

19782Ln

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 20/12/77

Description *Inverted Compound Surface Cond.*
 Made by *Charles & W. Goble*
 When 1869 At *Hull*
 Diameter of cylinder *20 1/2 x 40* Length of stroke *26*
 No. of revolutions per minute *about 50*
 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*
 Pitch of screw *12 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 *Charles 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 *9th 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 *19.2 sq ft*
 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 3.9 sq ft*
1 Lever valve 3.9 sq ft
9.5 sq ft

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 *Hull*
 and found to be at this date, viz., *December 11th* 1877 in good order and safe working condition.

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

A. Keywell
 Engineer Surveyor to Lloyd's Register of Shipping
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