

REPORT ON MACHINERY.

Port of Glasgow

FRI. MAR 16 1900

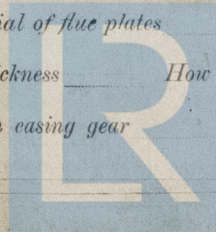
No. in Survey held at Paisley
Reg. Book. 100 on the S. S. "Sirius"

Date, first Survey. 20 May 1899 Last Survey 28 Nov 1899
(Number of Visits 18)

Master Henri Raoul. Built at Greenock By whom built Russell & Co
Engines made at Greenock By whom made J. G. Kincaid & Co when made 1900
Boilers made at Paisley By whom made A. F. Craig & Co Ltd when made 1899-1900
Registered Horse Power Owners Compagnie des vapeurs de charge francais. Port belonging to Marseille
Nom. Horse Power as per Section 28 291. Is Refrigerating Machinery fitted no Is Electric Light fitted yes.

ENGINES, &c.—Description of Engines
Dia. of Cylinders Length of Stroke Revs. per minute Dia. of Screw shaft as per rule. as fitted. Lgth. of stern bush
Dia. of Tunnel shaft as per rule. as fitted. Dia. of Crank shaft journals as per rule. as fitted. Dia. of Crank pin Size of Crank webs Dia. of thrust shaft under collars
Dia. of screw Pitch of screw No. of blades State whether moveable Total surface
No. of Feed pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
No. of Bilge pumps Diameter of ditto Stroke Can one be overhauled while the other is at work
No. of Donkey Engines Sizes of Pumps No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room In Holds, &c.
No. of bilge injections sizes Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size
Are 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
Are all connections with the sea direct on the skin of the ship Are they Valves or Cocks
Are 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
Are 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
What pipes are carried through the bunkers How are they protected
Are all pipes, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times
Are the bilge suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges
When were stern tube, propeller, screw shaft, and all connections examined in dry dock Is the screw shaft tunnel watertight
Is it fitted with a watertight door worked from

OILERS, &c.— (Letter for record 8) Total Heating Surface of Boilers 5400 sq ft Is forced draft fitted no
No. and Description of Boilers One Single Ended Working Pressure 80 lb Tested by hydraulic pressure to 160 lb
Date of test 28/11/99 Can each boiler be worked separately yes Area of fire grate in each boiler 23 sq ft No. and Description of safety valves to each boiler Two direct spring Area of each valve 4.9 sq in. Pressure to which they are adjusted 80 lbs. Are they fitted with easing gear yes.
Smallest distance between boilers or uptakes and bunkers or woodwork Boiler on deck. Mean dia. of boilers 9'-0 1/32" Length 8'-0" Material of shell plates Steel
Thickness 15/32 Range of tensile strength 29/32 Are they welded or flanged neither Descrip. of riveting: cir. seams Double R Lap long. seams Double R Butt.
Diameter of rivet holes in long. seams 3/4" Pitch of rivets 3.26" Lap of plates on width of butt straps 7 5/8"
Per centages of strength of longitudinal joint rivets 95.5 plate 76.9 Working pressure of shell by rules 88 lb Size of manhole in shell 16" x 12"
Size of compensating ring 29 3/4 x 5/8 No. and Description of Furnaces in each boiler Two, plain Material Steel Outside diameter 32"
Length of plain part top 63 bottom 63 Thickness of plates crown 1 1/2 bottom 1 1/2 Description of longitudinal joint Welded No. of strengthening rings none
Working pressure of furnace by the rules 138 Combustion chamber plates: Material Steel Thickness: Sides 1/2" Back 1/2" Top 1/2" Bottom 1/2"
Pitch of stays to ditto: Sides 9 1/2 x 8" Back 9 1/2" Top 8 1/2 x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 85 lb
Material of stays Steel Diameter at smallest part .990" Area supported by each stay 90 1/4 sq in Working pressure by rules 87 End plates in steam space:
Material Steel Thickness 3/4" Pitch of stays 16" x 14" How are stays secured Double nuts Working pressure by rules 127 lb Material of stays Steel
Diameter at smallest part 230" Area supported by each stay 224 sq in Working pressure by rules 103 Material of Front plates at bottom Steel
Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 9 1/2" Working pressure of plate by rules 211
Diameter of tubes 3 1/4" Pitch of tubes 4 3/8" Material of tube plates Steel Thickness: Front 3/4" Back 2 1/32" Mean pitch of stays 11 3/8"
Pitch across wide water spaces 14" Working pressures by rules 84 lb Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 4 1/2 x 1 1/4 Length as per rule 23 Distance apart 8 1/2 Number and pitch of Stays in each Two, 8"
Working pressure by rules 85 lb 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
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



Lloyd's Register
FOUNDED 1825

DONKEY BOILER— No. *One* Description *See other side.*

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:—

The foregoing is a correct description,

Manufacturer.

A. F. ORAIB & CO., LD.

Archde Vain
Secretary

Dates of Survey { During progress of work in shops - 1899: May. 26. June. 1. 19. 28. July. 18. 25. Sep. 6. Oct. 11. 18. 20. 26. Nov. 1. 7. 9.
while building { During erection on board vessel - 13. 14. 16. 28
Total No. of visits 18.

Is the approved plan of main boiler forwarded herewith ☒

“ “ “ donkey “ “ “ *yes.*

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

This boiler has been built under survey, is of good workmanship & material & satisfactory tested as per entry on other side. It has now been forwarded to Greenock to be fitted on board.

The amount of Entry Fee.. £ : : When applied for, 23/21/900
Special £ : :
Donkey Boiler Fee £ 2 : 2 : When received, 6/3/900
Travelling Expenses (if any) £ : :
Committee's Minute

TUES. 20 MAR 1900

Assigned

See Minute on Grk. Rpt. no 12621

James Hollison
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



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Foundation