

# REPORT ON MACHINERY.

NEWCASTLE ON TYNE No 60804  
No. 24909

Port of Sunderland

Received at London Office MON JUL 17 1911  
TUE AUG 8 1911

No. in Survey held at Sunderland. Date, first Survey 29 Dec 1910 Last Survey 3 July 1911

Reg. Book. on the S/S "Dalebank" (Number of Visits 33)

Tons { Gross 4217  
Net 2721

Master                      Built at Newcastle By whom built North S B Co Ltd 1884 When built 1911

Engines made at Hand. By whom made Richardson's Westgarth & Co when made 1911

Boilers made at " By whom made " when made 1911

Registered Horse Power " Owners Jay & Worthington Port belonging to Liverpool

Nom. Horse Power as per Section 28 372 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines 3 C. P. D. No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders 25 1/2" 69 Length of Stroke 48" Revs. per minute 65 Dia. of Screw shaft 15" Material of screw shaft IS

Is the screw shaft fitted with a continuous liner the whole length of the stern tube no 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 no 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 no If two

liners are fitted, is the shaft lapped or protected between the liners no Length of stern bush 5 1/2"

Dia. of Tunnel shaft 12 6/8" as per rule 13 3/8" Dia. of Crank shaft journals 13 3/8" as per rule 14" Dia. of Crank pin 14" Size of Crank webs 202.8" Dia. of thrust shaft under

collars 14 1/2" Dia. of screw 14 1/2" Pitch of Screw 14 1/2" No. of Blades 4 State whether moveable no Total surface 95 sq ft

No. of Feed pumps 2 Diameter of ditto 3 3/4" Stroke 21" Can one be overhauled while the other is at work yes

No. of Bilge pumps 2 Diameter of ditto 3 3/4" Stroke 21" Can one be overhauled while the other is at work yes

No. of Donkey Engines two Sizes of Pumps 6 1/2 x 4 1/2 - 9 x 11 x 10 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 4 of 3 1/2" 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.D. Is a separate Donkey Suction fitted in Engine room & size yes

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 no

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 no

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 26/5/11 of Stern Tube 14. 6. 11 Screw shaft and Propeller 14. 6. 11

Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from top platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons Ltd.

Total Heating Surface of Boilers 5940 Is Forced Draft fitted no No. and Description of Boilers 3 S.C.

Working Pressure 180 lbs Tested by hydraulic pressure to 360 Date of test 26/4/11 No. of Certificate 2908

Can each boiler be worked separately yes Area of fire grate in each boiler 50 sq ft No. and Description of Safety Valves to

each boiler two spring Area of each valve 4. 04 Pressure to which they are adjusted 185 Are they fitted with easing gear yes

Smallest distance between boilers or uptakes and bunkers or woodwork 1. 9 Mean dia. of boilers 14 ft Length 10. 9 Material of shell plates S

Thickness 1 1/8" Range of tensile strength 28. 32 Are the shell plates welded or flanged no Descrip. of riveting: cir. seams d + lap

long. seams d. butts Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8 3/8" Lap of plates or width of butt straps 1 1/4"

Per centages of strength of longitudinal joint rivets 84. 5 Working pressure of shell by rules 180 lbs Size of manhole in shell 16" x 12"

plate 85. 8 Size of compensating ring flanged No. and Description of Furnaces in each boiler 3 Morrison's Material S Outside diameter 3. 4"

Length of plain part top 14" Thickness of plates crown 14" Description of longitudinal joint weld No. of strengthening rings no

bottom 32" Working pressure of furnace by the rules 189 Combustion chamber plates: Material S Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 3/4"

Pitch of stays to ditto: Sides 10 3/8 x 8 1/2" Back 10 x 8 1/2" Top 10 x 8 1/2" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 182

Material of stays S Diameter at smallest part 1. 5" Area supported by each stay 83. 75 Working pressure by rules 182 End plates in steam space:

Material S Thickness 1 1/2" Pitch of stays 19 1/2 x 19 3/4" How are stays secured d nuts Working pressure by rules 187 Material of stays S

Diameter at smallest part 3. 05 Area supported by each stay 385 Working pressure by rules 195 Material of Front plates at bottom S

Thickness 3/8" Material of Lower back plate S Thickness 3/4" Greatest pitch of stays 13 1/2" 8 1/8" Working pressure of plate by rules 298

Diameter of tubes 3 1/4" Pitch of tubes 42 x 42" Material of tube plates S Thickness: Front 25/32" Back 25/32" Mean pitch of stays 11"

Pitch across wide water spaces 14 1/2" Working pressures by rules 181 Girders to Chamber tops: Material S Depth and

thickness of girder at centre 8 1/2 x 12" Length as per rule 29 1/2" Distance apart 10" Number and pitch of stays in each 2 @ 8 1/2"

Working pressure by rules 187 Superheater or Steam chest; how connected to boiler                      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

Lloyd's Register  
W & A Foundation

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:— 1 set coupling bolts & nuts, 1 set top and bottom bolts and nuts, 1 set main bearing bolts & nuts, feed and bilge pump valves, propeller & shaft, air & bilge pump valves, nuts bolts and assorted iron

The foregoing is a correct description,

FOR RICHARDSONS, WESTGARTH & CO., LTD

Manufacturer.

*Frederic H. Russell*

ASSISTANT MANAGER

Dates of Survey while building

During progress of work in shops - -	1910 Dec 23	1911 Jan 19	Feb 16 17 23	Mar 2 7 8 14 20 29	Apr 3 10 13 26 28 30
	May 9 12 26 25 June 1 7 8 10 14 19 29 30 Jul 1 3				
During erection on board vessel - -	26 May 1911 (5 days)				
Total No. of visits	35				

Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts—Cylinders 10.4.11 Slides 10.4.11 Covers 3.4.11 Pistons 10.4.11 Rods 10.4.11

Connecting rods 14.3.11 Crank shaft 10.4.11 Thrust shaft 13.4.11 Tunnel shafts 8.6.11 Screw shaft 5.5.11 Propeller 14.6.11

Stern tube 5.5.11 Steam pipes tested 10.6.11 Engine and boiler seatings 14.6.11 Engines holding down bolts 30.6.11

Completion of pumping arrangements 14.6.11 Boilers fixed 30.6.11 Engines tried under steam 3.7.11

Main boiler safety valves adjusted 3.7.11 Thickness of adjusting washers PB 3/8, 3/8 CB 3/8 1/2 SB 7/8 3/8 KH

Material of Crank shaft SS Identification Mark on Do. 50216 Material of Thrust shaft S Identification Mark on Do. M.B.11

Material of Tunnel shafts S Identification Marks on Do. MB.11 Material of Screw shafts S Identification Marks on Do. MB.4.11

Material of Steam Pipes Copper Test pressure 400 lbs

General Remarks (State quality of workmanship, opinions as to class, &c. Machinery and boilers built under special survey, materials and workmanship good, engines and boilers examined under full steam & found satisfactory. It is submitted that this vessel is eligible for the record of L.M.C. 4/11

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 7.11.

*J.W.D.*  
9/8/11

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

The amount of Entry Fee..	£ 3	:	:	When applied for,
Special ..	£ 38	:	12	15 7 19
Donkey Boiler Fee ..	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	20 8 19

FRI. AUG. 11. 1911

Committee's Minute

Assigned

*Thome 7.11*

MACHINERY CERTIFICATE WRITTEN



© 2021

Lloyd's Register Foundation

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