

## REPORT ON MACHINERY.

No. 26532

Received at London Office

SAT. JUL. 26. 1913

Date of writing Report 21<sup>st</sup> July 1913. When handed in at Local Office

25-7 1913. Port of Hull.

No. in Survey held at Hull.

Date, First Survey May 19<sup>th</sup>Last Survey July 19<sup>th</sup> 1913

Reg. Book.

500. on the Steel S.S. "Gleanona".

(Number of Visits 14)

Tons { Gross 217  
Net 80

Master

Built at Selby.

By whom built

Boekman &amp; Sons Ltd.

When built

Engines made at Hull.

By whom made

C. D. Holmes &amp; Co. Ltd.

when made

1913.

Boilers made at Hull.

By whom made

C. D. Holmes &amp; Co. Ltd.

when made

1913.

Registered Horse Power

Owners

E. Lualtough.

Port belonging to Castlebrun I.O.M.

Nom. Horse Power as per Section 28

55.

Is Refrigerating Machinery fitted for cargo purposes

no.

Is Electric Light fitted

no.

## ENGINES, &amp;c.—Description of Engines

Compound.

No. of Cylinders 2.

No. of Cranks 2

Dia. of Cylinders 15" x 32"

Length of Stroke 22"

Revs. per minute 118.

Dia. of Screw shaft

as per rule 7.022

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 yes. 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 31"

Dia. of Tunnel shaft

as per rule 6.39

Dia. of Crank shaft journals

as per rule 6.71

Dia. of Crank pin 6 3/4"

Size of Crank webs 13"

Dia. of thrust shaft under

collars 6 3/4"

Dia. of screw 8-4"

Pitch of Screw 9-3"

No. of Blades 4.

State whether moveable

no.

Total surface

28 1/2"

No. of Feed pumps 1

Diameter of ditto 2 1/2"

Stroke 11 1/2"

Can one be overhauled while the other is at work

No. of Bilge pumps 1

Diameter of ditto 2 1/2"

Stroke 11 1/2"

Can one be overhauled while the other is at work

No. of Donkey Engines 1

Sizes of Pumps

5 1/4 x 3 1/2 x 5"

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

One 2" to Bilge pump. 1-2 to donkey. In Holds, &amp;c. 2-2" at after end of hold.

No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump. Is a separate Donkey Suction fitted in Engine room &amp; size

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 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 19.5.13. of Stern Tube 19.5.13. Screw shaft and Propeller 19.5.13.

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

BOILERS, &amp;c.—(Letter for record S.) Manufacturers of Steel John Spencer &amp; Son. Newcastle.

Total Heating Surface of Boilers 1040 Is Forced Draft fitted No. and Description of Boilers 1 Multitubular single-ended.

Working Pressure 140 lbs. Tested by hydraulic pressure to 280 lbs. Date of test 12.7.13. No. of Certificate 1991.

Can each boiler be worked separately Area of fire grate in each boiler 32.8

each boiler 2 Spring loaded. Area of each valve 3.9 Pressure to which they are adjusted 145 lbs. Are they fitted with easing gear yes.

Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 11-0 Length 10-0 Material of shell plates Steel.

Thickness 3/4" Range of tensile strength 28 Are the shell plates welded or flanged Descrip. of riveting: cir. seams R.R.

long. seams T.R. W.B. Diameter of rivet holes in long. seams 3/4" Pitch of rivets 4 15/16" Lap of plates or width of butt straps 11 1/2"

Per centages of strength of longitudinal joint rivets 88.6 Working pressure of shell by rules 142.1. Size of manhole in shell 16 x 12"

Size of compensating ring 7" broad No. and Description of Furnaces in each boiler 2 plain Material S. Outside diameter 3-3"

Length of plain part top 6-4 3/4" Thickness of plates crown 5/8" Description of longitudinal joint Welded. No. of strengthening rings

bottom 5-8 3/4" Thickness bottom 5/8" Working pressure of furnace by the rules 140.3. Combustion chamber plates: Material S. Thickness: Sides 3/32 Back 1/8 Top 1/32 Bottom 3/32

Pitch of stays to ditto: Sides 9 1/2 x 9 Back 9 1/2 x 9 Top 9 1/2 x 8 1/2 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 142.

Material of stays S. Diameter at smallest part 1.76. Area supported by each stay 85 Working pressure by rules 164. End plates in steam space:

Material S. Thickness 25/32 Pitch of stays 14 x 14 How are stays secured 10. M.S.W. Working pressure by rules 147. Material of stays S.

Diameter at smallest part 3.03 Area supported by each stay 196 Working pressure by rules 160 Material of Front plates at bottom S.

Thickness 25/32 Material of Lower back plate S. Thickness 25/32 Greatest pitch of stays 14 x 9 1/2 Working pressure of plate by rules 147.

Diameter of tubes 3 1/4 Pitch of tubes 4 1/2 x 4 1/2 Material of tube plates S. Thickness: Front 25/32 Back 1/16 Mean pitch of stays 13 1/2 x 9"

Pitch across wide water spaces 14 Working pressures by rules 152. Girders to Chamber tops: Material S. Depth and

thickness of girder at centre 7 3/4 x 1 1/4 Length as per rule 2-6 7/8 Distance apart 8 1/2 Number and pitch of stays in each 2-9 1/2

Working pressure by rules 145. 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

# 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	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:— Two each top & bottom end connecting rod bolts & nuts, two main bearing bolts & nuts, one set of coupling bolts and nuts, one set each fixed & slide pump valves, iron of different sizes, a quantity of assorted bolts, nuts etc., 6 junk ring bolts.

The foregoing is a correct description,

P. J. CHAMBERS & Co. LTD. Manufacturer.

Arthur Holmes DIRECTOR. 1913. May 19. 29. Apr 30. Jun 5 10. 15. 18. 19. 21. 23. July 11. 12. 16.

Dates of Survey while building: During progress of work in shops -- July 19  
During erection on board vessel --  
Total No. of visits 14

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

Dates of Examination of principal parts—Cylinders 19.6.13. Slides 19.6.13. Covers 19.6.13. Pistons 21.6.13. Rods 21.6.13.  
Connecting rods 21.6.13. Crank shaft 23.6.13. Thrust shaft 23.6.13. Tunnel shafts Screw shaft 30.4.13. Propeller 30.4.13.  
Stern tube 30.4.13. Steam pipes tested 11.7.13. Engine and boiler seatings 11.7.13. Engines holding down bolts 11.7.13.  
Completion of pumping arrangements 11.7.13. Boilers fixed 11.7.13. Engines tried under steam 12.7.13.  
Main boiler safety valves adjusted 12.7.13. Thickness of adjusting washers PV 7/16" SV 13/32"

Material of Crank shaft S. Identification Mark on Do. 1071. Material of Thrust shaft S. Identification Mark on Do. 1071.  
Material of Tunnel shafts Identification Marks on Do. ~ Material of Screw shafts S. Identification Marks on Do. 1071.  
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 of this vessel have been constructed under special survey in accordance with the rules. The materials and workmanship are sound & good. The boiler tested by hydraulic pressure & the engines secured on board & tried under steam they are now in good order & respectfully submitted as being eligible in my opinion to be classed with the notation of +LMC 7.13. in the Register book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 7.13.

The amount of Entry Fee .. £ 1 : : When applied for, 25.7.13.  
Special .. £ 8 : :  
Donkey Boiler Fee .. £ : :  
Travelling Expenses (if any) £ : : 2 : 4.31.7.13

Committee's Minute

Assigned

TUE JUL 29 1913

Thurs 7.13

REGISTERED CERTIFICATE

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



Lloyd's Register Foundation