



Ladder

Safety



Purpose

Ladders can present opportunities for unsafe acts & conditions

Everyone who uses ladders with OSBT needs to be trained in proper selection, inspection, use & storage to prevent accidents

Training

OSBT will provide training for each employee who uses ladders which enable employees to recognize hazards related to ladders & use proper procedures to minimize those

Should be competent in:

INSPECTION

Ladder Storage

Ladder set-up & importance
of stability

Safe Climbing Techniques

Electrical safety issues

Safe Transport of
Ladders



Responsibilities



- ❖ Provide technical support & consultation to departments of employees so they understand requirements & establish safe practices

- ❖ Provide ladder safety training to affected employees

- ❖ Maintain records of training

HSSE

- ❖ Ensure employees use the correct type, rating, & ANSI compliant ladder

- ❖ Contact HSSE with questions regarding compliance & safety procedures

Managers & Supervisors

- ❖ Ensure employees attend all required training

- ❖ Ensure proper safety equipment is supplies to their affected employees

- ❖ Ensure that designated employees perform documented portable ladder inspections

Partners

- ❖ Comply with all applicable OSHA workplace safety regulations & others outlines in this policy

Responsibilities



Employees

- ❖ Ensure all leaders meet OSHA guidelines & are ANSI compliant

- ❖ Comply with manufacturer instructions

- ❖ Document ladder inspections annually

- ❖ Report damaged ladders & tag them “out of service”

- ❖ Conduct visual inspection of ladders before each use

- ❖ Conduct an inspection checklist while checking out the ladder from storage

- ❖ Notify supervisor with questions about safety procedures, need for safety equipment, & difficulty complying with these requirements



General Requirements

ONLY OSHA APPROVED LADDERS ARE ALLOWED ON THE JOB

☐ Portable ladders must be placed on a substantial base with the area around the top & bottom of the ladder kept clean

☐ Side rails of ladders must extend at least 36 in. above the landing or grab rails will be provided

☐ Stepladders, straight, & extension ladders are to be tied or secured while in use
At least 1/2" thick & 6' in length should be applied to the top rung

☐ When using a ladder, be sure the area around the ladder is guarded
Rope off the area & place warning signs

☐ Place ladders at approximately a 75-degree angle
Place the bottom of the ladder 1 ft. back for every 4 ft. in height

☐ Straight & extension ladders require non-skid feet





General Requirements

DO

- ✓ Always face the ladder when climbing & keep hands free
- ✓ Remove damaged ladder from use when any unsafe condition is noticed
- ✓ Inspect all ladders & scaffolds before use & report any defects to your supervisor
- ✓ Clean your shoes of grease or any slippery materials before climbing the ladder or scaffold
- ✓ Use a fiberglass ladder instead of a metal one, if available
- ✓ Replace ladders with open or hollow rungs & display signs of excessive corrosion & wear must be replaced
- ✓ Inspect ladders on a regular basis & tag when beyond repair

DON'T

- X Stand on the top 3 rungs of a straight ladder without handholds unless protected by a safety belt
- X Place planks on the top of stepladders
- X Stand on the top 2 steps of a ladder
- X Paint or coat wooden ladders with dark coatings or colors as it may impair the inspection of the ladder
 - X Painted/ coated ladders cannot be properly inspected & should be removed from service
- X Tie ladders together to get more height to other support for which ladders were not intended
- X Use metal ladders within 4 feet of exposed live electrical parts
- X Use makeshift ladders or scaffolds

- ✓ Immediately remove damaged ladders from use when any unsafe condition is noted
- ✓ Maintain at least a 10 ft clearance from power lines
- ✓ Take any ladder out of service that has been dropped or exposed to fire or corrosive chemicals
- ✓ Use three-point contact when ascending/descending all ladders
- ✓ Use adequate warning devices to alert others to the presence of the ladder
- ✓ Place ladders on secure footing
- ✓ Tie off ladders at top & bottom if power tools are being used or work that could place stress on the ladder footing
- ✓ Only allow one person on the ladder at a time



- X Reach out more than an arm's length from a ladder
- X Use ladders with missing rungs, broken/split side rails, or other faulty/defective construction
- X Place ladders in the horizontal position or used as a platform, walkway, or scaffold
- X Use conductive or wet wood ladders for electrical work or around energized electrical equipment
- X Set up ladders where there is high foot/vehicle traffic or in front of doors or passageways, unless the door is locked, blocked, or guarded
- X Carry bulky or heavy objects up the ladder
- X Place ladders on boxes, barrels or other unstable objects



Ladder Rating & Storage

Storage

- ☐ Store ladders on sturdy hooks in areas where they cannot be damaged
- ☐ Store to prevent warping or sagging
- ☐ Do not hang things on ladders that are in stored conditions

Rating

I-A – 300 lbs. (heavy duty)
I – 250 lbs. (heavy duty)
II – 225 lbs. (medium duty)
III -- 200 lbs. (light duty)

Carrying a Ladder

- ❖ Balance the ladder on your shoulder
- ❖ Position so front end of ladder is above your head & back end is near the ground
- ❖ When ascending/descending stairs, carry the ladder with one hand & hold the stair rail with the other
- ❖ When it is necessary for 2 people to carry a ladder, both should be on the same side of the ladder & both people should walk in step
- ❖ Spikes, hooks, or ladder feet should face the rear when a ladder is being carried



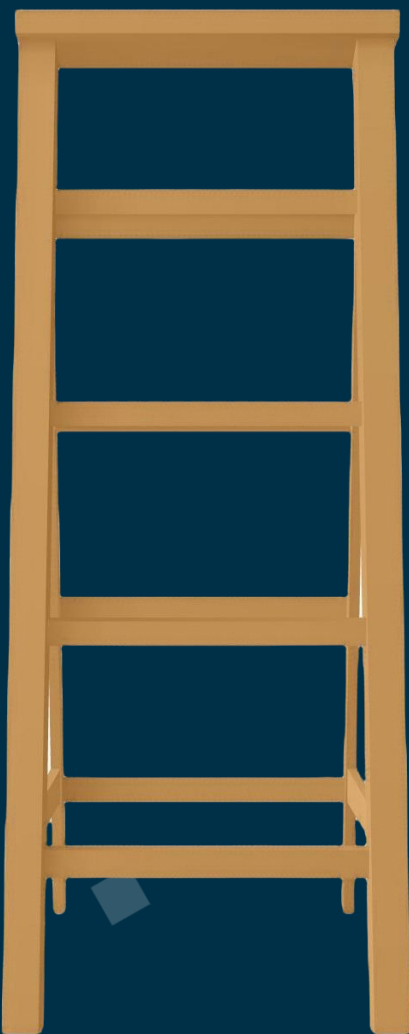
Standard Operating Procedures (SOPs)

Portable Ladders

Selection:

OSBT will NOT make their own ladders, only purchased ladders will be used

- ☐ All ladders will be rated for industrial use
- ☐ Parts used for ladder repair will be manufacturer supplied & approved
- ☐ All ladders used for electrical maintenance, installation, or around electrical wires or equipment will be nonconductive



Extension ladders:

Extension ladders will be 60 ft or less in height

Wood extension ladders will be 2 sections only

Ladders will have uniform step spacing (12in or less)

Min. width between the side rails at the top of the ladder will be 11 ½ in.

Minimum overlap between sections:

| Ladder Length | Overlap length |
|---------------|----------------|
| Up to 36 ft | 3 ft |
| Over 36 ft | 4 ft |
| Over 48 ft | 5 ft |



Standard Operating Procedures (SOPs)

Portable Ladders

Types & Dimensions:

Step Ladders

- ❖ Less than 20 ft in height
- ❖ Can only be used when fully opened & secured
- ❖ Spreader must be fully opened & secured
- ❖ Never stand on the top step



Straight Ladders

- ❖ Less than 30 ft in height
- ❖ Lean the ladder against a secure point that supports both rails
- ❖ When assessing a roof/platform, the ladder must extend at least 3 rungs above the platform elevation



Standard Operating Procedures (SOPs)

Fixed Ladders

Installation

- ❖ Cages or ladders will be provided for all ladders pf more than 20 ft.
- ❖ Max. unbroken length is 20 ft.
- ❖ Landing platforms are required for each 30 ft. of ladder height
 - ❖ If ladder cage/safety device is not provided, landings must be provided for each 30 ft.



Inspection & care

- ❖ Ladders, cage, & platform systems will be inspected daily
- ❖ Any questionable observation will result in the ladder being taken OOS until a qualified engineering professional can evaluate the equipment



Setting up a straight ladder

1 TRANSPORT LADDER HORIZONTALLY

2 PLACE THE BASE OF THE LADDER AGAINST THE BASE OF WALL OR BLOCK

3 RAISE THE LADDER STARTING AT THE TOP RUNG

4 RAISE THE LADDER TO VERTICAL POSITION

❖ HOLD W ONE HAND & GRASP LOWER RUNG W OTHER HAND

5 PULL THE BASE OF THE LADDER BACK UNTIL THE LADDER IS 75° RELATIVE TO THE BASE'S SUPPORT SURFACE



Setting up a step ladder



1 carry Ladder HORIZONTALLY

2 STAND THE Ladder UP VERTICALLY

3 STEP TO THE SIDE FACING THE Ladder

- ❖ REST THE Ladder ON THE MAIN rail feet
- ❖ GRASP THE MAIN rail W ONE HAND AND THE rear rail W THE OTHER HAND
- ❖ SPREAD THE rails apart

4 LOCK THE SIDE rail Tie Bar/Braces IN THE HORIZONTAL POSITION
SHOULD LOOK LIKE THE LETTER "A"



Ladder Hazards

Falls from ladders can result in broken bones or even death

Ladder safety is a lifesaving program



LADDERS WITH MISSING OR BROKEN PARTS

USING A LADDER WITH TOO LOW OF A WEIGHT RATING



USING A LADDER TOO SHORT FOR PURPOSE

USING METAL LADDERS NEAR ELECTRICAL WIRES



OBJECTS FALLING FROM LADDERS

USING LADDERS AS A WORKING PLATFORM



Falling

Reduce the chances of falling by:

- ❖ Wearing slip resistant shoes with heels & heavy soles to prevent foot fatigue
- ❖ Avoiding sudden movements by climbing slowly & deliberately
- ❖ Cleaning the soles of your shoes to maximize traction
- ❖ Keeping your belt buckle (stomach) between the ladder side rails or within in the width of the cleats
- ❖ Using toelines, tool belt, or an assistant to convey materials so hands are free
- ❖ Do not overreach or lean sideways while on the ladder



How long it takes to fall:

| Time (seconds) | Distance (feet) |
|----------------|-----------------|
| 0.5 | 4 |
| 1.0 | 16 |
| 1.5 | 36 |
| 2.0 | 64 |
| 2.5 | 100 |
| 3.0 | 144 |
| 4.0 | 256 |



Three Point-of-Contact Climb

Minimizes the chances of slipping or falling from the ladder by helping the climber continue their stability in the event one of their limb slips

During the ascent/descent...

☐ 1 foot & 2 hands

OR

☐ 2 feet & 1 hand

in contact with the ladder





Ladder Safety Devices

- ❖ NO cage or landing platform - protection is required
- ❖ INSPECTED prior to each use & FORMALLY INSPECTED ON SCHEDULE recommended by THE MANUFACTURER
- ❖ PRIOR TO ascending/descending a fixed ladder examine connections to assure THAT ladder is properly secured

Ladder Maintenance

- ❖ KEEP ladders clean
- ❖ NEVER replace broken parts unless PROVIDED BY ORIGINAL MANUFACTURER
- ❖ DO NOT ATTEMPT TO repair broken side rails
- ❖ KEEP ALL THREADED FASTENERS properly ADJUSTED
- ❖ REPLACE worn steps WITH parts FROM MANUFACTURER



Housekeeping

- ❖ TOOLS or MATERIALS SHOULD never be STORED in passageways
- ❖ WATCH WHERE CORDS & HOSES RUN
- ❖ MAKE a POINT TO IMMEDIATELY PICK UP OBSTACLES in passageways
 - ❖ EX - DEBRIS, FOOD, EQUIPMENT, etc.
- ❖ ANY OTHER TRIPPING HAZARDS SHOULD be Taken care of IMMEDIATELY
 - ❖ EX - CORDS, WIRES, LOOSE FLOORING, etc.



Ladder Inspection

Performed prior to each use

Damaged or defective ladders will NOT be used

They will be tagged as "DANGEROUS", & taken OOS & stored in a secure location pending repair

Ladder Inspection Checklist

☐ ANY RUNGS OR STEPS MISSING?

☐ ANY CRACKED, SPLIT, OR BROKEN
UPRIGHTS?

☐ ANY LOOSE NAILS, SCREWS, BOLTS, OR
OTHER MATERIAL?

☐ IS IT FREE FROM GREASE, OIL & SLIPPERY
MATERIAL?

☐ WHEN WAS YOUR LAST LADDER TRAINING?





Thank you for completing the Ladder Safety training!

**Please complete the [Ladder Safety quiz](#) to
receive credit for this module.**

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