

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 18/12/1879

Description *Vert. comp. compound. Surface condensing*
 Made by *J.M. Tennant*
 When *1869* At *Glasgow*
 Diameter of cylinder *22" x 50"* Length of stroke *30"*
 No. of revolutions per minute *60*
 Point of cut off *19 7/8"*
 Diameter of screw shaft *9"*
 Diameter of crank shaft journals *One 10" Acks 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 1/4" 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 *One vertical, double acting*
 Donkey Pumps ... *8" Cy. 4 Ram & 7" Stroke*
 Where do they pump *From main hold & engine room.*
 from *also from bilge and stowage*
Bilge Sea & donkey bilge
 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 *Cer. 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 *Two spring loaded. Each*
 safety valves on each boiler *5' dia = 39.26 sq. in., area*
 No. of square feet of fire-grate surface in each boiler *50 sq. ft.*
 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 is 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. Tennant. Flap 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, £ : :)

(1000/31/7/76.)

John B. Sturges

Engineer Surveyor to Lloyd's Register of Shipping.

at Hull

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