LADDER INSPECTION AND MAINTENANCE

Reference:   NFPA 1001, 5.5.1  2008 Edition

Purpose:  The purpose of this skill is to ensure the firefighter familiarity with ladder inspection and maintenance. Regular and proper cleaning of ladders is more than a matter of appearance; dirt and debris from a fire may collect and harden, making the ladder inoperable. Ladders should be cleaned and inspected after each use. The inspection should cover all parts of the ladder. When a ladder shows excessive wear, the cause should be determined. Ladders should be inspected at least monthly. Regardless of the firefighters rank, each person should be overtly aware of the ladder and its components. This skill reinforces the importance of being completely familiar with ladders.

Performance Outcome:  The firefighter will inspect, and maintain a ladder. Most of this may be completed verbally as the ladder may not actually need cleaned but the firefighter should be aware of the steps to properly clean a ladder. Regardless, a thorough inspection of the ladder and its components should be completed by all personnel. There are no established timeframes for these evolutions. Once completed the ladder should be placed on the apparatus properly and ready for operation.

Notes: this evolution may be adjusted by the company officer to fit the need of his / her specific crew members.

Materials Required: Ladder(s)

Note: It is the discretion of the company officer what props and configuration are utilized for this company skill.

Critical Teaching Points:

1. Review the importance of taking care of our ladders by ensuring their readiness before they are needed.
2. Reinforce the need for complete familiarity with their ladder even with complete PPE on.
3. Remind firefighters to remain thorough at all times, and slowly inspect the ladder for any malfunctions, damage, or defects.
4. The evolution may be adjusted to meet the needs of the crew or to address any specific deficiencies that have been identified at the discretion of the company officer.

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1. Ensure that all personal protective equipment is appropriately donned and secure before starting the exercise.
2. Set up a proper work area that is away from traffic utilizing sawhorses if possible.
3. Gather all of the proper cleaning materials including soap and water.
4. Ladders should be placed flat on sawhorses in preparation for inspection.
5. Clean all of the parts of the ladder with a scrub brush and cleaning solution, removing any greasy residue with proper solvent.
6. The ladder should be rinsed thoroughly and dried with clean cloths.
7. The ladder should then be inspected.
8. Inspect each part of the ladder for the following:
   a. Looseness
   b. Cracks
   c. Dents
   d. Unusual Wear
   e. Bent Rungs or Beams
   f. Heat Damage, Deformities, or Change in the Sensor Label
9. Make sure all welds, rungs, rivets, and bolts are tight.
10. Look for signs of heat damage including blisters and discoloration.
11. Note any defect found and mark with grease pencil or other method to ensure accuracy.
12. Inspect the ladder halyard (extension ladders):
   a. Fraying or Kinking
   b. Snugness of Cable When in Bedded Position
13. Inspect all movable parts.
14. After the inspection, a silicone lubricant or wax should be applied to the ladder.
15. Replace the halyard if necessary.
16. Tag and remove from service any conditions that cannot be corrected with cleaning, inspection, and simple maintenance.
17. Report cleaning, inspection, and maintenance performed.