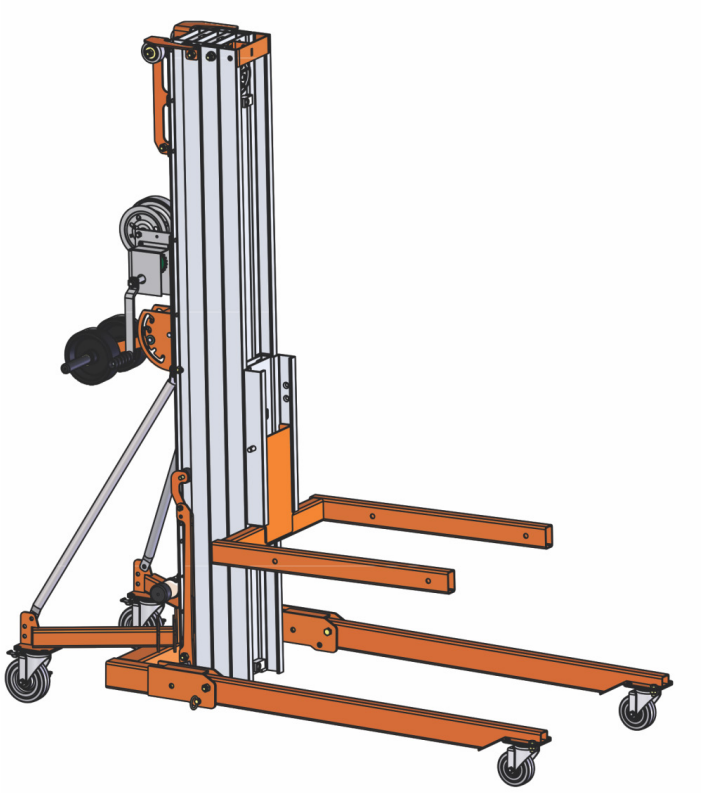
snorkel

ML5I
ML10I
ML15I
ML20I
ML25I



OPERATOR'S MANUAL

Part Number 7030242
October 2019

Replaces August 2019

DANGER

The material lift is not electrically insulated. Death or serious injury will result from contact with, or inadequate clearance from, an energized conductor.

Do not go closer than the minimum safe approach distance as defined by the Minimum Safe Approach Distance section in Chapter 3–Safety.

Regard all conductors as energized.

Allow for electrical wire sag and material lift sway.

If the mast, forks, or any part of the material lift contacts a high-voltage electrical conductor, the entire lift can become electrically charged.

Such contact could make your body a conductor to the other object, creating an electrical shock hazard resulting in death or serious injury.

Do not approach the material lift until the electricity has been turned off.

Do not attempt to operate the winch when the mast, forks, or any part of the material lift is in contact with a high-voltage electrical conductor or if there is an immediate danger of such contact.

Personnel operating, or near a material lift, must be continuously aware of electrical hazards, recognizing that death or serious injury can result from contact with an energized conductor.

Table of Contents

Chapter 1 – Introduction

It is the responsibility of the user to read, understand and obey all safety rules before attempting to operate this equipment. This includes all rules and instructions set forth by the manufacturer, as well as any local laws and regulations governing the safe use of this equipment.

It is strongly recommended that only trained and authorized personnel attempt to operate this material lift.

This manual shall be considered a permanent and necessary component of the material lift and shall be kept with the equipment at all times.

Snorkel is dedicated to the continuous improvement of this and all Snorkel products. Therefore, technical information contained in this manual is subject to change without notice. Direct any questions regarding errors or discrepancies in this manual to Snorkel.

This series of material lifts is designed to position heavy loads overhead at heights of up to 24 ft 11 in (7.6 m).

Prior to operation:

- Become familiar with the major components of the material lift.
- Become familiar with the specifications of the material lift,including maximum height and load capacities.
- Verify that all decals are legible and correctly attached to the material lift.

Operator's Manual

This manual provides information for safe and proper operation of the material lift. Read and understand the information in this Operator's Manual before operating the material lift on the job.

Additional copies of this manual may be ordered from Snorkel. Supply the model and manual part number from the front cover to assure that the correct manual will be supplied.

All information in this manual is based on the latest product information at the time of publication. Snorkel reserves the right to make product changes at any time without obligation.

Safety Alerts

A safety alert symbol is used throughout this manual to indicate danger, warning, and caution instructions. Follow these instructions to reduce the likelihood of personal injury and property damage. The terms danger, warning, and caution indicate varying degrees of personal injury or property damage that can result if the instruction is not followed.

⚠Danger

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is to be used in the most extreme situations.

⚠Warning

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠Caution

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

Notes
Notes are used to provide special information or helpful hints to assist in aerial platform operation, but do not indicate a hazardous situation.

Operation

The material lift has built-in safety features and has been factory tested for compliance with Snorkel specifications and industry standards. However, any material lift can be potentially dangerous in the hands of untrained or careless operators.

⚠Warning

The potential for an accident increases when the material lift is operated by personnel who are not trained and authorized. Death or serious injury could result from such accidents. Read and understand the information in this manual and on the placards and decals on the machine before operating the aerial platform on the job.

Training is essential and must be performed by a qualified person.

- Become proficient in knowledge and actual operation before using the material lift on the job.
- The operator must be trained and authorized to perform any functions of the material lift.
- Operation of the material lift must be within the scope of the machine specifications.

The operator bears ultimate responsibility for following all manufacturer's instructions and warnings, regulations and safety rules of their employer and/or any state or federal law.

Maintenance

Every person who maintains, inspects, tests, or repairs the material lift must be qualified to do so. Following the daily prestart inspection in this Operator's Manual will help keep the material lift in optimum working condition.

Other maintenance functions must be performed by maintenance personnel who are qualified to work on the material lift.

Do not modify this material lift without prior written consent of the Snorkel Engineering Department. Modification may void the warranty, adversely affect stability, or affect the operational characteristics of the aerial platform.

Additional Information

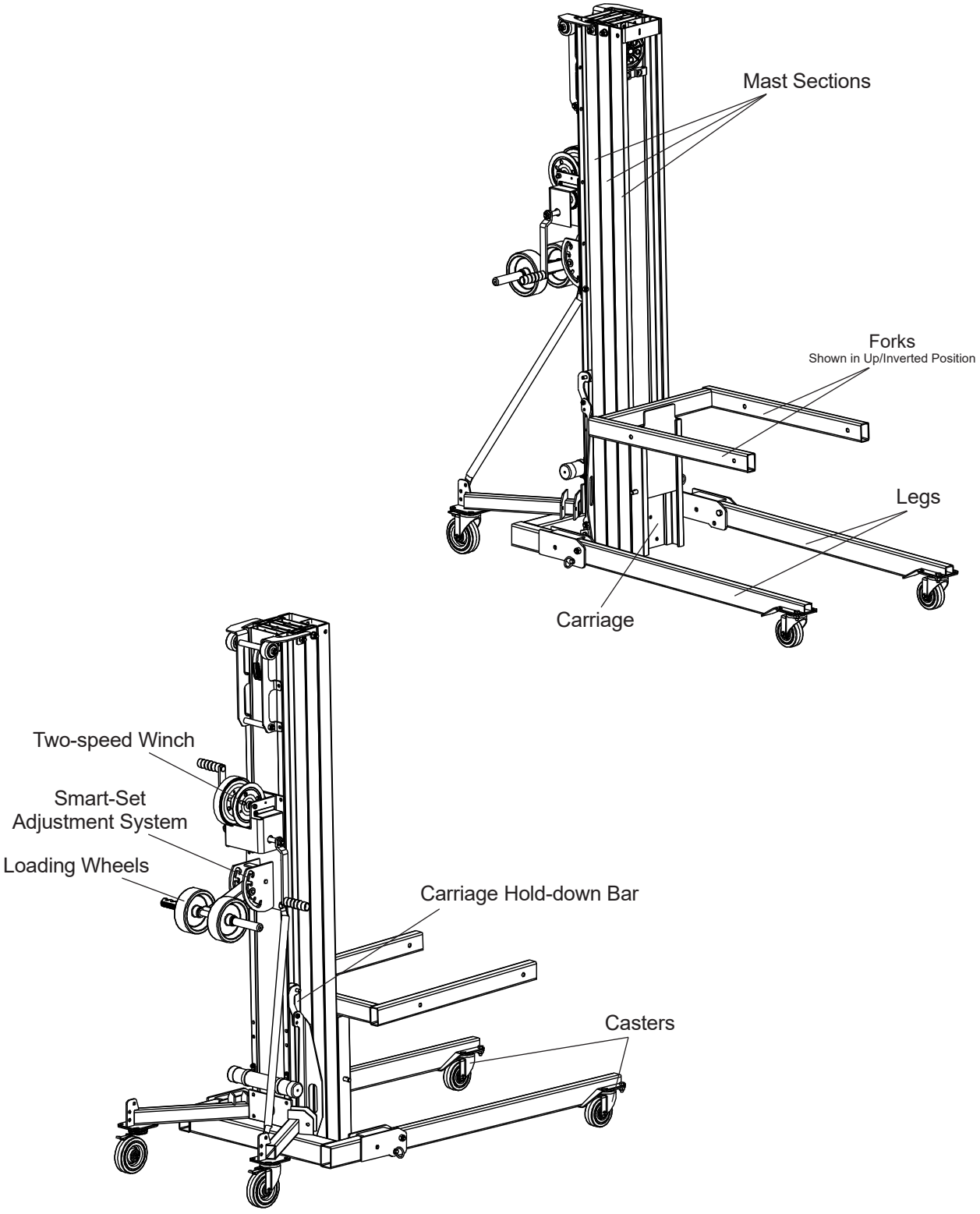
For additional information contact your local dealer or Snorkel at:

Snorkel International
P.O. Box 1160
St. Joseph, MO 64502-1160 USA
1-800-255-0317

http://www.snorkellifts.com

Chapter 2 – Specifications

Component Identification



Specifications

	ML5I	ML10I	ML15I	ML20I	ML25I
Lift Height					
Standard Forks – Up	6′ 5 1/8″ 2 m	11′ 3.4 m	15′ 8″ 4.8 m	20′ 3 1/2″ 6.2 m	24′ 11″ 7.6 m
Standard Forks – Down	4′ 8 5/8″ 1.4 m	9′ 4″ 2.7 m	13′ 4″ 4.3 m	18′ 6 3/4″ 5.7 m	23′ 2 3/8″ 7.1 m
Adjustable Forks – Up	6′ 5 1/8″ 2 m	11′ 3.4 m	15′ 8″ 4.8m	20′ 3 1/2″ 6.2 m	24′ 11″ 7.6 m
Adjustable Forks – Down	4′ 8 5/8″ 1.4 m	9′ 4″ 2.7 m	13′ 4″ 4.3 m	18′ 6 3/4″ 5.7 m	23′ 2 3/8″ 7.1 m
Boom	5′ 11 5/8″ 1.8 m	10′ 7″ 3.2 m	15′ 2 1/2″ 4.6 m	19′ 9 3/4″ 6.0 m	24′ 5 3/8″ 7.5 m
Height – Stowed	6′ 3 3/8″ 1.9 m				
Length – Stowed	31 1/2″ 80 cm				
Length – Operating	5′ 2″ 1.57 m	5′ 2″ 1.57 m	5′ 7″ 1.70 m	6′ 5″ 1.96 m	6′ 5″ 1.96 m
Width – Stowed	30 1/2″ 77 cm				
Width – Stabilizers Deployed	5′ 4″ 1.6 m				
Stabilizers	Optional			Standard	
Forks – Length	30″ 76 m				
Forks – Width Outside	23″ 58 cm				
Maximum Load Capacity					
14″ (36 cm) Load Center	1000 lb 454 kg	900 lb 408 kg	800 lb 363 kg	750 lb 340 kg	600 lb 272 kg
24″ (61 cm) Load Center	750 lb 340 kg	750 lb 340 kg	700 lb 318 kg	550 lb 249 kg	400 lb 181 kg
42″ (107 cm) Load Center	350 lb 159 kg	350 lb 159 kg	325 lb 147 k	300 lb 136 kg	200 lb 91 kg
Ground Clearance	2.5″ 6 cm				
Load Height – Minimum	6″ 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					
Fast Speed	4 cranks/ft 13.1 cranks/m				
Slow Speed	15 cranks/ft 49.2 cranks/m				

Specifications are subject to change without notice.

Chapter 3 – Safety

Knowledge of the information in this manual, and proper training, provide a basis for safely operating the material lift. Know the location of all controls and how they operate to act quickly and responsibly in an emergency.

Safety devices reduce the likelihood of an accident.

- Never disable, modify, or ignore any safety device.
- Safety alerts in this manual indicate situations where accidents may occur.

If any malfunction, hazard or potentially unsafe condition relating to capacity, intended use, or safe operation is suspected, stop aerial platform operation and seek assistance.

The operator bears ultimate responsibility for following all manufacturer's instructions and warnings, regulations and safety rules of their employer and/or any state or federal law.

Failure to follow all safety rules in this manual and attached to the material lift may result in serious injury or death.

Proper training is strongly recommended before attempting to operate any mechanical device.

Prior to operation:

- Read, understand and obey all safety rules and instructions in this manual and attached to the material lift
- Obtain, read and obey all applicable government regulations
- Become familiar with the proper operation of the material lift
- Inexperienced users should receive instruction before attempting to operate the material lift

Electrocution Hazards

The material lift is made of metal components and is not insulated. Regard all conductors as energized.

Minimum Safe Approach Distance

Minimum safe approach distances to energized power lines and their associated parts must be observed while operating the material lift.

⚠Danger

The material lift is not electrically insulated. Death or serious injury will result from contact with, or inadequate clearance from, an energized conductor. Do not go closer than the minimum safe approach distance as defined by ANSI.

ANSI publications define minimum distances that must be observed when working near bus bars and energized power lines. Table 1 is reprinted courtesy of Scaffold Industry Association.

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

Table 1 – Minimum Safe Approach Distance

Prestart Inspection

Perform a prestart inspection before each shift as described in Chapter 4. Do not use the material lift on the job unless you are trained and authorized to do so.

Work Place Inspection and Practices

Do not use the material lift as a ground connection when welding.

- The welding ground clamp must be attached to the same structure that is being welded.
- Electrical current flow can be very intense, causing serious internal damage to some components.

Inspect the area before and during material lift use. The following are some potential hazards that may be in the work place:

- 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

⚠Danger

Pinch points may exist between moving components. Death or serious injury will result from becoming trapped between components, buildings, structures, or other obstacles. Make sure there is sufficient clearance around the machine before moving the machine, mast or load. Allow sufficient room and time to stop movement to avoid contact with structures or other hazards.

Always look in the direction of movement.

- Position the material lift with care and at speeds compatible with the work place conditions.
- Use caution when positioning the material lift over rough surfaces, on slopes and when turning.
- Do not engage in any form of horseplay or permit riders on the material lift.

⚠Warning

The potential for an accident increases when operating a material lift that is damaged or malfunctioning. Death or serious injury could result from such accidents. Do not operate the material lift if it is damaged or malfunctioning.

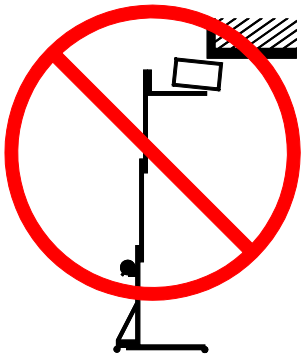
Do not operate the material lift if it is damaged or not functioning properly. Qualified maintenance personnel must correct the problem before putting the aerial platform back into service.

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.

ALWAYS verify that all decals are legible and correctly attached to the material lift before operating the equipment.

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.

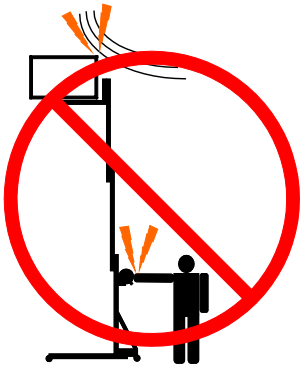
⚠Danger

The material lift is not electrically insulated. Death or serious injury will result from contact with, or inadequate clearance from, an energized conductor. Do not go closer than the minimum safe approach distance as defined by ANSI.

Allow for mast movement or electrical line sway due to environmental conditions.

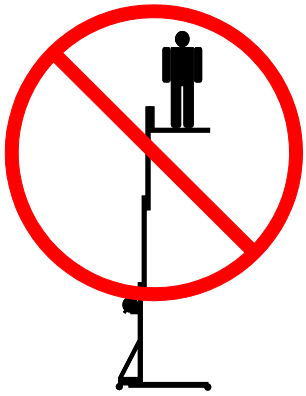
ALWAYS assume every power line is live.

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.

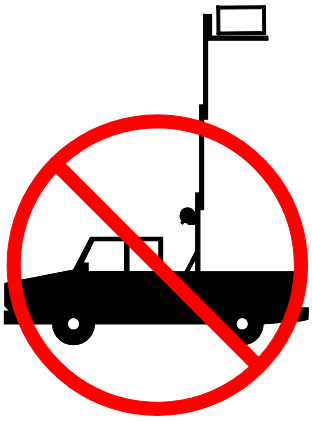
NEVER operate the equipment unless the material lift is located on a firm, level surface.

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.

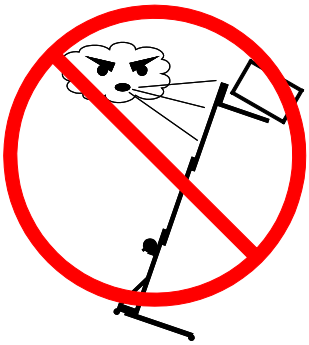


NEVER exceed the rated load capacity of the material lift.

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.

Properly stow the material lift and secure it against unauthorized operation at the end of each work day, before transporting, or if it is left unattended.

Placards and Decals

The material lift is equipped with placards and decals that provide instruction for operation and accident prevention. Do not operate the aerial platform if any placards or decals are missing, damaged, or illegible.

The location, description, quantity, and part number of the material lift placards and decals are illustrated on the following pages.

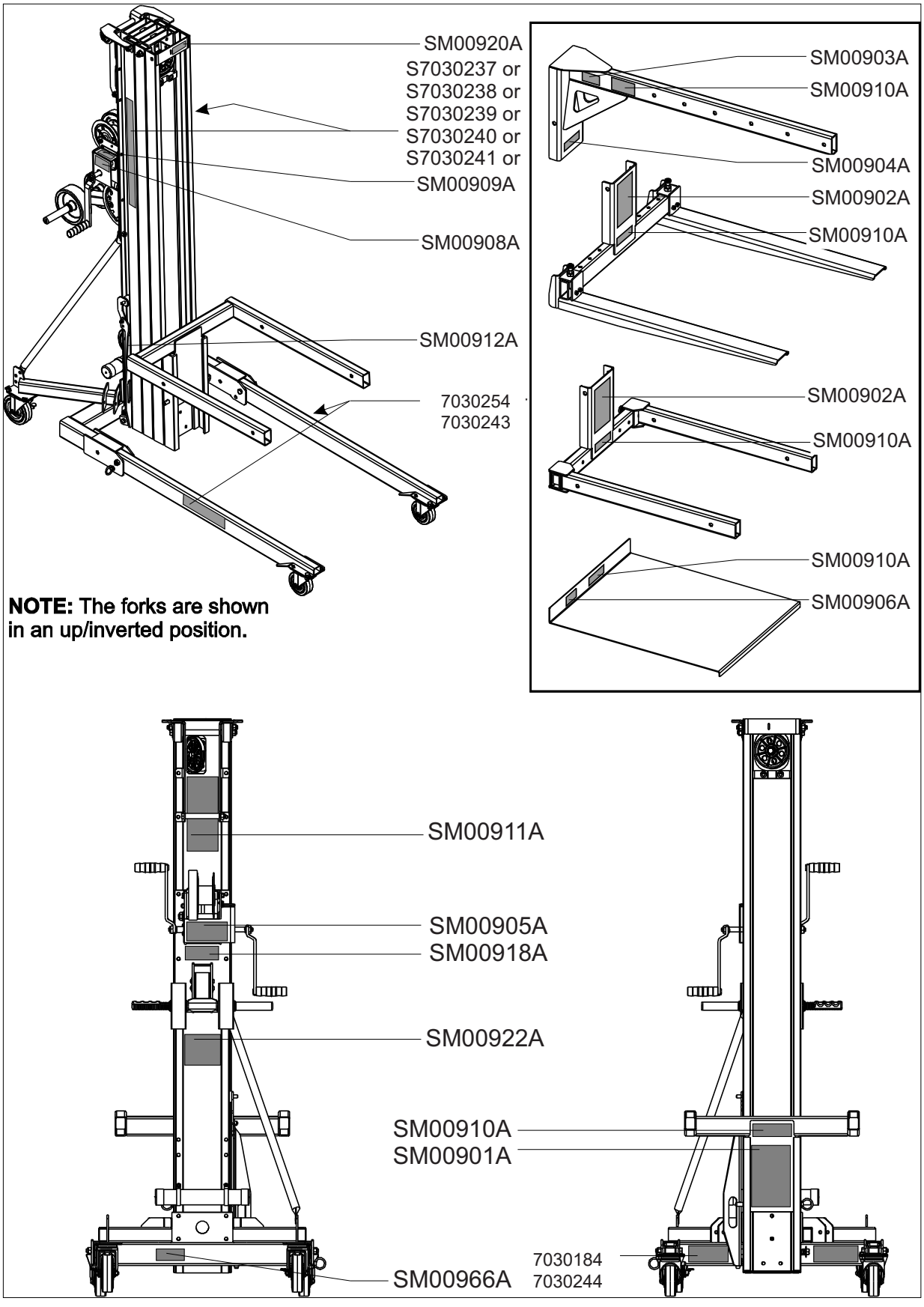
Decals – ANSI

Part Number	Description	Quantity				
		ML5I	ML10I	ML15I	ML20I	ML25I
SM00900A	Operator's Manual Storage Container	1	1	1	1	1
SM00901A	WARNING - Hazards / NOTICE - Setup	1	1	1	1	1
SM00905A	NOTICE - Two-speed Shift	1	1	1	1	1
SM00908A	Use this Winch Only On The Following:	1	1	1	1	1
SM00909A	WARNING - Crushing Hazard	1	1	1	1	1
SM00910A	WARNING - No Riders	1	1	1	1	1
SM00911A	WARNING - Hazards	1	1	1	1	1
SM00912A	CAUTION - Damaged Machine Hazard	1	1	1	1	1
SM00918A	WARNING - Bodily Injury Hazard, Moving Parts	1	1	1	1	1
7030254	Decal www.snorkellifts. com Black	2	2	2	2	2
7030243	Decal www.snorkellifts.com White					
SM00920A	Made in the U.S.A.	1	1	1	1	1
SM00922A	NOTICE - Load Capacity Chart	1	1	1	1	1
7030184	Snorkel Logo Black	2	2	2	2	2
7030244	Snorkel Logo White					
S7030237	Snorkel ML5I	2				
S7030238	Snorkel ML10I		2			
S7030239	Snorkel ML15I			2		
S7030240	Snorkel ML20I				2	
S7030241	Snorkel ML25I					2
SM00966A	Serial Plate, Material Lifts	1	1	1	1	1

Optional Equipment

Part Number	Description
SM00902A	Warning Adjustable Fork Safety – Adjustable Forks Only
SM00903A	Notice Boom Set Up
SM00904A	Warning Boom Safety
SM00906A	Warning Bodily Injury Hazard

Decals – ANSI


SM00920A
S7030237 or
S7030238 or
S7030239 or
S7030240 or
S7030241 or
SM00909A
SM00908A
SM00912A
7030254
7030243
NOTE: The forks are shown in an up/inverted position.
SM00903A
SM00910A
SM00904A
SM00902A
SM00910A
SM00902A
SM00910A
SM00910A
SM00906A
SM00911A
SM00905A
SM00918A
SM00922A
SM00910A
SM00901A
SM00966A
7030184
7030244

Chapter 4 – Prestart Inspection

Potential service and safety problems may be detected by inspecting the material lift.

⚠Warning

The potential for an accident increases when operating a material lift that is damaged or malfunctioning. Death or serious injury could result from such accidents. Do not operate the material lift if it is damaged or malfunctioning.

Perform a prestart inspection at the beginning of each shift, before using the material lift on the job. The inspection site must have a smooth and level surface.

A visual inspection of the machine is required to determine if any part of the material lift is worn or damaged. Testing the material lift before placing a load on the equipment will determine if there are any malfunctions.

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

An inspection of the work area will determine if the area is safe for operation of the material lift.

Prior to operation:

- Visually inspect the material lift for worn or damaged components.
- Set up and test the material lift to determine if there are any malfunctions.
- Inspect the work area.

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.

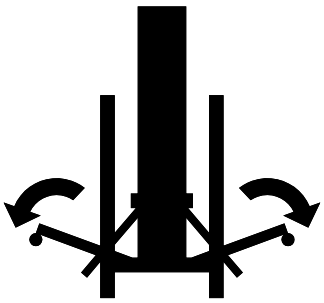
Set Up

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

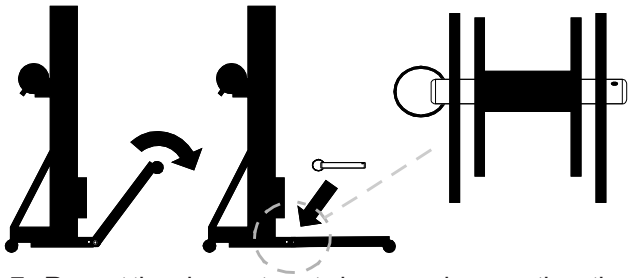
Follow these steps to set up the machine.

Material lifts equipped with stabilizers

1. Push down on the stabilizer lock plates to release the stabilizers.
2. Lower the stabilizers until the casters are in contact with the ground.

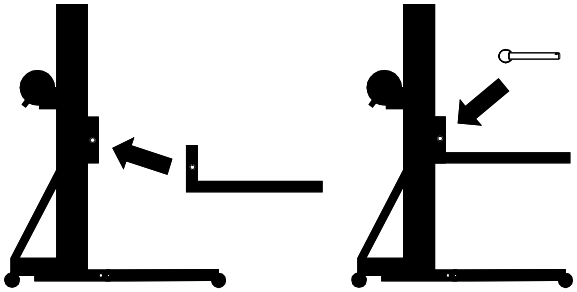


3. Verify that the lock plates are engaged and the stabilizers are locked in the down position.
4. Remove the leg retainer pin.
5. Lower the leg to the down position.
6. Insert the leg retainer pin through the leg and the base.



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

9. Insert the fork retainer pin through the load lifting attachment and the carriage.



10. Engage the locking toggle on the fork retainer pin.

11. Rotate the carriage hold-down bar up and away from the carriage.

Material lifts equipped with adjustable forks

1. Pull up on the snap pins.

2. Adjust the forks to the desired width.

3. Verify that the snap pins are properly inserted.

To install fork extensions

1. Slide the extension tube onto the fork.

2. Adjust the extension tubes to the desired position.

3. Insert the retaining pins through the extension tube and the fork.

Material lifts equipped with a load platform

1. 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.

1. Shift the winch to the slow speed.

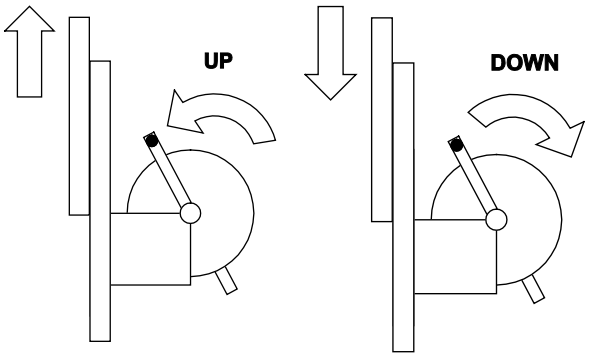
2. Firmly grasp both winch handles.

3. 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.

4. Rotate the winch handles away from the mast to completely lower the carriage.

5. 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.

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.

Placards and Decals

To inspect the placards and decals:

1. Inspect all safety and operational placards and decals. Make certain they are in place, in good condition, and are legible.

2. Clean the placards and decals with soap and water, and a soft cloth if the words or pictures cannot be seen.

⚠Caution

Solvents may contain hazardous ingredients. Follow the manufacturer's label for proper use and disposal. Wear protective gloves and splash-proof safety glasses when using solvents.

3. Remove wet paint overspray with a natural biodegradable solvent and a soft cloth.

4. Replace any missing, damaged, or illegible placards or decals before operating the aerial platform.

Placard and decal kits are available from Snorkel.

Chapter 5 – Operation

⚠Danger

The material lift is not electrically insulated. Death or serious injury will result from contact with, or inadequate clearance from, an energized conductor. Do not go closer than the minimum safe approach distance as defined by ANSI.

⚠Warning

Pinch points may exist between moving components. Death or serious injury could result from becoming trapped between components, buildings, structures, or other obstacles. Make sure there is sufficient clearance around the machine before moving the material lift. Allow sufficient room and time to stop movement to avoid contact with structures or other hazards.

The material lift can tip over if it becomes unstable. Death or serious injury could result from a tip-over accident. Operate the material lift on a firm, flat, level surfaces. Do not position the material lift for elevated use near any drop-off, hole, slope, soft or uneven ground, or other tip-over hazard.

The maximum load capacity is the total weight of th equipment that may be lifted with the material lift forks.

The maximum load capacity is stated on the lift serial plate and is listed in the machine lift specifications in this manual.

⚠Warning

The material lift can tip over if it becomes unstable. Death or serious injury could result from a tip-over accident. Do not exceed the load capacity values indicated on the machine serial plate and in this Operator's Manual.

Capacity values indicate the rated lifting capacity and do not indicate material lift stability.

The operator bears ultimate responsibility for ensuring that the material lift is properly set up for the particular conditions encountered.

This section provides instructions for the safe and proper operation of the material lift. It is the responsibility of the operator to follow these instructions. Failure to follow these instructions, as well as all safety rules in this manual and attached to the material lift may result in serious injury or death.

During operation:

- Follow all of the safety rules provided in previous sections of this manual.
- Follow all instructions provided in this section.

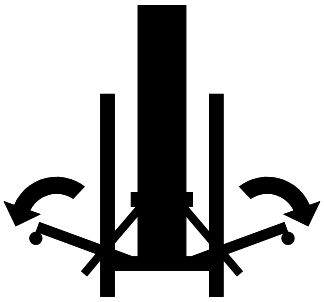
Set Up

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

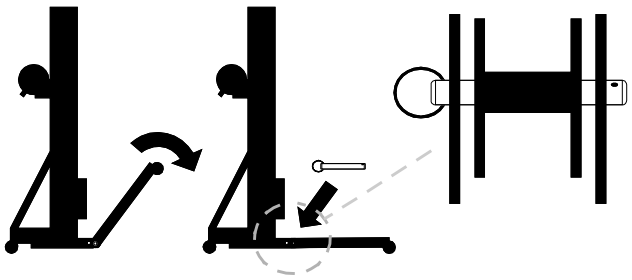
Follow these steps to set up the machine.

Material lifts equipped with stabilizers

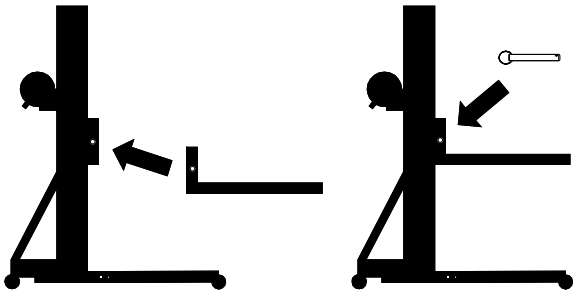
1. Push down on the stabilizer lock plates to release the stabilizers.
2. Lower the stabilizers until the casters are in contact with the ground.



3. Verify that the lock plates are engaged and the stabilizers are locked in the down position.
4. Remove the leg retainer pin.
5. Lower the leg to the down position.
6. Insert the leg retainer pin through the leg and the base.



7. Repeat the above steps to lower and secure the other leg.
8. Place the desired load lifting attachment (standard forks, adjustable forks, boom) inside the carriage.
9. Insert the fork retainer pin through the load lifting attachment and the carriage.



10. Engage the locking toggle on the fork retainer pin.

11. Rotate the carriage hold-down bar up and away from the carriage.

Material lifts equipped with adjustable forks

1. Pull up on the snap pins.

2. Adjust the forks to the desired width.

3. Verify that the snap pins are properly inserted.

To install fork extensions

1. Slide the extension tube onto the fork.

2. Adjust the extension tubes to the desired position.

3. Insert the retaining pins through the extension tube and the fork.

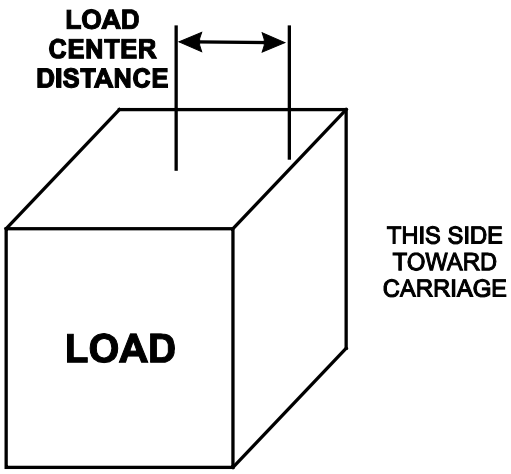
Material lifts equipped with a load platform

1. Place the load platform on the forks.

Positioning the Load

1. 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.

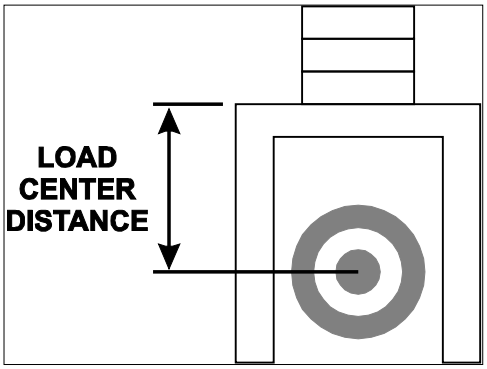
2. Refer to the chart below to determine if the material lift can lift the desired weight.

⚠Warning

Raising a load that exceeds the maximum load capacity of the material lift creates a tip over hazard. Death or serious injury could result from such accidents. Do not exceed the load capacity values indicated on the machine serial plate and in this Operator's Manual.

Model	Load Center 14″ 36 cm	24″ 61 cm	42″ 107 cm
ML5I	1000 lb 454 lg	750 lb 340 lg	350 lb 159 lg
ML10I	900 lb 408 lg	750 lb 340 lg	350 lb 159 lg
ML15I	800 lb 363 lg	700 lb 318 lg	325 lb 147 lg
ML20I	750 lb 340 lg	550 lb 249 lg	300 lb 136 lg
ML25I	600 lb 272 lg	400 lb 181 lg	200 lb 91 lg

3. Place the load on the load lifting attachment.



⚠Warning

Raising a load that is not properly centered on the material lift creates a tip over hazard. Death or serious injury could result from such accidents. Properly center the load before using the material lift to position the material.

4. Position the load as close to the carriage as possible, with the load center centered between the forks.

⚠Warning

Raising a load that is not securely fastened to the load lifting attachment creates a tip over hazard. Death or serious injury could result from such accidents. Securely fasten the load before using the material lift to position the material.

5. Secure the load to the load lifting attachment.

Two-Speed Shift

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

   ←SLOW • SPEED • FAST→

2. Push the winch handles to the left to shift the winch to the slow speed.

3. Push the winch handles to the right to shift the winch to the fast speed.

4. Turn the winch handles toward the mast until the winch locks.

Raising and Lowering the Load

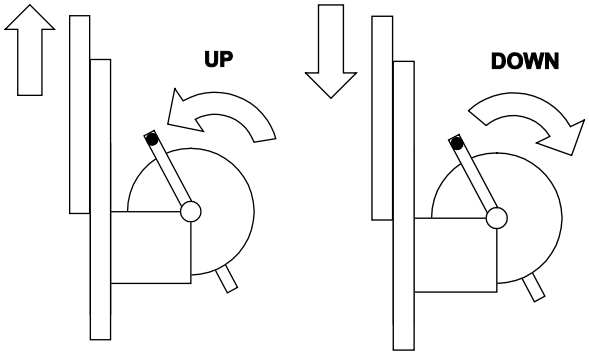
1. Set up the material lift and position the load according to the procedures on the previous pages.

2. Verify that the load is secured to the load lifting attachment.

3. Shift the winch to the desired speed.

4. Firmly grasp both winch handles.

5. Rotate the winch handles toward the mast to raise the load.



6. Rotate the winch handles away from the mast to lower the load.

7. 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.

Chapter 6 – Transporting

Transporting

To transport the material lift:

1. Remove the fork retaining pin to remove the load lifting attachment from the carriage.

2. Turn the winch away from the mast until the carriage is fully lowered.

Material lifts equipped with stabilizers

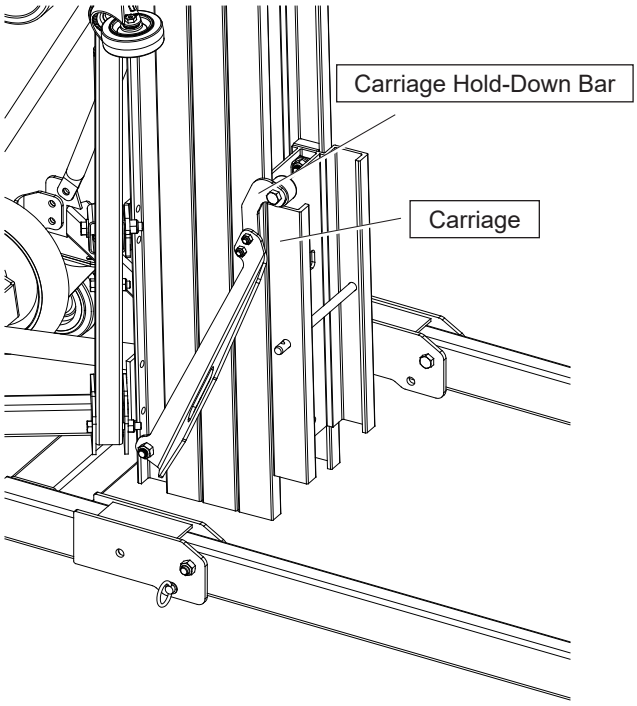
A. Push down on the stabilizer lock plates to release the stabilizers.

B. Raise the stabilizers to the stowed position.

C. Verify that the lock plates are engaged and the stabilizers are locked in the stowed position.

3. Rotate the carriage hold-down bar down.

4. Raise the carriage until it contacts the carriage hold-down bar.

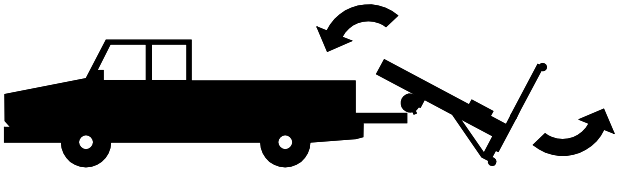


5. Adjust the loading wheel to the height of the truck or trailer bed using the Smart-Set adjustment system; no pin is needed.

6. Lock the rear base casters.

7. Place the material lift against the transport vehicle, with the loading wheels facing the truck or trailer bed.

8. Tilt the material lift towards the transport vehicle until the loading wheels touch the truck or trailer bed.



9. Lift the material lift at the base and push it forward to roll it onto the truck or trailer bed.

⚠Caution

Ratchets, winches, and come-alongs may produce enough force to damage machine components. Do not over tighten the straps or chains when securing the aerial platform to the transport vehicle. Place the chain or strap over the mast only.

10. Secure the material lift by placing at least one chain or strap over the mast.

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.

Snorkel Product Warranty Policy

1. Snorkel warrants, its authorized sales and service centers (herein referred to as “SSC”), each new machine manufactured and sold by it to be free from defects in material and workmanship for a period of two (2) years from date of delivery to any customer. The warranty will apply subject to the machine being operated in accordance with the rules, precautions, instructions and maintenance requirements outlined in the relevant Snorkel Operator and Parts/ Service manuals. Snorkel further warrants the structural components, specifically the mainframe chassis, turntable, booms and/or scissor arms of each new machine manufactured by it to be free from defects in material and workmanship for an additional period of three (3) years. Any such part or parts which, upon examination by the Snorkel Warranty Department or appointed representative, are found to be defective will be replaced or repaired by Snorkel through local authorized Dealers. The structural warranty specifically excludes adverse effects on the machine structure arising from damage, abuse or misuse of the equipment.

2. Machines may be held in an authorized Distributor/ SSC’s stock for a maximum period of six (6) months from the date of shipment from Snorkel, before the warranty period is automatically initiated on each machine.

3. It is the responsibility of the Distributor/SSC to complete and return to Snorkel a Predelivery Inspection Warranty Registration Form, before the act of rental / loan / demonstration of the machine or delivery to an end user. In the case of direct sale to end customers the same responsibility lies with the end customer.

4. Any end customer, SSC, distributor or dealer shall not be entitled to the benefits of this warranty and Snorkel shall have no obligations here under unless the “PreDelivery and Inspection Report” has been properly completed and returned to the Snorkel Warranty department within fifteen (15) days after delivery of the Snorkel product to the Customer or Dealer’s demonstration / rental fleet. Snorkel must be notified, in writing, within ten (10) days, of any machine sold to a Customer from a Dealer/SSC’s rental fleet during the warranty period.

5. Any part or parts which upon examination by the Snorkel Product Support Department are found to be defective within the specified warranty period, will be replaced or repaired at the sole discretion of Snorkel through its local Authorized Distributor/SSC, at no charge. Any parts replaced under warranty must be original Snorkel parts obtained through an authorized Snorkel Distributor/SSC unless expressly agreed otherwise in writing and in advance by Snorkel’s warranty department.

6. All parts claimed under warranty must be held available for return and inspection upon request for a period of 90 days from date of claim submission, it is necessary that all parts are individually tagged or marked with their part number and the warranty claim number. All parts returning should be still in a factory state, free of any alteration to the original design. If the parts are subject to repair it will need to be pre authorized by the Snorkel Product Support Group and or Warranty Department prior to the repair being completed. After 90 days all parts replaced under warranty which have not been returned, to Snorkel should be destroyed. Failure to produce parts requested by the Warranty Administrator for inspection within a period of 14 days will result in the claim being automatically rejected in full. Materials returned for warranty inspection must have the following procedure:

   - Carefully packaged to prevent additional damage during shipping
   - Drained of all contents and all open ports capped or plugged
   - Shipped in a container tagged or marked with the RMA number
   - Shipped PREPAID (ground service only). Any item(s) returned for warranty by any other means may be refused and returned, unless prior approval is agreed with Snorkel.

Snorkel Product Warranty Policy

7. At the direction of the Snorkel Warranty department, any component part(s) of Snorkel products to be replaced or repaired under this warranty program must be returned freight prepaid for inspection. An RMA (Returns material authorization) must be requested from Snorkel Warranty department, a copy to be placed with the returning component part(s).

8. All warranty replacement parts will be shipped freight prepaid (standard charges, ground shipping only) from the Snorkel Parts department, Service Department or from the Vendor to Dealer/SSC or Customer. Any other shipping method is the customer responsibility.

9. All warranty claims are subject to approval by Snorkel Service department. Snorkel reserves the right to limit or adjust claims with regard to defective parts, labor or travel time based on usual and customary guidelines.

10. Reimbursement policy, labor will be paid at 75% of posted hourly shop rate. Travel time will be paid at $50 per hour up to a maximum of 3 hours. Snorkel will pay 1 hour of troubleshooting time per warranty claim, unless expressly agreed otherwise in writing and in advance by Snorkel's Warranty Department. An annual rate declaration must to be supplied to the Snorkel Warranty administrator by January 31st and will be used as the reimbursable rate for that calendar year.

REPLACEMENT PARTS WARRANTY

- Any part replaced under this limited warranty is not subject to further warranty cover beyond the normal warranty period of the machine upon which the part was installed.
- Any replacement parts sold (not delivered under a warranty claim) will be subject to a warranty period of (6) six months from the date of invoice.
- Parts held by an authorized Distributor/SSC are covered under warranty for a period of (12) twelve months from the date of invoice, provided that those parts have been subject to appropriate storage to prevent damage and deterioration (conditional on Snorkel review).

CLAIM PROCEDURE

The Snorkel Warranty department must be notified within forty-eight hours (48) of any possible warranty situation during the applicable warranty period. Personnel performing major warranty repair or parts replacement must obtain specific approval by the Snorkel Warranty department prior to performing the warranty repair or replacement.

When a Distributor/SSC/Customer perceive a warranty issue to exist the following steps must be adhered to:

- Customer/SSC/Distributor to place a purchase order for genuine Snorkel replacement parts.
- Snorkel to dispatch parts via the requested method (in line with the required response time).
- Confirmation that a qualified technician is available to replace the part and that this person has been accepted by Snorkel to carry out such work under the warranty of the machine. Failure to do this may nullify the warranty.
- Customer/SSC/Distributor to allocate a warranty claim number to the repair.
- All correspondence in respect of the claim to be on an official Snorkel warranty claim form as supplied by Snorkel's warranty department.
- All warranty claims must be submitted within 30 days of the date of the machine repair.

FREIGHT DAMAGE

- If a machine is received in a damaged condition, then the damage must be noted on the bill of lading and/or delivery documents and photographs must be taken at the point of delivery, prior to signing acceptance of the consignment.
- The freight company and Snorkel must be contacted by the Distributor and a damage claim registered by either party immediately.
- The above requirements apply only to freight damage associated with equipment supplied by Snorkel transport. Customer freight issues are excluded from this warranty policy.

Snorkel Product Warranty Policy

THIS PRODUCT WARRANTY POLICY SPECIFICALLY EXCLUDES:

1. Engines, motors, tires and batteries are manufactured by specialist suppliers to Snorkel, who furnish their own warranty policies. Snorkel will, however, to the extent permitted pass through any such warranty protection to the Distributor/SSC/Customer.

2. Any Snorkel product which has been modified or altered outside Snorkel factories without written approval, if such modification or alteration, in the sole judgment of Snorkel Engineering and/or Service Departments, adversely affects the stability, reliability or service life of the Snorkel product or any component thereof.

3. Any Snorkel product which has been subject to misuse and abuse, improper maintenance or accident. “Misuse” includes but is not limited to operation beyond the factory-rated load capacity and speeds. “Improper maintenance” includes but is not limited to failure to follow the recommendations contained in the Snorkel Operation, Maintenance, and repair Parts Manuals.

4. Normal wear of any Snorkel component part(s). Normal wear of component parts may vary with the type, application or type of environment in which the machine may be used; such as, but not limited to sandblasting applications.

5. Routine maintenance, routine maintenance items and minor adjustments are not covered by this warranty, including but not limited to hydraulic fluid, filters and lubrication, paint and decals, engine tune-up, brake adjustments etc. Snorkel will not cover leaks from fittings, hoses and any other connection points after the unit has been in service for 90 days or 150 hours of operation which ever comes first.

6. Any Snorkel product that has come into direct contact with any chemical or abrasive material.

7. Incidental or consequential expenses, losses, or damages related to any part or equipment failure, including but not limited to freight cost to transport the machine to a repair facility, downtime of the machine, lost time for workers, lost orders, lost rental revenue, lost profits, expenses or increased cost. This warranty is expressly in lieu of all other warranties, representations or liabilities of Snorkel, either expressed or implied, unless otherwise amended in writing by Snorkel.

8. Snorkel warranty policy does not cover any duties, taxes, environmental fees including without limitation, disposal or handling of tires, batteries and petrochemical items.

9. Items specifically excluded are: fuel injectors, motor brushes, glow plugs, contactor tips and springs, filters, lamp bulbs, lamp lenses, coolants, lubricants, brake pads and cleaning materials.

10. Failure of replacement parts due to fault misdiagnosis or incorrect fitting by the Distributor/SSC/Customer.

SNORKEL MAKES NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THIS LIMITED WARRANTY. SNORKEL MAKES NO IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND DISCLAIMS ALL LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO INJURY TO PERSONS OR PROPERTY.

Snorkel Product Warranty Policy

Wherever possible the end customer shall obtain all warranty support and make all warranty claims through the local Snorkel authorized Distributor/SSC/Dealer. Warranty support should be from the Distributor/SSC/Dealer from whom the Snorkel product was purchased. Where Snorkel equipment is supplied directly from the factory the end customer, or if unable to contact the Distributor/SSC/Dealer, may contact the Snorkel Warranty Department for further assistance.

APPEAL

The buyer may appeal in writing against a rejected or adjusted claim to Snorkel warranty department within a period of 21 days of receiving the rejection or adjustment notice. The appeal should be grounded on express reasons and supported by relevant evidence. Appeals received outside of this time limit will not be considered.

SNORKEL WARRANTY SCHEDULE

Limited Warranty Periods

Item	Warranty Period
New machine materials and workmanship	**2 year parts replacement**
Structural components (Chassis, Turntable, Booms, Scissors)	**5 years parts replacement or repair**
Parts held in a Distributor's stock	**12 months from date of invoice, subject to adequate storage/protection**
Parts sold (non warranty)	**6 months from date of invoice**
Batteries supplied on new machines	**6 months from warranty registration date**
Other specifically excluded parts: **Fuel injectors** **Motor brushes** **Glow plugs** **Contactor tips and springs** **Oils** **Filters** **Lamp bulbs** **Lamp lenses** **Coolants** **Lubricants** **Cleaning materials** **All consumable/wear parts**	**Not covered by Warranty**

Local Distributor / Lokaler Vertiebshändler / Distributeur local
El Distribuidor local / Il Distributore locale

EUROPE, MIDDLE EAST
AFRICA & ASIA
PHONE: +44 (0) 845 1550 058
FAX: +44 (0) 845 1557 756

NORTH & SOUTH AMERICA
PHONE: +1 785 989 3000
TOLL FREE: +1 800 255 0317
FAX: +1 785 989 3070

AUSTRALIA
PHONE: +61 1300 700 450
FAX: +61 2 9609 3057

NEW ZEALAND
PHONE: +64 6 3689 168
FAX: +64 6 3689 164

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