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FIRE PROTECTION HISTORY-PART 94: 1914 (AUTOMOBILE FIRE APPARATUS)

By Richard Schulte

Among the various committees presenting Committee Reports at the eighteenth Annual Meeting of the National Fire Protection Association (held in Chicago in May 1914) was the Committee on Automobile Fire Apparatus chaired by George W. Booth. The following are excerpts from this Committee Report:

"*CONSTRUCTION.*

Carrying Capacity. – The apparatus must be so constructed as to carry at least 1,000 feet of 2-1/2 inch hose, the weight of the pump and all equipment, and 8 men over any or all roads that are passable for a 700-gallon steam fire engine drawn by three horses, without injury to the apparatus.

[TEXT OMITTED]

Gasolene Motor. – To be capable of propelling said apparatus at a speed of 30 miles an hour, and of covering 20 consecutive miles in an hour over paved or macadamized streets having such grades as the apparatus is likely to encounter in service, when carrying the maximum load, without showing loss of power or over-heating when propelling apparatus. Guaranteed to run not less than three (3) hours continuously when pumping at rated capacity without showing loss of power or overheating, and to perform the work hereinafter mentioned.

[TEXT OMITTED]

Body.– Steel preferred, but bidder may bid on wooden body, made of thoroughly seasoned hardwood, thoroughly reinforced with iron at corners; bottom of hardwood slats in removable parts or sections; friction rollers at the rear and on each side. Capacity of body to be not less than I,000 feet of 2-1/2 inch hose, with center partition so that two lines can be laid at once. Hand rail of 1 inch or larger heavy brass pipe to extend along each side at least 4 inches above the body, continuing to and securely fastened to the rear step; to have at least 4 brass stanchions on each side to hold hand rail securely in place. There should also be suitable brackets and fittings to carry equipment hereinafter specified.

[TEXT OMITTED]

FIRE PUMP.

To be a piston, centrifugal or rotary pump, capable of delivering at least 700 gallons of water per minute against a net pump pressure of 120 pounds; it must be capable of delivering 50 per cent of above quantity against a net pump pressure of at least 200 pounds. Pump must be able to deliver rated capacity with a 10-foot lift, and to take suction with a lift of 18 feet on dry pump.

[TEXT OMITTED]

FINISH AND TEST.

[TEXT OMITTED]

*Test. – Pump and engine shall be tested within ten (10) days after delivery for a continuous period of three hours, during which it shall operate without undue heating or showing loss of power. The test shall consist of pumping full capacity of 700** gallons a minute against a net pump pressure of 120 pounds, with a suction lift of at least 10 feet, for a period of two hours, and pumping 50 per cent of capacity against a net pump pressure of 200 pounds for a period of one hour. *** All tests to be made under the supervision of the National Board of Fire Underwriters. Such other reasonable tests shall be made as directed by the Board of . . . . . and the Chief of the Fire Department.*"

There are a number of references which are of interest in the excerpt above. First, is the reference to a horse-drawn "*steam fire engine*". Second, is the reference to the various types of pumps permitted, piston, rotary or centrifugal pumps, and third is the minimum required pump rating, 700 gpm at 120 psi, with the capability to discharge 350 gpm at 200 psi.

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Source: "Proceedings of the Eighteenth Annual [NFPA] Meeting", Chicago, 1914.