

SPECIFICATIONS FOR ONE STEAM FERRY BOAT.

N^o 261

General Dimensions.

Length over fenders -----82 ft. 8 in. 112'

Breadth over fenders -----25 ft. 31' Moulded 30'

Draft, about-----6 ft. 6' 3"

Hull and fittings. The hull to be of merchantible open hearth steel; the scantlings and details to be in accordance with the general arrangement and midship section plans appended hereto; all parts to be well and strongly proportioned, and all fastenings to be in accordance with the best practice.

False Keel. To be steel, as indicated in plans, of ample section to take the weight of the boat in docking, or of wood with suitable fastenings to insure against leakage.

Deck beams. To be located on every frame.

Shell plating. To be as shown, but to be doubled or thickened up at ends sufficient for service under all conditions of ice, etc., in the harbor of Newport.

Stanchions. To be of pipe, with ends flattened for riveting or of angle bar of suitable section.

Deck to be of Oregon pine, as indicated, of well seasoned material, thoroughly caulked. Driveways to be covered with hard wood as shown.

House sills to be of yellow pine, stanchions of oak, with finish as indicated. Sash to be of mahogany with plate glass, and spring balanced. Deck house to be covered with canvass.

Fenders to be of oak, as shown, carefully fitted and securely fastened; to be covered with a band of iron or steel as indicated.

Chain gates to be fitted at each end of the vessel, with grab rods to be fitted on each side of the house extending the length of same, in accordance with usual practice.

The machinery spaces to be arranged so as to provide ample room, with all light and ventilation required for satisfactory operation of machinery. Non-conducting material to be fitted wherever necessary to protect any portion of the vessel from excessive heat.

The pilot houses to be of ample size with room for necessary appliances and connections.

Steering gear to be well proportioned and designed throughout, and to be of a tried and satisfactory type.

Fire system. To be connected with pumps as specified below with outlets as generally indicated on plan, including one universal stand pipe having five nozzle tips from 1½" to 2½" arranged so that it can be operated from the upper deck; also outlets for four lines of 2½" hose connections with fire hydrant, 100 ft. standard fire hose, nozzle, spanners, etc., for each connection.

Painting. All steel and wood work to be covered with the usual number of coats of paint or varnish, not less than two in any part, for preservation, suitable material of best quality to be used in each case, and the exterior and interior to be finally finished as indicated on plans or as may be necessary to provide a satisfactory appearance for the service intended.

Electric plant. The vessel to be supplied with an electric generating set of commercial type and voltage, with capacity for not less than 50 16 C. P. lights; necessary spares and appurtenances to be provided, and the vessel to be properly wired, with satisfactory distribution of lights, including connection for running lights.

Machinery, including fire pumps, etc.

Machinery.

One fore and aft compound condensing engine, cylinders 7" and 14" stroke 9". All running parts to be self oiling. The type to be as shown on print 99-56.

(Two) One Herrshoff patent water tube boiler of ample size, the type to be as shown on print 43-42.

One inside condenser of the type shown on tracing 56-12.

One combined air and feed pump with steam cylinder 5½" diameter, air cylinder 6½" diameter, and water cylinder 2¾" diameter, with stroke of 4½"

(Two) One auxiliary feed pump with steam cylinder 5" diameter, water cylinder 3" diameter, and stroke of 3½"

One circulating and bilge pump, with steam cylinder 4" diameter, water cylinder 4" diameter, and stroke 6". This pump to be fitted for circulating water when the vessel is not running, when the vessel is running the circulation to be made by external scoops. This pump to have a bilge suction and overboard and deck deliveries.

There will be one bilge ejector for general use.

One duplex double acting vertical steam fire pump, as shown on print 05054, built by the American Fire Engine Co. steam cylinders 10" diameter, water cylinders 6" diameter, stroke 9".

Propellers to be of bronze.

The cabins, pilot house and crew's quarters to be heated by steam.

The engine and fire rooms to be fitted with checkered, or ribbed steel floor plates.

All the above to be installed in the best manner customary with the Contractors, and to be complete in all respects with steam, exhaust, fresh and salt water pipe connections, valves, fittings, gauges, whistle, and engine room telegraph.

All material and workmanship to be of the best quality for machinery of this type.

Outfit, spares, etc. The following will be supplied and delivered with the boat, and in addition thereto all necessary fittings about decks, machinery spaces, cabin spaces, etc., essential to the proper handling of the vessel and all its parts.

Hull and equipment. Will include two 14' boats; 120 life preservers, one anchor with cable, necessary warps, lines, blocks, buoys, running lights, lamps, bell, and all other articles which may be reasonably required under the steam boat inspection laws for similar craft.

Machinery spares and tools. Wrenches, tools and spare parts, customarily furnished by the Contractors for vessels of this class will be supplied. Suitable racks will be fitted for the wrenches, and spares will be properly stored.

Time of Construction. To be completed, ready for delivery within 4½ months from date of contract.

Materials. All material and workmanship to be of the best quality usual in vessels for service similar to that intended.

Inspection. Inspection of material and workmanship to be made, by representatives of the Bureaus, as may be considered necessary.

Workmanship and Guarantees. The character of workmanship and the performance of machinery, and all auxiliaries, to be guaranteed by the builder for six months after delivery of the vessel to the Government.

Speed Trials. Trial tests to be made in Narragansett Bay, in the presence of such officers as may be designated by the Department upon such trial, the boat will be required to maintain a maximum speed of not less than $8\frac{1}{2}$ knots for two consecutive hours, and to show satisfactory maneuvering qualities, stability and suitability in every way for service as a ferry and fire boat at the Torpedo Station, Newport, R. I., all expense of trials to be borne by the contractors.

The maximum draft with crew, coal, water and stores aboard sufficient for the two hours trial shall not exceed 6 ft. and the minimum freeboard under same conditions shall be not less than 3 ft.