

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Two Cylinder compound inverted*
 Made by *J. Math & Co*
 When *1873* At *Birmingham*
 Diameter of cylinders *60" and 45"* Length of stroke *48"*
 No. of revolutions per minute *45*
 Point of cut off *1/2 stroke*
 Diameter of screw shaft *14"*
 Diameter of crank shaft journals *14 1/2"*
 Diameter of screw, or paddle wheel *17'-9"*
 Pitch of screw *25'-0"*
 No. of blades, *(14)* Total surface *91 sq feet*
 No. of bilge pumps *(11)* and sizes *3 1/2" dia 48" stroke*
 Do they pump from each compartment *Engine room & stoke hold*

Are all the bilge suction pipes fitted with roses *Yes.*
 No. of feed pumps *(11)* and sizes *3 1/2" dia, 48" stroke*
 What gauges are there attached to the engines and boilers ... *1 Atom on each Boiler in stoke hold, 1 50 in Engine Room, 1 Vacuum, 1 Barometer & 1 Compound*
 Description and size of Donkey Pumps ... *one vertical double action 4" dia 12" stroke, one ditto 2" dia 12" stroke, one horizontal " " 8" dia 12" stroke*
 Where do they pump from ... *one sea and hold, one sea and engine room, one sea and all compartments*
 No. of bilge injections *(11)* and sizes *9 1/8"*
 Are they connected to air, or circulating pumps *circulating*
 Is there a hand pump in the engine room *Yes.*
 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.*

MAIN BOILERS.

Number *(3)* Description *Cylindrical horizontal*
 Made by *J. Math & Co*
 When *1873* At *Birmingham*
 Working pressure *54 lbs per sq inch*
 Tested by hydraulic pressure to *not ascertained*, Date *1873*
 Description of super-heating apparatus *Two cylindrical*
 Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately *No.*
 Description and area of safety valves on each boiler ... *2 dead weight each 5 1/2" dia, area 47.5 sq inches*
 No. of square feet of fire-grate surface in each boiler *90.*
 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.*

DONKEY BOILER.

Description *Vertical cylindrical*
 Where fixed *Main Deck*
 Working pressure *42 lbs per sq inch*

Tested by hydraulic pressure to *not ascertained*, Date *1873*
 Description and area of safety valves *1 dead weight 3" dia 7.0 sq inches*
 No. of square feet of fire grate *14.0*

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 ... *3 Kingston valves rest common - cocks*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *No*
 Are the discharge pipes above or below the deep water line *Bilge discharge above, rest below*
 Are they each fitted with a discharge valve on the plating of the vessel *Yes*

What pipes are carried through the bunkers *Bilge suction pipes*
 How are they protected *by 4" wood planks*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *8th August 1876*
 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 *Yes.*

Manufacturer.

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 *Seine* owned by *Telegraph Construction & Maintenance Corp* of the Port of *London* of *2243* Tons Register, and *500* Registered Horse Power, and that they have been carefully inspected and examined by me at *London & Greenwich* and found to be at this date, viz., *26th Sept 1876* in good order and safe working condition.

G. W. Marnell
 Engineer Surveyor to Lloyd's Register of Shipping.