

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

19387 Iron

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rec 30 / 10 / 77

Description Compound Inverted Surface Condensing  
 Made by Messrs Blair & Co  
 When October 1877 At Stockton  
 Diameter of cylinder 32 x 60 Length of stroke 39"  
 No. of revolutions per minute About 65  
 Point of cut off 1/2 stroke  
 Diameter of screw shaft 11"  
 Diameter of crank shaft journals 11" Tunnel shaft 10 1/2"  
 Diameter of screw, or of paddle wheel 14 x 6  
 Pitch of screw Mean 15.0"  
 No. of blades, 4 Total surface Not ascertained  
 No. of bilge pumps 3 and sizes 4 x 28 the Single Acting  
 Do they pump from each compartment For bilge pump draws from sea ballast tanks, fore hold, after well & wings to reach to any part of the vessel of engine room. After pumps from engine room only

Are all the bilge suction pipes fitted with roses Yes  
 No. of feed pumps 2 and sizes 4 x 28 the Single Acting  
 What gauges are there attached to the engines and boilers ... 3 steam 1 vacuum  
 Description and size of Donkey Pumps ... 2 x 1 pump 7 1/2 dia x 9 the Double Acting 2 x 2 " 4 x 8 "  
 Where do they pump from ... 2 x 1 pumps from sea, ballast tanks fore hold, after well & wings of engine room. 2 draws from sea, fore hold, after well, wings of engine room & hold  
 No. of bilge injections 1 and sizes 1 1/2  
 Are they connected to air, or circulating pumps Circulating pump  
 Is there a hand pump in the engine room Donkeys work by hand  
 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 Blair & Co  
 When October 1877 At Stockton  
 Working pressure 76 lbs  
 Tested by hydraulic pressure to 152 lbs, Date 18 Sept 1877  
 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 No superheater  
 Description and area of safety valves on each boiler Two spring safety valves on each boiler Area of two valves 16.5 sq in  
 No. of square feet of fire-grate surface in each boiler 28.5 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 suction pipes and hoses in holds when ship is loaded

### Two DONKEY BOILERS Made by J. Robinson, Creepart Boiler Works

Description Vertical, Water tubes in furnace  
 Where fixed In stoke hold  
 Working pressure 65 lbs

Tested by hydraulic pressure to 130 lbs, Date 22<sup>nd</sup> Aug 1877  
 Description and area of safety valves 1 direct weight valve 2 1/4 dia & 1 lever weight 2 1/2 dia. Total area 8.9 sq in  
 No. of square feet of fire grate 11.39 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 ... Stop valves & cocks  
 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 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 Now  
 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 Tunnel not watertight Sluice door fitted

Robt Blair & Co Manufacturers of Engines & Main Boilers only  
E J Blair

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 Agnes owned by Robert Irvine & Co of the Port of West Hartlepool of 1041.94 Tons Register, and 140 Registered Horse Power, and that they have been carefully inspected and examined by me at Stockton & Hartlepool and found to be at this date, viz., 27<sup>th</sup> October 1877 in good order and safe working condition.

Amount of Fee for Survey ... £ 4 : 0 : 0  
 (Travelling Expenses, if any, £ 0 : 5 : 0)

James Blair  
 Engineer Surveyor to Lloyd's Register of Shipping.

(1000/31/776.)



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