

MEDIA FACT SHEET

AERIAL LIFTS – RISKS AND PREVENTION

The Problem for Construction Workers

An aerial lift is a mechanical device that provides access to elevated work sites. The term aerial lift is used in the construction industry for multiple types of lifts, including boom lifts, bucket trucks, and cherry pickers.* Between 2011 and 2016, 1,450 construction workers were injured and 142 workers died while operating an aerial lift.¹

Working above ground in these mechanical devices can place workers at risk of falling from heights. Other hazards that may occur while working from an aerial lift include ejections, structural failure (collapses), crushing/trapping hazards, electrocutions, and tip overs. These hazards may result in serious injuries and even death.²

One example of such an incident occurred on a multi-unit residential project. Two workers were moving a boom lift closer to the work location when the ground gave way beneath the lift, causing it to tilt and fall over. The boom hit the ground, ejecting the workers 60 feet. One of the workers was killed and the other suffered a broken leg, arm, and pelvis.³

Injuries and Fatalities are Preventable

There are a number of standards related to aerial lift use, but in general, the Occupational Safety and Health Administration (OSHA) requires employers to⁴:

- Ensure every lift operator is trained by a competent[†] and qualified[‡] person experienced with the model that will be used. Only trained and authorized persons are allowed to operate an aerial lift.
- Inspect the lift daily before use to ensure it is functioning properly.
- Inspect work zones for hazards (e.g., holes, debris) and take corrective actions to eliminate them before and during operation.
- Provide workers with a body harness or a restraining belt with a lanyard attached to the boom or bucket.
- Ensure workers are standing firmly on the basket floor, and do not sit or climb on the edge.
- Ensure authorized operators do not move the lift when the boom is extended and there are workers in the basket.
- Ensure authorized operators do not exceed the weight limits specified by the manufacturer.

- Check for overhead power lines before starting work. Unless an employee is a qualified electrical worker, they should stay 10 feet away from all power lines.

CPWR Research and Resources

- **Aerial Lifts Hazard Alert Card** – a brief, image-driven handout to help workers understand aerial lift-related hazards and how to work safely. Available in [English](#) and [Spanish](#).
- **Aerial Lifts Toolbox Talk** – a short discussion guide for use by foremen or supervisors to raise workers' awareness of the hazards and site-specific actions to prevent an aerial lift incident or fatality. Available in [English](#) and [Spanish](#).
- [Aerial Lifts Topic Page](#) on stopconstructionfalls.com, a website dedicated to preventing falls in construction.
- **Aerial Lift Infographic** – Available in [English](#) and [Spanish](#).
- [Fatality Map](#) – interactive map showing fall fatalities across the nation, including ones associated with aerial lifts.

Other Resources

- [Aerial Lifts](#) – OSHA Fact Sheet, 2011
- [Aerial Lifts](#) – OSHA Quick Card
- [Aerial Lifts](#) – National Institute for Occupational Safety and Health's [NIOSH] main website for aerial lifts.
- [NIOSH Aerial Lift Hazard Recognition Simulator](#) – Available for free, the Simulator provides a realistic workplace with multiple, dangerous hazard types that users must navigate.

* NIOSH includes multiple types of lifts, including scissor lifts and boom lifts, in its definition of aerial lifts. OSHA considers scissor lifts to be scaffolds *not* aerial lifts. The Bureau of Labor Statistics reports injury and illness data on aerial lifts and scissor lifts together.

† OSHA defines a "competent person" as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them."⁵

‡ OSHA defines a "qualified person" as "one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his ability to solve or resolve problems relating to the subject matter, the work, or the project."⁵

About CPWR

CPWR - The Center for Construction Research and Training [CPWR] is a 501(c)3 non-profit dedicated to reducing injuries, illnesses, and fatalities in construction, and currently serves as NIOSH's National Construction Center. Through research, training, and service programs, CPWR works in partnership with industry stakeholders, safety and health professionals, academics, and key government agencies, to identify and find solutions for occupational hazards and improve the safety and health of construction workers. For more information, please visit: www.CPWR.com

References

¹U.S. Bureau of Labor Statistics. *Census of Fatal Occupational Injuries (CFOI) - Current and Revised Data*. <https://www.bls.gov/iif/oshcfoi1.htm>. Accessed March 16, 2018. The data is for the private sector construction industry.

²Occupational Safety and Health Administration [OSHA], 2011. *OSHA Factsheet: Aerial Lifts*. <https://www.osha.gov/Publications/aerial-lifts-factsheet.html>

³OSHA, 2017. *Inspection: 1227660.015 - Daystar Infrastructure & Construction, Inc.* https://www.osha.gov/pls/imis/establishment.inspection_detail?id=1227660.015

⁴OSHA, 2015. *Protecting Roofing Workers*. <https://www.osha.gov/Publications/OSHA3755.pdf>

⁵OSHA. 29 CFR 1926.32(l). https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10618