

REPORT ON MACHINERY

No. 25119
TUES. 14 MAY 1907
THUR. 18 APR. 1907

Port of Glasgow

Received at London Office

Date, first Survey 12 Febry 06 Last Survey Inch 26th 1907

No. in Survey held at Glasgow

(Number of Visits)

Reg. Book. J J Strathgyle

Tons } Gross
Net

Master 126 Built at Port Glasgow By whom built A Rodger & Co When built 1907

Engines made at Glasgow By whom made A Rodger & Co when made 1907

Boilers made at do By whom made Lindsay Burnell & Co when made 1907

Registered Horse Power Owners Burrell & Son Port belonging to Glasgow

Nom. Horse Power as per Section 28 354 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 25-41-68 Length of Stroke 18 Revs. per minute 70 Dia. of Screw shaft as per rule 14.29 Material of screw shaft Iron

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 — 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 If two

liners are fitted, is the shaft lapped or protected between the liners — Length of stern bush 4-10

Dia. of Tunnel shaft as per rule 12.69 Dia. of Crank shaft journals as per rule 13.33 Dia. of Crank pin 13 7/8 Size of Crank webs 8 3/4 Dia. of thrust shaft under

collars 13 7/8 Dia. of screw 17-6 Pitch of Screw 17-9 No. of Blades 4 State whether moveable 4 Total surface 95

No. of Feed pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 24 Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps 10x11x10, 8x5x8, 5x3 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3-3 1/2 In Holds, &c. 2-3 1/2 each hold

No. of Bilge Injections 1 sizes 6 Connected to condenser, or to circulating pump — 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 about

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 — of Stern Tube — Screw shaft and Propeller See Rpt.

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top of gratings

BOILERS, &c.—(Letter for record (S)) Manufacturers of Steel Wm & J Scottland, D. Williams & Son

Total Heating Surface of Boilers 5544 Is Forced Draft fitted no No. and Description of Boilers 3 Single Ended

Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 15/10/06 No. of Certificate 8429 A.L.J.

Can each boiler be worked separately Yes Area of fire grate in each boiler 56 1/4 No. and Description of Safety Valves to

each boiler 2 Cockburn Area of each valve 5.9 Pressure to which they are adjusted 185 lb Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 7 feet Mean dia. of boilers 14-0 Length 11-0 Material of shell plates slut

Thickness 1 7/32 Range of tensile strength 28/32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams D.P.L

long. seams D.B.S Diameter of rivet holes in long. seams 1 7/32 Pitch of rivets 8 7/16 x 4 7/32 Lap of plates or width of butt straps 1-5 3/4

Per centages of strength of longitudinal joint rivets 87.6 Working pressure of shell by rules 183 lb Size of manhole in shell 16 x 12

Size of compensating ring Flanged No. and Description of Furnaces in each boiler 3 Diagonal Material slut Outside diameter 44

Length of plain part top — bottom — Thickness of plates crown 1 7/32 Description of longitudinal joint weld No. of strengthening rings —

Working pressure of furnace by the rules 186 Combustion chamber plates: Material slut Thickness: Sides 2 1/32 Back 7/8 Top 2 1/32 Bottom 7/8

Pitch of stays to ditto: Sides 9 1/4 x 8 3/4 Back 9 x 8 3/4 Top 9 x 8 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 194

Material of stays slut Diameter at smallest part 1.725 Area supported by each stay 9 1/4 x 8 3/4 Working pressure by rules 180 End plates in steam space:

Material slut Thickness 1 5/32 Pitch of stays 18 x 17 3/4 How are stays secured D. nuts Working pressure by rules 188 Material of stays slut

Diameter at smallest part 5.78 Area supported by each stay 18 x 17 3/4 Working pressure by rules 181 Material of Front plates at bottom slut

Thickness 13/16 Material of Lower back plate slut Thickness 3/4 Greatest pitch of stays 14 Working pressure of plate by rules 180

Diameter of tubes 3 1/4 Pitch of tubes 4 3/4 x 4 7/8 Material of tube plates slut Thickness: Front 13/16 Back 13/16 Mean pitch of stays 10 9/16

Pitch across wide water spaces 14 Working pressures by rules 180 lb Girders to Chamber tops: Material slut Depth and

thickness of girder at centre 8 x 1 3/4 Length as per rule 30 1/2 Distance apart 9 Number and pitch of stays in each 2-8 3/8

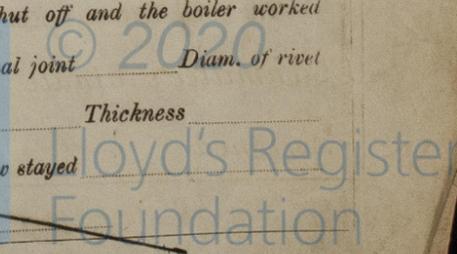
Working pressure by rules 183 lb Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked

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 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 —



VERTICAL DONKEY BOILER— Manufacturers of Steel

No. _____ Description None

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:— Propeller shaft, propeller, two top end bolts, 2 bottom end bolts, set of coupling bolts, feed & bridge valves, 2 main bearing bolts, etc.

The foregoing is a correct description,

A. Rodger & Co. Manufacturer.

Dates of Survey while building	During progress of work in shops—	1906: Feb 12, Mar 12, May 4, 24, July 7, 9, 11, Aug. 1, 16, 31, Sep. 5, 28, Oct. 5, 11, 26
	During erection on board vessel—	Nov. 13, 30, Dec. 20, 27, 30, 1907, Jan. 7, 14, 16, 21, 24, Feb. 6, 11, 19, Mar. 13, 26
	Total No. of visits	20

Is the approved plan of main boiler forwarded herewith Yes

Dates of Examination of principal parts—	Cylinders 12. 1206	Slides 12. 1206	Covers 12. 1206	Pistons 12. 1206	Rods 6. 1206
Connecting rods	6-1206	Crank shaft	6-1206	Thrust shaft	6-1206
Tunnel shafts	16-107	Screw shaft	16-1-07	Propeller	16-1-07
Steam pipes tested	19. 3. 07	Engine and boiler seatings	13. 3. 06	Engines holding down bolts	19/3/07
Completion of pumping arrangements	19/3/07	Boilers fixed	19/3/07	Engines tried under steam	26/3/06
Main boiler safety valves adjusted	18/3/07	Thickness of adjusting washers	5/16 1 3/4		
Material of Crank shaft	Steel	Identification Mark on Do.	(NCS)	Material of Thrust shaft	Steel
Material of Tunnel shafts	Steel	Identification Marks on Do.	(NCS)	Material of Screw shafts	Iron
Material of Steam Pipes	Copper	Test pressure	36.0 lbs.		

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

These engines & boilers have been constructed under Special Survey & excepting as stated below are of good materials & workmanship & have been satisfactorily tried under steam. On the trial trip one of the Condenser Tube plates was found to be defective. Temporary repairs were carried out to enable the vessel to proceed to Bremen where a new tube plate is to be fitted & the Hamburg Surveyors have been advised.

This vessel will in our opinion be eligible to have notation L.M.C. 3, 07 ^{subject to} when the above new tube plate has been fitted. being examined at the first convenient opportunity. See letter from Messrs A. Rodger & Co. attached stating that new tube plate has been fitted & tested.

It is submitted that this vessel will be eligible for the record + L.M.C. 3, 07 when the condenser tube plate has been examined.

The amount of Entry Fee.	£ 3	When applied for.	15. APR 1907
Special	£ 27. 14	When received.	14. 5. 07
Donkey Boiler Fee	£		
Traveling Expenses (if any)	£		

H. Gardner Smith, B. Gordon Muir
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.
Glasgow 17 MAY 1907

Committee's Minute

Assigned

Glasgow 15 APR 1907
+ L.M.C. 3, 07
When do.

+ L.M.C. 3, 07

TUES. 31 DEC. 1907

MACHINERY CERTIFICATE WRITTEN 14-5-07

Lloyd's Register Foundation

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