

REPORT ON MACHINERY.

Port of Belfast Received at London Office MON. APR. 22 1901

Survey held at Belfast Date, first Survey 2nd July 1900 Last Survey 15th April 1901

(Number of Visits 4)

the S.S. "Carrigan Head" Tons { Gross 4200
Net 2716

Built at Belfast By whom built Workman Clark & Co. L^d When built 1901

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By whom made " when made 1901

at "

Horse Power 1244 added Owners Ulster Steamship Co. L^d Port belonging to Belfast

Power as per Section 2 438 Is Refrigerating Machinery fitted No Is Electric Light fitted Yes

S, &c.—Description of Engines Triple Expansion No. of Cylinders Three No. of Cranks Three

enders 25"-43"-70" Length of Stroke 48 Revs. per minute 70 Dia. of Screw shaft 13.59 as per rule 13.59 Lgth. of stern bush 5'-1 1/2"

as per rule 13.59 Dia. of Crank shaft journals 13.5 as per rule 13.5 Dia. of Crank pin 13 1/2 Size of Crank webs 24 1/2 x 9 1/2 Dia. of thrust shaft under

shaft as fitted 13.0 as fitted 13.5 Dia. of screw 16'-6" Pitch of screw 14'-0 1/8"-6" No. of blades 4 State whether moveable Yes Total surface 80 sq. ft.

pumps Two Diameter of ditto 4" Stroke 27" Can one be overhauled while the other is at work Yes

pumps Two Diameter of ditto 4 1/2" Stroke 27" Can one be overhauled while the other is at work Yes

ey Engines Three Sizes of Pumps 9 1/2 x 1 1/2 x 2 1/2 Wages, Double No. of Suctions connected to both Bilge and Donkey pumps

Room Four - 3 1/2" 8 1/2 x 10 1/2 x 1 1/2 Ballast P. Pumps 8 x 4 1/2 x 6 General Pumps Nine - 12, one 2 1/2"

jections One sizes 4" Connected to condenser, or to circulating pump Rump a separate donkey suction fitted in Engine room & size Yes - 12"

ge 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

ctions with the sea direct on the skin of the ship Yes Are they Valves or Cocks Both None

d 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 Below

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 carried through the bunkers Fore hold suction How are they protected Wood casings

s, cocks, valves, and pumps in connection with the machinery and all boiler mountings accessible at all times Yes

e suction pipes, cocks, and valves arranged so as to prevent any communication between the sea and the bilges Yes

stern tube, propeller, screw shaft, and all connections examined in dry dock Before launching the screw shaft tunnel watertight Stated to be

with a watertight door Yes worked from Lower middle platform (including Anchor Bailer)

S, &c.— (Letter for record 9) Total Heating Surface of Boilers 6288 sq. ft. Is forced draft fitted Yes - 2 main

Description of Boilers Two - Cyl. Single Ended Working Pressure 190 lbs Tested by hydraulic pressure to 380 lbs

Can each boiler be worked separately Yes Area of fire grate in each boiler 602 sq. ft. No. and Description of safety valves to

Two - Rocket Spray Area of each valve 9.62 sq. in. Pressure to which they are adjusted 195 lbs Are they fitted with easing gear Yes

ance between boilers on plates and bunkers on woodwork 20" Mean dia. of boilers 15'-0" Length 11'-6" Material of shell plates Steel

Range of tensile strength 28-32 Are they welded or flanged No Descrip. of riveting: cir. seams Lap. & Square seams Butt Steel

rievet holes in long. seams 1 1/2 Pitch of rivets 9 1/4 Lap of plates or width of butt straps 2 1/4

of strength of longitudinal joint 88.0 Working pressure of shell by rules 221 lbs Size of manhole in shell 16" x 12"

nsating ring M^cNeill No. and Description of Furnaces in each boiler Three - Brown Material Steel Outside diameter 48 1/4"

ain part 5" Thickness of plates 3 1/2 Description of longitudinal joint Weld No. of strengthening rings 1

asure of furnace by the rules 220 lbs combustion chamber plates: Material Steel Thickness: Sides 3 1/2 Back 3 1/2 Top 3 1/2 Bottom 1"

s to ditto: Sides 8 1/4 x 4 Back 8 1/4 x 4 Top 8 1/4 x 4 If stays are fitted with nuts or riveted heads None Working pressure by rules 199 lbs

stays Steel Diameter at smallest part 1 1/2 supported by one stay 68 sq. in. Working pressure by rules 231 lbs End plates in steam space:

Thickness 1 1/2 Pitch of stay 19 1/2 x 16 1/2 How are stays secured Q. Nuts Working pressure by rules 253 lbs Material of stays Steel

smallest part 3 1/2 x 2 1/2 supported by one stay 304 sq. in. Working pressure by rules 238 lbs Material of Front plates at bottom Steel

Material of Lower back plate Steel Thickness 4 1/2 Greatest pitch of stays 13 1/2 Working pressure of plate by rules 294 lbs

tubes 2 1/2 Pitch of tubes 3 1/2 x 3 1/2 Material of tube plates Steel Thickness: Front 1 1/2 Back 1 1/2 Mean pitch of stays 4 1/2 x 4 1/2

as wide water spaces 13 1/2 Working pressures by rules 235 lbs with 1/2" doubler Girders to Chamber tops: Material Steel Depth and

girder at centre 9 1/2 x (1/2 x 2) Length as per rule 32" Distance apart 8 1/2 Number and pitch of Stays in each Three - 4"

essure by rules 235 lbs Superheater or Steam chest; how connected to boiler Can the superheater be shut off and the boiler worked

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

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

with rings Distance between rings Working pressure by rules End plates: Thickness How stayed

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

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THIS MARGIN.

Auxiliary

~~DONKEY~~ BOILER—

No. *ane* Description *by hand? Single, Indeb.*

Made at *Belfast*

By whom made *Workman Clark & Co. Ltd*

When made *1901*

Where fixed *St. John's*

Working pressure *190 lbs* tested by hydraulic pressure to *300 lbs*

No. of Certificate *303*

Fire grate area *48 sq ft*

Description of safety valves *Direct Spring*

No. of safety valves *two*

Area of each *4' 9 sq ft*

Pressure to which they are adjusted *195 lbs*

If fitted with easing gear *Yes*

If steam from main boilers can enter the donkey boiler *Yes*

Dia. of donkey boiler *12' 4 1/2"*

Length *10' 7"*

Material of shell plates *Steel*

Thickness *1 1/2"*

Range of tensile strength *28-32*

Descrip. of riveting long. seams *Butt Single*

Dia. of rivet holes *1 1/2"*

Whether punched or drilled *Drilled*

Pitch of rivets *8 1/2"*

Per centage of strength of joint *85-90*

Thickness of shell plates *1 1/2"*

Radius of do. *None*

No. of Stays to do. *20 x 15"*

20 x 12"

Dia. of stays *3 x 1 1/2"*

Diameter of furnace Top *4 1/4"*

Bottom *3 1/4"*

Length of furnace *4' 1"*

Thickness of furnace plates *7/8"*

Description of joint *Weld*

Thickness of *comb. chamber* plates *1 1/2"*

Stayed by *Screw stays*

Working pressure of shell by rules *200 lbs*

Working pressure of furnace by rules *229 lbs*

Diameter of *stays* *3"*

Thickness of *stays* plates *1 x 1/4"*

Thickness of water tubes *4 1/2 x 4 1/8"*

SPARE GEAR. State the articles supplied:

1 Propeller shaft complete; 2 steel propeller blades; 1 pair crank pin bushes; 1 pair piston rod bushes; air & circulating pump rod & nut; two slide valve spindle sets; rings for H.P. piston; sets air & circulating pump studs & guards; two cylinder escape valves & pumps; twenty fine condenser tubes; fifty females for do. other spare parts; and all gear to our requirements additional

The foregoing is a correct description,
FOR WORKMAN, CLARK & CO., LIMITED.

Manufacturer.

Dates of Survey while building
During progress of work in shops—
During erection on board vessel—
Total No. of visits

*1900, 2nd Augst 11 Sept^r 24, 26, 28. Oct^r 1, 3, 9, 12, 16, 18, 23. Nov^r 12, 14, 15, 22, 24. Dec^r 6, 19, 21.
1901, Jan^y 2, 8, 15, 23, 29, Feb^y 1, 5, 4, 12, 13, 15, 16, 18, 22, 26, March 1, 4, 11, 14, 18, 19, 27. April 3, 4, 11, 12, 15*

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " " *Yes*

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

Hydraulic Pressed
Material of screw shaft *Hyot Steel* Is the screw shaft fitted with a continuous liner the whole length of the stern tube *Yes*
Is the after end of the liner made water tight in the propeller boss *Yes* If the liner is in more than one length are the joints burned *✓*
If the liner does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *✓*
If two liners are fitted, is the shaft lapped or protected between the liners *✓*

*The machinery of this vessel has been examined under Special Survey, and is of good material, and workmanship.
The main boilers are fitted with Lowdons Forced Draft, and an Electric Light installation, by Mess^{rs} J. H. Holmes & Co. Newcastle. has also been fitted.
On trial, the machinery worked satisfactorily, and in my opinion it is eligible to have notification + L.M.C. 4.01, "Forced Draft & Electric Light" in the Register Book.*

It is submitted that
this vessel is eligible for
THE RECORD + L.M.C. 4.01 F.D. Elec. light.

CM.
22. 4. 01.

Res.
22. 4. 01

The amount of Entry Fee... £ 3 : - : -
Special... £ 41 18 : -
Donkey Boiler Fee... £ : : :
Travelling Expenses (if any) £ : : :
When applied for, 16-4-1901
When received, 20/4/01

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

Committee's Minute

TUES. APR 23 1901

Assigned

*+ L.M.C. 4.01
FD. Elect light.*

MACHINERY CERTIFICATE
WRITTEN.



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Lloyd's Register
Foundation