Rpt. 4.

REPORT ON MACHINERY.

No. 25165

Received at London Office WED.JUL.3-1912

Date of writing Report 19 When handed in at Local Office 2/7/ 1912 Port of Hull.

No. in Reg. Book. 314 Survey held at Selby. Date, First Survey Jun 20 Last Survey Jun 25 1912 (Number of Visits 4)

on the S/S "GERMANO 3°" Tons Gross 48 Net 21

Master Built at Selby. By whom built Cochrane & Sons When built 1912

Engines made at Yarmouth By whom made Crabtree & Co Ltd. when made 1912

Boilers made at Stockton By whom made Riley Bros Ltd. when made 1912

Registered Horse Power — Owners Ernesto Augusto de Sala Port belonging to Lisbon

Nom. Horse Power as per Section 28 22 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines See London Report No 74742 No. of Cylinders — No. of Cranks —

Dia. of Cylinders — Length of Stroke — Revs. per minute — Dia. of Screw shaft as per rule — as fitted — Material of screw shaft —

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

Dia. of Tunnel shaft as per rule — as fitted — Dia. of Crank shaft journals as per rule — as fitted — Dia. of Crank pin — Size of Crank webs — Dia. of thrust shaft under collars — Dia. of screw — Pitch of Screw — No. of Blades — State whether moveable — Total surface —

No. of Feed pumps — Diameter of ditto — Stroke — Can one be overhauled while the other is at work —

No. of Bilge pumps — Diameter of ditto — Stroke — Can one be overhauled while the other is at work —

No. of Donkey Engines — Sizes of Pumps — No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 2: 2" Fwd & Aft. In Holds, &c. 1-2" & Hold.

2" Gutn suction to all bilges with discharge on deck

No. of Bilge Injections Nil sizes 2½" Connected to condenser, or to circulating pump pump 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 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.

Dates of examination of completion of fitting of Sea Connections 22.6.12 of Stern Tube 22.6.12 Screw shaft and Propeller 22.6.12

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

BOILERS, &c.—(Letter for record) Manufacturers of Steel See Middlesbro' Report No 7430.

Total Heating Surface of Boilers Is Forced Draft fitted No. and Description of Boilers

Working Pressure Tested by hydraulic pressure to Date of test No. of Certificate

Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear

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

Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams

long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps

Per centages of strength of longitudinal joint rivets plate Working pressure of shell by rules Size of manhole in shell

Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter

Length of plain part top bottom Thickness of plates crown bottom Description of longitudinal joint No. of strengthening rings

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom

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

Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:

Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays

Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom

Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules

Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays

Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each

Working pressure by rules 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

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VERTICAL DONKEY BOILER— Manufacturers of Steel

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 Description of Safety 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 Rivets Plates

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 :— Two top & two bottom end connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts & nuts one set of feed & bilge pump valves, one set of air & circulating pump valves one main & one donkey feed check valve. one propeller. assorted bolts & nuts.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building — During progress of work in shops: "E" 25/6/12, 26/6/12 - 28/6/12

During erection on board vessel: 1912:- Jun 20. 21. 22. 25

Total No. of visits 4

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders ✓ Slides ✓ Covers ✓ Pistons ✓ Rods ✓

Connecting rods ✓ Crank shaft ✓ Thrust shaft ✓ Tunnel shafts ✓ Screw shaft ✓ Propeller ✓

Stern tube ✓ Steam pipes tested 21.6.12 Engine and boiler seatings 22.6.12 Engines holding down bolts 22.6.12

Completion of pumping arrangements 25.6.12 Boilers fixed 22.6.12 Engines tried under steam 25.6.12

Main boiler safety valves adjusted 25.6.12 Thickness of adjusting washers S $\frac{3}{8}$ P $\frac{1}{4}$

Material of Crank shaft ✓ Identification Mark on Do. 2974 Material of Thrust shaft ✓ Identification Mark on Do. ✓

Material of Tunnel shafts ✓ Identification Marks on Do. 784 J.P. W.D.H. Material of Screw shafts ✓ Identification Marks on Do. 783 J.P.

Material of Steam Pipes Solid drawn copper Test pressure 400 lbs.

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

The engines & boiler have now been fitted & secured on board in accordance with the Rules. They are in good working condition & respectfully submitted as being eligible in my opinion to have record of +L.M.C. 6.12 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD. +LMC. 6.12.

JWD. 3/7/12 [initials]

The amount of Entry Fee .. £ ✓ : :	When applied for, 2/7/1912	
Special .. .. .. £ ✓ : :		
Donkey Boiler Fee .. .. £ ✓ : :	When received, 16.8.1912	
Travelling Expenses (if any) £ ✓ : 16 · 4		

John W. Gwynne.

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

Committee's Minute FRI. JUL. 5 - 1912

Assigned + LMC 6.12

(The Surveyors are requested not to write on or below the space for Committee's Minute.) Certificate (if required) to be sent to

MACHINERY CERTIFICATE WRITTEN.

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