

REPORT ON MACHINERY.

No. 24383

THUR. 24 MAR 1910

Port of Sunderland

Received at London Office

10

No. in Survey held at Sunderland

Date, first Survey 11 Sept

Last Survey March 1910

Reg. Book.

on the S/S. Maresfield

(Number of Plates 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. Ltd when made 1910

Boilers made at "

By whom made " when made 1910

Registered Horse Power 395

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" 40" Length of Stroke 48" Revs. per minute 65 Dia. of Screw shaft 1 1/4" Material of screw shaft St.

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 Yes If two liners are fitted, is the shaft lapped or protected between the liners Yes Length of stern bush 5' 0"

Dia. of Tunnel shaft 12.99" Dia. of Crank shaft journals 13.65" Dia. of Crank pin 14" Size of Crank webs 203 x 9 Dia. of thrust shaft under collars 14" Dia. of screw 17.6" Pitch of Screw 17.9" No. of Blades 4 State whether moveable f Total surface 90 f

No. of Feed pumps 2 Diameter of ditto 3 3/4" Stroke 24" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 3 3/4" Stroke 27" 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 2 of 3 3/4"

In Engine Room 3. 2. 32" C. 32" 5. 32" In Holds, &c. two of 3 3/4" in each

No. of Bilge Injections 1 sizes 5" Connected to condenser, or to circulating pump CP Is a separate Donkey Suction fitted in Engine room & size 4 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 Yes

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 Yes

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

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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 57 f No. and Description of Safety Valves to each boiler 2 Spring Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 1' 10" Mean dia. of boilers 14' 3 1/2" Length 11 f Material of shell plates S

Thickness 1 5/16" Range of tensile strength 28-32 Are the shell plates welded or flanged ends Descrip. of riveting: cir. seams 7.7 laps

long. seams A. butts 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", 16 x 12"

Size of compensating ring flange No. and Description of Furnaces in each boiler 3 Monson's Material S Outside diameter 3' 8 1/4"

Length of plain part top 11 1/2" Thickness of plates crown 3 1/2" Description of longitudinal joint weld No. of strengthening rings 1

Working pressure of furnace by the rules 185 Combustion chamber plates: Material S Thickness: Sides 1/8" Back 3/32" Top 1/8" 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 1.79" Area supported by each stay 94 1/2" Working pressure by rules 185 End plates in steam space: Material S Thickness 1 3/4" Pitch of stays 20 1/2 x 19 1/2" How are stays secured 7 nuts Working pressure by rules 182 Material of stays S

Diameter at smallest part 4.24" Area supported by each stay 404.87" 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 3/4" 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 1/2" Girders to Chamber tops: Material S Depth and thickness of girder at centre 9" x 1 1/2" Length as per rule 30 1/2" 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 Yes Can the superheater be shut off and the boiler worked separately Yes

Diameter 10 1/2" Length 10 1/2" Thickness of shell plates 1/8" Material S Description of longitudinal joint Weld Diam. of rivet holes 1 3/16" Pitch of rivets 8 1/4" Working pressure of shell by rules 180 Diameter of flue 10 1/2" Material of flue plates S Thickness 1/8"

If stiffened with rings Yes Distance between rings 10 1/2" Working pressure by rules 180 End plates: Thickness 1/8" How stayed Yes

Working pressure of end plates 180 Area of safety valves to superheater 10 1/2" Are they fitted with easing gear Yes

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?

Lloyd's Register Foundation
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 valve. propeller. shaft. propeller. half set on Cor. pump valve. Nuts bolts + assorted iron.*

The foregoing is a correct description,
 RICHARDSONS, WESTGARTH & CO., LTD.

Jedric H Russell Manufacturer.

main engine + boilers.

Dates of Survey while building: During progress of work in shops— *1909 Sept. 11. 21. 29. Oct. 8. 21. 29. 30. Nov. 2. 22. Dec. 4. 9. 24. 29.*
 During erection on board vessel— *1910. Jan. 5. 11. 14. 25. Feb. 12. 17. 29. 14. 15. 17. 19. 22. Mar. 2. 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 *21. 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. 09* 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 *PB 5/16 CB 5/16 SB 5/16*
 Material of Crank shaft *S* Identification Mark on Do. *4845 C 94* Material of Thrust shaft *S* Identification Mark on Do. *PA 9. 0*
 Material of Tunnel shafts *S* Identification Marks on Do. *HK 9. 09* Material of Screw shafts *S* Identification Marks on Do. *3363 M*
 Material of Steam Pipes *Copper* Test pressure *360 lbs*

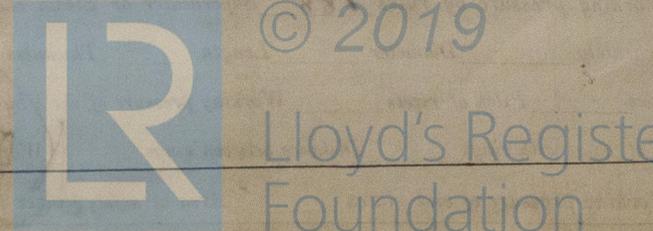
General Remarks (State quality of workmanship, opinions as to class, &c.)
Machinery and boilers built under special survey. Materials & workmanship good. Engines and boilers examined under steam & found satisfactory. It is submitted that this vessel is eligible for the record of L.M.C. 3/10.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 3. 10.

J M
J Y Findlay
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

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

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



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