

REPORT ON MACHINERY.

No. 4973

Port of Genoa Received at London Office WED. 21 JUN 1911

No. in Survey held at Zurich Date, first Survey November 17-18 Last Survey Jan 24-25 1911

Reg. Book. on the Screw steamer No 9 (Number of Visits 7) Gross 120 Tons Net 100

Master Christoph Rethof Built at Regensburg By whom built Aktiongesellschaft der Maschinenfabriken Eicher Wypss & Co When built 1911

Engines made at Zurich By whom made fabriken Eicher Wypss & Co when made 1911

Boilers made at so By whom made so when made 1911

Registered Horse Power 24 Owners The Golden Horn Steam Nav Co Port belonging to Constantinople

Nom. Horse Power as per Section 28 24 Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2

Dia. of Cylinders 11.02 + 18.9 Length of Stroke 11.8 Revs. per minute 240 Dia. of Screw shaft 4.4 Material of steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube Yes Is the after end of the liner made water tight Yes

in the propeller boss - If the liner is in more than one length are the joints burned - 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 - If two -

liners are fitted, is the shaft lapped or protected between the liners Yes with Gutta Percha Length of stern bush 19.68

Dia. of Tunnel shaft 4.19 Dia. of Crank shaft journals 4.4 Dia. of Crank pin 4.4 Size of Crank webs 5.2 x 2.2 Dia. of thrust shaft under 4.4

collars 4.4 Dia. of screw 4.4 Pitch of Screw 5.4 No. of Blades 4 State whether moveable Yes Total surface 5.49

No. of Feed pumps One Diameter of ditto 2.16 Stroke 4 Can one be overhauled while the other is at work -

No. of Bilge pumps One Diameter of ditto 2.16 Stroke 4 Can one be overhauled while the other is at work -

No. of Donkey Engines One Sizes of Pumps 3 x 2 x 3 No. and size of Suctions connected to both Bilge and Donkey pumps one 2"

In Engine Room one 2" In Holds, &c. Fore hold one 2", after hold one 2"

Back on after peak 1 1/2" Rodan Hand pump on fore peak handle = 4 1/2" Pumps 1 1/2"

No. of Bilge Injections One sizes 2 3/4" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 2"

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 Rolls

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

Are the pipes 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

Is the examination of completion of fitting of Sea Connections 3/2/11 of Stern Tube 3/2/11 Screw shaft and Propeller 3/2/11

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door flange worked from -

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Thyssen & Co. Maschinenfabrik Ag. Essen

Heating Surface of Boilers 650 Is Forced Draft fitted Yes No. and Description of Boilers One Horizontal Multitubular

Working Pressure 150 Tested by hydraulic pressure to 300 Date of test 24.1.11 No. of Certificate 92

Can each boiler be worked separately - Area of fire grate in each boiler 20.1 No. and Description of Safety Valves to one

boiler 2 Spring Area of each valve 5.1 Pressure to which they are adjusted 150 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 80.7 Mean dia. of boilers 80.7 Length 110.25 Material of shell plates steel

Thickness 1/8 Range of tensile strength 25.4 Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams double

long. seams single Diameter of rivet holes in long. seams 3/8 Pitch of rivets 2.85 x 5.78 Lap of plates or width of butt straps 9.21 x 13.78

Per centages of strength of longitudinal joint 84.1 Working pressure of shell by rules 161 Size of manhole in shell 16 1/2 x 12 1/2

Size of compensating ring 5.03 x .484 No. and Description of Furnaces in each boiler One corrugated Material steel Outside diameter 34.4

Length of plain part 6.8 Thickness of plates 1/8 Description of longitudinal joint welded No. of strengthening rings 9

Working pressure of furnace by the rules 140.5 Combustion chamber plates: Material steel Thickness: Sides 1/2 Back 1/2 Top 1/2 Bottom 1/2

Pitch of stays to ditto: Sides 6 x 6 Back 6 x 6 Top 6 x 6 If stays are fitted with nuts or riveted heads Yes Working pressure by rules 144.5

Material of stays steel Diameter at smallest part 1 1/8 Area supported by each stay 36 Working pressure by rules 192 End plates in steam space: Yes

Material steel Thickness 1/8 Pitch of stays 14.5 x 8.5 How are stays secured Welded Working pressure by rules 150 Material of stays steel

Diameter at smallest part 2 1/4 Area supported by each stay 180 Working pressure by rules 146.2 Material of Front plates at bottom steel

Thickness 1/8 Material of Lower back plate steel Thickness 1/8 Greatest pitch of stays 6 x 6 Working pressure of plate by rules 250

Diameter of tubes 2 1/4 Pitch of tubes 3.58 x 3.38 Material of tube plates steel Thickness: Front 1/8 Back 1/8 Mean pitch of stays 9 3/8

Pitch across wide water spaces - Working pressures by rules 248 Girders to Chamber tops: Material steel Depth and -

thickness of girder at centre 4.42 x 1.1 Length as per rule 14.4 Distance apart 6 Number and pitch of stays in each 2-6

Working pressure by rules 200 Superheater or Steam chest; how connected to boiler joint Can the superheater be shut off and the boiler worked Yes

separately Yes Diameter 35.5 Length 35.5 Thickness of shell plates 1/8 Material steel Description of longitudinal joint welded Diam. of rivet 3/8

holes - Pitch of rivets - Working pressure of shell by rules 150 Diameter of flue - Material of flue plates - Thickness -

If stiffened with rings - Distance between rings - Working pressure by rules - End plates: Thickness 1/2 How stayed -

Working pressure of end plates 150 Area of safety valves to superheater - Are they fitted with easing gear -

Screw steamer no 4

Report no 493

VERTICAL DONKEY BOILER—

Manufacturers of Steel

None

No.	Description			
Made at	By whom made	When made	Where fixed	
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment
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
Working pressure of shell by rules	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
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by		
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey	

SPARE GEAR. State the articles supplied:— 2 Connecting Rod bottom end bolts & nuts. There are no top end bolts, & no common piston springs in this engine. 2 main bearing bolts & nuts. One set of coupling bolts each for flywheel and intermediate shaft couplings. One set of feed & helge pump valves. A quantity of assorted bolts & nuts, and iron of various sizes.

The foregoing is a correct description,

Manufacturer.

Aktiengesellschaft der Maschinenfabriken
ESCHER WYSS & C^{IE}

Dates of Survey while building: During progress of work in shops— 1910. Nov 14. 23. Dec 2. 1911. Jan 24th.
During erection on board vessel— At Regensburg 1911. 3 Feb. 5 April 11. May. 15 June.
Total No. of visits = 8

Is the approved plan of main boiler forwarded herewith ☒

Dates of Examination of principal parts—Cylinders as above Slides ☒ Covers ☒ Pistons ☒ Rods ☒
Connecting rods ☒ Crank shaft ☒ Thrust shaft ☒ Tunnel shafts ☒ Screw shaft ☒ Propeller ☒
Stern tube ☒ Steam pipes tested 11/5/11. Engine and boiler seatings 3/2/11. Engines holding down bolts 11/5/11.
Completion of pumping arrangements 15/6/11. Boilers fixed 11/5/11. Engines tried under steam 15/6/11.
Main boiler safety valves adjusted 15/6/11. Thickness of adjusting washers 13.5 x 14 x 11.
Material of Crank shaft steel Identification Mark on Do. ☒ Material of Thrust shaft steel Identification Mark on Do. ☒
Material of Tunnel shafts " Identification Marks on Do. ☒ Material of Screw shafts " Identification Marks on Do. ☒
Material of Steam Pipes Copper Test pressure 300 lbs.

General Remarks

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

This machinery and boiler has been examined during construction at the works of the maker with a view to its being classed + LMC with date. The materials and workmanship are good and in accordance with the requirements of the rules & the approved plans. The boiler has been tested by water pressure at 300 lbs and found tight & sound, and has been stamped ☒. The engines were erected, and will be forwarded to Regensburg together with the boiler, to be fitted on board of the ship. To complete the survey, the following remains to be done, viz: The engines & boiler to be seen fitted on board, the main steam pipe to be tested by hydraulic pressure; the pipe arrangements to be verified with the amended designs. The spare gear to be checked, the engines to be seen running under steam, and the safety valves to be adjusted to the working pressure of 150 lbs per sq. inch.

Trust. The above noted requirements have been duly carried out to my satisfaction & the case is eligible in my opinion for the notation + L.M.C. 6.11. *G. Hitchie*

The amount of Entry Fee... £25.30

Special ... £200.40

Donkey Boiler Fee ... £

Travelling Expenses (if any) £113.60

Committee's Minute

Assigned

When applied for,

Feb 1st 1911

When received,

Feb 9th 1911

TUE. 27 JUN 1911

+ L.M.C. 6.11

MACHINERY CERTIFICATE
WRITTEN

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Lloyd's Register
Foundation