

REPORT ON MACHINERY.

No. 39002

Received at London Office

WED. AUG. 13. 1919

Date of writing Report

19

When handed in at Local Office

11-8-1919

Port of Glasgow

No. in Survey held at Reg. Book.

Glasgow

Date, First Survey 9th Nov. 1914

Last Survey 9 August 1919

(Number of Visits 38.)

on the

S.S. "WAR MOGUL"

Gross Tons 5548

Net Tons 5422

Master L. Parker

Built at Pt Glasgow

By whom built R Duncan (No 340)

When built 1919

Engines made at Glasgow

By whom made

W Rowan & Co (No 709)

When made 1919

Boilers made at Glasgow

By whom made

W Rowan & Co (No 709)

When made 1919

Registered Horse Power

Owners The Shipping Controller

Port belonging to London

Nom. Horse Power as per Section 28

517

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 27"-44"-73"

Length of Stroke 48"

Revs. per minute 80

Dia. of Screw shaft

as per rule 14.7"

Material of Iron

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 Yes

If two

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

Length of stern bush 5'-0"

Dia. of Tunnel shaft

as per rule 13.3"

Dia. of Crank shaft journals

as per rule 14"

14"

Dia. of Crank pin 14 1/2"

Size of Crank webs 28x9"

Dia. of thrust shaft under collars 14 3/4"

Dia. of screw 17'-6"

Pitch of Screw 16'-6"

No. of Blades 4

State whether moveable No

Total surface 98.2 sq ft

No. of Feed pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2

Diameter of ditto 4"

Stroke 24"

Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3

Sizes of Pumps 10 1/2 x 14 x 24

General

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

In Engine Room 3 three 3 1/2" Stokes

two 3 1/2" Stokes

In Holds, &c. fore hold two 3 1/2" aft hold

No. of Bilge Injections 1

size 12"

Connected to condenser, or to circulating pump

Is 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

For Suctions

How are they protected

Iron Plates

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

No

worked from

hulkways

escapes fitted

BOILERS, &c.—(Letter for record)

3

Manufacturers of Steel

The Steel Company of Scotland Limited

Total Heating Surface of Boilers

766 sq ft

Is Forced Draft fitted

Yes

No. and Description of Boilers

3 Single ended

Working Pressure

180

Tested by hydraulic pressure to

360 lb

Date of test

1.4.19

No. of Certificate

14676

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

63.3 sq ft

No. and Description of Safety Valves to

each boiler 2 spring loaded

Area of each valve

9.6 sq in

Pressure to which they are adjusted

185 lb

Smallest distance between boilers or uptakes and bunkers or woodwork

1-6

Mean dia. of boilers

15-6

Length

11-6

Material of shell plates

Steel

Thickness 1/4"

Range of tensile strength

28 to 32 tons

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

lap

long. seams

TR DBS

Diameter of rivet holes in long. seams

1 5/16"

Pitch of rivets

9 3/8"

Lap of plates or width of butt straps

19 1/2"

Per centages of strength of longitudinal joint

rivets 88.3

plate 85.6

Working pressure of shell by rules

183

Size of manhole in shell

16 x 12"

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3 Corrugated

Material

Steel

Outside diameter

42 3/16"

Length of plain part

top 19"

Thickness of plates

bottom 1 3/32"

Description of longitudinal joint

Welded

No. of strengthening rings

-

Working pressure of furnace by the rules

188

Combustion chamber plates: Material

Steel

Thickness: Sides

3/32"

Back

1/16"

Top

3/32"

Pitch of stays to ditto: Sides

10 5/8 x 9 1/4"

Back

10 1/4 x 8 3/4"

Top

10 5/8 x 9 1/4"

If stays are fitted with nuts or riveted heads

None

Working pressure by rules

180

Material of stays

Steel

Area at smallest part

2.39 sq in

Area supported by each stay

9.8 sq in

Working pressure by rules

219

End plates in steam space:

Material

Material

Steel

Thickness

1 1/32"

Pitch of stays

21 3/4 x 20 1/2"

How are stays secured

nut & plate

Working pressure by rules

181

Area at smallest part

8.29 sq in

Area supported by each stay

44.5 sq in

Working pressure by rules

198

Material of Front plates at bottom

Steel

Thickness

7/8"

Material of Lower back plate

Steel

Thickness

3/32"

Greatest pitch of stays

13 5/8 x 8 3/4"

Working pressure of plate by rules

187

Diameter of tubes

2 3/4"

Pitch of tubes

4 x 37/8"

Material of tube plates

Steel

Thickness: Front

3/32"

Back

3/4"

Pitch across wide water spaces

13 5/8"

Working pressures by rules

181

Girders to Chamber tops: Material

Steel

Depth and

thickness of girder at centre

10 x (7/8 x 2)

Length as per rule

Working pressure by rules

188

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 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

Yes

Diameter of Safety Valve

Pressure to which each is adjusted

-

Is Easing Gear fitted

-

-

-

-

-

-

-

-

-

-

-

IS A DONKEY BOILER FITTED? **No**

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

Two top end two bottom end two main bearing and six Coupling bolts and nuts set of feed and bilge Pump Valves, assorted Iron bolts and nuts, and other spares as required by Specification.

The foregoing is a correct description,

David McAvan & Co. Ltd. Glasgow Manufacturer.

Dates of Survey while building: During progress of work in shops (1917) Nov. 9, (1918) Aug. 14, Sept. 2, 11, 20, Oct. 1, 4, 8, 28, Nov. 8, 22, Dec. 5, 11, 13, 19, (1919) Jan. 8, 10, 22. During erection on board vessel: Feb. 6, 11, 12, Mar. 4, 6, 7, 11, 24, 26, Apr. 1, 8, 9, 14, May 13, 23, June 9, July 28, Aug. 9. Total No. of visits: 38.

Dates of Examination of principal parts: Cylinders 6.2.19, Slides 6.2.19, Covers 6.2.19, Pistons 6.2.19, Rods 6.2.19, Connecting rods 6.2.19, Crank shaft 10.1.19, Thrust shaft 24.3.19, Tunnel shafts 9.4.19, Screw shaft 26.3.19, Propeller 26.3.19, Stern tube 8.4.19, Steam pipes tested 13.12.18, Engine and boiler seatings 1.5.19, Engines holding down bolts 1.5.19, Completion of pumping arrangements 23.5.19, Boilers fixed 23.5.19, Engines tried under steam 23.5.19, Completion of fitting sea connections 7-4-19 G.K., Stern tube 1-4-19 G.K., Screw shaft and propeller 7-4-19 G.K.

Main boiler safety valves adjusted 23.5.19, Thickness of adjusting washers Pt. B P 3/4 3/16 Centre B 3/4 3/4 Sta B P 5/16 3/4 1460, Material of Crank shaft Steel, Identification Mark on Do. 709 10.1.19 JE, Material of Thrust shaft Steel, Identification Mark on Do. 24.3.19 JE, Material of Tunnel shafts Iron, Identification Marks on Do. 9.4.19 JE, Material of Screw shafts Iron, Identification Marks on Do. 26.3.19 JE, Material of Steam Pipes Iron, Test pressure 540 lb.

Is an installation fitted for burning oil fuel? Yes, Is the flash point of the oil to be used over 150°F? Yes, Have the requirements of Section 49 of the Rules been complied with? Yes, Is this machinery duplicate of a previous case? - If so, state name of vessel: Standard Z.

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

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

The machinery is eligible in our opinion to be classed + LMC 8.19 and to have the record fitted for oil fuel 8.19 FP above 150° F.

It is submitted that this vessel is eligible for THE RECORD, + LMC. 8.19 FD.

Fitted for oil fuel 8.19 FP above 150° F.

Roll 13/8/19 JRR

Table with 4 columns: Fee type, Amount (£), When applied for, When received. Includes Entry Fee, Special Fee (£146:11), Donkey Boiler Fee, and Travelling Expenses.

Signature of S. Easthope, Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 12 AUG 1919

FRI. MAR 19 1920

Assigned + LMC 8.19 FD.

ORDINARY CERTIFICATE OF SURVEY DATED 13/8/19

Fitted for oil fuel 8.19 FP above 150° F.



GLASGOW

11.8.19

Certificate (if required) to be sent to The Surveyors are requested not to write on or below the space for Committee's Minute.