

## REPORT ON MACHINERY.

No. 82892  
WED. 26 OCT. 1921

Received at London Office

Date of writing Report

19

When handed in at Local Office

24 OCT 1921

Port of

LIVERPOOL

No. in Survey held at  
Reg. Book.

Lymham

Date, First Survey

7th April 1921

Last Survey

15th Oct. 1921

on the

steamer S.S. 'Glennullen'

(Number of Visits

9)

Gross 448

Net 176

When built 1921

Master

Built at

Lymham

By whom built

Lymham S.B. &amp; E. Co.

Engines made at

Lymham

By whom made

DE

when made

1921

Boilers made at

DE

By whom made

DE

when made

1921

Registered Horse Power

✓

Owners

Alliance &amp; Dublin Consumers Gas Co.

Port belonging to

Dublin

Nom. Horse Power as per Section 28

88

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

## ENGINES, &amp;c.—Description of Engines

Vertical Triple

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

14-22-38"

Length of Stroke

24"

Revs. per minute

120

Dia. of Screw shaft

as per rule 7.92"

Material of

M.S.

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

✓

Length of stern bush

3'-2"

Dia. of Tunnel shaft

as per rule 6.8"

Dia. of Crank shaft journals

as per rule 7.2"

Dia. of Crank pin

7/4"

Size of Crank webs

11x4 3/4"

Dia. of thrust shaft under

collars

7/4"

Dia. of screw

9'-0"

Pitch of Screw

10'-6"

No. of Blades

4

State whether moveable

no

Total surface

260'

No. of Feed pumps

2

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

2 1/2"

Stroke

12"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

6 1/2 x 6 1/2 x 8, ballast  
5 1/2 x 5 1/2 x 6, feed

No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room

2 @ 1 1/2", 1 @ 2 1/4"

In Holds, &amp;c.

1 @ 2 1/2", 2 @ 2 1/2"

No. of Bilge Injections

1

sizes

3 1/2"

Connected to

circulating pump

yes

Is a separate Donkey Suction fitted in Engine room &amp; size

yes, 2 1/2"

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 &amp; Cocks

yes

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

yes

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 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

none

Is it fitted with a watertight door

✓

worked from

✓

## BOILERS, &amp;c.—(Letter for record

S)

Manufacturers of Steel

Beardmore &amp; Co.

Total Heating Surface of Boilers

15200'

Is Forced Draft fitted

no

No. and Description of Boilers

one, cylindrical

Working Pressure

180 lbs

Tested by hydraulic pressure to

360 lbs

Date of test

7.4.21

No. of Certificate

2172

Can each boiler be worked separately

✓

Area of fire grate in each boiler

490'

No. and Description of Safety Valves to

each boiler

2, spring loaded

Area of each valve

5.930"

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

18"

Mean dia. of boilers

13'

Length

10'

Material of shell plates

M.S.

Thickness

1 1/16"

Range of tensile strength

28-32

Are the shell plates welded or flanged

no

Descrip. of riveting: cir. seams

D.R. lap

long. seams

T.R. double butt

Diameter of rivet holes in long. seams

1 1/8"

Pitch of rivets

8"

Lap of plates or width of butt straps

1-4 1/4"

Per centages of strength of longitudinal joint

rivets 86 1/2

plate 86

Working pressure of shell by rules

182 lbs

Size of manhole in shell

16x12"

Size of compensating ring

9x1"

No. and Description of Furnaces in each boiler

3, plain

Material

M.S.

Outside diameter

3'-3"

Length of plain part

top 6'-6"

bottom 6'-5"

Thickness of plates

crown 3 3/4"

bottom 3 3/4"

Description of longitudinal joint

weld

No. of strengthening rings

1, part

Working pressure of furnace by the rules

190 lbs

Combustion chamber plates: Material

M.S.

Thickness: Sides

1 1/16"

Back

5/8"

Top

1 1/16"

Bottom

1 1/16"

Pitch of stays to ditto: Sides

9 1/4 x 9 1/2"

Back

9 1/4 x 8 1/2"

Top

9 1/4 x 9 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

182, 184 lbs

Material of stays

M.S.

Area at smallest part

1.790"

Area supported by each stay

880"

Working pressure by rules

184 lbs

End plates in steam space:

Material

M.S.

Thickness

1 1/8"

Pitch of stays

18 1/4"

How are stays secured

D. nut &amp; washer

Working pressure by rules

180 lbs

Material of stays

M.S.

Area at smallest part

7.070"

Area supported by each stay

330 0"

Working pressure by rules

220

Material of Front plates at bottom

M.S.

Thickness

3/4"

Material of Lower back plate

M.S.

Thickness

13/16"

Greatest pitch of stays

as per plan

Working pressure of plate by rules

184 lbs

Diameter of tubes

3 1/2"

Pitch of tubes

4 3/4 x 4 5/8"

Material of tube plates

M.S.

Thickness: Front

3/4" + doubler

Back

3/4"

Mean pitch of stays

10 3/8"

Pitch across wide water spaces

14"

Working pressures by rules

184

Girders to Chamber tops: Material

M.S.

Depth and

thickness of girder at centre

8 3/4 x two 7 1/4"

Length as per rule

31 5/8"

Distance apart

9 1/2"

Number and pitch of stays in each

2, 9 1/4"

Working pressure by rules

180 lbs

Steam dome: description of joint to shell

✓

% of strength of joint

Diameter

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet holes

Pitch of rivets

Working pressure of shell by rules

Crown plates

Thickness

How stayed

## SUPERHEATER. Type

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

If not, state whether, and when, one will be sent?

Is a Report also sent on the Hull of the Ship?

2m, 11.20. T

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IS A DONKEY BOILER FITTED?

no

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— 1 valve spindle, 1 eccentric strap, 1 set piston rings & HP piston valve rings, 1 pair each of top & bottom <sup>end</sup> brasses, 1 air pump rod, 1 propeller, 1 set of coupling bolts & of top & bottom end & main bearing bolts; 1 set of air, w.c. feed & bilge pump valves; assorted iron & bolts; 12 condenser tubes, 6 boiler tubes.

THE LYTHAM SHIPBUILDING AND  
ENGINEERING COMPANY, LIMITED

The foregoing is a correct description,

*W. L. Lumsden*  
DIRECTOR

Manufacturer.

Dates  
of Survey  
while  
building

(During progress of  
work in shops - - -  
During erection on  
board vessel - - -  
Total No. of visits

1921  
Feb. 2, 3, 4, 5, 6, 7 June 1-27 July 13-27 Aug. 18-29 Oct. 15-17

15

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders 4.3.21 Slides 4.3.21 Covers 4.3.21 Pistons 4.3.21 Rods 3.2.21  
Connecting rods 3.2.21 Crank shaft 3.2.21 Thrust shaft 4.3.21 Tunnel shafts ✓ Screw shaft 23.3.21 Propeller 27.7.21  
Stern tube 27.7.21 Steam pipes tested 29.9.21 Engine and boiler seatings 8.9.21 Engines holding down bolts 22.9.21  
Completion of pumping arrangements 17.10.21 Boilers fixed 22.9.21 Engines tried under steam 17.10.21  
Completion of fitting sea connections 4.8.21 Stern tube 4.8.21 Screw shaft and propeller 4.8.21  
Main boiler safety valves adjusted 17.10.21 Thickness of adjusting washers 5/16"  
Material of Crank shaft M.S. Identification Mark on Do. 1350 Material of Thrust shaft M.S. Identification Mark on Do. 1348  
Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts M.S. Identification Marks on Do. 1447  
Material of Steam Pipes solid drawn copper Test pressure 360 lbs.; feed delivery 450 lbs.

Is an installation fitted for burning oil fuel

no

Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of Section 49 of the Rules been complied with ✓

Is this machinery duplicate of a previous case ✓ If so, state name of vessel 'Glenageary'

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under Special Survey. The materials & workmanship are good. Engines & boiler fitted on board in an efficient manner, & tried under steam with satisfactory results, & are now eligible for record of + L.M.C. 10.21.

It is submitted that  
this vessel is eligible for  
THE RECORD.

+ L.M.C. - 10.21. C.L.

MACHINERY CERTIFICATE  
WRITTEN 14.12.21

(dated 26/10/21)

*L. G. Lumsden*  
28/10/21

The amount of Entry Fee ... £ 2 : :  
Special ... £ 22 : :  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ 5 : 9.1

When applied for,  
25 OCT 1921

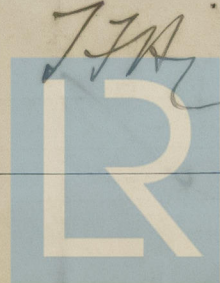
When received,  
12-12-21

*P. Townend*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 25 OCT 1921

Assigned *L.M.C. 10.21.*  
When fee is paid



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