

REPORT ON MACHINERY.

538

No. 538

(Received at London Office 4th DEC. 1882.)

No. in Survey held at Rostock

Date, first Survey 10th July Last Survey 23rd Nov. 1882

Reg. Book. S. S. Norge

(Number of Visits)

Master Wiese

Built at Rostock

When built 1882

Tons 674

Engines made at Berlin

By whom made Borsig & Co when made 1882

Boilers made at Rostock

By whom made Rostocker Maschinenbau when made 1882

Registered Horse Power 130

Owners Paul Comp. ann 1871 Bergen Port belonging to Bergen

ENGINES, &c.—

Description of Engines Direct acting compound inverted with surface condenser

Diameter of Cylinders 29 1/16 x 57 1/8 Length of Stroke 33 1/2 No. of Rev. per minute 75 Point of Cut off, High Pressure 0.50 Low Pressure 0.47

Diameter of Screw shaft 9 1/16 Diameter of Tunnel shaft 9 1/16 Diameter of Crank shaft journals 9 1/16 Diameter of Crank pin 9 1/16 size of Crank webs 5 13/16 x 11 1/16

Diameter of screw 12 1/2 Pitch of screw 16 5/8 No. of blades 4 state whether moveable no total surface 35 1/2

No. of Feed pumps 2 diameter of ditto 3 Stroke 16 3/4 Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 diameter of ditto 3 Stroke 16 3/4 Can one be overhauled while the other is at work yes

Where do they pump from Sea Bilge all Compartments and Waterballast

No. of Donkey Engines 2 Size of Pumps 5 1/2 x 8 Where do they pump from Sea Bilge all

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 one and sizes 5 Are they connected to condenser, or to circulating pump to circulating pump

How are the pumps worked by lever

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks Valves and cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates no Are the discharge pipes above or below the deep water line below

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 discharge pipe from Donkey How are they protected with iron plates

Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times all except the Donkey discharge

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 Engine Room

BOILERS, &c.—

Number of Boilers 2 Description multitubular cylindrical

Working Pressure 80 Tested by hydraulic pressure to 160 Date of test 6th Sept. 1882.

Description of superheating apparatus or steam chest horizontal steam dome

Can each boiler be worked separately yes Can the superheater be shut off and the boiler worked separately no

No. of square feet of fire grate surface in each boiler 300 Description of safety valves Adams Safety Valves

No. to each boiler 2 area of each valve 11 7/8 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 no woodwork near the Boilers

Diameter of boilers 10 1/2 Length of boilers — description of riveting of shell long. seams 5 rows 2 circum. seams double

Thickness of shell plates 13/16 diameter of rivet holes 15/16 whether punched or drilled punched pitch of rivets 5/8

Lap of plating 8 1/2 per centage of strength of longitudinal joint 83, 1% working pressure of shell by rules 85, 13 lbs

Size of manholes in shell 15 x 15 size of compensating rings 4 x 5/8

No. of Furnaces in each boiler 2 outside diameter 34 length, top 7 6/8 bottom 7 6/8

Thickness of plates 1/2 description of joint double riveted rings are fitted yes greatest length between rings 45 1/2

Working pressure of furnace by the rules 173

Combustion chamber plating, thickness, sides 1/2 back 9/16 top 1/2

Pitch of stays to ditto, sides 6 7/8 x 6 7/8 back 5 7/8 top 8 1/2 x 16

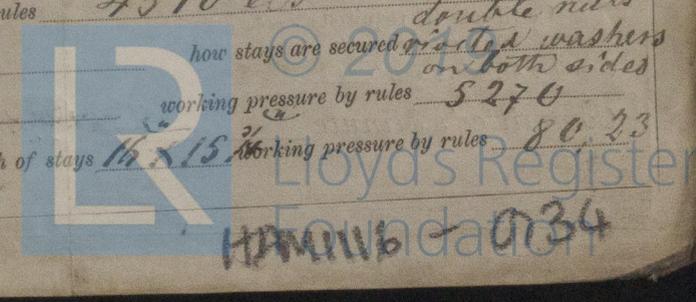
If stays are fitted with nuts or riveted heads riveted heads working pressure of plating by rules 84 1/2 x 16 145 lbs

Diameter of stays at smallest part 1 working pressure of ditto by rules 4510 lbs

End plates in steam space, thickness 3/4 pitch of stays to ditto 1 1/4 how stays are secured double nuts on both sides

Working pressure by rules 80, 23 diameter of stays at smallest part 2 1/4 working pressure by rules 5270

Front plates at bottom, thickness 3/4 Back plates, thickness 3/4 greatest pitch of stays 1 1/2 x 15 3/4 Working pressure by rules 80, 23



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Diameter of tubes $3\frac{1}{4}$ pitch of tubes $4\frac{1}{2} \times 4\frac{5}{16}$ thickness of tube plates, front $3\frac{1}{4}$ back $3\frac{1}{4}$
 How stayed *stay tubes* pitch of stays $13\frac{1}{2}$ width of water spaces $1\frac{1}{4}$
 Diameter of Superheater or Steam chest $4\text{ }9$ length $8\text{ }10\frac{1}{2}$
 Thickness of plates $\frac{1}{2}$ description of longitudinal joint *double riveted* diameter of rivet holes $7\frac{1}{8}$ pitch of rivets $2\frac{5}{8}$
 Working pressure of shell by rules 93 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 *—* How stayed *with angle iron*
 Superheater or steam chest; how connected to boiler *—*

DONKEY BOILER— Description *Vertical cross tubes*
 Made at *Walle etc.* By whom made *F. Schmidt* when made *1882* *15th July 82*
 Where fixed *in stove* working pressure *80 lbs* Tested by hydraulic pressure to *150* No. of Certificate *444*
 Fire grate area *90* Description of safety valves *common valve* No. of safety valves *1* area of each *4.4*
 If fitted with casing gear *yes* If steam from main boilers can enter the donkey boiler *yes*
 Diameter of donkey boiler *50* length *11* description of riveting *longitudinal double round seams single*
 thickness of shell plates *5* diameter of rivet holes $\frac{3}{4}$ whether punched or drilled *—*
 pitch of rivets $3\frac{1}{16}$ lap of plating $4\frac{1}{4}$ per centage of strength of joint 72
 thickness of crown plates $\frac{5}{8}$ stayed by *—*
 Diameter of furnace, top $4\text{ }11$ bottom $4\text{ }11$ length of furnace 8
 thickness of plates $\frac{5}{8}$ description of joint *single riveted*
 thickness of furnace crown plates $\frac{3}{4}$ stayed by *—*
 Working pressure of shell by rules 80 lbs working pressure of furnace by rules 83 lbs
 diameter of uptake $17\frac{3}{4}$ thickness of plates $\frac{5}{16}$ thickness of water tubes $\frac{5}{16}$

The foregoing is a correct description,
Shendrick Manufacturer.

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

The Engine and Boiler of this vessel are of good material and workmanship and in my opinion entitle the vessel to be marked with **L.M.C. 11, 82.** in the Register Book.

It is submitted that this vessel is eligible to have the notification **L.M.C. 11, 82.** recorded in the Register Book
 C.S.S.
 4.17.82

The amount of Entry Fee .. £ : : received by me,
 Special *14:10* .. £ 14:10 :
 Certificate (if required) .. £ : : 18
 To be sent as per margin.
 (Travelling Expenses, if any, £ *0.0.0*)

Paid Vicks Letter and other
J.A. Hibbert
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *Lisday, 12th December, 1882.*

