

19782Brn

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Description *Inverted Compound Surface Cond.*  
Made by *Charles & W. Earle*  
When *1869* At *Hull*  
Diameter of cylinder *20 1/2 x 40* Length of stroke *26*  
No. of revolutions per minute *about 80*  
Point of cut off *9/16 of stroke*  
Diameter of screw shaft *7 1/4*  
Diameter of crank shaft journals *7 1/2*  
Diameter of screw, or of paddle wheel *10 1/2 x 3*  
Pitch of screw *12 x 0*  
No. of blades, *3* Total surface  
No. of bilge pumps *2* and sizes *5" dia. 8 1/16 stroke*  
Do they pump from each compartment *No*

Are all the bilge suction pipes fitted with roses *Yes*  
No. of feed pumps *2* and sizes *5" dia. 8 1/16 stroke*  
What gauges are there attached to the engines and boilers ... *One Steam gauge and one Vacuum gauge.*  
Description and size of Donkey Pumps ... *Vertical, 7" dia. 6 1/2 stroke.*  
Where do they pump from ... *From Bilge & from Sea*  
No. of bilge injections *One* and sizes *3" valve*  
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 *One* Description *Circular tubular*  
Made by *Earle Shipbuilding & Engineering Co.*  
When *1877* At *Hull*  
Working pressure *75 lb p. sq. inch.*  
Tested by hydraulic pressure to *150 lb p. sq. inch.* Date *6th of Nov. 77*  
Description of super-heating apparatus *Vertical cylindrical chest*  
Can each boiler be worked separately

Can the super-heater be shut off and the boilers worked separately *No*  
Description and area of safety valves on each boiler ... *2 Patent Spring valves - Heaton & Cameron patent.*  
No. of square feet of fire-grate surface in each boiler *19,200*  
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 circular*  
Where fixed *In Storehold*  
Working pressure *40 lb p. sq. inch.*

Tested by hydraulic pressure to *96 lb p. sq. inch.* Date *20th Nov. 77*  
Description and area of safety valves *as reported by Sup. Engineer.*  
No. of square feet of fire grate *1 Dead weight valve : 3,900*  
*1 Lever valve : 3,900*  
*9,500*

### 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 ... *Common cocks with guards*  
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 *Above*  
Are they each fitted with a discharge valve on the plating of the vessel *Yes - except bilge & donkey discharge*  
Manufacturer.

What pipes are carried through the bunkers *Donkey discharge.*  
How are they protected *By casing*  
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *17th & 19th Nov. 77.*  
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 *No tunnel. Engines - right aft.*

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 *Baron Hambro* owned by *W. Tulley & Co.*  
of the Port of *Hull* of *367* Tons Register, and *500* Registered Horse Power,  
and that they have been carefully inspected and examined by me at  
and found to be at this date, viz., *December 11th* 18*77* in good order and safe working condition.

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

Engineer Surveyor to Lloyd's Register of Shipping.