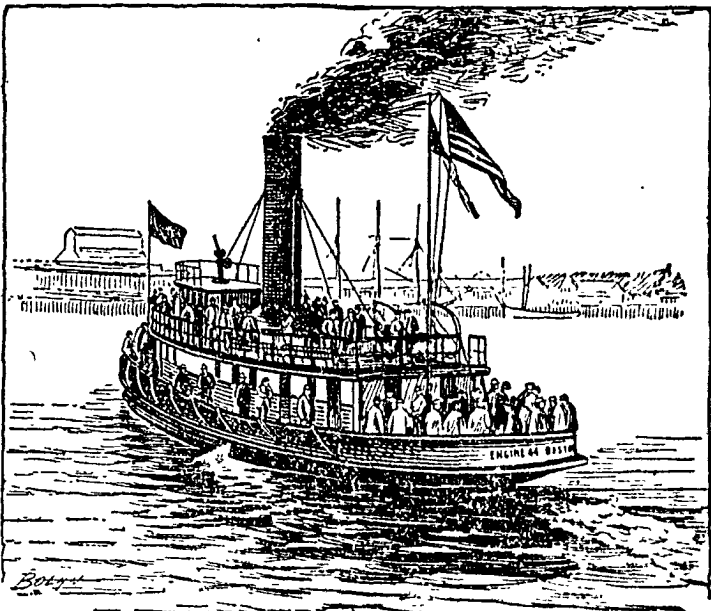


ENGINE 44 A WONDER.



NEW FIRE BOAT BOSTON.

Fire boat 44, the latest addition to the Boston fire department, companion to engine 31, ran the gauntlet of official inspection and official criticism yesterday. In other words, she was put to the severest sort of a trial at the hands of Capt Healy, her new commander, and under the critical scrutiny of commissioner Russell and ex commissioners Fitch and Innes, together with Capt William Brophy and a score of other fire department experts.

The trial was made by invitation of John M. Brooks, the builder of the boat, and it is simple justice to him to say that from start to finish it was a perfect success.

Ten was the hour appointed for the start, but it was a quarter of an hour later before she left her moorings at East Boston and made across the harbor to India wharf to pick up such of her guests as had not already got on board for the initial trip.

Weather, wind and water were all that could be desired, and the prediction of the builders concerning the speed, pumps and engines of Boston's newest fire-fighting machine were fulfilled to the letter.

Two trips were made, the first, which gave a thorough and satisfactory test of her speed and the working of her engines, lasting from 10.15 until 2, and the latter, which was by far the more complete, from 2.10 until 6.30.

To sum up the particulars of the day's work it may be said that the boat developed a speed which was estimated to be 13 1/2 knots an hour, and her pumps discharged 6000 gallons a minute through 3 1/2 and 3 3/4-inch nozzles. They were very powerful streams. Another point of special importance noted by the expert, who made a record of the trial in all its details, was that the propelling engines ran with the utmost smoothness, and that the vibration, even when put to the severest test, was very slight.

It will take a day or two for Mr Brackett, experimental engineer in the city engineer's department, who, by invitation of commissioner Russell and the contractor, made the tests, to figure out the accurate results, but, in a general way, it can be authoritatively stated that the new fire boat meets all requirements, is satisfactory to the fire commissioner as well as to the contractor, and will therefore go into commission at short notice, possibly within a fortnight.

The hull of the boat is of wood, length 110 feet overall, breadth of beam 26 feet over plank, depth of hold from top of

ceiling to top of deck beam, on frame 3, 10 feet, draft eight feet six inches. The keel is of white oak, and the planking is also white oak, three inches thick at gunwale. The filling between the frames for protection against ice extends from 30 inches below load water-line to 15 inches above.

The engines are of vertical inverted cylinder, direct acting compound type. The high pressure cylinder is 18 inches diameter, low pressure 36 inches diameter and 24 inches stroke, and both are proportioned for a piston speed of 540 feet per minute.

There are two boilers, built for a working pressure of 120 pounds per square inch; two vertical fly-wheel duplex fire pumps, double acting, with steam cast iron cylinders of the compound type.

The suction piping of pumps is common to both, and connected with the sea at each side of the vessel.

The towers are made of composition throughout, and each is operated by handwheels, giving a universal movement. The two forward towers are provided with four-inch smooth nozzles, and the one on the pilot house with a three-inch smooth nozzle.

The high pressure cylinder of the pumps must stand a working pressure of 120 pounds per square inch, the low pressure cylinders 10 pounds and the pump cylinders a working pressure of 220 pounds. In regular work the pumps will be run with a steam pressure of 95 pounds and a pump pressure of 175 pounds; under these conditions each pump must discharge at least 2000 gallons per minute, and be capable of delivering 25 tons of water per minute at an elevation of 250 feet.

This is precisely the test to which the pumps were put yesterday, and it was estimated that they met the requirement to the letter.

When the boat left India wharf for the morning trip the course marked out and followed was straight down the harbor, past the lower middle, through the main ship channel, past Bug light and clear out to sea as far as the lightship, around the lightship and back at full speed, 13 1/2 knots, past Boston light, sighting Minots, into Presidents roads, along the East Boston shore, around by the navy yard, finally tying up once more at India wharf to receive the other distinguished guests, notably the new fire commissioner, Col Russell, Aldermen Flood and Lee and Pres O'Brien of the common council.

No sooner had engine 44 swung out from her moorings in East Boston, at the very beginning of her cruise, than she was saluted by a score of tugs, steam yachts and other craft, and so it was, all day until it seemed as though everything in Boston harbor having a

steam whistle, from the smallest tug to the ocean greyhound, voiced a clarion-throated welcome to the new arrival. Loudest and most piercing of all was the fire boat itself, whose big steam siren and companion whistle kept up an incessant "alarm" in response to each and every salutation.

This fact alone, though unquestionably necessitated and altogether proper on the score of courtesy, was an exceedingly disagreeable, and to us agree a positively painful feature of the day's sail, giving all hands an exasperation and forcing a shudder at every salutation.

The only excitable incident of any description on board the fire boat occurred on the trip down the harbor in the forenoon, and though it was soon over, and really amounted to very little, that little was sufficient to send a thrill of apprehension through the entire company.

It so happened that just after passing Bug light one of the turnbuckles of the steering gear on the pilot side worked loose, and for a few moments the boat was beyond control. The iron tiller was promptly brought out, but it failed to work satisfactorily, and the boat itself came within an ace of running her nose straight against the side of one of the scows which are at work dredging for the new foundations for Bug light.

It took just five minutes to discover the fault in the machinery and remedy it, and once more the engines were under way, and the boat swung out through the ship channel, with head pointed for the lightship, five or six miles farther on to sea.

Her speed, when up to the time of reaching Bug light had been rather moderate, was gradually increased, so that by the time she passed the lightship she was making fully 10 knots, and tossing the water off her sides like an ocean greyhound.

The return trip was made without incident of any description, aside from the salutations of passing ships and the fact that the fire boat was put to her highest speed.

So it was in regard to the afternoon trip, so far as the sail itself was concerned; but the trial of the pumps from 3 until 6 at the wharf of the Vigilant on Galloups Island was a variation, and went far to show the genuine fighting qualities of Boston's new boat.

It was nearly 7 when engine 44 tied up for the last time alongside her elder sister, engine 31, at India wharf, having satisfied her most exacting critics on the score of her fire fighting and speed qualifications, and having added fresh laurels to those already worn by her designer and builders.

Among the gentlemen on board the new boat, who witnessed her maiden effort, were:

Fire Commissioner Henry S Russell, ex Fire Commissioners Fitch and Innes, Chief Webber, Aldermen Lee, Flood, Witt and Bryant, Pres O'Brien of the common council, Capt Bragdon of the harbor police, Capt L. E. Jenkins of East Boston, ex captain of the fire department, George Warren; Capt William Brophy, Chief Hopkins of Somerville, ex Chief Charles Worth of Haverhill, ex superintendent Geo. Williams of Pittsfield, clerk-in-charge J. G. Splaine of Pittsburg, Councilmen M. Carthy and Roche and G. W. Smith, ex Alderman Wooley, superintendent Morris W. Meade of Pittsburg and Assistant City Messenger Osborne, together with the contractor and builder and the various sub-contractors of the boat, also Miss Webber, Mrs Ryan, wife of District Chief Ryan; Mrs Taylor and Miss Hunt as guests of Chief Webber.

The estimated cost of the new fire boat, all complete, is a trifle less than \$50,000, the sum of the appropriation.