

REPORT ON MACHINERY.

No. 7359.

Received at London Office

MON. APR. 20. 1914

Date of writing Report 15th April 14 When handed in at Local Office

10 Port of Belfast

No. in Survey held at

Date, First Survey Feb 1913

Last Survey 8th April 1914

Reg. Book.

P. S. S. Star of England

(Number of Vessels 105)

Gross 9136

Master

Built at

Belfast

By whom built

Wickman Clark & Co

Not built 1914

Engines made at

Belfast

By whom made

when made

1914

Boilers made at

By whom made

when made

Registered Horse Power

Owners Commonwealth & Dominion

Port belonging to London

Nom. Horse Power as per Section 28

979

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Twin Screw Triple Expansion

Cylinders 6

No. of Cranks 6

Dia. of Cylinders

24"-40 1/2"-68"

Length of Stroke 48"

Revs. per minute 76 1/2

Dia. of Screw shaft

as per rule 14 1/2"

Material of I. 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

Yes

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

Yes

If two

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

Yes

Length of stern bush 61"

Dia. of Tunnel shaft

as per rule 12 1/2"

Dia. of Crank shaft journals

as per rule 13 1/2"

Dia. of Crank pin

14 3/8"

Size of Crank webs

27 1/2" x 9 1/2"

Dia. of thrust shaft under

collars

14 3/8"

Dia. of screw

17"-0"

Pitch of Screw

18"-9"

No. of Blades 3

State whether moveable

Yes

Total surface 85 sq. ft.

No. of Feed pumps

1 each Engine

Diameter of ditto

6 1/2"

Stroke 24"

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps

1 each Engine

Diameter of ditto

5 1/2"

Stroke 24"

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines

See

Size of pumps sheet

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

In Engine Room

4-3 1/2"

In Holds, &c.

13-3 1/2" & 1-2 1/2"

No. of Bilge Injections

2 sizes

8"

Connected to condenser, or to circulating pump

Pumps

a separate Donkey Suction fitted in Engine room & size

Yes-3 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

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

Yes

Are they Valves or Cocks

Both

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

Below

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

Fore hold suction

How are they protected

Wood Casings

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

Dates of examination of completion of fitting of Sea Connections

23-1-14

of Stern Tube

29-1-14

Screw shaft and Propeller

10-2-14

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from Top platform & Revolving

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel

Beardmore & Co

Total Heating Surface of Boilers

1624 sq. ft.

Is forced Draft fitted

Yes

No. and Description of Boilers

2 Double End Cyl.

Working Pressure

200 lbs

Tested by hydraulic pressure to

400 lbs

Date of test

21-1-14

No. of Certificate

460

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

147 sq. ft.

No. and Description of Safety Valves to

each boiler

3, Direct Spring

Area of each valve

4' x 9"

Smallest distance between boilers or uptakes and bunkers or woodwork

19"

Mean dia. of boilers

6'-3"

Length

20'-3"

Material of shell plates

Steel

Thickens

1 1/4"

Range of tensile strength

30-33 1/2"

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

L. & P.

long. seams

B. Butt & Lap

Pitch of rivets

10 1/2"

Lap of plates

width of butt straps

23 1/2"

Per centages of strength of longitudinal joint

rivets 91.9

plate 84.8

Working pressure of shell by rules

233 lbs

Size of manhole in shell

16' x 12"

Size of compensating ring

Mr. Keir

No. and Description of Furnaces in each boiler

8-Monson

Material

Steel

Outside diameter

45 1/2"

Length of plain part

top

Thickness of plates

crown

Description of longitudinal joint

Weld

No. of strengthening rings

Top & Bottom

Working pressure of furnace by the rules

229 lbs

Combustion chamber plates: Material

Steel

Thickness: Sides

3 1/2"

Back

Top

3 1/2"

Pitch of stays to ditto: Sides

8 1/2" x 8 1/2"

Back

Top

8 1/2" x 7"

If stays are fitted with nuts or riveted heads

Yes

Working pressure by rules

201 lbs

Material of stays

Steel

Diameter at smallest part

1 1/2"

Area supported by each stay

70 sq. in.

Working pressure by rules

226 lbs

End plates in steam space:

Material

Steel

Thickness

1 1/4"

Pitch of stays

20 1/2" x 15 1/2"

How are stays secured

Welded

Working pressure by rules

Diameter at smallest part

2 1/2" x 3 1/2"

Area supported by each stay

32 1/2" x 8"

Working pressure by rules

235 lbs

Material of Front plates at bottom

Steel

Thickness

1"

Material of Lower back plate

Thickness

Greatest pitch of stays

Working pressure of plate by rules

Diameter of tubes

2 1/2"

Pitch of tubes

3 1/2" x 3 1/2"

Material of tube plate

Steel

Thickness: Front

6 3/4"

Back

Pitch across wide water spaces

13 1/2"

Working pressures by rules

206 lbs

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

7 1/2" x (1/4" x 2)

Length as per rule

52 1/2"

Distance apart

8 1/2"

Number and pitch of stays in each

6-7 x 8"

Working pressure by rules

266 lbs

Superheater or Steam chest; how connected to boiler

Yes

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

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

Yes

Lloyd's Register

Foundation

W412-0260

W412-0262

Manufacturers of Steel

SPARE GEAR. State the articles supplied:— See other sheet

Dates of Examination of principal parts—Cylinders 13-3 Slide 3 Covers 5 Pistons Rods pla

Connecting rods 12-13 Crank shaft 10-4 Thrust shaft Tunnel shafts Screw shaft 19-12-13 Propeller 14-11-13

Stern tube 10-10-13 Steam pipes tested 3-2-14 Engine and boiler seatings 26-2-14 Engines holding down bolts 10-3-14

Completion of pumping arrangements 23-3-14 Boilers fixed 26-2-14 Engines tried under steam 8-4-14

Main boiler safety valves adjusted 26-3-14 Thickness of adjusting washers 8-11-13

Material of Crank shaft Steel Identification Mark on Do. J.T.B. 17-10-13 Material of Thrust shaft Do Identification Mark on Do. Do

Material of Tunnel shafts Do Identification Marks on Do. Do Material of Screw shafts Do Identification Marks on Do. 460 YDS J.T.B. 19-12-13

Material of Steam Pipes M. Iron ✓ Test pressure 600 lbs ✓

The machinery of this vessel has been constructed under Special Survey, and in accordance with the Rules. The workmanship, and the materials are of good description, and on trial under steam in Belfast Lough the machinery worked satisfactorily. In my opinion, it is eligible for record
+ L.M.C. 4-14. and notation "Forced Draft" "Electric Light"
"Refrigerating Machinery"

The machinery is a duplicate of that fitted in the sister vessel, "Star of Victoria". Report No. 7330

It is submitted that
this vessel is eligible for
THE RECORD. + LMC 4. 14. F.D.
2.D & 15B. Ref. Mchy.

The amount of Entry Fee	.. £	3	:	0	:	When applied for,
Special £	68	:	19	:	9-4-1914
Donkey Boiler Fee £		:		:	When received,
Travelling Expenses (if any)	£		:		:	18-4-1914

Committee's Minute TUE. APR. 21. 1914

Assigned

+ hmc 4, 14 J.D.

MACHINERY CERTIFICATE
WRITTEN.

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



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