

# Ladder Safety

## Ladder Selection

1. Be sure the ladder being used has the proper duty rating to carry the combined weight of the user and the material being installed.
2. A ladder's duty rating tells you its maximum weight capacity. There are four categories of duty ratings:
  - a. **Type IA** - These ladders have a duty rating of 300 pounds. Type IA ladders are recommended for extra-heavy-duty industrial use.
  - b. **Type I** - These ladders have a duty rating of 250 pounds. Type I ladders are manufactured for heavy-duty use.
  - c. **Type II** - These ladders have a duty rating of 225 pounds.
  - d. **Type II** - ladders are approved for medium-duty use.
  - e. **Type III** - These ladders have a duty rating of 200 pounds. Type III ladders are rated for light-duty use.

Use the proper size ladder for the job.

The average craftsman will generally work most comfortably at his shoulder level, which is about 5 feet above where he stands. Since the craftsman must stand at least 2 feet down from the top of a ladder, the maximum working height would be about 3 feet above the top of the ladder or 5 feet minus 2 feet.

For example, a 5-foot stepladder would give an effective working height of 8 feet or 5 feet plus 3 feet. When using straight or extension ladders, the craftsman stands 3 feet down from the top, which gives an effective working height of 2 feet above the ladder top.

## Ladder Inspection

1. Always check a ladder before using it. Inspect wood ladders for cracks and splits in the wood. Check all ladders to see that steps or rungs are tight and secure. Be sure that all hardware and fittings are properly and securely attached. Test movable parts to see that they operate without binding or without too much free play. Inspect metal and fiberglass ladders for bends and breaks.
2. Never use a damaged ladder. Tag it "Defective" and report it to the supervisor so that it may be removed from the job.

## Ladder Setup

1. Place ladder feet firmly and evenly on the ground or floor. Make sure the ladder is sitting straight and secure before climbing it. If one foot sits in a low spot, build up the surface with firm material.
2. Do not try to make a ladder reach farther by setting it on boxes, barrels, bricks, blocks or other unstable bases.
3. Do not allow ladders to lean sideways. Level them before using.
4. Brace the foot of the ladder with stakes or place stout boards against the feet if there is any danger of slipping.
5. Never set up or use a ladder in a high wind, especially a lightweight metal or fiberglass type. Wait until the air is calm enough to insure safety.
6. Never set up a ladder in front of a door unless the door is locked or a guard is posted.
7. The technically proper angle for a non-self-supporting ladder is about 75 degrees above horizontal. This means that the base should be set out one-fourth of the ladder's height to its top support point. For example, if a ladder is to be supported at a point 20 feet off the ground, its base should be set 5 feet out from the wall (20 feet divided by 4 = 5 feet). An easy way to measure this, if the ladder top will rest against the wall, is to pace off the length of the ladder or count the rungs, and divide by four to get the proper distance from the wall for placing the foot of the ladder.

## **Ladder Climbing and Standing**

1. Keep the steps and rungs of ladders free of grease, oil, wet paint, mud, paper and other slippery materials. Also clean such debris off your shoes before climbing a ladder.
2. Always face a ladder when climbing up or down. Use both hands and maintain a secure grip on the rails or rungs.
3. Never carry heavy or bulky loads up a ladder. Climb up yourself first, and then pull up the material with a rope.
4. Climb and stand on a ladder with your feet in the center of the steps or rungs.
5. Do not overreach from a ladder, or lean too far to one side. Overreaching is probably the most common cause of falls from ladders. A good rule is to always keep your belt buckle inside the rails of a ladder. Work as far as you can reach comfortably and safely, then get down and move the ladder to a new position.
6. Never climb onto a ladder from the side, from above the top or from one ladder to another.
7. Never slide down a ladder.

## **Proper Use of Ladders**

1. Never use metal ladders around exposed electrical wiring. Metal ladders should be marked with tags or stickers reading "CAUTION-Do Not Use Around Electrical Equipment" or similar wording. RULE of THUMB: If the overhead power line is 50 kV or less, then stay at least 10 feet away. For everything else, keep at least 35 feet away.
2. When using a ladder where there is traffic, erect warning signs or barricades to guide traffic away from the foot of the ladder. If this is not possible, have someone hold and guard the bottom of the ladder.
3. Do not try to move a ladder while you are on it by rocking, jogging or pushing it away from a supporting wall.
4. Never use a ladder when under the influence of alcohol, on drugs or medication, or in ill health.
5. If you get sick, dizzy or panicky while on a ladder, do not try to climb down in a hurry. Wait. Drape your arms around the rungs; rest your

head against the ladder until you feel better. Then climb down slowly and carefully.

6. Do not leave tools or materials on top of ladders. If they fall on you, you can be hurt. If they fall on someone else, your company can be sued.
7. Never push or pull anything sideways while on a ladder. This puts a side load on the ladder and can cause it to tip out from under you.
8. Allow only one person at a time on a ladder unless the ladder is specifically designed for two people.
9. Never use a ladder as a horizontal platform, plank, scaffold or material hoist.
10. Be cautious about homemade ladders. Never use ladders made by fastening cleats across a single narrow rail, post or pole.
11. Never use a ladder on a scaffold platform. If you need to reach higher, the scaffold should be higher.