

Ladders

Ladders of all types are used extensively in residential construction. Workers' Compensation Board statistics show that falls, including those from ladders, are one of the highest causes of injury in this industry.

Requirements for safe ladder use

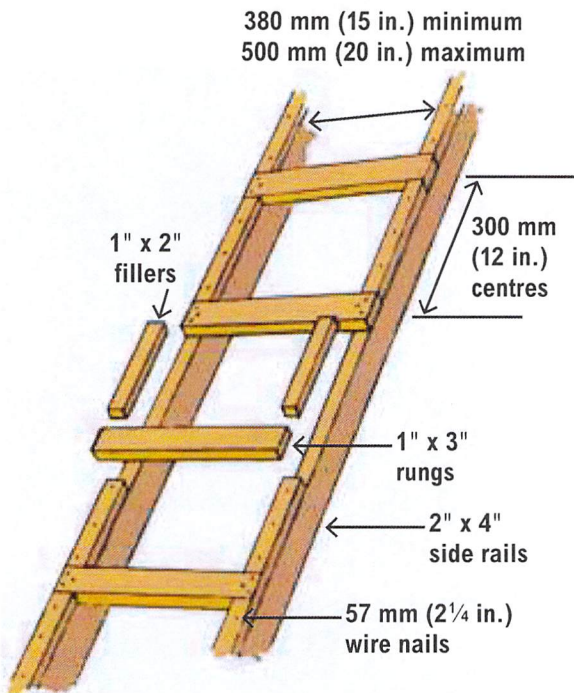
- Ladders should be inspected before use. Ladders with loose, broken, or missing rungs, split or bent side rails or other defects, must be removed from service.
- The base of a ladder's side rails must rest on a firm, level foundation. Non-self-supporting ladders (straight ladders) need to have non-slip bases or spikes, depending on the terrain. Such safety devices need to be maintained in good condition.
- The top of ladders must rest against a bearing surface of sufficient strength that will not deform under load or shatter (in the case of glass or similar material).
- When in use, portable ladders other than stepladders must be placed using a maximum 4 vertical to 1 horizontal ladder slope (see illustration on page 50).
- Portable ladders other than stepladders must be of sufficient length to project approximately 1 m (3 ft.) above the upper landing to which it provides access.
- Ladders must be tied, blocked, or otherwise secured to prevent them from slipping.
- It's important that the right ladder is chosen for the job. See WorkSafeBC Guideline 13.4 "Ladder ratings and selection" for more information on matching the ladder and the load.
- Aluminum extension ladders must be constructed rated; and when extended, a minimum overlap of 1 m (3 ft.) of the two pieces of ladder must be made.
- Metal ladders or ladders with steel reinforcements must not be used where electrical hazards exist.
- Short sections of ladders must not be spliced together to make longer ladders.
- Ladders should never be used as scaffolding planks.
- If wooden ladders are coated, the coating should be clear.
- Ladders should not be placed in doorways, passageways, or other areas where they might interfere with other work activities.
- Tools and materials must not be carried when climbing ladders. Suitable hoisting equipment must be used for this purpose.
- No worker is permitted to work from the top two rungs of a single or extension ladder or the top two steps of a stepladder unless permitted by the manufacturer.

Job-built ladders

Poorly designed and constructed wooden ladders built on the job site have resulted in serious injuries to construction workers.

Job-constructed wooden ladders must be designed and built to the following WorkSafeBC specifications.

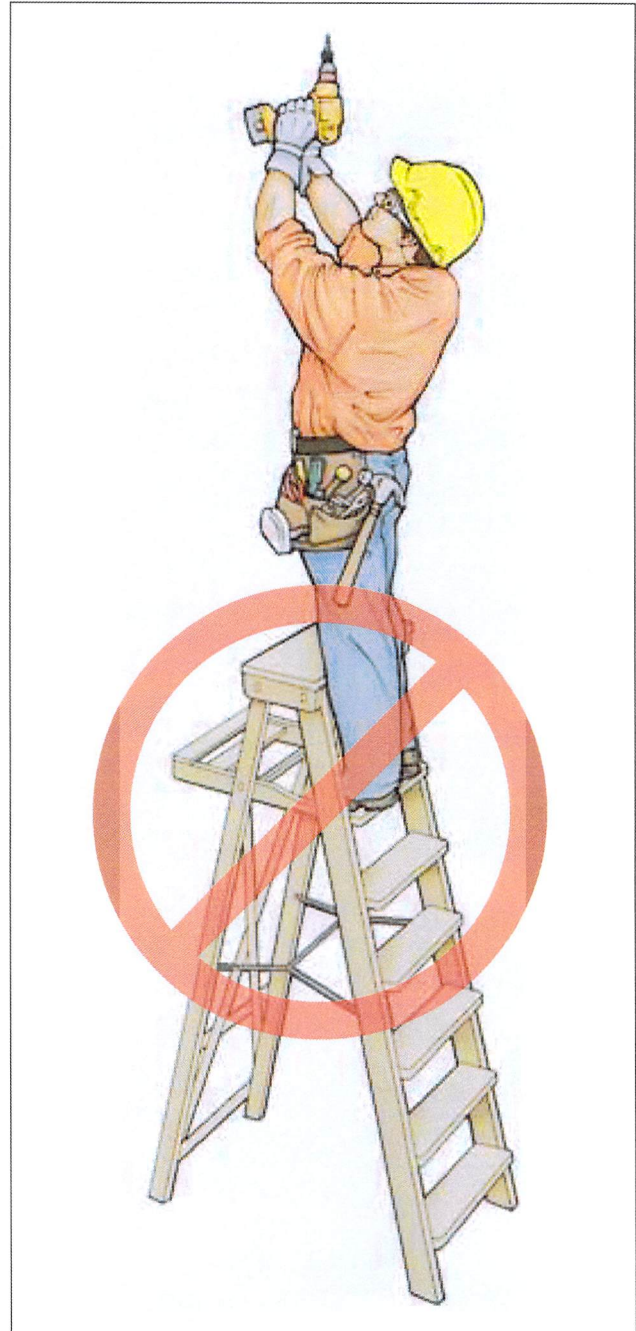
Note: The following specifications shown here are designed for ladders up to a maximum of 5 m (16 ft.) in length.



A job-built ladder up to 5 m (16 ft.) long.

- All ladder components must be cut from lumber free of defects, and must be construction grade or better.
- The side rails must be 38 mm x 89 mm (2 in. x 4 in. nominal) dimensions. Side rails must not be notched, dapped, tapered, or spliced. The distance between the inner faces of side rails must not be less than 380 mm (15 in.) nor more than 500 mm (20 in.).
- The rungs (cleats) must be 19 mm x 64 mm (1 x 3 in. nominal) dimensions. Rungs must be placed at 300 mm (12 in.) centres.
- Rungs must be nailed directly onto the edge of the side rails.

Stepladders



Workers must not work from the top two steps of a stepladder.