



# INSPECTION & PROPER USE OF PORTABLE LADDERS

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The inspection and use of portable ladders is extensively regulated by Cal/OSHA under Title 8, California Code of Regulations, Section 3276. Any programs, procedures or guidelines for the use of portable ladders must comply with this regulation.

## INSPECTION

All ladders must be inspected by a qualified person for visible defects before each use and after any occurrence that could affect their safe use. Ladders that have developed defects must be withdrawn from service for repair or destruction and tagged or marked as "**DANGEROUS---DO NOT USE**". Ladders with broken or missing steps, rungs, cleats, safety feet, side rails, or other defects must not be used. Employees should report defective ladders to his or her supervisor. The supervisor or department head will decide if the ladder is to be replaced or repaired.

Listed below are some of the items that you should verify when performing inspections:

1. Ladders must be free of oil, grease, or slippery materials.
2. Joints between the steps (rungs) and the side rails must be tight. Rungs must not move when twisted by hand.
3. All hardware and fittings must be securely attached.
4. All movable parts must work freely without binding or undue play.
5. Metal ladders must not be exposed to acid or alkali materials that are capable of corroding the ladder and reducing the ladder's strength.
6. Wood ladders must not be painted with other than a transparent material.
7. The top rest for portable rung and cleat ladders must be reasonably rigid and must have ample strength to support the applied load.
8. No rungs, steps, cleats, safety feet, or side rails may be broken or missing.
9. Electrically conductive ladders must be legibly marked with signs reading "**CAUTION—Do Not Use Around Electrical Equipment.**"

## GUIDELINES FOR PROPER LADDER USE

When selecting a portable ladder for use, consideration must be given to the ladder's length or height required, the working load, the duty rating, worker position to the task to be performed, and the frequency of use to which the ladder will be subjected.

- Do not load ladders beyond their maximum intended load nor beyond their manufacturer's rated capacity.
- Place ladders on firm, level footing. Use ladders with slip-resistant feet or secure blocking. Brace or tie the bottom of ladders.
- Do not place ladders on boxes, barrels, pick-up trucks, scaffolds or other unstable bases to obtain additional height.
- Do not use ladders on ice, snow or slippery surfaces unless suitable means to prevent slippage have been employed.
- The top of non-self-supporting ladders such as single and extension ladders must be placed with the two rails supported equally, unless a single support attachment is provided and used.
- The top rest for portable rung and cleat ladders must be reasonably rigid and have ample strength to support the applied load.
- To provide the correct angle so ladders won't slip, place the base of the ladder one foot away from whatever the top of the ladder leans against, for every four feet in height of the ladder.
- Do not use ladders in a horizontal position as a plank, platform, runway, or scaffold unless designed for such use.
- Extend ladders used for access at least 36 inches above the landing or work surface. When such an extension is not possible, then the ladder must be secured at its top to a rigid support that will not deflect, and a grasping device, such as a grab-rail, must be provided to assist employees in mounting and dismounting the ladder.
- Do not tie or fasten ladders together to provide longer sections unless the ladders are designed for such use and equipped with the necessary hardware fittings.
- Extension ladders must always be erected so that the top section (fly section) is above and resting on the bottom section (base section) with the rung locks engaged.
- Do not use ladders in passageways, doorways, driveways, or any location where a person or vehicle can hit it. Set up suitable barricades or lock the doors shut.
- Check for overhead electrical wires before setting up a ladder.
- Climb or work with the body near the middle of the step or rung and do not overreach from this position. When necessary to avoid overreaching, descend and reposition the ladder. When it is not practical to work with the body near the middle of the step or rung, the ladder must be secured to the top support, and use an adequate personal fall protection system.
- Do not carry objects in your hands while on a ladder. Hoist materials or attach tools to a belt.
- When working, ascending or descending a ladder, always face the ladder and keep contact with the ladder at three-points (two feet and one hand or two hands and one foot).

- Do not stand or work on the top three rungs. The higher a person goes on a ladder, the greater the possibility that the ladder will slip out at the base.
- Do not stand or work on the top cap or the step below the top cap of a step ladder.
- Do not use cross-bracing on the rear section of step ladders for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.
- Do not move, shift or extend ladders while in use, unless the ladder is designed and recommended for this purpose by the manufacturer.
- Keep the top and base areas of ladders clear.
- Allow only one person at time on a ladder.
- Portable rung ladders with reinforced rails must be used only with the metal reinforcement on the under side.
- Do not use ladders as a scaffold, brace, skid, guy or gin pole, gang-way, or for any other purpose other than that for which the ladder is designed.
- Do not use planks on the top step or top cap of step ladders.
- Do not use step ladders as single ladders or in the partially closed position.
- Do not use ladders that exceed the maximum lengths listed at <http://www.dir.ca.gov/Title8/3276.html>.
- Do not use two section extension ladders when the overlap between the sections is less than the minimum overlap listed at <http://www.dir.ca.gov/Title8/3276.html>.
- Check for overhead electrical wires before setting up a ladder.
- Use non-conductive ladders in location where the ladder or user may contact unprotected energized electrical conductors or equipment.
- Use conductive ladders in locations where the ladder or user may contact unprotected energized electrical conductors or equipment.
- Conductive ladders must be legibly marked with signs reading “CAUTION –Do Not Use Around Electrical Equipment,” or equivalent wording.

### Step Ladders

- Keep all four legs of the ladder in contact with the footing support.
- Never close a step ladder and lean it against something to use it in that position.
- Check that the spreaders are locked in the fully opened position.
- Do not use the rear braces as steps unless they have been specifically designed to be used as steps by the manufacturer.
- Do not stand or climb on the top two steps.

### TRAINING

Before using ladders, employees must receive training in the following topics:

- Importance of using ladders safely, including frequency and severity of injuries related to falls from ladders.
- Selection, including types of ladders, proper length, maximum working loads, and electrical hazards.
- Maintenance, inspection, and removal of damaged ladders from service.

- Erecting ladders, including footing support, top support, securing, and angle of inclination.
- Climbing and working on ladders, including user's position and points of contact with the ladder.
- Factors contributing to falls, including haste, sudden movement, lack of attention, footwear, and user's physical condition.
- Prohibited uses, including uses other than designed, climbing on cross bracing, maximum lengths, and minimum overlap of extension ladder sections.

Training should include the information found in GUIDELINES FOR PROPER LADDER USE.

#### Additional Information

The complete text of Section 3276, Title 8, can be found on the California Department of Industrial Relations website at <http://www.dir.ca.gov/Title8/3276.html>.