

REPORT ON MACHINERY.

No. 39397

Received at London Office

WED. DEC. 10. 1919

Date of writing Report

19

When handed in at Local Office

6/12/19 Port of Glasgow

No. in Survey held at
Reg. Book.Date, First Survey 25/6/1918 Last Survey 26th Nov 1919

(Number of Visits 99)

on the

T.S.S. "WOODARRA"

Master

Built at Glasgow

By whom built Barclay Curie & Co. Ltd (No 572)

Tons } Gross
Net

When built 1919

Engines made at

Glasgow

By whom made

do.

(No 572) when made 1919

Boilers made at

do.

By whom made

do.

(20 Breda 23 Breda 565) (No 572) when made 1919

Registered Horse Power

Owners British India Steam Navigation Co. Ltd

Port belonging to Glasgow

Nom. Horse Power as per Section 28

1162

Is Refrigerating Machinery fitted for cargo purposes

Yes

Is Electric Light fitted

Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders

No. of Cranks

Dia. of Cylinders 26½-44-73 Length of Stroke 48 Revs. per minute 87

Dia. of Screw shaft as per rule 14.82 as fitted 15½ Material of steel screw shaft

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

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

Dia. of Tunnel shaft as per rule 13.69 as fitted 13½ Dia. of Crank shaft journals as per rule 14.38 as fitted 14½ Dia. of Crank pin 14½ Size of Crank webs 9x28 Dia. of thrust shaft under collars 15 Dia. of screw 17.3 Pitch of Screw 19.0 No. of Blades 4 State whether moveable

No. of Feed pumps

4

Diameter of ditto 4½

Stroke 24

Can one be overhauled while the other is at work

No. of Bilge pumps

4

Diameter of ditto 4½

Stroke 24

Can one be overhauled while the other is at work

No. of Donkey Engines

3

SIZES OF PUMPS (1) 9½x7x18 (2) 9½x14x24

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

In Engine Room (2) 3½ 8 Whitehead (2) 3½

In Holds, &c. No 1 (2) 3½ No 2 (2) 3½ No 3 (2) 3½ No 4 (2) 3½

No 5 (2) 3½ No 6 (1) 3½ Tunnel well (1) 2½

No. of Bilge Injections

2

SIZES 13

Connected to condenser, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Are all the bilge suction pipes fitted with roses

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

Is the Screw Shaft Tunnel watertight

Is it fitted with a watertight door

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

Total Heating Surface of Boilers

17604

Is Forced Draft fitted

Working Pressure

200 lb

Tested by hydraulic pressure to

350 lb

Date of test

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

S.E. 146.6

each boiler

3 spring loaded

Area of each valve

14.18

Pressure to which they are adjusted

Smallest distance between boilers or uptakes and bunkers or woodwork

1-6

Mean dia. of boilers

Thickenss

1 15/32

Range of tensile strength

28/32 tons

Are the shell plates welded or flanged

long. seams

TR DBS

Diameter of rivet holes in long. seams

1 1/2

Pitch of rivets

Per centages of strength of longitudinal joint

rivets 85.2 plate 85.7

Working pressure of shell by rules

207

Size of compensating ring

33 1/2 x 28 1/2 x 1 1/2

No. and Description of Furnaces in each boiler

SE 4

Material

Length of plain part

top bottom

Thickness of plates

crown 19 bottom 13 1/2

Description of longitudinal joint

Working pressure of furnace by the rules

213

Combustion chamber plates: Material

Steel

Thickness: Sides

Pitch of stays to ditto: Sides

9 1/2 x 8 1/8

Back

Top 7 x 6 3/4

If stays are fitted with nuts or riveted heads

Material of stays

Steel

Area at smallest part

203

Area supported by each stay

Material

Steel

Thickness

1 1/2

Pitch of stays

Area at smallest part

706

Area supported by each stay

336

Working pressure by rules

Thickness

1

Material of Lower back plate

Thickness

Diameter of tubes

2 1/2

Pitch of tubes

3 3/4 x 3 7/8

Material of tube plates

Pitch across wide water spaces

13 1/2

Working pressures by rules

203

Girders to Chamber tops: Material

thickness of girder at centre

8 x 3/4 (2)

Length as per rule

52 1/2

Distance apart

Working pressure by rules

235

Steam dome: description of joint to shell

None

% 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

Name

Date of Approval of Plan

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

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

W 989-0162

IS A DONKEY BOILER FITTED?

No.

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— Two top end bolts & nuts & bottom end bolts & nuts & main bearing bolts and nuts: set coupling bolts and nuts, feed and bilge pump valves, iron, bolts and nuts assorted and other articles

The foregoing is a correct description,
FOR BARCLAY, CURLE & CO., LTD.

John Alexander

Manager

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 1918: June 25 Sept 2-16-20-14 Oct 3-9-10-11-14-15-17-30-31 Nov 2-15-29 Dec 5-11-12-19-1919 Jan 8-10-14-20-28-29-30
During erection on board vessel -- July 1-7-9-10-11-12-14 Aug 5-6-8-13-18-21-22-26 Sept 9-14-18-19-22-24-26-30 Oct 1-2-3-6-7-13-20-23-10-12-13
Total No. of visits 99

Is the approved plan of main boiler forwarded herewith

" " " donkey " " "

Dates of Examination of principal parts—Cylinders 5.12.18 Slides 5.12.18 Covers 5.12.18 Pistons 10.1.19 Rods 1.4.19

Connecting rods 1.4.19 Crank shaft 14.1.19 Thrust shaft 9.4.19 Tunnel shafts 31.3.19 Screw shaft 20.5.19 Propeller 20.5.19

Stern tube 20.5.19 Steam pipes tested 25.3.19 2.10.19 Engine and boiler seatings 20.5.19 Engines holding down bolts 26.8.19

Completion of pumping arrangements 13.10.19 Boilers fixed 6.10.19 Engines tried under steam 13.10.19 26.11.19

Completion of fitting sea connections 16.6.19 Stern tube 16.6.19 Screw shaft and propeller 7.7.19

Main boiler safety valves adjusted 13.10.19 Thickness of adjusting washers Δ See below.

Material of Crank shaft Steel Identification Mark on Do. 20.5.19 JE Material of Thrust shafts Steel Identification Mark on Do. 225794

Material of Tunnel shafts Steel Identification Marks on Do. Δ See below Material of Screw shafts Steel Identification Marks on Do. \odot See below

Material of Steam Pipes steel Test pressure 600 lb/sq

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 —

General Remarks (State quality of workmanship, opinions as to class, &c. 2257AF9530 5558JD67

* (1) 2257 AF (4) 2257 AF (3) 2257 AF \odot Pt 20.5.19 JE, Sta 20.5.19 JE, Spare 572 TM. 14.7.19

Δ Post D.E. Pt $\frac{15}{32}$ "each $\frac{13}{32}$ " Sta $\frac{1}{2}$: Sta D.E. Pt $\frac{7}{16}$ " centre $\frac{1}{2}$ " Sta $\frac{13}{32}$ "

7a S.E. Pt $\frac{5}{16}$ " Sta $\frac{7}{16}$ " aft S.E. Pt $\frac{13}{32}$ " Sta $\frac{3}{8}$ "

The machinery of this vessel has been constructed under Special Survey in accordance with the Rules and approved Plans and has been seen satisfactorily working under steam, materials and workmanship are good.

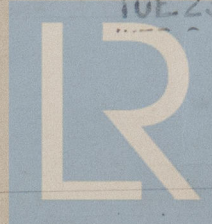
The machinery is eligible in our opinion to be
Classed + LMC 11-19.

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. F.D. 11.19.

The amount of Entry Fee ... £ 3 : 0 :
Special ... £ 74 : 1 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 9.12.1919
When received, 31.12.1919

Committee's Minute GLASGOW 9-DEC-1919

Assigned + LMC 11.19.



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Foundation