

# REPORT ON MACHINERY.

Port of Glasgow

Received at London Office 11 APR 1905

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No. in Survey held at Glasgow Date, first Survey 29 June 04 Last Survey 3 April 1905  
Reg. Book. on the Steel Sec. Ste. "Queenie" (Number of Visits)

Master Worthington Built at Worthington By whom built R. Williamson & Son (184) When built 1905  
Engines made at Glasgow By whom made Messrs Ross & Smeaton (No 629) when made 1905  
Boilers made at Glasgow By whom made do (No 1004) when made 1905

Registered Horse Power 70 Owners Alfred A. Kepp, Ltd. Port belonging to  
Nom. Horse Power as per Section 28 70 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

## ENGINES, &c.—Description of Engines Compound No. of Cylinders Two No. of Cranks Two

Dia. of Cylinders 18.36 Length of Stroke 24 Revs. per minute 110 Dia. of Screw shaft 7.57 Material of Iron  
as per rule 7.57 as fitted 7.57 screw shaft

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 ✓ 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 Yes If two liners are fitted, is the shaft lapped or protected between the liners ✓ Length of stern bush 2.72

Dia. of Tunnel shaft 4.08 Dia. of Crank shaft journals 4.43 Dia. of Crank pin 7.12 Size of Crank webs 5x11.2 Dia. of thrust shaft under collars 7.12 Dia. of screw 8.6 Pitch of screw 11.6 No. of blades 4 State whether moveable No Total surface 33

No. of Feed pumps One Diameter of ditto 2.75 Stroke 12 Can one be overhauled while the other is at work Yes  
No. of Bilge pumps One Diameter of ditto 3 Stroke 12 Can one be overhauled while the other is at work Yes

No. of Donkey Engines One Sizes of Pumps 5.14 x 3.12 x 5 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room Three 2" In Holds, &c. Three 2"

No. of bilge injections 1 sizes 3" Connected to condenser, or to circulating pump Cir: p 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 Larger valves: smaller 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 New vessel Is the screw shaft tunnel watertight Engines aft

Is it fitted with a watertight door ✓ worked from ✓

## BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1300 Is forced draft fitted No

No. and Description of Boilers One Single ended Working Pressure 125 lbs Tested by hydraulic pressure to 250 lbs  
No 7342

Date of test 10-11-04 Can each boiler be worked separately ✓ Area of fire grate in each boiler 40.4 No. and Description of safety valves to each boiler Two, Direct Spring Area of each valve 5.41 Pressure to which they are adjusted 130 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 2.6 Mean dia. of boilers 14.23/8 Length 10.0 Material of shell plates Steel

Thickness 13/16 Range of tensile strength 27-32 Are they welded or flanged No Descrip. of riveting: cir. seams D. R. L. long. seams Open Shop

Diameter of rivet holes in long. seams 7/8 Pitch of rivets 5.75 & 2.75 Lap of plates or width of butt straps 12.75 & 13/16

Per centages of strength of longitudinal joint rivets 95.5 Working pressure of shell by rules 137 Size of manhole in shell 16 x 12  
plate 8.5

Size of compensating ring 6.75 x 13/16 No. and Description of Furnaces in each boiler 2 plain Material Steel Outside diameter 45

Length of plain part top 7.6/2 bottom 7.4 Thickness of plates crown 21/32 Description of longitudinal joint Welded No. of strengthening rings Angle at bottom 44

Working pressure of furnace by the rules 134 Combustion chamber plates: Material Steel Thickness: Sides 17/32 Back 17/32 Top 17/32 Bottom 21/32

Pitch of stays to ditto: Sides 8 x 8 Back 8 x 8 Top 8 x 8 If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 135

Material of stays Steel Diameter at smallest part 1 1/8 x 1 3/8 Area supported by each stay 64 x 80 Working pressure by rules 125 End plates in steam space: Material Steel Thickness 7/8 Pitch of stays 16 x 16 1/2 How are stays secured Double nut & small washer Working pressure by rules 137 Material of stays Steel

Section Diameter at smallest part 3.36 Area supported by each stay 225 Working pressure by rules 149 Material of Front plates at bottom Steel

Thickness 11/16 Material of Lower back plate Steel Thickness 5/8 Greatest pitch of stays 12 - 1/2 double Working pressure of plate by rules 162  
16 - 1/2 double

Diameter of tubes 3 1/4 Pitch of tubes 4 1/4 x 4 1/4 Material of tube plates Steel Thickness: Front 11/16 Back 12/32 Mean pitch of stays 10 5/8

Pitch across wide water spaces 15 1/2 double Working pressures by rules 136 lbs Girders to Chamber tops: Material Iron Depth and thickness of girder at centre 6 x 1 3/4 Length as per rule 27 13/16 Distance apart 8 Number and pitch of Stays in each Two at 8

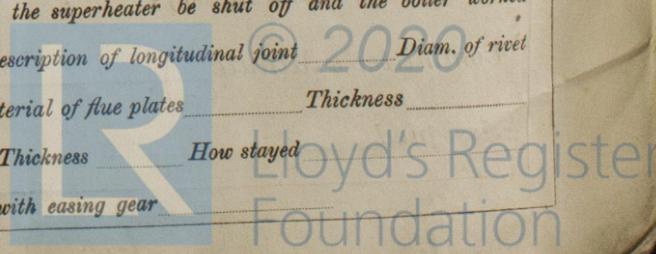
Working pressure by rules 128 Superheater or Steam chest; how connected to boiler ✓ Can the superheater be shut off and the boiler worked separately ✓ Diameter Length Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes Pitch of rivets Working pressure of shell by 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

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

W1237-0157



**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 \_\_\_\_\_

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:—

*Two crosshead bolts & two crank pin bolts. Two main bearing bolts. Set coupling bolts. Feed & bilge pump valves. Assorted bolts nuts & iron.*

The foregoing is a correct description,

*Robert L. Jones* Manufacturer.

Dates of Survey while building

During progress of work in shops—	1905 June 29, July 4, Aug 4, Sept 8, Oct 12, 14, 24, Nov 1, 8, 10, 16, 22, 1905, Jan 24, 31, Feb 13
During erection on board vessel—	1905 Mar 14, 20, 28, 29, Apr 3
Total No. of visits	20

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

“ “ “ donkey “ “ “

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

*The Machinery has been made & fitted under survey in compliance with the Rules & approved plan. The workmanship has been found good throughout.*

*The machinery is eligible in my opinion for the notation + CMC 4.05 in the Register.*

It is submitted that this vessel is eligible for THE RECORD. + LMC 4.05

*JRM*

*Res. 11.4.05*

*11.4.05*

The amount of Entry Fee.. £ 1 : - :  
 Special .. £ 10 : 10 :  
 Donkey Boiler Fee .. £ : :  
 Travelling Expenses (if any) £ : :

When applied for, 10 APR 1905  
 When received, 17/4/05

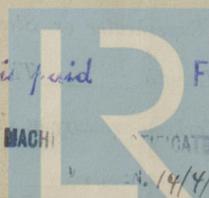
*Robert L. Jones*  
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute Glasgow 10 APR 1905

Assigned

*+ L.M.C. 4.05*

*(Subject to classification of hull)*



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Lloyd's Register Foundation

Certificate (if required) to be sent to

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

*ad 84873/5781*