

REPORT ON MACHINERY.

No. 3939

Received at London Office

WED. DEC. 10. 1919

Date of writing Report

19

When handed in at Local Office

6/2/19 Port of Glasgow

No. in Survey held at

Date, First Survey 25/6/1918 Last Survey 26th Dec 1919

Reg. Book.

Number of Visits 99

on the

T.S.S. WOODARRA

Tons
Gross
Net

Master

Built at Glasgow

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

When built 1919

Engines made at

Glasgow

By whom made

do

(No 572) when made 1919

Boilers made at

do

By whom made

do

(No 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 6

No. of Cranks 6

Dia. of Cylinders 26 1/2 - 44 - 73

Length of Stroke 48

Revs. per minute 87

Dia. of Screw shaft

Material of steel as per rule 14.6 as fitted 15 3/4 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 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 to whole length If two

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

Length of stern bush 5-3

Dia. of Tunnel shaft as per rule 13.69 as fitted 13 1/2

Dia. of Crank shaft journals as per rule 14.38 as fitted 14 3/4

Dia. of Crank pin 14 3/4

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 Yes

Total surface 904

No. of Feed pumps 4

Diameter of ditto 4 1/2

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 4

Diameter of ditto 4 1/2

Stroke 24

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3

Sizes of Pumps (1) 9 1/2 x 7 x 18 (2) 10 1/2 x 14 x 24

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

In Engine Room (2) 3 1/2" 8" Stroke (2) 3 1/2" -

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

No 5 (2) 3 1/2" No 6 (1) 3 1/2" Tunnel well (1) 2 1/2"

No. of Bilge Injections 2

sizes 1.3

Connected to condenser, or to circulating pump

As 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 None

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 7 d Suctions

How are they protected Some casing

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 Yes

Is it fitted with a watertight door Yes

worked from top platform in engine room

BOILERS, &c.—(Letter for record S)

Manufacturers of Steel Glasgow Iron Works Ltd & Co. Ltd & Sons Ltd See separate form for S.G. Boilers

Total Heating Surface of Boilers 17604 sq ft

Is Forced Draft fitted Yes

No. and Description of Boilers 2 Double ended, 2 Single ended

Working Pressure 200 lb

Tested by hydraulic pressure to 350 lb

Date of test 27.6.19

No. of Certificate 14801

Can each boiler be worked separately Yes

Area of fire grate in each boiler 14.66 sq ft

No. and Description of Safety Valves to each boiler 3 Spring loaded

Area of each valve 14.18 sq ft Pressure to which they are adjusted 196 lb Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 1-6

Mean dia. of boilers 16-3

Length 20-6

Material of shell plates Steel

Thickness 1 1/2

Range of tensile strength 28/32 tons

Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Lap D&T

long. seams TRDBS

Diameter of rivet holes in long. seams 1 1/2

Pitch of rivets 1.0 1/2

Lap of plates or width of butt straps 2 1/2

Per centages of strength of longitudinal joint rivets 85.2

plate 85.7

Working pressure of shell by rules 207

Size of manhole in shell 16x12

DE 8 1/2

SE 4

Size of compensating ring 33 1/2 x 28 1/2 x 1 1/2

No. and Description of Furnaces in each boiler

Material Steel

Outside diameter 44 1/4

Length of plain part top 19

Description of longitudinal joint Weld

Working pressure of furnace by the rules 213

Combustion chamber plates: Material Steel

Thickness: Sides 1 1/8

Back 1 1/8

Top 1 1/8

Bottom 1 1/8

Pitch of stays to ditto: Sides 9 1/2 x 8 1/8

Back 7 x 6 3/4

If stays are fitted with nuts or riveted heads Nuts

Working pressure by rules 211

Material of stays Steel

Area at smallest part 2.03

Area supported by each stay 77 1/8

Working pressure by rules 241

End plates in steam space: Material Steel

Thickness 1 1/2

Pitch of stays 21 x 16

How are stays secured Bolt & W Working pressure by rules 201

Area at smallest part 7.06

Area supported by each stay 336

Working pressure by rules 218

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 3/4 x 3 5/8

Material of tube plates Steel

Thickness: Front 1 1/4

Back 3/4

Mean pitch of stays 9 1/4

Pitch across wide water spaces 13 1/2

Working pressures by rules 203

Girders to Chamber tops: Material Steel

Depth and thickness of girder at centre 8 x 3 1/2 (2)

Length as per rule 52 1/2

Distance apart 8 1/2 x 7 1/2

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

UPERHEATER. Type None

Date of Approval of Plan

Tested by Hydraulic Pressure to

Date of Test

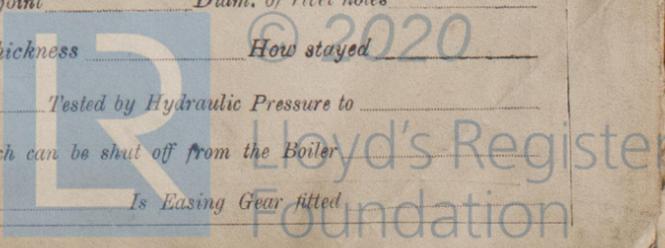
Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

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 big 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, 17, Oct 3, 9, 10, 11, 14, 15, 17, 30, 31, Nov 2, 15, 29, Dec 5, 11, 12, 19, 19, 19, Jan 8, 10, 14, 20, 28, 29, 12, 13, 20, 24, 27, 28, Mar 10, 14, 21, 25, 28, 31, Apr 1, 3, 9, 29, 30, May 9, 20, 24, 23, 29, 31, June 2, 3, 5, 6, 12, 16, 20, 26, 27, 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, Nov 3, 10, 12, 13, 21, 24, 25, 26. Total No. of visits 99. Is the approved plan of main boiler forwarded herewith No

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. 9475228AF 225794 Identification Mark on Do. 20.5.19 JE Material of Thrust shafts Steel Identification Mark on Do. AF 94 Material of Crank shaft Steel Identification Marks on Do. See below Material of Screw shafts Steel Identification Marks on Do. See below Material of Tunnel shafts Steel Identification Marks on Do. See below Material of Steam Pipes steel Test pressure 600 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 -

General Remarks (State quality of workmanship, opinions as to class, &c. 2257AF9529 5558JD67 * (1) 2257 AF (4) 2257 AF (3) 2257 AF 2257AF9530 2257AF9530 Sta 20.5.19 JE, Sta 20.5.19 JE, Spare 572 TM. 14.7.19 Δ Post D.E. Pt 15/32 "each 13/32" Sta 1/2: sta D.E. Pt 7/16 "centre 1/2" Sta 13/32. 7d S.S. Pt 5/16 "Sta 7/16" aft S.S. Pt 13/32 "Sta 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 : When applied for, Special ... £ 74 : 1 : 9.12.19 Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 3/12/19

Committee's Minute GLASGOW 9-DEC-1919

Assigned + LMC 11.19

as Basehope Mr. Murray Engineer Surveyor to Lloyd's Register of Shipping.



GLASGOW

Certificate (if required) to be sent to

The Surveyors are requested not to write on or below the space for Committee's Minute.

6/12/19

10.12.19