



## **Minimum Equipment on Engines/Pumpers from NFPA 1901 2009**

### **Chapter 5 Pumper Fire Apparatus**

Fire Pump - a minimum rated capacity of 750 gpm

#### **Pumper with an Aerial Device**

If the pumper is equipped with an aerial device, then these apply.

1. The aerial device shall meet the requirements of NFPA 1901 Chapter 19.
2. If the aerial device is equipped with a permanently mounted waterway, the fire pump shall be capable of supplying the flow requirements of NFPA 1901 Chapter 19.6.1, 19.12.1, or 19.16.1 with a maximum intake gauge pressure of 20 psi.
3. Ensure that the pump operator is not in contact with the ground.
4. Signs shall be placed to warn the pump operator of electrocution hazards.
5. Four ladder belts meeting the requirements of NFPA 1983.

#### **On Board Water Tank**

The pumper shall be equipped with a water tank(s) that meets the requirements of NFPA 1901 Chapter 18 and that has a minimum certified capacity (combined, if applicable) of 300 gallons.

#### **Tools and Equipment Storage**

A minimum of 40 cubic feet of enclosed weather-resistant compartmentation that meets the requirements of NFPA 1901 section 15.1 shall be provided for the storage of equipment.

#### **Hose Storage**

Hose bed area(s), compartments, or reels that comply with NFPA 1901 section 15.10 shall be provided to accommodate the following:

1. A minimum hose storage area of 30 cubic feet for 2.5 in. or larger fire hose
2. Two areas, each a minimum of 3.5 cubic feet, to accommodate 1.5 in. or larger preconnected fire hose lines

#### **Tools and Equipment Supplied by the Contractor**

The contractor shall supply the equipment listed below and shall provide and install such brackets or compartments as are necessary to mount the equipment.

### **Ground Ladders**

All ground ladders carried shall meet NFPA 1931. At a minimum, the following ladders shall be carried on the apparatus:

1. One straight ladder equipped with roof hooks
2. One extension ladder
3. One attic ladder

Stepladders and other types of multipurpose ladders meeting ANSI A14.2, Ladders - Portable Metal - Safety Requirements, or ANSI A14.5, Ladders - Portable Reinforced Plastic - Safety Requirements, with duty ratings of Type 1A or 1AA shall be permitted to be substituted for the folding ladder required in 5.7.1.2(3).

Stepladders and other types of multipurpose ladders shall be permitted to be carried in addition to the minimum fire department ground ladders specified in 5.7.1.2 provided they meet either ANSI A14.2 or ANSI A14.5 with duty ratings of Type 1A or 1AA.

### **Suction and Supply Hose**

- A minimum of 20 ft of suction hose or 15 ft of supply hose shall be carried. If hard suction hose is provided, a suction strainer shall be furnished and the friction and entrance loss of the combination suction hose and strainer shall not exceed the losses listed in NFPA 1901.
- If soft suction hose is provided, it shall have couplings compatible with the local hydrant outlet connection on one end and the pump intake connection on the other end and suction hose shall meet the requirements of NFPA 1961, Standard on Fire Hose.
- The Fire Department shall specify whether hard or soft suction hose is to be provided, the length and size of the hose, the type and size of the couplings, the manner in which the suction hose is to be carried on the apparatus, and the style of brackets desired.

### **Minor Tools and Equipment**

The following equipment items shall be available on the pumper fire apparatus before the apparatus is placed in service.

- Brackets or compartments shall be furnished so as to organize and mount the specified equipment.
- A detailed list of who is to furnish the items and the method for organizing and mounting these items shall be supplied by the purchasing authority.

### **Fire Hose and Nozzles**

1. 800 ft of 2.5 in. or larger fire hose
2. 400 ft of 1.5 in., 1.75, or 2 in. fire hose

3. One handline nozzle, 200 gpm/min minimum
4. Two handline nozzle, 95 gpm/min minimum
5. One playpipe, with shutoff and 1 in., 1 1/8 in., and 1 1/4 in. tips

### **Miscellaneous Equipment**

1. One 6 lb flathead axe mounted in a bracket fastened to the apparatus
2. One 6 lb pickhead axe mounted in a bracket fastened to the apparatus
3. One 6 ft pike pole or plaster hook mounted in a bracket fastened to the apparatus
4. One 8 ft or longer pike pole mounted in a bracket fastened to the apparatus
5. Two portable hand lights mounted in brackets fastened to the apparatus
6. One approved dry chemical portable fire extinguisher with a minimum 80-B:C rating mounted in a bracket fastened to the apparatus
7. One 2 gal or larger water extinguisher mounted in a bracket fastened to the apparatus
8. One self-contained breathing apparatus (SCBA) complying with NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire and Emergency Services, for each assigned seating position, but not fewer than four, mounted in brackets fastened to the apparatus or stored in containers supplied by the SCBA manufacturer
9. One spare SCBA cylinder for each SCBA carried, each mounted in a bracket fastened to the apparatus or stored in a specially designed storage space
10. One first aid kit
11. Four combination spanner wrenches mounted in brackets fastened to the apparatus
12. Two hydrant wrenches mounted in brackets fastened to the apparatus
13. One double female 2.5 in. adapter with National Hose threads, mounted in a bracket fastened to the apparatus
14. One double male 2.5 in. adapter with National Hose threads, mounted in a bracket fastened to the apparatus
15. One rubber mallet, suitable for use on suction hose connections, mounted in a bracket fastened to the apparatus
16. Two salvage covers each a minimum size of 12 ft x 14 ft
17. Two wheel chocks, mounted in readily accessible locations, each designed to hold the apparatus, when loaded to its maximum in-service weight, on a 20 percent grade with the transmission in neutral and the parking brake released
18. One traffic vest for each seating position, each vest to comply with ANSI/ISEA 207, Standard for High-Visibility Public Safety Vests, and have a five-point breakaway feature that includes two at the shoulders, two at the sides, and one at the front
19. Five fluorescent orange traffic cones not less than 28 in. in height, each equipped with a 6 in. retroreflective white band no more than 4 in. from the

- top of the cone, and an additional 4 in. retroreflective white band 2 in. below the 6 in. band
20. Five illuminated warning devices such as highway flares, unless the five fluorescent orange traffic cones have illuminating capabilities
  21. One automatic external defibrillator (AED)

If the supply hose carried does not use sexless couplings, an additional double female adapter and double male adapter, sized to fit the supply hose carried, shall be carried mounted in brackets fastened to the apparatus.

If none of the pump intakes are valved, a hose appliance that is equipped with one or more gated intakes with female swivel connection(s) compatible with the supply hose used on one side and a swivel connection with pump intake threads on the other side shall be carried. Any intake connection larger than 3 in. shall include a pressure relief device that meets the requirements of 16.6.6.

If the pumper is equipped with an aerial device with a permanently mounted ladder, four ladder belts meeting the requirements of NFPA 1983, *Standard on Life Safety Rope and Equipment for Emergency Services*, shall be provided.

If the apparatus does not have a 2 in. intake with NH threads, an adapter from 2 in. NH female to a pump intake shall be carried, mounted in a bracket fastened to the apparatus if not already mounted directly to the intake.

If the supply hose carried has other than 2 in. NH threads, adapters shall be carried to allow feeding the supply hose from a 2 in. NH thread male discharge and to allow the hose to connect to a 2 in. NH female intake, mounted in brackets fastened to the apparatus if not already mounted directly to the discharge or intake.