

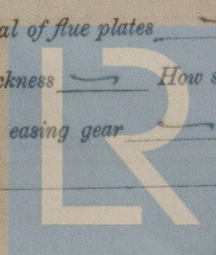
REPORT ON MACHINERY

WED, 1 DEC 1897

Port of Hamburg Received at London Office _____
 No. in Survey held at Stensburg Date, first Survey 3rd March Last Survey 24th November 1897
 Reg. Book. 54 on the Steel S. S. Octavia (Number of Vols. 14)
 Master A. Hansi Built at Stensburg By whom built Stensburger Schiffh. Ges. When built 1897
 Engines made at Stensburg By whom made do. when made 1897
 Boilers made at do. By whom made do. when made 1897
 Registered Horse Power 426 Owners Hamburg Pacific Dampf Linie Port belonging to Hamburg
 Nom. Horse Power as per Section 28 426

ENGINES, &c.— Description of Engines Triple expansion on three cranks and No. of Cylinders 3
 Diameter of Cylinders 26 $\frac{1}{2}$ " 44" x 72" Length of Stroke 48" Revolutions per minute 65 Diameter of Screw shaft 12.8"
 as per rule 12.18" as fitted 13.75" Diameter of Tunnel shaft 13.12" Diameter of Crank shaft journals 13.75" Diameter of Crank pin 13.75" Size of Crank webs 8.25" x 20"
 as fitted 13.12" Diameter of screw 17.9" Pitch of screw 17.6" No. of blades 4 State whether moveable yes Total surface 82 sq. ft.
 No. of Feed pumps 2 Diameter of ditto 4" Stroke 31" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 4.9" Stroke 31" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 4 Sizes of Pumps 2. d. d. 10" x 9" 2. d. d. 10" x 9" 2. d. d. 10" x 9" 2. d. d. 10" x 9" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4-20" 4-20" 3-2" In Holds, &c. 8-3 $\frac{1}{2}$ " each from Tanks 10-4" each
1-3 $\frac{1}{2}$ " in tunnel recess 2-3 $\frac{1}{2}$ " in Tunnel 1-do in peak.
 No. of bilge injections 1 sizes 6" Connected to condenser, or to circulating pump yes Is a separate donkey suction fitted in Engine room & size yes-4"
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible no sluice
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both
 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 fore hold suction How are they protected by wooden boxes
 Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times yes
 Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges yes
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock 12/10/97 Is the screw shaft tunnel watertight yes
 Is it fitted with a watertight door yes worked from Cyl. platform on main deck

BOILERS, &c.— (Letter for record O.) Total Heating Surface of Boilers 7309 sq. ft.
 No. and Description of Boilers 3 single ended cylind. multib. Working Pressure 165 lbs. Tested by hydraulic pressure to 330 lbs.
 Date of test 18/9/97 Can each boiler be worked separately yes Area of fire grate in each boiler 46 sq. ft. No. and Description of safety valves to
 each boiler 2 spring loaded Area of each valve 9.64" Pressure to which they are adjusted 165 lbs. Are they fitted
 with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 2 ft. Mean diameter of boilers 14.525"
 Length 11.96" Material of shell plates Steel Thickness 1.27" Description of riveting: circum. seams double butt butt in long. seams lap treble rivet
 Diameter of rivet holes in long. seams 1.37" Pitch of rivets 4.6" Lap of plates or width of butt straps 18"
 Per centages of strength of longitudinal joint 85.59% Working pressure of shell by rules 187.84 lbs. Size of manhole in shell 15.7" x 11.8"
 plate 87.26% Size of compensating ring 8" x 1.27" No. and Description of Furnaces in each boiler 3 Morrison's Material Steel Outside diameter 3.10"
 Length of plain part top 3.27" bottom 3.27" Thickness of plates top 1.59" bottom 1.59" Description of longitudinal joint welded No. of strengthening rings —
 Working pressure of furnace by the rules 2053 lbs. Combustion chamber plates: Material Steel Thickness: Sides .59" Back .59" Top .59" Bottom .86"
 Pitch of stays to ditto: Sides 7.87" Back 7.87" Top 7.87" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 196.8 lbs.
 Material of stays Steel Diameter at smallest part 1.47" Area supported by each stay 61.9 sq. in. Working pressure by rules 2067 lbs. End plates in steam space:
 Material Steel Thickness 1" Pitch of stays 15.7" x 15.7" How are stays secured double nutted Working pressure by rules 192.5 lbs. Material of stays Iron
 Diameter at smallest part 2.75" Area supported by each stay 246 sq. in. Working pressure by rules 180 lbs. Material of Front plates at bottom Steel
 Thickness .86" Material of Lower back plate Steel Thickness .86" Greatest pitch of stays 13.38" Working pressure of plate by rules 193 lbs.
 Diameter of tubes 3.81" Pitch of tubes 4.92" Material of tube plates Steel Thickness: Front .92" Back .88" Mean pitch of stays 9.48"
 Pitch across wide water spaces 14.17" Working pressures by rules 174.6 lbs. Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 7.87" x 1.4" Length as per rule 26.89" Distance apart 7.87" Number and pitch of Stays in each 2-7.87"
 Working pressure by rules 2839 lbs. Superheater or Steam chest; how connected to boiler — Can the superheater be shut off and the boiler worked
 separately — Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet
 holes — Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —
 If stiffened with rings — Distance between rings — Working pressure by rules — End plates: Thickness — How stayed —
 Working pressure of end plates — Area of safety valves to superheater — Are they fitted with easing gear —



DONKEY BOILER— Description *No Donkey Boiler fitted*

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 _____ Pressure to which they are adjusted _____ If fitted with easing gear _____ If steam from main boilers can enter the donkey boiler _____ Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
Description of riveting long. seams _____ Diameter of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____
Lap of plating _____ Per centage of strength of joint _____ Rivets _____ Thickness of shell crown plates _____ Radius of do. _____ No. of Stays to do. _____
Dia. of stays _____ Diameter of furnace Top _____ Bottom _____ Length of furnace _____ Thickness of furnace 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 uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *1/3 crankshaft, 2 spare propeller blades, 1 tail shaft, 1 slide rod, 1 incl. p.p. rod, 1 set p.p. valves, 1 set circum. p.p. valves, 4 valves & seats for lead & bilge p.p.s, 2 for lead donkey, 1 set coupl. bolts, 2 main bearing bolts & bolts each for circum. rod top & bottom ends, 1 spring main safety valve, 50 cond. tubes, 100 screw glands, 15 boiler tubes, 1 set fire bars, bolts, nuts, studs, washers, & all plate iron of various sizes.*

The foregoing is a correct description,
Flensburger Schiffbau-Gesellschaft Manufacturer.

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

Dates of survey while building
During progress of work in shops - *3/3, 4/3, 14/3, 24/3, 30/4, 20/5, 30/6, 14/7, 12/8, 10/9, 18/9. 1894*
During erection on board vessel - *12/10, 12/11, 24/11. 1894.*
Total No. of visits *14.*

Materials and workmanship of these Engines and Boilers are of very good quality. I attended an satisfactory trial trip on the 24th November 1894, when I found the Safety valves of three Main Boilers correctly adjusted.

The copies of the the invoices of the Steel Boiler Materials, signed by the testing officers are in my hands, the Certificates of Shaft and other large forgings will be found attached.

The approved plan of the Boilers will be found attached.

I am of opinion that these Engines and Boilers have been constructed in accordance with the Society's Rules and are eligible to be classed in the Register Book. I therefore beg to recommend that the vessel be classed and *L.M.C. 11. 97.* be entered in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD. + *L.M.C. 11. 97* &c. Light

Certificate (if required) to be sent to *Hamburg Office.*

The amount of Entry Fee.. £ *3 0 0* When applied for,
Special .. £ *41 16 0* *244 18 11*
Donkey Boiler Fee .. £ : : When received,
Travelling Expenses (if any) £ *11 2 0* *274 18 11*

Committee's Minute

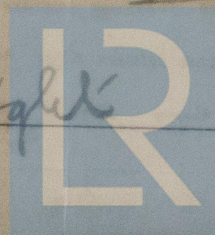
FRI. 3 DEC 1897

Assigned

+ L.M.C. 11. 97

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

Ch. Kieck



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Lloyd's Register
Foundation