

# Team Safety Talks: Job-Built Ladder Safety

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Company Name \_\_\_\_\_ Job Name \_\_\_\_\_ Date \_\_\_\_\_

Job-built ladders provide an excellent way to reach unusual locations. They also accommodate high-traffic ladder use. Although the basic construction of a job-built ladder is fundamental, specific guidelines must be followed to ensure its safety and strength.

**Don't Skimp on Material Quality.** All the lumber used must be finished on four sides (s4s), and free of sharp edges or splinters. All nails must be driven full length and flush. Depending on your location, various selections of wood species and associated grades can be used. As a rule-of-thumb, the lumber must be equal to, or better than, #1 Hem-Fir. Don't skimp on the ladder's quality. Your work is hazardous enough. There's no need to add a poorly built ladder to the list of hazards.

**Limitations.** A single-cleat (single rung) ladder is permissible if less than 25 workers will be using it. If more than 25 workers will use the device, a double-cleat ladder is necessary. Remember too, a job-built ladder of any design cannot be longer than 24 feet, excluding the side rail extension above the landing.

**Side Rail Construction.** The ladder's side rails must extend 36" to 42" above the landing. Side rails can be constructed with either 2x4 or 2x6-inch lumber. Any ladder that rises less than 12 feet to the working level may be built from 2x4 material. Beyond this length, restrictions depend upon the height and pitch of the ladder, in accordance with ANSI standard A14.4 - 1979. Side rails can be spliced once, but the splice should be in the upper portion of the rail, and the rail must be as strong as if it were unspliced. Spliced rail ladders cannot exceed a pitch of 1-in-8.

**Cleat Construction.** Cleats can be made from either 1x4 or 2x4-inch lumber. The cleat cannot be spliced and must extend the full outside measurement of the single or double-width ladder. If using 1x4-inch cleats, install them with three 10d common nails at each rail. For 2x4-inch cleats, use three 12d common nails. Cleats must be parallel and evenly spaced from the ladder's base to the top point of bearing. Spacing must measure 12-inches (1/2"), between the top edges of each cleat. There should be no cleats on side rails that extend above the landing surface. With a single-cleat ladder, the clear distance between side rails can be 16 to 20 inches. Double-cleat ladders may have a clearance of 18 to 22 inches between each rail, and a filler block must be installed between each cleat. Use 1x2-inch fillers with 1x4 cleats, and 2x2-inch fillers with 2x4 cleats. Filler blocks must fit snugly between cleats.

**Inspection and Maintenance.** As with any important tool, ladders must be inspected regularly and repaired as necessary to ensure the safety of workers. Look over the ladder daily and, at least weekly, inspect landings, lashing, connections, and the condition of the lumber carefully. Any faulty items should be corrected immediately and cleats should be kept as clean as possible. Housekeeping at the ladder's access point should be in above average condition.

**Safety First on Any Ladder.** As with all ladders, a job-built ladder must be set on a level, solid surface. Don't set it in a passageway, doorway or driveway where it could be bumped or damaged by adjacent activities, unless the ladder area is barricaded. Always secure the ladder at the top and whenever possible, secure or stake the bottom too.

**The fall you prevent could be your own!**

Safety Recommendations: \_\_\_\_\_

Job Specific Topics: \_\_\_\_\_

S.D.S Reviewed: \_\_\_\_\_

Attended By: \_\_\_\_\_

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