

# LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

## ENGINEER SURVEYOR'S REPORT ON MACHINERY.

### ENGINES.

Rev 27/8/76

Description *Inverted Compound Surface Condensing*  
 Made by *Messrs Blair & Co.*  
 When *Feb'y* 1876 At *Stockton*.  
 Diameter of cylinder *30 x 55* (one off each) Length of stroke *36 inches*.  
 No. of revolutions per minute (about) *65*.  
 Point of cut off *1/2 stroke*.  
 Diameter of screw shaft *9 3/4 x 9 1/4*.  
 Diameter of crank shaft journals *10*.  
 Diameter of screw, or of paddle wheel *15 0*.  
 Pitch of screw *16 feet*.  
 No. of blades *4* Total surface *54 sq. ft.*  
 No. of bilge pumps *2* and sizes *3 1/2 dia. x 26 stroke single actg.*  
 Do they pump from each compartment *from engine room only*.

Are all the bilge suction pipes fitted with roses *yes*.  
 No. of feed pumps *2* and sizes *3 1/2 dia. x 26 stroke single actg.*  
 What gauges are there attached to the engines and boilers ... *1 vacuum gauge. 1 steam gauge on each boiler in stokehole & 1 steam in engine room.*  
 Description and size of Donkey Pumps ... *One inverted double acting 1/2 diam. x 9 stroke.*  
 Where do they pump from *from ballast tanks, sea. hot-well, and bilges.*  
 No. of bilge injections *one* and sizes *3 1/2 diameter*.  
 Are they connected to air, or circulating pumps *to circulating pumps.*  
 Is there a hand pump in the engine room *no. (donkey can be used).*  
 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 *March* 1876 At *Stockton*.  
 Working pressure *75 lbs per square inch*.  
 Tested by hydraulic pressure to *150 lbs*, Date *Jan'y 18 1876*.  
 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 *yes*.  
 Description and area of safety valves on each boiler *2 spring valves 3 1/4 dia. = 16.5 area.*  
 No. of square feet of fire-grate surface in each boiler *29 1/4*.  
 Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin *yes (both into 1 cock on ships side).*  
 Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times *yes*.

### DONKEY BOILER.

Description *Vertical, round, with 3 water tubes in flame box*.  
 Where fixed *in stokehole*.  
 Working pressure *50 lbs per sq. inch*.

Tested by hydraulic pressure to *85 lbs per sq. inch*, Date *Dec 1875*.  
 Description and area of safety valves *one direct loaded = 2 1/2 dia = 3.7 one lever & weight 2 1/2 = 5.4 area = 9.1*  
 No. of square feet of fire grate *12.5 sq. ft.*

### 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 ... *Common 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 *2 pipes to for ballast tank*.  
 How are they protected *encased with wood*.  
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *All new. March 1876.*  
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge *Non return valve. and shell Cock with only 1 port in the plug*  
 Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead *Tunnel not water-tight Sluice door fitted.*

*Robt Blair & Co*  
*J. H. Blair*

Manufacturer.

*I was present when steam was raised and engines worked March 8<sup>th</sup>. Steam 75 lbs vacuum 27 in. revs 66 all worked satisfactory. W. 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 *"Maud"* owned by *Messrs Marwood & Sons*.  
 of the Port of *Whitby* of *843* Tons Register, and *120* Registered Horse Power,  
 and that they have been carefully inspected and examined by me at *Stockton*  
 and found to be at this date, viz., *March 8<sup>th</sup>* 1876 in good order and safe working condition.

*Survey fee £3-3-0*

*Certificate 5-0*

*£3-8-0*

(10/1/76.)

*Expenses £1-1-0*

*Received at Hartlepool by J. H. Blair*

*William Allison*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
 Foundation

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