

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Description *Compound. Inverted. Surface Condensing*  
 Made by *J. Richardson & Sons*  
 When *Sept 18/8* At *Hartlepool*  
 Diameter of cylinder *32 x 59* Length of stroke *33*  
 No. of revolutions per minute *About 60*  
 Point of cut off *About 1/2 stroke*  
 Diameter of screw shaft *9 3/4*  
 Diameter of crank shaft journals *9 1/4*  
 Diameter of screw, or of paddle wheel *14.6"*  
 Pitch of screw *15.6"*  
 No. of blades, *4* Total surface *64 square feet*  
 No. of bilge pumps *2* and sizes *3 x 3 1/4 inch. Single Acting*  
 Do they pump from each compartment *From wings of engine room after valve - fore hold*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *2* and sizes *3 1/4 dia x 21 inch Single Acting*  
 What gauges are there attached to the engines and boilers ... *2 steam 1 vacuum*  
 Description and size of Donkey Pumps ... *1 pump 1 1/2 dia x 9 inch Double Acting*  
 Where do they pump from *From centre of ballast tank in engine room, wing. Centre of fore & after ballast tanks & from engine room No 2 from starboard hold, fore hold, after hold & wing of engine room*  
 No. of bilge injections *4* and sizes *4 x 2*  
 Are they connected to air, or circulating pump *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 accessible to any part of the vessel *Yes*

### MAIN BOILERS.

Number *One* Description *Cylindrical. Multitubular*  
 Made by *J. Richardson & Sons*  
 When *Sept 18/8* At *Hartlepool*  
 Working pressure *65 lbs* *Safety valves adjusted in presence of Mr Allison*  
 Tested by hydraulic pressure to *130 lbs*, Date *22/8/8*  
 Description of super-heating apparatus *Boilers tested in presence of Mr W. H. Taylor Sunderland. None*  
 Can each boiler be worked separately *Only one boiler in ship*

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 Combined area 35.4 sq. in.*  
 No. of square feet of fire-grate surface in each boiler *66.8*  
 Are there separate blow off and brine cocks on each boiler, independent of those 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 & roses in holds when ship is loaded*

### DONKEY BOILER

Description *Vertical. Water tubes in furnace*  
 Where fixed *In stokehold*  
 Working pressure *65 lbs* *Loaded to 55 lbs*

Made by *Clark, Chapman & Gurney*  
 Tested by hydraulic pressure to *130 lbs*, Date *12/8/8*  
 Description and area of safety valves *1 direct 2 3/4 dia = 13.5 area 1 lever 3 = 13.5 area*  
 No. of square feet of fire grate *23. 1/6 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 and common 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 *Tunnel not watertight. Sluice door fitted*  
*Boilers only*

*J. Richardson & Sons*  
*in Charge Smith*

Manufacturers of Engines & Main Boilers only

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 *Annandale* owned by *Steele, Young & Co* of the Port of *London* of *1031.65* Tons Register, and *140* Registered Horse Power, and that they have been carefully inspected and examined by me at *Hartlepool* and found to be at this date, viz., *16 September 1888* in good order and safe working condition.

Amount of Fee for Survey ... £ *4.0.0*  
 Travelling Expenses, if any, £ *0.5.0*  
*1/10/88*

Engineer Surveyor to Lloyd's Register of Shipping.



REGISTER OF BRITISH AND FOREIGN SHIPPING

FOR THE YEAR 1850

13  
5  
17

THE ROYAL NAVY

13  
5  
17

is eligible to have the  
introduction of the  
records & the  
originals of the  
17/11/1850



© 2019

Lloyd's Register  
Foundation