

Rpt. 4.

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"

Master L. Parker

Built at Glasgow

By whom built R. Duncan (No 340)

Tons { Gross 5548
Net 5422

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 1/2

Dia. of Tunnel shaft

as per rule 13.3

Dia. of Crank shaft journals

as per rule 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 9 1/2 x 7 x 18

General

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

In Engine Room 3

Stroke 3 1/2

Stokehold 3 1/2

In Holds, &c. 3

Stokehold 3 1/2

After hold

two 3 1/2

Linnel well one 2 1/2

Cross bunker one 3 1/2

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

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

No

worked from

Hulkways

Is it fitted

Yes

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

The Steel Company of Scotland Limited

Total Heating Surface of Boilers

7668 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 ft

Pressure to which they are adjusted

185 lb

Are they fitted with easing gear

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

1-6

Mean dia. of boilers

15-6

Length

11-6

Thickness 1 1/4

Range of tensile strength

28-32 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

15/16

Pitch of rivets

9-8

Lap of plates or width of butt straps

19 1/2

Size of manhole in shell

16 x 12

Per centages of strength of longitudinal joint

rivets 88.3

plate 85.6

Working pressure of shell by rules

183

No. of strengthening rings

-

Size of compensating ring

flanged

Length of plain part

top 19

Thickness of plates

bottom 13 1/2

Description of longitudinal joint

welded

No. of strengthening rings

-

Working pressure of furnace by the rules

188

Combustion chamber plates: Material

Steel

Thickness: Sides

32

Back

16

Top 32

Bottom 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 ft

Area supported by each stay

9.8 sq ft

Working pressure by rules

219

End plates in steam space:

-

Material of stays

Steel

Thickness

1 1/32

Pitch of stays

2 1/4 x 20 1/2

How are stays secured

Nut & Washer

Working pressure by rules

181

Area at smallest part

8.29 sq ft

Area supported by each stay

4.45 sq ft

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

31

Back

3/4

Mean pitch of stays

9 7/8

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 (5/8 x 1)

Length as per rule

35 7/8

Distance apart

10 5/8

Number and pitch of stays in each

Three 9 1/4

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

Diameter of Safety Valve

Pressure to which each is adjusted

Is Easing Gear fitted

Lloyd's Register
Foundation

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 Mawson & 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. 7. 8. 28. Nov. 8. 22. Dec. 5. 11. 13. 19. (1919) Jan. 8. 10. 22. 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
During erection on board vessel - - -
Total No. of visits 38

Is the approved plan of main boiler forwarded herewith

No

" " " donkey " " " " " " " " " " " "

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 P.T.B.P. 3/8" 5/16" Centre B. 3/4" 5/8" Sta. B.P. 5/8" 1/2" 14.6.19

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

The amount of Entry Fee ... £ : : When applied for.
Special ... £ 146: 11 : 11-8-1919
Donkey Boiler Fee ... £ : : When received.
Travelling Expenses (if any) £ : : 14.8.19

Easthope Mr. J. Murray
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 12 AUG 1919

Assigned + LMC 8.19

Fitted for oil fuel 8.19 FP above 150°F

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GLASGOW

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

11-8-19