

REPORT ON MACHINERY.

No. 26336

Received at London Office

Date of writing Report 19 When handed in at Local Office 27.5.13. Port of Hull. FRI. JUN. 13. 1913
No. in Survey held at Hull. Date, First Survey Jan 8th 1913 Last Survey May 24th 1913
Reg. Book. 158 upon the Hull S.C.K. "SCOTT" (Number of Visits 25)

Master Built at Selby By whom built Cochrane & Sons Ltd. Tons Gross 288 Net 115
Engines made at } By whom made } when made 1913.
Boilers made at } Hull By whom made } Messrs. Charles F. Holmes & Co. Ltd. when made 1913.

Registered Horse Power Owners Pickering & Halden is Ship. Master G. D. Port belonging to Hull.
Nom. Horse Power as per Section 28 49. 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 12 3/4" - 22" - 36" Length of Stroke 24" Revs. per minute 7.57 as per rule 7.53 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 36"

Dia. of Tunnel shaft as per rule 6.64 6.73 as fitted 4 1/2" Dia. of Crank shaft journals as per rule 7.068 as fitted 4 1/2" Dia. of Crank pin 1 1/2" Size of Crank webs 4 3/8" x 1 1/4" Dia. of thrust shaft under
collars 1 1/4" Dia. of screw 9.3" Pitch of Screw 10-8" No. of Blades 4 State whether moveable No. Total surface 30 sq ft

No. of Feed pumps 1 Diameter of ditto 2 3/8" Stroke 14 1/2" Can one be overhauled while the other is at work Yes
No. of Bilge pumps 1 Diameter of ditto 2 3/8" Stroke 14 1/2" Can one be overhauled while the other is at work Yes
No. of Donkey Engines 1 Sizes of Pumps 6" x 1 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Two 2" - one forward & one aft. In Holds, &c. One 2" 1/2" dust well, one 2" 1/2" main hold, one 2" 1/2" fore-castle. Suction from all bilges with discharge on deck.
No. of Bilge Injections 1 sizes 3" Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" dia.

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 Hold suction How are they protected Wood casing.
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 10.3.13 of Stern Tube 10.3.13 Screw shaft and Propeller 10.3.13
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record S.) Manufacturers of Steel Trusses Phoenix A. & Co. Ltd. London Union of Trade.
Total Heating Surface of Boilers 1295 sq ft Is Forced Draft fitted No. No. and Description of Boilers One up. multi. single ended.
Working Pressure 200 lbs. Tested by hydraulic pressure to 400 lbs. Date of test 18.4.13 No. of Certificate 1946.

Can each boiler be worked separately Yes Area of fire grate in each boiler 46 sq ft No. and Description of Safety Valves to
each boiler Two Spring. Area of each valve 4.90" Pressure to which they are adjusted 200 lbs. Are they fitted with easing gear Yes.
Smallest distance between boilers or uptakes and bunkers or woodwork 6" EXT. Mean dia. of boilers 13-6" Length 10-6" Material of shell plates S.

Thickness 1 3/16" Range of tensile strength 29 tons. Are the shell plates welded or flanged No. Descrip. of riveting: cir. seams 20.9.2.
long. seams 20.8.5.9. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8" Lap of plates or width of butt straps 16 5/8"
Per centages of strength of longitudinal joint rivets 85. Working pressure of shell by rules 203 lbs. Size of manhole in shell 16" x 12"
plate 85. No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 38"

Size of compensating ring 4" x 1 3/16" No. and Description of Furnaces in each boiler 3 plain Material S. Outside diameter 38"
Length of plain part top 6-5 1/2" Thickness of plates crown 3 1/2" Description of longitudinal joint Weld. No. of strengthening rings 0.
bottom 6-4" Working pressure of furnace by the rules 212 lbs. Combustion chamber plates: Material S. Thickness: Sides 3 3/8" Back 3 3/8" Top 3 3/8" Bottom 3 3/8"

Pitch of stays to ditto: Sides 10" x 8" Back 10" x 8 1/2" Top 11" x 8" If stays are fitted with nuts or riveted heads No. Working pressure by rules 212 lbs.
Material of stays S. Diameter at smallest part 2.4" Area supported by each stay 101.06 sq in Working pressure by rules 212 lbs. End plates in steam space:
Material S. Thickness 1 3/16" Pitch of stays 18" x 18" How are stays secured 20.7.20. Working pressure by rules 206 lbs. Material of stays S.
Diameter at smallest part 6.33" Area supported by each stay 324 sq in Working pressure by rules 203 lbs. Material of Front plates at bottom S.

Thickness 1 3/16" Material of Lower back plate S. Thickness 3 3/8" Greatest pitch of stays 14 1/2" x 8 1/4" Working pressure of plate by rules 204 lbs.
Diameter of tubes 3 1/2" Pitch of tubes 5 1/2" x 5" Material of tube plates S. Thickness: Front 1 1/16" Back 1 1/16" Mean pitch of stays 10"
Pitch across wide water spaces 11" & 11 1/2" Working pressures by rules 315 lbs. Girders to Chamber tops: Material S. Depth and
thickness of girder at centre 10 3/4" - 1 3/4" Length as per rule 2-11 3/4" Distance apart 11" Number and pitch of stays in each 3-8"

Working pressure by rules 203 lbs. 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 2020 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

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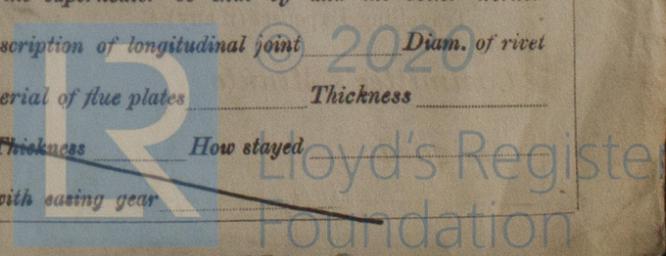
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W777-0140



VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description	When made	Where fixed
Made at	By whom made		
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted
If fitted with casing gear	If steam from main boilers can enter the donkey boiler		Fire grate area
Material of shell plates	Thickness	Range of tensile strength	Description of Safety
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Area of each
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	Pressure to which they are adjusted
Diameter of furnace Top	Bottom	Length of furnace	Date of adjustment
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Per centage of strength of joint
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Length

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 & nuts, one set each feed & life pump valves, iron of various sizes, a quantity of assorted bolts, nuts etc.

The foregoing is a correct description,

Arthur Holmes Manufacturer.
DIRECTOR

Dates of Survey while building: During progress of work in shops - 1913: Jan 8. 14. 30 Feb 4. 12. 17. 19. 26. 28 Mar 10. 27. 31 Apr 3. 11. 16. 18, 25
During erection on board vessel - 28. 30. May 3. 10. 15. 16. 17. 24
Total No. of visits 25

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

Dates of Examination of principal parts—Cylinders 16. 4. 13 Slides 31. 4. 13 Covers 30. 4. 13 Pistons 26. 4. 13 Rods 25. 4. 13
Connecting rods 28. 4. 13 Crank shaft 29. 4. 13 Thrust shaft 3. 5. 13 Tunnel shafts ✓ Screw shaft 26. 2. 13 Propeller 26. 2. 13
Stern tube 26. 2. 13 Steam pipes tested 15. 5. 13 Engine and boiler seatings 10. 3. 13 Engines holding down bolts 15. 5. 13
Completion of pumping arrangements 24. 5. 13 Boilers fixed 17. 5. 13 Engines tried under steam 17. 5. 13
Main boiler safety valves adjusted 17. 5. 13 Thickness of adjusting washers *off 3/16" Toward 1/16"*
Material of Crank shaft *Iron* Identification Mark on Do N^o 1054 T. G. D. Material of Thrust shaft *Steel* Identification Mark on Do N^o 1054 T. G. D.
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts *Iron* Identification Marks on Do N^o 1054 T. G. D.
Material of Steam Pipes *Solid drawn Copper* ✓ Test pressure *400 lbs per sq. inch hydraulic.*

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 & workmanship are sound & good. The boiler tested by hydraulic pressure & with the engines secured on board & tried under steam they are now in good order & safe working condition & respectfully submitted as being eligible in my opinion to be classed with the notation of 'L.M.C. 5.13' in the Register Book.*)

It is submitted that this vessel is eligible for THE RECORD. + LMC 5.13.

J.W.D.
14/6/13

The amount of Entry Fee £ 1 : 0 :
Special £ 11 : 14 :
Donkey Boiler Fee £ : :
Travelling Expenses (if any) £ : 4/1 :
When applied for 12/6/13
When received 30/5/13

Committee's Minute TUE. JUN 17 1913

Assigned + L.M.C. 5.13

MACHINERY CERTIFICATE WRITER

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



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Certificate (if required) to be sent to