# LADDERS

OSHA estimates that there are 24,882 injuries and as many as 36 fatalities per year due to falls from stairways and ladders used in construction. **E Light** is dedicated to provide a safe and healthful work place, in that we will strive to keep all ladders in compliance and reduce and eliminate injuries and accidents with the use of ladders.

Ladders shall be designed and constructed by approved industrial practices and general specifications. Ladders shall be without structural defects or accident hazards such as sharp edges, burrs, etc. Wood ladders shall not be painted. All repairs must be equal or stronger than original equipment and support at a minimum of 200 pounds live load.

#### GENERAL:

A ladder or a ramp must be provided for employees to gain access where there is a break in elevation of 19 inches or more.

At least one point of access (36 inches wide) must be kept clear and free from debris and slipping and tripping hazards.

All ladders used to gain access to any elevation, must extend up passed the point of elevation by at least 36 inches (3 feet) and be secured into place. A frame ladders cannot be used for means of egress.

When there are 25 or more employees gaining access to another elevation, two ladders must be used, one for ascending and the other for descending or a double-cleated ladder needs to be provided.

Rungs of the ladder shall not be any closer than 8 inches apart nor further than 12 inches apart.

Ladders cannot be tied or fastened together.

The minimum clearance between side rails (uprights) must not be less than 16 inches.

Ladders must be kept free of oil, grease, and other slipping hazards. A frame ladders cannot be leaned against walls or other parts of the structure they must be spread out and locked into place. No type III ladders maybe used.

No painting or coatings on wood ladders.

Only nonconductive side rails used for electrical work.

Ladders can't be set up within 6 ft of a rake edge.

# A FRAME LADDERS:

A frame ladders must be used as they were designed. They were designed to be used in an A frame position, not as a single ladder it must be used with metal spreader locked into place.

Do not set up any ladder in a traffic area where the ladder may be come displaced by equipment, machinery, or the public.

The top of the ladder may not be used as a step. The second to top of the ladder may not be used as a step, it is normally marked "not a step" or "Do not use as a step" or something of this nature.

Must have a metal locking spreader!

The minimum clear distance at the top between the rungs cannot be less than 11 ½ inches.

#### \*The ladder must have all legs on a good even surface.

### LADDER CLASSIFICATION

Category	Height	Weight Limit	Rating
Туре ІА	3 to 20 ft*	300 Lbs.	Heavy Duty Industrial
Туре І	3 to 20 ft*	250 Lbs.	Heavy Duty
Туре II	3 to 12 ft*	225 Lbs.	Medium Duty
Type III	3 to 6 ft*	200 Lbs.	Light Duty (Household)

(...for Step Ladders only. No Type III ladders are to be used in construction or on construction sites.)

# Extension Ladders:

Must be placed against something, if used to gain access to a different level it must extend up by at least 3 feet and be secured into place.

Must be set up at a one to four ratio. A ladder 12 ft in length must be set three feet from the wall (12/4=3)

Feet must be placed securely on the ground; boxes, blocks and cans cannot be used to level the ladder or uneven ground.

If placed in dirt the claw must be turned down to dig into the ground keeping the ladder from sliding out.

Extension ladder may not be set up within 6 ft of an edge (rake edge) or open side.

## JOB MADE LADDERS:

Must not be longer than 24 feet, or with a grab bar of three feet so the total length will be 27 ft long.

Ladder used for access must extend up three feet and be secured in place.(Job made ladders must sit on 2 X 10 mudsill)

From side rail to side rail not less than 16 inch wide, but not more than 20 inch wide maximum.

\*First rung from the ground up must be placed so the top of the rung is 12 inch high. Every rung must be evenly spaced at 12 inch high to the top of the rung.

\*Side rails must be made of clear 2 X 4 material or greater. (No 1 X material at all for side rails. All 2 X 4 material must be nailed with at least three 12 d common nail or better.

Rungs made of 2 X 4 material must use filler blocks of 1 X 2 material evenly spaced. Cleats made of a 1 X 4 material must be nailed with three 10 d nail or better.

All general rules still apply; ladders to gain access must be three feet above and secured. The one to four ratios must be used. Must still face the ladder to ascend or descend the ladder, the rungs must be a non-skid, Etc.

# **INSPECTIONS:**

After you have selected the proper ladder for the job, it should be inspected for defects before it is brought to the site or put in to use. The inspection should cover the following areas:

Are the steps firmly anchored to the side rails?

Is all hardware secured?

Are there any hinges loose or missing?

Are there broken parts sticking out that could cause scrapes or cuts?

Are the side rails free of cracks?

Are the ropes for raising the fly section in good condition?

Does the ladder have any oil, grease or any substances that may cause slipping?

Are all rungs in perfect condition?

Ladders cannot be tied or fastened together.

Any ladder that does not pass inspection should be tagged for maintenance and removed from service. This prevents a co-worker from accidentally using damaged ladder.

### 3 - Foot Rule

Extending the ladder three feet beyond the roof prevents you from tipping the ladder by stepping on one of the top steps. Once three feet extend the ladder above it then can be secured in place. Ladder should be set at  $75\frac{1}{2}$  degrees or  $\frac{1}{4}$  ratio.

### Self-supporting Ladders

Self-supporting ladders or stepladders must be set up so that all four legs are on solid ground and the spreaders are locked. Do not use a self-supporting ladder as a straight ladder by

leaning it against a structure.

## **Care and Maintenance:**

Ladders must be in good condition at all times, the joints and side rails must be tight and all hardware and fittings securely attached. Ladders should operate freely without binding or undue play. (Pre inspected before use!)

Ladders should not be placed in front of doors or walkways unless guarded or blocked off.

Ladders that have been damaged should be tagged and taken out of service, until repairs can be made.

Ladders cannot be tied or fastened together.

Main access on job sites should be made and maintained with an off set similar to this one!



Any questions about ladders contact your supervisor. Ladder information is available on the OSHA web site <u>www.OSHA.gov</u> under 1926.1053 and training requirements under 1060.

# Training:

Each employee should be able to:

- 1. Recognize hazards
- 2. Nature of fall hazards
- 3. Correct procedures for erecting, maintaining, and disassembling fall protection
- 4. Proper construction, use, placement and care.
- 5. Maximum intended loads
- 6. The OSHA standards
- 7. Retraining shall be provided for each employee as necessary so that the employee maintains understanding and knowledge.