

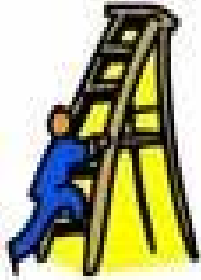


TDCJ Risk Management's Training Circular

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MARCH CLIMBING TO THE TOP



When it comes to basic work-place equipment, it doesn't get anymore basic than ladders. Because ladders are so simple, many people overlook their potential hazards. Many falls from ladders may have been prevented if a few basic precautions had been followed.

A ladder is a simple piece of equipment, but don't allow that simplicity to get in the way of following safe procedures. As soon as you start feeling like an accident won't happen, the possibility of one increases.

Have you ever witnessed an unsafe use of a portable ladder?



On average, each TDCJ Maintenance Department has about a dozen ladders on their fixed asset inventory.

That equates to about 1200 to 1500 ladders in the Agency. While our injury statistics are low involving the use of ladders, the potential for injury is high.

Two questions you should ask yourself each time you use a ladder:



1. What condition is the ladder in? —
2. Am I using the right ladder for the job?

Do you know the difference between a portable ladder and a fixed ladder? Well, lets take a look.

What is a portable ladder?

- * "Portable ladder" means a ladder that can be readily moved or carried. This ladder is the most utilized

type of ladder in the agency and they are also the most misused type of ladder in the agency!

What is a fixed ladder?

- * "Fixed-ladder" means a ladder that cannot be readily moved or carried because it is an integral part of a building or structure.

- * These are the type of ladders that may be



found on the building leading to the roof area or inside pickets.

- * Fixed ladders have specific design requirements governed by OSHA.
- * Fixed ladders may require a cage, depending on location and length of ladder.
- * Installed fall protection.
- * Specific rung placement and construction.
- * Specific platform design at top of ladder.

Contact Risk Management for OSHA regulations and guidance before constructing a fixed ladder.

LADDER IDENTIFICATION

Required standards established by the American National Standards Institute (ANSI) for ladder identification area. Which ladder should you be using for the task?

- * Type I, industrial, duty rated at 250 lbs. For tradesmen, construction, maintenance and industrial.
- * Type IA, extra-heavy-duty industrial, duty rated at 300 lbs. For industrial use.
- * Type II, commercial, duty rated at 225 lbs. For handymen, light maintenance, light mechanics.
- * Type III, duty rated at 200 lbs. For household use.

LADDER LOADS

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



LADDER RUNGS

Ladder rungs, cleats, or steps must be parallel, level, and uniformly spaced when the ladder is in position for use. Rungs must be spaced between 10 and 14 inches apart. For extension trestle ladders, the spacing must be 8-18 inches for the base, and 6-12 inches on the extension section. Rungs must be so shaped that an employee's foot cannot slide off, and must be skid-resistant.

LOCKING DEVICES

Foldout or stepladders must have a metal spreader or locking device to hold the front and back sections in an open position when in use. Extension Ladders use pawl devices to lock the ladder into position



LOOK FOR THE LABEL

Ladder manufacturers place labels on ladders stating which is the highest rung that can safely be used to stand on.

What if that label is long gone?

A good rule of thumb is to never climb to a point in which your knees are higher than the top of a ladder.

NEVER stand on top of a ladder!



INSPECT THE LADDER

- * Rungs must be intact and free from grease or oil
- * Make sure there are no splinters or sharp edges.
- * See that metal ladders are not dented or bent.
- * Make sure the hinge spreaders works properly.
- * All support braces and bolts must be secure

LADDER SAFETY

- * Place the ladder on a substantial and level base, not on moveable objects.
- * Make sure the ladder's feet are parallel to the surface it rests against.
- * Place the ladder at a safe angle. *The distance from the bottom of the ladder to the wall should be about 1/4 of the ladder's working height.*
- * Make sure the base is tied or held and that the top is anchored. Avoid the top two steps of a stepladder and the top four rungs on other ladders.

- * Do not place ladders against a windowpane or sash.
- * Never place a ladder in front of a door that opens toward the ladder unless the door is blocked, locked, or guarded.
- * Safety feet should be in place.
- * When placing a ladder on soft ground, supply solid footing material to prevent the ladder's legs from sinking into the ground.



- * Make sure ropes are not torn or frayed.
- * Never lean a ladder against an unsecured backing, such as loose boxes or barrels.
- * Do not use ladders that have been exposed to fire or corrosive chemicals.
- * Secure the top and bottom of a ladder when used to access a scaffold.
- * Do not use a ladder for unintended purposes, such as in place of scaffolding.



- * Extend the ladder side rails at least three (3) feet above the point where the ladder contacts the building/structure.
- * Never allow more than one person on a ladder at a time.
- * Never place a ladder close to electrical wiring or against any operational wiring or piping where damage could occur.
- * Use both hands when climbing a ladder.
- * Avoid excessive stretching or leaning.
- * Other than small stepladders, get help to raise and lower a ladder.
- * Never adjust a ladder while a person is on a ladder.
- * One person using the hal-yard rope while making sure that neither he/she nor anyone else places their hands on the side rails while raising or lowering is being done.
- * Do not use a makeshift ladder.
- * Do not splice, latch, or connect ladders together in anyway to gain greater height.
- * Report any unsafe conditions or hazards to your supervisor immediately.
- * Think Safety at all times.



- * Never sit on top of ladder. The top of a ladder is not a chair.

ASCENDING AND DESCENDING LADDERS

Use **both hands** to hold onto the ladder when going up and down the ladder. Do not use the backside of a stepladder for climbing, unless it is designed for such purpose. Never slide down a ladder. Maintain body control at all times. Never attempt to ascend a ladder when your shoes are greasy, muddy, or slippery. Do not skip steps while ascending or descending a ladder. Ensure you use each step provided on the ladder. Always be aware of your surrounding when ascending or descending ladders, one missed step can cause injury.



Have you ever seen a Magic ladder? **Magic Ladders** are objects that have the power to transform themselves into ladders in a moment's notice. Some of these objects include desks, tables, chairs, boxes and shelving. How many of us has seen someone stand on the desk or chair to change that light bulb or to get that box we so desperately need.

***NEVER** use any object as a makeshift ladder!*



Nobody wants to be known as the person who fell while standing in the desk chair trying to reach that box.

What causes ladder accidents?

- * Not securing ladder before climbing
- * Unstable ladder footing
- * Using too short of a ladder
- * Using the wrong ladder for the job
- * Carrying items when ascending or descending
- * Facing away from ladder

- when ascending or descending
- * Using ladder in a cluttered location
- * Worn/defective ladder
- * Reaching outside of ladder rails
- * Not being observant

Ladder safety obviously applies at work but it also applies anywhere a ladder is utilized such as at home or for volunteer efforts (i.e. church, scouts, neighborhood functions, etc.).

While our injury statistics are low involving the use of ladders, consider the large quantity of ladders we have and the various job duties that require the use of a ladder within TDCJ. Injuries that have occurred within TDCJ involving ladders range for minor injuries to injuries that have made a life altering situation for the individuals.

We all have to remember when working around or with ladders, to always be observant of your surroundings and don't take a chance by taking shortcuts. By following ladder safety precautions and post-orders you can get that task completed and move on to the next.

For more information on ladder safety contact

- * OSHA Website
<http://osha.com/>
- * National Safety Council
<http://www.nsc.org/>
- * TDCJ Risk Management

What is wrong with this picture?



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