

REPORT ON MACHINERY.

No. 24383

THUR. 24 MAR 1910

Port of

Sunderland

Received at London Office

16

No. in Survey held at

Sunderland

Date, first Survey

11 Sept

Last Survey

March 1910

Reg. Book.

on the

S/S. Maresfield

(Number of Volls 31)

Tons

Gross 4176

Net 2633

When built 1910

Master

Davies

Built at

Sland

By whom built

J.L. Thompson & Sons

Engines made at

Sland

By whom made

Richardson & Westgarth & Co. when made 1910.

Boilers made at

"

By whom made

" when made 1910.

Registered Horse Power

Owners

Woodfield & Co. Shipping Co.

Port belonging to

London

Nom. Horse Power as per Section 28

395

Is Refrigerating Machinery fitted for cargo purposes

No

Is Electric Light fitted

No

ENGINES, &c.—Description of Engines

Tri. C.P.D.

No. of Cylinders

3

No. of Cranks

3

Dia. of Cylinders

26" 42" 70"

Length of Stroke

48"

Revs. per minute

65

Dia. of Screw shaft

as per rule 14.5

Material of

S.

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

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 12.99

Dia. of Crank shaft journals

as per rule 13.65

Dia. of Crank pin

14"

Size of Crank webs

20 1/2 x 9

Dia. of thrust shaft under

collars

14"

Dia. of screw

17 1/2"

Pitch of Screw

17 1/2"

No. of Blades

4

State whether moveable

f

Total surface

90 sq

No. of Feed pumps

2

Diameter of ditto

3 1/4"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Bilge pumps

2

Diameter of ditto

3 1/4"

Stroke

24"

Can one be overhauled while the other is at work

yes

No. of Donkey Engines

2

Sizes of Pumps

11 x 10" 6 x 4 x 6

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

In Engine Room

3

In Holds, &c.

two of 3 1/2 in each

No. of Bilge Injections

1

sizes

5"

Connected to condenser, or to circulating pump

C.P.

Is a separate Donkey Suction fitted in Engine room & size

4"

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

above

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

none

How are they protected

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

14.1.10

of Stern Tube

25.1.10

Screw shaft and Propeller

25.1.10

Is the Screw Shaft Tunnel watertight

yes

Is it fitted with a watertight door

yes

worked from

top platform

BOILERS, &c.—(Letter for record)

Manufacturers of Steel

J. Spencer & Sons Ltd.

Total Heating Surface of Boilers

6440

Is Forced Draft fitted

no

No. and Description of Boilers

3

S.E.

Working Pressure

180 lb

Tested by hydraulic pressure to

360

Date of test

9.12.09

No. of Certificate

2798

Can each boiler be worked separately

yes

Area of fire grate in each boiler

54 sq

No. and Description of Safety Valves to

each boiler

2

Spring

Area of each valve

7.07 sq

Pressure to which they are adjusted

185 lb

Smallest distance between boilers or uptakes and bunkers or woodwork

1' 10"

Mean dia. of boilers

14' 3 1/2"

Length

11 ft

Material of shell plates

S

Thickness

1 1/2"

Range of tensile strength

28-32

Are the shell plates welded or flanged

ends

Descrip. of riveting: cir. seams

d. 7

Lap

long. seams

d. 7

Diameter of rivet holes in long. seams

1 3/16"

Pitch of rivets

8 1/4"

Lap of plates or width of butt straps

1' 4"

Per centages of strength of longitudinal joint

rivets

86.5

Working pressure of shell by rules

181

Size of manhole in shell

32 x 16

16 x 12

Size of compensating ring

flanged

No. and Description of Furnaces in each boiler

3

Thompson's

Material

S

Outside diameter

3' 8 1/2"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

weld

No. of strengthening rings

3

Working pressure of furnace by the rules

185

Combustion chamber plates: Material

S

Thickness: Sides

1/6"

Back

3/32"

Top

1/6"

Bottom

3/4"

Pitch of stays to ditto: Sides

8 1/2 x 10 1/2"

Back

9 x 8 1/2"

Top

8 1/2 x 10 1/2"

If stays are fitted with nuts or riveted heads

nuts

Working pressure by rules

184

Material of stays

S

Diameter at smallest part

1 1/4"

Area supported by each stay

94 sq

Working pressure by rules

185

End plates in steam space:

Material

S

Thickness

1 1/4"

Pitch of stays

20 x 19 1/2"

How are stays secured

d nuts

Working pressure by rules

182

Material of stays

S

Diameter at smallest part

1 1/4"

Area supported by each stay

404 sq

Working pressure by rules

186

Material of Front plates at bottom

S

Thickness

3/32"

Material of Lower back plate

S

Thickness

3/4"

Greatest pitch of stays

14' x 8 1/4"

Working pressure of plate by rules

286

Diameter of tubes

3 1/2"

Pitch of tubes

4 1/2 x 4 1/2"

Material of tube plates

S

Thickness: Front

2 1/2 x 2 1/2"

Back

2 1/2"

Mean pitch of stays

13 1/2 x 8 1/2"

Pitch across wide water spaces

14 1/2"

Working pressures by rules

204 lb

Girders to Chamber tops: Material

S

Depth and

thickness of girder at centre

9" x 1 1/2"

Length as per rule

302

Distance apart

8 1/2"

Number and pitch of stays in each

2 @ 8 1/2"

Working pressure by rules

188

Superheater or Steam chest; how connected to boiler

v

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

holes

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

w241-0197

VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description						
Made at	By whom made		When made	Where fixed			
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of Safety		
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment			
If fitted with easing gear	If steam from main boilers can enter the donkey boiler	Dia. of donkey boiler	Length				
Material of shell plates	Thickness	Range of tensile strength	Descrip. of riveting long. seams				
Dia. of rivet holes	Whether punched or drilled	Pitch of rivets	Lap of plating	Per centage of strength of joint	Rivets	Plates	
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.	Dia. of stays			
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates	Description of joint			
Working pressure of furnace by rules	Thickness of furnace crown plates	Stayed by					
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey				

SPARE GEAR. State the articles supplied:— *one set top and bottom end bolts + nuts. 1 set main bearing bolts + nuts. one set coupling bolts. one set feed + tilge pump valves. propeller. shaft. propeller. half set an 100. pump valve nuts bolts + assorted iron.*

The foregoing is a correct description,
RICHARDSONS, WESTGARTH & CO., LTD. *main engine + boilers.*
Frederic H. Russell Manufacturer.

Dates of Survey while building	During progress of work in shops—	1909 Sept. 11. 21. 29. Oct 8. 11. 29. 30 Nov. 2. 22 Dec 4. 8. 9. 24. 29
	During erection on board vessel —	1910 Jan 5. 11. 14. 25 Feb 12. 7. 29. 14. 15. 17. 19. 23 Mar 3. 5. 11
	Total No. of visits	31

Is the approved plan of main boiler forwarded herewith *Yes*
 " " " donkey " " " *Yes*

Dates of Examination of principal parts—	Cylinders	31. 9. 09	Slides	3. 11. 09	Covers	10. 10. 09	Pistons	3. 11. 09	Rods	3. 11. 09	
Connecting rods	3. 11. 09	Crank shaft	2. 11. 10	Thrust shaft	22. 11. 09	Tunnel shafts	22. 11. 09	Screw shaft	22. 11. 09	Propeller	24. 12. 09
Stern tube	9. 11. 09	Steam pipes tested	9. 3. 10	Engine and boiler seatings	14. 1. 10	Engines holding down bolts	14. 1. 10				
Completion of pumping arrangements	17. 2. 10	Boilers fixed	9. 12. 10	Engines tried under steam	17. 2. 10						
Main boiler safety valves adjusted	17. 2. 10	Thickness of adjusting washers	PP 5/16 CB 5/16 SB 5/16								
Material of Crank shaft	S	Identification Mark on Do.	4845 C 94.	Material of Thrust shaft	PA 9. 09	Identification Mark on Do.	PA 9. 09				
Material of Tunnel shafts	S	Identification Marks on Do.	HK 9. 09	Material of Screw shafts	S	Identification Marks on Do.	3363 M Q				
Material of Steam Pipes	Copper	Test pressure	360 lb								

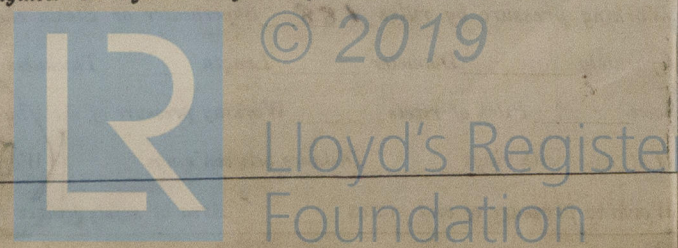
General Remarks (State quality of workmanship, opinions as to class, &c.)
Machinery and boilers built under Special Survey. Materials & workmanship good. Engines and boilers examined under steam & found satisfactory. It is submitted that this vessel is eligible for the record of L.M.C. 3/10.

It is submitted that this vessel is eligible for THE RECORD. + LMC 3. 10.

The amount of Entry Fee..	£ 3 :	When applied for,
Special	£ 39 : 15 :	19. 3. 1910
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any) £	:	22. 3. 1910

Committee's Minute
 Assigned *WED. 30 MAR 1910*
+ L.M.C. 3. 10

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



Certificate (if required) to be sent to the Committee's Minute.