

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Compound Inverted*
 Made by *Richardson Sons & Co*
 When *1871* At *Hartlepool*
 Diameter of cylinder *29 x 50* Length of stroke *33*
 No. of revolutions per minute
 Point of cut off
 Diameter of screw shaft *8"*
 Diameter of crank shaft journals *8"*
 Diameter of screw, or of paddle wheel *not ascertained*
 Pitch of screw *Do*
 No. of blades, *4* Total surface *Do*
 No. of bilge pumps *2* and sizes *5 3/4 x 6 stroke*
 Do they pump from each compartment *Fore Hold & Eng Room*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *2* and sizes *3"*
 What gauges are there attached to the engines and boilers ... *2 Steam to boiler 15 x 1 1/2 Engines*
 Description and size of Donkey Pumps ... *For Double Acting*
 Where do they pump from ... *one from Eng Room Fore Hold Sea, the other from latter bilge*
 No. of bilge injections *one* and sizes *4 1/2*
 Are they connected to air, or circulating pumps *Circ*
 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 *one* Description *Double ended*
 Made by *Leeward & Co*
 When *Sept 1878* At *London*
 Working pressure *70 lbs*
 Tested by hydraulic pressure to *140 lbs*, Date *29/6/78*
 Description of super-heating apparatus *none*
 Can each boiler be worked separately *only one*

Can the super-heater be shut off and the boilers worked separately *none*
 Description and area of safety valves on each boiler *Coco Spring Valves*
 No. of square feet of fire-grate surface in each boiler
 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*
 Where fixed *Stoke hold*
 Working pressure *45 lbs per sq inch*

Tested by hydraulic pressure to *90 lbs*, Date *4.7.78*
 Description and area of safety valves *D Wright*
 No. of square feet of fire grate

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship *In, blow off cocks on wrought iron pipe*
 Are they Kingston valves or common cocks ... *Cocks & screw down valves*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates *Screw cocks under rest above*
 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 *at this time*
 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 *Oceanic* owned by *Tatham & Co* of the Port of *London* of *566* Tons Register, and *100* Registered Horse Power, and that they have been carefully inspected and examined by me at *London* and found to be at this date, viz., *Sept 11th* 18 *78* in good order and safe working condition.

Amount of Fee for Survey ... £ *5:5:0*
 (Travelling Expenses, if any, £ *2:2:0*)
13.9.78
£6.5.0

James T. Milton
 Engineer Surveyor to Lloyd's Register of Shipping
 Lloyd's Register Foundation