are completed according to manufacturer's specifications.

ALWAYS inspect the winch and cable before operating the material lift. Check for wear, frays, kinks and damage to the cable. Verify that the cable is wrapped around the winch drum at least four times when the carriage is lowered. NEVER operate a material lift if any damage to the winch or cable is observed or suspected.

**NEVER** repair the material lift in any way other than according to manufacturer's specifications.

**NEVER** deface, modify or obscure any decals or markings on the material lift.

**NEVER** modify the material lift in any way that would affect its original design or operation.

**NEVER** operate the material lift in any way for which it is not intended.

#### **DURING OPERATION**

Follow these safety rules while operating the material lift:

**NEVER** operate the material lift near power lines. **ALWAYS** ensure that no part of the material lift can accidentally reach into an unsafe area.

# A DANGER

The material lift is NOT insulated for use near electrical power lines and DOES NOT provide protection from contact with or proximity to any electrical current. Maintain safe distances at all times (minimum 3.05 meters; see chart below). Allow for mast movement or electrical line sway due to environmental conditions. ALWAYS assume every power line is live.

Voltage Range (Phase to Phase)	Minimum Safe Approach Distance		
	Feet	Meters	
0 to 300V	Avoid Contact		
Over 300V to 50KV	10	3.05	
Over 50KV to 200KV	15	4.60	
Over 200KV to 350KV	20	6.10	
Over 350KV to 500KV	25	7.62	
Over 500KV to 750KV	35	10.67	
Over 750KV to 1000KV	45	13.72	

ALWAYS keep away from a material lift that is exposed to energized power lines. If the material lift contacts energized power lines, NEVER touch or operate the machine until power lines are shut off.



**NEVER** use the material lift to raise or lower persons.

**NEVER** stand or climb on the material lift.



**NEVER** operate the material lift unless the legs and stabilizers are fully lowered and locked and all casters are in contact with the ground.

**NEVER** unlock or raise the legs or stabilizers while the material lift is loaded or raised.

ALWAYS keep hands and fingers away from potential pinch and shear points, such as folding legs and stabilizers, mast sections, and as indicated by decals attached to the material lift.

**NEVER** operate the equipment unless the material lift is located on a firm, level surface.

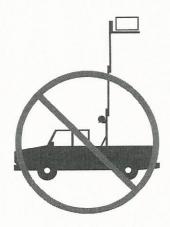
NEVER use blocks to level the material lift.

**ALWAYS** center the load on the load lifting attachment and secure the load before operating the material lift.

NEVER stand under the material lift when the load is raised. NEVER lower the material lift unless the area below is clear of personnel and obstructions.



NEVER operate the material lift on a moving or mobile surface, such as a truck bed.



**NEVER** exceed the rated load capacity of the material lift.

**NEVER** move a material lift with a raised load.

**NEVER** touch or grab the cable.

NEVER operate the material lift when exposed to high winds, thunderstorms or other weather conditions that could compromise the safety of the operator.



**NEVER** apply an additional side load or horizontal force to a material lift that is loaded or raised. **NEVER** place ladders or scaffold against the material lift.

**NEVER** use the material lift as a ground for welding.

**NEVER** leave the material lift unattended while a load is raised.

operator's Manual

### **SPECIFICATIONS**

LiftSmart is dedicated to the continuous improvement of this and all LiftSmart products. Specifications are subject to change without notice.

	MLI-5	MLI-10	MLI-15	MLI-20	MLI-25
Lift Height					
Standard forks - up	6 ft 5 1/8 in 2 m	11 ft 3.4 m	15'6' 15 ft 8 in 4.8 m	20 ft 3 1/2 in 6.2 m	24 ft 11 in 7.6 m
Standard forks - down	4 ft 8 5/8 in 1.4 m	9 ft 4 in 2.7 m	13 ft 4 in 4.3 m	18 ft 6 3/4 in 5.7 m	23 ft 2 3/8 in 7.1 m
Adjustable forks - up	6 ft 5 1/8 in 2 m	11 ft 3.4 m	15 ft 8 in 4.8 m	20 ft 3 1/2 in 6.2 m	24 ft 11 in 7.6 m
Adjustable forks - down	4 ft 8 5/8 in 1.4 m	9 ft 4 in 2.7 m	13 ft 4 in 4.3 m	18 ft 6 3/4 in 5.7 m	23 ft 2 3/8 in 7.1 m
Boom	5 ft 11 5/8 in 1.8 m	10 ft 7 in 3.2 m	15 ft 2 1/2 in 4.6 m	19 ft 9 3/4 in 6.0 m	24 ft 5 3/8 in 7.5 m
Height - stowed	6 ft 3 3/8 in 1.9 m				
Length - stowed	31 1/2 in 80 cm				
Length - operating	5 ft 2 in 1.57 m	5 ft 2 in 1.57 m	5 ft 7 in 1.70 m	6 ft 5 in 1.96 m	6 ft 5 in 1.96 m
Width - stowed	30 1/2 in 77 cm				
Width - stabilizers deployed	5 ft 4 in 1.6 m				
Stabilizers	Optional			Standard	
Forks - Length	30 in 76 cm				
Forks - Width - outside	23 in 58 cm				
Maximum load capacity					
14 in (36 cm) load center	1000 lb 454 kg	1000 lb 454 kg	800 lb 363 kg	750 lb 340kg	600 lb 272 kg
24 in (61 cm) load center	1000 lb 454 kg	1000 lb 454 kg	800 lb 363 kg	550 lb 249kg	400 lb 181 kg
42 in (107 cm) load center	350 lb 159 kg	350 lb 159 kg	500 lb 227 kg	300 lb 136 kg	200 lb 91 kg
Ground clearance	2.5 in 6 cm				
Load height - minimum	6 in 15 cm				
Weight	197 lb 89 kg	234 lb 106 kg	270 lb 122 kg	332 lb 150 kg	368 lb 167 kg
Winch cranks/distance					
High speed	4 cranks/ft 13.1 cranks/m				
Low speed	15 cranks/ft 49.2 cranks/m				

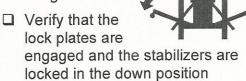
### SET UP

□ To set up the machine, select an area that is firm, level and clear of debris and overhead obstructions.

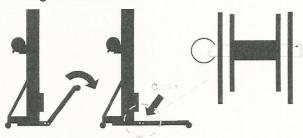
Follow these steps to set up the machine:

If the material lift is equipped with stabilizers:

- Push down on the stabilizer lock plates to release the stabilizers
- □ Lower the stabilizers until the casters are in contact with the ground

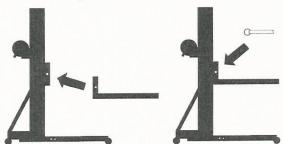


- ☐ Remove the leg retainer pin
- ☐ Lower the leg to the down position
- ☐ Insert the leg retainer pin through the leg and the base



- □ Repeat the above steps to lower and secure the other leg
- ☐ Place the desired load lifting attachment (standard forks, adjustable forks, boom) inside the carriage

☐ Insert the fork retainer pin through the load lifting attachment and the carriage



- ☐ Engage the locking toggle on the fork retainer pin
- □ Rotate the carriage hold-down bar up and away from the carriage

If the material lift is equipped with adjustable forks:

- ☐ Pull up on the snap pins
- ☐ Adjust the forks to the desired width
- ☐ Verify that the snap pins are properly inserted

To install fork extensions:

- ☐ Slide the extension tube onto the fork
- ☐ Adjust the extension tubes to the desired position
- ☐ Insert the retaining pins through the extension tube and the fork

If the material lift is equipped with a load platform:

☐ Place the load platform on the forks

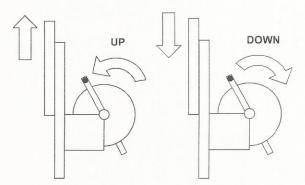
#### **FUNCTION TEST**

After the material lift is set up, perform the following test to verify that the equipment is not malfunctioning:

- ☐ Shift the winch to the slow speed
- ☐ Firmly grasp both winch handles
- □ Rotate the winch handles toward the mast to raise the carriage to its full height

The winch should operate smoothly, without hesitation or binding, and the motion should raise the carriage to the top of the first mast section followed in order by each consecutive mast section.

- □ Rotate the winch handles away from the mast to completely lower the carriage
- □ Rotate the winch handles one quarterturn toward the mast - as if raising the carriage - to set the brake



The winch should operate smoothly, without hesitation or binding.

# **WARNING**

If the equipment malfunctions, remove the material lift from service immediately. Repairs to the material lift should only be performed by authorized personnel according to the manufacturer's specifications.

### **WORK AREA INSPECTION**

NEVER set up the material lift where any of the following hazards exist:

□ Drop-offs
□ Holes

□ Debris□ Uneven or unstable surfaces

☐ Surfaces that will not support the forces imposed by the material lift, its operation and its load.

□ Slippery surfaces

☐ Slopes

Overhead obstructions

Power lines or other electrical conductors

☐ High winds or inclement weather

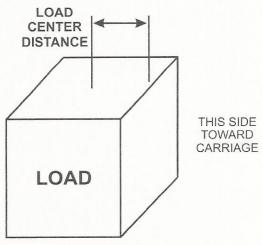
Moving vehicles

**ALWAYS** position the material lift on a firm, level surface.

#### POSITIONING THE LOAD

Determine the following before placing a load on the material lift:

- Weight of the load
- □ Location of the load center
- ☐ Distance between the load center and the side of the load that will be closest to the carriage



NOTE: Load center refers to the center of gravity of the load and may not be its physical center. The heaviest side of an uneven load should always be positioned closest to the carriage on the material lift.

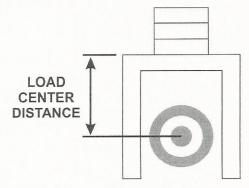
Refer to the chart below to determine if the material lift can lift the desired weight.

	Load Center				
MODEL	14 in	24 in	42 in		
	36 cm	61 cm	107 cm		
MLI-5	1000 lb	1000 lb	350 lb		
	454 kg	454 kg	159 kg		
MLI-10	1000 lb	1000 lb	350 lb		
	454 kg	454 kg	159 kg		
MLI-15	800 lb	800 lb	500 lb		
	363 kg	363 kg	227 kg		
MLI-20	750 lb	550 lb	300 lb		
	340kg	249kg	136 kg		
MLI-25	600 lb	400 lb	200 lb		
	272 kg	181 kg	91 kg		

# **WARNING**

Raising a load that exceeds the rated lift capacity of the material lift creates a tipover hazard, which may result in serious injury or death.

□ Place the load on the load lifting attachment



☐ The load should be as close to the carriage as possible, and the load center should be centered between the forks

# **WARNING**

Raising a load that is not properly centered on the material lift creates a tip-over hazard, which may result in serious injury or death.

□ Secure the load to the load lifting attachment

# **WARNING**

Raising a load that is not securely fastened to the load lifting attachment creates a tip-over hazard, which may result in serious injury or death.

### TWO-SPEED SHIFT

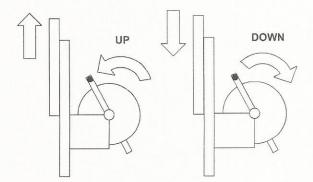
☐ To change the winch speed, push the winch handles sideways in the direction of the desired speed

# **←SLOW** • SPEED • FAST→

- ☐ Push the winch handles to the left to shift the winch to the slow speed
- ☐ Push the winch handles to the right to shift the winch to the fast speed
- ☐ Turn the winch handles toward the mast until the winch locks

### RAISING AND LOWERING THE LOAD

- Set up the material lift and position the load according to the procedures on the previous pages
- Verify that the load is secured to the load lifting attachment
- ☐ Shift the winch to the desired speed
- ☐ Firmly grasp both winch handles
- □ Rotate the winch handles toward the mast to raise the load
- □ Rotate the winch handles away from the mast to lower the load



□ After lowering the load to the desired position, rotate the winch handles one quarter-turn toward the mast - as if raising the carriage - to set the brake

### **AFTER USE**

Reverse the set up procedure to prepare the material lift for storage.

Store the material lift on a firm, level surface that is protected from the weather, dirt and other hazards that could reduce the lifespan of the equipment.

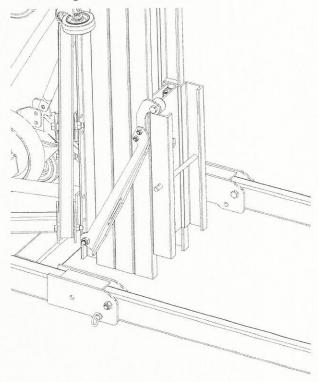
### **TRANSPORT**

# To transport the material lift:

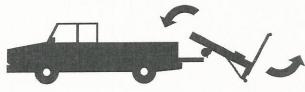
- □ Remove the fork retaining pin to remove the load lifting attachment from the carriage
- ☐ Turn the winch away from the mast until the carriage is fully lowered

# If the material lift is equipped with stabilizers:

- ☐ Push down on the stabilizer lock plates to release the stabilizers
- □ Raise the stabilizers to the stowed position
- Verify that the lock plates are engaged and the stabilizers are locked in the stowed position
- ☐ Rotate the carriage hold-down bar down
- □ Raise the carriage until it contacts the carriage hold-down bar



- Adjust the loading wheel to the height of the truck or trailer bed using the Smart-Set adjustment system; no pin is needed
- Lock the rear base casters
- □ Place the material lift against the transport vehicle, with the loading wheels facing the truck or trailer bed
- ☐ Tilt the material lift towards the transport vehicle until the loading wheels touch the truck or trailer bed



- Lift the material lift at the base and push it forward to roll it onto the truck or trailer bed
- Secure the material lift by placing at least one chain or strap over the mast

### CAUTION

Placing the chain or strap over the legs may damage the material lift. Always place the chain or strap over the mast only.

**NOTE:** Transport of the material lift does not require the legs to be placed in the stowed position. To raise the legs, remove the leg retainer pin and swing the legs into the stowed position. Insert the leg retainer pin.

Reverse the loading instructions to unload the material lift.