

REPORT ON MACHINERY.

9676

No. 9676

Port of

Glasgow

Received at London Office 73

No. in Survey held at

Glasgow

Date, first Survey 21 Sept^r 1888

Last Survey 13th April 1889

Reg. Book.

on the

S. S. Larnacca

(Number of Visits 36)

Tons

Master

Built at

Port Glasgow

By whom built

Russell & Co

When built 1889

Engines made at

Glasgow

By whom made

J. Howden & Co

when made 1889

Boilers made at

"

By whom made

"

"

"

when made 1889

Registered Horse Power 220

Owners

Port belonging to

ENGINES, &c.—

Description of Engines Triple Expansion

Diameter of Cylinders 22 $\frac{1}{2}$ " 35 $\frac{1}{2}$ " 58 $\frac{1}{2}$ " Length of Stroke 39" No. of Rev. per minute 70. Point of Cut off, High Pressure 1/2, Low Pressure 1/2

Diameter of Screw shaft 11 $\frac{1}{2}$ " Diam. of Tunnel shaft 11" Diam. of Crank shaft journals 11 $\frac{1}{2}$ " Diam. of Crank pin 11 $\frac{1}{2}$ " size of Crank webs built

Diameter of screw 16 $\frac{1}{2}$ " Pitch of screw 16 to 14 ft No. of blades 4 state whether moveable Yes total surface 66 ft²

No. of Feed pumps 2 diameter of ditto 3" Stroke 19" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 diameter of ditto 4 $\frac{1}{2}$ " Stroke 19" Can one be overhauled while the other is at work Yes

Where do they pump from All compartments

No. of Donkey Engines Two Size of Pumps 10" x 12" x 9" Ballast 8" x 6" x 5" Feed Where do they pump from Sea Hotwell Bilges

and Bunkers

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

No. of bilge injections One and sizes 5 $\frac{1}{2}$ " Are they connected to circulating pump Yes

How are the pumps worked By Levers off P Crosshead

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 about

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 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 leaving Greenock

Is the screw shaft tunnel watertight Yes and fitted with a sluice door Yes worked from Upper platform

BOILERS, &c.— Howden's Iron, brought arr

Number of Boilers Two Description Round Horizontal Whether Steel or Iron Steel

Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 8th March 1889.

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 37 ft² Description of safety valves Direct Spring No. to each boiler Two

Area of each valve 8.3" 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 10" Diameter of boilers 13' 0"

Length of boilers 11 ft⁶ description of riveting of shell long. seams Double riveted circum. seams Double riveted thickness of shell plates 1 $\frac{1}{8}$ "

Diameter of rivet holes 1 $\frac{3}{16}$ " whether punched or drilled Drilled pitch of rivets 7 $\frac{1}{16}$ " + 3 $\frac{3}{8}$ " Lap of plating 1 $\frac{3}{4}$ " x Straps

Per centage of strength of longitudinal joint 84 $\frac{1}{2}$ % working pressure of shell by rules 160 lbs size of manholes in shell 12" x 16"

Size of compensating rings Fitted ring fitted No. of Furnaces in each boiler Three

Outside diameter 39" length, top 8 ft⁶ bottom 10' 6" thickness of plates 9 $\frac{1}{16}$ " description of joint Cocked Comb joints rings are fitted

Greatest length between rings 23" working pressure of furnace by the rules 160 lbs combustion chamber plating, thickness, sides 10 $\frac{1}{16}$ " back 9 $\frac{1}{16}$ " top 10 $\frac{1}{16}$ "

Pitch of stays to ditto, sides 8 $\frac{1}{2}$ " back 4 $\frac{3}{4}$ " top 8 $\frac{3}{8}$ " If stays are fitted with nuts or riveted heads Nuts working pressure of plating by

rules 160 lbs Diameter of stays at smallest part 1 $\frac{3}{8}$ " working pressure of ditto by rules 160 lbs end plates in steam space, thickness 1 $\frac{3}{16}$ "

Pitch of stays to ditto 15" x 14" how stays are secured By double nuts working pressure by rules 160 lbs diameter of stays at

smallest part 2 $\frac{3}{8}$ " working pressure by rules 162 lbs Front plates at bottom, thickness 1 $\frac{3}{16}$ " Back plates, thickness 1 $\frac{3}{16}$ "

Greatest pitch of stays working pressure by rules Diameter of tubes 2 $\frac{1}{2}$ " pitch of tubes 3 $\frac{3}{8}$ " thickness of tube

plates, front 1 $\frac{3}{16}$ " back 1 $\frac{1}{16}$ " how stayed By tubes pitch of stays 6 $\frac{3}{4}$ " width of water spaces 6"

Diameter of Superheater or Steam chest None 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

DONKEY BOILER— Description *Round Vertical*
Made at *Newcastle* by whom made *Clarke Chapman* when made *1889* where fixed *Stockholm*
Working pressure *80 lbs* tested by hydraulic pressure to *160 lbs* No. of Certificate *2738* fire grate area *19 sq. ft.* description of safety
valves *Direct Spring* No. of safety valves *one* area of each *9"* if fitted with easing gear *Yes* if steam from main boilers can
enter the donkey boiler *No* diameter of donkey boiler *6' 4" 9"* length *14' 6"* description of riveting *lap*
Thickness of shell plates *1/32"* diameter of rivet holes *7/8"* whether punched or drilled *drilled* pitch of rivets *3 1/2"* lap of plating *4 1/2"*
per centage of strength of joint *71%* thickness of crown plates *1/16"* stayed by *4 stays 1 1/2" dia + 1 uptake*
Diameter of furnace, top *5' 5"* bottom *5' 9 3/4"* length of furnace *6' 1/2"* thickness of plates *1/16"* description of joint *lap*
Thickness of furnace crown plates *1/16"* stayed by *as above* working pressure of shell by rules *89 lbs*
Working pressure of furnace by rules *85 lbs* diameter of uptake *1' 3"* thickness of plates *1/16"* thickness of water tubes *6/16"*

SPARE GEAR. State the articles supplied:— *2 Main bearing bolts, 2 top + bottom end connecting
rod bolts, 1 set coupling bolts, Feed & Squeeze pumps, valves & assortment of
bolts, nuts, iron Springs &c 2 Propeller blades*

The foregoing is a correct description,

Manufacturer.

James Norrauto

General Remarks (State quality of workmanship, opinions as to class, &c.) *The above mentioned
engines and boilers, which have been built under
Special Survey, are now completed outwards
in a satisfactory manner of good workmanship
and material and are in our opinion
eligible to be noted in the Society's Register
Book: + L.M.C. 4. 89.*

*All the shafting have been built, rough turned and
finished at engine makers works and are as
far as can be seen sound & good.*

Law

*It is submitted that this vessel
is eligible to have + L.M.C. 4. 89.
recorded. N.A.
16. 4. 89.*

The amount of Entry Fee .. £ *2* : : received by me,

Special .. £ *31* : : :

Donkey Boiler Fee .. £ : : :

Certificate (if required) .. £ : : :

To be sent as per form.

(Travelling Expenses, if any, £)

Committee's Minute

THURS 18 APRIL 1889

+ Lmle 4/89

(M)

Wm. Anderson

Walter Robison

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

Glasgow

Lloyd's Register
Foundation