

REPORT ON MACHINERY.

No. 16491

Received at London Office WED. JUN. 25. 1913

Date of writing Report 19 When handed in at Local Office 20/6/13 Port of Greenock

No. in Survey held at Greenock Date, First Survey 25th June 1912 Last Survey 16th June 1913.

Reg. Book. on the SCREW STEAMER "GERASIMOS".

(Number of Visits 55) Gross 3845 Tons Net 2379.

Master Built at Old Kerpatrik By whom built Kapier Miller & Co. When built 1910

Engines made at Greenock By whom made John G. Kincaid & Co. Ltd. when made 1910

Boilers made at Greenock By whom made John G. Kincaid & Co. Ltd. when made 1910

Registered Horse Power Owners N. D. Lykiardopoulos Port belonging to Cephalonia

Nom. Horse Power as per Section 28 361 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three

Dia. of Cylinders 25"-41"-68" Length of Stroke 48" Revs. per minute 65 Dia. of Screw shaft as per rule 14.28" Material of screw shaft as fitted 14.5" 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 in the propeller boss Yes

If the liner is in more than one length are the joints burned to length 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 4' 10 1/2"

Dia. of Tunnel shaft as per rule 12.7" Dia. of Crank shaft journals as per rule 13.3" Dia. of Crank pin 13 5/8" Size of Crank webs 20 x 8 1/2" Dia. of thrust shaft under collars 13 5/8" Dia. of screw 14' 6" Pitch of Screw 18' 0" No. of Blades 4 State whether moveable No Total surface 96 sq. ft.

No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 27" Can one be overhauled while the other is at work Yes Woodsons Pumps

No. of Bilge pumps 2 Diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work Yes 10 1/2 x 8 x 18"

No. of Donkey Engines 2 Sizes of Pumps 8 x 6 x 8 9 x 13 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Three - 3 1/2" dia. In Holds, &c. No 1 Hold 2 - 3 1/2" dia. No 2 Hold 2 - 3 1/2" dia.

No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 3 1/2"

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

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 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 No Report of Stern Tube No Report Screw shaft and Propeller 19/5/13

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from upper platform

BOILERS, &c.—(Letter for record No. 8) Manufacturers of Steel Steel Coy of Scotland, Jas Dundas & Co. Ltd.

Total Heating Surface of Boilers 5749 sq. ft. Is Forced Draft fitted No No. and Description of Boilers 3: Cylindrical built Single

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 18/2/13 No. of Certificate 1100

Can each boiler be worked separately Yes Area of fire grate in each boiler 55 sq. ft. No. and Description of Safety Valves to each boiler 2: Direct Spring

Area of each valve 5.9 sq. ft. Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 4' 8" Mean dia. of boilers 14' 6" Length 11' 0" Material of shell plates Steel

Thickness 1 1/4" Range of tensile strength 28 1/2 to 32 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams Lap Double

long. seams Lap Double Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 8 1/2" Lap of plates or width of butt straps 18 1/4"

Per centages of strength of longitudinal joint rivets 91.6 plate 85.3 Working pressure of shell by rules 183 lbs Size of manhole in shell 16" x 12"

No. and Description of Furnaces in each boiler 3: Deighton's Material Steel Outside diameter 46 1/4"

Length of plain part top 7' 2 3/4" bottom 7' 2 3/4" Thickness of plates crown 9" bottom 7 1/2" Description of longitudinal joint Weld No. of strengthening rings None

Working pressure of furnace by the rules 191 lbs. Combustion chamber plates: Material Steel Thickness: Sides 5" Back 8" Top 8" Bottom 16"

Pitch of stays to ditto: Sides 8 1/2" x 8 1/2" Back 9" x 8" Top 8 1/2" x 8 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 186 lbs.

Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 72 sq. in. Working pressure by rules 223 lbs End plates in steam space:

Material Steel Thickness 1 1/4" Pitch of stays 17 1/2" x 20" How are stays secured With nuts Working pressure by rules 182 lbs Material of stays Steel

Diameter at smallest part 2 3/8" Area supported by each stay 35.6 sq. in. Working pressure by rules 186 lbs Material of Front plates at bottom Steel

Thickness 1 1/2" Material of Lower back plate Steel Thickness 3/8" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 193 lbs.

Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates Steel Thickness: Front 1 1/2" Back 3/4" Mean pitch of stays 10.4"

Pitch across wide water spaces 14 1/2" Working pressures by rules 181 lbs. 186 lbs. Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 9 1/2" x 1 1/2" Length as per rule 32 1/2" Distance apart 8 1/2" Number and pitch of stays in each 3: 8 1/2"

Working pressure by rules 202 lbs Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked

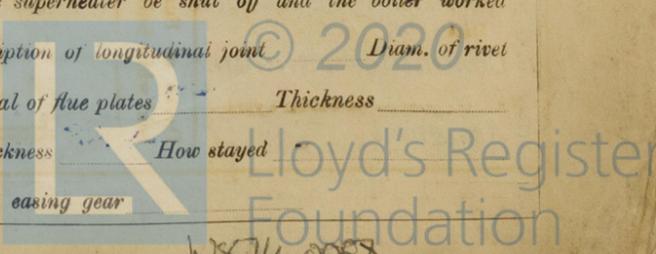
separately Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

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

If stayed 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

W8874-0088



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. *None* Description

Made at _____ By whom made _____ When made _____ Where fired _____

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 _____ Radius of do. _____ Stayed by _____

Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____ Dates of survey _____

SPARE GEAR. State the articles supplied:— *2 main Bearing Bolts, 2 Crank Pin Bolts, 2 Crosshead Bolts, 1 set Coupling Bolts, 1 set of Feed & Relief Pump valves, 1 set Air Circulating Pump valves, 12 Condenser tubes, 2 safety valve springs, 12 Fund King studs & nuts, 6 Escape valve spring, 6 Piston tubes, 1 set Springs for H.P. Piston, 1 C.I. Propeller, 8 Bars of Iron. Bolts & nuts assorted sizes.*

The foregoing is a correct description,

John G. Knicaid & Co Ltd Manufacturer.

Dates of Survey while building	During progress of work in shops	<i>P. Hill</i> 1912 Jun 25, July 22-30, Aug 21-27, Oct 18-23-30, Nov 4-8-18-22-26, Dec 4-6-10-12-15-19-25
	During erection on board vessel	1913 Jan 7-14-15-21-24-26-31, Feb 5-10-12-14-18-25-28, Mar 4-6-12-18-20-26, April 1-10-14-15-23, May 2-16
	Total No. of visits	55

Is the approved plan of main boiler forwarded herewith *Yes*

Dates of Examination of principal parts—Cylinders *18/11/12* Slides *18/11/12* Covers *18/6/13* Pistons *4/12/12* Rods *18/10/12*

Connecting rods *18/10/12* Crank shaft *See Report* Thrust shaft *See Report* Tunnel shafts *See Report* Screw shaft *See Report* Propeller *2/5/13*

Stern tube *10/2/13* Steam pipes tested *30/5/13* *4/6/13* Engine and boiler seatings *See Report* Engines holding down bolts *30/5/13*

Completion of pumping arrangements *30/5/13* Boilers fixed *16/6/13* Engines tried under steam *16/6/13*

Main boiler safety valves adjusted *10/6/13* Thickness of adjusting washers *R.B. 1 1/2" 1 1/4" 1 1/2" C.B. 1 1/2" 1 1/4" 1 1/2" S.B. 1 1/2" 1 1/4" 1 1/2"*

Material of Crank shaft *Steel* Identification Mark on Do. *2807 H.S.* Material of Thrust shaft *Steel* Identification Mark on Do. *2821 H.S.*

Material of Tunnel shafts *Steel* Identification Marks on Do. *2844 2849 H.S.* Material of Screw shafts *Steel* Identification Marks on Do. *2837 H.S.*

Material of Steam Pipes *Copper 1 1/4" dia & 6bf* Test pressure *400 lbs*

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

The Engines and Boilers of this vessel were built under Special Survey and the materials and workmanship are good. When completed they underwent full power trials in the berth and were found to work satisfactorily.

*The machinery throughout is now in good and efficient condition and eligible in my opinion to have the record of **LMC 6, 13** marked in the Society's Register Book.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.13.

The amount of Entry Fee	£ 3	When applied for,	
Special	£ 38		<i>20/6/1913</i>
Donkey Boiler Fee	£	When received,	
Travelling Expenses (if any)	£		<i>25/6/1913</i>

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

Committee's Minute **GLASGOW** 24 JUN 1913

Assigned + LMC 6.13



Greenock

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

J.M.H.
23/6/13

MADE BY CERTIFICATE WRITERS 36 6 13