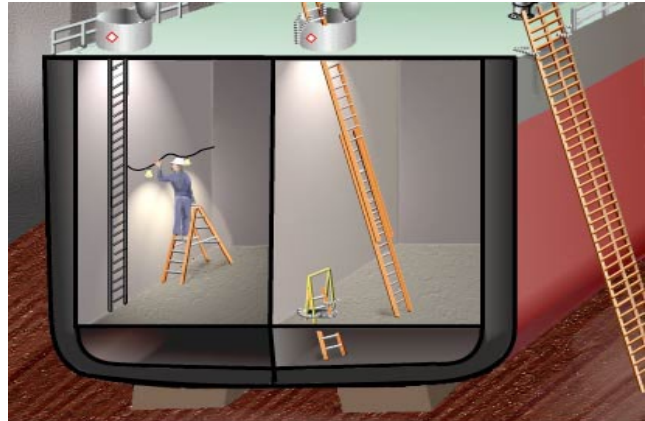


Tool Box Talk: Falls from ladders

Ladders are used in shipbuilding and ship repair to allow workers to gain access to multiple levels and, in some cases, perform work. Some of the hazards associated with ladders include structural failure, poor placement, and inappropriate work practices.

Falls from ladders, by the numbers.

Falls are the most common cause of death in shipyards, accounting for 24% of deaths between 2002 and 2023, and many more injuries. Of those fall incidents, 7 percent were from ladders. For example, a [painter fell from a ladder](#) and was killed while cleaning debris from the interior floor aboard a barge. While carrying a broom in one hand and using the other hand to climb a fixed metal ladder, at a height of approximately 11 feet, he attempted to hand the broom off to a coworker above. He lost his grip and fell to the barge bottom and struck his head against a pipe support.



Another fatality occurred when an employee was using a ladder to retrieve a fiber optic cable. The ladder slipped backwards and the [employee fell 22 feet](#) to the lower deck of the ship. His head struck against a steel girder on the bottom deck, killing him on impact.

What are the Biggest Risks?

- Inappropriate ladder placement, such as uneven, slippery, or flimsy base, insufficient ladder angle or resting structure.
- Broken or damaged ladder structure or components.
- Inappropriate work practices (such as climbing with material in hand, not facing ladder when climbing down, and over-extending).
- Lack of fall protection.
- Insufficient extension above access level.
- Failure to adequately secure ladders through lashing, blocking, or other means.
- Using ladder for unintended purpose.

Steps To Take in Preventing Falls

- Select the appropriate ladder for the job (e.g., material, load rating) and ensure proper set up:

- Inspect ladders prior to each use and in accordance with manufacturer's recommendations. If defects are noted, tag the ladder and remove it from service.
 - Place portable ladders at an appropriate angle. The horizontal distance from the base to the vertical plane of support should be one-quarter the ladder height.
 - Ensure the ladder is tall enough for the job. Ladders must extend at least 3 feet above the upper landing or targeted area of work to which it provides access. Where not possible, install grab rails to help maintain balance and provide a secure grip while moving to or from the point of access.
 - To prevent slipping, affix portable ladders so that rails are evenly supported, and footings are on a solid, level, and stable. Only use ladders on gratings where the ladder is designed for such use or ensure an additional appliance is used to protect the ladder footing (i.e., a grating shoe).
 - Lock or block hatches or doors that open toward a positioned ladder.
 - Cordon off the area surrounding an erected ladder in passageways and high-traffic areas.
- Ensure only one person is on a ladder at a time.
 - Always maintain three-points contact by keeping two hands and one foot, or two feet and one hand.
 - Haul materials or tools up on a line, or use a bag or tool belt, rather than carrying the tools by hand.
 - Use fall protection on ladders when available or appropriate.
 - Use a second person to stabilize the ladder during climbing to tie off the ladder.
 - Never climb past the second rung from the top of a stepladder or the third rung from the top of an extension ladder.

Hazard control

- **Elimination.** Determine whether the job is necessary or if the jobsite can be accessed differently so that a ladder is not required.
- **Engineering controls.** Consider the use of a travel lift or scaffolding for jobs lasting longer than 30 minutes.
- **Policies and procedures.** Never compromise on procedural discipline, regardless of the duration of the job. Ensure your team, including temporary employees, have access to and understands the procedures in place for their safety.

- **Personal protective equipment.** Use fall protection when necessary and appropriate, such as when working close to and above a deck edge guardrail, ascending or descending fixed ladders, or using tall vertical ladders that do not have cages.

Think About It: What Can You Do Every Day?

- If the work environment makes it impossible to meet the requirements listed above, STOP and see your supervisor or safety personnel to discuss alternative methods to access your job site.
- Always maintain situational awareness: start every shift by surveying the work area to identify changes or risks and remain aware of changes and activity happening around you.
- Always consider who else might be working in an area or passing through.

Learn More

- [Hanging Scaffolds \(Staging\) E-tool](#)
- [Safe Work Practices for Marine Hanging Staging](#)
- [Walking-Working Surfaces and Personal Fall Protection Standards](#)
- [Aerial Lift Fall Protection \(Spanish version\)](#)
- [Shipyard Employment eTool – Ladders](#)

Discussion or challenge question

1. What ladder safety risks have you seen recently in your workplace, and how could they be mitigated?
2. Who at your workplace should you inform if you identify a hazard?
3. When can you stop a job that you see as unsafe?