



LADDER SAFETY STAND-DOWN RESOURCES



Relationships at Work

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Trending Topic

Ladder Safety

Help stop ladder accidents! According to Bureau of Labor Statistics, in 2020, there were 22,710 nonfatal workplace injuries (most involving lost time from work), and 161 fatal injuries. Ladder safety training is vital to keep employees safe on the job. FFVA is here to help with a variety of ladder safety resources referenced below. materials from OSHA can also be found at www.osha.gov/StopFallsStandDown.

Related Blog Posts:

- Ladder Safety Tips You Should Know www.ffvamutual.com/blog
- What Are the Best Workplace Safety Apps? <https://www.ffvamutual.com/blog/what-are-the-best-workplace-safety-apps/>



NIOSH Ladder Safety App- Free app to download to your phone. This app has interactive tools for angle measuring, selection, inspection, proper use and accessories.

On-Demand Webcasts/Short Talks/Videos: www.ffvamutual.com/safety/safety-videos

- Falls from Elevations [short talk]
- Ladder Safety Inspection [video]
- Ladder Safety Use [video]
- Ladder Safety [short talk]

Materials Available in **Safety Key** [most also in Spanish] www.ffvamutual.com/safety/safety-key

- Ladder and Stairs [policy]
- Ladder Safety Tips
- Ladder Safety: Extension Ladders [tips]
- Ladder Safety: Ladder Inspections[tips]
- Ladder Safety: Ladder Set [tips]
- Ladder Safety: Stepladders [tips]
- Ladder Safety [sample written program]
- Update to OSHA's Walking-Working Surfaces and Fall Protection Standard [meeting]

Free Training with FFVA Mutual's Safety Consultants in English and Spanish [In-person or remotely]

- Ladder Safety
- Slip, Trip and Fall Hazards
- Various OSHA 10 ladder safety / fall protection topics
- [View our course list](#) and [request safety training](#)



SAFETY TIPS

Extension Ladder Safety

It is important to always focus on working safely, follow all company safety policies and safety rules, and ensure that you do not place yourself or others at risk of injury. To reduce the potential for accidents and injuries, you must first read and follow the extension ladder's manufacturer's operator's manual including all safety precautions, warnings, and safe use instructions.

Training

Never use any extension ladder that you have not been formally trained on by your company supervisor or manager and all training should be documented. If you have any questions and/or concerns regarding the safe operation of the extension ladder, do not use the ladder and ask your supervisor for assistance.

Preventative Maintenance and Inspections

All extension ladders should be visually inspected before use to ensure it is in safe working condition.

- Ladders should not have any damage, lack of structural integrity, missing components or loose parts.
- The steps or rungs must be tight and secure to the side rails. Rungs, rails, and other components should be free of dents, cracks, and corrosion. All hardware and fittings need to be properly and securely attached.
- Movable parts must be tested to see that they operate without binding or without too much free play.
- All labels should be intact and readable.
- Ladders shall be free of oil, grease, or slippery materials.
- A ladder that has been exposed to fire or strong chemicals should be discarded.
- All accessories such as leg levelers, paint shelves, stand-off shelves, etc. are in good condition
- The ladder base must have the slip resistant material.

While inspecting extensions ladders, make sure of the following:

- ✓ Ropes and pulleys are in good condition.
- ✓ Ladder extension locks move freely and lock correctly.
- ✓ Rung locks are on the rails of the top section to ensure the top section will not fall.
- ✓ Extension guide brackets are secure and in place.
- ✓ Do not use damaged or unsafe ladders. Damaged or worn ladders should be destroyed.

Each year, about 50 construction workers are killed by falls from ladders. The main cause is falling from an extension ladder. The falls are frequently caused by either the slippage, movement of the supports or by workers losing their balance.

Tips to Prevent Falls from Extension Ladders

- Use your extension ladder in the manner that it is supposed to be used.

- Ensure that all required manufacturer specified labels (capacity/safety), are legible and available to all employees using the ladder.

Tips (continued)

- Inspect the work area before attempting to set up the extension ladder. Identify any overhead hazards, such as electric power lines, steam lines or other hazards. Maintain minimum 10' clearance from any electrical lines and always assume the wires are energized. Never use an aluminum ladder near electrical lines or electrical hazards.
- Keep the area at the top and base of the ladder free of debris, clutter, equipment, and tools.
- Set the ladder at the correct 4 to 1 angle. For every four rungs, place the ladder back a foot. As a check, (with your feet on the feet of the ladder and your arms extended straight forward) you should just be touching a rung on the ladder.
- Make sure the ladder is sitting straight and secure before climbing it. Set up on a firm, solid surface. Do not allow ladders to lean sideways. Level them before using.
- Do not set up the ladder on visqueen, tarps, loose carpet or rugs, or on any surface that might cause the feet to slide or where feet could shift while in use.
- Screw a 2x4 cleat to the ground behind the ladder's feet to prevent the ladder from slipping backward. If ladder is set up on soil or dirt, drive a stake into ground to secure base of ladder. Do not create an impalement hazard and do not use unprotected rebar or pipe.
- Tie off and/or secure the top of the ladder to prevent it from slipping sideways.
- Extend the ladder three feet (36") above the landing area.
- Do not over-reach while working from ladders. Your bellybutton should always be inside the rails. Instead of overreaching, get down and move/reposition the ladder.
- Always maintain 3-points of contact. The three points of contact rule is simple — always maintain one hand and two feet, or two hands and one foot, when climbing or descending ladders, trucks and equipment.
- Before descending, look down to make sure the area around the base is clear.

To watch our brief ladder safety inspection and ladder safety use videos, visit ffvamutual.com/safety/safetyvideos/.



Ladder Inspections

Falls from ladders can be prevented and lives can be saved by understanding the hazards associated with working from ladders and following safe work practices at all times. It is imperative that you always focus on working safely, follow all company safety policies and safety rules, and ensure that you do not place yourself or others at risk of injury. To reduce the potential for accidents and injuries, you must first read and follow the ladder manufacturer's product manual including all safety precautions, warnings, and safe use instructions

Ladder Training:

You should never use any ladder that you have not been formally trained on by your company supervisor or manager, and all training should be documented. If you have any questions and/or concerns regarding the safe operation of the ladder, do not use the ladder and ask your supervisor for assistance. Only use ladders and appropriate accessories (ladder levelers, jacks or hooks) for their designed purposes.

Preventative Maintenance and Inspections:

All ladders should be visually inspected before use to ensure they are in safe working condition.

- Ladders should not have any damage, lack of structural integrity, missing components or loose parts.
- Inspect the side rails and rungs closely for cracks, splits, bent or dented components, or other visible defects. In addition, check for sharp edges on side rails, rungs, and metal components on the ladder.
- Inspect the spreader bars on stepladders to ensure they are operable and not loose, broken, or damaged. Spreader bars should be able to lock into place.
- The steps or rungs must be tight and secure to the side rails. Rungs, rails, and other components should be free of dents, cracks, and corrosion. Hardware and fittings need to be properly and securely attached.
- Inspect the safety feet and ensure that the rubber foot pads are in place, secure, and not cracked or brittle and are still slip resistant.
- All labels should be intact and readable. Ladders should not be painted, as this can conceal labels and user safety information.
- Ladders shall be free of oil, grease, or slippery materials.
- A ladder that has been exposed to fire or strong chemicals should be discarded.
- All accessories such as leg levelers, paint shelves, stand-off shelves, etc. should be in good condition.

All extension ladders should be visually inspected before use to ensure they are in safe working condition. While inspecting extensions ladders, all above inspections should be made along with the following:

- Ropes and pulleys are in good condition. Ropes should not be frayed or worn.
- Ladder extension locks move freely and lock correctly and extension guide brackets are secure
- Rung locks are on the rails of the top section to ensure the top section will not fall. Rung locks should not be bent or cracked and hardware should not be overly loose or missing.
- Inspect the bottom shoes- ensure they are not overly loose and rubber tread is intact and no fasteners are missing or loose.

If any ladder is found to be damaged or if you are not sure, it is safe to use, immediately take the ladder out of service, place a "Do Not Use" tag on the ladder and make sure the ladder is properly disposed of per company policy. Do not use damaged or unsafe ladders and do not allow damaged ladders to be repaired or taken home by other employees.



Ladder Safety Tips

Ladders are a simple device used for safe climbing, and that may be their biggest fault. Workers using them tend to mistake simplicity for harmlessness, forgetting precautions or rules of proper use. That kind of mistake causes thousands of accidents and disabling injuries every year.

Most accidents with straight ladders are caused by the ladder skidding or slipping. This is easy to prevent: equip the ladder with a nonslip base like safety feet, or block the base of the ladder.

Lashing the ladder is another precaution against moving or slipping. Make sure the lashing is there when it is needed; permanently attach a short length of rope to a side rail. Also, make sure the ladder is placed at a safe angle so that the distance from the wall to the base of the ladder is about one-fourth the distance from the base to the ladder's top support.

When you are setting up a ladder, make sure the footing is level and that the ladder rests on a firm platform. Lean the ladder against something solid and unmovable, not against a window sash or glass surface. Also, make sure the ladder top juts well above a roof edge, beam, plank, or scaffold so that the climber has plenty of side rail to hold onto when stepping off. Three feet is the recommended safe amount.

Once the ladder is properly in place, step onto it facing the rungs and grasping the rails with both hands. Do not hurry up the rungs, but climb one at a time.

Never try to carry tools or anything else up a ladder, because hands should be free for climbing. Instead, hang tools in a sack or from a strap placed over the shoulder, or use a bucket or line to haul them up later.

While working on a ladder, do not try to reach out too far, but move the ladder as work requires. Never go higher than the third rung from the top on a straight ladder.



Ladder Safety Program Guide

This sample program is intended as a resource for helping employers with developing a program that meets the general requirements in Subpart D of the OSHA Standards. This program is not intended to supersede the requirements of the standards. Each employer will need to adapt this program to more appropriately fit their operations for their program to be complete. Each employer should reference this and the remaining OSHA Standards contained in Subpart D for additional information.

A successful safety program helps company leadership minimize workers' compensation costs and increase profitability.

This Sample Written Program has been developed to assist FFVA Mutual policyholders in:

- Maintaining employee safety and controlling losses in the workplace
- Guiding senior management in establishing safety standards
- Developing an employer integrated safety program

Please customize this accident prevention program according to your workplace. Your written accident prevention program can only be effective if it is put into practice.

Your account's dedicated safety professional is available to assist in the review and implementation of your safety program, offer technical guidance, provide training to meet compliance issues, and assist in locating relevant reference materials.

If you have questions or would like assistance implementing your organization's safety program, contact 800-346-4825 or visit ffvamutual.com/safety for more information.

Objective

Ladders are an essential part of production and maintenance within this facility. This program has been developed to establish guidelines for safe and proper use of ladders.

Assignment of Responsibility

Management

- Management is responsible to obtain ladders that are properly designed for the intended use.

The Program Administrator

- The Program Administrator will monitor all activities related to this program.
- The Program Administrator is responsible to identify suppliers of ladders from which this company will make purchases.
- The Program Administrator is responsible to periodically inspect ladders to ensure safety requirements are being met.
- The Program Administrator is responsible to review this program annually and make changes as needed.
- The Program Administrator is responsible to ensure all employee training applicable to this program is completed.

Supervisors

- Supervisors are responsible to implement this program in their departments.
- Supervisors are responsible to monitor employee activities as related to this program and correct actions that are unsafe or in violation of this program.
- Supervisors are responsible to replace defective ladders that have been removed from service and not allow defective tools to be used.

Employees

- Employees are responsible for inspecting ladders before each use.
- Employees are responsible for removing defective ladders from service and turn them in to their supervisors.

General Policies and Procedures

At no time will an employee ascend or descend a ladder unless both hands are available to grasp the ladder. Employees will not be permitted to carry objects on ladders in their hands.

Employees will ascend or descend ladders facing the ladder. At no time will employees ascend or descend a ladder with their back to the ladder.

At no time when on a ladder will the load capacity be exceeded. Employees using ladders must read the warning labels to learn the load capacities, and they must take into account their body weight plus the weight of any equipment they have with them on the ladder.

When employees perform work from a ladder that prevents them from maintaining three points of contact, and are positioned higher than 4 feet from the walking or working surface, the employees will wear appropriate fall arrest equipment, making certain the object to which they are connected will support them should they fall from the ladder. The employee will need to verify the fall arrest lanyard is short enough to stop their fall before striking the walking or working surface.

When working from a ladder, employees will not reach beyond a simple, unassisted extension of arm's length. They will not lean to extend their reach. They will not reposition their body to extend their reach.

When roof access is necessary using a ladder during cold months, the employee will ensure no ice is present on the roof before stepping from the ladder onto the roof.

Inspections

Ladders will be inspected before each use by the employees using them. The inspection will consist of a visual inspection of:

Straight ladders

Rungs/steps, rungs/steps connections to side rails, side rails, braces, feet and warning labels present and legible

Extension ladders

Rungs/steps, rungs/steps connections to side rails, side rails, braces, extension locks, ladder stops, rope, feet and warning labels present and legible

Step ladders

Rungs/steps, rungs/steps connections to side rails, joints, side rails, braces, spreaders and spreader locks, feet and warning labels present and legible

If any of these components are found to be defective or damaged in any way, missing or inoperable, the ladder will not be used and these defects or damage will be reported to a supervisor.

If defects are found, the ladder will be removed from service by the supervisor. The ladder will be cut into pieces in a safe manner by a maintenance employee and disposed of.

At no time will defective ladders be kept on the premises for any reason.

Portable Ladders

Portable ladders include those ladders that are not built into or attached permanently to the building. These include straight, extension and step ladders built of metal or fiberglass construction.

Portable ladders used on the premises will be constructed of metal or fiberglass.
Portable ladders with jointed side rails will not be permitted on the premises.

Placement of portable ladders will be in accordance with the following:

Straight and Extension Ladders

Place against the wall or secure object at an angle of the base of the ladder 1 foot away from the wall or secure object for every 4 feet in elevation. The employee can also stand with their toes touching the base/feet and extend their arms straight and toward the ladder. When they can touch the ladder rails with their fingertips they have achieved a good ratio.

Placed so the ladder extends at least three feet above the wall or secure object on which the ladder is placed.

Straight and extension ladders will be tied off or secured at the top when the ladder is to be in place for an extended period.

Extension ladders will be tied off at the top and at the base when the ladder is more than half way extended and is to be in place for an extended period.

Step Ladders

Step ladders will be completely opened and spreaders will be locked.

Employees will not stand at any time above the top two rungs. If the work requires the employee climb higher, the employee will use a taller ladder.

Step ladders will not be used as straight ladders.

Step ladders will only be climbed on the side with the rungs. The back sides of step ladders will not be climbed.

Portable Fiberglass Ladders

Employees performing electrical work of any kind, or maintenance work near live or disconnected electrical, will use only portable ladders constructed of fiberglass. Metal ladders will not be used.

Portable Wooden Ladders

Portable wooden ladders are very susceptible to ageing and becoming unstable and unsafe for use. Because of this, portable wooden ladders will not be used on these premises at any time.

Fixed Ladders

Fixed ladders are those ladders permanently attached to the building. Fixed ladders on these premises will be designed, constructed and installed by an outside, qualified contractor.

Fixed ladders will be designed, constructed, and installed so as to meet the requirements of OSHA 1910.27.

Fixed ladders are often thought of as not requiring inspections. Fixed ladders, especially those located outdoors, are exposed to environmental conditions that cause wear and deterioration. Fixed ladders will be visually inspected before and during the initial climb by employees.

If during the climb a defect or damage is found, the employee will stop the climb, descend the ladder, and report the defect or damage to his supervisor. The defective or damaged, fixed ladder will be blocked off to prevent access until a qualified contractor completes the needed repair.

Site-Built Ladders

Site-built ladders are those ladders that are built on-site by employees. They can be of metal or wood construction. Site-built ladders will not be used at any time.



Ladders and Stairs Policy

Company Name:

Policy/Procedure ID Number:

Date:

This (Company Name) policy will establish the requirements for the construction, care, and use of portable ladders and to establish criteria for safe design and construction of fixed stairs and fixed ladders.

Requirements

General

- Stepladders shall only be used in the fully opened and locked position.
- When selecting ladders, the job application shall always be considered, (i.e., use fiberglass ladders for electrical work, Type I ladders for heavy duty work, etc.)
- Ladders shall not be loaded beyond the maximum intended load for which they were built, or beyond their manufacturer's rated capacity.
- Ladder shall be used only for the purpose for which they were designed.
- Non-self-supporting ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder.
- Ladders shall be used only on stable and level surfaces.
- Ladders placed in any location where they can be displaced by workplace activities or traffic, such as passageways, doorways, or driveways, shall be secured to prevent accidental displacement, or a barricade shall be used to keep activities or traffic away from the ladder.
- The area around the top and bottom of ladders shall be kept clear.
- Ladders shall not be moved, shifted, or extended while occupied.
- The top or top step of a stepladder shall not be used as a step/or to be stood on.
- Cross-bracing on the rear section of step ladders shall not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.
- Ladders shall be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use.
- Ladders with structural defects or other faulty or defective components shall be immediately marked or tagged in a manner that readily identifies them as defective until they can be repaired or removed from service.
- When ascending or descending a ladder, the user shall face the ladder.
- Employees shall use at least one hand to grasp the ladder when progressing up and/or down the ladder.
- Employees shall not carry any object or load that could cause the employee to lose balance and fall.
- All ladders shall be maintained in a safe working condition.
- Ladders shall "NOT" be used in a horizontal position as horizontal platforms, runways, or scaffolds.
- Portable ladders shall be placed so that the side rails have a secure footing. The top rest for portable rung and cleat ladders shall be reasonably rigid and shall have ample strength to support the applied load.
- Ladders shall "NOT" be placed on boxes, barrels, or other unstable bases to obtain additional height.

- Short ladders shall "NOT" be spliced together to provide long sections.
- Ladders made by fastening cleats across a single rail shall "NOT" be used.
- Ladders shall "NOT" be used as guys, braces, or skids, or for other than their intended purposes.
- Portable rung ladders with reinforced rails shall be used only with the metal reinforcement on the underside.
- No ladder should be used to gain access to a roof unless the top of the ladder shall extend at least 3 feet above the point of support, at eave, gutter, or roofline.
- Middle and top section of sectional or window cleaner's ladders should not be used for bottom section unless the user equips them with safety shoes.
- The user should equip all portable rung ladders with non-slip bases when there is a hazard of slipping. Non-slip bases are not intended as a substitute for care in safely placing, lashing, or holding a ladder that is being used upon oily, metal, concrete, or slippery surfaces.
- If ladders are exposed to oil and grease, equipment should be cleaned of oil, grease, or slippery materials.
- Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.
- Safety feet and other auxiliary equipment shall be kept in good condition to insure proper performance.
- The top of the ladder shall be placed with the two rails supported unless equipped with a single support attachment.
- Ladders should not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.
- Step ladders longer than 20 feet shall "NOT" be supplied.
- Stepladders shall be of one of the following types:
 - Type I-Industrial stepladder, 3 to 20 feet for heavy duty, such as utilities, contractors, and industrial use.
 - Type II-Commercial stepladder, 3 to 12 feet for medium duty, such as painters, offices, and light industrial use.

NOTE: If the above rules cannot be met, then the ladder shall not be used for the job. An alternate method of completing the work must be employed, (i.e., Simon lifts, bucket trucks, etc.)

Fixed Industrial Stairs

- Fixed stairs shall be provided for access from one structure level to another where operations necessitate regular travel between levels and for access to operating platforms at any equipment that requires attention routinely during operations.
- Fixed stairs shall be provided where access to elevations is daily or at each shift for such purposes as gauging, inspection, regular maintenance, etc., where such work may expose employees to acids, caustics, gases, or other harmful substances, or for which purposes the carrying of tools or equipment by hand is normally required.
- Spiral stairways shall not be permitted except for special limited usage and secondary access situations where it is not practical to provide a conventional stairway.
- Winding stairways may be installed on tanks and similar round structures where the diameter of the structure is not less than five feet.
- Fixed stairs shall be designed and constructed to carry a load of five times the normal live load anticipated but never of less strength than to carry safely a moving concentrated load of 1,000 pounds.
- Fixed stairways shall have a minimum width of 22 inches.
- Fixed stairs shall be installed at angles to the horizontal of between 30 and 50 degrees.
- All treads shall be reasonably slip-resistant and the nosing shall be of non-slip finish.

- Rise height and tread width shall be uniform throughout any flight of stairs including any foundation structure used as one or more treads of the stairs.
- Stairway platforms shall be no less than the width of a stairway and a minimum of 30 inches in length measured in the direction of travel.
- Standard railings shall be provided on the open sides of all exposed stairways and stair platforms.
- Handrails shall be provided on at least one side of closed stairways preferably on the right side descending.
- Vertical clearance above any stair tread to an overhead obstruction shall be at least 7 feet measured from the leading edge of the tread.

Portable Wood Ladders

- All wood ladders shall be free from sharp edges and splinters; sound and free from accepted visual inspection from shake, wane, compression failures, decay, or other irregularities.
- Low-density wood should "NOT" be used for wood ladders.
- If temporary ladders are built during construction they should be capable of supporting at least four times the maximum intended load, except that metal or plastic ladders should be able to sustain at least 3.3 times the maximum intended load.
- Temporary ladders shall only be used for construction and shall "NOT" be used for any other applications.
- Uniform step spacing shall be employed which shall be "NOT" more than 12 inches.
- Steps shall be parallel and level when the ladder is in position for use.
- The minimum width between side rails at the top, inside to inside, shall be "NOT" less than 11 1/2 inches.
- From top to bottom, the side rails shall spread at least 1 inch for each foot of length of stepladder.
- A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in open positions shall be a component of each stepladder.
- The spreader shall have all sharp points covered or removed to protect the user.
- Single ladders longer than 30 feet shall "NOT" be supplied.
- Two-section extension ladders longer than 60 feet shall "NOT" be supplied. All ladders of this type shall consist of two sections; one to fit within the side rails of the other, and arranged in such a manner that the upper section can be raised or lowered.
- Assembled combinations of sectional ladders longer than lengths specified in this procedure shall "NOT" be used.
- Trestle ladders, or extension sections or base sections of extension trestle ladders longer than 20 feet shall "NOT" be supplied.
- Painter's stepladders longer than 12 feet shall "NOT" be supplied.
- Mason's ladders longer than 40 feet shall "NOT" be supplied.
- Trolley ladders and side-rolling ladders longer than 20 feet should "NOT" be supplied.

Portable Metal Ladders

- Design of ladders shall be such as to produce a ladder without structural defects or accident hazards such as sharp edges, burrs, etc.
- The metal selected shall be of sufficient strength to meet the test requirements, and shall be protected against corrosion unless inherently corrosion resistant.
- The spacing of rungs or steps shall be on 12 inch centers.
- Rungs and steps shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize the possibility of slipping.
- The minimum width between side rails of a straight ladder or any section of an extension ladder shall be 12 inches.

- Two-section ladders shall not exceed 48 feet in length and over two-section ladders shall not exceed 60 feet in length.
- Based on the nominal length of the ladder, each section of a multi-sectional ladder shall overlap the adjacent section by at least the number of feet stated in the following:

	Overlap (feet)
Up to and including 36	3
Over 36, up to and including 48	4
Over 48, up to 60	5

- Extension ladders shall be equipped with positive stops, which should ensure the overlap specified in the table above.
- The bottoms of the four rails are to be supplied with insulating non-slip material for the safety of the user.
- A metal spreader or locking device of sufficient size and strength to securely hold the front and back sections in the open position shall be a component of each stepladder.
- The spreader shall have all sharp points or edges covered or removed to protect the user.
- Trestle ladders or extensions sections or base sections of trestle ladders shall be not more than 20 feet of length.
- The length of a platform ladder shall not exceed 20 feet.

Fixed Ladders

- All ladders, appurtenances, and fastenings shall be designed to meet the following requirements:
 - The minimum design live load shall be a single concentrated load of 200 pounds.
 - The number and position of additional concentrated live-load units of 200 pounds each as determined from anticipated usage of the ladder shall be considered in the design.
 - The live loads imposed by persons occupying the ladder shall be considered to be concentrated at such points as will cause the maximum stress in the structural member being considered.
- The weight of the ladder and attached appurtenances together with the live load shall be considered in the design of rails and fastenings.
- Design stresses for wood ladders should not be exceeded.
- All rungs shall have a minimum diameter of three-fourths inch for metal ladders, except for those used in a corrosive atmosphere where the rungs will be 1 inch in diameter and for wood ladders which shall be a minimum of 1 1/8 inches in diameter.
- The distance between rungs, cleats, and steps shall not exceed 12 inches and shall be uniform throughout the length of the ladder.
- The minimum clear length of rungs or cleats shall be 16 inches.
- Rungs, cleats, and steps shall be free of splinters, sharp edges, burrs, or projections, which may be a hazard.
- The rungs of an individual-rung ladder shall be so designed that the foot cannot slide off the end.
- Side rails which might be used as a climbing aid shall be of such cross sections as to afford adequate gripping surface without sharp edges, splinters, or burrs.
- Fastenings shall be an integral part of fixed ladder design.
- All splices made by whatever means shall meet design requirements as noted in this procedure and shall have a smooth transition with original members, with no sharp or extensive protrusions.

- Adequate means shall be employed to protect dissimilar metals from electrolytic action when such metals are joined.
- Metal ladders and appurtenances shall be painted or otherwise treated to resist corrosion and rusting when location demands. Ladders formed by individual metal rungs imbedded in concrete, which serve as access to pits and to other areas under floors, are frequently located in an atmosphere that causes corrosion and rusting. To increase rung life in such atmosphere, individual metal rungs shall have a minimum diameter of 1 inch or shall be painted or otherwise treated to resist corrosion or rusting.
- Wood ladders when used under conditions where decay may occur shall be treated with a nonirritating preservative, and the details shall be such as to prevent or minimize the accumulation of water on wood parts.
- When different types of materials are used in the construction of a ladder, the materials used shall be so treated as to have no deleterious effect upon the other.
- On fixed ladders, the perpendicular distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be 36 inches for a pitch of 76 degrees, and 30 inches for a pitch of 90 degrees with minimum clearances for intermediate pitches varying between these two limits in proportion to the slope.
- A clear width of at least 15 inches shall be provided each way from the centerline of the ladder in the climbing space, except when cages or wells are necessary.
- Ladders equipped with cage or baskets are exempt from the above provisions but cages shall not extend less than 27 or more than 28 inches from the centerline of the rungs of the ladder. Cage shall not be less than 27 inches in width. The inside shall be clear of projections. Vertical bars shall be located at a maximum spacing of 40 degrees around the circumference of the cage; this will give a maximum spacing of approximately 9 1/2 inches, center to center.
- The distance from the centerline of rungs, cleats, or steps to the nearest permanent object in back shall be not less than 7 inches.
- The distance from the centerline of the grab bar to the nearest permanent object in back of the grab bars shall be not less than 4 inches.
- Grab bars shall not protrude on the climbing side beyond the rungs of the ladder which they serve.
- The step-across distance from the nearest edge of ladder to the nearest edge of equipment or structure shall not be more than 12 inches, or less than 2 1/2 inches.
- Counterweighted hatch covers shall open a minimum of 60 degrees from the horizontal. The distance from the centerline of rungs or cleats to the edge of the hatch opening on the climbing side shall not be less than 24 inches for offset wells or 30 inches for straight wells.
- There shall not be protruding potential hazards within 24 inches of the centerline of rungs or cleats; any such hazards within 30 inches of the centerline of the rungs or cleats shall be fitted with deflector plates at an angle of 60 degrees from the horizontal.
- Cages or wells shall be provided on ladders of more than 20 feet to a maximum unbroken length of 30 feet.
- Cages shall extend a minimum of 42 inches above the top of landing, unless other acceptable protection is provided.
- Cages shall extend down the ladder to a point not less than 7 feet or more than 8 feet above the base of the ladder, with bottom flared not less than 4 inches, or portion of cage opposite ladder shall be carried to the base.
- The inside shall be clear of projections.
- Ladder wells shall have a clear width of at least 15 inches measured each way from the centerline of the ladder. Smooth-walled wells shall be a minimum of 27 inches from the centerline of rungs to the well wall on the climbing side of the ladder.

- Where other obstructions on the climbing side of the ladder exist, there shall be a minimum of 30 inches from the centerline of the rungs.
- When ladders are used to ascend to heights exceeding 20 feet (except on chimneys), landing platforms shall be provided for each 30 feet of height or fraction thereof, except that, where no cage, well, or ladder safety device is provided, landing platforms shall be provided for each 20 feet of height or fraction thereof and:
- Each ladder section shall be offset from adjacent sections.
- Where installation conditions (even for a short, unbroken length) require that adjacent sections be offset, landing platforms shall be provided to each offset.
- Where a man has to step a distance greater than 12 inches from the centerline of the rung of a ladder to the nearest edge of structure or equipment, a landing platform shall be provided. The minimum step-across distance shall be 2 1/2 inches.
- All landing platforms shall be equipped with standard railings and toe-boards, so arranged as to give safe access to the ladder.
- Platforms shall be not less than 24 inches in width and 30 inches in length.
- One rung of any section of ladder shall be located at the level of the landing laterally served by the ladder.
- Where access to the landing is through the ladder, the same rung spacing as used on the ladder shall be used from the landing platform to the first rung below the landing.
- The side rails of through or side-step ladder extensions shall extend 3 1/2 feet above parapets and landings. For through ladder extensions, the rungs shall be omitted from the extension and shall have not less than 18 or more than 24 inches clearance between rails.
- For side step or offset fixed ladder sections, at landings, the side rails and rungs shall be carried to the next regular rung beyond or above the 3 1/2 feet minimum.
- Grab bars shall be spaced by a continuation of the rung spacing when they are located in the horizontal position.
- Vertical grab bars shall have the same spacing as the ladder side rails.
- Grab-bar diameters shall be the equivalent of the round-rung diameters.
- Ladder safety devices may be used on tower, water tank, and chimney ladders over 20 feet in unbroken length in lieu of cage protection. No landing platform is required in these cases.
- All ladder safety devices such as those that incorporate life belts, friction brakes, and sliding attachments shall meet the design requirements of the ladders which they serve.
- The preferred pitch of fixed ladders shall be considered to come in the range of 75 to 90 degrees with the horizontal.
- Fixed ladders shall be considered as substandard if they are installed within the substandard pitch range of 60 and 75 degrees with the horizontal.
- Substandard fixed ladders are permitted only where it is found necessary to meet conditions of installation.
- This substandard pitch range shall be considered as a critical range to be avoided, if possible.
- Ladders having a pitch in excess of 90 degrees with the horizontal are prohibited.

Training

Training shall be provided to each employee using ladders and stairways as necessary. The program shall include the following:

- The nature of fall hazards in the work area.

- The proper use, placement, and care in handling of stairways and ladders.
- The maximum intended load-carrying capabilities of ladders.
- The requirements contained in this document.

Roles and Responsibilities

Management

Ensure timely and appropriate actions are taken to abate discrepancies noted during housekeeping assessments.

Ensure employees are knowledgeable in the portions of this procedure applicable to their jobs.
Performs quarterly inspections utilizing the attached checklist to verify compliance with this document.

Employees

Comply with the policies and training requirements directed by this procedure.
Make sure they do not perform any task requiring formal training until such time that the required training is completed and documented.

Refuse to operate any piece of equipment for which they are not familiar and/or properly training.

Safety Department

Ensures implementation of this procedure and revisions to this procedure based on changes to referenced documents or a determination of deficiencies in work processes or procedures. Develop programs and procedures that promote safety. Provide technical training in compliance with this procedure.

Definitions

- **Cleat** - A ladder crosspiece of rectangular cross section placed on edge upon which a person may step while ascending or descending a ladder.
- **Fixed Industrial Stairs** - These are permanent stairs. They may be indoors or outdoors. These include standard stairway entrances to buildings, exterior stairways, and stairway systems.
- **Fixed Ladder** - A fixed ladder is a ladder that is attached in such a way that it is not easily movable. These are normally ladders attached to the side of a building or structure. They may include cages or ladder climb devices or may simply be very short ladders such as embedded stair rungs in a manhole or vault.
- **Handrail** - A rail used to provide employees with a handhold for support.
- **Mason's Ladder** - A special type of single ladder intended for use in heavy construction work.
- **Maximum Intended Load** - The total load of all employees, equipment, tools, materials, transmitted loads, and other loads anticipated to be applied to a ladder component at any one time.
- **Nosing** - The portion of a tread projecting beyond the face of the riser immediately below.
- **Portable Ladder** - A portable ladder is a ladder that is not permanently affixed to a structure. Designs vary. Examples include the standard step ladder, extension ladders, and a multitude of specialty ladders that may be shaped into various shapes to accommodate special circumstances.
- **Riser Height** - The vertical distance from the top of a tread to the top of the next higher tread or platform/landing or the distance from the top of a platform/landing to the top of the next higher tread or platform/landing.
- **Tread Depth** - The horizontal distance from front to back of a tread (excluding nosing, if any).
- **Trestle Ladder** - Means a self-supporting portable ladder, adjustable in length consisting of a trestle ladder base and a vertically adjustable extension section, with a suitable means for locking the ladders together.



Portable Step Ladder

Each year thousands of workers are seriously injured and even killed due to falls from ladders. Falls from ladders can be prevented and lives can be saved by understanding the hazards associated with working from ladders and following safe work practices at all times. It is imperative that you always focus on working safely, follow all company safety policies and safety rules, and ensure that you do not place yourself or others at risk of injury. To reduce the potential for accidents and injuries you must first read and follow the ladder's manufacturer's operator's manual including all safety precautions, warnings, and safe use instructions.

Training

You should never use any ladder that you have not been formally trained on by your company supervisor or manager and all training should be documented. If you have any questions and/or concerns regarding the safe operation of the ladder, do not use the ladder and ask your supervisor for assistance.

Preventative Maintenance and Inspections

All ladders should be visually inspected before use to ensure it is in safe working condition.

- Ladders should not have any damage, lack of structural integrity, missing components or loose parts.
- Inspect the side rails and rungs for cracks, splits, bent or dented components, or other visible defects. Also, check for sharp edges on side rails, rungs, and metal components on the ladder.
- Inspect the spreader bars to ensure they are operable and not loose, broken, or damaged.
- The steps or rungs must be tight and secure to the side rails. Rungs, rails, and other components should be free of dents, cracks, and corrosion. All hardware and fittings need to be properly and securely attached.
- Inspect the safety feet and ensure that the rubber foot pads are in place, secure, and not cracked or brittle and are still slip resistant.
- All labels should be intact and readable.
- Ladders shall be free of oil, grease, or slippery materials.
- A ladder that has been exposed to fire or strong chemicals should be discarded.
- All accessories such as leg levelers, paint shelves, stand-off shelves, etc. should be in good condition.

If any ladder is found to be damaged or if you are not sure it is safe to use, immediately take the ladder out of service, place a "Do Not Use" tag on the ladder and make sure the ladder is properly disposed of per company policy. Do not allow damaged ladders to be repaired or taken home by other employees.

Choosing the Right Step Ladder

- Use a ladder that can sustain at least 4 times the maximum intended load. Do not exceed the load rating and always include the weight of tools, materials, equipment, and worker.

- Plan your work and make sure you have the appropriate height ladder that allows you to reach your work without having to stand above the third rung from the top.
- If your work requires you to hold and/or carry heavy items, is at a height that could make working from a ladder unstable, requires working from a height for a long duration, or may require you to stand on a ladder sideways, you may want to consider using something other than a step ladder. Consider safer options such as a scissor lift or scaffolding and make sure you are trained on whatever you use.
- There are a number of portable step ladder options available depending on the work you are performing. If you are working from one height for long periods of time, consider using one that has a working platform with handrail barricades on the sides (e.g. platform or plateau ladder).

Ladder Safety Tips

- Inspect the work area before setting up your ladder. Look for overhead electrical hazards, other workers or activities in the work area, and vehicular or pedestrian traffic.
- Do not use an aluminum ladder near energized electrical equipment or wires.
- Set up the ladder on firm, stable, and level ground. Do not use bricks, blocks, or other objects to level the ladder.
- Ensure that the spreader bars are fully open and in the locked position before using.
- Do not set ladders up on boxes, barrels or other unstable bases. Do not use ladders on scaffolding.
- Always use 3 points of contact when climbing or descending the ladder (2 hands and a foot or 2 feet and a hand).
- Do not over-reach from the ladder. Always keep your weight centered between the side rails.
- Do not lean away from the ladder to carry out your task.
- Do not use a step ladder while folded or leaning against a wall or other surface unless it is designed to be used that way.
- Use a tool belt or shoulder belt to carry hand tools and small equipment to free up your hands.
- Do not set up a ladder in doorways or areas of high traffic. If it must be placed in area of high foot traffic, you should barricade the bottom of the ladder to keep traffic away from the ladder.
- Do not use a portable step ladder to access scuttle holes, trusses, or upper levels as the ladder can be unstable when getting on or off and may require you to stand on the top two levels. Choose a straight or extension ladder for these tasks.

Look Down Before Descending

Many step ladder injuries occur when the worker is climbing down the step ladder and misses the last one or two rungs, stepping on materials or equipment that were placed at the base of the ladder, or from having tools or materials that were left on the ladder fall onto the worker while moving the ladder. So before you start to descend from the step ladder do the following:

- Check the top cap, paint shelf, and rungs for tools, materials, or other items.
- Look down to see how many rungs there are below you and remind yourself of the height of the ladder you are using.
- Look down to make sure the base of the ladder is clear and no one has placed any materials, pipe, tools, or debris at the base of the ladder.

You can find additional Ladder Safety resources in videos www.ffvamutual.com/safety/safety-videos, short talk www.ffvamutual.com/safety/short-talks or documents in www.ffvamutual.com/safety/safety-key.

Falling Off Ladders Can Kill: Use Them Safely

**Las caídas desde
escaleras pueden
ser mortales:
Úselas de forma
segura**



www.osha.gov/stopfalls



OSHA 3625-04R 2018

Falls from ladders, scaffolds and roofs can be prevented

Las caídas desde escaleras, andamios y techos pueden prevenirse



Disclaimer

This material is advisory in nature and informational in content. It is not a standard or regulation, and it neither creates new legal obligations nor alters existing obligations created by OSHA standards or the Occupational Safety and Health (OSH) Act. Pursuant to the OSH Act, employers must comply with safety and health standards and regulations issued and enforced either by OSHA or by an OSHA-approved state plan. In addition, the Act's general duty clause, section 5(a)(1), requires employers to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm.

Descargo de responsabilidad

Este material es de carácter consultivo con contenido informativo. No es una norma o una regla y no crea ningunas obligaciones jurídicas nuevas ni modifica obligaciones existentes creadas por las normas de la OSHA o por la Ley de Seguridad y Salud Ocupacional (OSH Act). De acuerdo con la Ley de Salud y Seguridad Ocupacional, los empleadores deben cumplir las normas y reglas en materia de salud y seguridad promulgadas por la OSHA o por un estado que tiene un plan estatal aprobado por la OSHA. Además, de conformidad con la Cláusula de Deberes Generales de dicha ley, sección 5(a)(1), los empleadores deben proporcionar a los empleados un lugar de trabajo libre de peligros reconocidos que puedan causar la muerte o daños físicos graves.



Introduction

Falls are the leading cause of death in construction and every year falls from ladders make up nearly a third of those deaths. These deaths are preventable. Falls from ladders can be prevented and lives can be saved by following the safe work practices described in this booklet.

For more information about how to prevent fatal falls, visit: www.osha.gov/stopfalls.

For more information about OSHA's standard on ladders in construction, see 29 CFR 1926.1053.

Introducción

Las caídas son la causa principal de la muerte en la construcción y cada año las caídas desde escaleras representan casi un tercio de esas muertes. Estas muertes pueden evitarse. Las caídas desde escaleras pueden evitarse y vidas pueden salvarse siguiendo las prácticas laborales seguras descritas en este folleto.

Para obtener más información sobre cómo prevenir caídas mortales, visite www.osha.gov/stopfalls.

Para obtener más información sobre la norma de la OSHA sobre escaleras de mano en la construcción, véase 29 CFR 1926.1053.

This booklet was adapted from *Falling off Ladders Can Kill: Use Them Safely*, developed by the Singapore Workplace Safety and Health Council in collaboration with the Ministry of Manpower. OSHA thanks both the Council and the Ministry for granting permission to use this information to educate employers and workers about how to use ladders safely to prevent fatal falls in construction.

Este folleto es una adaptación de *Las caídas desde escaleras pueden ser mortales: Úselas de forma segura (Falling off Ladders Can Kill: Use Them Safely)*, una publicación escrita en inglés) desarrollado por el Consejo de Seguridad y Salud del Lugar de Trabajo de Singapur en colaboración con el Ministerio de Mano de Obra. La OSHA agradece al Consejo y también al Ministerio por otorgar permiso para usar esta información para educar a empleadores y trabajadores sobre cómo usar las escaleras de manera segura y cómo prevenir caídas mortales en la construcción.

Employers are responsible for providing training and a safe and healthful workplace for their workers.

Los empleadores tienen la responsabilidad de proporcionar entrenamiento y un lugar de trabajo seguro y saludable a sus empleados.

When Should You Use a Ladder?

When you want to reach a higher work area, think about the best equipment to use. While a ladder or stepladder is commonly used, it may not always be the best option. Ask yourself these questions before deciding on a ladder:

- Will I have to hold heavy items while on the ladder?
- Is the elevated area high enough that it would require a long ladder that can be unstable?
- Will I be working from this height for a long time?
- Do I have to stand on the ladder sideways in order to do this work?

If your answer is yes to one of the above questions, consider using something other than a ladder. If possible, bring in other equipment like a scissor lift. If you have to use a ladder, use one that has a working platform with handrail barricades on the sides (e.g., a platform stepladder).

Whenever you use a ladder or a stepladder, take note of the safety advice in this guide.

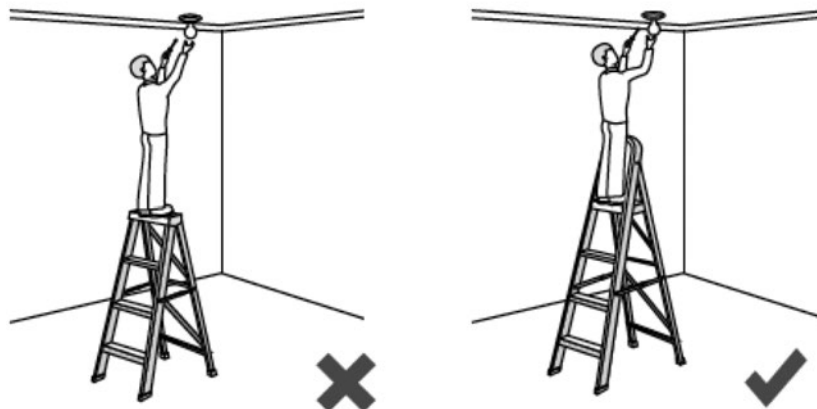
¿Cuándo se debe utilizar una escalera?

Cuando quiere llegar a un área de trabajo más alta, piense en el mejor equipo para usar. Mientras que una escalera o una escalera de tijera se usa en general, no siempre puede ser la mejor opción. Hágase las siguientes preguntas antes de decidir sobre una escalera:

- ¿Tendré que agarrar cosas pesadas mientras estoy en la escalera?
- ¿Es el área elevada lo suficientemente alta que se requeriría una escalera alta que pueda ser inestable?
- ¿Estaré trabajando desde esta altura por mucho tiempo?
- ¿Tengo que estar parado de costado en la escalera para hacer este trabajo?

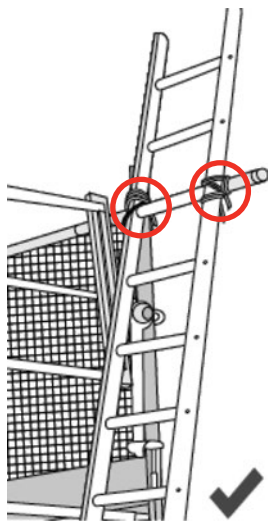
Si su respuesta es afirmativa a una de las preguntas anteriores, considere el uso de algo distinto de una escalera. Si es posible, traiga otro equipo como un elevador de tijera. Si tiene que usar una escalera, use una con una plataforma adecuada que tiene pasamanos (por ejemplo, una escalera de plataforma).

Cada vez que usa una escalera o escalera de tijera, tome en cuenta los consejos de seguridad en esta guía.



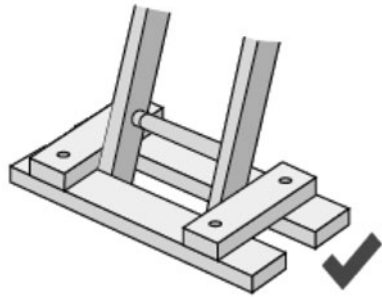
Use the right ladder for the job. For example, ensure the ladder is high enough for you to reach your work area without having to stand on the top rung.

Use la escalera correcta para el trabajo. Por ejemplo, asegúrese de que la escalera sea lo suficientemente alta para que pueda llegar al área de trabajo sin tener que estar parado en el peldaño superior.



When using ladders to access another level, secure and extend the ladder at least 3 feet above the landing point to provide a safe handhold.

Cuando use escaleras para acceder a otro nivel, asegure y extienda la escalera a por lo menos 3 pies (1 metro) sobre el descanso para dar un agarre seguro.

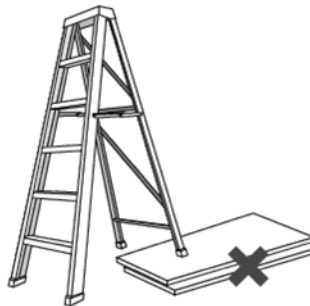
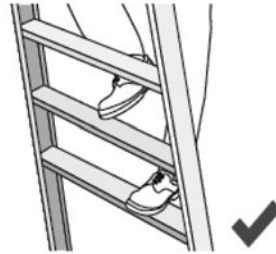


The base of the ladder should be secured.

La base de la escalera debe estar asegurada.

Wear proper footwear (e.g., non-slip flat shoes).

Use un calzado apropiado (por ejemplo, zapatos antideslizantes sin tacón).

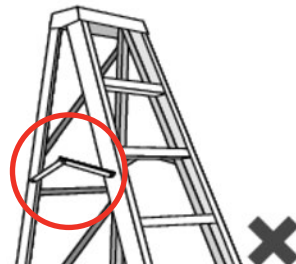


Place the ladder on stable and level ground. DO NOT place it on an uneven surface.

Coloque la escalera sobre una superficie estable y nivelada. NO la coloque sobre una superficie desnivelada.

Ensure that the ladder is fully extended before starting work.

Asegúrese de que la escalera esté completamente extendida antes de empezar el trabajo.

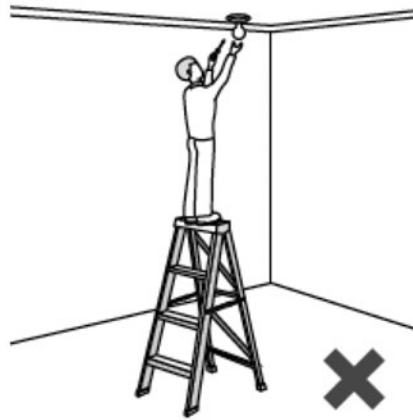


FALLING OFF LADDERS CAN KILL: **USE THEM SAFELY**



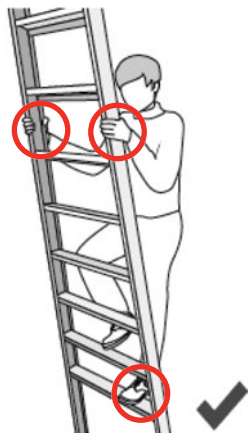
Prevent passersby from walking under or near ladders in use by using barriers (e.g., cones) or getting your coworker to act as a lookout.

Prevenga que transeúntes caminen debajo de o cerca de escaleras con el uso de barreras (por ejemplo, conos) o llamando a un compañero de trabajo para vigilar.



Do not work on the top rung of the ladder.

No trabaje en el peldaño superior de la escalera.



Maintain three points of contact with the ladder at all times.

Mantenga tres puntos de contacto con la escalera en todo momento.

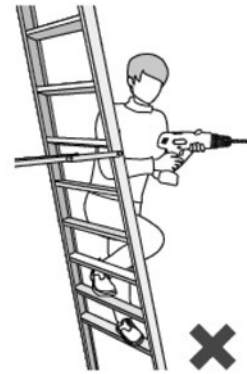


Do not carry any tools or materials in your hands when climbing a ladder.

No lleve en la mano herramientas o materiales al subir la escalera.

Do not lean away from the ladder to carry out your task. Always keep your weight centered between the side rails.

No se incline lejos de la escalera para hacer su trabajo. Siempre mantenga su peso centrado entre las barandas laterales.



Do not use ladders near doorways. If you need to use a ladder near a doorway, make sure that the door is locked.

No use escaleras cerca de puertas. Si necesita usar una escalera cerca de una, asegúrese de que la puerta esté cerrada con llave.

FALLING OFF LADDERS CAN KILL: **USE THEM SAFELY**

Check, Maintain and Store Ladders Well

Before using a ladder, **check** it carefully to ensure there are no visible defects and that it is in good working condition. Check the ladder according to the manufacturer's instructions.

Maintain and **store** the ladder according to the manufacturer's instructions.

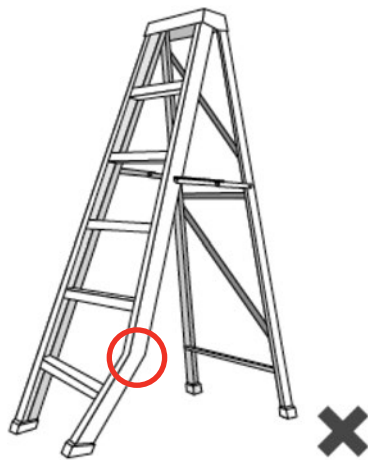
Revise, mantenga y almacene las escaleras bien

Antes de usar una escalera, **exámínela** cuidadosamente para asegurarse de que no haya defectos visibles y que esté en buenas condiciones. Revise la escalera de acuerdo a las instrucciones del fabricante.

Mantenga y almacene la escalera de acuerdo a las instrucciones del fabricante.

Do not use faulty ladders such as these:

No use escaleras defectuosas como estas:

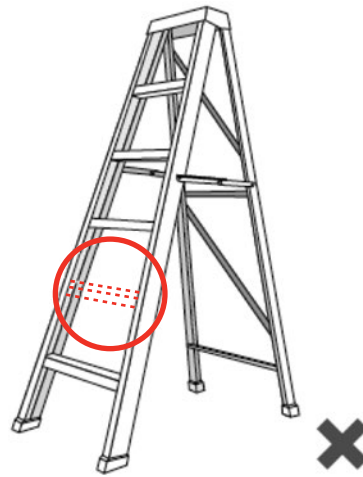


Do not use the ladder if it is bent.

No use la escalera si está doblada.

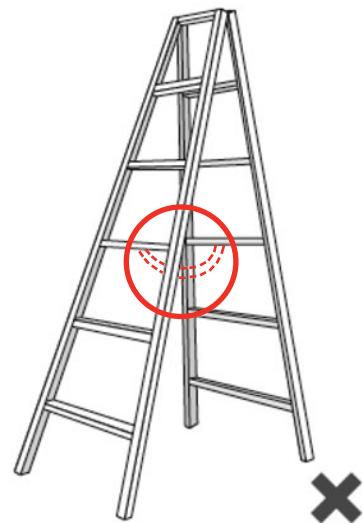
Do not use the ladder if it is missing a step.

No use la escalera si le falta un peldaño.



Do not use the ladder if the spreader bars do not have a locking device or mechanism.

No use la escalera si las barras de tensión no tienen un dispositivo de bloqueo o mecanismo.



FALLING OFF LADDERS CAN KILL: **USE THEM SAFELY**

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace.
- Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.

For additional information, see OSHA's Workers page (www.osha.gov/workers).

Derecho de los trabajadores

Los trabajadores tienen el derecho a:

- Condiciones de trabajo que no les ponen en riesgo de daño serio.
- Recibir información y entrenamiento (en un idioma que el trabajador entiende) sobre los peligros de trabajo, métodos para prevenirlos y los estándares de la OSHA que aplican a su sitio de trabajo.
- Leer los registros de lesiones y enfermedades relacionadas al trabajo.
- Presentar una queja ante la OSHA para que se inspeccione su lugar de trabajo si creen que hay un peligro serio o que su empleador no está siguiendo las leyes de OSHA. OSHA mantendrá todas las identidades confidenciales.
- Ejercer sus derechos bajo la ley sin recibir represalias, incluyendo reportar una lesión o plantear inquietudes sobre seguridad y salud con su empleador o la OSHA. Si un trabajador ha sido víctima de represalias por usar sus derechos, tiene que presentar una queja con la OSHA lo antes posible, pero antes de los 30 días.

Para más información, visite la página de web de OSHA para trabajadores (www.osha.gov/workers).

OSHA Assistance, Services and Programs

OSHA has a great deal of information to assist employers in complying with their responsibilities under OSHA law. Several OSHA programs and services can help employers identify and correct job hazards, as well as improve their safety and health program.

Establishing a Safety and Health Program

Safety and health programs are systems that can substantially reduce the number and severity of workplace injuries and illnesses, while reducing costs to employers.

Visit www.osha.gov/shpguidelines for more information.

Compliance Assistance Specialists

OSHA Compliance assistance specialists can provide information to employers and workers about OSHA standards, short educational programs on specific hazards or OSHA rights and responsibilities, and information on additional compliance assistance resources.

Visit www.osha.gov/dcsp/compliance_assistance/cas.html or call 1-800-321-OSHA (6742) to contact your local OSHA office.

Free On-Site Safety and Health Consultation Services for Small Business

OSHA's On-Site Consultation Program offers free and confidential advice to small and

Asistencia, servicios y programas de la OSHA

La OSHA tiene mucha información para asistir a los empleadores en cumplir con sus responsabilidades bajo la ley de OSHA. Varios programas y servicios de la OSHA pueden ayudar a empleadores a identificar y corregir peligros en el trabajo y también mejorar su programa de seguridad y salud.

Establecimiento de un programa de seguridad y salud

Los programas de seguridad y salud son sistemas que pueden reducir considerablemente el número y la gravedad de las lesiones y enfermedades relacionadas con el trabajo y, al mismo tiempo, disminuir los costos para los empleadores.

Visite www.osha.gov/shpguidelines, para más información.

Especialistas en la asistencia para el cumplimiento de la normativa

Los especialistas en la asistencia pueden ofrecer información y asistencia a empleadores y trabajadores sobre las normas de la OSHA, programas educativos cortos sobre los peligros específicos o derechos y responsabilidades de la OSHA e información sobre recursos adicionales de asistencia para el cumplimiento.

Visite www.osha.gov/dcsp/compliance_assistance/cas.html o llame al 1-800-321-OSHA (6742) para comunicarse con la oficina de la OSHA más cercana.

medium-sized businesses in all states, with priority given to high-hazard worksites. On-Site consultation services are separate from enforcement and do not result in penalties or citations.

For more information or to find the local On-Site Consultation office in your state, visit www.osha.gov/consultation, or call 1-800-321-OSHA (6742).

How to Contact OSHA

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to ensure these conditions for America's working men and women by setting and enforcing standards, and providing training, education and assistance. For more information, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877- 889-5627.

Servicios gratuitos de consultas in situ sobre la seguridad y salud para pequeños negocios

El programa de consultas en el local de la OSHA ofrece asesoramiento gratuito y confidencial a empresas pequeñas y medianas en todos los estados y asigna prioridad a los lugares de trabajo con un elevado índice de peligros. Los servicios de consultas en el local son diferentes de la acción de vigilancia y no resultan en multas ni citaciones.

Para obtener más información o encontrar la oficina de consultas local de su estado, visite www.osha.gov/consultation o llame al 1-800-321-OSHA (6742).

Cómo comunicarse con la OSHA

Bajo la Ley de Seguridad y Salud Ocupacional de 1970, los empleadores son responsables de brindar un lugar de trabajo seguro y saludable para sus empleados. El papel de OSHA es asegurar estas condiciones para los trabajadores en los EEUU a través del establecimiento y la aplicación de normas, y proporcionando entrenamiento, educación y asistencia. Para más información, visite www.osha.gov o llame la OSHA al 1-800-321-OSHA (6742), TTY 1-877-889-5627.

OSHA's Final Rule to Update, Align, and Provide Greater Flexibility in its General Industry Walking-Working Surfaces and Fall Protection Standards

Background

Falls from heights and on the same level (a working surface) are among the leading causes of serious work-related injuries and deaths. OSHA estimates that, on average, approximately 202,066 serious (lost-workday) injuries and 345 fatalities occur annually among workers directly affected by the final standard. OSHA's final rule on Walking-Working Surfaces and Personal Fall Protection Systems better protects workers in general industry from these hazards by updating and clarifying standards and adding training and inspection requirements. The rule affects a wide range of workers, from window washers to chimney sweeps. It does not change construction or agricultural standards.

The rule incorporates advances in technology, industry best practices, and national consensus standards to provide effective and cost-efficient worker protection. Specifically, the rule updates general industry standards addressing slip, trip, and fall hazards (subpart D), and adds requirements for personal fall protection systems (subpart I).

OSHA estimates this rule will prevent 29 fatalities and 5,842 lost-workday injuries every year.

The rule benefits employers by providing greater flexibility in choosing a fall protection system. For example, it eliminates the existing mandate to use guardrails as a primary fall protection method and allows employers to choose from accepted fall protection systems they believe will work best in a particular situation — an approach that has been successful in the construction industry since 1994. In addition, employers will be able to use non-conventional fall protection in certain situations, such as designated areas on low-slope roofs.

As much as possible, OSHA aligned fall protection requirements for general industry with those for construction, easing compliance for employers who perform both types of activities.

For example, the final rule replaces the outdated general industry scaffold standards with a requirement that employers comply with OSHA's construction scaffold standards.

The rule phases out a 1993 exception for the outdoor advertising industry that allows "qualified climbers" to forego fall protection. At least three workers have fallen from fixed ladders under this exception. One of them died. The final rule phases in the fixed ladder fall protection requirements for employers in outdoor advertising.

Fall Protection Options

The rule requires employers to protect workers from fall hazards along unprotected sides or edges that are at least 4 feet above a lower level. It also sets requirements for fall protection in specific situations, such as hoist areas, runways, areas above dangerous equipment, wall openings, repair pits, stairways, scaffolds, and slaughtering platforms. And it establishes requirements for the performance, inspection, use, and maintenance of personal fall protection systems.

OSHA defines fall protection as "any equipment, device, or system that prevents a worker from falling from an elevation or mitigates the effect of such a fall." Under the final rule, employers may choose from the following fall protection options:

- **Guardrail System** – A barrier erected along an unprotected or exposed side, edge, or other area of a walking-working surface to prevent workers from falling to a lower level.
- **Safety Net System** – A horizontal or semi-horizontal, cantilever-style barrier that uses a netting system to stop falling workers before they make contact with a lower level or obstruction.
- **Personal Fall Arrest System** – A system that

arrests/stops a fall before the worker contacts a lower level. Consists of a body harness, anchorage, and connector, and may include a lanyard, deceleration device, lifeline, or a suitable combination. Like OSHA's construction standards, the final rule prohibits the use of body belts as part of a personal fall arrest system.

- **Positioning System** – A system of equipment and connectors that, when used with a body harness or body belt, allows a worker to be supported on an elevated vertical surface, such as a wall or window sill, and work with both hands free.
- **Travel Restraint System** – A combination of an anchorage, anchorage connector, lanyard (or other means of connection), and body support to eliminate the possibility of a worker going over the unprotected edge or side of a walking-working surface.
- **Ladder Safety System** – A system attached to a fixed ladder designed to eliminate or reduce the possibility of a worker falling off the ladder. A ladder safety system usually consists of a carrier, safety sleeve, lanyard, connectors, and body harness. Cages and wells are not considered ladder safety systems.

Rope Descent Systems

The rule codifies a 1991 OSHA memorandum that permits employers to use Rope Descent Systems (RDS), which consist of a roof anchorage, support rope, descent device, carabiners or shackles, and a chair or seatboard. These systems are widely used throughout the country to perform elevated work, such as window washing.

The rule adds a 300-foot height limit for the use of RDS. It also requires building owners to affirm in writing that permanent building anchorages used for RDS have been tested, certified, and maintained as capable of supporting 5,000 pounds for each worker attached. This mirrors the requirement in OSHA's Powered Platforms standard.

Ladder Safety Requirements

Falls from ladders account for 20 percent of all fatal and lost work-day injuries in general industry. The new rule includes requirements to protect workers from falling off fixed and portable ladders

as well as mobile ladder stands and platforms. (The ladder requirements do not apply to ladders used in emergency operations or ladders that are an integral part of or designed into a machine or piece of equipment).

In general, ladders must be capable of supporting their maximum intended load, while mobile ladder stands and platforms must be capable of supporting four times their maximum intended load. Each ladder must be inspected before initial use in a work shift to identify defects that could cause injury.

Fixed Ladders – Fixed ladders are permanently attached to a structure, building, or equipment. These include individual-rung ladders, but not ship stairs, step bolts, or manhole steps. The new rule phases in a requirement for employers to have ladder safety or personal fall arrest systems for fixed ladders that extend more than 24 feet, and phases out the use of cages or wells for fall protection under the following timeline: Starting in two years, all new fixed ladders and replacement ladder/ladder sections must have a ladder safety or personal fall protection system. For existing ladders, within two years, employers must install a cage, well, ladder safety system, or personal fall arrest system on fixed ladders that do not have any fall protection. Within 20 years, all ladders extending more than 24 feet must have a ladder safety or personal fall arrest system.

Portable Ladders – Portable ladders usually consist of side rails joined at intervals by steps, rungs, or cleats. They can be self-supporting or lean against a supporting structure. The final rule will be easier for employers and workers to understand and follow because it uses flexible performance-based language instead of detailed specification and design requirements. Under the revisions, employers must ensure that: rungs and steps are slip resistant; portable ladders used on slippery surfaces are secured and stabilized; portable ladders are not moved, shifted, or extended while a worker is on them; top steps and caps of stepladders are not used as steps; ladders are not fastened together to provide added length unless designed for such use; and ladders are not placed on boxes, barrels, or other unstable bases to obtain added height.

Training Requirements

The rule adds a requirement that employers ensure workers who use personal fall protection and work in other specified high hazard situations are trained, and retrained as necessary, about fall and equipment hazards, including fall protection systems. A qualified person must train these workers to correctly: identify and minimize fall hazards; use personal fall protection systems and rope descent systems; and maintain, inspect, and store equipment or systems used for fall protection.

When there is a change in workplace operations or equipment, or the employer believes that a worker would benefit from additional training based on a lack of knowledge or skill, then the worker must be retrained. The training must be provided in a language and vocabulary that workers understand.

Timeline

Most of the rule will become effective 60 days after it is published in the *Federal Register*, but some provisions have delayed effective dates, including:

- Ensuring exposed workers are trained on fall hazards (6 months),
- Ensuring workers who use equipment covered by the final rule are trained (6 months),
- Inspecting and certifying permanent anchorages for rope descent systems (1 year),

- Installing personal fall arrest or ladder safety systems on new fixed ladders over 24 feet and on replacement ladders/ladder sections, including fixed ladders on outdoor advertising structures (2 years),
- Ensuring existing fixed ladders over 24 feet, including those on outdoor advertising structures, are equipped with a cage, well, personal fall arrest system, or ladder safety system (2 years), and
- Replacing cages and wells (used as fall protection) with ladder safety or personal fall arrest systems on all fixed ladders over 24 feet (20 years).

Additional information

Additional information on OSHA's rule on walking-working surfaces and personal fall protection systems can be found at www.osha.gov/walking-working-surfaces. OSHA can provide extensive help through a variety of programs, including technical assistance about effective safety and health programs, workplace consultations, and training and education.

For more information on other safety-related issues impacting workers, to report an emergency, fatality, inpatient hospitalization, or to file a confidential complaint, contact your nearest OSHA office, visit www.osha.gov, or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



www.osha.gov (800) 321-OSHA (6742)



U.S. Department of Labor

Ladder Jack Scaffolds

Supported Scaffolds

A ladder jack scaffold is a system designed to perform activities, such as: installing building exteriors, trim, and finishes. Contractors widely use ladder jack scaffolds because of their cost effectiveness, portability, and quick erection and dismantling procedures, as well as their adaptability for use in narrow spaces at construction worksites.

What is a Ladder Jack Scaffold?

Triangle-shaped brackets called “ladder jacks” are attached to portable ladders, which are used on each side of a ladder jack scaffold to form a means of support for a platform.



Ladder Jack Scaffold

Types of Ladder Jack Bracket Devices

There are different types of Ladder Jack bracket devices. These include:

1. Side Rail Ladder Jack – (Over the rail and rung)

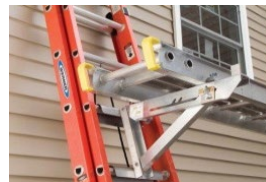
This style of jack is installed onto the railing and rungs of a pair of extension, or single, ladders. The planking is then slid into position along the side of the bracket to create a work platform.



Side Rail Ladder Jack

2. Two or Three Rung Bracket Ladder Jacks – (Over the rung only)

This style of jack hooks directly onto two or three ladder rungs. With these types of ladder jacks, planking may be placed on top of the bracket jacks to create a working platform.



2-Rung Bracket Jack



3-Rung Bracket Jack

Photos courtesy of
Werner Co Services, Inc.

Setting-Up Ladder Jack Scaffolds

Before each use:

- Inspect all scaffold components for damage.
- Verify that all parts are working and ensure that all nuts are tightened.
- Do not use bent, cracked, damaged or substitute parts.
- If using a two- or three-rung bracket jack, ensure that the rectangular brackets are fitted securely onto the ladder rungs in accordance with manufacturer's specifications.
- If using the side rail ladder jack, secure the upper round hooks and the lower brackets of the device onto the ladder's side rails, then rest the brackets onto the rungs, and secure the platform gusset plate onto the adjustable notches at center. **(See Figure #1).**
- The ladder jack must be designed and constructed so that it will bear on the side rails and ladder rungs or on the ladder rungs alone. If bearing on rungs only, the bearing area must include a length of at least 10 inches (25.4 cm) on each rung [29 CFR 1926.452(k)(3)].

- Ensure that the bracket jack is adjusted so that it is parallel to the ground to create a level platform.
- Securely tighten the ladder jack's wing nuts to prevent slippage during use.
- If the scaffold system is defective, tag and promptly remove it from service.

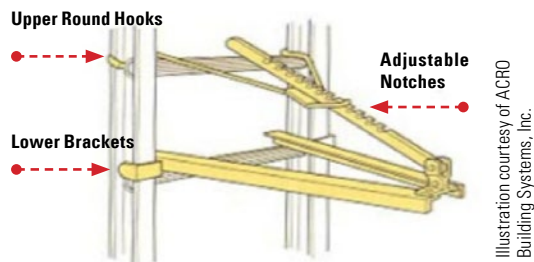


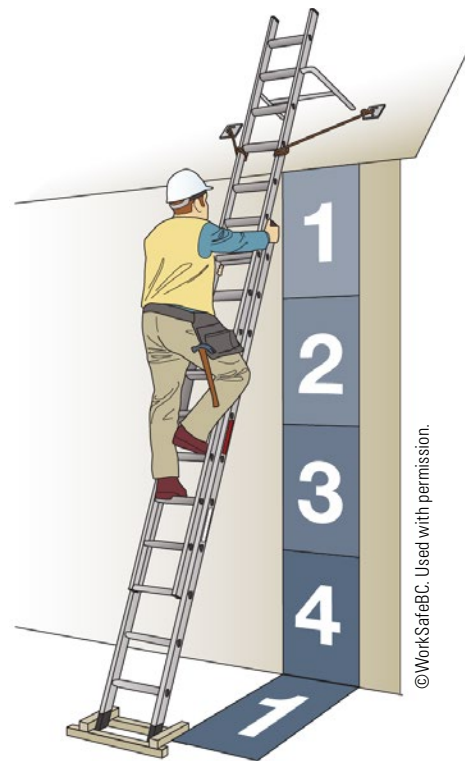
Figure #1

Using Ladder Jack Scaffolds

- Extension ladders must not be separated to create two ladders.
- Keep the areas around the base of all ladders clear to prevent trip-and-fall hazards.
- Avoid setting ladders up in high traffic areas or barricade areas near the base of the ladder.
- Keep ladders on stable and level surfaces, unless secured, to prevent accidental displacement.
- Ladders must be secured or provided with slip-resistant feet when used on slippery surfaces.
- Workers should avoid electrical hazards and look for overhead power lines before handling ladders.
- Workers should not use metal ladders near power lines or exposed energized electrical equipment.
- Keep platforms clear for working activities.

Platform Requirements

- Two workers are recommended when installing planking onto jack bracket supports for scaffolding.
- Do not paint or plaster scaffold planks, and if paint or plaster is observed, promptly remove the plank from service.
- Do not use ladder jack scaffolding to support a platform higher than 20 feet (6.1m) [§1926.452(k)(1)].
- Do not bridge scaffold platforms together [§1926.452(k)(5)]. (This practice often causes the center of the platform to overload.)
- Each ladder jack scaffold platform must be at least 12 inches (30 cm) wide [§1926.451(b)(2)(i)].



When choosing a straight or extension ladder, make sure that its length allows you to set it up at the required angle, using the 4-to-1 Rule.

Suggested Guidelines

[29 CFR 1926 Subpart L, Appendix A(2)(k)]

- The maximum intended load for a ladder jack scaffold is 25 lb/ft².
- No more than two workers may occupy a platform at any one time.
- The maximum span between supports is 8 feet.

Training

- The training requirements of 29 CFR 1926 Subparts L – Scaffolds (§1926.454) and X – Stairways and Ladders (§1926.1060) apply to ladder jack scaffolding.
- Employers must provide training for workers in hazard recognition, and procedures for controlling or minimizing hazards, when working on ladders and scaffolding.
- Employers must ensure that workers use ladders are trained by a person competent in fall hazards, fall protection systems, the maximum intended load-carrying capacity of ladders, and the proper construction, use, placement and care required when handling ladders.
- Employers must ensure that workers involved in erecting, disassembling, moving, operating,

repairing, maintaining, or inspecting scaffolding are trained by a person competent in hazard recognition.

Which OSHA standards apply to Ladder Jack Scaffolds?

Several OSHA standards apply to construction operations involving the use of ladder jack scaffolding, including:

- *Ladder Jack Scaffold*: A platform resting on brackets attached to ladders [§1926.450(b)];
- *Supported Scaffold*: One or more platforms supported by outrigger beams, brackets, poles, legs, uprights, posts, frames, or similar rigid support [§1926.450(b)];
- *Ladder Jack Scaffolds*: requirements applicable to specific types of scaffolds (29 CFR 1926 Subpart L – Scaffolds), including requirement that all ladders used to support ladder jack scaffolds meet the requirements of Subpart X – Stairways and Ladders [§1926.452(k)];
- *Non-Mandatory Guidelines*: 29 CFR 1926 Subpart L, Appendix A – Scaffold Specifications.

Ladder Requirements

- All ladders used to support ladder jack scaffolds must comply with 29 CFR 1926 Subpart X – Stairways and Ladders [§1926.452(k)(2)].
- **Exception**: Job-made ladders must not be used to support ladder jack scaffolds.

Fall Protection Requirements

- Employees working above 10 feet (3.1 m) on a ladder jack scaffold must be protected from fall hazards by a personal fall arrest system (PFAS) [§§1926.451(g)(1) & (g)(1)(i)].
- Personal fall arrest systems for scaffolds must meet the requirements of §1926.502(d) & §1926.451(g)(3).
- The maximum distance from the face for plastering and lathing operations must be 18 inches (46 cm) [§1926.451(b)(3)(ii)].
- The front edge of all platforms must not be more than 14 inches (36 cm) from the face of

the work, unless guardrail systems are erected along the front edge and/or personal fall arrest systems are used [§1926.451(b)(3)].

OSHA's Scaffolding e-Tool

- OSHA's Scaffolding e-Tool provides information on the requirements that apply to specific types of scaffolding and ways to recognize potential hazards and identify controls, at: www.osha.gov/SLTC/etools/scaffolding/supported.

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace.
- Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.

For more information, see [OSHA's Workers page](#).

How to Contact OSHA

For questions or to get information or advice, to report an emergency, fatality, inpatient hospitalization, amputation, or loss of an eye, or to file a confidential complaint, contact your nearest OSHA office, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

Portable Ladder Safety



Falls from portable ladders (step, straight, combination and extension) are one of the leading causes of occupational fatalities and injuries.

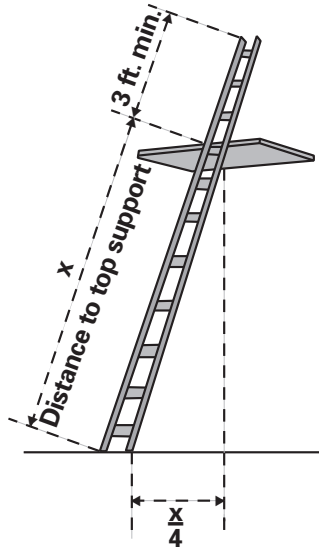
- Read and follow all labels/markings on the ladder.
- Avoid electrical hazards! – Look for overhead power lines before handling a ladder. Avoid using a metal ladder near power lines or exposed energized electrical equipment.
- Always inspect the ladder prior to using it. If the ladder is damaged, it must be removed from service and tagged until repaired or discarded.



3-Point Contact

- Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact on the ladder when climbing. Keep your body near the middle of the step and always face the ladder while climbing (see diagram).
- Only use ladders and appropriate accessories (ladder levelers, jacks or hooks) for their designed purposes.
- Ladders must be free of any slippery material on the rungs, steps or feet.
- Do not use a self-supporting ladder (e.g., step ladder) as a single ladder or in a partially closed position.
- Do not use the top step/rung of a ladder as a step/rung unless it was designed for that purpose.

- Use a ladder only on a stable and level surface, unless it has been secured (top or bottom) to prevent displacement.
- Do not place a ladder on boxes, barrels or other unstable bases to obtain additional height.
- Do not move or shift a ladder while a person or equipment is on the ladder.
- An extension or straight ladder used to access an elevated surface must extend at least 3 feet above the point of support (see diagram). Do not stand on the three top rungs of a straight, single or extension ladder.
- The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical surface (see diagram).
- A ladder placed in any location where it can be displaced by other work activities must be secured to prevent displacement or a barricade must be erected to keep traffic away from the ladder.
- Be sure that all locks on an extension ladder are properly engaged.
- Do not exceed the maximum load rating of a ladder. Be aware of the ladder's load rating and of the weight it is supporting, including the weight of any tools or equipment.



For more information:

OSHA® Occupational
Safety and Health
Administration
U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

OSHA 3246-10N-05

Reducing Falls in Construction: Safe Use of Extension Ladders

Workers who use extension ladders risk permanent injury or death from falls and electrocutions. These hazards can be eliminated or substantially reduced by following good safety practices. This fact sheet examines some of the hazards workers may encounter while working on **extension ladders** and explains what employers and workers can do to reduce injuries. OSHA's requirements for extension ladders are in Subpart X—Stairways and Ladders of OSHA's Construction standards.

What is an Extension Ladder?

Also known as "portable ladders," extension ladders usually have two sections that operate in brackets or guides allowing for adjustable lengths. (See Figure 1, below.) Because extension ladders are not self-supporting they require a stable structure that can withstand the intended load.

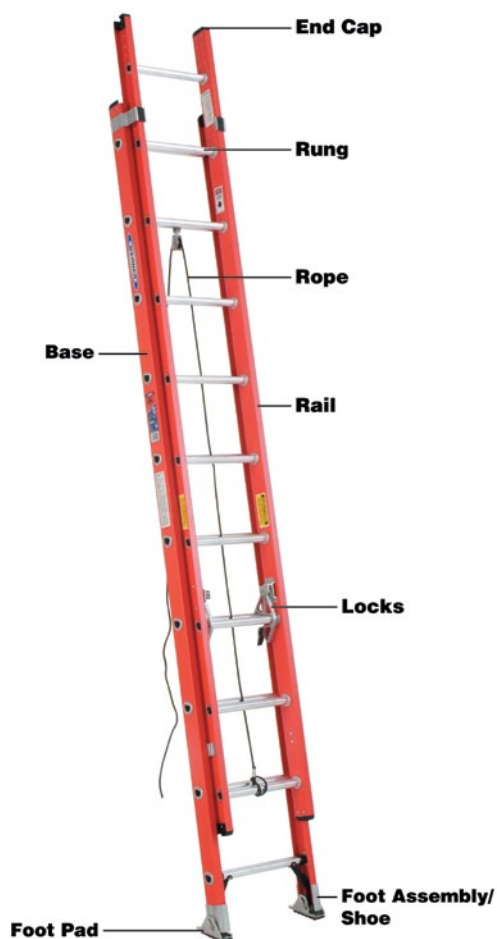


Figure 1: Extension Ladder

PLAN Ahead to Get the Job Done Safely.

- Use a ladder that can sustain at least four times the maximum intended load, except that each extra-heavy duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. Also acceptable are ladders that meet the requirements set forth in Appendix A of Subpart X. Follow the manufacturer's instructions and labels on the ladder. To determine the correct ladder, consider your weight plus the weight of your load. Do not exceed the load rating and always include the weight of all tools, materials and equipment.
- A competent person must visually inspect all extension ladders before use for any defects such as: missing rungs, bolts, cleats, screws and loose components. Where a ladder has these or other defects, it must be immediately marked as defective or tagged with "Do Not Use" or similar language.
- Allow sufficient room to step off the ladder safely. Keep the area around the bottom and the top of the ladder clear of equipment, materials and tools. If access is obstructed, secure the top of the ladder to a rigid support that will not deflect, and add a grasping device to allow workers safe access.
- Set the ladder at the proper angle. When a ladder is leaned against a wall, the bottom of the ladder should be one-quarter of the ladder's working length away from the wall. For access to an elevated work surface, extend the top of the ladder three feet above that surface or secure the ladder at its top.
- Before starting work, survey the area for potential hazards, such as energized overhead power lines. Ladders shall have

nonconductive side rails if they are used where the worker or the ladder could contact exposed energized electrical equipment. Keep all ladders and other tools at least 10 feet away from any power lines.

- Set the base of the ladder so that the bottom sits securely and so both side rails are evenly supported. The ladder rails should be square to the structure against which it is leaning with both footpads placed securely on a stable and level surface.
- Secure the ladder's dogs or pawls before climbing.
- When using a ladder in a high-activity area, secure it to prevent movement and use a barrier to redirect workers and equipment. If the ladder is placed in front of a door, always block off the door.



Figure 2: Ladder extending three feet above the landing area.

PROVIDE the Right Extension Ladder for the Job with the Proper Load Capacity.

Select a ladder based on the expected load capacity (duty rating), the type of work to be done and the correct height. There are five categories of ladder duty ratings.

Type	Duty Rating	Use	Load
IAA*	Special Duty	Rugged	375 lbs.
IA	Extra Duty	Industrial	300 lbs.
I	Heavy Duty	Industrial	250 lbs.
II	Medium Duty	Commercial	225 lbs.
III	Light Duty	Household	200 lbs.

Source for Types IA, I, II, III: Subpart X—Stairways and Ladders, Appendix A (American National Standards Institute (ANSI)) 14.1, 14.2, 14.5 (1982) of OSHA's Construction standards. Source for Type IAA: ANSI 14.1, 14.2, 14.5 (2009), which are non-mandatory guidelines.

TRAIN Workers to Use Extension Ladders Safely.

Employers must train each worker to recognize and minimize ladder-related hazards.



Safe Ladder Use—DO:

- Maintain a 3-point contact (two hands and a foot, or two feet and a hand) when climbing/ descending a ladder.
- Face the ladder when climbing up or descending.
- Keep the body inside the side rails.
- Use extra care when getting on or off the ladder at the top or bottom. Avoid tipping the ladder over sideways or causing the ladder base to slide out.
- Carry tools in a tool belt or raise tools up using a hand line. Never carry tools in your hands while climbing up/down a ladder.
- Extend the top of the ladder three feet above the landing. (See Figure 2.)
- Keep ladders free of any slippery materials.

Safe Ladder Use—DO NOT:

- Place a ladder on boxes, barrels, or unstable bases.
- Use a ladder on soft ground or unstable footing.
- Exceed the ladder's maximum load rating.
- Tie two ladders together to make them longer.
- Ignore nearby overhead power lines.
- Move or shift a ladder with a person or equipment on the ladder.
- Lean out beyond the ladder's side rails.
- Use an extension ladder horizontally like a platform.

Reducing Falls in Construction: Safe Use of Job-made Wooden Ladders

Workers who use job-made wooden ladders risk permanent injury or death from falls and electrocutions. These hazards can be eliminated or substantially reduced by following good safety practices. This fact sheet lists some of the hazards workers may encounter while working on **job-made wooden ladders** and explains what employers and workers can do to reduce injuries. OSHA's requirements for job-made ladders are in Subpart X—Stairways and Ladders of OSHA's Construction standards.

What is a Job-made Wooden Ladder?

A job-made wooden ladder is a ladder constructed at the construction site. It is not commercially-manufactured. A job-made wooden ladder provides access to and from a work area. It is not intended to serve as a work platform. These ladders are temporary, and are used only until a particular phase of work is completed or until permanent stairways or fixed ladders are installed. A 24-ft. job-made ladder built to the American National Standards Institute (ANSI) A14.4-2009 non-mandatory guidelines is shown below.

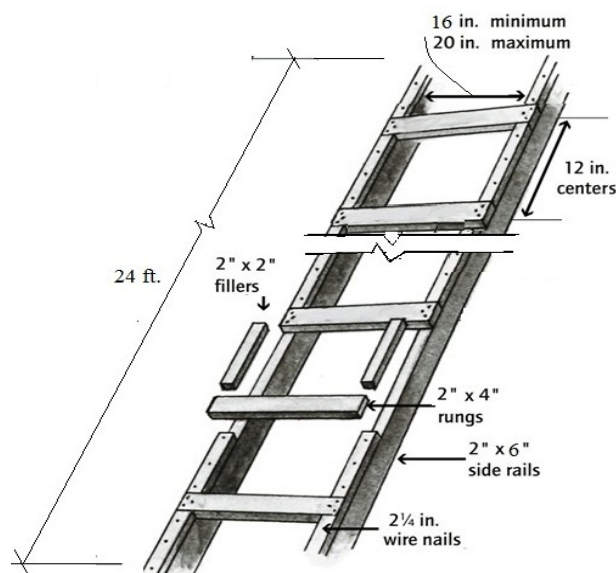


Figure 1: Single-Cleat Ladder

Training Requirements

Employers must provide a training program for employees using ladders and stairways. The training must enable each worker to recognize ladder-related hazards and to use ladders properly to minimize hazards.

Constructing a Safe Job-made Wooden Ladder

Side rails:

- Use construction-grade lumber for all components.
- Side rails of single-cleat ladders up to 24 ft. (7.3 m) long should be made with at least 2 in. (3.8 cm) x 6 in. (14 cm) nominal stock lumber.
- Side rails should be continuous, unless splices are the same strength as a continuous rail of equal length.
- The width of single-rung ladders should be at least 16 in. (41 cm), but not more than 20 in. (51 cm) between rails measured inside to inside.
- Rails should extend above the top landing between 36 in. (91.5 cm) and 42 in. (1.1 m) to provide a handhold for mounting and dismounting, and cleats must be eliminated above the landing level.
- Side rails of ladders which could contact energized electrical equipment should be made using nonconductive material. Keep ladders free of any slippery materials.
- Only put ladders on a stable and level surface that is not slippery.

Cleats:

- Cleats should be equally spaced 12 inches on center from the top of one cleat to the top of the next cleat.
- Cleats should be fastened to each rail with three 12d common wire nails which are nailed directly onto the smaller surfaces of the side rails.
- Making cuts in the side rails to receive the cleats is not advisable.
- Cleats should be at least 1 in. (2.5 cm) x 4 in. (8.9 cm) for ladders 16 ft. (41 cm) to 24 ft. (7.3 m) in length.

Filler Blocks:

- Filler should be 2 in. (3.8 cm) x 2 in. (3.8 cm) wood strips.
- Insert filler between cleats.
- Nail filler at the bottom of each side rail first. Nail the ends of a cleat to each side rail with three 12d common nails. One nail is placed 1-1/2 inch in from each end of the filler block.
- Nail the next two fillers and cleat, and then repeat. The ladder is complete when filler is nailed at the top of each rail.
- Make all side rails, rungs and fillers before the ladder is assembled.

Inspecting Ladders

- A competent person must visually inspect job-made ladders for defects on a periodic basis and after any occurrence that could affect their safe use.
- Defects to look for include: structural damage, broken/split side rails (front and back), missing cleats/steps, and parts/labels painted over.
- Ladders should be free of oil, grease and other slipping hazards.



Safe Ladder Use—DO:

To prevent workers from being injured from falls from ladders, employers are encouraged to adopt the following practices:

- Secure the ladder's base so that it does not move.
- Smooth the wood surface of the ladder to reduce injuries to workers from punctures or lacerations and to prevent snagging of clothing.
- Use job-made wooden ladders with spliced side rails at an angle so that the horizontal distance from the top support to the foot of the ladder is one-eighth the working length of the ladder.
- Ensure that job-made wooden ladders can support at least four times the maximum intended load.
- Only use ladders for the purpose for which they were designed.
- Only put ladders on stable and level surfaces unless secured to prevent accidental movement.
- Ensure that the worker faces the ladder when climbing up and down.
- Maintain a 3-point contact (two hands and a foot, or two feet and a hand) when climbing a ladder.
- Keep ladders free of any slippery materials.
- Maintain good housekeeping in the areas around the top and bottom of ladders.

Safe Ladder Use—DO NOT:

- Paint a ladder with nontransparent coatings.
- Carry any object or load that could cause the worker to lose balance and fall.
- Subject a job-made wooden ladder to excessive loads or impact tests.

OSHA standard: 29 CFR 1926 Subpart X—Stairways and Ladders

American National Standards Institute standard: ANSI A14.4-1979, ANSI A14.4-2009

Employers constructing job-made ladders must follow the ladder requirements set forth in 29 C.F.R. 1926 Subpart X. They are encouraged to consult the non-mandatory guidelines set forth in ANSI A.14.4-1979—Safety Requirements for Job-Made Ladders (referenced in Appendix A to Subpart X of Part 1926—Ladders) and ANSI A.14.4-2009—Safety Requirements for Job-Made Wooden Ladders.

State plan guidance: States with OSHA-approved state plans may have additional requirements for avoiding falls from ladders. For more information on these requirements, please visit: www.osha.gov/dcsp/osp/statesstandards.html.

Most OSHA offices have compliance assistance specialists to help employers and workers comply with OSHA standards. For details call 1-800-321-OSHA (6742) or visit: www.osha.gov/htm/RAmap.html.

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



U.S. Department of Labor
www.osha.gov (800) 321-OSHA (6742)

DOC FS-3661 05/2013

Reducing Falls in Construction: Safe Use of Stepladders

Workers who use ladders in construction risk permanent injury or death from falls and electrocutions. These hazards can be eliminated or substantially reduced by following good safety practices. This fact sheet examines some of the hazards workers may encounter while working on **stepladders** and explains what employers and workers can do to reduce injuries. OSHA's requirements for stepladders are in Subpart X—Stairways and Ladders of OSHA's Construction standards.

What is a Stepladder?

A **stepladder** is a portable, self-supporting, A-frame ladder. It has two front side rails and two rear side rails. Generally, there are steps mounted between the front side rails and bracing between the rear side rails. (See Figure 1, below.)

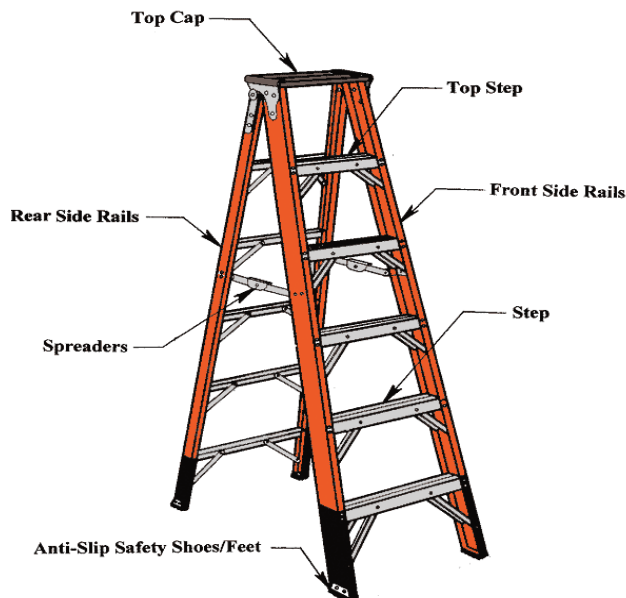


Figure 1: Stepladder

PLAN Ahead to Get the Job Done Safely.

A competent person must visually inspect stepladders for visible defects on a periodic basis and after any occurrence that could affect their safe use. Defects include, but are not limited to:

- Structural damage, split/bent side rails, broken or missing rungs/steps/cleats and missing or damaged safety devices.

- Grease, dirt or other contaminants that could cause slips or falls.
- Paint or stickers (except warning or safety labels) that could hide possible defects.

PROVIDE the Right Stepladder for the Job with the Proper Load Capacity.

- Use a ladder that can sustain at least four times the maximum intended load, except that each extra-heavy duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. Also acceptable are ladders that meet the requirements set forth in Appendix A of Subpart X. Follow the manufacturer's instructions and labels on the ladder. To determine the correct ladder, consider your weight plus the weight of your load. Do not exceed the load rating and always include the weight of all tools, materials and equipment.

Type	Duty Rating	Use	Load
1AA	Special Duty	Rugged	375 lbs.
1A	Extra Heavy Duty	Industrial	300 lbs.
I	Heavy Duty	Industrial	250 lbs.
II	Medium Duty	Commercial	225 lbs.
III	Light Duty	Household	200 lbs.

Source for Types IA, I, II, III: Subpart X—Stairways and Ladders, Appendix A (American National Standards Institute (ANSI) 14.1, 14.2, 14.5 (1982)) of OSHA's Construction standards. Source for Type IAA: ANSI 14.1, 14.2, 14.5 (2009), which are non-mandatory guidelines.

TRAIN Workers to Use Stepladders Safely.

Employers must train each worker to recognize and minimize ladder-related hazards.



PLAN. PROVIDE. TRAIN.

Three simple steps to prevent falls.

Common Stepladder Hazards

- Damaged stepladder
- Ladders on slippery or unstable surface
- Unlocked ladder spreaders
- Standing on the top step or top cap
- Loading ladder beyond rated load
- Ladders in high-traffic location
- Reaching outside ladder side rails
- Ladders in close proximity to electrical wiring/equipment

Safe Stepladder Use—DO:

Read and follow all the manufacturer's instructions and labels on the ladder.

- Look for overhead power lines before handling or climbing a ladder.
- Maintain a 3-point contact (two hands and a foot, or two feet and a hand) when climbing/descending a ladder.
- Stay near the middle of the ladder and face the ladder while climbing up/down.
- Use a barricade to keep traffic away from the ladder.

- Keep ladders free of any slippery materials.
- Only put ladders on a stable and level surface that is not slippery.

Safe Stepladder Use—DO NOT:

- Use ladders for a purpose other than that for which they were designed. For example, do not use a folded stepladder as a single ladder.
- Use a stepladder with spreaders unlocked.
- Use the top step or cap as a step.
- Place a ladder on boxes, barrels or other unstable bases.
- Move or shift a ladder with a person or equipment on the ladder.
- Use cross bracing on the rear of stepladders for climbing.
- Paint a ladder with opaque coatings.
- Use a damaged ladder.
- Leave tools/materials/equipment on stepladder.
- Use a stepladder horizontally like a platform.
- Use a metal stepladder near power lines or electrical equipment.

How to Contact OSHA

Under the Occupational Safety and Health Act of 1970, employers are responsible for providing safe and healthful workplaces for their employees. OSHA's role is to help ensure these conditions for America's workers by setting and enforcing standards, and providing training, education, and assistance. For more information, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

Additional Resources

OSHA standard: 29 CFR 1926 Subpart X—Stairways and Ladders

American National Standards Institute standard: ANSI A14.1, A14.2, A14.5—Ladder Safety Requirements *(Not an OSHA standard, included to be used as guidance to meet OSHA's requirements)*

Employers using stepladders must follow the ladder requirements set forth in 29 CFR 1926 Subpart X. Per Appendix A to Subpart X of Part 1926—Ladders, ladders designed in accordance with the following ANSI standards will be considered in accordance

with 29 CFR 1926.1053(a)(1): ANSI A14.1-1982—American National Standard for Ladders—Portable Wood—Safety Requirements, ANSI A14.2-1982—American National Standard for Ladders—Portable Metal—Safety Requirements, and ANSI A14.5-1982—American National Standard for Ladders—Portable Reinforced Plastic—Safety Requirements.

State plan guidance: States with OSHA-approved state plans may have additional requirements for avoiding falls from ladders. For more information on these requirements, please visit: www.osha.gov/dccsp/osp/statesstandards.html.

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U.S. Department of Labor



DOC FS-3662 05/2013

**Occupational
Safety and Health
Administration**

ffvamutual.com/ladder-safety-stand-down 47

Stairways and Ladders

A Guide to OSHA Rules



OSHA 3124-12R 2003

Stairways and Ladders: A Guide to OSHA Rules



This informational booklet provides a general overview of a particular topic related to OSHA standards. It does not alter or determine compliance responsibilities in OSHA standards or the *Occupational Safety and Health Act of 1970*. Because interpretations and enforcement policy may change over time, you should consult current OSHA administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the Courts for additional guidance on OSHA compliance requirements.

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Introduction

Working on and around stairways and ladders is hazardous. Stairways and ladders are major sources of injuries and fatalities among construction workers for example, and many of the injuries are serious enough to require time off the job. OSHA rules apply to all stairways and ladders used in construction, alteration, repair, painting, decorating and demolition of worksites covered by OSHA's construction safety and health standards.

General Requirements

These rules specify when employers must provide stairways and ladders. In general, the standards require the following:

- When there is a break in elevation of 19 inches (48 cm) or more and no ramp, runway, embankment or personnel hoist is available, employers must provide a stairway or ladder at all worker points of access.
- When there is only one point of access between levels, employers must keep it clear of obstacles to permit free passage by workers. If free passage becomes restricted, employers must provide a second point of access and ensure that workers use it.
- When there are more than two points of access between levels, employers must ensure that at least one point of access remains clear.

In addition, employers must install all stairway and ladder fall protection systems required by these rules and ensure that their worksite meets all requirements of the stairway and ladder rules before employees use stairways or ladders. See 29 *CFR* 1926.1050-1060 for the details of the standard.

Note: The standard does not apply to ladders specifically manufactured for scaffold access and egress, but does apply to job-made and manufactured portable ladders intended for general purpose use. Rules for ladders used on or with scaffolds are addressed in 29 *CFR* 1926.451 Subpart L.

Rules for Ladders

All Ladders

The following rules apply to *all ladders*:

- Maintain ladders free of oil, grease and other slipping hazards.
- Do not load ladders beyond their maximum intended load nor beyond their manufacturer's rated capacity.
- Use ladders only for their designed purpose.
- Use ladders only on stable and level surfaces unless secured to prevent accidental movement.
- Do not use ladders on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental movement. Do not use slip-resistant feet as a substitute for exercising care when placing, lashing or holding a ladder upon slippery surfaces.
- Secure ladders placed in areas such as passageways, doorways or driveways, or where they can be displaced by workplace activities or traffic to prevent accidental movement. Or use a barricade to keep traffic or activity away from the ladder.
- Keep areas clear around the top and bottom of ladders.
- Do not move, shift or extend ladders while in use.
- Use ladders equipped with nonconductive side rails if the worker or the ladder could contact exposed energized electrical equipment.
- Face the ladder when moving up or down.
- Use at least one hand to grasp the ladder when climbing.
- Do not carry objects or loads that could cause loss of balance and falling.

In addition, the following general requirements apply to all ladders, including ladders built at the jobsite:

- *Double-cleated ladders* or two or more ladders must be provided when ladders are the only way to enter or exit a work area where 25 or more employees work or when a ladder serves simultaneous two-way traffic.
- Ladder rungs, cleats and steps must be parallel, level and uniformly spaced when the ladder is in position for use.
- Rungs, cleats and steps of *portable and fixed ladders* (except as provided below) must not be spaced less than 10 inches (25 cm) apart, nor more than 14 inches (36 cm) apart, along the ladder's side rails.
- Rungs, cleats and steps of *step stools* must not be less than 8 inches (20 cm) apart, nor more than 12 inches (31 cm) apart, between center lines of the rungs, cleats and steps.
- Rungs, cleats and steps at the base section of *extension trestle ladders* must not be less than 8 inches (20 cm) nor more than 18 inches (46 cm) apart, between center lines of the rungs, cleats and steps. The rung spacing on the extension section must not be less than 6 inches (15 cm) nor more than 12 inches (31 cm).
- Ladders must not be tied or fastened together to create longer sections unless they are specifically designed for such use.
- When splicing side rails, the resulting side rail must be equivalent in strength to a one-piece side rail made of the same material.
- Two or more separate ladders used to reach an elevated work area must be offset with a platform or landing between the ladders, except when portable ladders are used to gain access to fixed ladders.
- Ladder components must be surfaced to prevent snagging of clothing and injury from punctures or lacerations.

- *Wood ladders* must not be coated with any opaque covering except for identification or warning labels, which may be placed only on one face of a side rail.

Note: A competent person must inspect ladders for visible defects periodically and after any incident that could affect their safe use.

Specific Types of Ladders

- Do not use *single-rail ladders*.
- Use *non-self-supporting ladders* at an angle where the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder.
- Use *wooden ladders* built at the jobsite with spliced side rails at an angle where the horizontal distance is one-eighth of the working length of the ladder.

In addition, the top of a non-self-supporting ladder must be placed with two rails supported equally unless it is equipped with a single support attachment.

Stepladders

- Do not use the top or top step of a stepladder as a step.
- Do not use cross bracing on the rear section of stepladders for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.
- Metal spreader or locking devices must be provided on stepladders to hold the front and back sections in an open position when ladders are being used.

Portable Ladders

The minimum clear distance between side rails for all portable ladders must be 11.5 inches (29 cm).

In addition, the rungs and steps of portable metal ladders must be corrugated, knurled, dimpled, coated with skid-resistant material or treated to minimize slipping.

Non-self-supporting and self-supporting portable ladders must support at least four times the maximum intended load; extra heavy-duty type 1A metal or plastic ladders must sustain 3.3 times the maximum intended load. To determine whether a self-supporting ladder can sustain a certain load, apply the load to the ladder in a downward vertical direction with the ladder placed at a horizontal angle of 75.5 degrees.

When portable ladders are used for access to an upper landing surface, the side rails must extend at least 3 feet (.9 m) above the upper landing surface. When such an extension is not possible, the ladder must be secured and a grasping device such as a grab rail must be provided to assist workers in mounting and dismounting the ladder. A ladder extension must not deflect under a load that would cause the ladder to slip off its supports.

Fixed Ladders

If the total length of the climb on a fixed ladder equals or exceeds 24 feet (7.3 m), the ladder must be equipped with ladder safety devices; **or** self-retracting lifelines and rest platforms at intervals not to exceed 150 feet (45.7 m); **or** a cage or well and multiple ladder sections with each ladder section not to exceed 50 feet (15.2 m) in length. These ladder sections must be offset from adjacent sections and landing platforms must be provided at maximum intervals of 50 feet (15.2 m). In addition, fixed ladders must meet the following requirements:

- Fixed ladders must be able to support at least two loads of 250 pounds (114 kg) each, concentrated between any two consecutive attachments. Fixed ladders also must support added anticipated loads caused by ice buildup,

winds, rigging and impact loads resulting from using ladder safety devices.

- Individual rung/step ladders must extend at least 42 inches (1.1 m) above an access level or landing platform either by the continuation of the rung spacings as horizontal grab bars or by providing vertical grab bars that must have the same lateral spacing as the vertical legs of the ladder rails.
- Each step or rung of a fixed ladder must be able to support a load of at least 250 pounds (114 kg) applied in the middle of the step or rung.
- Minimum clear distance between the sides of individual rung/step ladders and between the side rails of other fixed ladders must be 16 inches (41 cm).
- Rungs of individual rung/step ladders must be shaped to prevent slipping off the end of the rungs.
- Rungs and steps of fixed metal ladders manufactured after March 15, 1991, must be corrugated, knurled, dimpled, coated with skid-resistant material or treated to minimize slipping.
- Minimum perpendicular clearance between fixed ladder rungs, cleats, and steps and any obstruction behind the ladder must be 7 inches (18 cm), except that the clearance for an elevator pit ladder must be 4.5 inches (11 cm).
- Minimum perpendicular clearance between the centerline of fixed ladder rungs, cleats and steps, and any obstruction on the climbing side of the ladder must be 30 inches (76 cm). If obstructions are unavoidable, clearance may be reduced to 24 inches (61 cm), provided a deflection device is installed to guide workers around the obstruction.
- Step-across distance between the center of the steps or rungs of fixed ladders and the nearest

edge of a landing area must be no less than 7 inches (18 cm) and no more than 12 inches (30 cm). A landing platform must be provided if the step-across distance exceeds 12 inches (30 cm).

- Fixed ladders without cages or wells must have at least a 15-inch (38 cm) clearance width to the nearest permanent object on each side of the centerline of the ladder.
- Fixed ladders must be provided with cages, wells, ladder safety devices or self-retracting lifelines where the length of climb is less than 24 feet (7.3 m) but the top of the ladder is at a distance greater than 24 feet (7.3 m) above lower levels.
- Side rails of through or side-step fixed ladders must extend 42 inches (1.1 m) above the top level or landing platform served by the ladder. Parapet ladders must have an access level at the roof if the parapet is cut to permit passage through it. If the parapet is continuous, the access level is the top of the parapet.
- Steps or rungs for through-fixed-ladder extensions must be omitted from the extension; and the extension of side rails must be flared to provide between 24 inches (61 cm) and 30 inches (76 cm) clearance between side rails.
- When safety devices are provided, the maximum clearance distance between side rail extensions must not exceed 36 inches (91 cm).
- Fixed ladders must be used at a pitch no greater than 90 degrees from the horizontal, measured from the back side of the ladder.

Cages for Fixed Ladders

The requirements for cages for fixed ladders are as follows:

- Horizontal bands must be fastened to the side rails of rail ladders or directly to the structure, building or equipment for individual-rung ladders.

- Vertical bars must be on the inside of the horizontal bands and must be fastened to them.
- Cages must not extend less than 27 inches (68 cm), or more than 30 inches (76 cm) from the centerline of the step or rung and must not be less than 27 inches (68 cm) wide.
- Insides of cages must be clear of projections.
- Horizontal bands must be spaced at intervals not more than 4 feet (1.2 m) apart measured from centerline to centerline.
- Vertical bars must be spaced at intervals not more than 9.5 inches (24 cm), measured centerline to centerline.
- Bottoms of cages must be between 7 feet (2.1 m) and 8 feet (2.4 m) above the point of access to the bottom of the ladder. The bottom of the cage must be flared not less than 4 inches (10 cm) between the bottom horizontal band and the next higher band.
- Tops of cages must be a minimum of 42 inches (1.1 m) above the top of the platform or the point of access at the top of the ladder. There must be a way to access the platform or other point of access.

Wells for Fixed Ladders

The requirements for wells for fixed ladders are as follows:

- Wells must completely encircle the ladder.
- Wells must be free of projections.
- Inside faces of wells on the climbing side of the ladder must extend between 27 inches (68 cm) and 30 inches (76 cm) from the centerline of the step or rung.
- Inside widths of wells must be at least 30 inches (76 cm).
- Bottoms of wells above the point of access to the bottom of the ladder must be between 7 feet (2.1 m) and 8 feet (2.4 m).

Ladder Safety Devices and Related Support Systems for Fixed Ladders

The connection between the carrier or lifeline and the point of attachment to the body belt or harness must not exceed 9 inches (23 cm) in length. In addition, ladder safety devices and related support systems on fixed ladders must conform to the following:

- All safety devices must be able to withstand, without failure, a drop test consisting of a 500-pound weight (226 kg) dropping 18 inches (41 cm).
- All safety devices must permit the worker to ascend or descend without continually having to hold, push or pull any part of the device, leaving both hands free for climbing.
- All safety devices must be activated within 2 feet (.61 m) after a fall occurs and limit the descending velocity of an employee to 7 feet/second (2.1 m/sec) or less.

Requirements for Mounting Ladder Safety Devices for Fixed Ladders

The requirements for mounting ladder safety devices for fixed ladders are as follows:

- Mountings for rigid carriers must be attached at each end of the carrier, with intermediate mountings spaced along the entire length of the carrier, to provide the necessary strength to stop workers' falls.
- Mountings for flexible carriers must be attached at each end of the carrier. Cable guides for flexible carriers must be installed with a spacing between 25 feet (7.6 m) and 40 feet (12.2 m) along the entire length of the carrier, to prevent wind damage to the system.
- Design and installation of mountings and cable guides must not reduce the strength of the ladder.
- Side rails and steps or rungs for side-step fixed ladders must be continuous in extension.

Defective Ladders

Ladders needing repairs are subject to the following rules:

- Portable ladders with structural defects—such as broken or missing rungs, cleats or steps, broken or split rails, corroded components or other faulty or defective components—must immediately be marked defective or tagged with "Do Not Use" or similar language and withdrawn from service until repaired.
- Fixed ladders with structural defects—such as broken or missing rungs, cleats or steps, broken or split rails or corroded components—must be withdrawn from service until repaired.
- Defective fixed ladders are considered withdrawn from use when they are immediately tagged with "Do Not Use" or similar language, or marked in a manner that identifies them as defective, or blocked—such as with a plywood attachment that spans several rungs.
- Ladder repairs must restore the ladder to a condition meeting its original design criteria before the ladder is returned to use.

Rules for Stairways

The rules covering stairways and their components generally depend on how and when stairs are used. Specifically, there are rules for stairs used during construction and stairs used temporarily during construction, as well as rules governing stair rails and handrails.

Stairways Used During Construction

The following requirements apply to all *stairways used during construction*:

- Stairways that will not be a permanent part of the building under construction must have landings at least 30 inches deep and 22 inches wide (76 x 56 cm) at every 12 feet (3.7 m) or less of vertical rise.

- Stairways must be installed at least 30 degrees—and no more than 50 degrees—from the horizontal.
- Variations in riser height or stair tread depth must not exceed 1/4 inch in any stairway system, including any foundation structure used as one or more treads of the stairs.
- Doors and gates opening directly onto a stairway must have a platform that extends at least 20 inches (51 cm) beyond the swing of the door or gate.
- Metal pan landings and metal pan treads must be secured in place before filling.
- Stairway parts must be free of dangerous projections such as protruding nails.
- Slippery conditions on stairways must be corrected.
- Workers must not use spiral stairways that will not be a permanent part of the structure.

Temporary Stairs

The following requirements apply to *stairways used temporarily during construction*.

Except during construction of the stairway,

- Do not use stairways with metal pan landings and treads if the treads and/or landings have not been filled in with concrete or other materials unless the pans of the stairs and/or landings are temporarily filled in with wood or other materials. All treads and landings must be replaced when worn below the top edge of the pan.
- Do not use skeleton metal frame structures and steps (where treads and/or landings will be installed later) unless the stairs are fitted with secured temporary treads and landings.

Note: Temporary treads must be made of wood or other solid material and installed the full width and depth of the stair.

Stair Rails

The following general requirements apply to all stair rails:

- Stairways with four or more risers or rising more than 30 inches (76 cm) in height—whichever is less—must be installed along each unprotected side or edge. When the top edge of a stair rail system also serves as a handrail, the height of the top edge must be no more than 37 inches (94 cm) nor less than 36 inches (91.5 cm) from the upper surface of the stair rail to the surface of the tread.
- Stair rails installed after March 15, 1991, must be not less than 36 inches (91.5 cm) in height.
- Top edges of stair rail systems used as handrails must not be more than 37 inches (94 cm) high nor less than 36 inches (91.5 cm) from the upper surface of the stair rail system to the surface of the tread. (If installed before March 15, 1991, not less than 30 inches [76 cm]).
- Stair rail systems and handrails must be surfaced to prevent injuries such as punctures or lacerations and to keep clothing from snagging.
- Ends of stair rail systems and handrails must be built to prevent dangerous projections, such as rails protruding beyond the end posts of the system.

In addition,

- Unprotected sides and edges of stairway landings must have standard 42-inch (1.1 m) guardrail systems.
- Intermediate vertical members, such as balusters used as guardrails, must not be more than 19 inches (48 cm) apart.
- Other intermediate structural members, when used, must be installed so that no openings are more than 19 inches (48 cm) wide.

- Screens or mesh, when used, must extend from the top rail to the stairway step and along the opening between top rail supports.

Handrails

Requirements for handrails are as follows:

- Handrails and top rails of the stair rail systems must be able to withstand, without failure, at least 200 pounds (890 n) of weight applied within 2 inches (5 cm) of the top edge in any downward or outward direction, at any point along the top edge.
- Handrails must not be more than 37 inches (94 cm) high nor less than 30 inches (76 cm) from the upper surface of the handrail to the surface of the tread.
- Handrails must provide an adequate handhold for employees to grasp to prevent falls.
- Temporary handrails must have a minimum clearance of 3 inches (8 cm) between the handrail and walls, stair rail systems and other objects.
- Stairways with four or more risers, or that rise more than 30 inches (76 cm) in height—whichever is less—must have at least one handrail.
- Winding or spiral stairways must have a handrail to prevent use of areas where the tread width is less than 6 inches (15 cm).

Midrails

Midrails, screens, mesh, intermediate vertical members or equivalent intermediate structural members must be provided between the top rail and stairway steps to the stair rail system. When midrails are used, they must be located midway between the top of the stair rail system and the stairway steps.

Training Requirements

Employers must train all employees to recognize hazards related to ladders and stairways, and instruct them to minimize these hazards. For example, employers must ensure that each employee is trained by a competent person in the following areas, as applicable:

- Nature of fall hazards in the work area;
- Correct procedures for erecting, maintaining and disassembling the fall protection systems to be used;
- Proper construction, use, placement and care in handling of all stairways and ladders; and
- Maximum intended load-carrying capacities of ladders used.

Note: Employers must retrain each employee as necessary to maintain their understanding and knowledge on the safe use and construction of ladders and stairs.

Glossary

cleat — A ladder crosspiece of rectangular cross section placed on edge upon which a person may step while ascending or descending a ladder.

double-cleat ladder — A ladder with a center rail to allow simultaneous two-way traffic for employees ascending or descending.

failure — Load refusal, breakage or separation of components.

fixed ladder — A ladder that cannot be readily moved or carried because it is an integral part of a building or structure.

handrail — A rail used to provide employees with a handhold for support.

job-made ladder — A ladder that is fabricated by employees, typically at the construction site; non-commercially manufactured.

load refusal — The point where the structural members lose their ability to carry the load.

point of access — All areas used by employees for work-related passage from one area or level to another.

portable ladder — A ladder that can be readily moved or carried.

riser height — The vertical distance from the top of a tread or platform/landing to the top of the next higher tread or platform/landing.

side-step fixed ladder — A fixed ladder that requires a person to get off at the top to step to the side of the ladder side rails to reach the landing.

single-cleat ladder — A ladder consisting of a pair of side rails connected together by cleats, rungs or steps.

stair rail system — A vertical barrier erected along the unprotected sides and edges of a stairway to prevent employees from falling to lower levels.

temporary service stairway — A stairway where permanent treads and/or landings are to be filled in at a later date.

through fixed ladder — A fixed ladder that requires a person getting off at the top to step between the side rails of the ladder to reach the landing.

tread depth — The horizontal distance from front to back of a tread, excluding nosing, if any.

OSHA Assistance

OSHA can provide extensive help through a variety of programs, including technical assistance about effective safety and health programs, state plans, workplace consultations, voluntary protection programs, strategic partnerships, and training and education, and more. An overall commitment to workplace safety and health can add value to your business, to your workplace, and to your life.

Safety and Health Program Management Guidelines

Effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses and their related costs. In fact, an effective safety and health program forms the basis of good worker protection and can save time and money—about \$4 for every dollar spent—and increase productivity and reduce worker injuries, illnesses and related workers' compensation costs.

To assist employers and employees in developing effective safety and health programs, OSHA published recommended *Safety and Health Program Management Guidelines* (*Federal Register* 54 (16): 3904-3916, January 26, 1989). These voluntary guidelines can be applied to all places of employment covered by OSHA.

The guidelines identify four general elements critical to the development of a successful safety and health management system:

- Management leadership and employee involvement,
- Workaday analysis,
- Hazard prevention and control, and
- Safety and health training.

The guidelines recommend specific actions, under each of these general elements, to achieve an effective safety and health program. The *Federal Register* notice is available online at www.osha.gov.

State Programs

The *Occupational Safety and Health Act of 1970* (OSH Act) encourages states to develop and operate their own job safety and health plans. OSHA approves and monitors these plans. There are currently 26 state plans: 23 cover both private and public (state and local government) employment; 3 states, Connecticut, New Jersey and New York, cover the public sector only. States and territories

with their own OSHA-approved occupational safety and health plans must adopt standards identical to, or at least as effective as, the federal standards.

Consultation Services

Consultation assistance is available on request to employers who want help in establishing and maintaining a safe and healthful workplace. Largely funded by OSHA, the service is provided at no cost to the employer. Primarily developed for smaller employers with more hazardous operations, the consultation service is delivered by state governments employing professional safety and health consultants. Comprehensive assistance includes an appraisal of all mechanical systems, work practices, and occupational safety and health hazards of the workplace and all aspects of the employer's present job safety and health program. In addition, the service offers assistance to employers in developing and implementing an effective safety and health program. No penalties are proposed or citations issued for hazards identified by the consultant. OSHA provides consultation assistance to the employer with the assurance that his or her name and firm and any information about the workplace will not be routinely reported to OSHA enforcement staff.

Under the consultation program, certain exemplary employers may request participation in OSHA's Safety and Health Achievement Recognition Program (SHARP). Eligibility for participation in SHARP includes receiving a comprehensive consultation visit, demonstrating exemplary achievements in workplace safety and health by abating all identified hazards, and developing an excellent safety and health program.

Employers accepted into SHARP may receive an exemption from programmed inspections (not complaint or accident investigation inspections) for a period of 1 year.

Voluntary Protection Programs (VPP)

Voluntary Protection Programs and onsite consultation services, when coupled with an effective enforcement program, expand worker protection to help meet the goals of the *OSH Act*. The three VPP—Star, Merit, and Demonstration—are designed to recognize outstanding achievements by companies that have successfully incorporated comprehensive safety and health programs into their total management system. The VPP motivate others to achieve excellent safety and health results in the same outstanding way as they establish a cooperative relationship between employers, employees, and OSHA.

For additional information on VPP and how to apply, contact the OSHA regional offices listed at the end of this publication.

Strategic Partnership Program

OSHA's Strategic Partnership Program, the newest member of OSHA's cooperative programs, helps encourage, assist, and recognize the efforts of partners to eliminate serious workplace hazards and achieve a high level of worker safety and health. Whereas OSHA's Consultation Program and VPP entail one-on-one relationships between OSHA and individual work sites, most strategic partnerships seek to have a broader impact by building cooperative relationships with groups of employers and employees. These partnerships are voluntary, cooperative relationships between OSHA, employers, employee representatives, and others (e.g., trade unions, trade and professional associations, universities, and other government agencies).

For more information on this and other cooperative programs, contact your nearest OSHA office, or visit OSHA's website at www.osha.gov.

Alliance Program

Alliances enable organizations committed to workplace safety and health to collaborate with

OSHA to prevent injuries and illnesses in the workplace. OSHA and its allies work together to reach out to, educate, and lead the nation's employers and their employees in improving and advancing workplace safety and health.

Alliances are open to all, including trade or professional organizations, businesses, labor organizations, educational institutions, and government agencies. In some cases, organizations may be building on existing relationships with OSHA through other cooperative programs.

There are few formal program requirements for alliances, which are less structured than other cooperative agreements, and the agreements do not include an enforcement component. However, OSHA and the participating organizations must define, implement, and meet a set of short- and long-term goals that fall into three categories: training and education; outreach and communication; and promotion of the national dialogue on workplace safety and health.

Training and Education

OSHA's area offices offer a variety of information services, such as compliance assistance, technical advice, publications, audiovisual aids and speakers for special engagements. OSHA's Training Institute in Arlington Heights, Ill., provides basic and advanced courses in safety and health for federal and state compliance officers, state consultants, federal agency personnel, and private sector employers, employees, and their representatives.

The OSHA Training Institute also has established OSHA Training Institute Education Centers to address the increased demand for its courses from the private sector and from other federal agencies. These centers are nonprofit colleges, universities, and other organizations that have been selected after a competition for participation in the program.



OSHA also provides funds to nonprofit organizations, through grants, to conduct workplace training and education in subjects where OSHA believes there is a lack of workplace training. Grants are awarded annually. Grant recipients are expected to contribute 20 percent of the total grant cost.

For more information on grants, training and education, contact the OSHA Training Institute, Office of Training and Education, 2020 South Arlington Heights Road, Arlington Heights, IL 60005, (847) 297-4810, or see **Outreach** on OSHA's website at **www.osha.gov**.

For further information on any OSHA program, contact your nearest OSHA area or regional office listed at the end of this publication.

Electronic Information

OSHA has a variety of materials and tools available on its website **www.osha.gov**. These include *e-Tools* such as *Expert Advisors*, *Electronic Compliance Assistance Tools (e-cats)*, *Technical Links*; regulations, directives and publications; videos and other information for employers and employees. OSHA's software programs and compliance assistance tools walk you through challenging safety and health issues and common problems to find the best solutions for your workplace.

OSHA's CD-ROM includes standards, interpretations, directives, and more and can be purchased on CD-ROM from the U.S. Government Printing Office. To order, write to the Superintendent of Documents
P.O. Box 371954
Pittsburgh, PA 15250-7954
or phone (202) 512-1800,
or order online at **http://bookstore.gpo.gov**.

OSHA Publications

OSHA has an extensive publications program. For a listing of free or sales items, visit OSHA's



website at **www.osha.gov** or contact the OSHA Publications Office
U.S. Department of Labor
200 Constitution Avenue, NW, N-3101
Washington, DC 20210
Telephone (202) 693-1888 or
fax to (202) 693-2498.

Emergencies, Complaints or Further Assistance

To report an emergency, file a complaint or seek OSHA advice, assistance or products, call (800) 321-OSHA or contact your nearest OSHA regional or area office listed at the end of this publication. The teletypewriter (TTY) number is (877) 889-5627.

You can also file a complaint online and obtain more information on OSHA federal and state programs by visiting OSHA's website at **www.osha.gov**.

OSHA Regional Offices

Region I

(CT,* ME, MA, NH, RI, VT*)
JFK Federal Building, Room E340
Boston, MA 02203
(617) 565-9860

Region II

(NJ,* NY,* PR,* VI*)
201 Varick Street, Room 670
New York, NY 10014
(212) 337-2378

Region III

(DE, DC, MD,* PA,* VA,* WV)
The Curtis Center
170 S. Independence Mall West
Suite 740 West
Philadelphia, PA 19106-3309
(215) 861-4900



Region IV

(AL, FL, GA, KY,* MS, NC,* SC,* TN*)
61 Forsyth Street, SW, Room 6T50
Atlanta, GA 30303
(404) 562-2300

Region V

(IL, IN,* MI,* MN,* OH, WI)
230 South Dearborn Street, Room 3244
Chicago, IL 60604
(312) 353-2220

Region VI

(AR, LA, NM,* OK, TX)
525 Griffin Street, Room 602
Dallas, TX 75202
(214) 767-4731 or 4736 x224

Region VII

(IA,* KS, MO, NE)
City Center Square
1100 Main Street, Suite 800
Kansas City, MO 64105
(816) 426-5861

Region VIII

(CO, MT, ND, SD, UT,* WY*)
1999 Broadway, Suite 1690
P.O. Box 46550
Denver, CO 80201-6550
(303) 844-1600



Region IX

(American Samoa, AZ,* CA,* HI, NV,* Northern Mariana Islands)
71 Stevenson Street, Room 420
San Francisco, CA 94105
(415) 975-4310

Region X

(AK,* ID, OR,* WA*)
1111 Third Avenue, Suite 715
Seattle, WA 98101-3212
(206) 553-5930

*These states and territories operate their own OSHA-approved job safety and health programs (Connecticut, New Jersey and New York plans cover public employees only). States with approved programs must have a standard that is identical to, or at least as effective as, the federal standard.

Note: To get contact information for OSHA Area Offices, OSHA-approved State Plans and OSHA consultation projects, please visit us online at **www.osha.gov** or call



Working Safely with Mobile Ladder Stands and Mobile Ladder Stand Platforms

Safety and Health Information Bulletin

SHIB 09-27-2019

Introduction

Mobile ladder stands and platforms (i.e., mobile ladder stands) are used in businesses with warehouses, material storage facilities, merchandise distribution centers, and in home improvement stores.

Manufacturing and production facilities are more likely to customize mobile ladder stand design for specific work activities. Each year, preventable injuries and fatalities occur while using mobile ladder stands, usually when not operated in accordance with the manufacturers' instructions and industry safety standards. Safe mobile ladder stand design, training, and inspections, as part of an overall workplace safety and health program, will prevent mobile stand ladder incidents.

Mobile Ladder Stand Design

Mobile ladder stands are designed to provide a safe, elevated work surface that can also move horizontally across a floor on casters or wheels (see figure 1). Manual or automatic position locking mechanisms are a design element that ensures the mobile ladder stand does not move when a worker is standing on the elevated work surface. While their appearance and design can vary depending on specific workplace requirements, these pieces of equipment are generally classified into two main categories: mobile ladder stands and mobile ladder stand platforms.



Figure 1: A mobile ladder stand platform used at a NASA facility. Source: www.wildeck.com/

- **Mobile ladder stands** are at a fixed height, self-supporting, and have stairs accessing a top step (i.e., a mobile staircase). These ladders are usually designed for one worker to use at a time while standing. For example, a worker might use a mobile ladder stand to access a small item stored on a shelf or to change a light bulb.
- **Mobile ladder stand platforms** provide larger elevated work surfaces (i.e., platforms) that allow multiple workers to use the ladder at the same time and space to stage materials and tools. These ladders are generally used for manufacturing, assembly, and maintenance activities.

Preventing injuries and fatalities when using mobile ladders starts with choosing the right mobile ladder stand for the activity. The following are considerations to make when choosing an appropriate mobile ladder stand for the work task:

- Preventing overreach of the rail during the work activity.
- Align the platform size, height, and mobility of the ladder with the task duration, complexity, and/or mobility needs.
- Calculate and compare the maximum intended load (e.g., worker, tools, and materials) to the mobile ladder stand's designed capabilities.

A mobile ladder stand's main structural components and use must meet specific requirements in [29 CFR 1910.23\(e\): Mobile ladder stands and mobile ladder stand platforms and the applicable general requirements for ladders in 29 CFR 1910.23\(b\)](#).

For additional information on mobile stands and platforms, employers should reference appropriate industry standards such as ANSI A14.7.

Training

Before using a mobile ladder stand, employers must train each worker in the proper care, inspection, storage, and use of mobile ladder stands, which may include:

- Position locking mechanisms (i.e., weight activated vs manual).
- Stair step, platform, handrail, and guardrail use.
- Structural component and design requirements.

Employers must retrain workers when they have reason to believe workers do not have the understanding and/or skill required to safely continue to use mobile ladder stands. Some situations requiring employers to retrain workers include, but are not limited to, when the worker:

- Performs the job or uses equipment in an unsafe manner;
- Receives an evaluation or information that the worker is not performing the job safely or the employer receives such information; or
- Is involved in an incident or near-miss.

These training requirements can be found in [29 CFR 1910.30: Training requirements](#).

An on-line safety training video offered by the American Ladder Institute for Mobile Ladder Stand and Platform Safety is available at: www.americanladderinstitute.org/page/LSTVideos.

Using Mobile Ladder Stands and Platforms

Mobile ladder stand use includes two different functions; moving the mobile ladder stand from position to position, and as an immobilized elevated work surface. **Never** move the mobile ladder stand or platform while a worker is on it. (29 CFR 1910.23(e)(1)(viii))

When **moving** mobile ladder stands:

- Ensure the mobile ladder stand is unoccupied.
- Disengage locking mechanisms and verify the casters or wheels can move freely.
- Maintain awareness to avoid hitting objects, other elevated structures, and workers in the area.

When **working** on mobile ladder stands:

- Position the mobile ladder stand on a smooth, flat surface.
- Engage the locking mechanisms to prevent the mobile ladder stand from moving before stepping onto it.
- Ensure that steps and platforms of mobile ladder stands and platforms are slip resistant. (29 CFR 1910.23(e)(ii))
- Keep steps and platforms clean, dry, and free of spills and debris. (29 CFR 1910.22(a)(3))
- Ensure mobile ladder stands are only used for the purposes for which they were designed (29 CFR 1910.23(b)(8)):
 - Do not use additional ladders or other objects to increase the working height.
 - Do not overreach from the top step or platform.
 - Do not stand on handrails, mid-rails, or toeboards, if so equipped, to gain additional height.
 - Keep both feet firmly on a step or platform.

When using mobile ladder stands around electrical lines, additional precautions should be taken to prevent electrical shock. For information on hazardous energy sources, see <https://www.osha.gov/powerlines>.

Inspecting Mobile Ladder Stands and Platforms

Mobile ladder stand inspections, conducted by a competent person following the manufacturer's instructions, will identify structural defects before use. These inspections should be documented and each mobile ladder stand should display a sticker, placard, tag, or log with inspection dates. In addition to following the manufacturer's recommended schedule, inspections of ladders must be conducted before they are used, for each work shift. (29 CFR 1910.23(b)(9))

Per 29 CFR 1910.23(b)(10), if structural defects are found:

- Immediately tag "Dangerous: Do Not Use."
- Remove the mobile ladder stand from service until it is repaired, or replace it.

Mobile Ladder Stands and Platforms in the Workplace Safety and Health Program

Workplace safety and health programs should incorporate mobile ladder stands, when applicable, to clearly communicate policies for safe use. Specifically, safety and health programs should include:

- Where there mobile ladders stands are located in the workplace.
- How to access the manufacturers' instructions.
- Clarify roles and responsibilities mobile ladder stand use, inspection, training, and maintenance.
- Procedures for using each mobile ladder stand in specific worksite areas.
- Inspection expectations.
- Training program expectations.

Resources

[29 CFR 1910.23: Ladders](#)

[ANSI A14.7: American National Standard for Mobile Ladder Stands and Mobile Ladder Stand Platforms](#)

[29 CFR 1910.30: Training Requirements](#)

[29 CFR 1910.145: Specifications for accident prevention signs and tags](#)

[29 CFR 1910 Subpart I, Personal protective equipment](#)

[OSHA Recommended Practices for Safety and Health Programs](#)

Additional Information

OSHA provides compliance assistance through a variety of programs. OSHA's On-Site Consultation Program offers no-cost and confidential occupational safety and health services to small and medium-sized businesses in all 50 states, the District of Columbia, and several U.S. territories, with priority given to high-hazard worksites. Consultants from local agencies or universities work with employers to identify workplace hazards and how to fix them, provide advice for compliance with OSHA standards, train and educate, and assist in establishing and improving safety and health programs. On-Site Consultation services are separate from OSHA enforcement efforts and do not result in penalties or citations. However, employers must agree to correct any serious and imminent danger hazards identified in a timely manner. To locate the OSHA On-Site Consultation Program nearest you, call 1-800-321-OSHA (6742) or visit www.osha.gov/consultation.

Workers' Rights

Workers have the right to:

- Working conditions that do not pose a risk of serious harm.
- Receive information and training (in a language and vocabulary the worker understands) about workplace hazards, methods to prevent them, and the OSHA standards that apply to their workplace.
- Review records of work-related injuries and illnesses.
- File a complaint asking OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA's rules. OSHA will keep all identities confidential.
- Exercise their rights under the law without retaliation, including reporting an injury or raising health and safety concerns with their employer or OSHA. If a worker has been retaliated against for using their rights, they must file a complaint with OSHA as soon as possible, but no later than 30 days.
- Exercise their rights under the Consumer Product Safety Improvement Act (CPSIA) without retaliation, including reporting a potentially unsafe or defective product to their employer, the federal government (i.e., the Consumer Product Safety Commission (CPSC)), or a state attorney general. A worker must file a CPSIA whistleblower complaint with OSHA no later than 180 days after an alleged violation occurs.

For additional information, see [OSHA's Workers'](#) page.

Contact OSHA

For more information, visit www.osha.gov or call OSHA at 1-800-321-OSHA (6742), TTY 1-877-889-5627.

This Safety and Health Information Bulletin is not a standard or regulation, and it creates no new legal obligations. The Bulletin is advisory in nature, informational in content, and is intended to assist employers in providing a safe and healthful workplace. Pursuant to the *Occupational Safety and Health Act (OSH Act)*, employers must comply with hazard-specific safety and health standards and regulations promulgated by OSHA or by a state with an OSHA-approved State Plan. In addition, pursuant to Section 5(a)(1), the General Duty Clause of the Act, employers must provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. Employers can be cited for violating the General Duty Clause if there is a recognized hazard and they do not take reasonable steps to prevent or abate the hazard. However, failure to implement any recommendations in this Safety and Health Information Bulletin is not, in itself, a violation of the General Duty Clause. Citations can only be based on standards, regulations, and the General Duty Clause.

There are 28 OSHA-approved occupational safety and health State Plans. State Plans are required to have standards and enforcement programs that are at least as effective as federal OSHA's and may have different or more stringent standards. More information about State Plans is available at: <http://www.osha.gov/stateplans>.



NIOSH Ladder Safety App Download for Free

To prevent extension and step ladder-related fall injuries and deaths, download and use NIOSH's award-winning Ladder Safety app.



Stats:

500,000+
people are treated
each year for ladder-
related falls¹

300+ people
die from ladder
falls each year²

\$24 billion
is the annual cost to
the U.S. for work loss,
medical, legal, liability,
and pain and suffering
expenses from falls¹

Sources:

¹ CPSC (US Consumer Product Safety Commission) [2014]. Unpublished data from the National Injury Information Clearinghouse (CPSC) using the CPSC's Injury Cost Model.

² CDC, National Center for Health Statistics [2017]. Multiple Cause of Death 1999-2015 on CDC WONDER Online Database. Accessed at <https://wonder.cdc.gov/mcd-icd10.html>.

Angle Measuring Tool



The **Measuring Tool** uses visual, sound, and vibration cues to set an extension ladder at the proper angle

Ladder Safety Tools



Decision offers tips to plan your job while considering time, materials, and tools required



Selection provides a procedure to select the proper size and type of ladder for the task



Inspection includes a checklist for ladder mechanical inspection



Set up provides instruction for ladder setup and installation



Proper Use presents rules for safe ladder use



Accessories describes a number of available extension ladder safety accessories

**Get the
app from:**

Available on the
App Store



ANDROID APP ON
Google play



To learn more about falls in the workplace visit:

www.cdc.gov/niosh/topics/falls/mobileapp.html



Ladder Inspection Form



Company Name: _____

Ladder Reference Number: _____ Dept. _____

Inspector: _____ Dept. _____

☐ STEPLADDER

Size: _____ ft.



- ☐ Fiberglass
☐ Aluminum
☐ Wood

Circle Areas
of Damage

6206

- | | YES | NO |
|---|--------------------------|--------------------------|
| Steps: | | |
| Loose, cracked, bent, or missing | ☐ | ☐ |
| Rails: | | |
| Cracked, bent, split or frayed rail shields | ☐ | ☐ |
| Labels: | | |
| Missing or not readable | ☐ | ☐ |
| Pail Shelf: | | |
| Loose, bent, missing, or broken | ☐ | ☐ |
| Top: | | |
| Cracked, loose, or missing | ☐ | ☐ |
| Spreader: | | |
| Loose, bent, or broken | ☐ | ☐ |
| General: | | |
| Rust, corrosion, or loose | ☐ | ☐ |
| Other: | | |
| Bracing, shoes, or rivets | ☐ | ☐ |

ACTIONS:

- ☐ Ladder tagged as damaged and removed from use
☐ Ladder is in good condition

☐ PODIUM

Size: _____ ft.



- ☐ Fiberglass
☐ Aluminum
☐ Wood

Circle Areas
of Damage

PD6204

- | | YES | NO |
|---|--------------------------|--------------------------|
| Steps: | | |
| Loose, cracked, bent, or missing | ☐ | ☐ |
| Rails: | | |
| Cracked, bent, split or frayed rail shields | ☐ | ☐ |
| Labels: | | |
| Missing or not readable | ☐ | ☐ |
| Top: | | |
| Cracked, loose, or missing | ☐ | ☐ |
| Spreader: | | |
| Loose, bent, or broken | ☐ | ☐ |
| Platform: | | |
| Cracked or bent | ☐ | ☐ |
| General: | | |
| Rust, corrosion, or loose | ☐ | ☐ |
| Other: | | |
| Bracing, shoes, or rivets | ☐ | ☐ |

ACTIONS:

- ☐ Ladder tagged as damaged and removed from use
☐ Ladder is in good condition

☐ EXTENSION LADDER

Size: _____ ft.



- ☐ Fiberglass
☐ Aluminum

Circle Areas
of Damage

D6224

- | | YES | NO |
|----------------------------------|--------------------------|--------------------------|
| Rungs: | | |
| Loose, cracked, bent, or missing | ☐ | ☐ |
| Rails: | | |
| Cracked, bent, split, or frayed | ☐ | ☐ |
| Labels: | | |
| Missing or not readable | ☐ | ☐ |
| Rung Locks: | | |
| Loose, bent, missing, or broken | ☐ | ☐ |
| Hardware: | | |
| Damaged, loose, or missing | ☐ | ☐ |
| Shoes: | | |
| Worn, broken, or missing | ☐ | ☐ |
| Rope / Pulley: | | |
| Loose, bent, or broken | ☐ | ☐ |
| General: | | |
| Rust, corrosion, or loose | ☐ | ☐ |
| Other: | | |
| Bracing rivets | ☐ | ☐ |

ACTIONS:

- ☐ Ladder tagged as damaged and removed from use
☐ Ladder is in good condition

Ladder Inspection Form, Continued



☐ SPECIALTY LADDER

Model Number: _____

- ☐ Fiberglass
☐ Aluminum
☐ Wood

Mark all that apply

YES NO

Steps / Rungs:

Loose, cracked, bent, or missing

☐ ☐

Rails:

Cracked, bent, split, or frayed

☐ ☐

Labels:

Missing or not readable

☐ ☐

Hardware:

Missing, loose, or broken

☐ ☐

Fasteners:

Rust, corrosion, loose, or missing

☐ ☐

Top:

Cracked, loose, or missing

☐ ☐

Spreader:

Loose, bent, or broken

☐ ☐

Outriggers:

Missing, rust, corrosion, or loose for scaffolding

☐ ☐

General:

Rust, corrosion, or loose

☐ ☐

Hinges:

Loose, bent, or missing

☐ ☐

Locks:

Loose, bent, broken, or missing

☐ ☐

Bracing Front, Rear:

Loose, bent, broken, or missing

☐ ☐

Rivets:

Rust, corrosion, loose, or missing

☐ ☐

Shoes:

Worn, broken, or missing

☐ ☐

Platform:

Loose, bent, broken, or missing

☐ ☐

Rail Shield:

Missing or loose

☐ ☐

Shoulder Bolt:

Rust, corrosion, or loose

☐ ☐

Casters:

Rust, corrosion, or loose for scaffolding

☐ ☐

ACTIONS:

- ☐ Ladder tagged as damaged and removed from use
☐ Ladder is in good condition



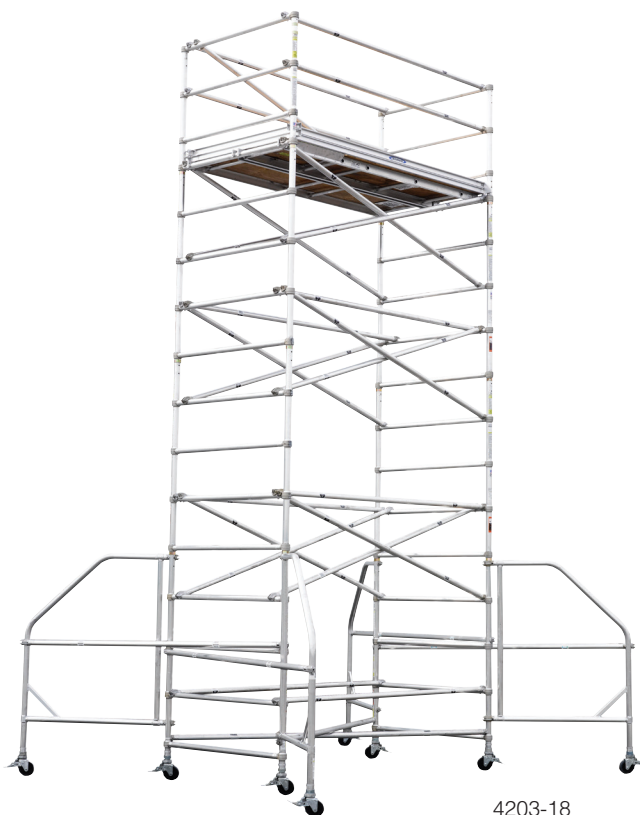
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4203-18

FFVA Mutual's Employer Resources

Report an Injury 24/7

 Phone: 1-800-226-0666

 Fax: 321-214-0235 or 321-214-0234

 Login to access your policy at www.ffvamutual.com

Claims Support:

customersupport@ffvamutual.com

Customer Service:

800-346-4825

Employer Resources & Forms:

www.ffvamutual.com/employers

Corporate Office:

PO Box 948239

Maitland, Florida 32794

321-214-5300

www.ffvamutual.com/safety

