

**ENGINEER SURVEYOR'S REPORT ON MACHINERY.**  
**ENGINES.**

*See 13/2/79*

Report (if any) on Hull of Vessel. Port *Glasgow* No. *4795*

Description *Compound Inverted Direct Acting*  
 Made by *The London & Glasgow Coy*  
 When *1879* At *Glasgow*  
 Diameter of cylinder *36" & 66"* Length of stroke *42"*  
 No. of revolutions per minute \_\_\_\_\_  
 Point of cut off *Variable*  
 Diameter of screw shaft *12"*  
 Diameter of crank shaft journals *12"*  
 Diameter of screw, or of paddle wheel *16" & 9"*  
 Pitch of screw *19ft*  
 No. of blades *Four* Total surface *60ft<sup>2</sup>*  
 No. of bilge pumps *Two* and sizes *4" dia x 2 1/2" stroke*  
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *Two* and sizes *4" dia x 2 1/2" stroke*  
 What gauges are there attached to the engines and boilers ... *Three Steam, One Vacuum & One Compound*  
 Description and size of Donkey Pumps ... *Double acting 5" x 10" stroke*  
 Where do they pump from ... *From the Sea Pipe & Hotwell*  
 No. of bilge injections *One* and sizes *4 3/4"*  
 Are they connected to air, or circulating pumps *To Circulating*  
 Is there a hand pump in the engine room *Yes*  
 Can it be worked by the main engines *Yes*  
 Is there a deck hose of sufficient length to reach to any part of the vessel *Yes*

**MAIN BOILERS.**

Number *Two* Description *Round Horizontal*  
 Made by *The London & Glasgow Coy*  
 When *1878* At *Glasgow*  
 Working pressure *70 lbs*  
 Tested by hydraulic pressure to *140 lbs*, Date *Oct 27th 1878*  
 Description of super-heating apparatus *Receiver on each Boiler*  
 Can each boiler be worked separately *Yes*

Can the super-heater be shut off and the boilers worked separately *No*  
 Description and area of safety valves on each boiler *Two Direct Spring each 15.9" area*  
 No. of square feet of fire-grate surface in each boiler *57ft<sup>2</sup>*  
 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 *Round vertical*  
 Where fixed *In Storehold forward*  
 Working pressure *50 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *Oct 27th 1878*  
 Description and area of safety valves *Direct Spring 7" area*  
 No. of square feet of fire grate *13ft<sup>2</sup>*

**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 ... *Seven down 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 *Yes*  
 Are they each fitted with a discharge valve on the plating of the vessel *Yes*

What pipes are carried through the bunkers *Main Steam Pipe & large pipes to the boiler*  
 How are they protected *By iron & wood casing*  
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *On ship previous to being launched*  
 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 *Yes*

*M. Kelly & Co* Manufacturer.

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 "*Brecoushire*" owned by *J. J. Guthrie* of the Port of *London* of *1240.71* Tons Register, and *250* Registered Horse Power, and that they have been carefully inspected and examined by me at *Glasgow* *27th* and found to be at this date, viz., *Feb 2, 1879* in good order and safe working condition.

Amount of Fee for Survey ... *£13:15:0* paid  
 (Travelling Expenses, if any, £ \_\_\_\_\_)

*James Morrison*  
 Engineer Surveyor to Lloyd's Register of Shipping.  
*Clyde District*

The Machinery and Boilers of this  
vessel are built in accordance  
with the rules submitted  
that she is eligible to  
have Lloyd's M.C. and  
a Certificate from 10 Feb.

1899

M 14. 2. 79



© 2019

Lloyd's Register  
Foundation