

REPORT ON MACHINERY.

No. 38900  
Sub. No. 17541  
THU. 16 OCT. 1919

Received at London Office

Date of writing Report

19

When handed in at Local Office

7/7/19

Port of Glasgow

Survey held at Glasgow & Greenock

Date, First Survey

20/11/18

Last Survey

25 June 1919

Greenock.

g. Book.

on the Steamer

Siris

Standard

Mathew

Built at Greenock

By whom built

Harland & Wolff (No 571)

Tons Gross 5242  
Net 3266

When built 1919

es made at

Glasgow

By whom made

Harland & Wolff (No 1054)

when made 1919

es made at

Glydebank

By whom made

John Brown & Co (No 2078)

when made 1919

tered Horse Power

Owners The Royal Mail Packet Co Ltd

Port belonging to London

Horse Power as per Section 28

517

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

INES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

of Cylinders 27-44-73

Length of Stroke 48"

Revs. per minute 70

Dia. of Screw shaft

as per rule 14 1/2"  
as fitted 15 1/2"

Material of screw shaft

Steel

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

propeller boss

yes

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

no

If the liner does not fit tightly at the part

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

yes

If two

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

Length of stern bush 60 1/2"

of Tunnel shaft

as per rule 13.33"  
as fitted 13 1/2"

Dia. of Crank shaft journals

as per rule 13.9"  
as fitted 14 1/2"

Dia. of Crank pin

14 1/2"

Size of Crank webs

28x9"

Dia. of thrust shaft under

is 14 3/4"

Dia. of screw

17-6"

Pitch of Screw

16-6"

No. of Blades 4

State whether moveable

no

Total surface

982 sq ft

of Feed pumps

2

Diameter of ditto

4"

Stroke 24"

Can one be overhauled while the other is at work

yes

Bilge pumps

2

Diameter of ditto

4"

Stroke 24"

Can one be overhauled while the other is at work

yes

Donkey Engines

Two

Sizes of Pumps

7-18 - 14-24

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

Engine Room

7000 3 1/2"

In Holds, &c.

11-18 3 1/2"

Tunnel 3 1/2"

Circulating Pump Separate Engine

Bilge Injections

in sizes

8"

Connected to condenser, or to circulating pump

yes

Is a separate Donkey Suction fitted in Engine room & size

in 1 1/2"

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

yes

connections with the sea direct on the skin of the ship

yes

Are they Valves or Cocks

both

ey 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

both

ey 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

pipes are carried through the bunkers

How are they protected

yes

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

yes

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

yes

of examination of completion of fitting of Sea Connections

10/6/19

of Stern Tube

10/6/19

Screw shaft and Propeller

24/6/19

Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top of funnel

ERS, &c.—(Letter for record

S)

Manufacturers of Steel See Separate Report.

Heating Surface of Boilers 7668 sq ft Is Forced Draft fitted

yes

No. and Description of Boilers

Three single ended

ing Pressure

180 lb

Tested by hydraulic pressure to

360 lb

Date of test

6/7/19

No. of Certificate

14669

each boiler be worked separately

yes

Area of fire grate in each boiler

63.8 sq ft

No. and Description of Safety Valves to

boiler

Two

Area of each valve

9.62 sq in

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

yes

test distance between boilers or uptakes and bunkers or woodwork

25'

Mean dia. of boilers

Length

Material of shell plates

ness Range of tensile strength

Are the shell plates welded or flanged

Descrip. of riveting: cir. seams

seams

Diameter of rivet holes in long. seams

Pitch of rivets

Lap of plates or width of butt straps

entages of strength of longitudinal joint

rivets

Working pressure of shell by rules

Size of manhole in shell

of compensating ring

No. and Description of Furnaces in each boiler

Material

Outside diameter

th of plain part

top

Thickness of plates

bottom

Description of longitudinal joint

No. of strengthening rings

ing pressure of furnace by the rules

Combustion chamber plates: Material

Thickness: Sides

Back

Top

Bottom

of stays to ditto: Sides

Back

Top

If stays are fitted with nuts or riveted heads

Working pressure by rules

rial of stays

Diameter at smallest part

Area supported by each stay

Working pressure by rules

End plates in steam space

rial

Thickness

Pitch of stays

How are stays secured

Working pressure by rules

Material of stays

eter at smallest part

Area supported by each stay

Working pressure by rules

Material of Front plates at bottom

ness

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

eter of tubes

Pitch of tubes

Material of tube plates

Thickness: Front

Back

Mean pitch of stays

across wide water spaces

Working pressures by rules

Girders to Chamber tops: Material

Depth and

ness of girder at centre

Length as per rule

Distance apart

Number and pitch of stays in each

king pressure by rules

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

arately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

ca Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

orking pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Lloyd's Register Foundation

1619-0218

VERTICAL DONKEY BOILER—

Manufacturers of Steel

None

No. Description  
Made at By whom made When made Where fixed  
Working pressure tested by hydraulic pressure to Date of test No. of Certificate Fire grate area Description of  
Valves No. of Safety Valves Area of each Pressure to which they are adjusted Date of adjustment  
If fitted with easing gear 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  
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:—*Two top and bottom I am bottom end bolts. I am main bearing bolts. One set coupling bolts. One set dead pump valves. One set Bilge pump valves. Three Check valves. Three donkey Check valves. Eight escape valves opening Inspection Bottom Valve*

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

*Greenock*  
MANAGER, STEEL ENGINE WORKS

Dates of Survey while building { During progress of work in shops -- 1918 Nov 20 Dec 3. 9. 1919 Jan 14. Feb 19. Mar 12. 20. June 4. 23. 25  
During erection on board vessel --- (Greenock) (1919) May 23. 27. June 10. 24. July 1. 15. 16. 23. 29. Aug 5. 12. 19. 25. 27. Sept 3. 17. 24. 25  
Total No. of visits 10

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

Dates of Examination of principal parts—Cylinders 13.3.19 Slides 13.3.19 Covers 10/6/19 Pistons 14.1.19 Rods 13.3.19  
Connecting rods 13.3.19 Crank shaft 4.6.19 Thrust shaft 4.6.19 Tunnel shafts 4.6.19 Screw shaft 4.6.19 Propeller 4.6.19  
Stern tube 23/5/19 Steam pipes tested at Harrow Engine and boiler seatings 10/6/19 Engines holding down bolts 29/7/19  
Completion of pumping arrangements 25/9/19 Boilers fixed 17/9/19 Engines tried under steam 25/9/19  
Main boiler safety valves adjusted 23/9/19 Thickness of adjusting washers  $P \frac{1}{2} \times 5 \frac{9}{32}$   $P \frac{1}{2} \times 5 \frac{1}{16}$   $P \frac{1}{2} \times 5 \frac{1}{16}$   
Material of Crank shaft Steel Identification Mark on Do. 1054 JE Material of Thrust shaft Steel Identification Mark on Do. 626  
Material of Tunnel shafts Steel Identification Marks on Do. 216 Material of Screw shafts Steel Identification Marks on Do. 105  
Material of Steam Pipes Steel Test pressure 500 lb

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

*The Engines have been built under Special Survey. Materials and workmanship are good. Engines have been sent to Greenock to be fitted on board*

*The Machinery and Articles of this vessel have been constructed under Special Survey and placed on board in accord with the British Rules. They are now in our opinion in safe working condition and subject matter submitted for the satisfaction of L.M.C. 10 F.D. in the Register Book.*

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

Roll  
16/10/19

The amount of Entry Fee .. £ 3 :  
Special .. £ 34 : 8 :  
Donkey Boiler Fee (GRK) .. £ 11 : 9 :  
Travelling Expenses (if any) £ 34 :  
When applied for, 14/10/19  
When received, 5/12/19

as Easthope. *Samuel Brown*  
Engineer Surveyor to Lloyd's Register of British & Foreign Ships

Committee's Minute

Assigned *Deferred*

GLASGOW 78 JUL 1919

GLASGOW 14 OCT 1919

+ L.M.C. 10.19 F.D.

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Foundation

Certificate (if required) to be sent to