



Fall 2010

Safety Spot Handbook

A Product of CalARVC/CTPA Services, Inc. for 9010 & 9015 Businesses

## LADDER & CLIMBING SAFETY DURING HOLIDAYS

“According to the Home Safety Council, four out of five U.S. households plan to use ladders around their homes to prepare for the holiday season. Annually, during the two months surrounding the holiday season, more than 14,000 people are treated in hospital emergency rooms due to injuries related to holiday decorating... 82 percent of consumers



reported climbing on chairs, counters, shelves and other pieces of furniture when decorating for the holidays.”(Marketwire - October 12,

2010) <http://www.marketwire.com/press-release/Christmas-Decor-Stresses-Safety-for-Holidays-1333812.htm>

Ladders are handy, simple tools to use, but if they are not maintained properly, they can be unsafe. Falls are the third leading cause of worker deaths, with 609 workers killed and 272,000 injured in 2002. Half of these injuries and deaths involved a ladder. Ladder accidents can occur if they are faulty, if they have been set up improperly, and if they

are used improperly.

While workers are familiar with the rules for safe ladder setup and use, it is important to know how to inspect, maintain, and store ladders used in the workplace. The materials that go into ladders are designed and engineered to last indefinitely if they are cared for and not abused. Proper maintenance, care, and an inspection checklist can guard workers against using a faulty ladder.



### INSPECTING AND MAINTAINING THE LADDER

Neglected ladders can become unsafe ladders, so workers should maintain them frequently. Before using a ladder, it should be inspected to make sure it is in good working condition. If an inspection shows defects in a ladder, it should be immediately tagged out of service. Broken or damaged ladders should be properly repaired by a qualified worker or they should be discarded and replaced.

A ladder inspection begins from the top down. Workers should look for loose steps and rungs. The rungs should be sturdy, clean, and not slippery from grease or oil. The upright ladder legs should be strong and free of cracks, splits, and bent edges. The ladders braces should be solid. Nails, screws, bolts or other fasteners should be tight. Finally, the ladder feet should

be examined and the non-slip base should be in good repair.

Different ladder types and materials have specific inspection points. Wood ladders should never be painted and should not have cracks or splits. Metal and fiberglass ladders should be checked for bends and breaks. Metal ladders should be inspected for signs of corrosion. Step ladders should not be wobbly, a possible indication of side strain, and the hinges should be firm and straight. Extension ladders should have working extension locks that seat properly. The extension rope should not be rotted or frayed.

Workers should try to prevent ladder damage during transport and use because this can weaken the ladder. When hauling a ladder, workers should tie it securely to the vehicle to prevent nicks, gouges, or chafing. Damaged bolts and joints can work loose and eventually cause the ladder to twist and become unstable. Straight ladders should be stored flat or on

wall brackets to prevent sagging or warping. Step ladders should be stored upright and in the closed position. All ladders should be stored in covered, protected areas away from moisture sources. <http://www.statefundca.com/safety/safetymeeting/SafetyMeetingArticle.aspx?ArticleID=67>

**Safety Resource Contact—Susanne White**

**(530) 885-1624, [SafetySpot@calarvc.com](mailto:SafetySpot@calarvc.com)**

**[www.calarvc.com/safetyspot.php](http://www.calarvc.com/safetyspot.php)**



# KNOW YOUR LADDER

## Choose the Right Tool for the Job

Ladders, like many other pieces of equipment that are used often and taken for granted, require care. Every worker needs to be certain that the ladder being used is strong enough to support him and the load that may be carried without fear of tipping over. Use the checklists (opposite) as a guide, first for inspecting a ladder and second for ensuring that safety precautions are taken when using the ladder.

### Load

Self-supporting (foldout) and non-self-supporting (leaning) portable ladders must be able to support at least four times the maximum intended load, except extra-heavy-duty metal or plastic ladders, which must be able to sustain 3.3 times the maximum intended load.

Most ladders are designed to hold only one person at a time. Two persons may cause the ladder to fail or be thrown off balance.

Don't lean out to the side when you're on a ladder. If something is out of reach, get down and move the ladder.

### Angle

Be sure straight ladders are long enough so that the side rails extend above the top support point by at least 36 inches.

Never try to increase the height of a ladder by standing it on other objects, such boxes or barrels, or by splicing two ladders together. Place the base of a straight ladder out away from the wall or edge of the upper level about one foot for every four feet of vertical height.

Non-self-supporting ladders, which must lean against a wall or other support, are to be positioned at such an angle that the horizontal distance from the top support to the foot of the ladder is about 1/4 the working length of the ladder.

In the case of job-made wooden ladders, that angle should equal about 1/8 the working length. This minimizes the strain of the load on ladder joints that may not be as strong as on commercially manufactured ladders.

### Rung

Ladder rungs, cleats, or steps must be parallel, level, and uniformly

spaced when the ladder is in position for use. Single cleat job-made ladders should be 15 to 20 inches wide.

For extension trestle ladders, the spacing must be 8-18 inches for the base, and 6-12 inches on the extension section.

Rungs must be spaced between 10 and 14 inches apart and must be so shaped that an employee's foot cannot slide off, and must be skid-resistant.

### Slips/Falls

Portable ladders should be tied, blocked or otherwise secured against movement.

Keep ladders away from doorways or walkways, unless they can be protected by barriers.

Keep the area around the top and base of the ladder clear. Don't run hoses, extension cords, or ropes on a ladder; these may create obstructions.

To avoid slipping on a ladder,

check your shoes for oil, grease, or mud and wipe it off before climbing.

Wood ladders must not be coated with any opaque cover-

ing, except identification or warning labels on one face only of a side rail.

### Falls are the third leading cause of worker deaths.

Reasons why accidents occur with ladders include workers not being trained on their proper use, improper positioning, unsafe work practices, using the wrong ladder for the specific job or using ladders with defects.

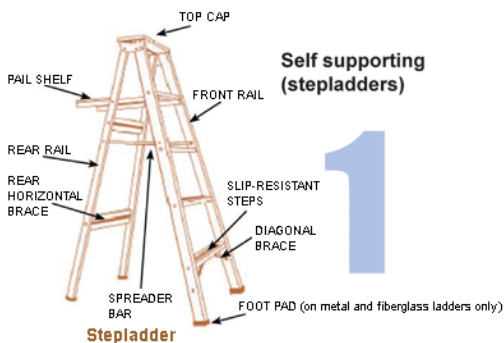
### Other requirements:

Near electrical conductors or equipment, use only ladders with non-conductive side rails. Choose the appropriate type and size ladder for the job, including correct fittings, and safety feet. Foldout or stepladders must have a metal spreader or locking device to hold the front and back sections in an open position when in use.

Never use a ladder for any purpose other than the one for which it was designed. Ladders should never be used sideways as platforms, runways or scaffolds. When two or more ladders are used to reach a work area, they must be offset with a landing or platform between the ladders.

When using a ladder for roof work or other situations that require climbing to the top of the ladder, work in pairs. Have one person hold the bottom of the ladder to help steady it. -

[Many thanks to Liz Johnson, Kit Fox RV Park, for content and checklists.](#)



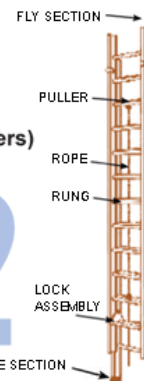
Self supporting (stepladders)

1

Stepladder

Not self supporting (straight and extension ladders)

2



Extension ladder

There are two basic types of portable ladders (which can be made of metal, wood, plastic or fiberglass)

## COMMUNICATION IS THE KEY TO SAFETY

### *Use Checklists to Test Understanding*

### LADDER INSPECTION

- Are all the rungs, cleats, or steps in good condition?
- Are the side rails intact without any cracks, bends, or breaks?
- Do the rungs, cleats, or steps fit snugly into the side rails?
- Is the ladder free of corrosion?
- Are the side rails and steps free of oil or grease?
- Are the ladder's hardware and fittings secure and undamaged?
- Do moveable parts operate freely without binding or excessive play?
- Are the ropes on extension ladders intact without fraying or excessive wear?
- Are damaged ladders removed from service and marked "Do not use"?



### HOLD A SAFETY MEETING

In California, all employers must have an Injury and Illness Prevention Program that includes em-

ployee training in safe work practices. And, for the construction and tunneling industries, there are specific requirements for "tailgate" safety meetings. To enable its insured employers to fulfill their workplace safety and health training responsibilities, State Fund has produced an extensive selection of Safety Meeting Topics intended for use by State Fund insured policyholders and may be disseminated to their employees for loss prevention purposes.

The informative topics are intended for use in on-the-job safety training meetings (best held at the beginning of the shift, right after lunch, or after a break) to educate employees on potential hazards and prevent work-related injuries and illnesses. A record of the safety meeting - stating the date, safety topic, attendees, and recommendations or additional comments - should be kept on file for the duration of each attendee's employment.

[Safety Meeting topics can be found at http://www.statefundca.com/safety/safetymeeting/](http://www.statefundca.com/safety/safetymeeting/)

[SafetyMeetingTopics.aspx](#)

**Workers who think of a ladder as a tool will be more aware of ladder safety and less likely to take chances when using a ladder.**

### LADDER SAFETY

- Did you select a ladder with adequate length and load limits?
- Are you using the ladder for its intended purpose?
- Did you set up the ladder on a firm, solid surface?
- Are you securing or barricading the ladder to protect it from being bumped when you have to work in doorways, passageways, or driveways?
- Is the area around the top and bottom of the ladder clear?
- Is your stepladder fully opened with the spreaders locked to keep the ladder stable?
- Have you set up your straight ladder using the 4 to 1 rule? (1 foot from the wall for each 4 feet of ladder length.)
- Have you set up your straight ladder so the rails are supported equally at the top?
- Is the straight ladder set up so the top extends at least 3 feet above the support point?
- Are you using your extension ladder so the upper section overlaps the lower section, and the overlap is on the climbing side with the rungs locked in place?
- Do you face the ladder when ascending or descending?
- Do you use both hands to grip the side rails whenever possible?
- Do you use a ladder safety device when needed on fixed ladders?
- Do you stay off of the top 2 steps of a stepladder?
- Do you stay off the back section of a stepladder?
- Do you stay off the top 4 rungs of a straight ladder?
- Is only one person allowed on the ladder at a time?
- Do you hoist tools or other materials up to you after you've reached the top of the ladder?
- Do you wear a tool belt to help you manage tools while you're working on a ladder.
- Do you work within the side rails? If your belt buckle goes past the side rail, you are leaning too far.
- Do you descend and move the ladder as needed to stay close to your work?
- Do you store the ladder in a secure designated area



CalARVC/CTPA Services, Inc.

PO Box 5648  
Auburn, CA 95604

Phone: (530) 885-1624  
SafetySpot@calarvc.com

[www.calarvc.com/safetyspot.php](http://www.calarvc.com/safetyspot.php)

*Serving businesses in the 9010 & 9015 Worker's Comp Classifications*

## EDUCATE AND PROTECT YOUR STAFF

### *The Safety Spot's DVD Video Lending Library*



The Safety Spot is pleased to offer our DVD Video Lending Library. As a current member of CalARVC/CTPA Services, Inc, we encourage you to take advantage of this valuable resource. Owners, Operators and Staff

can all benefit from these educational resources.

Titles include: *Back for the Future*, *Safety Training For all Employees*, *A Guide to Forklift Safety* and *Tractor Safety: A three part series*.

Once placed, your rental order will be shipped to you via UPS at no charge, with a pre-addressed, postage paid, return shipping envelope.

DVD Video Rentals are due within 30 days of being received. If the DVD

Video Rental is not returned within 30 days, or is lost, you will be invoiced for a \$150 replacement cost.

For a complete list of DVDs available, or to download a rental form, please visit [http://www.calarvc.com/safety/DVD\\_Rent.html](http://www.calarvc.com/safety/DVD_Rent.html)

Please call or e-mail Susanne at SafetySpot@calarvc.com or (530) 885-1624, with questions.

