

17189 Iron

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Recd 23/10/76

Report (if any) on Hull of Vessel. Port of Hartlepool No. 370

Description Inverted Compound Surface Condensing  
 Made by Messrs J. Richardson & Sons  
 When Oct 1876 At Hartlepool  
 Diameter of cylinders 30 x 5 1/2 Length of stroke 33  
(one of each)  
 No. of revolutions per minute 65  
 Point of cut off 1/2 stroke  
 Diameter of screw shaft 9 1/2  
 Diameter of crank shaft journals 9 1/2  
 Diameter of screw, or of paddle wheel 14 ft  
 Pitch of screw 16 0  
 No. of blades, 4 Total surface 50 sq ft  
 No. of bilge pumps 2 and sizes 6 dia x 6 stroke  
 Do they pump from each compartment Engine room, fore hold, & aft well

Are all the bilge suction pipes fitted with roses yes  
 No. of feed pumps 2 and sizes 3 1/2 dia x 2 3/4 stroke  
 What gauges are there attached to the engines and boilers ... 1 steam on each end of boiler  
1 vacuum  
 Description and size of Donkey Pumps ... Two inverted double acting. Large one 7 1/2 dia x 9 stroke, small one 3 1/2 x 7  
Large one from tanks, sea and bilges  
 Where do they pump from ... of engine room. Small one from sea, hold, & bilges of engine room & fore hold, & aft well.  
 No. of bilge injections 1 and sizes 4 3/4  
 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 one Description Cylindrical & fired from each end  
 Made by Messrs J. Richardson & Sons  
 When Sept 1876 At Hartlepool  
 Working pressure 65 lbs per sq inch  
 Tested by hydraulic pressure to 130 lbs, Date Aug 18/76  
I was present H. A.  
 Description of super-heating apparatus none  
 Can each boiler be worked separately only 1 boiler

Can the super-heater be shut off and the boilers worked separately }  
 Description and area of safety valves on each boiler ... 2 spring valves 4 3/4 dia = 35.4 sq inches  
 No. of square feet of fire-grate surface in each boiler } 61 3/4  
 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 Upright Cyl. with 4 cross tubes  
 Where fixed in the stowhole  
 Working pressure 60 lbs per sq inch

Tested by hydraulic pressure to 150 lbs, Date July 76  
 Description and area of safety valves 2 loaded direct 2 3/4 = 10.8 sq in.  
 No. of square feet of fire grate 19 1/2

### 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 } 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 } sluice door fitted & the tunnel caulked

Richardson & Sons Manufacturer. Except of the Donkey boiler I was present when steam was raised and the engines worked. Steam 65 lbs. 9 a.m. 28th Nov 70. all worked very satisfactory Sept 16/76 H. A.

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 "Winston" owned by Webster & Young of the Port of West Hartlepool of 902.70 Tons Register, and 130 Registered Horse Power, and that they have been carefully inspected and examined by me at Hartlepool and found to be at this date, viz., October 5<sup>th</sup> 1876 in good order and safe working condition.

Amount of Fee for Survey ... £ 6:10 Received at Hartlepool William Allison  
 Travelling Expenses, if any, £ 2-5 £6-15 by W. A.  
 Engineer Surveyor to Lloyd's Register of Shipping.