City of San Angelo



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Worksite:	Instructor:	Date/Time:
		Bate/Time

## Topic C450: Ladders (Extension)

Introduction: Extension ladders are an indispensable and versatile piece of equipment used for reaching heights that cannot be reached by other ladders. However, unsafe use of extension ladders can lead to serious injuries. Each year, many workers are seriously injured when they fall from ladders. Follow these guidelines for the safe use of extension ladders.

- Ensure the slip-resistant D-rungs are clean. Remove all debris that has attached itself to the ribbing. Wipe off any oils, dirt, or accumulated materials that have attached themselves to the D-rung. Do this daily.
- Check the guides on the bottom of the fly section that securely interlock rails. Raise and lower extension to ensure the interlocking rails are functioning properly. There is a rail on each side of the ladder. Make sure they interlock simultaneously.
- Inspect the rugged gravity spring locks that keep the fly section locked into place. Look for cracks or damage.
- Check the extended pulley and rope system. Make sure the pulley is clean of debris. Check the rope for frays, loose strands, and any materials that may have attached themselves to the rope. Replace immediately if damaged.
- Make sure the rope clamp that ties the rope to the rung is secure and free of debris. Replace clamp if damaged.
- Inspect the rail shield and shoe bracket for damage. The shield and shoe brackets protect the rails and must be in ideal condition.
- The ladders shoe that keeps the ladder in position should be cleaned daily. After each movement of the ladder, make sure
  each shoe is in place with the slip-resistant pad and spur plate parallel to the ground or work surface. Cord-face ladder
  shoes are recommended for wet surfaces, rubber or neoprene ladder shoes for smooth dry floor surfaces, and steel spikes
  for ice and snow.
- Place the ladder securely, and tie it off, to prevent it from slipping.

**Note:** OSHA specifies that extension ladders shall not exceed 60 feet in length. Install positive stops on individual ladder sections to ensure the required overlap. If the ladder length is up to and including 36 feet, the overlap should be at least 3 feet. If the ladder is over 36 feet and through 48 feet, the overlap should be at least 4 feet. If the ladder is over 48 feet and through 60 feet, the overlap should be at least 5 feet. An overlapping section should not be less than 10% of the working length of the ladder.

- Angle the ladder properly. The base should extend not less than one-fourth the ladders length. The minimum slope should be 50 degrees. For example, if the ladder extends up 20 feet, it should extend out 5 feet.
- Protect the base of a tall occupied ladder, if it could be struck by vehicles or pedestrians.
- Never place a ladder in front of an unlocked, unguarded door.
- Never place a ladder on boxes, tables, or other moveable objects.
- To secure a ladder, nail or lash the ladder in place if it will be used repeatedly in the same spot.
- Ascending and descending Face the ladder at all times. Grasp the side rails with both hands.
- Attach light, compact tools to the ladder or to yourself. Always observe the 3 point rule when ascending or descending a ladder (keep 2 hands and 1 foot, or 1 hand and 2 feet in contact with the ladder at all times).
- Never over-reach while working from a ladder. Work with your body within the ladders side rails. Reposition ladder as needed to stay close to work.
- Make sure only one person stands on, or works from the ladder.
- Do not use metal ladders around electrical equipment and near power lines.
- Remove defective ladders from service.

Conclusion: OSHA regulations require specific ladder safety training. Employees who use ladders must be taught to recognize hazards relating to ladder use. Employees must understand the proper construction, appropriate selection, load limits, placement, care, and other restrictions in ladder handling. All employees must understand OSHA requirements and be retrained as necessary to maintain their understanding of safe ladder practices. Follow these guidelines for safe ladder use.

Employee Attendance:	(Names or signatures of personnel who are attending this meeting)			
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