

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

Rec 7/7/77

No. 204. Port Hamburg. Report (if any) on Hull of Vessel.

Description *low pressure, oscillating paddle engine*
 Made by *F. Schichau*
 When *1877* At *Elbing*
 Diameter of cylinder *30 1/4"* Length of stroke *3'-9"*
 No. of revolutions per minute *about 40*
 Point of cut off *0.6 of stroke*
 Diameter of *paddle crank* shaft *8 5/16"*
 Diameter of crank shaft journals *8 5/16"*
 Diameter *of screw* or of paddle wheel *13'-10" over floats common*
 Pitch of screw *paddles 8*
 No. of blades, *8* Total surface *each float 7'-0" x 1'-7 1/8"*
 No. of bilge pumps *3* and sizes *6 5/16" dia x 10 1/4" stroke*
 Do they pump from each compartment *yes*

Are all the bilge suction pipes fitted with roses *yes*
 No. of feed pumps *3* and sizes *6 5/16" dia x 10 1/4" stroke*
 What gauges are there attached to the engines and boilers ... *Schaffer & Budenberg's make Bourdon's system*
 Description and size of *1 steam cyl. 6 3/8" dia x 6 3/8" stroke*
 Donkey Pumps ... *pump plunger 4" dia x 6 3/8" stroke*
 Where do they pump from *from each compartment*
 No. of bilge injections *1* and sizes *2 3/8" inch*
 Are they connected to air, or circulating pumps *to Condenser*
 Is there a hand pump in the engine room *donkey can be worked by hand*
 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 *2* Description *cyl. tubular*
 Made by *F. Schichau*
 When *1877* At *Elbing*
 Working pressure *35 lbs*
 Tested by hydraulic pressure to *58 lbs according to contract*, Date *febr. 1877*
 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 loaded each 4 3/8" dia total area = 30 sq"*
 No. of square feet of fire-grate surface in each boiler *38.5 square 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 *yes*

DONKEY BOILER.

Description *None*
 Where fixed *None*
 Working pressure *None*

Tested by hydraulic pressure to *None*, Date *None*
 Description and area of safety valves *None*
 No. of square feet of fire grate *None*

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 ... *screw valves & common 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 *above*
 Are they each fitted with a discharge valve on the plating of the vessel *yes*

What pipes are carried through the bunkers *none*
 How are they protected *none*
 When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *yes*
 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*

F. Schichau. 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 Lillibell No. 2* owned by *Danish Government Railway* of the Port of *Friedrichs - Strich* of *129* Tons Register, and *90* Registered Horse Power, and that they have been carefully inspected and examined by me at *Elbing* and found to be at this date, viz., *1st June* 1877 in good order and safe working condition.

Amount of Fee for Survey ... £ *4-10-0*

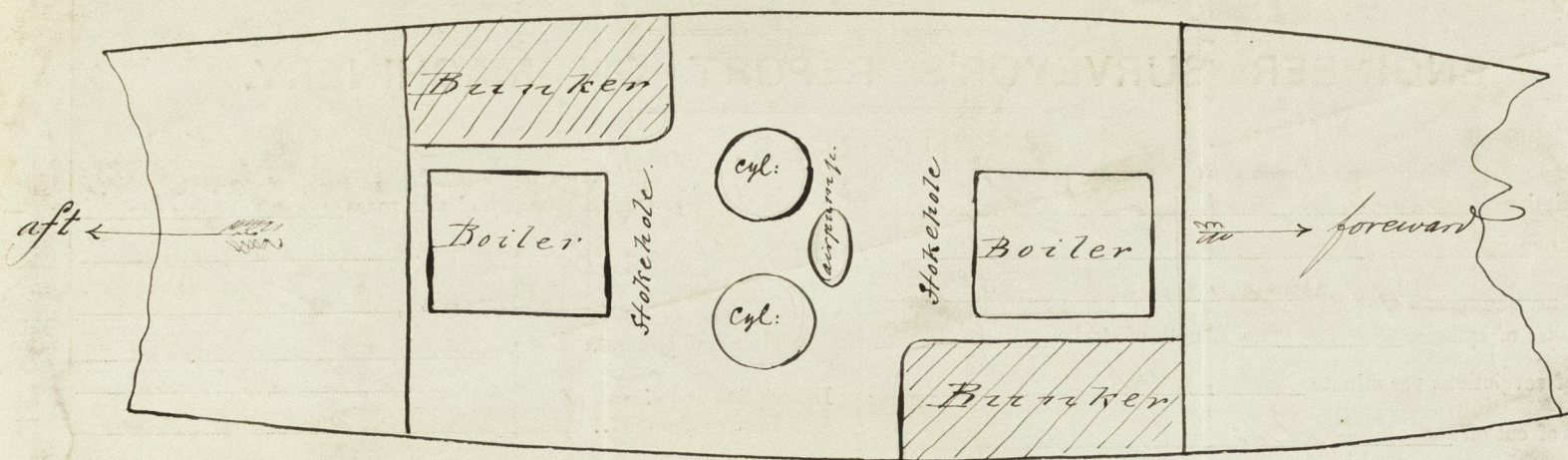
(Travelling Expenses, if any, £ ...)

(1000/31/7/76.)

Ernst Voss Engineer Surveyor to Lloyd's Register of Shipping.

IRON 472-0493

18777 2m



Arrangement of Bunkers.