

Aerial lifts are vehicle-mounted platforms used to elevate personnel to allow them to complete work at heights. Due to their convenience, mobility and flexibility, aerial lifts are often used in place of ladders and scaffolding.

Whether using a manual or power operated aerial lift, workers must recognize and avoid safety hazards that can lead to injury, property damage, or death. Only trained and authorized workers are allowed to operate an aerial lift.

According to OSHA, the following devices are classified as aerial lifts:

- extendable boom platforms
- aerial ladders
- articulating (jointed) boom platforms
- vertical towers
- any combination of these

The most common hazards associated with the use of aerial lifts include:

- fall or ejections from an elevated level
- objects falling from lifts
- tip-overs or collapses
- shock and electrocutions
- entanglement
- struck-by objects, including overhead



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Before operating any aerial lift, there are two inspections that need to happen: 1) the pre-start inspection of the vehicle and the lift, and 2) the work zone inspection.

When inspecting the vehicle, make sure to check all major controls, components, functions and fluid levels including lights and backup alarms.

Check the following components during the lift inspection:

- operating and emergency controls
- personal fall protection equipment
- hydraulic, air, pneumatic, fuel and electrical systems
- fiberglass or other insulating components
- mechanical fasteners and locking pins
- cable and wiring harnesses
- outriggers, stabilizers and guardrails

During the lift inspection, also confirm there are no loose or missing parts and ensure that all placards, warnings, or markings are readable. If any part of the aerial lift is not working properly, remove the lift from service and tag out until repairs are made.

OSHA Standard 1926.453(b)(2)(i) *Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.*



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Inspect the work zone for potential hazards before moving the aerial lift into position and take corrective actions to eliminate any hazards found before operation.

- Evaluate the path of travel for the lift as well as where the lift will be parked. Look for unstable surfaces, holes, slopes, ditches, and debris.
- Avoid slippery or rocky ground and steep inclines.
- Check current weather conditions as rain, sleet and snow can change the ground conditions and high winds and ice can affect the stability of the aerial lift.
- Confirm there is adequate work height available if working under a structure or a ceiling.
- Take notice if the work area is in close proximity to other personnel, civilians or traffic and set up work zone warnings, such as cones, signs or barricades, if needed.
- Look for power lines or other overhead hazards or obstructions.
 - Insulated aerial lifts offer protection from electric shock and electrocution but to maintain the effectiveness, do not drill holes in the bucket or otherwise alter the platform.

OSHA Standard 1926.453(b)(2)(xi) *The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.*

Fall protection is critical to the safety of the workers in the aerial lift.

- Stand firmly on the floor of the platform.
- Never climb on or lean over handrails or guardrails.
- Ensure that any access gates, platform chains or doors are closed.
- Use a body harness or restraining belt with a lanyard attached to the bucket or a designated tie-off point. Do not belt-off to adjacent poles, structures or equipment.



No body harness or restraining belt being used.

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To protect workers in the lift, and personnel in the surrounding area, it is important to maintain stability of the aerial lift during operation.

- The outriggers should be set on a solid, level surface, or on pads. Brakes should be set when outriggers are used.
- When the vehicle must be placed on a sloped surface, use wheel chocks if it is safe to do so.

OSHA Standard 1926.453(b)(2)(vii) *The brakes shall be set and when outriggers are used, they shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline, provided they can be safely installed.*

- During operation of the aerial lift do not exceed the load capacity limits.
 - To calculate the load on the platform, add the combined weight of the worker(s), and all tools and materials.
- The aerial lift shall not be used as a crane.
- Do not attempt to carry objects that are larger than the lift platform.
- Never move an aerial lift truck when the boom is elevated in a working position with workers in the basket unless the equipment is specifically designed for that type of operation.

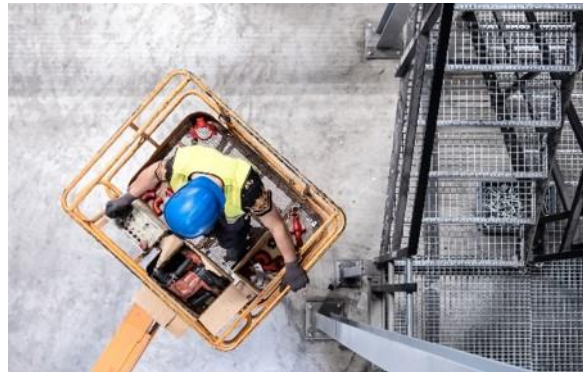
OSHA Standard 1926.453(b)(2)(viii) *An aerial lift truck shall not be moved when the boom is elevated in a working position with men in the basket, except for equipment which is specifically designed for this type of operation.*

- Do not exceed vertical or horizontal reach limits.
- Never override hydraulic, mechanical, or electrical safety devices.



Never climb on guardrails.

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