

REPORT ON MACHINERY

No. 23600

MON 24 APR 1911

Date of writing Report 10 When handed in at Local Office 19th Apr 1911 Port of Hull
No. in Survey held at Selby & Hull Date, First Survey Dec. 20th Last Survey 12th April 1911
Reg. Book. 49th on the Steel S. K. Neil Gow (Number of Visits 31) Gross Tons 255 Net 107
Master Built at Selby By whom built Messrs. Cochrane & Sons when made 1911
Engines made at } By whom made } Messrs. Charles D. Holmes & Co. when made 1911
Boilers made at } Hull By whom made }
Registered Horse Power Owners Orient Steam Fishing Co. Ltd Port belonging to Grimsby
Nom. Horse Power as per Section 28 77 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 12¹/₂ - 22 - 35 Length of Stroke 24 Revs. per minute 115 Dia. of Screw shaft as per rule 7.25 as fitted 7.25 Material of screw shaft
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 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 If two
liners are fitted, is the shaft lapped or protected between the liners
Dia. of Tunnel shaft as per rule 6.6 as fitted 7.25 Dia. of Crank shaft journals as per rule 6.93 as fitted 7.25 Dia. of Crank pin 7¹/₂ Size of Crank webs 14¹/₂ Dia. of thrust shaft under
collars 7¹/₂ Dia. of screw 8 - 7 Pitch of Screw 11 - 0 No. of Blades 4 State whether moveable No Total surface 29¹/₂ ft²
No. of Feed pumps 1 Diameter of ditto 2³/₈ Stroke 14¹/₄ Can one be overhauled while the other is at work
No. of Bilge pumps 1 Diameter of ditto 2³/₈ Stroke 14¹/₄ Can one be overhauled while the other is at work
No. of Donkey Engines One Sizes of Pumps 4" x 7" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room One 3", two 2" In Holds, &c. One 2" to fore hold, One 2" to slush
well. There is an Injector for boiler. Ejector from all parts ship, & centrifugal pump for Condenser.
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 Yes 2¹/₂ ft²
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 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 2.3.11 of Stern Tube 2.3.11 Screw shaft and Propeller 2.3.11
Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from
BOILERS, &c.—(Letter for record 5) Manufacturers of Steel Phoenix A.S. Gas Hoerde Westfalia
Total Heating Surface of Boiler 1285 ft² Is Forced Draft fitted No No. and Description of Boilers 1 Cyl. Mult. Single Ended
Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 17.3.11 No. of Certificate 1792
Can each boiler be worked separately Area of fire grate in each boiler 41 ft² No. and Description of Safety Valves to
each boiler Two Spring Area of each valve 4.9 ft² Pressure to which they are adjusted 205 lbs Are they fitted with easing gear Yes
Smallest distance between boilers or uptakes and bunkers or woodwork 7¹/₂ ft Mean dia. of boilers 13 - 3¹/₂ Length 10 - 3 Material of shell plates Steel
Thickness 1⁵/₃₂ Range of tensile strength 29 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams L.O.
long. seams D.O.S.L.R. Diameter of rivet holes in long. seams 1⁵/₃₂ Pitch of rivets 4¹/₂ Lap of plates or width of butt straps 16⁵/₈
Per centages of strength of longitudinal joint rivets 87.8 Working pressure of shell by rules 200 lbs Size of manhole in shell 16" x 12"
Size of compensating ring 7" x 1¹/₂" No. and Description of Furnaces in each boiler 3 Plain Material S Outside diameter 38"
Length of plain part top 7⁵/₂" Thickness of plates crown 4.9 bottom 6.4 Description of longitudinal joint Welded No. of strengthening rings 2 angle bars on bottom
Working pressure of furnace by the rules 202 lbs Combustion chamber plates: Material S Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 3/4"
Pitch of stays to ditto: Sides 8" x 10" Back 7¹/₂" x 11" Top 7¹/₂" x 10¹/₂" If stays are fitted with nuts or riveted heads No Working pressure by rules 220 lbs End plates in steam space:
Material of stays S Area at smallest part 7.5 ft² Area supported by each stay 112.5 ft² Working pressure by rules 201 lbs Material of stays S
Material S Thickness 1¹/₃₂" Pitch of stays 19¹/₂" x 18¹/₂" How are stays secured D.N.W. Working pressure by rules 225 lbs Material of Front plates at bottom S
Area at smallest part 7.5 ft² Area supported by each stay 346 ft² Working pressure by rules 225 lbs Working pressure of plate by rules 211 lbs
Thickness 1⁵/₁₆" Material of Lower back plate S Thickness 1⁵/₁₆" Greatest pitch of stays 14¹/₂ x 10¹/₂ Working pressure of plate by rules 211 lbs
Diameter of tubes 3¹/₂" Pitch of tubes 5" x 5" Material of tube plates S Thickness: Front 1⁵/₁₆" Back 7/8" Mean pitch of stays 10" x 10"
Pitch across wide water spaces 14" Working pressures by rules 315 lbs Girders to Chamber tops: Material S Depth and
thickness of girder at centre 9¹/₂" x 2" Length as per rule 2-9¹/₂" Distance apart 10¹/₂" Number and pitch of stays in each Three 7¹/₂"
Working pressure by rules 205 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 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 top and bottom end connecting rod bolts + nuts, two main bearing bolts and nuts, One set coupling bolts and nuts, One set each air, feed bilge pump valves, a quantity of assorted bolts and nuts, Two safety valve springs, escape valve springs, two check valves, four boiler tubes

The foregoing is a correct description,
p. pro *CHARLES D. HOLMES & Co. LTD.*
Arthur Holmes Manufacturer.

Dates of Survey while building	During progress of work in shops --	1910: Dec 20. 1911: Jan 2. 6. 11. 13. 19. 23. 25. Feb 3. 9. 11. 14. 16. 20. 22. 27. 28. Mar 2. 17. 24. 28. 30. 31
	During erection on board vessel ---	Apr 1. 4. 5. 6. 7. 8. 10. 12.
	Total No. of visits	31.

Is the approved plan of main boiler forwarded herewith yes

" " " donkey " " "

Dates of Examination of principal parts—Cylinders	14. 2. 11	Slides	2. 3. 11	Covers	19. 1. 11	Pistons	16. 2. 11	Rods	16. 2. 11
Connecting rods	16. 2. 11	Crank shaft	11. 2. 11	Thrust shaft	22. 2. 11	Tunnel shafts		Screw shaft	22. 2. 11
Propeller	2. 3. 11	Stern tube	28. 2. 11	Steam pipes tested	6. 4. 11	Engine and boiler seatings	2. 3. 11	Engines holding down bolts	8. 4. 11
Completion of pumping arrangements	12. 4. 11	Boilers fixed	8. 4. 11	Engines tried under steam	12. 4. 11	Main boiler safety valves adjusted	8. 4. 11	Thickness of adjusting washers	3/8 3/8
Material of Crank shaft	S	Identification Mark on Do.	731 JB	Material of Thrust shaft	S	Identification Mark on Do.	731 JB	Material of Tunnel shafts	Identification Marks on Do.
Material of Screw shafts	I	Identification Marks on Do.	731 JB	Material of Steam Pipes	Solid drawn Copper	Test pressure	400 lbs. sq		

General Remarks (State quality of workmanship, opinions as to class, &c. The engines and boilers of this vessel have been constructed under special survey in accordance with the Rules, the material and workmanship are sound and good. The boiler tested by hydraulic pressure, and with the engines secured on board and tested under steam, they are now in good order and safe working condition and respectfully submitted as being eligible in my opinion to be classed with the notation of L.M.C. 4-11 in the Register Book

It is submitted that
this vessel is eligible for
THE RECORD, L.M.C. 4-11

J.M. *J.S.M.*
26/4/11

The amount of Entry Fee	£ 1	When applied for,	22-4-1911
Special	£ 11	When received,	28. 4. 1911
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£ 8		

Committee's Minute

Assigned

10.5.25 APR 1911

Home 4. 11

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



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Foundation