

REPORT ON MACHINERY.

No. 22614

WED. 14 FEB 1906

Port of Sunderland

Received at London Office 19

Survey held at Sunderland

Date, first Survey 1st September 05 Last Survey 1st February 1906

(Number of Visits 50)

in the S. S. "Ludgate"

Tons { Gross 3708.46
Net 2390.03
When built 1906

Nicholson Built at Sunderland By whom built James Bartram & Sons

Made at Sunderland By whom made Messrs J. Dickinson & Sons when made 1906

Made at Sunderland By whom made Messrs J. Dickinson & Sons when made 1906

Horse Power 1000 Owners Dowgate Steamship Co. Ltd. Port belonging to London

Power as per Section 28 313 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

S, &c.—Description of Engines Inverted triple expansion No. of Cylinders 3 No. of Cranks 3

Dimensions 24 1/2" 40" 66" Length of Stroke 45" Revs. per minute 70 Dia. of Screw shaft as per rule 13 1/4" Material of Iron

Is the after end of the liner made water tight Yes

If the liner is in more than one length are the joints burned Yes If the liner does not fit tightly at the part

bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive Yes If two

fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 4' 9"

as per rule 12 1/2" Dia. of Crank shaft journals as per rule 12 1/2" Dia. of Crank pin 12 1/2" Size of Crank webs 23 1/4" x 8 1/4" Dia. of thrust shaft under

as fitted 12 1/2" Dia. of screw 17' 0" Pitch of screw 17' 6" No. of blades 4 State whether moveable no Total surface 85 1/2"

Diameter of ditto 3 1/2" Stroke 22 1/2" Can one be overhauled while the other is at work Yes

Diameter of ditto 4 1/2" Stroke 22 1/2" Can one be overhauled while the other is at work Yes

Sizes of Pumps 8" x 10" x 10" & 6" x 4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps

In Holds, &c. 2 of 3 1/2" in each x 1 of 3 1/2"

Connected to condenser, or to circulating pump Is a separate donkey suction fitted in Engine room & size 4"

Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes

Are they Valves or Cocks both

Are the discharge pipes above or below the deep water line above

Are the blow off cocks fitted with a spigot and brass covering plate Yes

How are they protected Yes

Are the 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

Is the screw shaft tunnel watertight Yes

worked from top platform

S, &c.— (Letter for record 5) Total Heating Surface of Boilers 4774 1/2 Is forced draft fitted no

Description of Boilers 2 single ended cylindrical Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs

Can each boiler be worked separately Yes Area of fire grate in each boiler 71 1/2 No. and Description of safety valves to

Area of each valve 8.29 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

Mean dia. of boilers 16' 9 1/2" Length 11' 0" Material of shell plates steel

Range of tensile strength 20/32 Are they welded or flanged no Descrip. of riveting: cir. seams d. & lap long. seams double

Pitch of rivets 9 5/16" Lap of plates or width of butt straps 20 1/2"

Working pressure of shell by rules 181.5 lbs Size of manhole in shell 16" x 12"

No. and Description of Furnaces in each boiler 4 plain Material steel Outside diameter 40 1/4"

Thickness of plates 49/64 Description of longitudinal joint weld No. of strengthening rings 1

Combustion chamber plates: Material steel Thickness: Sides 11/16" Back 11/16" Top 11/16" Bottom 1 1/16"

Working pressure by rules 180.5 lbs

Working pressure by rules 203 lbs End plates in steam space:

Material of stays steel Thickness 1 3/32" Pitch of stays 17 1/2" x 18" How are stays secured double nut & washers Working pressure by rules 184 lbs

Material of Front plates at bottom steel

Greatest pitch of stays 13 1/2" x 10" Working pressure of plate by rules 184 lbs

Material of tube plates steel Thickness: Front 7/8" x 1 3/32" Back 7/8" Mean pitch of stays 9"

Working pressures by rules 244 lbs Girders to Chamber tops: Material steel Depth and

Distance apart 9" Number and pitch of Stays in each 2-10"

Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

Thickness of shell plates Material Description of longitudinal joint Diam. of rivet

Working pressure of shell by rules Diameter of flue Material of flue plates Thickness

End plates: Thickness How stayed

Area of safety valves to superheater Are they fitted with easing gear

W831-0139

DONKEY BOILER— No. 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 m
enter the donkey boiler Dia. of donkey boiler Material of shell plates Thickness
strength Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch
Lap of plating Per centage of strength of joint Rivets Thickness of shell crown plates Radius of do. No. of Stays
Dia. of stays. Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates
joint Thickness of furnace crown plates Stayed by Working pressure of shell by
Working pressure of furnace by rules Diameter of uptake Thickness of uptake plates Thickness of water tubes

SPARE GEAR. State the articles supplied:— 2 Top and, 2 bottom and, 2 Main bearings
of coupling bolts, 1 Propeller, 1 set feed and bilge pump
Bolts & Nuts assorted and iron of sizes, 1 Main feed check
Valve & 1 donkey feed check valve

The foregoing is a correct description,
John Gickleson & Co., Limited,
Apichmon Manufacturer.

Dates of Survey while building
During progress of work in shops— 1905 Sept: 1, 2, 25, 27, 30, Oct: 3, 5, 10, 11, 12, 13, 16, 17, 19, 23, 24, 27, 30, Nov:
During erection on board vessel— 10, 14, 15, 16, 20, 21, 23, 25, 27, 28, Dec: 4, 6, 8, 15, 19, 20, 21, 23, 28, 30,
Total No. of visits 50. Jan: 3, 4, 5, 8, 10, 25 Feb: 1, Is the approved plan of main boiler forwarded herewith
" " " donkey " " "

General Remarks (State quality of workmanship, opinions as to class, &c.) The Machinery of this vessel
has been constructed under special survey, the workman
and materials used are both of good quality, the
steam pipes have been tested to twice the working pressure
proved satisfactory under test, the Engines have been
ahead & astern under steam and worked well

I beg to recommend that this vessel
is eligible in my opinion to have the record **L.M.C.**
in the Register Book

It is submitted that
this vessel is eligible for
THE RECORD **L.M.C. 2.06**

The amount of Entry Fee . £ 3 : : When applied for,
Special £ 35 : 13 : 13. 2. 1906
Donkey Boiler Fee . . . £ : : When received,
Travelling Expenses (if any) £ : : 15/5/06

Wm. S. 06.
14. 2. 06
K. W. Coomber,
Engineer Surveyor to Lloyd's Register of British & Foreign

Committee's Minute

FRI. 16 FEB 1906

Assigned

+ L.M.C. 2.06

MACHINERY CERTIFICATE
WRITTEN,



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Lloyd's Register
Foundation