

16733 Iron

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Description *Four cyl. Compound Reversed*
 Made by *J. Forrester & Son*
 When *May 1872* At *Liverpool*
 Diameter of cylinders *21" x 41"* Length of stroke *39"*
 No. of revolutions per minute *58*
 Point of cut off *5/8 stroke*
 Diameter of screw shaft *12"*
 Diameter of crank shaft journals *11 1/2"*
 Diameter of screw, or of paddle wheel *17-6"*
 Pitch of screw *19-0"*
 No. of blades, *4* Total surface *57-6"*
 No. of bilge pumps *2* and sizes *4 1/2" dia 19 1/2" 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 *4 1/2" dia 19 1/2" stroke*
 What gauges are there attached to the engines and boilers... *4 steam to Boilers (2 on each) 1 to engine room 1 Vacuum gage*
 Description and size of Donkey Pump... *Vertical double acting 4" dia, 10" stroke*
 Where do they pump from... *All compartments sea and hold.*
 No. of bilge injections *1* and sizes *4 1/2" dia*
 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 *Yes!*
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes!*

MAIN BOILERS.

Number *2* Description *Cylindrical*
 Made by *Yes. Forrester & Son*
 When *May 1872* At *Liverpool*
 Working pressure *70 lbs*
 Tested by hydraulic pressure to *107 lbs*, Date *July 2-1876*
 Description of super-heating apparatus... *2 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... *Two 4" weight 30 sq inches*
 No. of square feet of fire-grate surface in each boiler *60 sq feet*
 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... *all except Bilge suction hoses in holds*

DONKEY BOILER.

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

Tested by hydraulic pressure to *+ reported 90 lbs per sq inch*, Date *May 72*
 Description and area of safety valves *2 Relief valves = 5.48 area one vertical weight 1 low weight*
 No. of square feet of fire grate *15.9 sq feet*

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... *one Stop Valve, rest are Common Cocks*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates... *All except Ash cocks*
 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... *None*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *Stem tube & shaft 24 March 1875 Screw & connections on ship's bottom June 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 *"Dahlia"* owned by *Hargrove Ferguson & Jackson* of the Port of *London* of *1304* Tons Register, and *200* Registered Horse Power, and that they have been carefully inspected and examined by me at *London* and found to be at this date, viz., *August 2nd* 18*76* in good order and safe working condition.

J. W. Mansel
 Engineer Surveyor to Lloyd's Register of Shipping.

