

REPORT ON MACHINERY.

1889

MON 1 SEPT 1890

No. 10094 Port of Glasgow Received at London Office
 No. in Survey held at Glasgow Date, first Survey 26th August 1889 Last Survey Aug 28th 1890
 Reg. Book. on the Screw Steamer Drottstar Castle (Number of Visits 53) Tons { Gross 5465
 Master M. P. Webster Built at Glasgow By whom built Fairfield & Co. Co. Net 3009
 Engines made at Glasgow By whom made " " " " when made 1890
 Boilers made at " By whom made " " " " when made 1890
 Registered Horse Power 1100 Owners D. Currier & Co. Port belonging to London
As per Rule 1022

Engines, &c. — Triple Expansion No. of Cylinders Three
 of Cylinders 38" 61 1/2" 100" Length of Stroke 66" Rev. per minute 48 Point of Cut off, High Pressure Variable Pressure —
 Diameter of Screw shaft 20 1/2" Diam. of Tunnel shaft 18 1/2" Diam. of Crank shaft journals 19 1/2" Diam. of Crank pin 20 1/2" size of Crank webs 11 1/2" x 39"
 Diameter of screw 20" Pitch of screw 26" No. of blades 4 state whether moveable Yes total surface 121 ft²
 of Feed pumps Two diameter of ditto 6" Stroke 30" Can one be overhauled while the other is at work Yes
 of Bilge pumps Two diameter of ditto 6" Stroke 30" Can one be overhauled while the other is at work Yes
 where do they pump from All compartments
 of Donkey Engines Eight Size of Pumps 9" x 5" x 10" Where do they pump from Sea Bilges. Hotwell
and Ballast Tanks
 Are all the bilge suction pipes fitted with roses Yes Are the roses always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes
 Are bilge injections Two and sizes 18" Are they connected to condenser, or to circulating pump To Circulating
 Are the pumps worked By Levers and Centrifugal pumps (Allens)
 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
 Are all pipes carried through the bunkers Bilge pipes to forehold How are they protected By wood casing
 Are all pipes, cocks, valves, and pumps in connection with the machinery accessible at all times Yes
 Are the pipes, cocks, and valves arranged so as to prevent an unintentional connection between the sea and the bilges Yes
 When were stern tube, propeller, screw shaft, and all connections examined in dry dock On ship before launching
 Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform
 Boilers, &c. — Four Description Round Horizontal Material Steel except stays in steam space which are iron
 Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 12th & 15th July 1890
 Description of superheating apparatus or steam chest None
 Can each boiler be worked separately Yes Can the superheater be shut off and the boiler worked separately —
 No. of square feet of fire grate surface in each boiler 125 ft² Description of safety valves Direct Spring No. to each boiler Two
 Area of each valve 14.19" Are they fitted with easing gear Yes No. of safety valves to superheater — area of each valve —
 Are they fitted with easing gear — Smallest distance between boilers and bunkers or woodwork about 14" Diameter of boilers 15" 8"
 Length of boilers 18" 8" description of riveting of shell long. seams Double riveted short seams Double riveted Thickness of shell plates —
 Diameter of rivet holes 1 3/8" whether punched or drilled Drilled pitch of rivets 8" 1 1/2" 2 1/2" Lap of plating Shaps 18" x 1 1/2"
 Percentage of strength of longitudinal joint 87.86% working pressure of shell by rules 160 lbs size of manholes in shell 16" x 12"
 No. of compensating rings Doubling plates No. of Furnaces in each boiler Six Description of Furnaces Corrugated
 Outside diameters 3' 11" length 6' 9" thickness of plates 1 3/8" description of joint welded if rings are fitted —
 Greatest length between rings — working pressure of furnace by the rules 170 lbs combustion chamber plating, thickness, sides 9/16" back 9/16" top 9/16"
 Pitch of stays to ditto, sides 7/4" x 7/4" back 7/4" x 7/4" top 7/4" x 7/4" Are stays fitted with nuts or riveted heads Nuts working pressure of plating by rules 168 lbs
 Diameter of stays at smallest part 1 3/8" = 1.48" working pressure of ditto by rules 19 1/2 lbs end plates in steam space, thickness 1 1/2"
 Pitch of stays to ditto 15 1/2" x 15 1/2" how stays are secured By double nuts working pressure by rules 168 lbs diameter of stays at smallest part 3" = 6" area
 Greatest pitch of stays — working pressure by rules — Diameter of tubes 3 1/4" pitch of tubes 14" x 4 1/2" thickness of tube plates, front 1 3/16" back 1 3/16" how stayed By tubes pitch of stays 8 1/2" x 13 1/2" width of water spaces about 6"
 Diameter of Superheater or Steam chest — length — thickness of plates — description of longitudinal joint — diam. of rivet holes —
 Pitch of rivets — working pressure of shell by rules — diameter of flue — thickness of plates — If stiffened with rings —
 Distance between rings — working pressure by rules — end plates of superheater, or steam chest; thickness — how stayed —
 Superheater or steam chest; how connected to boiler —

GLS160-0293

Lloyd's Register Foundation

1009766
Auxiliary
ORDONKEY BOILER— Description *Round Multitubular*
Made at *Glasgow* by whom made *Fairfield S & C. Co. Limited* when made *1890* where fixed *Lothfold*
Working pressure *160 lbs* tested by hydraulic pressure to *320 lbs* of Certificate *2790* fire grate area *41.55 ft* description
valves *Direct Spring* No. of safety valves *Two* area of each *4.91* if fitted with casing gear *Yes* if steam from main boiler
enter the donkey boiler *Yes* diameter of donkey boiler *12 ft* length *9 ft* description of riveting *Double but the*
Thickness of shell plates *1 1/2"* diameter of rivet holes *1 1/8"* whether punched or drilled *Drilled* pitch of rivets *8" 4" 22"* lap of plating *1/4"*
per centage of strength of joint *87 1/2* thickness of *End* plates *1 1/16"* stayed by *Bar Stays 2 3/8" dia 15" x 1 1/2"*
Diameter of furnace, *3' 11"* bottom *—* length of furnace *6' 1 1/2"* thickness of plates *1 1/32"* description of joint *Corrugated*
Thickness of *Combustion* plates *9/16"* stayed by *Screw Stays 1 3/8" dia 7 3/4" x 7 3/4"* working pressure of shell by rules *160*
Working pressure of furnace by rules *170 lbs* diameter of uptake *—* thickness of plates *—* thickness of water tubes *—*

SPARE GEAR. State the articles supplied: *Propeller Shaft, Boss, & one blade, 1 Piston*
Set Connect, rod brasses top & bottom also bolts, 2 main bearing bolts, 8 c
bolts, main bearing bush, Air pump rod, buckets & valves set of Lead pump,
valves, Slide valve & spindles, 1 Quadrant Block for link motion, and
The foregoing is a correct description, *Considerable quantity of other*

THE FAIRFIELD SHIPBUILDING

Manufacturer.

R. Bamwell
General Remarks

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

These Engineer & Boiler

MANAGING DIRECTOR.

for Am

of good workmanship and materials and are in
in good order and safe working condition and
in my opinion to be noted in the Register Book

M.C. 8790

The Electric Lighting of this vessel has been fitted by
Messrs Siemens on the single wire principle and with
Patent distribution boxes having ten or twelve lamps only per
with each, there are practically no joints in the wire and
insulating material appears to be of good description
and the main leads are encased in iron tubing.
There are two Dynamos each worked by Compound Engine
9" x 15" x 9" the each equal to about 1400 Watts working
about 200 revolutions, and one small Dynamo (with Cygn
to about 400 Watts at 200 revolutions.

It is submitted that this vessel is eligible
to have + L.M.C. 8-90 recorded.

M.A.

1.9.90

The amount of Entry Fee .. £ *3* : - : - received by me,

Special £ *41* : *2* : -

Donkey Boiler Fee £ : : -

Certificate (if required) .. £ : : - *29/8/1890*

To be sent as per margin.

(Travelling Expenses, if any, £)

Committee's Minute

TUES 2 SEPT 1890

+ L.M.C. 8790

James Morrison
Engineer Surveyor to Lloyd's Register of British & Foreign Ships

Blyde District

Lloyd's Register
Foundation