

Received at London Office

MAY 23 1911

Date of writing Report 19. 4. 1911 When handed in at Local Office 20. 5. 1911. Port of Aberdeen.  
No. in Survey held at Aberdeen Date, First Survey 14. 2. 11. Last Survey 19. 5. 1911.  
Reg. Book. on the "COREOPSIS" (Number of Visits 21.)  
Master Philip Gardiner. Built at Aberdeen By whom built A. Hall & Co. Ltd. (No. 464) Tons Gross 88.48  
Engines made at Aberdeen By whom made A. Hall & Co. Ltd. (No. 164) Net 38.61  
Boilers made at do By whom made do do When built 1911.  
Registered Horse Power 39. Owner Philip Gardiner Port belonging to Kirkcaldy  
Nom. Horse Power as per Section 28 39. 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 9", 10", 26" Length of Stroke 18" Revs. per minute 140 Dia. of Screw shaft 5.62" as per rule 5.492" Material of screw shaft Scrap iron  
Is the screw shaft fitted with a continuous liner the whole length of the stern tube no. 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 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 paralled & served Length of stern bush 24"  
Dia. of Tunnel shaft as per rule 4.44" as fitted 5" Dia. of Crank shaft journals as per rule 5.023" as fitted 5.11" Dia. of Crank pin 5.11" Size of Crank webs 8" x 3.5" Dia. of thrust shaft under  
collars 5.3" Dia. of screw 6.6" Pitch of Screw 8" 3/4 No. of Blades 4 State whether moveable no. Total surface 14.5 ft.  
No. of Feed pumps 1 Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work  
No. of Bilge pumps 1 Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work  
No. of Donkey Engines one Sizes of Pumps 4" x 2.5" x 4" duplex No. and size of Suctions connected to both Bilge and Donkey pumps  
In Engine Room one of 2" In Holds, &c. fishhold & After Compartment, one each of 2"  
Also ejector, drawing from all parts, & with separate suction to engine room 2" dia.  
No. of Bilge Injections 1 sizes 2.5" Connected to condenser, or to circulating pump C. 70. Is a separate Donkey Suction fitted in Engine room & size yes. 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 none  
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 Suction from fishhold. How are they protected strong 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 28. 4. 11 of Stern Tube 25. 4. 11 Screw shaft and Propeller 28. 4. 11  
Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door worked from

OILERS, &c.—(Letter for record (r)) Manufacturers of Steel W. Beardmore & Co. Ltd. & Colville & Sons Ltd.  
Total Heating Surface of Boilers 4000 sq. ft. Is Forced Draft fitted no. No. and Description of Boilers One, cyl. mult. single ended  
Working Pressure 180 lbs. Tested by hydraulic pressure to 360 lbs. Date of test 10. 5. 11. No. of Certificate 659.  
Can each boiler be worked separately Area of fire grate in each boiler 24.7 sq. ft. No. and Description of Safety Valves to  
each boiler 2, direct spring Area of each valve 3.14 sq. in. Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear yes.  
Smallest distance between boilers or uptakes and bunkers or woodwork about 4" Mean dia. of boilers 9' 9" Length 9' 0" Material of shell plates S.  
Forecastle Thickness 4" Range of tensile strength 28-32 Are the shell plates welded or flanged no. Descrip. of riveting: cir. seams d. r. lap.  
Long. seams double straps Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 5 1/2" - 2 3/32" Lap of plates or width of butt straps 10 3/8" x 8"  
Per centages of strength of longitudinal joint rivets 83.14 plate 80.4 Working pressure of shell by rules 181.4 Size of manhole in shell 16 1/2" x 12 1/2"  
Size of compensating ring 28" dia. x 4" No. and Description of Furnaces in each boiler 2: plain Material S. Outside diameter 34"  
Length of plain part top 63 1/2" Thickness of plates crown 2 1/2" bottom 32 Description of longitudinal joint welded No. of strengthening rings none  
Working pressure of furnace by the rules 180.2 Combustion chamber plates: Material S. Thickness: Sides 5" Back 5" Top 5" Bottom 5"  
Pitch of stays to ditto: Sides 9" x 8" Back 8 5/8" x 8 1/2" Top 9" x 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 184.  
Material of stays S. Diameter at smallest part 1 1/2" Area supported by each stay 43.7 sq. in. Working pressure by rules 183. End plates in steam space:  
Material S. Thickness 4" Pitch of stays 14" x 13 3/4" How are stays secured d. r. w. Working pressure by rules 188. Material of stays S.  
Diameter at smallest part 2 1/16" Area supported by each stay 192 sq. in. Working pressure by rules 180.4 Material of Front plates at bottom S.  
Thickness 4" Material of Lower back plate S. Thickness 4" Greatest pitch of stays 13 1/2" x 8 5/8" Working pressure of plate by rules 206.  
Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates S. Thickness: Front 4 5/8" x 5 1/8" Back 2 1/2" Mean pitch of stays 9 1/2"  
Pitch across wide water spaces 14 3/4" Working pressures by rules 13.190 Girders to Chamber tops: Material S. Depth and  
Thickness of girder at centre 6 3/4" x 1 1/2" Length as per rule 24" Distance apart 8" Number and pitch of stays in each two: 9"  
Working pressure by rules 184. 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  
Pitch of rivets Working pressure of shell by rules Diameter of flue Material of flue plates Thickness  
No. of Visits 3 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:— 2 top, and 2 bottom end bolts & nuts; 2 main bearings and 1 set coupling bolts & nuts; 1 set each Air, Circulating, Feed & Bilge pump valves; one each main & donkey feed check valve; bolts & nuts assorted, & iron of various sizes. **For ALEXANDER HALL & Co. Ltd.**

The foregoing is a correct description, *Arthur Loughran*  
Manufacturers of Main Engines & Boilers.

Dates of Survey while building: During progress of work in shops - - 1911. Feb. 14, 22, 24 March 3, 6, 10, 13, 15, 21, 29 April 8, 14, 19, 25, 28, 29 May 4, 10, 12, 16, 19  
During erection on board vessel - - -  
Total No. of visits 21

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

**Dates of Examination of principal parts**—Cylinders  $\frac{3}{5}$   $\frac{14}{19}$  Slides  $\frac{19}{14}$  Covers  $\frac{19}{14}$  Pistons  $\frac{6}{3}$   $\frac{8}{14}$  Rods  $\frac{6}{3}$   $\frac{8}{14}$   
Connecting rods  $\frac{6}{3}$   $\frac{8}{14}$  Crank shaft  $\frac{4}{2}$   $\frac{6}{10}$   $\frac{8}{14}$  Thrust shaft  $\frac{8}{14}$  Tunnel shafts  $\frac{4}{14}$   $\frac{12}{14}$  Screw shaft  $\frac{22}{2}$   $\frac{14}{14}$  Propeller  $\frac{14}{14}$   
Stern tube  $\frac{14}{14}$  Steam pipes tested  $\frac{12}{5}$  Engine and boiler seatings  $\frac{15}{5}$   $\frac{26}{14}$  Engines holding down bolts  $\frac{12}{5}$   
Completion of pumping arrangements  $\frac{16}{5}$  Boilers fixed  $\frac{12}{5}$  Engines tried under steam  $\frac{16}{5}$   
Main boiler safety valves adjusted  $\frac{16}{5}$  Thickness of adjusting washers Port  $\frac{6}{16}$  Starb  $\frac{6}{16}$  full.  
Material of Crank shaft *I & S* Identification Mark on Do. *588A* Material of Thrust shaft *S* Identification Mark on Do. *588A*  
Material of Tunnel shafts *I* Identification Marks on Do. *596A* Material of Screw shafts *I* Identification Marks on Do. *594A*  
Material of Steam Pipes *Copper polished drawn 2 1/2" bore No. 8. 13. 10. 9.* Test pressure *360 lbs per square inch.*

## General Remarks (State quality of workmanship, opinions as to class, &c.)

These Engines, and the boiler, have been constructed under Special Survey and in accordance with the Secretary's Letter, the Rules, and approved plan. The materials & workmanship, are good. When completed, & properly fitted on board, they were tried under steam at moorings with satisfactory results, and are now, in good working order, and in my opinion entitled to the record **L.M.C. 5.11.** in the Register Book.

It is submitted that  
this vessel is eligible for  
**THE RECORD, + L.M.C. 5.11.**

*JWD. APRIL 24/5/11*

The amount of Entry Fee .. £ 1 :  
Special .. .. £ 8 :  
Donkey Boiler Fee .. £ :  
Travelling Expenses (if any) £ :  
When applied for, 22.5.1911  
When received, 26/5/11

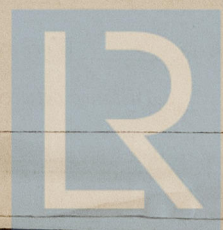
Committee's Minute

FRI. 26 MAY 1911

Assigned

*thmc 5.11*

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



© 2021

Lloyd's Register Foundation

Abdeen Office

Certificates (if required) to be sent to  
(The Surveyor requested not to write on or below the space for Committee's Minute.)