



Tailgate Topic Review

[PP 08/04/2019 - 08/17/2019]

Scaffold-Ladder Safety

- OSHA lists scaffolding as one of the top three standard violations.
- Scaffold-related accidents - estimated 4,500 injuries and 50 fatalities each year.
- Bureau of Labor Statistics states 70% of workers who are injured in scaffold accidents report one of three causes;
 1. Including being struck by a falling object
 2. Planking or support give way
 3. Falling after slipping and tripping.



5 Common Mistakes When Working with Scaffolding

#1: Improper Fall Protection

OSHA requires fall protection on scaffolding that is 10 feet or more above the lower level.

Work on unprotected platforms, scaffolds, or edges of structures (within 6') above 7 ½ feet requires fall arrest systems.

Guardrails must be installed on open sides and ends of platforms that are 7 1/2 ft. or higher. 1621(a)

A Cal/OSHA permit is required for erecting and dismantling scaffolds that exceed three stories or 36 ft. in height. 341(d)(5)(B)

A safe and unobstructed means of access, such as a walkway, stair, or ladder shall be provided to all scaffold platforms. 1637(n)(1)

Anchorage and bracing shall be such that scaffolds and falsework will be prevented from swaying, tipping, or collapsing. 1637(c)



#2: Falling Objects Due to Lack of Protection

Toeboards are required on all railed sides of work surfaces where employees work or pass below. 1621(b)

Workers on scaffolds who are exposed to overhead hazards shall be provided with overhead protection or other means that will effectively eliminate the hazard. 1637(q)



Objects falling off the scaffold and injuring people below is another common mistake that can be prevented. Whether the object is a tool, materials or debris, even the smallest items can cause severe damage as they pick up velocity during a fall.

#3: Improperly Trained Workers

Workers that are not properly trained for working with scaffolding can present any number of hazards. Educating employees on scaffold safety should be a must for anyone expected to work on the unit.



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#4: Scaffolds Not Built To Specifications

Scaffolding that is not built to Cal-OSHA specifications (Article 21. Scaffolds §1637) can often lead to the scaffold's entire collapse. Cal-OSHA additionally states (k) Erection and Dismantling.
(1) The erection and dismantling of scaffolds or falsework shall be performed under the supervision and direction of a qualified person.

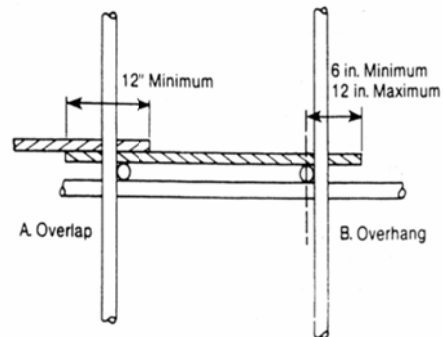


Fig. 7.1 A. Boards must overlap by 12" or be secured from movement. B. The overhang of board on bearer is a minimum of 6" to a maximum of 12".

#5 Not Paying Attention to Electrical Risks



Injury or death from electrical shock may be less common than other types of scaffolding incidents, but it's no less dangerous. Comply with the required amount of clearance between scaffold and power lines for various insulated and uninsulated lines. Reducing the risk of electrocution can also come from ensuring proper electrical connections are used with tools used on the unit and never using electrical conduits as anchoring points for fall arrest systems or scaffold components.

Article 21. Scaffolds--General Requirements §1637. General Requirements.

(a) Scaffolds shall be provided for all work that cannot be done safely by employees standing on permanent or solid construction at least 20 inches wide, except where such work can be safely done from ladders.

Exceptions:

1. Work of a limited nature and of short duration when the permanent or solid construction is less than 20 inches in width and the fall distance does not exceed 15 feet in height and provided adequate risk control is recognized and maintained under competent supervision.

Know the difference between scissor and aerial lifts

Per OSHA (*Cal-OSHA does not address these lifts*), a **Scissor Lift** is a mobile scaffold for which the platform only moves vertically. An **Aerial Lift** is any vehicle-mounted work platform that can move vertically and/or horizontally. Some aerial lifts can even rotate around a vertical axis.

Falls are among the most serious hazards associated with scissor and aerial lift use. Unfortunately, there are no general industry standards



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that specifically address this issue, but OSHA does provide guidance in various Letters of Interpretation (LOIs), publications, and the construction standards. Employers can elevate their understanding of scissor and aerial lift fall protection by thoroughly reviewing this information.

Personal fall protection

OSHA addresses the use of personal fall protection on scissor and aerial lifts in several LOIs. The protection is different for each lift. The reason for this is because the design and function of a scissor lift is different from that of an aerial lift, thus posing varying degrees of risk for falls.

Scissor lifts <https://www.osha.gov/laws-regs/standardinterpretations/1998-07-21>

In an August 2000 LOI, OSHA says that a scissor lift is a type of scaffold. In this letter, the agency states that if the scissor lift has guardrails that meet OSHA requirements, then this is all that is required for fall protection. In other words, workers do not have to be tied-off if the scissor lift has a properly designed and maintained guardrail system. The guardrails themselves serve as the necessary fall protection.

Aerial lifts <https://www.osha.gov/laws-regs/standardinterpretations/2000-02-23-1>

Fall protection for aerial lifts is different. OSHA's general industry aerial lift standard at 1910.67(c)(2)(v) requires that a body belt be worn and a lanyard attached to the boom or basket at all times. The purpose of this requirement is to protect employees from being bounced out/off of the basket/work platform when maneuvering to a work location, or placing themselves in a position in which they could be exposed to a fall by climbing/leaning over and placing their center of gravity outside the basket. A full body harness is required for fall protection.

Belting off to an adjacent pole, structure, or equipment when working from an aerial lift is not allowed per 1910.67(c)(2)(iii). This does not, however, prohibit employees from exiting or entering an aerial lift basket that rests on or adjacent to an elevated surface. In these instances, the Agency says that fall protection requirements apply as explained in a May 3, 2001 LOI.

OSHA requires fall protection at four feet above a lower level at 1910.23(c). A worker may enter or exit an aerial lift (at heights above four feet) provided that fall protection such as guardrails or a fall arrest system is used while the worker moves between the lift and the working surface.

BCA POLICY requires that all inspectors working on scissor lifts or aerial lifts tie-off to an approved anchor point with their personal fall arrest system.



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In California, **Portable Ladder Safety** is regulated by Title 8 California Code of Regulations (T8CCR) Section 1675, 3276, 3287, and 3413. BCA does not supply portable ladders for use by its inspection staff. If an inspector's task requires the use of a ladder they will notify the contractor who is required by contract to provide a compliant ladder that has been inspected by a qualified person.

Portable ladders are generally designed for one-person use to meet the requirements of the person, the task, and the environment. When selecting a ladder for use, consider the ladder length, height, the working load, the duty rating, worker position, and how often the ladder is used. 3276(d)(1)(B). Ladders shall not be moved, shifted, or extended while occupied, unless the ladder is designed and recommended for this purpose by the manufacturer.

To safely use portable ladders employees must also follow the requirements noted below:

1. Portable ladders shall not be overloaded when used. [3276\(e\)\(6\)](#)
2. Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds unless designed for such use. [3276\(e\)\(9\)](#)
3. Do not place ladders in passageways, doorways, driveways, or any location where they may be displaced unless protected by barricades or guards. [3276\(e\)\(14\)](#)
4. Climb or work with the body near the middle of the step or rung and do not overreach from this position. To avoid overreaching, the employee shall descend and reposition the ladder. [3276\(e\)\(15\)\(A\)](#)
5. Ladders shall not be moved or extended while occupied, unless designed and recommended by the manufacturer. [3276\(e\)\(15\)\(G\)](#)
6. Non-conductive ladders shall be used in locations where the ladder or user may contact unprotected energized electrical conductors or equipment. Conductive ladders shall be legibly marked with signs reading "**CAUTION-- DO NOT USE AROUND ELECTRICAL EQUIPMENT**", or equivalent. [3276\(e\)\(18\)](#)
7. The area around the top and bottom of a ladder shall be kept clear. [3276\(e\)\(19\)](#)

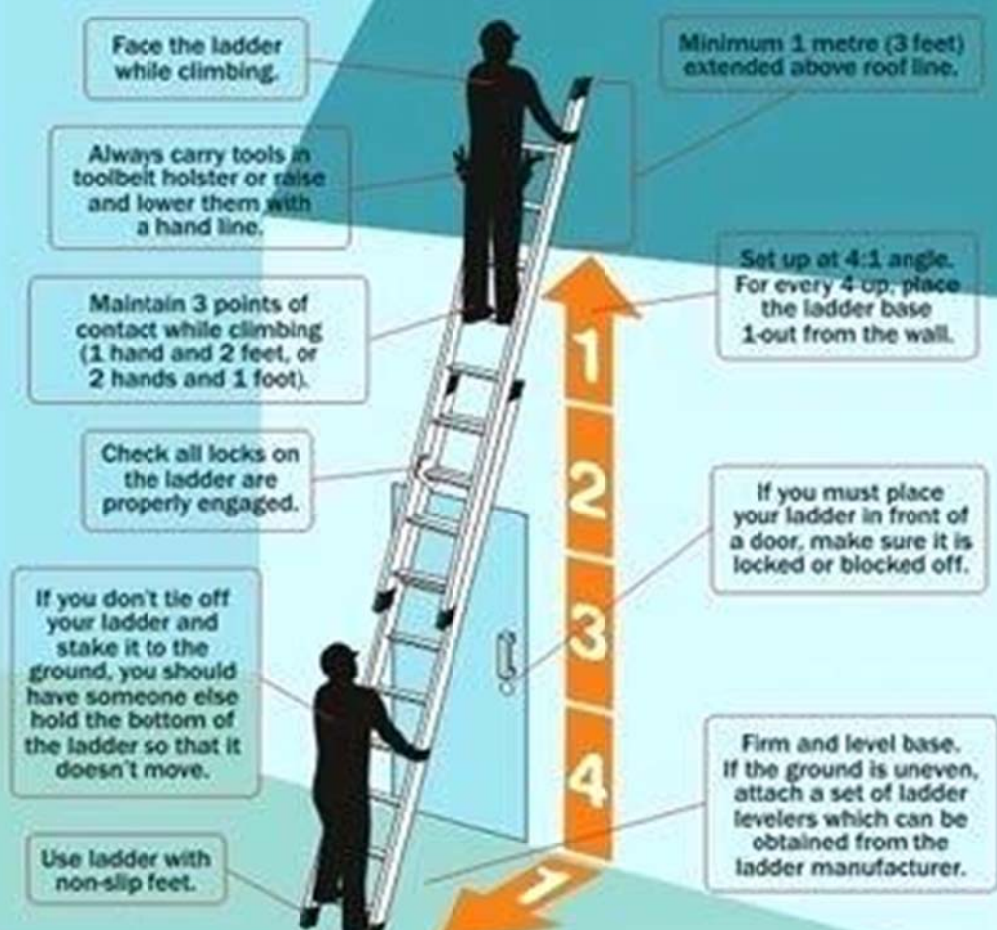


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LADDER SAFETY

EXTENSION LADDERS

12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100



THE WRONG WAY

<p>Don't lean to the side. Keep your weight in the middle of the rung.</p>	<p>Do not overreach / use ladder with the wrong height for the job.</p>	<p>Do not carry heavy objects with both hands while going up or down a ladder.</p>	<p>Metal ladders conduct electricity. Keep away from power lines.</p>	<p>Do not use ladder with slippery steps, or damaged stiles.</p>
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Inspection and maintenance requirements for portable ladders are below:

1. Ladders shall be maintained in good condition at all times. 3276(e)(1)
2. Metal ladders shall not be exposed to acid or alkali materials that are capable of corroding the ladder and reducing the ladder's strength, unless recommended otherwise. 3276(e)(1)
3. Ladders shall be inspected by a Qualified Person for visible defects frequently and after any occurrence that could affect their safe use. 3276(e)(2)
4. Remove ladders that have developed defects such as broken or missing steps, rungs, cleats, safety feet, side rails, or other defects from service, and tag or mark them with "Dangerous, Do Not Use". 3276(e)(3)
5. All ladders shall be free of oil, grease, or slippery materials. Wood ladders shall not be painted with other than a transparent material. . 3276(e)(4),(5)

Prohibited uses of portable ladders are given below:

1. Ladders shall not be used as a brace, skid, guy or gin pole, gang-way, or for uses they were not intended, unless recommended by the manufacturer. 3276(e)(16)
2. Do not place planks on the top step or top cap. 3276(e)(16)(B)
3. Step ladders shall not be used as single ladders or in the partially closed position. 3276(e)(16)(C)

