

REPORT ON MACHINERY.

No. 26532

Received at London Office SAT. JUL. 26. 1913

Date of writing Report 21st July 1913. When handed in at Local Office 25-7 10 B. Port of Hull.
 No. in Survey held at Hull. Date, First Survey May 19th Last Survey July 19th 1913
 Reg. Book. 500. on the Steel S.S. "Gleanona" (Number of Visits 14)
 Master Selby. Built at Selby. By whom built Lockport Works Ltd. When built 1913.
 Engines made at Hull. By whom made C. D. Holmes & Co. Ltd. when made 1913.
 Boilers made at Hull. By whom made C. D. Holmes & Co. Ltd. when made 1913.
 Registered Horse Power 55. Owners E. Lualtough. Port belonging to Castlebar 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, &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 7 1/2" 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 no. If two liners are fitted, is the shaft lapped or protected between the liners no. Length of stern bush 31"
 Dia. of Tunnel shaft 6 3/4" Dia. of Crank shaft journals 6 3/4" 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.
 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.
 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 2-2" at after end of hold.
 In Engine Room one 2" to Bilge pump. 1-2 to donkey. Holds, &c. 2-2" at after end of hold.
 No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump no. Is a separate Donkey Suction fitted in Engine room of size none.
 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 no.
 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 no.
 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 no. Is it fitted with a watertight door no. worked from no.

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel John Spencer How. Newcastle.
 Total Heating Surface of Boilers 1040. Is Forced Draft fitted no. 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 no. Area of fire grate in each boiler 32.8 No. and Description of Safety Valves to 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 no. 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" plate 84.8 Material S. Outside diameter 3-3"
 Size of compensating ring 7" broad No. and Description of Furnaces in each boiler 2 plain Material S. Description of longitudinal joint Welded. No. of strengthening rings no.
 Length of plain part: top 6-4 3/4" Thickness of plates: crown 5/8" bottom 5/8" Description of longitudinal joint Welded. No. of strengthening rings no.
 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 1/32"
 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 Nuts 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 13/16" 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 5/8" 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 no. Can the superheater be shut off and the boiler worked separately no.
 Diameter no. Length no. Thickness of shell plates no. Material no. Description of longitudinal joint no. Diam. of rivet holes no. Pitch of rivets no. Working pressure of shell by rules no. Diameter of flue no. Material of flue plates no. Thickness no.
 If stiffened with rings no. Distance between rings no. Working pressure by rules no. End plates: Thickness no. How stayed no.
 Working pressure of end plates no. Area of safety valves to superheater no. Are they fitted with easing gear no.

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 _____ Rivets _____ Plates _____

Dia. of rivet holes _____ Whether punched or drilled _____ Pitch of rivets _____ Lap of plating _____ Per centage of strength of joint _____

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 & sludge pump valves, iron of different sizes, a quantity of assorted bolts, nuts etc., 6 junk ring bolts.*

The foregoing is a correct description,
P. & O. CHAS. D. HOLMES & 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 -- --
 During erection on board vessel -- -- July 19
 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 *40 atmos.*

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 & tested 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.**

J.M. JUN 28/7/13

The amount of Entry Fee .. £ 1 : :
 Special .. £ 8 5 6 : :
 Donkey Boiler Fee .. £ : :
 Travelling Expenses (if any) £ : 2 4 3 1 7 13 : :
 When applied for, 25.7.13
 When received, 29.7.13

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

Committee's Minute
 Assigned
 TUE. JUL. 29. 1913
Thome 7.13

REGISTERED
 WRITTEN



sent sent
 Abel
 4/9/13

Certificate (if required) to be sent to

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