

18114 Iron

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rev 28/10/76

Description *Inverted Compound Surface Condensing*
 Made by *Messrs Humphrys & Pearson*
 When *new* 1876 At *Hull*
 Diameter of cylinders *30 & 5 1/2* Length of stroke = *33*
 (one of each)
 No. of revolutions per minute *about 65*
 Point of cut off *5/8* of the stroke.
 Diameter of screw shaft *9*
 Diameter of crank shaft journals *8 3/4*
 Diameter of screw, or of paddle wheel *13 1/2*
 Pitch of screw *15 1/2*
 No. of blades, *4* Total surface *50 sq. feet*
 No. of bilge pumps *2* and sizes *5 1/2 dia x 9 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 *5 1/2 dia x 9 stroke*
 What gauges are there attached to the engines and boilers ... *1 vacuum gauge. 1 steam on each boiler & 1 in the engine room.*
 Description and size of Donkey Pumps ... *2. inverted double acting. large one 6 dia x 10. small one 3 1/2 x 8. the large one from the ballast tanks & bilges. small one from the sea & bilges.*
 Where do they pump from
 No. of bilge injections *one* and sizes *3 1/2 dia*
 Are they connected to air, or circulating pumps *to circulating pump.*
 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 *Two* Description *Cylindrical & Multitubular*
 Made by *Messrs Humphrys & Pearson, Limited*
 When *new* 1876 At *Hull*
 Working pressure *70 lbs per sq. inch*
 Tested by hydraulic pressure to *140 lbs*, Date *24th April 1876*
 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 *2. lever & weight 3 1/2 dia = 19.2 sq. in. area.*
 No. of square feet of fire-grate surface in each boiler *28 1/4*
 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 with 2 water tubes*
 Where fixed *in the stokehold*
 Working pressure *40 lbs per sq. inch*

Tested by hydraulic pressure to *80 lbs*, Date *April 76*
 Description and area of safety valves *one lever direct 2 1/2 dia = 4.9 area*
 No. of square feet of fire grate *12*

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 ... *no. (blow off cocks under the engine room flooring)*
 Are the discharge pipes above or below the deep water line *at the load line*
 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 *new*
 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*

HUMPHRYS & PEARSON LIMITED

Frank Pearson Secretary
 Manufacturers *except of the donkey boiler*
 of the main engine & the main boilers

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 *"Sylph"* owned by *Tele & Co*
 of the Port of *London* of *704* Tons Register, and *140* Registered Horse Power,
 and that they have been carefully inspected and examined by me at *Sunderland*
 and found to be at this date, viz., *October 27th 1876* in good order and safe working condition.

Survey fee *4-0-0*Certificate *6-5-0*Received at *Sunderland*27 Oct 76 by *HW*

William Allison.

Engineer Surveyor to Lloyd's Register of Shipping.