

# REPORT ON MACHINERY.

No. 548

No. in Survey held at *Hamburg*  
Reg. Book. *S. S. "Roma"*  
on the

Date, ~~first~~ Survey almost daily during the whole time of building Last Survey Feb 9/5<sup>th</sup> 1883  
(Number of Visits)

Tons 1461.45

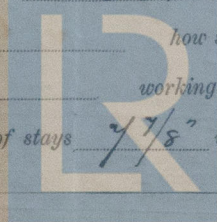
Master *Schuler* Built at *Hamburg* When built *1883*  
Engines made at *Hamburg* By whom made *Blohm & Voess* when made *1883*  
Boilers made at *Hamburg* By whom made *Blohm & Voess* when made *1883*  
Registered Horse Power *250* Owners *O. S. Eichmann* Port belonging to *Hamburg*

## ENGINES, &c.

Description of Engines *Direct acting, Compound, Surface Condensation*  
Diameter of Cylinders *36" & 60"* Length of Stroke *48"* No. of Rev. per minute \_\_\_\_\_ Point of Cut off, High Pressure *3/8* Low Pressure *1/2*  
Diameter of Screw shaft *12 7/8* Diameter of Tunnel shaft *11 1/2* Diameter of Crank shaft journals *12 3/4* Diameter of Crank pin *13"* size of Crank webs *15 3/8" x 1 1/4"*  
Diameter of screw *15.6"* Pitch of screw *18.9"* No. of blades *4* state whether moveable *No* total surface *96900"*  
No. of Feed pumps *2* diameter of ditto *3 3/4* Stroke *28"* Can one be overhauled while the other is at work *Yes*  
No. of Bilge pumps *2* diameter of ditto *3 3/4* Stroke *28"* Can one be overhauled while the other is at work *Yes*  
Where do they pump from *From all compartments*  
No. of Donkey Engines *2* Size of Pumps *4 7/8" & 8 5/8"* Where do they pump from? *From sea, tanks and all compartments*  
Are all the bilge suction pipes fitted with roses \_\_\_\_\_ Are the roses always accessible \_\_\_\_\_ Are the sluices on Engine room bulkheads always accessible *Yes*  
No. of bilge injections *1* and sizes *4"* Are they connected to condenser, ~~or~~ to circulating pump \_\_\_\_\_  
How are the pumps worked? *By beams connected with the crossheads of main engine*  
Are all connections with the sea direct on the skin of the ship *Yes* Are they Valves or Cocks *Valves for Engines, Cocks for Boilers and pumps*  
Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *Yes* Are the discharge pipes above or below the deep water line *Above*  
Are they each fitted with a discharge valve always accessible on the plating of the vessel *Yes* Are the blow off cocks fitted with a spigot and brass covering plate *Yes*  
What pipes are carried through the bunkers *Suction pipes for fore and aft tanks* How are they protected? *By Wooden box*  
Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times *Yes*  
Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges *Yes*  
When were stern tube, propeller, screw shaft, and all connections examined in dry dock \_\_\_\_\_  
Is the screw shaft tunnel watertight *Yes* and fitted with a sluice door *Yes* worked from *Engine room, height of upper deck*

## BOILERS, &c.

Number of Boilers *2* Description *Cylindrical horizontal multitubular*  
Working Pressure *80* Tested by hydraulic pressure to *160 lbs* Date of test *Dec 15<sup>th</sup> 1882*  
Description of superheating apparatus or steam chest \_\_\_\_\_  
Can each boiler be worked separately *Yes* Can the superheater be shut off and the boiler worked separately \_\_\_\_\_  
No. of square feet of fire grate surface in each boiler *680* Description of safety valves *Adam's spring valves*  
No. to each boiler *2* area of each valve *17.7 sq"* Are they fitted with easing gear *Yes*  
No. of safety valves to superheater \_\_\_\_\_ area of each valve \_\_\_\_\_ are they fitted with easing gear \_\_\_\_\_  
Smallest distance between boilers and bunkers or woodwork *27" from spare bunker in Engine room*  
Diameter of boilers *17 8/4"* Length of boilers *12 7/8"* description of riveting of shell long. seams *Double Butt Straps* circum. seams *Double riveted*  
Thickness of shell plates *15/16"* diameter of rivet holes *1 1/8"* whether punched or drilled *drilled* pitch of rivets *3 3/8"*  
Lap of plating *4 1/2"* per centage of strength of longitudinal joint *69%* working pressure of shell by rules *95 lbs*  
Size of manholes in shell *16 x 12 1/2"* size of compensating rings *2 3/4" x 3/4"*  
No. of Furnaces in each boiler *4* outside diameter *36 5/16"* length, top *88 3/16"* bottom *118*  
Thickness of plates *9/16"* description of joint *single riveted* if rings are fitted \_\_\_\_\_ greatest length between rings \_\_\_\_\_  
Working pressure of furnace by the rules *104 lbs*  
Combustion chamber plating, thickness, sides *1/2"* back *1/2"* top *1/2"*  
Pitch of stays to ditto, sides \_\_\_\_\_ back *7/8"* top *strengthened by double angle irons*  
If stays are fitted with nuts or riveted heads *Nuts* working pressure of plating by rules *103*  
Diameter of stays at smallest part *1 1/8"* working pressure of ditto by rules *5010*  
End plates in steam space, thickness *3/4"* pitch of stays to ditto *15"* how stays are secured *by double angle irons*  
Working pressure by rules *90 lbs* diameter of stays at smallest part *2 1/4"* working pressure by rules *4523*  
Front plates at bottom, thickness *3/4"* Back plates, thickness *3/4"* greatest pitch of stays *7/8"* working pressure by rules *279 lbs*



Lloyd's Register Foundation



Diameter of tubes  $3\frac{1}{4}$  outside pitch of tubes  $4\frac{1}{2}$  thickness of tube plates, front  $\frac{3}{4}$  back  $\frac{3}{4}$   
How stayed screwed tubes pitch of stays  $22\frac{3}{4}$  width of water spaces  $1\frac{1}{8}$   
Diameter of ~~Superheater or Steam chest~~ dome  $47\frac{3}{8}$  length  $57$   
Thickness of plates  $\frac{9}{16}$  description of longitudinal joint single riveted diameter of rivet holes  $\frac{7}{8}$  pitch of rivets  $2\frac{3}{8}$   
Working pressure of shell by rules  $120$  Diameter of flue — thickness of plates —  
If stiffened with rings — distance between rings — Working pressure by rules —  
End plates of superheater, or steam chest; thickness — How stayed —  
Superheater or steam chest; how connected to boiler —

DONKEY BOILER— Description Horizontal cylindrical multitubular  
Made at Hamburg By whom made Blohm & Voss when made 1883  
Where fixed In Bridge house on upper deck working pressure 60 lbs Tested by hydraulic pressure to 120 No. of Certificate Des 76  
Fire grate area 10 Description of safety valves Adam's spring No. of safety valves 1 area of each 50  
If fitted with easing gear Yes If steam from main boilers can enter the donkey boiler Prevented by a non-ret  
Diameter of donkey boiler 67 length 101 description of riveting longitud. seams double riveted, circum  
thickness of shell plates 7/16 diameter of rivet holes 13/16 whether punched or drilled Punched  
pitch of rivets 3 lap of plating H per centage of strength of joint 72.9  
thickness of crown plates — stayed by Screwed tubes with nuts  
Diameter of furnace, top 28 bottom — length of furnace 65 3/4  
thickness of plates 3/8 description of joint single riveted  
thickness of furnace crown plates — stayed by —  
Working pressure of shell by rules 43.5 lbs working pressure of furnace by rules 81.5 lbs  
diameter of uptake — thickness of plates — thickness of water tubes —

The foregoing is a correct description,  
Blohm & Voss Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c.)

The Engines and Boilers of this Vessel are of the very best material and workmanship and have been built under my daily inspection. The Boilers have been tested by hydraulic and the safety valves adjusted under steam, and in my opinion the vessel ought be marked ✓ L.M.C. 2.83. in the Register Book. —

The amount of Entry Fee .. £ : : received by me,

Special .. £ 33:10:

Certificate (if required) .. £ : : 18

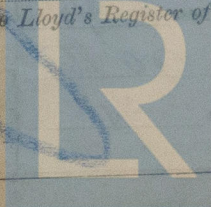
To be sent as per margin.

(Travelling Expenses, if any, £ )

Committee's Minute

Friday, 2nd March, 1883.

J. A. Lilberty  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



Lloyd's Register  
Foundation