

REPORT ON MACHINERY.

14438

Port of Glasgow

FRI. MAY 29 1896

No. in Survey held at Glasgow
g. Book.

Date, first Survey 31 Jan 96

Last Survey 21 May 1896

(Number of Visits 12)

on the S S Barcellos

Tons Gross 397.99
Net 270.63

Master John Darling Built at Glasgow By whom built Rodger & Coy

When built 1896

Engines made at Glasgow By whom made Ball-Brown Buttery & Co when made 1896

Milers made at Glasgow By whom made Anderson & Lyall when made 1896

Registered Horse Power 75 Owners Amazon Steam Navigation Co Ltd Port belonging to Para

m. Horse Power as per Section 28 64.9

GINES, &c.— Description of Engines Two Simple Exp. Ins. Surface Condensing No. of Cylinders Six
Diameter of Cylinders 9" 14" 22" Length of Stroke 18" Revolutions per minute 200 Diameter of Screw shaft 4 3/8"
Diameter of Tunnel shaft 4 1/2" Diameter of Crank shaft journals 4 1/2" Diameter of Crank pin 4 1/2" Size of Crank webs 8 1/2" x 3"
Diameter of screw 5-9" Pitch of screw 7-0" No. of blades 3 State whether moveable Yes Total surface 10.6 sq x 2
No. of Feed pumps two Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work Yes
No. of Bilge pumps two Diameter of ditto 2" Stroke 9" Can one be overhauled while the other is at work Yes
No. of Donkey Engines three Sizes of Pumps 2 1/2" x 4" 2 1/2" x 4" 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
Engine Room two 2" to each bilge pump & three 2" to donkey pumps Holds, &c. two 2" to each bilge pump, & one 1 1/2"
No. of bilge injections one sizes 3 1/2" Connected to condenser, or to circulating pump Cir 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
That pipes are carried through the bunkers None How are they protected r
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 launching Is the screw shaft tunnel watertight None
Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.— (Letter for record S) Total Heating Surface of Boilers 1332 square feet
No. and Description of Boilers one cylindrical Multitubular Working Pressure 160 Tested by hydraulic pressure to 320
Date of test 21 Jan 96 Can each boiler be worked separately ✓ Area of fire grate in each boiler 18.2 sq No. and Description of safety valves to
each boiler two direct spring Area of each valve 4.9 sq Pressure to which they are adjusted 165 lb Are they fitted
with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean diameter of boilers 12-7 1/32"
Length 10-0" Material of shell plates Steel Thickness 1 1/32" Description of riveting: circum. seams double & lap long. seams double & butt
Diameter of rivet holes in long. seams 1 1/32" Pitch of rivets 7 21/32" Lap of plates or width of butt straps 16 1/4"
Percentage of strength of longitudinal joint 88.6 Working pressure of shell by rules 164 Size of manhole in shell 15" x 11"
Size of compensating ring 8 1/2" x 11" No. and Description of Furnaces in each boiler two 4' x 8' Material Steel Outside diameter 46"
Length of plain part ✓ Thickness of plates 1 1/2" Description of longitudinal joint welded No. of strengthening rings 3 x 3 1/2"
Working pressure of furnace by the rules 164 Combustion chamber plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 2 1/32" Bottom 9/16"
Pitch of stays to ditto: Sides 8" x 8" Back 8" x 8" Top 9 3/8" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 171
Material of stays Steel Diameter at smallest part 1 1/2" Area supported by each stay 64.0" Working pressure by rules 181 End plates in steam space:
Material Steel Thickness 7/16" Pitch of stays 18 3/4" How are stays secured double nuts Working pressure by rules 187 Material of stays Steel
Diameter at smallest part 6.330" Area supported by each stay 350.0" Working pressure by rules 161 Material of Front plates at bottom Steel
Thickness 3/4" Material of Lower back plate Steel Thickness 3/4" Greatest pitch of stays 14" Working pressure of plate by rules 194
Diameter of tubes 3 1/2" Pitch of tubes 4 3/4" Material of tube plates Steel Thickness: Front 3/4" Back 7/16" Mean pitch of stays 9 1/2"
Pitch across wide water spaces 16" Working pressures by rules 175 Girders to Chamber tops: Material Steel Depth and
thickness of girder at centre 7 1/2" x two 3/4" Length as per rule 26 1/2" Distance apart 9 3/8" Number and pitch of Stays in each two 8"
Working pressure by rules 183 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 ✓

GRK 334-0055

DONKEY BOILER— Description _____

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. _____

Plates _____ 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.

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

Examined Stern brackets fitted on vessel. Stern boss plates bored & tubes fitted in place. Screw shafts shipped & coupled and propellers securely fastened on tail ends and sea connections fitted on vessel's sides.

The above mentioned parts of machinery are now in good & efficient condition. and the vessel has been towed to Glasgow to get Engines & Boiler fitted on board.

Certificate (if required) to be sent to

The amount of Entry Fee..	£	:	:	When applied for,
Special	£	:	:18.....
Donkey Boiler Fee	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:18.....

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

Greenock District.

Committee's Minute

TUES. JUN 2 1896

Assigned



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