

Received from  
Surveyor.  
13 DEC 1900.

## REPORT ON MACHINERY.

DEC 18 1900

Port of Glasgow Received at London Office \_\_\_\_\_  
 No. in Survey held at Glasgow Date, first Survey 26 March Last Survey 7 Decr 1900  
 Reg. Book. \_\_\_\_\_ (Number of Visits 20)  
 on the s.s. "ROMAN." Tons { Gross 1215.87  
 Net 750.00  
 Master Sheart Built at Glasgow By whom built Mackie & Thomson When built 1900.  
 Engines made at Coatbridge By whom made W. V. V. Lidgerwood when made 1900.  
 Boilers made at Glasgow By whom made B Barclay, Curle, & Co. when made 1900.  
 Registered Horse Power \_\_\_\_\_ Owners Hawthorne Bros & Co. Port belonging to London  
 Nom. Hors. Power as per Section 28 135. Is Refrigerating Machinery fitted No. Is Electric Light fitted No.

ENGINES, &c.—Description of Engines Triple expansion, screw No. of Cylinders 3 No. of Cranks 3  
 Dia. of Cylinders 17", 24", 46" Length of Stroke 33" Revs. per minute as per rule 9.07 Dia. of screw shaft as fitted 9 1/2" Lgth. of stern bush 3'-6"  
 Dia. of Tunnel shaft as per rule 8 1/2" Dia. of Crank shaft journals as per rule 8 1/4" Dia. of Crank pin 9" Size of Crank webs 6 1/4" x 11" Dia. of thrust shaft under  
 rollers 9" Dia. of screw 11-9" Pitch of screw 13-6" No. of blades 4 State whether moveable no Total surface 48 sq. ft.  
 No. of Feed pumps 2 Diameter of ditto 3" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps 2 Diameter of ditto 3" Stroke 16 1/2" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines Three Sizes of Pumps 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room Two 2 1/4" dia. & one 2 1/2" dia. In Holds, &c. Two 2" dia. in forward hold,  
Two 2" dia. in after hold. One 2 1/4" in after hold well, & tunnel well.  
 No. of bilge injections 1 sizes 4" Connected to condenser, or to circulating pump pump 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 none  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks valves & cocks.  
 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 none How are they protected ✓  
 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 yes  
 Is it fitted with a watertight door yes worked from top platform.

OILERS, &c.— (Letter for record (S) Total Heating Surface of Boilers 2143 sq. ft. Is forced draft fitted no  
 No. and Description of Boilers One single ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs  
 Date of test 7/11/00 Can each boiler be worked separately ✓ Area of fire grate in each boiler 64.2" No. and Description of safety valves to  
 each boiler 2 Safety Spring Area of each valve 7.07" 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 12" Mean dia. of boilers 15-3" Length 10-6" Material of shell plates steel  
 Thickness 1 1/4" Range of tensile strength 28-32 Are they welded or flanged no Descrip. of riveting: cir. seams double long. seams treble  
 Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 9/8" Lap of plates or width of butt straps 1-7/4"  
 Percentages of strength of longitudinal joint 88.2 Working pressure of shell by rules 183 lbs Size of manhole in shell 16" x 12"  
 Size of compensating ring Mechels No. and Description of Furnaces in each boiler 3 Deighton Material steel Outside diameter 49 1/4"  
 Length of plain part top 19 1/32" Thickness of plates bottom 19 1/32" Description of longitudinal joint welded No. of strengthening rings ✓  
 Working pressure of furnace by the rules 191 lbs Combustion chamber plates: Material steel Thickness: Sides 19/32" Back 19/32" Top 19/32" Bottom 3/4"  
 Pitch of stays to ditto: Sides 7" x 7 1/4" Back 8" x 8" Top 7 1/4" x 8 1/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 189 lbs  
 Material of stays steel Diameter at smallest part 1.43" Area supported by each stay 64" Working pressure by rules 216 lbs End plates in steam space:  
 Material steel Thickness 1 1/4" Pitch of stays 18 3/4" x 20 1/2" How are stays secured nuts Working pressure by rules 181 lbs Material of stays steel  
 Diameter at smallest part 8.48 Area supported by each stay 385 lbs Working pressure by rules 220 Material of Front plates at bottom steel  
 Thickness 27/32" Material of Lower back plate steel Thickness 3/4" Greatest pitch of stays 13 1/4" x 8" Working pressure of plate by rules 274 lbs  
 Diameter of tubes 3 1/4" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates steel Thickness: Front 25/32" Back 27/32" Mean pitch of stays 10 1/2"  
 Pitch across wide water spaces 14 1/2" Working pressures by rules 204 lbs Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 9" x 2-3/4" Length as per rule 30" Distance apart 8 3/4" Number and pitch of Stays in each 3 - 7 1/4"  
 Working pressure by rules 202 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 2019 Diameter of rivet  
 heads ✓ Pitch of rivets ✓ Working pressure of shell by rules ✓ Diameter of flue ✓ Material of flue plates ✓ Thickness ✓  
 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 ✓



**DONKEY BOILER**— No. *one* Description *Ordinary vertical.*  
 Made at *Coatbridge* By whom made *W.V.V. Lidgerwood.* When made *1900* Where fixed *stokehold.*  
 Working pressure *100 lbs* tested by hydraulic pressure to *200 lbs* No. of Certificate *5594* Fire grate area *31.8* Description of safety valves *Paknet spring*  
 No. of safety valves *2* Area of each *5.94* Pressure to which they are adjusted *85 lbs* If fitted with easing gear *yes* If steam from main boilers can enter the donkey boiler *no*  
 Dia. of donkey boiler *7.0* Length *15.0* Material of shell plates *steel* Thickness *7/32* Range of tensile strength *27-32* Descrip. of riveting long. seams *double* Dia. of rivet holes *15/16* Whether punched or drilled *drilled* Pitch of rivets *3 1/4*  
 Rivets *68* Thickness of shell crown plates *15/16* Radius of do. *flat* No. of Stays to do. *8*  
 Lap of plating *5* Per centage of strength of joint *71* Thickness of furnace plates *3/4* Description of joint *riveted* Thickness of furnace crown plates *49/64* Stayed by *8 stays as above* Working pressure of shell by rules *102 lbs*  
 Working pressure of furnace by rules *103 lbs* Diameter of uptake *18* Thickness of uptake plates *1/2* Thickness of water tubes *7/16*

**SPARE GEAR.** State the articles supplied:— *Two top end & two bottom end connecting rod bolts, two main bearing bolts, one set coupling bolts, one set feed & bulge pump valves, etc.*

The foregoing is a correct description,  
*W.V.V. Lidgerwood* Manufacturer.  
*John McKenzie*

Dates { During progress of work in shops—  
 of Survey { During erection on board vessel—  
 while building { Total No. of visits *73*  
 1900:— *Mar. 26. May 22. Jun. 4. 11. 12. Jul. 31. Aug. 6. Sep. 10.*  
*Oct. 2. 10. 18. 23. 31. Nov. 6. 7. 13. 16. 19. 23. 26. 29. 30. Dec. 7.*

Is the approved plan of main boiler forwarded herewith *yes*  
 Same as "Eastcheap" *no*  
 donkey " " " "

**General Remarks** (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel has been constructed under Special Survey, the workmanship and material are of good quality, it has been securely fitted on board and tried under steam.*  
*In my opinion it is eligible to be classed in the Register Book with the Record of + L.M.C. 12.00—*

— A plan showing repairs to indented shell plate is enclosed herewith.

It is submitted that  
 this vessel is eligible for  
 the Record of + L.M.C. 12.00.

*18.12.00*  
*18.12.00*

The amount of Entry Fee... £ *2* : :  
 Special... £ *20* : *5* :  
 Donkey Boiler Fee... £ : :  
 Travelling Expenses (if any) £ : :  
 When applied for, *17/12/1900*  
 When received, *17/12/1900*

Committee's Minute *Glasgow.* *17 DEC 1900*

Assigned

*+ L.M.C. 12.00*  
*(When paid)*

*J.W. Dimmock R.*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping

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