

REPORT ON MACHINERY.

No. 025 (Received at London Office) WEDNESDAY 21 OCT 1883
 No. in Survey held at Hamburg Date, first Survey 8th July Last Survey 12th Oct 1883
 Reg. Book. L. S. Union (Number of Visits)
 on the L. S. Union Tons 307.21
 Master P. S. Barm Built at Kiel When built 1883
 Engines made at Kiel By whom made Geb. Howaldt when made 1883
 Boilers made at Kiel By whom made Geb. Howaldt when made 1883
 Registered Horse Power 40 Owners H. Sandberg Port belonging to Hamburg

ENGINES, &c.—
 Description of Engines Direct acting, inverted Cylinders
 Diameter of Cylinders 15 3/4 x 27 1/8 Length of Stroke 15 3/4 No. of Rev. per minute 125 Point of Cut off, High Pressure 1/3 Low Pressure 1/2
 Diameter of Screw shaft 4 3/4 Diameter of Tunnel shaft 4 9/16 Diameter of Crank shaft journals 4 3/4 Diameter of Crank pin 4 3/4 size of Crank webs 4 3/4
 Diameter of screw 2 1/3 Pitch of screw 2 1/4 No. of blades 4 state whether moveable no total surface 40 sq
 No. of Feed pumps 1 diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
 No. of Bilge pumps 1 diameter of ditto 2 1/2 Stroke 12 Can one be overhauled while the other is at work yes
 Where do they pump from from all departments
 No. of Donkey Engines 1 Size of Pumps 4 7/16 x 2 3/8 Where do they pump from from all departments

Are all the bilge suction pipes fitted with roses yes Are the roses always accessible yes Are the sluices on Engine room bulkheads always accessible yes
 No. of bilge injections 2 and sizes 3 & 5 Are they connected to condenser, or to circulating pump to circulating Pump
 How are the pumps worked One by eccentric, one by lever
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks 1 Valve and 1 Cock on the skin
 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 air pump Are the blow off cocks fitted with a spigot and brass covering plate no
 Are all pipes, cocks, valves, and pumps in connection with the sea 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 new
 Is the screw shaft tunnel watertight yes and fitted with a sluice door yes worked from deck

BOILERS, &c.—
 Number of Boilers 2 Description multitubular circular boilers
 Working Pressure 90 lbs Tested by hydraulic pressure to 165 lbs Date of test 21st Sept 1883
 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 104 sq Description of safety valves direct acting valves, spring loaded
 No. to each boiler two area of each valve 4 43 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 between Boiler and Bunker 5"
 Diameter of boilers 74 8" Length of boilers 78 5" description of riveting of shell long. seams double riveted circum. seams single riveted
 Thickness of shell plates 19/32" diameter of rivet holes 1" whether punched or drilled drilled pitch of rivets 2.95"
 Lap of plating 6" per centage of strength of longitudinal joint 66 1/2% working pressure of shell by rules 93.85 lbs
 Size of manholes in shell 11" x 15" size of compensating rings 15" x 19" x 5/8"
 No. of Furnaces in each boiler 1 outside diameter 35 1/2" length, top 53 1/4" bottom —
 Thickness of plates 3/8" description of joint welded if rings are fitted — greatest length between rings —
 Working pressure of furnace by the rules Lox's patent furnace top 9 1/16"
 Combustion chamber plating, thickness, sides 9/16" back 19/32" top 9 1/16"
 Pitch of stays to ditto, sides — back 7 1/8" top —
 If stays are fitted with nuts or riveted heads riveted heads working pressure of plating by rules 179 lbs
 Diameter of stays at smallest part 1 3/16" working pressure of ditto by rules 3066 lbs
 End plates in steam space, thickness 23/32" pitch of stays to ditto 15" how stays are secured auto washers
 Working pressure by rules 94 lbs diameter of stays at smallest part 2 1/8" working pressure by rules 5704
 Front plates at bottom, thickness 23/32" Back plates, thickness 1/32" greatest pitch of stays 7 1/8" working pressure by rules 179 lbs

Diameter of tubes $3\frac{1}{4}$ " outside pitch of tubes $4\frac{9}{16}$ " thickness of tube plates, front $\frac{23}{32}$ " back $\frac{11}{16}$ "
How stayed stay tubes pitch of stays width of water spaces
Diameter of Superheater or Steam chest dome $29\frac{1}{8}$ " length $31\frac{1}{2}$ "
Thickness of plates $\frac{5}{16}$ " description of longitudinal joint singleriveted diameter of rivet holes 1" pitch of rivets $2\frac{9}{16}$ "
Working pressure of shell by rules 108 lbs. 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 $\frac{7}{16}$ " How stayed
Superheater or steam chest; how connected to boiler riveted to the boiler

DONKEY BOILER—

Description none
Made at By whom made when made
Where fixed working pressure Tested by hydraulic pressure to No. of Certificate
Fire grate area Description of safety valves No. of safety valves area of each
If fitted with casing gear If steam from main boilers can enter the donkey boiler
Diameter of donkey boiler length description of riveting
thickness of shell plates diameter of rivet holes whether punched or drilled
pitch of rivets lap of plating per centage of strength of joint
thickness of crown plates stayed by
Diameter of furnace, top bottom length of furnace
thickness of plates description of joint
thickness of furnace crown plates stayed by
Working pressure of shell by rules working pressure of furnace by rules
diameter of uptake thickness of plates thickness of water tubes

The foregoing is a correct description,

George Howaldt Manufacturer.

W. H. Howaldt

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

of very good Material and of good workmanship and
built according to Lloyd's Rules the Boilers have
been tested under hydraulic and were found tight.
The safety valves were adjusted under steam.
My opinion the Vessel ought to be marked with
+ L.M.C. 10. 83 in the Register book

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

Special .. £ 6 : 0 : 0

Certificate (if required) .. £ : : 18

To be sent as per margin.

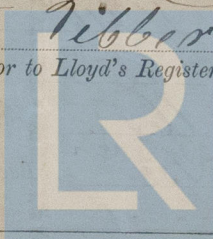
(Travelling Expenses, if any, £ 3. 0. 0.)

Committee's Minute

FRIDAY 2 NOV 1893

18

Engineer Surveyor to Lloyd's Register British & Foreign Shipping.



Lloyd's Register
Foundation