

# REPORT ON MACHINERY.

No. 588

No. in Survey held at *Kiel*  
Reg. Book.

Date, first Survey *Jan 14* Last Survey *May 17 1883*

(Received at London Office 27 AUGUST 1883)

(Number of Visits)

on the

*S/S "Velox"*

Tons *995.45*

Master *M. Kallsen*

Built at

*Kieler Schiffswerft* When built *1883*

Engines made at *Kiel*

By whom made *Gebrüder Howaldt* when made *1883*

Boilers made at *Dietrichsdorf near Kiel*

By whom made *Geb. Howaldt* when made *1883*

Registered Horse Power *90*

Owners

*H. Sandberg*

Port belonging to *Flensburg*

## ENGINES, &c.—

Description of Engines *Surface condensing Compound*

Diameter of Cylinders *23" x 43 1/4"* Length of Stroke *30"* No. of Rev. per minute *85* Point of Cut off, High Pressure *9 1/2"* Low Pressure *15"*

Diameter of Screw shaft *8 1/2"* Diameter of Tunnel shaft *8 1/4"* Diameter of Crank shaft journals *8 1/2"* Diameter of Crank pin *8 1/2"* size of Crank webs *11 x 6 1/4"*

Diameter of screw *11.6"* Pitch of screw *10.6"* No. of blades *4* state whether moveable *No* total surface *103.3*

No. of Feed pumps *2* diameter of ditto *3"* Stroke *14"* Can one be overhauled while the other is at work *yes*

No. of Bilge pumps *2* diameter of ditto *3"* Stroke *14"* Can one be overhauled while the other is at work *yes*

There do they pump from *Fore-room, Engine-room, Aft-room & Tank*

No. of Donkey Engines *1* Size of Pumps *3 1/2" x 6"* Where do they pump from *Fore-room, Engine-room, Aft-room & Tank*

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 *4" Ø* Are they connected to condenser, or to circulating pump *Circulating-pumps*

How are the pumps worked *By means of a lever, connected to crosshead*

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

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 *None* 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 *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 skylight*

## BOILERS, &c.—

Number of Boilers *2* Description *Circular multitubular Boiler*

Working Pressure *90* Tested by hydraulic pressure to *165 lbs* Date of test *April 14 1883*

Description of superheating apparatus or steam chest *Separated, fitted with 1 corrugated tube & cylindrical*

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

Area of square feet of fire grate surface in each boiler *24, 22* Description of safety valves *Direct spring loaded*

No. to each boiler *2* area of each valve *7" Ø* Are they fitted with easing gear *yes*

No. of safety valves to superheater *1* area of each valve *4 1/2" Ø* are they fitted with easing gear *No*

Smallest distance between boilers and bunkers *4"*

Diameter of boilers *8' 7 1/8"* Length of boilers *7' 8 1/16"* description of riveting of shell long. seams *double riveted* circum. seams *single riveted*

Thickness of shell plates *3/4"* diameter of rivet holes *1 3/16"* whether punched or drilled *drilled* pitch of rivets *3 15/16"*

Thickness of plating *3 1/2"* per centage of strength of longitudinal joint *70* working pressure of shell by rules

Size of manholes in shell *14" x 10 1/4"* size of compensating rings *6 1/2" x 3/4"*

No. of Furnaces in each boiler *1* outside diameter *corrugated* length, top *7' 0"* bottom *7' 0"*

Thickness of plates *7/16"* description of joint *welded* if rings are fitted *—* greatest length between rings *—*

Working pressure of furnace by the rules *Corrugated furnaces*

Thickness of combustion chamber plating, thickness, sides *1/16"* back *1/16"* top *1/16"*

Thickness of stays to ditto, sides *1" x 7"* back *7/8"* top *None, but vaulted top-plate*

Are stays fitted with nuts or riveted heads *riveted heads* working pressure of plating by rules *285 lbs*

Diameter of stays at smallest part *1 1/8"* working pressure of ditto by rules *40 84 lbs*

Thickness of plates in steam space, thickness *3/4"* pitch of stays to ditto *13 3/8" x 15 3/4"* How stays are secured *double nuts & washers*

Working pressure by rules *93 lbs* diameter of stays at smallest part *2"* working pressure by rules *5600*

Thickness of bottom plates at bottom, thickness *3/4"* Back plates, thickness *3/4"* greatest pitch of stays *7/8"* working pressure by rules *285 lbs*

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Diameter of tubes  $\frac{3}{4}$  outside diam pitch of tubes  $4\frac{3}{4}$ " thickness of tube plates, front  $\frac{3}{4}$ " back  $\frac{3}{4}$ "  
 How stayed Stay tubes pitch of stays 12" width of water spaces  
 Diameter of Superheater or Steam chest 6' 7" length 7"  
 Thickness of plates  $\frac{1}{16}$ " description of longitudinal joint double riveted diameter of rivet holes 1" pitch of rivets 3"  
 Working pressure of shell by rules Diameter of flue 3' 7" thickness of plates  $\frac{7}{16}$ "  
 If stiffened with rings corrugated distance between rings Working pressure by rules  
 End plates of superheater, or steam chest; thickness  $\frac{1}{16}$  How stayed By the flue  
 Superheater or steam chest; how connected to boiler By the smoke box, also fitted by a column to the keelson

**DONKEY BOILER**— 1 Description Cylindrical, upright, multitubular  
 Made at Dietrichsdorf Silesia By whom made C. H. Howaldt when made 1883  
 Where fixed In the Stove room working pressure 90 lbs Tested by hydraulic pressure to 165 lbs No. of Certificate  
 Fire grate area 9 sq ft Description of safety valves direct spring loaded No. of safety valves 1 area of each 7 sq in  
 If fitted with casing gear Yes If steam from main boilers can enter the donkey boiler No  
 Diameter of donkey boiler 4' 11" length 8' 4" description of riveting long seams double riveted, circular seams, single riveted.  
 thickness of shell plates  $\frac{1}{2}$ " diameter of rivet holes 1" whether punched or drilled drilled  
 pitch of rivets 3" lap of plating 3" per centage of strength of joint 67  
 thickness of crown plates  $\frac{23}{32}$ " stayed by the stay tubes  
 Diameter of furnace, top cylindrical bottom 3' 11 $\frac{1}{4}$ " length of furnace 2' 5 $\frac{1}{2}$ "  
 thickness of plates  $\frac{3}{8}$ " description of joint single riveted, lap-joint  
 thickness of furnace crown plates  $\frac{23}{32}$ " stayed by the stay tubes  
 Working pressure of shell by rules working pressure of furnace by rules  
 diameter of uptake thickness of plates thickness of water tubes  $\frac{5}{32}$ ", 3" inner diam.

The foregoing is a correct description,  
*Quintin Howaldt* Manufacturer.

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

The Engine and Boilers of this vessel are of very good material and workmanship and built according to the Rules under Special Survey.

The Boilers have been tested by me under hydraulic pressure on the 4<sup>th</sup> of April and were found tight. The Safety-valves were adjusted by me under steam on the 1<sup>st</sup> of May, and in my opinion, the vessel ought to be entered

**L.M.C. 5. 83** in the Register Book.

It is submitted that  
 the vessel is to be  
 to have the notations  
 + L.M.C. 5. 83 recorded  
 27/8/83

The amount of Entry Fee .. £ 200 : received by me,  
 Special .. £ 13:10:0  
 Certificate (if required) .. £ : : 18  
 To be sent as per margin.

(Travelling Expenses, if any, £ 2. 10. 0)

Committee's Minute

SEPTEMBER 1883 18

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



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