

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rec 12/8/78

Description *Inverted, Compound, Surface Condensing.*  
 Made by *North Eastern Marine Engineering Co.*  
 When *1871* At *Sunderland.*  
 Diameter of cylinder *29½ x 58½* Length of stroke *33.*  
 No. of revolutions per minute *60*  
 Point of cut off *½ stroke.*  
 Diameter of screw shaft *9½.*  
 Diameter of crank shaft journals *9½.*  
 Diameter of screw, or of paddle wheel *13.6*  
 Pitch of screw *15 ft.*  
 No. of blades, *4* Total surface *60 sq. feet.*  
 No. of bilge pumps *2* and sizes *3½ dia. x 33 stroke.*  
 Do they pump from each compartment *yes.*

Are all the bilge suction pipes fitted with roses *yes.*  
 No. of feed pumps *2* and sizes *3½ x 33 stroke.*  
 What gauges are there attached to the engines and boilers ... *1 steam gauge on each boiler & 1 common to both. 1 Compound & 1 vacuum.*  
 Description and size of Donkey Pumps ... *Large inverted double acting 6 x 10 stroke & Small " " " 4 x 6 "*  
 Where do they pump from ... *The large one from Tanks, Condenser & bilge of engine room, for hold & aft well. Small one from same places & holdwell.*  
 No. of bilge injections *one* and sizes *4" diameter.*  
 Are they connected to air, or circulating pumps *to circulating*  
 Is there a hand pump in the engine room *none.*  
 Can it be worked by the main engines *no.*  
 Is there a deck hose of sufficient length to reach to any part of the vessel *yes (from iron pipe)*

### MAIN BOILERS.

Number *Two.* Description *Cylindrical & Multitubular fired from each end*  
 Made by *North Eastern Marine Engineering Co.*  
 When *July 1878* At *Sunderland.*  
 Working pressure *75 lbs per sq. inch*  
 Tested by hydraulic pressure to *150 lbs*, Date *Feb 2/78*  
 Description of super-heating apparatus *none.*  
 Can each boiler be worked separately *yes.*

Can the super-heater be shut off and the boilers worked separately  
 Description and area of safety valves on each boiler *Adams' spring safety valves 2 off. 4 dia. = 25 sq. in. Area*  
 No. of square feet of fire-grate surface in each boiler *42½*  
 Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *yes.*  
 Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times. *yes (except rose in fore hold when full)*

### DONKEY BOILER. by Meath Quay Engine Co.

Description *Upright Cylindrical, with Cross tubes.*  
 Where fixed *in the stokehold.*  
 Working pressure *70 lbs.*

Tested by hydraulic pressure to *146 lbs*, Date *May 5/78*  
 Description and area of safety valves *1 spring 3 dia. = 7 sq. in. 1 lever & weight 2 = 10.1 Area*  
 No. of square feet of fire grate *20.*

### PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *yes.*  
 Are they Kingston valves or common cocks ... *stop valves & Cocks.*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *yes.*  
 Are the discharge pipes above or below the deep water line *below*  
 Are they each fitted with a discharge valve on the plating of the vessel *yes.*

What pipes are carried through the bunkers *none*  
 How are they protected  
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *July 1878.*  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *yes.*  
 Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *sluice door fitted. the tunnel is not watertight.*

Pro N. E. M. Eng. Co. (Ld) Manufacturer. *Wm. Allan* Except of the Donkey Boiler.

I hereby certify that the whole of the above are correct particulars of the Machinery and Boilers of the Iron (or Wood) Screw (or Paddle) Steam Vessel *"Kingston"* owned by *Commercial Steamship Co. Ltd.* of the Port of *London* of *930* Tons Register, and *130* Registered Horse Power, and that they have been carefully inspected and examined by me at *Sunderland* and found to be at this date, viz., *July 31st* 1878 in good order and safe working condition.

Amount of Fee for Survey ... £  
 (Travelling Expenses, if any, £)

*William Allison.*  
 Engineer Surveyor to Lloyd's Register of Shipping.  
*Sunderland.*