

## REPORT ON MACHINERY.

NEWCASTLE ON TYNE No 60804

No. 24909

Port of Sunderland

Received at London Office

MON JUL 17 1911

No. in Survey held at Sunderland

Date, first Survey

23 Dec 1910 Last Survey

30 July 1911

Reg. Book.

on the S/S "Dalebank"(Number of Visits 33)Tons { Gross 4217  
Net 2721

Master

Built at NewcastleBy whom built North S.E. & LdWhen built 1911Engines made at HandBy whom made Richardson's Westgarth & Cowhen made 1911Boilers made at "By whom made "when made 1911Registered Horse Power "Owners Jay & WorthingtonPort belonging to LiverpoolNom. Horse Power as per Section 28 372Is Refrigerating Machinery fitted for cargo purposes noIs Electric Light fitted noENGINES, &c.—Description of Engines Gr. C. P. D.No. of Cylinders 3No. of Cranks 3Dia. of Cylinders 25 1/2" 69"Length of Stroke 48"Revs. per minute 65

Dia. of Screw shaft

as per rule 15"Material of ISIs 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 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 noLength of stern bush 5' 1"

Dia. of Tunnel shaft

as per rule 12' 6"

Dia. of Crank shaft journals

as per rule 13' 3"Dia. of Crank pin 14"Size of Crank webs 202.8"

Dia. of thrust shaft under

collars 14 1/2"Dia. of screw 14' 6"Pitch of Screw 14' 6"No. of Blades 4State whether moveable fTotal surface 95 sq'No. of Feed pumps 2Diameter of ditto 3 3/4"Stroke 21"Can one be overhauled while the other is at work yesNo. of Bilge pumps 2Diameter of ditto 3 3/4"Stroke 21"Can one be overhauled while the other is at work yesNo. of Donkey Engines twoSizes of Pumps 6 1/2 x 4 x 6 - 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 eachNo. of Bilge Injections 1sizes 5"Connected to condenser, or to circulating pump C.P.Is a separate Donkey Suction fitted in Engine room & size yesAre all the bilge suction pipes fitted with roses yesAre the roses in Engine room always accessible yesAre the sluices on Engine room bulkheads always accessible yesAre all connections with the sea direct on the skin of the ship yesAre they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yesAre the Discharge Pipes above or below the deep water line aboveAre they each fitted with a Discharge Valve always accessible on the plating of the vessel yesAre the Blow Off Cocks fitted with a spigot and brass covering plate yesWhat pipes are carried through the bunkers noneHow are they protected yesAre all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yesAre the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yesDates of examination of completion of fitting of Sea Connections 26/5/11of Stern Tube 14. 6. 11Screw shaft and Propeller 14. 6. 11Is the Screw Shaft Tunnel watertight yesIs it fitted with a watertight door yesworked from top platformManufacturers of Steel J. Spencer & Sons Ltd.BOILERS, &c.—(Letter for record S)Total Heating Surface of Boilers 5940Is Forced Draft fitted noNo. and Description of Boilers 3 S.E.Working Pressure 180 lbTested by hydraulic pressure to 360Date of test 26/4/11No. of Certificate 2908Can each boiler be worked separately yesArea of fire grate in each boiler 50 sq'

No. and Description of Safety Valves to

each boiler two springArea of each valve 4. 04"Pressure to which they are adjusted 185Are they fitted with easing gear yesSmallest distance between boilers or uptakes and bunkers or woodwork 1' 9"Mean dia. of boilers 14 ftLength 10' 9"Material of shell plates 8Thickness 1 1/8"Range of tensile strength 28. 32Are the shell plates welded or flanged noDescrip. of riveting: cir. seams d + laplong. seams d. buttsDiameter of rivet holes in long. seams 1 3/16"Pitch of rivets 8 3/8"Lap of plates or width of butt straps 1' 4"

Per centages of strength of longitudinal joint

rivets 84.5Working pressure of shell by rules 180 lbSize of manhole in shell 16" x 12"Size of compensating ring flangedNo. and Description of Furnaces in each boiler 3 Morrison'sMaterial 8Outside diameter 3' 4"

Length of plain part

top 14"

Thickness of plates

crown 14"Description of longitudinal joint weldWorking pressure of furnace by the rules 189Combustion chamber plates: Material 8Thickness: 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 nutsWorking pressure by rules 182Material of stays 8Diameter at smallest part 1.5"Area supported by each stay 83.75Working pressure by rules 182End plates in steam space: Material 8Thickness 1 1/2"Pitch of stays 19 1/2 x 19 1/4"How are stays secured d nutsWorking pressure by rules 187Material of stays 8Diameter at smallest part 3.05"Area supported by each stay 385Working pressure by rules 195Material of Front plates at bottom 8Thickness 3/4"Material of Lower back plate 8Thickness 3/4"Greatest pitch of stays 13 1/2" 8 1/8"Working pressure of plate by rules 298Diameter of tubes 3 1/4"Pitch of tubes 42 x 4 1/2"Material of tube plates 8Thickness: Front 25/32"Back 25/32"Mean pitch of stays 11"Pitch across wide water spaces 14 1/2"Working pressures by rules 181Girders to Chamber tops: Material 8Depth 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

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 St. Russell*

ASSISTANT MANAGER

Dates of Survey while building	During progress of work in shops	During erection on board vessel	Total No. of visits
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 16 25	June 1 7 8 10 14 19 29 30	Jul 1 3	
	(26th May 1911 1st Night)		

Is the approved plan of main boiler forwarded herewith ☒ Yes

" " " donkey " " " ☒

Dates of Examination of principal parts	Cylinders	Slides	Covers	Pistons	Rods
10.4.11	10.4.11	3.4.11	10.4.11	10.4.11	10.4.11
Connecting rods	Crank shaft	Thrust shaft	Tunnel shafts	Screw shaft	Propeller
14.3.11	10.4.11	13.4.11	8.6.11	5.5.11	14.6.11
Stern tube	Steam pipes tested	Engine and boiler seatings	Engines holding down bolts		
5.5.11	10.6.11	14.6.11	30.6.11		
Completion of pumping arrangements	Boilers fixed	Engines tried under steam			
14.6.11	30.6.11	3.7.11			
Main boiler safety valves adjusted	Thickness of adjusting washers				
3.7.11	P.B. 3/8, 3/8 C.B. 3/8 1/2 S.B. 3/8				
Material of Crank shaft	Identification Mark on Do.	Material of Thrust shaft	Identification Mark on Do.		
S.S.	502/5	S	M.B. 11		
Material of Tunnel shafts	Identification Marks on Do.	Material of Screw shafts	Identification Marks on Do.		
S	M.B. 11	S	M.B. 4 11		
Material of Steam Pipes	Test pressure				
Copper	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. 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 :	15.7.1911
Donkey Boiler Fee ..	£ :	When received,
Travelling Expenses (if any) £	:	20.8.1911

Committee's Minute

Assigned

FRI. AUG. 11. 1911

*Thine 7.11*

MACHINERY CERTIFICATE  
WRITTEN



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