

REPORT ON MACHINERY.

No. 20780

Port of Glasgow

Received at London Office

MAY 6 1903

No. in Survey held at Glasgow
Reg. Book.

Date, first Survey 25th Sept

Last Survey 21st April 1903

(Number of Visits 21)

on the Steamer "Abbot"

Master _____ Built at Paisley By whom built J Fullerton & Co

Tons } Gross
 } Net
When built 1903

Engines made at Glasgow By whom made A Rodger & Co when made 1903

Boilers made at Glasgow By whom made Lindsay Brunel & Co when made 1903

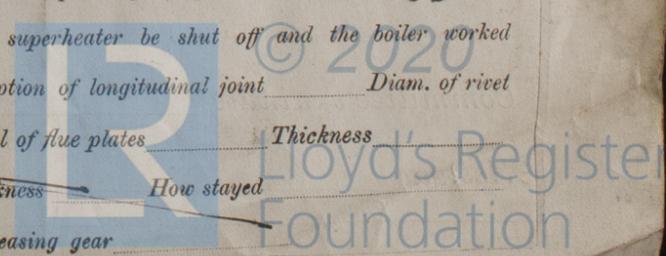
Registered Horse Power _____ Owners Carlisleford Lough & Co Port belonging to Travoy

Nom. Horse Power as per Section 28 61 Is Refrigerating Machinery fitted no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 16 3/4 Length of Stroke 24 Revs. per minute 130 Dia. of Screw shaft as per rule 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 no 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 _____ Length of stern bush 2 1/2
 Dia. of Tunnel shaft as per rule 6 7/8 Dia. of Crank shaft journals as per rule 7 035 Dia. of Crank pin 7 1/8 Size of Crank webs 13 1/2 Dia. of thrust shaft under collars 7 1/8 Dia. of screw 8 0 Pitch of screw 10 0 No. of blades 4 State whether moveable Yes Total surface 19 2
 No. of Feed pumps 1 Diameter of ditto 2 7/8 Stroke 12 Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 1 Diameter of ditto 2 7/8 Stroke 12 Can one be overhauled while the other is at work _____
 No. of Donkey Engines 1 Sizes of Pumps 6 x 6 x 3 1/4 No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room One 2 1/2" dia. In Holds, &c. 3 - 2 1/2" dia., 1 - 2 1/2" 1/2" after peak
 No. of bilge injections 1 sizes 3 1/2 Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size Yes - 2 1/2"
 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 _____
 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 For suction How are they protected Wood covering
 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock Before launch Is the screw shaft tunnel watertight None
 Is it fitted with a watertight door _____ worked from _____

BOILERS, &c.— (Letter for record (5)) Total Heating Surface of Boilers 1109.5 Is forced draft fitted No
 No. and Description of Boilers One Single Ended Mult. Working Pressure 130 lbs Tested by hydraulic pressure to 260 lbs
 Date of test 23.2.03 Can each boiler be worked separately _____ Area of fire grate in each boiler 39.17 No. and Description of safety valves to each boiler 2 Lockburn Area of each valve 5.9 Pressure to which they are adjusted 135 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork Width of stokehold Mean dia. of boilers 12 0 Length 10 0 Material of shell plates Steel
 Thickness 13/16 Range of tensile strength 28 Are they welded or flanged no Descrip. of riveting: cir. seams D. R. Lap long. seams D. B. S.
 Diameter of rivet holes in long. seams 1" Pitch of rivets 5 1/4" Lap of plates or width of butt straps 10 1/2"
 Per centages of strength of longitudinal joint rivets 82.25 Working pressure of shell by rules 135 lbs Size of manhole in shell 16" x 12"
 Size of compensating ring Inc rivets No. and Description of Furnaces in each boiler 2 Plain Material Steel Outside diameter 46"
 Length of plain part top 6 3/4" bottom 8 8" Thickness of plates crown 2 1/32" bottom 2 1/32" Description of longitudinal joint weld No. of strengthening rings 1 partial
 Working pressure of furnace by the rules 132 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 17/32" Top 9/16" Bottom 9/16"
 Pitch of stays to ditto: Sides 8 1/2 x 9 1/2" Back 8 x 8 1/2" Top 8 1/2 x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 130 lbs
 Material of stays Steel Diameter at smallest part 1 1/4" Area supported by each stay 78.26 Working pressure by rules 145 End plates in steam space: Material Steel Thickness 17/16" Pitch of stays 17" x 17" How are stays secured D. Nuts Working pressure by rules 136 Material of stays Steel
 Diameter at smallest part 3.65 Area supported by each stay 289 Working pressure by rules 133 Material of Front plates at bottom Steel
 Thickness 1/16" Material of Lower back plate Steel Thickness 7/8" Greatest pitch of stays 15" Working pressure of plate by rules _____
 Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 1/16" Back 1/16" Mean pitch of stays 11"
 Pitch across wide water spaces 13 1/2" Working pressures by rules 140 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre (7 x 7/8) 2 Length as per rule 27.8 Distance apart 8 1/2" Number and pitch of Stays in each 2 - 8 1/2"
 Working pressure by rules 133 lbs 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 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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DONKEY BOILER— No. Description *None*

Made at _____ By whom made _____ When made _____ Where fixed _____

Working pressure tested by hydraulic pressure to _____ No. of Certificate _____ Fire grate area _____ Description of safety valves _____

No. of safety valves _____ Area of each _____ Pressure to which they are adjusted _____ 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 _____ 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 _____

Thickness of furnace crown plates _____ Stayed by _____ Working pressure of shell by rules _____

Working pressure of furnace by rules _____ Diameter of uptake _____ Thickness of uptake plates _____ Thickness of water tubes _____

SPARE GEAR. State the articles supplied:— *2 propeller blades, 2 top end bolts & nuts, 2 bottom end bolts & nuts, set of coupling bolts, 2 main bearings bolts, spare feed & bilge pump valves & check valves, quantity of assorted bolts iron etc & 2 boiler tubes, stoppers etc. 1 set of circulating pump valves & 1 set of air pump valves*

The foregoing is a correct description,
A. Rodger & Co. for E. Hall-Brown Manufacturer.

Dates of Survey while building { During progress of work in shops - - } 1902: Sep 25. 26. Oct. 2, 9. 21. 29. Nov. 6. 7. 18. 24. 28. Dec. 7. 29. 1903: Feb 6. 13. 16
 { During erection on board vessel - - } 23. Mar. 2 Apr 14. 16. 21
 Total No. of visits 21.

Is the approved plan of main boiler forwarded herewith *No*
 " " " donkey " " " *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c. *Also Forging Report*)

The engine & boiler of this vessel have been constructed under special survey & are of good materials & workmanship. They have been securely fitted on board & satisfactorily tried under steam.

*This vessel is in my opinion eligible for notation **L.M.C. 4.03** in the Register-Book.*

It is submitted that this vessel is eligible for **THE RECORD L.M.C. 4.03**

H.S.
7.5.03

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The amount of Entry Fee. . . £ 1 : 0 : 0
 Special £ 9 : 3 : 0
 Donkey Boiler Fee £ : : :
 Travelling Expenses (if any) £ : : :
 When applied for, *7.5.03*
 When received, *7.5.03*

H Gardner-Smith
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute *Glasgow - 5 MAY 1903*

Assigned *L.M.C. 4.03*

MACHINERY CERTIFICATE
 WRITTEN 11-5-03



Certificate (if required) to be sent to

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