Portable Ladder Safety
Portable Ladders

• Consistently in top 10 OSHA standards cited over all industries

• Over 3500 citations each year

• Nearly $ 4.5 million in penalties

• Over 100,000 injuries each year related to ladders
Most Common Causes of Ladder Accidents

• Wrong type of ladder used
• Ladder used improperly
• Ladder in poor condition or damaged
Objectives

• Types of portable ladders and hazards associated with them

• Inspecting portable ladders

• Correct set up of portable ladders

• Safe practices when using portable ladders
Portable ladder types

• Step ladders
• Extension ladders
• Single or straight ladders
Step ladder

Manufactured in heights up to 20 feet.
Extension ladder

Can be up to 60 feet high but sections have to be overlapped

- overlap sections 3 feet for ladders up to 36 feet
- overlap must be 4 feet for ladders over 36 feet up to 48 feet
- overlap sections 5 feet for ladders over 48 feet up to 60 feet
Straight ladder

Limit of 30 feet high
Factors to consider when choosing a ladder

- Environment
- Length
- Purpose
- Duty Rating
<table>
<thead>
<tr>
<th>Duty Rating</th>
<th>Ladder Type</th>
<th>Pounds</th>
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<tr>
<td>Special Duty</td>
<td>I-AA</td>
<td>375</td>
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<td>Extra Heavy Duty</td>
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<td>225</td>
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<tr>
<td>Light Duty</td>
<td>III</td>
<td>200</td>
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</table>
Duty Ratings

LADDER IDENTIFICATION LABELS
I.D. labels provide important information regarding each ladder's Model Number, Type, Duty Rating, Size, and Highest Standing Level.

STEP LADDER ID LABEL
- Star Performance
- Load Capacity
- Duty Rating
- Ladder Size
- Maximum Reach
- Highest Standing Level
- Model (ID) Number
- UPC Code

ORANGE LABEL FOR TYPE IA
- Extra Heavy Duty

EXTENSION LADDER ID LABEL
- Star Performance
- Load Capacity
- Duty Rating
- Ladder Size
- Maximum Reach
- Highest Standing Level
- Model (ID) Number
- UPC Code

GOLD LABEL FOR TYPE IAA
- Special Duty
Controlling Hazards

• Inspecting ladders
• Correct set up
• Safe use
Ladder inspections – before each use check for:

- cracks, splits, broken or missing pieces, corrosion, other signs of wear
Inspections

- slip resistant feet or pads
Inspections

• bent parts and pieces
Inspections

- missing rungs
- broken pieces
Inspections

• damaged areas and parts
Inspections

• Check for loose bolts and rivets
• Inspect braces, gussets, and spreaders
• Check rung locks and the rope and pulley on extension ladders
• Ensure label is present and check capacity
• Look for oil, grease and other slipping hazards on rungs and steps
Ladder set-up

• Position in a safe location – avoid doorways
• Keep areas at top and bottom of ladder clear
• Ensure overlap on extension ladders is correct
• Never set up or take down an extension ladder while it is extended
• Erect extension ladders so bottom section faces the wall and upper section is in front
• Position near the work to avoid overreaching
Ladder set-up

• Place on solid level surface and not on unstable objects
Ladder set-up

• Extend side rails at least 36 inches above landing
• Secure or tie off extension ladders
Ladder set-up

- Use the 4:1 rule for proper pitch - set base of extension ladder 1 foot away from wall or support for every 4 foot of vertical height or at a 75 degree angle

Guide:

- stand with feet at base of ladder
- extend arms straight out
- hands should touch ladder
- close to 4:1pitch
Ladder set-up

• Never set up near power lines
Ladder Use

• Wear shoes with slip-resistant soles.
• Always have a 3-point contact when climbing a ladder (such as one hand and two feet).
• Never move, shift, or extend a ladder while on it.
• Do not exceed the ladders maximum load capacity.
• Climb only the rungs or steps and never the bracing.
• Don’t leave tools or materials on the top cap of step ladders.
Ladder Use

• Choose the correct ladder for the job
Ladder Use

• Always face the ladder when climbing – never turn away from the rungs or steps
Ladder Use

• Don’t lean out or stretch while on a ladder

• Follow the “belt buckle” rule – keep body centered between side rails don’t get belt buckle past side rails
Ladder Use

• Never carry tools or other material in-hand while climbing a ladder
Ladder Use

• Make sure legs are open and spreaders are locked
• Don’t use or work from a step ladder in the folded position
Ladder Use

- Only one person on a ladder at a time
- Never walk or work under a ladder
Ladder Use

- Never work from the top or top step of a step ladder or from any of the top 3 steps of a straight or extension ladder.
Ladder Use

• Never straddle a ladder.
Summary

• Various types of portable ladders and hazards associated with them
• What to look for when inspecting portable ladders
• Correct ways to set up portable ladders
• Safe work practices when using portable ladders
Indiana Department of Labor
INSafe

To request a free safety or health consultation contact us at:

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