

Rpt. 4.

REPORT ON MACHINERY.

No. 38140

WED. 25 SEP. 1919

Received at London Office

Date of writing Report

19

When handed in at Local Office

19

Port of

Glasgow

No. in Survey held at
Reg. Book.

458

on the

Steel Liner S.S. GLENAPP

Date, First Survey

21/11/14

Last Survey

Sept 12th

1918

(Number of Visits)

186

Gross Tons

7374

Net Tons

4623

Master

Built at Glasgow

By whom built Barclay Curle & Co. Ltd.

When built

1918

Engines made at

Glasgow

By whom made

Harland & Wolff Ltd.

when made

1917

Boilers made at

Annan

By whom made

Cochran & Co.

when made

1917

Registered Horse Power

Owners Glen Line Ltd.

Port belonging to Glasgow

Nom. Horse Power as per Section 28

1145

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

No. of Cylinders

16

No. of Cranks

16

Dia. of Cylinders

7 50 in

Length of Stroke

1100 in

Revs. per minute

120

Material of screw shaft

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

If the liner is in more than one length are the joints burned out

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

liners are fitted, is the shaft lapped or protected between the liners

Dia. of Tunnel shaft as per rule

Dia. of Crank shaft journals as per rule

Dia. of Crank pin as per rule

No. of Blades

State whether moveable

Total surface

No. of Bilge pumps

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

No. of Donkey Engines

Diameter of ditto

Stroke

Can one be overhauled while the other is at work

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

In Engine Room

In Holds, &c.

No. of Bilge Injections

Connected to

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

Are the roses in Engine room always accessible

Are the sluices on Engine room bulkheads always accessible

Are all connections with the sea direct on the skin of the ship

Are they Valves or Cocks

Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates

Are the Discharge Pipes above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel

Are the Blow Off Cocks fitted with a spigot and brass covering plate

What pipes are carried through the bunkers

How are they protected

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges

Dates of examination of completion of fitting of Sea Connections

of Stern Tube

Screw shaft and Propeller

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

worked from

Manufacturers of Steel

(Letter for record)

Total Heating Surface of Boilers

Is Forced Draft fitted

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of fire grate in each boiler

No. and Description of Safety Valves to

each boiler

Area of each valve

Pressure to which they are adjusted

Are they fitted with easing gear

Smallest distance between boilers or uptakes and bunkers or woodwork

Mean dia. of boilers

Length

Material of shell plates

Thickness

Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

long. seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

Per centages of strength of longitudinal joint

Working pressure of shell by rules

Size of manhole in shell

No. and Description of Furnaces in each boiler

Material

Outside diameter

Length of plain part

Thickness of plates

Description of longitudinal joint

No. of strengthening rings

Working pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

End plates in steam space:

Material of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

Thickness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

Pitch across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

thickness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

Working pressure by rules

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

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Lloyd's Register

Foundation

FRI 9-MAY-1919

VERTICAL DONKEY BOILER—

See separate Rpt of GLS No 37250
Manufacturers of Steel

No. 1 Description *Cochran*
Made at *Annan* By whom made *Cochran* When made *1917* Where fixed *after and of this room*
Working pressure *100 lb* tested by hydraulic pressure to *200 lb* Date of test *9.11.17* No. of Certificate *7572* Fire grate area Description of Safety
Valves *Spring loaded* No. of Safety Valves *2* Area of each *3 1/4 sq ft* Pressure to which they are adjusted *100 lb* Date of adjustment *3.9.18*
If fitted with easing gear *Yes* If steam from main boilers can enter the donkey boiler — Dia. of donkey boiler Length
Material of shell plates Thickness Range of tensile strength Descrip. of riveting long. seams
Dia. of rivet holes Whether punched or drilled Pitch of rivets Lap of plating Per centage of strength of joint Rivets
Working pressure of shell by rules Thickness of shell crown plates Radius of do. No. of stays to do. Dia. of stays
Diameter of furnace Top Bottom Length of furnace Thickness of furnace plates Description of joint
Working pressure of furnace by rules Thickness of furnace crown plates Radius of do. Stayed by
Diameter of uptake Thickness of uptake plates Thickness of water tubes Dates of survey

SPARE GEAR. State the articles supplied:— *See separate List*

Dates of Survey Continued. *1917 Oct 28-29-31 Nov 2-3-12-13-14-20-23-27 Dec 3-5-8-11-13-18-21-24-28-29 1918 Jan 8-10-16-17-22-24-26-29*
Feb 5-8-13-20-25-26 Mar 4-15-19-21-22-28 Apr 6-11-12-15-23-30 May 6-21-23-28-30 June 5-19 July 1-10 Aug 2-29 Sept 3-12

FOR HARLAND & WOLFF, LTD.,
The foregoing is a correct description,

GENERAL MANAGER
DIESEL ENGINE WORKS *per alt.*

Dates of Survey while building
During progress of work in shops — *1914 Nov 4 1915 Mar 17 Apr 28 May 6-10 Dec 24-30 1916 Jan 8-12-28 Feb 2-23-24 Mar 1-8-9-16-21-24-29 Apr 5-6-7-14-21-27*
During erection on board vessel — *May 1-5-11-14-18-19-30 June 2-9 July 13-17 Aug 1-3-5-9-29 Sept 6-7-11-13-20-25-27 Oct 3-11-16-21-26 Dec 7*
Total No. of visits *156* Is the approved plan of main boiler forwarded herewith —

Dates of Examination of principal parts—Cylinders *12.11.17* Slides — Covers *28.12.17* Pistons *28.12.17* Rods *3.1.18*
Connecting rods *5.2.18* Crank shaft *26.10.17* Thrust shaft *5.2.18* Tunnel shafts *5.2.18* Screw shaft *11.4.18* Propeller *5.2.18*
Stern tube *25.2.18* Steam pipes tested — Engine and boiler seatings *25.2.18* Engines holding down bolts *30.5.18*
Completion of pumping arrangements *3.9.18* Boilers fixed *30.5.18* Engines tried under steam *29.8.18-12.9.18*
Main boiler safety valves adjusted *3.9.18* Thickness of adjusting washers *Sta 3 1/2 inch Port 1 1/2*

Material of Crank shaft *Steel* Identification Mark on Do. *45 J.E. 9.17 1747-1744-782-1696-3620-3437A-18784783-784780REM.* Material of Thrust shaft *Steel* Identification Mark on Do. *1734-1735J*
Material of Tunnel shafts *Steel* Identification Marks on Do. — Material of Screw shafts *Steel* Identification Marks on Do. *1607-1608-1819-1820*
Material of Steam Pipes — Test pressure —

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

The materials and workmanship are good. The machinery has been built under special survey in accordance with the Plans and the requirements of the rules, it has been tried at full power and found to work well, and is eligible in my opinion to be classed with record of LMC 9.18.

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 9.18 DB 100LB
OIL ENGINES 4 S.C., SA, 16 Cy. 29 1/2" - 43 5/16
HARLAND & WOLFF, LTD., GLS.
(Annual Survey)

The amount of Entry Fee .. £ 3 : 0 : 0 When applied for, 17/9/1918
Special .. £ 73 : 12 : 6
Donkey Boiler Fee .. £ : : :
Travelling Expenses (if any) £ : : :
When received, 9.11.18

Committee's Minute GLASGOW 24 SEP 1918
Assigned + LMC 9.18.

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

TUE 14 OCT 1919

FRI 11 JUL 1919

MAY 1919

Surveyor's Signature

Lloyd's Register