

REPORT ON MACHINERY.

No. 35102

Received at London Office

THU MAY 20 1915

Date of writing Report

When rendered in at Local Office

18515

Port of Glasgow

No. in Survey held at
Reg. Book.

Glasgow

Date, First Survey 21/3/13

Last Survey 6/5/15

1915

on the

S.S. "Gyartza"

(Number of Visits 113)

Master Russmann

Built at Glasgow

By whom built Barclay Curle & Co. (S2)

Tons Gross 6598

Engines made at Glasgow

By whom made Barclay Curle & Co. (S12)

When made 1915

Boilers made at Glasgow

By whom made Barclay Curle & Co. (S12)

when made 1915

Registered Horse Power

Owners/Russmann East Asiatic Co

Port belonging to Liban

Nom. Horse Power as per Section 28 884

Is Refrigerating Machinery fitted for cargo purposes yes

Is Electric Light fitted yes

ENGINES, &c.—Description of Engines

Steam Engines 4

No. of Cylinders 8

No. of Cranks 8

Dia. of Cylinders 21 1/2, 30 3/4, 44, 62

Length of Stroke 48

Revs. per minute 95

Dia. of Screw shaft as per rule 13.2

Material of screw shaft 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 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 1/2

Dia. of Tunnel shaft as per rule 12.09 Dia. of Crank shaft journals as per rule 12.19 Dia. of Crank pin 12 3/8

collars 12 3/8 Dia. of screw 15 9/16 Pitch of Screw 19 0 No. of Blades 3 State whether moveable yes Total surface 63.5

No. of Feed pumps 2 Diameter of ditto 10 Stroke 24 Can one be overhauled while the other is at work yes

No. of Bilge pumps 4 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 9 1/2 x 12, 10 1/2 x 12, 5 1/2 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room (4) 3 1/2, in Boiler room (2) 3 1/2 In Holds, &c. No. 1, 2, 3, 4, 5, (2) 2 1/2 No. 6 (1) 3 1/2

well (1) 3 1/2

No. of Bilge Injections 2 sizes 7 1/2 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size yes 1 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 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 both

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 8/12/14 of Stern Tube 8/12/14 Screw shaft and Propeller 8/12/14

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

BOILERS, &c.—(Letter for record (S))

Manufacturers of Steel Bradburn & Co. & D. Colvile & Co.

Total Heating Surface of Boilers 13302 Is Forced Draft fitted yes No. and Description of Boilers 4 single ended

Working Pressure 215 Tested by hydraulic pressure to 430 Date of test 21/9/14 No. of Certificate 12870

Can each boiler be worked separately yes Area of fire grate in each boiler 43.62 Area of each valve 7.06 Pressure to which they are adjusted 220 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork about 8-6 Mean dia. of boilers 14-0 Length 11-6 Material of shell plates steel

Thickness 3/16 Range of tensile strength 296-331 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double lap

long. seams tubular butt Diameter of rivet holes in long. seams 1 1/2 Pitch of rivets 10 1/16 Lap of plates or width of butt straps 21 3/4

Per centages of strength of longitudinal joint rivets 87.5 plate 85 Working pressure of shell by rules 220 Size of manhole in shell 16 x 12

Size of compensating ring 37 1/2 x 53 No. and Description of Furnaces in each boiler 1 Deighton Material steel Outside diameter 43 1/2

Length of plain part top bottom Thickness of plates crown bottom 3/8 Description of longitudinal joint welded No. of strengthening rings

Working pressure of furnace by the rules 232 Combustion chamber plates: Material steel Thickness: Sides 1/16 Back 1/16 Top 1/16 Bottom 1/16

Pitch of stays to ditto: Sides 8 x 9 Back 8 x 9 Top 9 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 226

Material of stays steel Diameter at smallest part 203 Area supported by each stay 72 Working pressure by rules 253 End plates in steam space

Material steel Thickness 1 3/16 Pitch of stays 19 1/2 x 14 How are stays secured screwed through plate nuts on outside Working pressure by rules 243 Material of stays steel

Diameter at smallest part 6-10 Area supported by each stay 273 Working pressure by rules 232 Material of Front plates at bottom steel

Thickness 3/32 Material of Lower back plate steel Thickness 29/32 Greatest pitch of stays 14 Working pressure of plate by rules 220

Diameter of tubes 2 1/2 Pitch of tubes 3 3/4 x 3 3/4 Material of tube plates steel Thickness: Front 3/32 Back 1/16 Mean pitch of stays 7 1/2

Pitch across wide water spaces 13 1/2 Working pressures by rules 224 Girders to Chamber tops: Material steel Depth and

thickness of girder at centre 10 x 25 double Length as per rule 33 Distance apart 9 1/2 x 9 1/2 Number and pitch of stays in each (3) 7 1/2

Working pressure by rules 222 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

W1020-0024

Lloyd's Register
Foundation

IS A DONKEY BOILER FITTED? *None* ✓

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top and bottom trunks, 2 bottom end bolts & nuts, 2 main bearing bolts & nuts, 1 set of coupling bolts & nuts, feed and edge pump valves, iron bolts & nuts of various sizes.

The foregoing is a correct description,

FOR BARCLAY, CURLE & CO., LTD.

Michael J. Lebrun

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1913 Mar 21 June 10 17 July 14-17 Aug 8 20-28 Sept 1-8 15-27 Oct 20-28 Nov 4-7 10-19 24-25 Dec 1 3 10 12 14 22 24-30 1914 Jan 13 16 20
	During erection on board vessel - -	22 27 29 30 31 3 5 11 12 14 23 24 25 May 5 6 11 18 19 25 26 27 Apr 3 7 10 14 17 30 May 7 12 27 28 June 2 9 10 11 22 25 30 July 9 13 16 29 30 Aug 4 6 10 Sept 8 15 17 21 Oct 2 5 6 11 14 16 28 Nov 1 3 4 9 30 Dec 18 1915 Jan 5 18 20 21 22 Feb 4 9 24 Mar 11 29 Apr 9 12 15 22 29 May 3 6
	Total No. of visits	113

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

Is the approved plan of main boiler forwarded herewith

" " " donkey "

Dates of Examination of principal parts—Cylinders 12/2/14 Slides 16/1/14 Covers 12/2/14 Pistons 20/10/13 Rods 20/10/13

Connecting rods 20/10/13 Crank shaft 30/1/14 Thrust shaft 10/6/14 Tunnel shafts 10/6/14 Screw shaft 10/6/14 Propeller 1/11/14

Stern tube 28/10/14 Steam pipes tested 8/1/15- Engine and boiler seatings 9/2/15- Engines holding down bolts 24/2/15-

Completion of pumping arrangements 15/4/15 Boilers fired 24/2/15 Engines tried under steam 3/5/15

Main boiler safety valves adjusted 1274/15- Thickness of adjusting washers $P^{3\frac{1}{8}} S^{3\frac{1}{8}}$ $P^{1\frac{1}{2}} S^{1\frac{1}{2}}$ $P^{1\frac{1}{2}} S^{1\frac{1}{2}}$ $P^{1\frac{1}{2}} S^{1\frac{1}{2}}$ $P^{1\frac{1}{2}} S^{1\frac{1}{2}}$ $P^{1\frac{1}{2}} S^{1\frac{1}{2}}$

Material of Crank shaft <i>Steel</i>	Identification Mark on Do. <i>PTB 27/1/14</i>	Material of Thrust shaft <i>Steel</i>	Identification Mark on Do. <i>10/6/14</i>
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Material of Tunnel shafts	Steel	Identification Marks on Do.	22m/46	Material of Screw shafts	Steel	Identification Marks on Do.	3271, 3262 3270, 3261
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Material of Steam Pipes *Cap welded iron* ✓ Test pressure *645* ✓

Is an installation fitted for burning oil fuel yes ✓ Is the flash point of the oil to be used over 150°F. yes ✓

Have the requirements of Section 49 of the Rules been complied with ☒

Is this machinery duplicate of a previous case? Yes If so, state name of vessel, _____

General Remarks (State quality of workmanship, opinions as to class, etc.) *755 "C" Repat-770 31422 G. 100*

These engines and boilers have been built under special
Survey, the materials and workmanship are of good
description they have been well fitted on board and tried
under strain.

This machinery is now in our opinion eligible to have
notification of **LMC 5 15** in the Register Book.

It is submitted that
this vessel is eligible for
THE RECORD, + LMC 5.15. FD

JWZ. FIRE
20/5/15.

The amount of Entry Fee	...	£ 3	:	:	When applied for,
Special	...	£ 64	9	:	18/51 19/15
Donkey Boiler Fee	...	£	:	:	When received,
Travelling Expenses (if any)	£	:	:	:	26/51 19/15

A. McKeand. To self and P. J. Brown
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute GLASGOW

Assigned + L.M.C. 575

MACHINERY CERTIFICATE
NOTES

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