

REPORT ON MACHINERY.

NO. 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 Hall-Brown Buttery & Co when made 1896

Motors 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

Net Horse Power as per Section 28 64.9

ENGINES, &c. — Description of Engines Two Screw Triple Exp. Invs. Surface Condensing No. of Cylinders Six
 Diameter of Cylinders 9" 14" 22" Length of Stroke 18" Revolutions per minute 200 Diameter of Screw shaft 4.39"
 Diameter of Tunnel shaft 4.17" 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 Holds, &c. two 2" to each bilge pump, & one 1 1/2" to donkey pump
 No. of bilge injections one sizes 3 1/2" Connected to condenser, or to circulating pump Yes Is a separate donkey suction fitted in Engine room & size 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
 How are they protected None
 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 Yes worked from Yes

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 21/1/96 Can each boiler be worked separately Yes 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 16.5 lbs Are they fitted
 with easing gear Yes Smallest distance between boilers or uptakes and bunkers or woodwork 10" Mean diameter of boilers 12-7/32"
 Length 10-0" Material of shell plates Steel Thickness 1 1/32" Description of riveting: circum. seams double & lap long. seams triple & 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"
 Percentages 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 Material Steel Outside diameter 46"
 Length of plain part 7 1/2" Thickness of plates 3 1/2" Description of longitudinal joint welded No. of strengthening rings 3 x 3 x 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 1.450" Area supported by each stay 64.0" Working pressure by rules 181 End plates in steam space:
 Material Steel Thickness 1 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 1/16" 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 Yes 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

