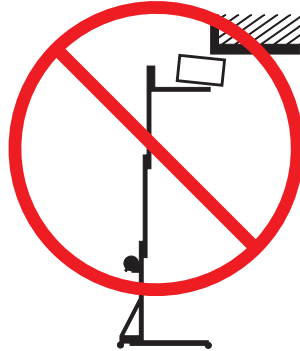


**BEFORE OPERATION**

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.

**⚠ 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.

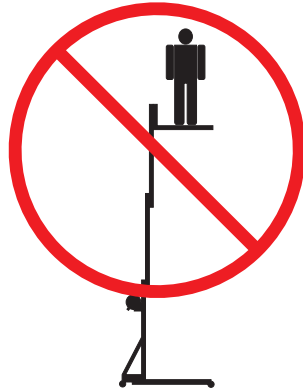
| Voltage Range<br>(Phase to Phase) | Minimum Safe Approach Distance |        |
|-----------------------------------|--------------------------------|--------|
|                                   | Feet                           | Meters |
| 0 to 300V                         | Avoid Contact                  |        |
| 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 on a moving or mobile surface, such as a truck bed.



**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** 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.



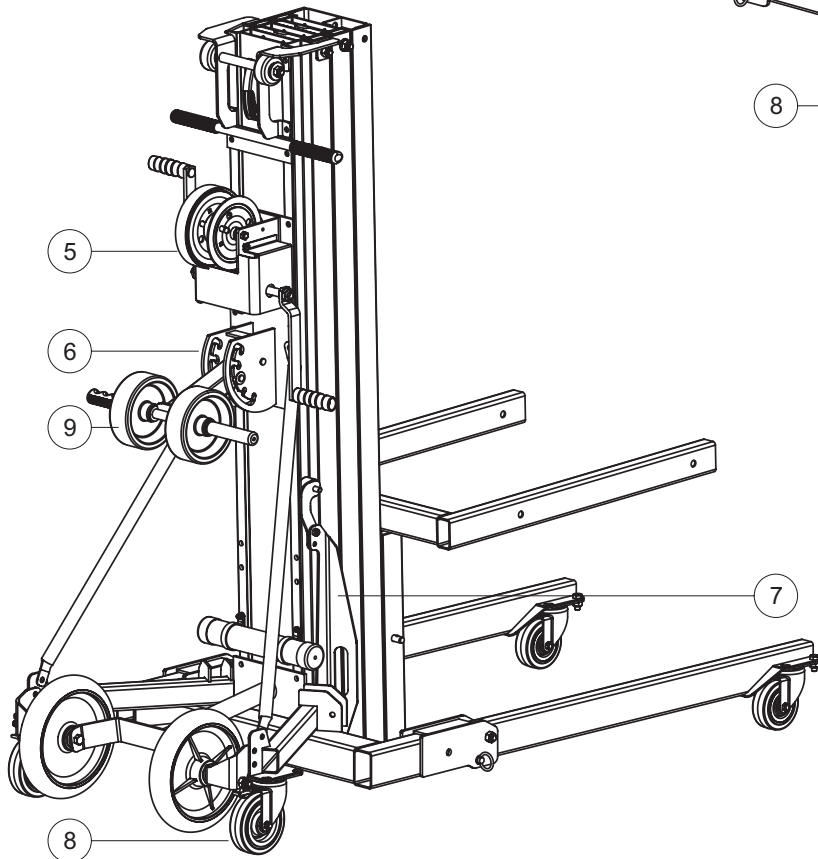
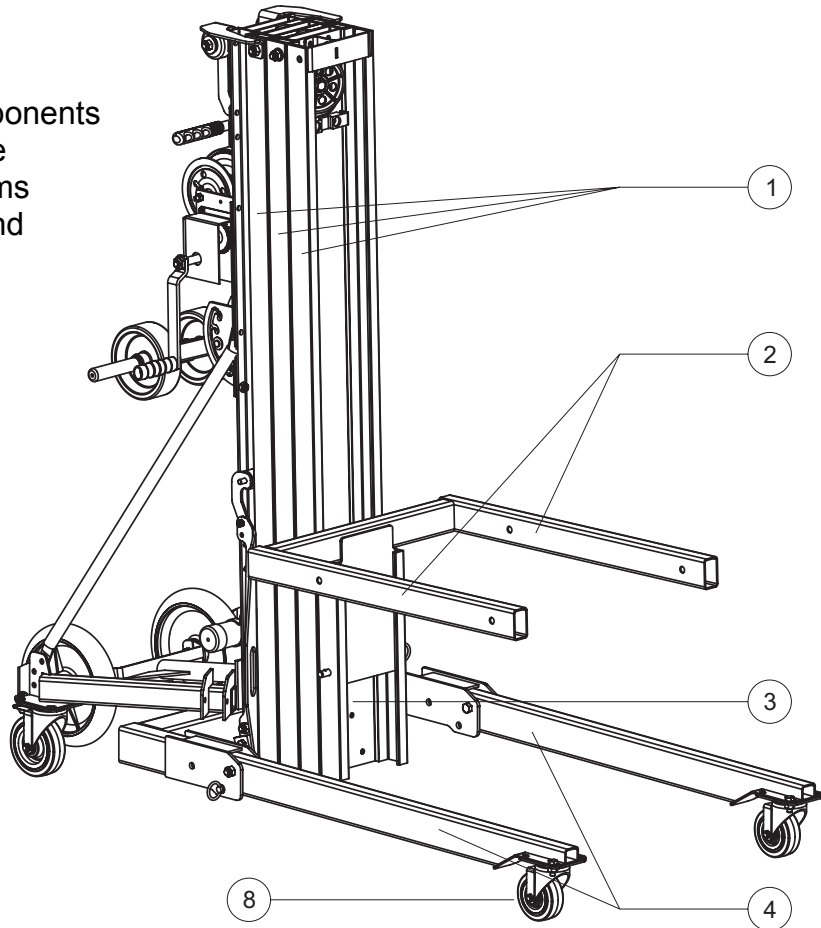
**NEVER** apply an additional side load or horizontal force to a material lift that is loaded or raised. **NEVER** place ladders or scaffold against the material lift.

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

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

## COMPONENTS

Become familiar with the major components of the material lift. Familiarity with the components identified on the diagrams below is necessary to ensure safe and proper operation of the material lift.



|   |                                       |
|---|---------------------------------------|
| 1 | Mast Sections                         |
| 2 | Forks (Shown in Up/Inverted Position) |
| 3 | Carriage                              |
| 4 | Legs                                  |
| 5 | Two-speed Winch                       |
| 6 | Smart-Set Adjustment System           |
| 7 | Carriage Hold-down Bar                |
| 8 | Casters                               |
| 9 | Loading Wheels                        |

## VISUAL INSPECTION

Before operating the material lift:

- Inspect the wheels and casters for excessive wear or damage
- Inspect the material lift for loose, damaged or missing fasteners
- Inspect the base, legs, stabilizers, mast sections, pulleys and forks for damage and improperly installed or missing components
- Inspect the cable for wear, frays, kinks or damage
- Verify that the cable is wrapped around the winch drum at least four times when the carriage is lowered
- Inspect the entire material lift for dents, damage, excessive rust or corrosion and cracks in welds or on structurally critical components, such as mast sections
- Verify that all decals are legible and correctly attached to the material lift

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### WARNING

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**If any worn or damaged components are observed or suspected, 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.**

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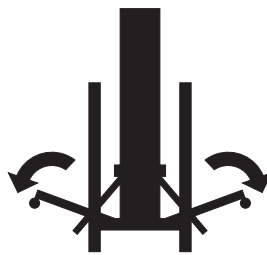
## SET UP

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

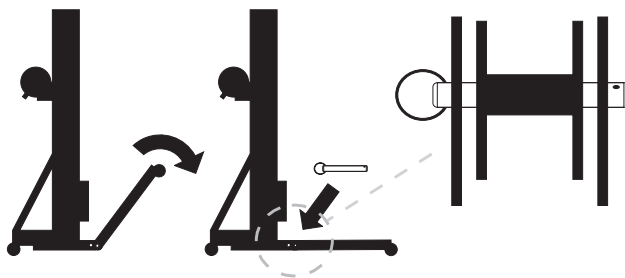
**Follow these steps to set up the machine:**

**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
- ❑ Verify that the lock plates are engaged and the stabilizers are locked in the down position

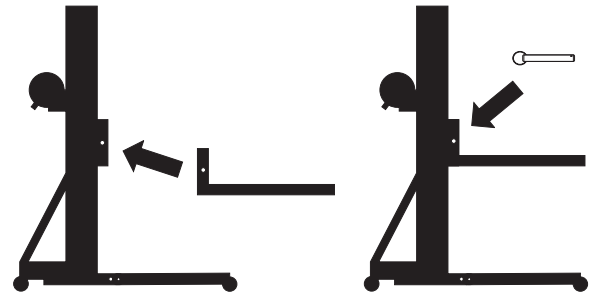


- ❑ Remove the leg retainer pin
- ❑ Lower the leg to the down position
- ❑ Insert the leg retainer pin through the leg and the base



- ❑ 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

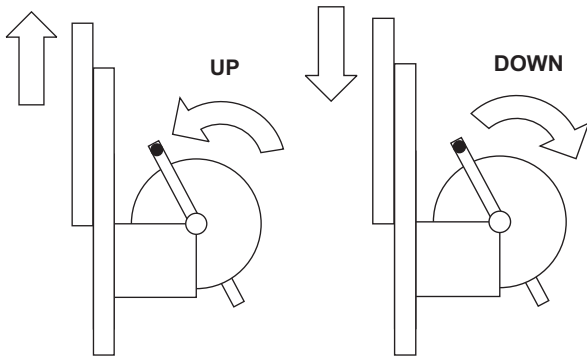
## FUNCTION TEST

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 quarter-turn 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:

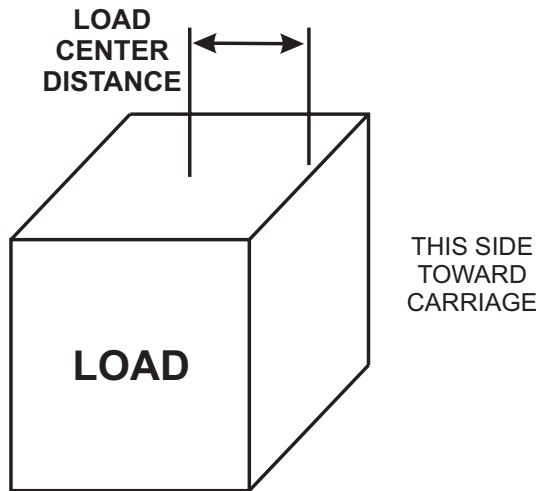
- Drop-offs
- Holes
- Debris
- Uneven or unstable surfaces
- Surfaces that will not support the forces imposed by the material lift, its operation and its load.
- Slippery surfaces
- Slopes
- Overhead obstructions
- Power lines or other electrical conductors
- High winds or inclement weather
- Moving 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.

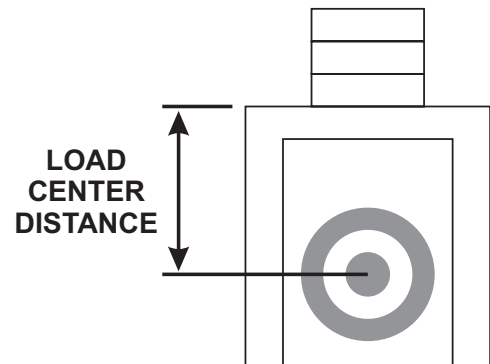
Refer to the chart below to determine if the material lift can lift the desired weight.

| MODEL  | Load Center      |                  |                 |
|--------|------------------|------------------|-----------------|
|        | 14 in<br>36 cm   | 24 in<br>61 cm   | 42 in<br>107 cm |
| MLM-12 | 700 lb<br>318 kg | 440 lb<br>200 kg | 185 lb<br>94 kg |
| MLM-16 | 650 lb<br>295 kg | 430 lb<br>195 kg | 175 lb<br>80 kg |
| MLM-20 | 600 lb<br>272 kg | 400 lb<br>181 kg | 200 lb<br>91 kg |

## **⚠ WARNING**

Raising a load that exceeds the rated lift capacity of the material lift creates a tip-over 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

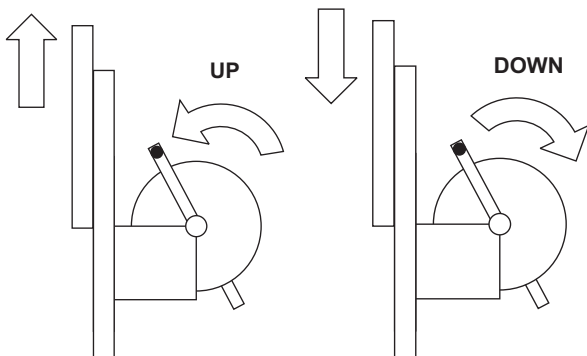
- ❑ To change the winch speed, push the winch handles sideways in the direction of the desired speed

**←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.