

# REPORT ON MACHINERY.

No. 29419

Received at London Office

Date of writing Report 12<sup>th</sup> Oct. 1910 When handed in at Local Office 17.10.10 Port of Glasgow  
 in Survey held at Glasgow Date, First Survey 14<sup>th</sup> March/10 Last Survey 22<sup>nd</sup> Sept 1910  
 Book. \_\_\_\_\_ (Number of Visits 26)

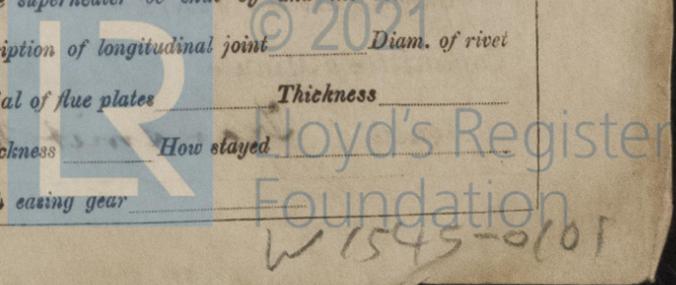
Master \_\_\_\_\_ Built at Sancti Spiritus By whom built \_\_\_\_\_ Tons { Gross \_\_\_\_\_ Net \_\_\_\_\_ }  
 Engines made at Glasgow By whom made McKie & Baxter (N<sup>o</sup> 563-4 when made 1910  
 Milers made at Leith By whom made Babcock & Wilcox when made 1910  
 Registered Horse Power \_\_\_\_\_ Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
 m. Horse Power as per Section 28 121. Is Refrigerating Machinery fitted for cargo purposes  Is Electric Light fitted

**GINES, &c.**—Description of Engines 2 Compound No. of Cylinders 4 No. of Cranks 4  
 a. of Cylinders (2) 10 1/2" (2) 23 1/2" Length of Stroke 24" Revs. per minute 140 Dia. of Screw shaft as per rule 6 3/8" Material of steel  
 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  
 the propeller boss no 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  
 ers are fitted, is the shaft lapped or protected between the liners \_\_\_\_\_ Length of stern bush 30"  
 a. of Tunnel shaft as per rule 6" Dia. of Crank shaft journals as per rule 6 3/8" Dia. of Crank pin 6 3/8" Size of Crank webs 8" x 4 1/2" Dia. of thrust shaft under  
 ars 6 3/8" Dia. of screw 6-9" (2) Pitch of Screw 9-6" No. of Blades 4 State whether moveable yes Total surface 20.54  
 of Feed pumps 2 Diameter of ditto 5" Stroke 12 Can one be overhauled while the other is at work yes  
 of Bilge pumps 2 1/2 Diameter of ditto 6" Stroke 8 Can one be overhauled while the other is at work yes  
 of Donkey Engines 2 Sizes of Pumps 8" x 6" x 8" 6" x 5" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
 Engine Room  In Holds, &c.

of Bilge Injections 1 sizes 5" Connected to condenser, or to circulating pump  Is a separate Donkey Suction fitted in Engine room & size   
 all the bilge suction pipes fitted with roses  Are the roses in Engine room always accessible  Are the sluices on Engine room bulkheads always accessible   
 all connections with the sea direct on the skin of the ship  Are they Valves or Cocks   
 they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates  Are the Discharge Pipes above or below the deep water line   
 they each fitted with a Discharge Valve always accessible on the plating of the vessel  Are the Blow Off Cocks fitted with a spigot and brass covering plate  
 at pipes are carried through the bunkers  How are they protected   
 all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times   
 the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges   
 es of examination of completion of fitting of Sea Connections  of Stern Tube  Screw shaft and Propeller   
 he Screw Shaft Tunnel watertight  Is it fitted with a watertight door  worked from \_\_\_\_\_

**ERS, &c.**—(Letter for record \_\_\_\_\_) Manufacturers of Steel \_\_\_\_\_

al Heating Surface of Boilers 250 D Is Forced Draft fitted  No. and Description of Boilers 2 Babcock & Wilcox water tube  
 Working Pressure 160 lbs. Tested by hydraulic pressure to  Date of test  No. of Certificate 29210  
 each boiler be worked separately \_\_\_\_\_ Area of fire grate in each boiler \_\_\_\_\_ No. and Description of Safety Valves to  
 boiler \_\_\_\_\_ Area of each valve \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Are they fitted with easing gear   
 allest distance between boilers or uptakes and bunkers or woodwork \_\_\_\_\_ Mean dia. of boilers \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates  
 thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_ Are the shell plates welded or flanged \_\_\_\_\_ Description of riveting: cir. seams  
 seams \_\_\_\_\_ Diameter of rivet holes in long. seams \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Lap of plates or width of butt straps  
 percentages of strength of longitudinal joint \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Size of manhole in shell  
 e of compensating ring \_\_\_\_\_ No. and Description of Furnaces in each boiler \_\_\_\_\_ Material \_\_\_\_\_ Outside diameter  
 gth of plain part \_\_\_\_\_ Thickness of plates \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_ No. of strengthening rings  
 rking pressure of furnace by the rules \_\_\_\_\_ Combustion chamber plates: Material \_\_\_\_\_ Thickness: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom  
 ch of stays to ditto: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ If stays are fitted with nuts or riveted heads \_\_\_\_\_ Working pressure by rules  
 erial of stays \_\_\_\_\_ Diameter at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates in steam space:  
 erial \_\_\_\_\_ Thickness \_\_\_\_\_ Pitch of stays \_\_\_\_\_ How are stays secured \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of stays  
 eter at smallest part \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of Front plates at bottom  
 ckness \_\_\_\_\_ Material of Lower back plate \_\_\_\_\_ Thickness \_\_\_\_\_ Greatest pitch of stays \_\_\_\_\_ Working pressure of plate by rules  
 eter of tubes \_\_\_\_\_ Pitch of tubes \_\_\_\_\_ Material of tube plates \_\_\_\_\_ Thickness: Front \_\_\_\_\_ Back \_\_\_\_\_ Mean pitch of stays  
 ch across wide water spaces \_\_\_\_\_ Working pressures by rules \_\_\_\_\_ Girders to Chamber tops: Material \_\_\_\_\_ Depth and  
 kness of girder at centre \_\_\_\_\_ Length as per rule \_\_\_\_\_ Distance apart \_\_\_\_\_ Number and pitch of stays in each  
 rking pressure by rules \_\_\_\_\_ Superheater or Steam chest; how connected to boiler \_\_\_\_\_ Can the superheater be shut off and the boiler worked  
 rately \_\_\_\_\_ 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  
 tiffened with rings \_\_\_\_\_ Distance between rings \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates: Thickness \_\_\_\_\_ How stayed  
 rking 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 Sa \_\_\_\_\_

Valves \_\_\_\_\_ No. of Safety Valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ Date of adjustment \_\_\_\_\_

If fitted with casing 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 end bolts & nuts, 2 bottom end bolts & nuts, 1 set of coupling bolts & nuts, 2 main bearing bolts & nuts, fuel and feed pump valves, 1 set of piston rings, bolts & nuts of various sizes.

The foregoing is a correct description,

Manufacturer.

*Walter A. Duxter*

Dates of Survey while building { During progress of work in shops - - 1910 Mar 14. 24. 31 April 4. 11. 14. 22. 26. May 3. 18. 23. June 16. 27 }  
 { During erection on board vessel - - July 6. 11. 27. Aug 3. 10. 18. 22. 30. Sep 7. 9. 15. 20. 22. }  
 Total No. of visits \_\_\_\_\_

Is the approved plan of main boiler forwarded herewith

Is the approved plan of donkey boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 27.6.10. Slides 27.6.10. Covers 23.5.10. Pistons 23.5.10. Rods 27.6.10.  
 Connecting rods 23.5.10. Crank shaft 18.5.10. Thrust shaft 18.5.10. Tunnel shafts 26.4.10. Screw shaft 26.4.10. Propeller 18.5.10.  
 Stern tube 26.4.10. Steam pipes tested  Engine and boiler seatings  Engines holding down bolts   
 Completion of pumping arrangements  Boilers fixed  Engines tried under steam   
 Main boiler safety valves adjusted  Thickness of adjusting washers   
 Material of Crank shaft Steel Identification Mark on Do. 563-4 Material of Thrust shaft Steel Identification Mark on Do. 563-4  
 Material of Tunnel shafts Steel Identification Marks on Do. 563-4 Material of Screw shafts Steel Identification Marks on Do. 563-4  
 Material of Steam Pipes  Test pressure

**General Remarks** (State quality of workmanship, opinions as to class, &c.) *The workmanship & materials are good. The engines have been built under special survey & shipped to Vancouver.*

The amount of Entry Fee .. £ 9 : 9/- When applied for, 17/10/10  
 Special .. .. .  
 Donkey Boiler Fee .. .. £ : : When received, 18/10/10  
 Travelling Expenses (if any) £ : : 18/10/10

*A.H. Filditch & H. McKeand*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute **GLASGOW** 18 OCT. 1910

Assigned *Transmit to London*

TUE. JUL. 25. 1911  
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Certificate (if required) to be sent to

J.H.H. 17.10.10

N.B.