

# Ladder Safety & Use

Page 1 of 5

Location	Written By:	Approved By:	Date Created	Last Revision
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HAZARDS PRESENT	PERSONAL PROTECTION EQUIPMENT (PPE)	ADDITIONAL REQUIREMENTS
<ul> <li>Sun burns</li> <li>Muscle strains / sprains</li> <li>Slip / trip</li> <li>Falls</li> <li>Lost balance</li> <li>Falling materials</li> <li>Electrocution</li> </ul>	<ul> <li>Safety glasses</li> <li>Protective footwear</li> <li>Protective gloves</li> <li>Long pants</li> <li>Long sleeves</li> <li>High vis. Vest</li> <li>Hat</li> </ul>	<ul> <li>Tie back long hair</li> <li>Ties to secure ladder</li> <li>Ladder safety training</li> </ul>

## **SAFE WORK PROCEDURE**

## **Inspection:**

Inspect ladder before each use. If worn or damaged remove from use.

### **GENERAL**:

- Make sure all rivets, joints, nuts, and bolts are tight.
- feet, steps, rails and rungs are secure.
- Cracked, split or unbroken uprights, braces, steps, or rungs.
- Ladder should be clean, free from grease, oil, snow, mud, wet paint, or any slippery material.

### STEPLADDERS:

- Wobbly (from side to side).
- Loose or bent hinge spreaders.
- spreaders and pail shelf function properly (step ladders).
- Broken stop on hinge spreaders.
- Loose Hinges
- Feet are in place

### **EXTENSION LADDERS:**

- Loose, broken or missing extension locks.
- Both feet are in place and not missing
- rung locks, rope and pulley are in good condition; rope is not frayed, burned or discolored
- Defective locks that do not seat properly when the ladder is extended.
- Rungs and rails are in good shape and not bent or dented
- Instruction label and CSA rating are intact and legible
- Overlap has not been tampered with

#### TRESTLE LADDERS:

- Loose hinges.
- Loose or bent hinge spreaders.
- Wobbly.
- Stop on hinge spreader is not broken.
- Center section guide is not out of alignment.
- Defective locks for extension.



# Ladder Safety & Use

Page 2 of 5

#### FIXED LADDERS:

- Loose, worn, or damaged rungs or side rails
- · Loose or corroded bolts, welds, brackets, or rivet heads
- Damaged or corroded handrails or brackets on platforms
- Damaged or corroded parts on cage
- Fall protection system components accessible (if applicable)
- Weakened or damaged rungs on brick or concrete
- Base of ladder free of obstructions.

#### PERFORM A HAZARD ASSESSMENT:

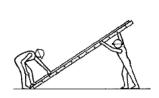
- Will the base of the ladder be set on a solid surface?
- Are anchor points necessary? If yes, where?
- > Where is the top of the ladder resting?
- > Do hazards exist above where you will be working? (Electrical wires within 10 feet)
- Is there other work being performed near you that may be hazardous?
- Can you secure (tie off) the ladder against all movement?

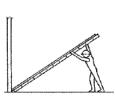
## **Extension Ladders:**

Extension ladders are only to be used for short duration work (20 minutes). If your work will take longer than an elevated work platform will be required. If you are in poor health, subject to fainting spells, have a physical handicap that would impair your climbing ability, or if you are under the influence of any drug or alcohol (including legal drugs that may cause drowsiness) do not use a ladder.

### **LADDER SET UP:**

- 1. Never leave a ladder set up and unattended.
- 2. Select a ladder that is appropriate for your task.
- 3. Use only grade #1 ladders for construction
- 4. Check for overhead electrical wires before setting up a ladder.
- 5. Guard or fence off the area around a ladder in an area where persons have access.
- 6. Clear area around base and top of the ladder of debris, tools and other objects.
- 7. When setting up an extension ladder, use the following method to avoid straining muscles or losing control of a ladder. With ladders weighing more than 25 kg (55 lb), or where conditions complicate the task, have two persons set up a ladder, step by step, as follows:
  - A. Lay a ladder on the ground close to intended location.
  - B. Brace ladder base using helpers' feet or against the base of the wall.
  - C. Grasp the top rung with both hands, raise the top end over your head and walk toward the base of a ladder.
  - D. Grasp the centre of the rungs to maintain stability.
  - E. Move the erect ladder to the desired location. Lean it forward against the resting point at the work area.





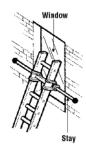


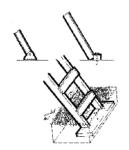


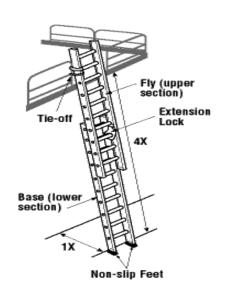
# **Ladder Safety & Use**

Page 3 of 5

- 8. Ensure the ladder is placed on a firm surface
- 9. Extend the ladder so that it has 3 rungs above any surface you intend to mount.
- 10. Make sure the top of the ladder rests against a stable surface.
- 11. Space the bottom of an extension ladder in a 1:3 or 1:4 ratio of its height to base
- 12. Have a partner hold the ladder. Climb the ladder and secure the top of the ladder by tying off. Do not use bungee cords.
- 13. Tie off the bottom of the ladder to prevent the ladder from sliding out at the bottom.







- 14. If you cannot secure the ladder at the top and bottom Station a person at the foot of a ladder when it is not possible to tie at the top or secure it at the foot. Ensure that the person at the foot of the ladder faces the ladder with a hand on each side rail and one foot resting on the bottom rung. This person should be wearing a hard hat.
- 15. Have a second person hold the bottom of an extension ladder, when tying or untying an extension ladder.
- 16. Ensure shoes are kept clean during work on the ladder to prevent slips and falls.
- 17. Always face the ladder when climbing up or down, and do not carry tools.
- 18. Store ladders in a clean, dry area
- 19. Maintain three-point contact by keeping two hands and one foot, or two feet and one hand on the ladder at all times.
- 20. Grasp the rungs when climbing a ladder, not the side rails. If your foot slips on a ladder, holding onto rungs is easier than holding onto the side rails.
- 21. Keep your body within the rails of the ladder while working on it

#### Do Not:

- ➤ Do not use a ladder in passageways, doorways, driveways or other locations where a person or vehicle can hit it. Set up suitable barricades or lock the doors shut.
- > Do not place a ladder against flexible or moveable surfaces.
- Do not straddle the space between a ladder and another object.
- > Do not erect ladders on boxes, carts, tables, scaffold or other unstable surfaces.
- Do not use ladders on ice.
- Do not use a damaged ladder
- Do not stand a ladder on any of its rungs. Ladders must rest on both side rails.
- Do not allow anyone to stand under a ladder.
- Do not overreach from a ladder; move as required.
- Do not use any type of ladder near electrical wires.

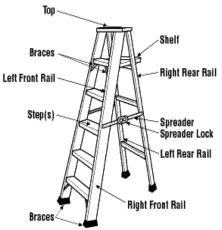


# **Ladder Safety & Use**

Page 4 of 5

# **Step ladders:**

- 1. Use a stepladder that is about 1 m (3 ft) shorter than the highest point you have to reach. This gives a wider, more stable base and places shelf at a convenient workii
  - A. Open the stepladder spreaders and shelf fully.
  - B. Check stability. Ensure that all ladder feet are on a firm, level and non-slippery surface.
  - C. Place a stepladder at right angles to the work, with either the front or back of the steps facing the work.
  - D. Keep the stepladder close to the work.
- 2. Avoid pushing or pulling stepladders from the side. Repeated sid movement can make ladders wobbly since they are weaker or less stable in those directions.
- Face the stepladder when climbing up or down. Keep your body centered between side rails. You have climbed too high if your k are above top of the stepladder or if you cannot maintain a handl on the ladder.
- 4. Maintain a firm grip. Use both hands when climbing.



## DO NOT:

- Do not overreach. Move a stepladder when needed.
- > Do not "shift" or "walk" a stepladder when standing on it.
- > Do not stand, climb, or sit on the stepladder top or pail shelf.
- Do not overload. Stepladders are meant for one person.
- Do not use a stepladder as a brace or as a support for a work platform or plank.
- Do not climb a stepladder that is leaning against a wall. Use a straight ladder instead.
- > Do not use stepladders on slippery surfaces
- Do not use stepladders on soft ground where one leg may sink farther into the ground than others.
- > Do not place stepladders on boxes, unstable bases or on scaffolds to gain additional height.
- > Do not climb the back of a stepladder.
- Do not push or pull stepladders sideways.
- Do not use ladders in passageways, doorways, driveways or other locations where a person or vehicle can hit it. Set up suitable barriers or lock doors shut.
- Do not use a step ladder as an extension ladder



# Ladder Safety & Use

Page 5 of 5

## **Vertical Fixed Ladders:**

- 1. Visually inspect ladder before each use. Report any defects or deterioration promptly to your supervisor.
- 2. Ensure your boots are free from dirt, mud, ice or snow before stepping onto the ladder.
- 3. Wipe off any spills on the ladder (e.g. paint, grease, oil or other slippery substances) immediately.
- 4. Face the ladder when climbing up or down. Take one step at a time while keeping your body as close to the ladder as possible. Maintain a firm grip on the ladder rungs and use both hands while climbing.
- 5. Do not carry tools, parts or equipment in your hands while climbing a ladder. Use an appropriate pouch with line to raise items to the next level.





## **REGULATORY REQUIREMENTS**

#### **Guidance Documents:**

- Manufacturer`s Instructions
- Safe Work Bulletin 177: Portable Ladder Safety

### **CSA / ANSI Standards**

- CSA CAN3-Z11-M81 (R2005) Portable Ladders
- ANSI A14.1-2000, American National Standards for Ladders Wood Safety Requirements
- ANSI A14.2-2000, American National Standard for ladders Portable Metal Safety Requirements
- ANSI A14-5-2000, American National Standards for Ladders Portable Reinforced Plastic Safety Requirements
- CSA Z259.2.1-98 Fall Arresters, Vertical Lifelines, and Rails

### Manitoba Workplace Safety and Health Legislation:

- Mb. Regulations 217/2006,
  - o Part 13, Sections 13.11 13.21 Portable Ladders,
  - o Part 14.1, 14.6-14.23 Fall Protection
- WS&H Act W210, Section 4, 5, 7, 7.1