

LLOYD'S REGISTER OF BRITISH AND FOREIGN SHIPPING.

ENGINEER SURVEYOR'S REPORT ON MACHINERY.

ENGINES.

17334 Iron
Rec 20/11/76

Description *compound direct acting, inverted cyl.*
Made by *Reichersstieg Schiffwerft & Maschinenfabrik*
When 1876 At *Hamburg*
Diameter of cylinder *29" x 52"* Length of stroke *2'-6"*
No. of revolutions per minute *64*
Point of cut off *half stroke*
Diameter of screw shaft *9"*
Diameter of crank shaft journals *9"*
Diameter of screw, or of paddle wheel *12'-9"*
Pitch of screw *19'-0"*
No. of blades, *3* Total surface *—*
No. of bilge pumps *2* and sizes *4 1/2" dia x 12" stroke*
Do they pump from each compartment *yes*

Are all the bilge suction pipes fitted with roses *yes*
No. of feed pumps *2* and sizes *4 1/2" dia. x 15" stroke*
What gauges are there attached to the engines and boilers ... *Gibblers make*
Description and size of *direct acting inverted steam cyl.*
Donkey Pumps ... *8" dia. x 9" stroke pump double acting*
Where do they pump from *from all holds*
No. of bilge injections *1* and sizes *3 1/2" inside dia*
Are they connected to air, or circulating pumps *to air pump*
Is there a hand pump in the engine room *no*
Can it be worked by the main engines *—*
Is there a deck hose of sufficient length to reach to any part of the vessel *yes*

MAIN BOILERS.

Number *2* Description *cyl. tubular horizontal*
Made by *Reichersstieg Schiffwerft & Maschinenfabrik*
When 1876 At *Hamburg*
Working pressure *70 lbs (calculated 58 1/2 lbs)*
Tested by hydraulic pressure to *140 lbs*, Date *9/10/76*
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 *—*
Description and area of *2 spring loaded, Adams system*
safety valves on each boiler *each 4" dia. total area 25 sq in*
No. of square feet of fire-grate surface in each boiler *36 sq feet each*
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 *cyl. vertical, uptake through steam space, two*
Where fixed *in fore stoke hole*
Working pressure *50 lbs*

Tested by hydraulic pressure to *100 lbs*, Date *1875*
Description and area of safety valves *1 lever loaded 1 1/4" dia. 1,22 sq in*
No. of square feet of fire grate *7 1/2 sq feet*

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 cocks & Peters valves*
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 *—*
When were the stern tube, propeller, screw shaft, and all connections examined in dry dock *2/10/76 and before when in shop*
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*

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 "*Capella*" owned by *Pearson & Langhorne* of the Port of *Hamburg* of *699* Tons Register, and *120* Registered Horse Power, and that they have been carefully inspected and examined by me at *Hamburg* and found to be at this date, viz., *17th November* 1876 in good order and safe working condition.

Amount of Fee for Survey ... £ *6-0-0.*

(Travelling Expenses, if any, £ *—*)

Engineer Surveyor to Lloyd's Register of Shipping.