



Vehicle-mounted Elevating and Rotating Work Platforms -- OSHA Standard 1910.67 ¹

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The Impact of Safety on Florida Agriculture

Florida agriculture, including forestry and fishing, made an annual economic impact of \$53 billion in 1998. More than 81,000 people work on the 40,000 farms in the state, and more than 50,000 are employed in other activities related to agriculture. The state's agricultural enterprises range from large citrus, vegetable and cattle operations to small family-operated farms.

From 1989 to 1998, there were approximately 240 deaths related to agriculture in Florida, according to data compiled by the Deep-South Agricultural Health and Safety Center. In addition, agriculture has one of the highest injury and death rates among U.S. industries.

Safety in Florida agriculture is challenging because:

- the state's agricultural enterprises are diverse,

- safety knowledge among workers varies,
- manual labor is used extensively,
- the climate creates year-round heat stress.

Therefore, it is vital to assist the public in learning about OSHA documents related to agriculture. More related information is available at the following Web sites:

Florida AgSafe: <<http://www.flagsafe.ufl.edu>>

OSHA Regulations:
<<http://www.osha.gov/comp-links.html>>

Overview

This document, a condensation of Section 1910.67 of the Occupational Safety and Health Act (29 CFR), is not intended to be totally inclusive but rather to highlight the information and requirements in the complete OSHA standard that owners and managers of agricultural businesses should understand. Refer to the OSHA Web site given above for the complete standard and for court interpretations of the standard.

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Contents of OSHA Standard 1910.67

- Section 1910.67(a) -- Definitions Applicable to this Section
- Section 1910.67(b) -- General Requirements
- Section 1910.67(c) -- Specific Requirements

NOTE: Some sections of OSHA standards are labeled "Reserved." This label implies either that information has been deleted from the previous version of the standard or that additions to the standard are anticipated. Because standards often reference other standards, it is important that paragraph numbers remain consistent.

Section 1910.67(a) -- Definitions Applicable to this Section

Aerial device -- Any vehicle-mounted device, telescoping or articulating, or both, which is used to position personnel.

Aerial ladder -- An aerial device consisting of a single- or multiple-section extensible ladder.

Articulating boom platform -- An aerial device with two or more hinged boom sections.

Extensible boom platform -- An aerial device (except ladders) with a telescopic or extensible boom. Telescopic derricks with personnel platform attachments shall be considered to be extensible boom platforms when used with a personnel platform.

Insulated aerial device -- An aerial device designed for work on energized lines and apparatus.

Mobile unit -- A combination of an aerial device, its vehicle, and related equipment.

Platform -- Any personnel-carrying device (basket or bucket) which is a component of an aerial device.

Vehicle -- Any carrier that is not manually propelled.

Vertical tower -- An aerial device designed to elevate a platform in a substantially vertical axis.

Section 1910.67(b) -- General Requirements

1910.67(b)(1) -- Unless otherwise provided in this section, aerial devices (aerial lifts) acquired on or after July 1, 1975, shall be designed and constructed in conformance with the applicable requirements of the American National Standard for "Vehicle Mounted Elevating and Rotating Work Platforms," ANSI A92.2 - 1969, including appendix, which is incorporated by reference as specified in 1910.6. Aerial lifts acquired for use before July 1, 1975 which do not meet the requirements of ANSI A92.2 - 1969, may not be used after July 1, 1976, unless they shall have been modified so as to conform with the applicable design and construction requirements of ANSI A92.2 - 1969. Aerial devices include the following types of vehicle-mounted aerial devices used to elevate personnel to jobsites above ground:

- (i) -- Extensible boom platforms,
- (ii) -- aerial ladders,
- (iii) -- articulating boom platforms,
- (iv) -- vertical towers, and

(v) -- a combination of any of the above. Aerial equipment may be made of metal, wood, fiberglass reinforced plastic (FRP), or other material; may be powered or manually operated; and are deemed to be aerial lifts whether or not they are capable of rotating about a substantially vertical axis.

1910.67(b)(2) -- Aerial lifts may be "field modified" for uses other than those intended by the manufacturer, provided the modification has been certified in writing by the manufacturer or by any other equivalent entity, such as a nationally recognized testing laboratory, to be in conformity with all applicable provisions of ANSI A92.2 - 1969 and this section, and to be at least as safe as the equipment was before modification.

1910.67(b)(3) -- The requirements of this section do not apply to firefighting equipment or to the vehicles upon which aerial devices are mounted, except with respect to the requirement that a vehicle be a stable support for the aerial device.

1910.67(b)(4) -- For operations near overhead electric power lines, see 1910.333(c)(3).

Section 1910.67(c) -- Specific Requirements

1910.67(c)(1) -- Ladder trucks and tower trucks. Before the truck is moved for highway travel, aerial ladders shall be secured in the lower traveling position by the locking device above the truck cab, and the manually operated device at the base of the ladder, or by other equally effective means (e.g., cradles which prevent rotation of the ladder in combination with positive acting linear actuators).

1910.67(c)(2) -- Extensible and Articulating Boom Platforms

(i) -- Lift controls shall be tested each day prior to use to determine that such controls are in safe working condition.

(ii) -- Only trained persons shall operate an aerial lift.

(iii) -- Belting off to an adjacent pole, structure, or equipment while working from an aerial lift shall not be permitted.

(iv) -- Employees shall always stand firmly on the floor of the basket, and shall not sit or climb on the edge of the basket or use planks, ladders, or other devices for a work position.

(v) -- A body belt shall be worn and a lanyard attached to the boom or basket when working from an aerial lift.

(vi) -- Boom and basket load limits specified by the manufacturer shall not be exceeded.

(vii) -- The brakes shall be set and outriggers, when used, shall be positioned on pads or a solid surface. Wheel chocks shall be installed before using an aerial lift on an incline.

(viii) -- An aerial lift truck may 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 in accordance with the provisions of paragraphs (b)(1) and (b)(2) of this section.

(ix) -- Articulating boom and extensible boom platforms, primarily designed as personnel carriers, shall have both platform (upper) and lower controls. Upper controls shall be in or beside the platform within easy reach of the operator. Lower controls shall provide for overriding the upper controls. Controls shall be plainly marked as to their function. Lower level controls shall not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.

(x) -- Climbers shall not be worn while performing work from an aerial lift.

(xi) -- The insulated portion of an aerial lift shall not be altered in any manner that might reduce its insulating value.

(xii) -- Before moving an aerial lift for travel, the boom(s) shall be inspected to see that it is properly cradled and outriggers are in stowed position, except as provided in paragraph (c)(2)(viii) of this section.

1910.67(c)(3) -- Electrical Tests. Electrical tests shall be made in conformance with the requirements of ANSI A92.2 - 1969, Section 5. However, equivalent DC voltage tests may be used in lieu of the AC voltage test specified in A92.2 - 1969. DC voltage tests which are approved by the equipment manufacturer or equivalent entity shall be considered an equivalent test for the purpose of this paragraph (c)(3).

1910.67(c)(4) -- Bursting Safety Factor. All critical hydraulic and pneumatic components shall comply with the provisions of the American National Standards Institute standard, ANSI A92.2 - 1969, Section 4.9 Bursting Safety Factor. Critical components are those in which a failure would result in a free fall or free rotation of the boom. All noncritical components shall have a bursting safety factor of at least two to one.

1910.67(c)(5) -- Welding Standards. All welding shall conform to the following Automotive Welding Society (AWS) Standards which are incorporated by reference as specified in 1910.6, as applicable:

(i) -- Standard Qualification Procedure, AWS
B3.0 - 41.

(ii) -- Recommended Practices for Automotive
Welding Design, AWS D8.4-61.

(iii) -- Standard Qualification of Welding
Procedures and Welders for Piping and Tubing, AWS
D10.9-69.

(iv) -- Specifications for Welding Highway and
Railway Bridges, AWS D2.0-69.