

REPORT ON MACHINERY.

Port of Stettin

Received at London Office _____

No. in Survey held at Stettin Grabow Date, first Survey 14th June 1904 Last Survey 13th April 1905
 Reg. Book. 3 suppl. on the Steel Screw Steamer, "Olvine Köpfer" (Number of Visits 16) Tons { Gross 2086
 Master P. Pecmüller Built at Stettin By whom built Stettiner-Oderwerke When built 1905
 Engines made at Stettin By whom made Stettiner-Oderwerke when made 1905
 Boilers made at " By whom made Stettin when made 1905
 Registered Horse Power 158 NHP Owners Robert Köpfer Port belonging to Stettin
 Nom. Horse Power as per Section 28 158 NHP Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines one triple expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 18 x 29 x 42" Length of Stroke 36 Revs. per minute 82 Dia. of Screw shaft 10 1/2" Material of screw shaft steel
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube no Is the after end of the liner made water tight in the propeller boss no If the liner is in more than one length are the joints burned yes If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes (in oil) If two liners are fitted, is the shaft lapped or protected between the liners protected (bederung) Length of stern bush 5' 7"
 Dia. of Tunnel shaft 9 1/2" Dia. of Crank shaft journals 9 1/2" Dia. of Crank pin 9 7/8" Size of Crank webs 6 1/2 x 10 1/2" Dia. of thrust shaft under collars 10 1/2" Dia. of screw 7 1/2" Pitch of screw 14.52 No. of blades 4 State whether moceable no Total surface 79 1/2 sq ft
 No. of Feed pumps 2 Diameter of ditto 2 3/4" Stroke 17 3/4" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 2 Diameter of ditto 2 3/4" Stroke 17 3/4" Can one be overhauled while the other is at work yes
 No. of Donkey Engines 1 Sizes of Pumps Centrifugal pump 100 Tons per hour No. and size of Suctions connected to both Bilge and Donkey pumps 5 of 2 3/8" diam
 In Engine Room 2 of 2 3/8" inches diam In Holds, &c. 5 of 2 3/8" diam

No. of bilge injections 1 sizes 4 1/16" Connected to condenser, or to circulating pump circulated Is a separate donkey suction fitted in Engine room & size yes 2 3/8"
 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 yes
 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 none How are they protected —
 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 now Is the screw shaft tunnel watertight yes
 Is it fitted with a watertight door yes worked from upper engine room

BOILERS, &c.— (Letter for record D) Total Heating Surface of Boilers 2669 sq ft Is forced draft fitted no
 No. and Description of Boilers two scotch boilers Working Pressure 170 lbs Tested by hydraulic pressure to 340 lbs
 Date of test 2 1/2 04 Can each boiler be worked separately yes Area of fire grate in each boiler 41 sq ft No. and Description of safety valves to each boiler 2 spring loaded Area of each valve 7 1/2 sq in Pressure to which they are adjusted 170 lbs Are they fitted with easing gear yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 9 7/8" Mean dia. of boilers 11 feet Length 10' 2 1/2" Material of shell plates steel
 Thickness 1" Range of tensile strength 27-31 Are they welded or flanged flanged Descrip. of riveting: cir. seams double long. seams 2 x 3 rows
 Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 7 9/16" Lap of plates or width of butt straps 15 3/4"
 Per centages of strength of longitudinal joint rivets 110 Working pressure of shell by rules 170 lbs Size of manhole in shell 15 3/4 x 11 3/4"
 Size of compensating ring 15" x 1" No. and Description of Furnaces in each boiler 2 corrugated Material steel Outside diameter 44 5/16"
 Length of plain part top Thickness of plates bottom 9 1/16" Description of longitudinal joint welded No. of strengthening rings —
 Working pressure of furnace by the rules 213 Combustion chamber plates: Material steel Thickness: Sides 19 3/32" Back 19 3/32" Top 23 3/32" Bottom 19 3/32"
 Pitch of stays to ditto: Sides 8 1/4" Back 6 1/16" Top 7 7/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 270 lbs
 Material of stays steel Diameter at smallest part 1 3/8 x 1 1/2" Area supported by each stay 68 x 47 sq in Working pressure by rules 4700 lbs End plates in steam space: Material steel Thickness 7/8" Pitch of stays 15" How are stays secured screwed with nuts Working pressure by rules 174 lbs Material of stays steel
 Diameter at smallest part 2 3/8" Area supported by each stay 208 sq in Working pressure by rules 8000 Material of Front plates at bottom steel
 Thickness 7/8" Material of Lower back plate steel Thickness 7/8" Greatest pitch of stays 7 1/8" Working pressure of plate by rules 530 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/4" Material of tube plates steel Thickness: Front 7/8" Back 7/8" Mean pitch of stays 8 1/2"
 Pitch across wide water spaces 13 7/8" Working pressures by rules 380 lbs Girders to Chamber tops: Material steel Depth and thickness of girder at centre 26 5/16" x 20 3/32" Length as per rule 26 1/2" Distance apart 7 1/8-7 7/8" Number and pitch of Stays in each two 9 1/16"
 Working pressure by rules 177 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— No. _____ Description *see, please, separate Report No. 233a.*

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 _____

Dia. of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____ Range of tensile strength _____

Descrip. of riveting long. seams _____ Dia. 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 propeller, 1 propellershaft, 1/2 crank shaft, 1/2 set of packing rings for pistons, 1 slide valve rod, 1 rod for airpump, one ditto for circulating pump, 3/4 crank pin brasses, 3/4 crosshead brasses, 2 bolts for main bearings, 2 ditto for crank pin, 2 ditto for crosshead, 1 set coupling bolts, 2 valves for every pump, springs for main & donkey boilers, 10 boiler tubes, 25 condenser tubes, 2 pump links, tools & materials in sufficient quality.*

The foregoing is a correct description,

Stettiner Guertelwerke
für Schiff- und Maschinenbau
Mark Hadj. Mandy Manufacturer.

Dates of Survey while building	During progress of work in shops - -	17/6. 5/7. 26/7. 30/8. 12/9. 12/10. 25/11. 22/12. 24/12. 04. 5/1. 26/1. 05.	Is the approved plan of main boiler forwarded herewith <i>yes</i>
	During erection on board vessel - -	4/2. 13/2. 2/2. 1/4. 13/4. 05.	
	Total No. of visits	16	

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

*The workmanship of the machinery and of the Boilers is of good description and the materials of approved works and tested by Surveyors of the Society and therefore it is recommended that the Machinery and the Boilers may be classed and have notation in the Register-Book: **± L.M.C. 4. 05.***

It is submitted that this vessel is eligible for THE RECORD ± L.M.C. 4. 05 ELEC. LIGHT

Emil Herrberg
15.5.05

Certificate (if required) to be sent to this office.

The amount of Entry Fee..	£ 2 : 0 :	When applied for,
Special	£ 23 : 14 :	18 th April 1905.
Donkey Boiler Fee .. .	£ 2 : 2 :	When received,
Travelling Expenses (if any) £	— : — :	18 th April 1905.

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

Committee's Minute
 Assigned *+ LMC 4.05*

TUES. 16 MAY 1905



No. in Reg. Book. *1/3 suppl. on*
 Master *Po*
 Engines made
 Boilers made
 Registered
 Nom. Horse
ENGINES
 Dia. of Cylinders
 Is the screw in the propeller between the liners are fitted
 Dia. of Tunnel collars
 No. of Feed pipes
 No. of Bilge pumps
 No. of Donkey Engines
 In Engine Room
 No. of bilge injectors
 Are all the bilge pumps
 Are all connections
 Are they fixed solidly
 Are they each fitted
 What pipes are
 Are all pipes, or
 Are the bilge pumps
 When were stern
 Is it fitted with **DONKEY BOILERS**, &
 No. and Description
 Date of test *24/4*
 each boiler *2 spec*
 Smallest distance between
 Thickness *1/32" R*
 Diameter of rivet
 Per centages of strength
 Size of compensating
 Length of plain pipes
 Working pressure of
 Pitch of stays to diameter
 Material of stays &
 Material *steel*
 Diameter at small end
 Thickness *1/32" Ma*
 Diameter of tubes &
 Pitch across width
 thickness of girder
 Working pressure separately
 holes Pitch
 If stiffened with rings
 Working pressure of