

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Per 22/5/76

Description *Compound, Inverted Direct Acting*
 Made by *Messrs Rankin & Blackmore*
 When 1876 At *Greenock*
 Diameter of cylinder *20 1/4* " Length of stroke *24* "
 No. of revolutions per minute *one of each*
 Point of cut off
 Diameter of screw shaft *4* "
 Diameter of crank shaft journals *4 1/2* "
 Diameter of screw, ~~as per plan~~ *9 1/2* "
 Pitch of screw *12* " 0 "
 No. of blades, *4* Total surface *24* ft²
 No. of bilge pumps *One* and sizes *2 1/2* " dia x 18 " stroke
 Do they pump from each compartment *X*

Are all the bilge suction pipes fitted with roses *X*
 No. of feed pumps *One* and sizes *2 1/2* " x 18 " stroke
 What gauges are there attached to the engines and boilers ...
 Description and size of Donkey Pumps ... *Two) one 6" x 9" stroke one 4 1/2" x 9 "*
 Where do they pump from ...
 No. of bilge injections *One* and sizes *2 1/2* "
 Are they connected to air, or circulating pumps *to Circulating pump*
 Is there a hand pump in the engine room
 Can it be worked by the main engines
 Is there a deck hose of sufficient length to reach to any part of the vessel

MAIN BOILERS.

Number *One* Description *Round Horizontal*
 Made by *Rankin & Blackmore*
 When 1876 At *Greenock*
 Working pressure *65* lbs
 Tested by hydraulic pressure to *130* lbs, Date *May 4/76*
 Description of super-heating apparatus *None*
 Can each boiler be worked separately

Can the super-heater be shut off and the boilers worked separately
 Description and area of safety valves on each boiler *Direct Spring 12.56" dia (Two off)*
 No. of square feet of fire-grate surface in each boiler
 Are there separate blow off and brine cocks on each boiler, independent of those on the vessel's skin
 Are all pipes, cocks, roses, and pumps in connection with the machinery accessible at all times

DONKEY BOILER.

Description *Round, Vertical*
 Where fixed
 Working pressure *40* lbs

Tested by hydraulic pressure to *100* lbs, Date *May 4/76*
 Description and area of safety valves *Direct weighted 0.9" dia*
 No. of square feet of fire grate

James Morrison

PIPES, COCKS, AND CONNECTIONS.

Are all connections with the sea direct on the skin of the ship
 Are they Kingston valves or common cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates
 Are the discharge pipes above or below the deep water line
 Are they each fitted with a discharge valve on the plating of the vessel

What pipes are carried through the bunkers
 How are they protected
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilge
 Is the screw shaft-tunnel water tight and fitted with a sluice door on bulkhead

Rankin & Blackmore 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
 of the Port of _____ of _____ Tons Register, and _____ Registered Horse Power,
 and that they have been carefully inspected and examined by me at _____
 and found to be at this date, viz., _____ 18 _____ in good order and safe working condition.