

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 15/12/79

Report (if any) on Hull of Vessel: Port Hull No. 4812

Description *Vert. circ. compound. Surface condensing*  
 Made by *J.M. Tennant*  
 When *1869* At *Glasgow*  
 Diameter of cylinder *26" x 50"* Length of stroke *30"*  
 No. of revolutions per minute *60*  
 Point of cut off *19/78"*  
 Diameter of screw shaft *9"*  
 Diameter of crank shaft journals *Pin 10" Nacks 10"*  
 Diameter of screw, or of paddle wheel  
 Pitch of screw  
 No. of blades, Total surface  
 No. of bilge pumps *2* and sizes *3 1/2" x 15 1/2"*  
 Do they pump from each compartment *Yes*

Are all the bilge suction pipes fitted with roses *Yes*  
 No. of feed pumps *2* and sizes *3 1/16" x 15 1/2"*  
 What gauges are there attached to the engines and boilers ... *2 Steam, 1 Vacuum & the usual water gauges*  
 Description and size of Donkey Pumps ... *One vertical, 4" stroke 8" cy. 4 Ram & 7" stroke*  
 Where do they pump from ... *For main hold & engine room. also from boiler & donkey boiler*  
 No. of bilge injections *one* and sizes *4" non-return*  
 Are they connected to air, or circulating pumps *Circulating*  
 Is there a hand pump in the engine room *No. but handle to donkey*  
 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 *One* Description *Cir. multitubular*  
 Made by *C.D. Holmes & Co*  
 When *Sept 1879* At *Hull*  
 Working pressure *75 lbs*  
 Tested by hydraulic pressure to *150 lbs*, Date *8/9.79*  
 Description of super-heating apparatus *None fitted*  
 Can each boiler be worked separately *Only one boiler*

Can the super-heater be shut off and the boilers worked separately *Yes*  
 Description and area of safety valves on each boiler *Two spring loaded. Each 5" dia = 39.26 sq. in. area*  
 No. of square feet of fire-grate surface in each boiler *50 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 *Not in fact main hold when cargo in the hold Yes*

DONKEY BOILER.

Description *Vert. circular, with water tubes*  
 Where fixed *In stoke hold*  
 Working pressure *50 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *6/12.79*  
 Description and area of safety valves *Level loaded. 3" dia = 7 sq. in.*  
 No. of square feet of fire grate *9.5*

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 screw valves & cocks*  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stoke hold plates ... *Yes. except inlet of circulating water which is under the platform but has handle above*  
 Are the discharge pipes above or below the deep water line *Below, except donkey discharge*  
 Are they each fitted with a discharge valve on the plating of the vessel *All but donkey discharge which has a cock at the ship's side*  
 Manufacturer.

What pipes are carried through the bunkers *None*  
 How are they protected *Yes*  
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *20th Aug. 1879*  
 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 *No. Found. Floor of the hold is laid above shaft. There is a sluice door on the bulkhead.*

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 *"Fingal"* owned by *H. Tulley & Co*  
 of the Port of *Hull* of *598* Tons Register, and *95* Registered Horse Power,  
 and that they have been carefully inspected and examined by me at *Hull*  
 and found to be at this date, viz., *6th December 1879* in good order and safe working condition.

Amount of Fee for Survey ... £ : :  
 (Travelling Expenses, if any, £ : :)

*John B. Sturms*  
 Engineer Surveyor to Lloyd's Register of Shipping.  
 at *Hull*

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