

REPORT ON MACHINERY.

764

No. 764

No. in Survey held at
Reg. Book.

Hamburg

Received at London WEDNESDAY 13 MARCH 1885

Date, first Survey 13th Sept 84 Last Survey 10th March 1885

(Number of Visits)

on the

S.S. Stockholm

Tons

Master Böhm Built at Hamburg By whom built Riherstieg Schiffswerft When built 1885
Engines made at Hamburg By whom made Riherstieg Schiffswerft when made 1885
Boilers made at Hamburg By whom made Riherstieg Schiffswerft when made 1885
Registered Horse Power 115 Owners H. H. Gehrckens Port belonging to Hamburg

ENGINES, &c.-

Description of Engines Compound inverted direct acting with surface condenser
Diameter of Cylinders $35^{\circ} 47^{\circ}$ Length of Stroke 33° No. of Rev. per minute 80 Point of Cut off, High Pressure $1/2$ Low Pressure $1/2$
Diameter of Screw shaft $8\frac{1}{2}^{\circ}$ Diam. of Tunnel shaft $8\frac{1}{4}^{\circ}$ Diam. of Crank shaft journals $8\frac{1}{2}^{\circ}$ Diam. of Crank pin $8\frac{1}{2}^{\circ}$ size of Crank webs $6\frac{3}{4}^{\circ}, 10\frac{1}{4}^{\circ}$
Diameter of screw $11^{\circ} 3^{\circ}$ Pitch of screw $12^{\circ} 0^{\circ}$ No. of blades 4 state whether moveable total surface
No. of Feed pumps 2 diameter of ditto $3\frac{1}{4}^{\circ}$ Stroke $16\frac{1}{2}$ Can one be overhauled while the other is at work yes
No. of Bilge pumps 2 diameter of ditto $3\frac{1}{4}^{\circ}$ Stroke $16\frac{1}{2}$ Can one be overhauled while the other is at work yes
Where do they pump from forward pump engine & forehold, after pump engine & boiler bilges after
No. of Donkey Engines 1 Size of Pumps $4^{\circ}, 9^{\circ}$ Stroke Where do they pump from all bilges, same as the
engine pumps, forward & aft tank & deck tank, also from sea & hotwell
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 1 and sizes 3° Are they connected to condenser, or to circulating pump one to condenser & one to circulating
How are the pumps worked pump, the latter $4\frac{1}{4}^{\circ}$

Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks valves & cocks
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 yes
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 How are they protected

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 none

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

OILERS, &c.-

Number of Boilers 1 Description round multitubular Whether Steel or Iron
Working Pressure 85 lbs Tested by hydraulic pressure to 160 lbs Date of test Feb 5th 1885

Description of superheating apparatus or steam chest

Can each boiler be worked separately Can the superheater be shut off and the boiler worked separately

No. of square feet of fire grate surface in each boiler $58,500^{\circ}$ Description of safety valves spring valves No. to each boiler 2

Area of each valve 40° 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 9° Diameter of boilers $13^{\circ} 9^{\circ}$

Length of boilers $9^{\circ} 11^{\circ}$ description of riveting of shell long. seams triple riveted lashed cum. seams double riveted thickness of shell plates $25/32^{\circ}$

Diameter of rivet holes 1° whether punched or drilled drilled pitch of rivets $5\frac{1}{4}^{\circ}$ Lap of plating lashed

Per centage of strength of longitudinal joint 81% working pressure of shell by rules 99 lbs size of manholes in shell none

Size of compensating rings Outside diameter $40\frac{1}{16}^{\circ}$ length, top $6\frac{1}{16}^{\circ}$ bottom thickness of plates $1\frac{1}{32}^{\circ}$ description of joint common seam if rings are fitted

Greatest length between rings working pressure of furnace by the rules 91 lbs combustion chamber plating, thickness, sides $1\frac{5}{16}^{\circ}$ back $1\frac{5}{16}^{\circ}$ top $1\frac{5}{16}^{\circ}$

Pitch of stays to ditto, sides $7\frac{1}{4}^{\circ} \times 8^{\circ}$ back $7\frac{1}{4}^{\circ} \times 8^{\circ}$ top If stays are fitted with nuts or riveted heads nuts working pressure of plating by rules 105 lbs diameter of stays at smallest part $1\frac{1}{8}^{\circ}$ working pressure of ditto by rules $49\frac{1}{2} \text{ lbs}$ plates in steam space, thickness $\frac{3}{4}^{\circ}$ forward, $\frac{11}{16}^{\circ}$ aft

Pitch of stays to ditto $14^{\circ} \times 15^{\circ}$ how stays are secured in outside plates working pressure by rules 86 lbs diameter of stays at smallest part $2\frac{1}{8}^{\circ}$ working pressure by rules $50\frac{1}{2} \text{ lbs}$ Front plates at bottom, thickness $5\frac{1}{8}^{\circ}$ Back plates, thickness $5\frac{1}{8}^{\circ}$

Greatest pitch of stays plates, front $11\frac{1}{16}^{\circ}$ back $11\frac{1}{16}^{\circ}$ how stayed stay tube pitch of stays $13\frac{1}{2}^{\circ} \times 9^{\circ}$ width of water spaces $12\frac{1}{2}^{\circ} 6^{\circ}$

Diameter of Superheater or Steam chest length thickness of plates description of longitudinal joint diam. of rivet holes

Pitch of rivets working pressure of shell by rules 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 vertical boiler with 3 horizontal cross tubes
 Made at Hamburg by whom made Reichenberg Schiffswerft & Eisenbau made 1885 where fixed
 Working pressure 65 lbs tested by hydraulic pressure to 140 lbs No. of Certificate Sept 27, 84 fire grate area 6,89 sq ft description of safety valves lever loaded No. of safety valves 2 area of each 1,76 sq ft if fitted with easing gear if steam from main boilers can enter the donkey boiler no diameter of donkey boiler 5' 6" length 9' 3" description of riveting double riveted
 Thickness of shell plates Keel $\frac{5}{16}$ " diameter of rivet holes $\frac{3}{16}$ " whether punched or drilled drilled pitch of rivets $2\frac{3}{4}$ " lap of plating common capped per centage of strength of joint 73, 7% thickness of crown plates $\frac{7}{16}$ " stayed by
 Diameter of furnace, top 4' 9" bottom 4' 9" length of furnace 5' 6" thickness of plates $\frac{7}{16}$ " description of joint stayed by 8 cross tubes common seam
 Thickness of furnace crown plates $\frac{7}{16}$ " stayed by working pressure of shell by rules 68, 7 lbs
 Working pressure of furnace by rules diameter of uptake thickness of plates thickness of water tubes

SPARE GEAR. State the articles supplied:—

The foregoing is a correct description,

Manufacturer.

F. Schell

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

The Engine and Boiler of this vessel are built according to Lloyd's Rules. The Boilers have been tested by hydraulic to double the working pressure. The safety valves have been adjusted under steam, the material of Boiler and Engine are of very good quality and of the very best workmanship, and I can recommend the vessel to be marked with **+ 116.3.85.** in the Register Book.

I submit that this vessel is eligible to have the notation
S. L. 3.85 recorded
It is +

D. Schell
19/3/85

The amount of Entry Fee £ 1 : 10 : 0 received by me,
 Special £ 17 : 5 : 0
 Donkey Boiler Fee £ : :
 Certificate (if required) £ : : 18
 To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

FRIDAY 20 MARCH 1885