

20041 Iron

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Dec 31/11/98

Port West Hartlepool No. 3939  
Report (if any) on Hull of Vessel  
Engines No. 49

Description *Compound Inverted Surface Condensing*  
 Made by *Blair & Co*  
 When *July 18 48* At *Stockton*  
 Diameter of cylinder *32" x 60"* Length of stroke *39"*  
 No. of revolutions per minute *About 60*  
 Point of cut off *1/2 stroke*  
 Diameter of screw shaft *11"*  
 Diameter of crank shaft journals *11" Tunnel shaft 10 1/4 dia*  
 Diameter of screw, or of paddle wheel *14" 6"*  
 Pitch of screw *15" 0*  
 No. of blades, *11* Total surface *About 52 sq feet*  
 No. of bilge pumps *2* and sizes *4" x 28" etc. Single Acting*  
 Do they pump from each compartment *for pump draws from ballast tank to engine room and after well after pump draws from engine room only*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *2* and sizes *4" x 28" etc. Single Acting*  
 What gauges are there attached to the engines and boilers ... *3 steam 1 Vacuum*  
 Description and size of Donkey Pumps ... *No 1 pump 1 1/2 dia x 9" etc. Double Acting No 2 " 4 " x 8 " " " No 1 draws from ballast tank engine room*  
 Where do they pump from ... *Centre of engine room & after well. No 2 draws from sea, ballast, engine room & after well fire part tunnel*  
 No. of bilge injections *1* and sizes *6" inside*  
 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 *Blair & Co*  
 When *Jan 18 48* At *Stockton*  
 Working pressure *46 lbs*  
 Tested by hydraulic pressure to *152 lbs*, Date *14<sup>th</sup> Nov 18 47*  
 Description of super-heating apparatus *None Test Certificate No 9*  
 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 Combined area 110.6 sq in*  
 No. of square feet of fire-grate surface in each boiler *28 1/2 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. .... *Yes*

### DONKEY BOILER

Made by *H. Porter, Bowfield Works*

Description *Vertical Water tubes in furnace*  
 Where fixed *In stokehold*  
 Working pressure *45 lbs*

Tested by hydraulic pressure to *150 lbs per sq. inch*, Date *21<sup>st</sup> Dec. 18 47*  
 Description and area of safety valves *1 direct & 1 lever & weight Test Certificate No 10*  
 No. of square feet of fire grate *24 sq feet Combined area 13 sq in*

### 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*  
*Rob Blair & Co*  
*Blair*

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 watertight and fitted with a sluice door on bulkhead *Tunnel not watertight. Sluice door fitted*  
 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 *Eclipse* owned by *Thos Appleby & Co* of the Port of *West Hartlepool* of *704 1/3* Tons Register, and *140* Registered Horse Power, and that they have been carefully inspected and examined by me at *Stockton on Tees* and found to be at this date, viz., *22 January 18 48* in good order and safe working condition.

Amount of Fee for Survey ... £ *4.0.0*  
*Certificate*  
 (Travelling Expenses, if any, £ *10.5.0*)  
*W. J. B.*

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