

Using portable ladders safely

Introduction and purpose

The purpose of this guidance note is to answer the most common questions that WorkSafe Tasmania receives about using portable ladders.

Detailed guidance can be found in the Code of Practice: Managing the Risk of Fall at Workplaces. Go to www.worksafe.tas.gov.au and search for 'CPI22'.

Throughout this guidance note, 'PCBU' stands for 'person conducting a business or undertaking', the primary duty holder under the Work Health and Safety Act 2012.

Is a ladder the right tool for the job?

Portable ladders are one of the least stable forms of equipment for working at heights. So before you consider using a ladder, you must identify if in fact a ladder will provide the highest level of protection against a fall that is reasonably practicable. You can do this by working through the 'hierarchy of controls' for preventing falls:

- the most effective method of controlling the risk of fall is to work on the ground or on a solid construction. Therefore this is the first method to consider
- if this is not reasonably practicable to do, then provide a fall prevention device (such as a secure fence, edge protection, working platforms, scaffold and covers)
- if this is not reasonably practicable to do, then provide a work positioning system (such as an elevated work platform or scissor hoist)
- if this is not reasonably practicable to do, then provide a fall arrest system (such as an industrial safety net, or a safety harness system that arrests a fall).

In some cases, a combination of controls measures may be necessary; for example, using safety harness while working from an elevated work platform.

If the above measures aren't reasonably practicable for the task, then it may be appropriate to use a ladder, provided it is:

- fit for the purpose
- appropriate for the duration of the task
- set up correctly.

How to reduce the use of ladders

- Use long handled tools, so you can do the task from the ground
- Use modular scaffolds
- Use work positioning devices such as elevated work platforms and scissor lifts

How to select the right ladder

You should consider:

- what the task is
- how long it will take to do the task
- the physical surroundings of where the task will be done
- the prevailing weather conditions.

You should also consult your workers and their health and safety representatives.

When purchasing or hiring ladders for a workplace, the ladder should:

- comply with AS/NZS 1892 – Portable Ladders series
- have a minimum 120kg safe load rating
- be marked 'Industrial' and of robust construction
- be a suitable type for the task it is to be used for (for example, be non-conductive for electrical work)
- be of suitable size for the task.

Note: Trestle ladders should not be used as a step ladder for access; they are designed to support planks.



How to position a ladder

First, visually inspect the ladder to ensure there is no damage or defects.

The ladder must be set up on a solid and stable surface to prevent it from slipping or toppling over. You can also prevent slipping or toppling by:

- ensuring the ladder has non-slip feet
- securing ladders at the top or bottom, or if necessary at both ends (see diagrams over page)
- placing the ladder at a slope of 4:1 (see figure 3)
- ensuring the top of an extension ladder is positioned with at least 1 metre above the landing point for access purposes (see diagrams over page)
- setting up step ladders in the fully open position
- having a second person 'foot' the ladder for added stability.



Some effective ways of securing a ladder

Working on ladders above and below 2 metres

Above two metres

When working in construction, if there is a risk of a person falling more than 2 metres, then you must:

- follow the hierarchy of control (explained previously) when selecting fall control measures
- prepare and follow a Safe Work Method Statement (SWMS), as this work is defined as high risk construction work.

Two metres and below

You must also consider the hierarchy of control when working out how to best control the risk of falling from one level to another.

You must (so far as reasonably practicable) provide and maintain safe systems of work while working from the ladder.

Note: A SWMS may be required if other high risk construction work is being done from a ladder or near the ladder; such as working near live electrical installations or mobile plant.

How to use a ladder safely

Check that:

- the ladder is placed so the weight of the ladder and any person using the ladder is supported by the feet not the rungs of the ladder
- all locking devices on the ladder are functional and secured into position
- materials or tools are not carried while climbing the ladder – use a tool belt or side pouch
- only light duty work is done while on the ladder, where 3 points of contact can be maintained and tools can be operated safely with one hand
- slip resistant base, rungs or steps are provided
- slip resistant shoes are worn.

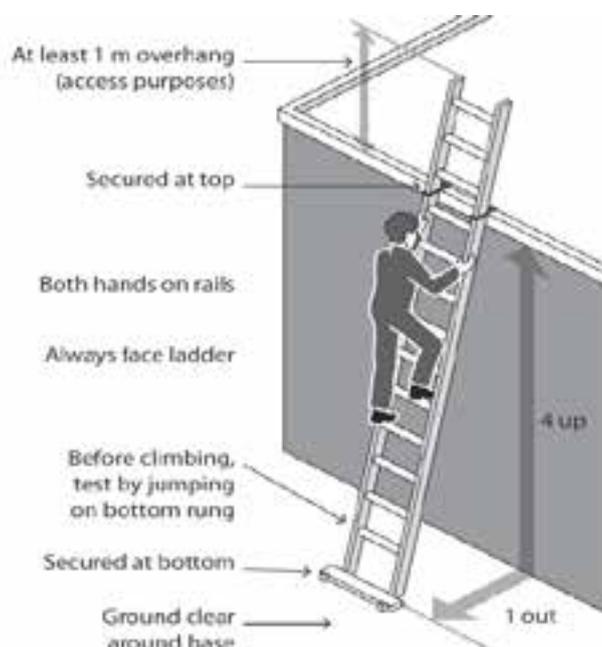
You should also make sure ladders are not used:

- in access areas or doorways, unless you erect a barrier or lock the door shut
- on scaffolding or from an elevated work platform to get extra height
- next to power lines, unless the worker is trained and authorised and the appropriate ladder is being used
- in very wet or windy conditions
- next to traffic areas, unless the work is barricaded.

Other safety measures

- Provide/use extended height rails around elevated areas to prevent the user of the ladder from falling from one level to another while using the ladder (for example, near stair case landings, edge of balconies and decks).
- Provide/use rails across window and door openings at the framing stage of a house to prevent the ladder user from falling through.
- Use platform ladders to do the task.

Example of acceptable ladder use

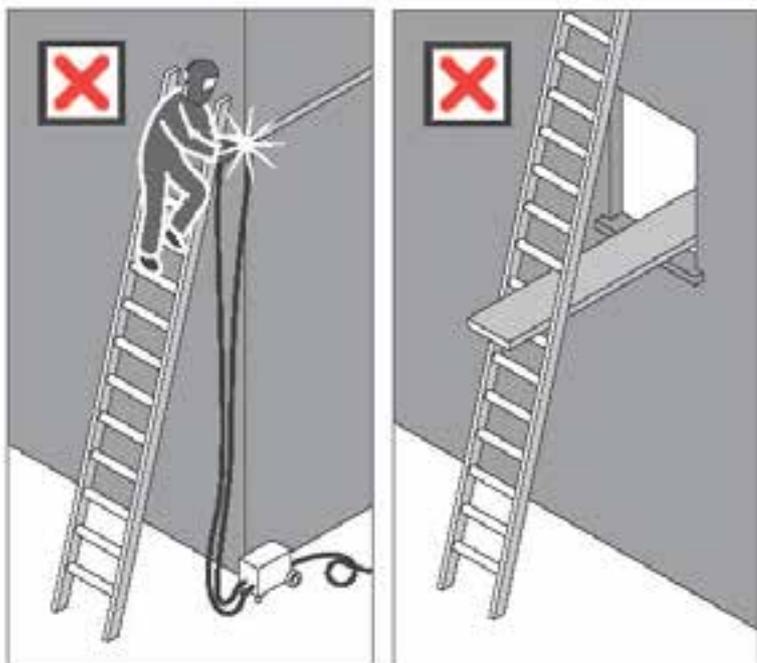


Training

If you are a PCBU, you must provide your workers with adequate information, training and supervision to safely use the ladder.

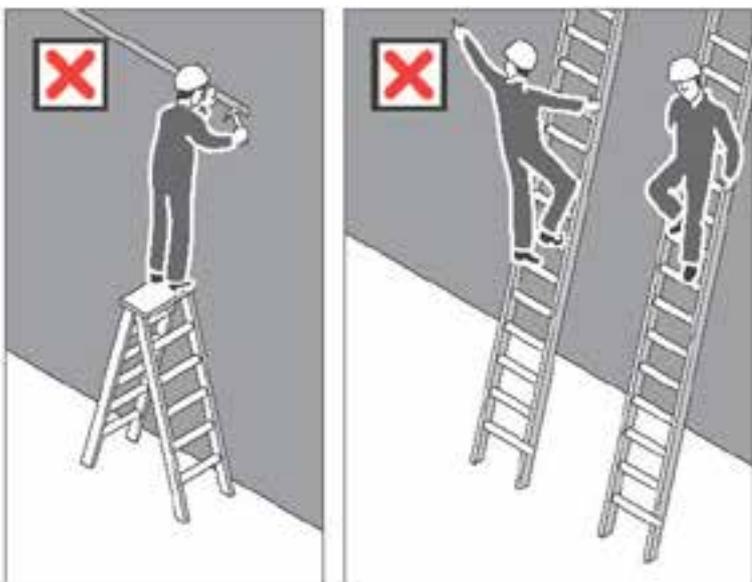
If you are a worker, you should only use ladders if you:

- have been adequately trained or instructed in how to set up, use and maintain a ladder safely
- are adequately supervised to ensure you are using the ladder safely.



First picture: Performing hot works from a ladder.

Second picture: Ladder set up incorrectly



First picture: Standing on the top plate.

Second picture: Facing away from a ladder, and over-reaching

Ladder safety checklist

If a ladder is used for short-term light duty work, check that:

- the type of ladder is appropriate to the task. Do not use domestic or home-made ladders. Further information on portable ladders is available in the AS/NZS 1892 series and users must follow the manufacturer's/supplier's recommendations on safe use
- the ladder is in good condition. Before it is used, the ladder should be inspected for faults, such as broken, bent or distorted rungs, stiles, locking components and footing rubbers
- damaged ladders are removed from service
- the ladder is on firm, stable and level ground
- the ladder is the correct height for the task to avoid reaching or stretching
- the ladder is not too close or too far from the support structure. The ratio must be 4:1. For example, the distance between the ladder base and the supporting structure should be about one metre out for every four metres of working ladder height
- the ladder is secured against slipping or sliding, and/or there is another person holding the base of the ladder
- the ladder is not placed so that the weight of the ladder and any person using the ladder is supported only by the rungs. For example the ladder should not be hung from top of a building by the rungs of the ladder where the feet of the ladder are not supported by solid surface nor should the ladder be supported across a plank or similar on a single rung while the feet are off the ground.
- all the locking devices on the ladder are secured into position
- materials or tools are not carried while climbing the ladder. Tools should be carried in a tool belt or side pouch
- only light duty work is undertaken while on the ladder, where three points of contact can be maintained and tools can be operated safely with one hand
- slip resistant base, rungs or steps are provided
- slip resistant shoes are worn
- metal or wire bound ladders are never used close to energised power lines; non-metallic ladders must be used instead
- ladders are not used:
 - in access areas or next to doors
 - on scaffolding or an elevating work platform to get extra height
 - next to power lines
 - in very wet or windy conditions
 - next to traffic areas unless the working area is barricaded.

For more information contact

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