

Aerial Lift Safety

Hazard Alert



About 26 construction workers die each year from using aerial lifts. More than half of the deaths involve boom-supported lifts, such as bucket trucks and cherry pickers; most of the other deaths involve scissor lifts. Electrocutions, falls, and tipovers cause most of the deaths. Other causes include being caught between the lift bucket or guardrail and object (such as steel beams or joists) and being struck by falling objects. (A worker can also be catapulted out of a bucket, if the boom or bucket is struck by something.) Most of the workers killed are electrical workers, laborers, painters, ironworkers, or carpenters.

Before Operating an Aerial Lift

Check operating and emergency controls, safety devices (such as, outriggers and guardrails), personal fall-protection gear, wheels and tires, and other items specified by the manufacturer. Look for possible leaks (air, hydraulic fluid, and fuel-system) and loose or missing parts.

Check where the lift will be used. Look for a level surface that won't shift. Check the slope of the ground or floor; do not work on steep slopes that exceed slope limits listed by the manufacturer. Look for hazards, such as, holes, drop-offs, bumps, and debris, and overhead power lines and other obstructions.

Set outriggers, brakes, and wheel chocks – even if you're working on a level slope.

Your employer should:

- Provide required manuals to operators and maintenance mechanics.
- Be sure operators and mechanics are trained by a qualified person experienced with the model of aerial lift.*

Using An Aerial Lift

- Always close lift platform chains or doors.
- Stand on the floor of the bucket or lift platform. **Do not** climb on or lean over guardrails.
- Do not exceed manufacturer's load-capacity limits (including the weight of such things as bucket liners and tools).
- If working near traffic, set up work-zone warnings, like cones and signs.

To prevent electrocutions:

- Non-electrical workers must stay at least 10 feet away from overhead power lines.
- Electrical workers must de-energize/insulate power lines or use proper personal protective equipment and tools.
- Insulated buckets protect from electrocution due to electric current passing through you and the boom to ground. The buckets do not protect if there's another path to ground – for instance, if you touch another wire.

To prevent falls:

To help keep workers inside guardrails or in buckets, OSHA requires either a full-body harness or a positioning device on bucket trucks or boom-supported lifts. OSHA accepts a positioning device (belt) with a short lanyard, if there is an anchorage inside the bucket.**

*OSHA says a *qualified person*...by extensive knowledge, training, and experience can...solve...problems related to the subject matter.... A *competent person* is...capable of identifying existing and predictable hazards...and has authorization to take prompt measures to eliminate them.

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To prevent tipovers:

Check the manufacturer's instructions.

- Do not drive with the lift platform elevated (unless the manufacturer says that's OK).
- Do not exceed vertical or horizontal reach limits or the specified load-capacity of the lift.
- On an elevated scissor lift, avoid too much pushing or pulling.

Training

OSHA says a qualified person must train all users. The training must include:

- Any electrical, fall, and falling-object hazards.
- Procedures for dealing with hazards.
- How to operate the lift correctly (including maximum intended load and load capacity). The user must show he/she knows how to use the lift.
- Manufacturer requirements.

If the hazards change, the type of aerial lift changes, or a worker is not operating a lift properly, workers must be retrained.

Maintenance and Inspections

De-energize and lockout/tagout aerial lifts before any maintenance or repairs (*see* CPWR's hazard alert card, *Lockout/Tagout Safety*).

Each aerial lift must be inspected as the manufacturer requires – every 3 months or after 150 hours of use, whichever comes first. And the owner of a lift must do a detailed yearly inspection, as required by the manufacturer.

You Should Know

Many construction contractors rent aerial lifts instead of buying them. So you may not know which model you will be using, even though operator controls and other key features differ on each model. Also, you may not know the maintenance history of the lift.

The dealer or company renting out the lift should:

- Be sure the lift is properly inspected and serviced before rental.
- Provide operator and maintenance manuals and maintenance history.
- Make sure the operator controls are easy to reach and properly marked.

Your employer should:

- Be sure an aerial lift is not modified without written permission of the manufacturer.
- Be sure an aerial lift is used only under conditions approved by the manufacturer.
- Be sure proper personal fall-protection is provided and used.

For more information, call your local union, the Center to Protect Workers' Rights (CPWR) (301-578-8500 or www.cpwr.com), NIOSH (1-800-356-4674, or www.cdc.gov/niosh), or OSHA (1-800-321-OSHA or www.osha.gov) or go to www.elcosh.org.

**OSHA regulates scissor lifts as mobile scaffolds and does not require personal fall-protection on them, if there are guardrails.