

Manlift and Aerial Work Platform Safety Policy Summary

The purpose of this document is to provide necessary requirements for the safe use and proper operation of aerial lifts and scissor lifts – commonly referred to as man-lifts.

Siemens Industry, Inc. Building Technologies (BT) Division acknowledges the serious hazards associated with the operation of man-lifts and aerial work platforms. As much as 3% of all construction-related deaths were associated with aerial work platforms (1992-1998). Leading causes of man-lift-related accidents are electrocution, falls (from man-lifts or AWP's), collapses/tipovers, caught in/between and struck by/against.

Special Considerations

For specific risk-related reasons, BT asserts the following special requirements concerning the usage and operation of man-lifts and AWP's by BT personnel:

- BT-owned/rented man-lifts or AWP's shall not be shared, offered or allowed for usage by other companies/contractors or customers.

- BT employees shall not use man-lifts or AWP's provided by customers or other companies/contractors.

1.1 **General Requirement Procedures**

1.1.1 Equipment Requirements

- Aerial lifts acquired for use after January 22, 1973, shall be designed and constructed in conformance with the applicable requirements of the American National Standards for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2-1969, including appendix.
- Lifts must incorporate standard guardrails, unless specifically required by manufacturer design not to necessitate such equipment. In the case where standard guardrails are not present, notice of such variation shall be brought to the attention of BT Safety Management prior to usage.

1.1.2 Equipment Modifications

- Never field modify a man-lift or AWP for uses other than those intended by the manufacturer (this most specifically applies to the installation of field manufactured tie-off points for fall protection).
- Any modifications for uses other than those intended by the manufacturer requires certified,

documented authorization from the manufacturer.

- Alteration of the insulated portion of a man-lift or AWP which may reduce its electrical insulating value is not permitted.

1.1.3 Documentation

- All man-lift or AWP manufacturer operating instruction manuals must be immediately available at the worksite at all times.
- For rental lifts, assure the following:
 - Obtain maintenance history of aerial lift
 - Obtain operator's manual and maintenance manual (if separate)
 - Assure that a detailed maintenance check is done before rental (check the overall condition of the lift)
 - Assure operator controls are easily accessible and properly marked
- Additional documentation includes but is not limited to the following:
 - Copy of the manufacturer's operation manual
 - Training documentation
 - List of authorized employees
 - Daily inspections (verified on the [BT Pre-Work Safety Log](#))

1.1.4 Operator Training

- Only trained and authorized BT personnel are allowed to operate BT man-lifts or AWP's that are owned or rented by BT.
- Annual, documented training is required, and machine-specific training documentation is required for each type of man-lift or AWP employed.
- Training documentation should include:
 - Classroom training and training course completed
 - Sign-in sheets
 - Quizzes
 - Skills evaluations (hands-on)
 - Operator certificates
- Training must be done by a qualified person experienced with the particular lift model
- Training must include:
 - Nature of electrical, fall, and other hazards involved in operating lifts
 - Precautions for dealing with hazards
 - Rated load capacity for the lift (including workers, tools, materials, etc.)
 - Manufacturer requirements, as outlined in operator manual
 - Demonstration of skill and knowledge in actual operation of the aerial lift

1.1.5 Maintenance and Inspection

- Inspect the unit for unsafe conditions prior to use. Units that reveal damage or require repair must be taken out of service (and tagged) until repairs are completed. The man-lift or AWP owner must be immediately notified of this requirement.
- All controls shall be tested for proper operation, prior to usage, to guarantee safe working condition.

1.1.6 Fall Protection

- Always wear fall protection in the form of a full body harness and **retractable** lanyard, attached to the manufacturer's provided anchorage points. Ensure 100% tie-off (two-lanyard positive connection) when exiting the man-lift or AWP to another elevated work-surface.
- Although OSHA does not require fall protection for scissor lifts, BT employees shall employ the use of full-body harness fall protection and **retractable** lanyards when operating such devices.

1.1.7 Set-up Precautions

- Verify that both lower and upper platform controls are clearly marked as to their function.
- Engage all applicable braking systems before elevating the work platform.

- Install wheel chocks before operating a man-lift or AWP on an incline, provided they can be safely installed.
- Electrically ground and/or barricade man-lifts or AWP's when working near energized lines or equipment. Such equipment should be considered to be electrically energized. The equipment operator shall maintain a minimum 10-foot clearance distance when working near exposed energized lines or equipment for voltages below 50,000 volts, and a minimum of 23-foot clearance for voltages above 50,000 volts, AC or DC.

1.1.8 Operation

- Stand firmly on the floor of the work platform when working from a man-lift or AWP. Sitting or climbing on the edge of, or over the edge of the work platform, and/or use of planks, ladders, or other devices for work position are strictly prohibited.
- Ascertain and never exceed the boom and work platform load-limits as set by the manufacturer.
- Never bring any equipment between a pole or structure and the man-lift or AWP when an employee is working from the work platform, and is within reaching distance of energized conductors or equipment that is not covered with electrical insulating protective devices.

- Do not operate lower lift controls unless permission has been obtained from the employee in the man-lift or AWP (for defective operation purposes), except in case of emergency.
- Man-lifts or AWP's must not be moved by personnel on the ground, while employees are in the lift in an elevated position.
- Tying-off to another structure or pole while working from the lift is not permitted.
- Perform the following inspections daily, or at the beginning of each shift:
 - Operating and emergency controls
 - Safety devices
 - Personal protective devices
 - Tires and wheels
 - Air, hydraulic, and fuel system for leaks
 - Loose or missing parts
 - Cable and wiring harness
 - Placards, warnings, control markings, and operating manual
 - Guardrail system
 - Battery fluid level
 - Hydraulic reservoir level
 - Coolant level

- **Battery changing and charging**
Keep flames and sparks away. DO NOT smoke near batteries.
 - Wear protective apron, gloves, and goggles when working with batteries
 - Immediately flush eyes with cold water if electrolytic acid is splattered into them
 - Turn Emergency Power Disconnect Switch to “OFF”
 - Connect charger AC plug to proper voltage source
 - Charge batteries. DO NOT leave charger unattended.
 - Severe overcharging and battery damage will result if charger fails to turn off
 - Disconnect charger from power source
 - Normal charging will take 10-14 hours
 - **Before attempting any repair work, disconnect battery ground negative (-) lead**

1.1.9 Additional Hazards

- Survey the route to be traveled, immediately prior to maneuvering the man-lift or AWP, to assure that overhead obstructions, holes in pavement, slopes, ditches, or other potential hazards are not present.
- Be aware of the following hazards:
 - Driving near drop-offs, holes, or loading docks
 - Raise platform on uneven or soft surfaces

- Driving onto uneven or soft surfaces when elevated
- Raising platform on slope or drive onto slope when elevated
- Standing on railing to reach work area rather than repositioning the lift
- Traveling to job location with lift in elevated position.
- Using lift with railing removed
- Using lift on uneven or sloped surface
- Using near power lines, junction boxes, etc.
- Battery charging

1.1.10 Other Hazards

- Do not overload
- Do not use without railings and entry gate in place
- Do not use if work platform is not working or parts are damaged
- Do not use near moving vehicles
- Do not stand or sit on guardrails
- Do not use under the influence of alcohol or drugs
- Do not override safety devices
- Do not leave unattended with key in switch
- Do not use ladder or other device to increase size or working height
- Do not use with improperly inflated tires

- Do not use with damaged wheels or tires
- Read and understand all caution and danger warnings and operating manual
- Fasten entry gate/chain/bar
- **DANGER: Do not reach through a scissor-assembly without a safety bar properly positioned.**