

REPORT ON MACHINERY.

11 MAY 97

Port of Leith

Received at London Office

No. in Survey held at Leith Date, first Survey 30th Nov. 1896 Last Survey 27th April 1897
 Reg. Book. (Number of Visits 21)
 on the S. K. "Rosslyn Castle" Tons { Gross 184.36
 Net 53.88
 Master Joseph Ingle Built at Leith By whom built Hawthornes & Co When built 1897
 Engines made at Leith By whom made Hawthornes & Co when made 1897
 Boilers made at do By whom made do when made 1897
 Registered Horse Power 60 Owners J. A. Smith Port belonging to Hull
 Nom. Horse Power as per Section 28 65

ENGINES, &c.— Description of Engines Triple expansion on 3 cranks No. of Cylinders 3
 Diameter of Cylinders 13" - 21" + 34" Length of Stroke 24" Revolutions per minute 115 Diameter of Screw shaft as per rule 6.35"
 Diameter of Tunnel shaft as per rule 6.03" Diameter of Crank shaft journals 6 5/8" Diameter of Crank pin 6 5/8" Size of Crank webs 12" x 4 7/8"
 Diameter of screw 7' 6" Pitch of screw 11' 6" No. of blades 4 State whether moveable no Total surface 21.5 sq
 No. of Feed pumps 1 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work yes
 No. of Bilge pumps 1 Diameter of ditto 2 1/2" Stroke 14" Can one be overhauled while the other is at work yes
 No. of Donkey Engines one Sizes of Pumps 4 1/2" x 2 3/4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room one 2" dia. In Holds, &c. one to each hold 2" dt.
 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"
 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 Bilge suction to holds 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
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock new vessel Is the screw shaft tunnel watertight none
 Is it fitted with a watertight door yes worked from yes

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1072 sq
 No. and Description of Boilers one multitubular single end Working Pressure 170 lbs Tested by hydraulic pressure to 340 lbs
 Date of test 20/3/97 Can each boiler be worked separately yes Area of fire grate in each boiler 36 sq No. and Description of safety valves to
 each boiler Two, Spring Area of each valve 4.91 sq Pressure to which they are adjusted 170 lbs Are they fitted
 with easing gear yes Smallest distance between boilers or uptakes and bunkers or woodwork 5" Mean diameter of boilers 11' 7"
 Length 9' 6" Material of shell plates Steel Thickness 1" Description of riveting: circum. seams Lap & Rivet long. seams S.B.S. J. Rivet
 Diameter of rivet holes in long. seams 1" Pitch of rivets 6 5/8" Lap of plates or width of butt straps 14 1/2"
 Per centages of strength of longitudinal joint rivets 88.7 Working pressure of shell by rules 171 lbs Size of manhole in shell 16" x 12"
 plate 84.9 Size of compensating ring McNeil's No. and Description of Furnaces in each boiler 2, Holmes' Material Steel Outside diameter 41"
 Length of plain part top 19" Thickness of plates crown 19" Description of longitudinal joint Welded No. of strengthening rings yes
 bottom 32" Working pressure of furnace by the rules 172 lbs Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 3/4"
 Pitch of stays to ditto: Sides 8" Back 8" Top 8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 171 lbs
 Material of stays Steel Diameter area at smallest part 1.45 sq Area supported by each stay 64 sq Working pressure by rules 181 lbs End plates in steam space:
 Material Steel Thickness 1" Pitch of stays 16" How are stays secured S. N. + W. Working pressure by rules 185 lbs Material of stays Steel
 Diameter area at smallest part 5.27 sq Area supported by each stay 240 sq Working pressure by rules 197 lbs Material of Front plates at bottom Steel
 Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 15" Working pressure of plate by rules 276 lbs
 Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" Material of tube plates Steel Thickness: Front 1" Back 1 5/16" Mean pitch of stays 10 15/16"
 Pitch across wide water spaces 15" Working pressures by rules 170 lbs Girders to Chamber tops: Material Steel Depth and
 thickness of girder at centre 6" x 2" Length as per rule 25 7/16" Distance apart 7 1/2" Number and pitch of Stays in each 2 - 8"
 Working pressure by rules 214 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked
 separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet
 holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes
 If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes



DONKEY BOILER— 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 _____ Diameter of donkey boiler _____ Length _____ Material of shell plates _____ Thickness _____
Description of riveting long seams _____ Diameter 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:— *As per Rules*

The foregoing is a correct description,
Hawthornthwaite & Co. Engineers, London Manufacturer.

General Remarks (State quality of workmanship, opinions as to class, &c. *The engines & boiler of this vessel have been constructed under special survey & the materials & workmanship are found & good. The engines have been tried & the boiler safety valves adjusted under steam at the working pressure. The machinery is now in good & safe working condition & eligible in my opinion to have the notation of +L.M.C. 4197. The boiler tracing is forwarded herewith.*

It is submitted that
this vessel is eligible for
THE RECORD. +L.M.C. 4197

TH
3/5/97

Certificate (if required) to be sent to

The amount of Entry Fee. £ / :- ; When applied for, _____
Special £ 9 :15 : ; _____
Donkey Boiler Fee £ - : - : ; _____
Travelling Expenses (if any) £ - : - : ; _____

Thomas Field
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute TUES 4 MAY 1897

Assigned +L.M.C. 4197

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

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