



TOLEDO FIRE & RESCUE DEPARTMENT



D-9 Ground Ladders

Maintenance Manual

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GROUND LADDERS

Ladder Types

- Aluminum Roof Ladders
- Aluminum Extension Two Section Ladders
- Aluminum Extension Three Section Ladders
- Aluminum Combination Ladders
- Aluminum Folding Ladders

Ground Ladder Loading

The total weight on the ground ladder, including persons, their equipment, and any other weight, such as a charged fire hose, shall not exceed the duty rating load given in the table below:

MAXIMUM LOAD

Ladder Type	Maximum Weight Load
Folding Ladders	350 lbs.
Single and Roof Ladders	750 lbs.
All Extension Ladders	750 lbs.
Combination Ladders (Dinky)	750 lbs.

The design criterion assumes the weight of a firefighter with protective clothing, SCBA, and equipment to be 250 lbs. Ladders rated for 350 lbs. or less are designed for **one** person. Ladders rated for 750 lbs. are designed for a maximum of **three** persons on the ladder at any time. On a three-person ladder, no more than two persons should be grouped together, such as a rescuer and a victim.

General Maintenance

Ladders should be cleaned with soap and water, taking care to flush the inside of the rungs and pawl assemblies to remove debris, road salt, etc. Use caution near the labels so as to not remove the outer label coating. On extension ladders, paraffin wax or candle wax can be applied to the friction (slide) areas to lubricate the contact areas. This shall be done on every tool day.

Visual Inspection

After every use and on tool day, a visual inspection should be performed. Ground ladders must pass the inspections and tests listed in this section, for use. If the equipment fails to meet any of the inspections or tests, the condition must be corrected before using the equipment. Any deficit in the function of any component of the ground ladders will necessitate that ladder's removal from service. The Battalion Chief shall be notified and the faulty ladder taken to the Fire Maintenance Bureau with an [Equipment Repair form 300-15](#).

A visual inspection shall include, but not be limited to, the following:

- Check heat sensor labels for a color change indicating heat exposure. If there is a color change or if the expiration date on the heat sensor label is past due, the ladder should be removed from service and taken to the Maintenance Bureau to be checked and the labels to be updated.
- Check all rungs for tightness
- Check all bolts and rivets for tightness
- Check welds for any cracks or apparent defects Check beams and rungs for cracks, breaks, gouges, checks, wavy conditions, or deformation.
- Check butt spurs for excessive wear or other defects
- Check halyards for fraying or kinking
- Check roof hooks for sharpness and proper operation
- Check rungs for punctures, wavy conditions, worn serration or deformation
- Check surface corrosion
- Check proper operation of the pawl assemblies

- Check wire rope on 3 section ladders for snugness when the ladder is in the bedded position to ensure proper synchronization of upper sections during operation.

Any signs of damage or defect during a visual inspection shall be cause to remove the ground ladder from service. Scratches and minor dents shall not be cause to remove a ladder from service if there are no problems as listed above.

Required Service Testing

All ground ladders should be service tested by the Fire Maintenance Bureau any time the following conditions exist:

- When a ladder is suspected of being unsafe.
- After the ground ladder has been exposed or is suspected of being exposed to direct flame contact.
- Whenever the heat sensor label has changed color to indicate heat exposure.
- When the ladder has been subjected to overloading, impact loading or unusual conditions of use.
- Annually.

If service testing is required, the Officer on duty should notify his Battalion Chief and the Fire Maintenance Bureau.

See Also:

Permanent link:

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