

Date of writing Report 13. 9. 19 12 When handed in at Local Office 13. 9. 19 12 Port of Glasgow. Received at London Office WED. SEP. 18. 19 12
No. in Survey held at Reg. Book. Glasgow.
3. Sup. on the S.S. "WHEATLANDS"
Date, First Survey 21. 2. 12 Last Survey 12. 9. 19 12

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Reg. Book. *Glasgow.*
3. Sup. on the *S.S. "WHEATLANDS"*
Date, First Survey *21. 2. 12* Last Survey *12. 9. 1912.*

Master	Glendennine	Built at	Dublin	By whom built	Wm. D. ...	Tons	Gross
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Engines made at *Glasgow* By whom built *Naubin Dockyard Co. (No. 44)* Net *1912*
By whom made *Muir & Krutz (No. 121)* When built

Boilers made at	By whom made	when made
Glasgow.	Muir & Houston (N = 644)	1912
	Muir & Houston (No 112)	

Registered Horse Power _____ when made 1912
Nom. Horse Power _____ Owners Spillers & Bakers Ltd. Port belonging to Landfill

Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

Compound Surface Condensing

Is the screw shaft fitted with a continuous liner the whole length of the stern tube

Length of Stroke 29 Revs. per minute 90 Dia. of Screw shaft as per rule 9.04 Material of screw shaft Iron
 as fitted 92

If the liner is in more than one length are the joints burned ✓ If the liner does not fit tightly

...the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive. If two

Dia. of Tunnel shaft as per rule 8.45 ✓
 as fitted ✓
 Dia. of Crank shaft journals as per rule $2\frac{1}{2}$ ✓
 as fitted ✓
 Length of stern bush $3' 0\frac{1}{2}"$ ✓

Collars 82 Dia. of screw 9'-10" Pitch of Screw 13'-0" as fitted 82 Dia. of Crank pin 82 Size of Crank webs 5 1/4 x 5 1/4 Dia. of thrust shaft under No. of Blades 4 State whether moveable 42

No. of Feed pumps	2	Diameter of ditto	23"	Stroke	13 1/2"	Can one be overhauled while the other is at work	Yes
No. of Bilge pumps	2	Diameter of ditto	3"	Stroke	13 1/2"		

No. of Donkey Engines 3. Diameter of Cylinders 6 1/2 x 6 Stroke 10 1/2 Can one be overhauled while the other is at work Yes
 Sizes of Pumps 8 x 8 x 8 Duplex type

Engine Room 3-24. Eng. Room aft, 1nd & special in 246 Simple Dry. lead No. and size of Suctions connected to both Bilge and Donkey pumps In Holds, &c. For 1st Hold 3-24 (P.S.)

5. of Bilge Injections 1 sizes 3" ✓ Connected to condenser, or to circulating pump. Pl. to

Are all the bilge suction pipes fitted with roses Yels Are the roses in Engine room always accessible Yels Are the sluices on Engine room bilge Yels Is a separate Donkey Suction fitted in Engine room & size Yes - 2 1/4"

Are they fixed sufficiently high to clear the hull of the ship? Yes

Are they Valves or Cocks? Both

Are the Discharge Pipes above or below the deep water line Above

What pipes are carried through the bunkers *Hold ducting* *Yes* Are the Blow Off Cocks fitted with a spigot and brass covering plate *Yes*
How are they protected *By a cap*

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*

the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges Yes

Public Room Deck Room

Notes of examination of completion of fitting of Sea Connections

the Screw Shaft Tunnel watertight *None.* Is it fitted with a watertight door ☒ *No.* of Stern Tube *No 3180* Screw shaft and Propeller *No 3180* *Dubla Rpt.*

TERS, &c.—(Letter for record S.) Manufacturers of Steel David Colville & Sons, James Dunlop & Co. The Lanarkshire &c.

1830	Is Forced Draft fitted	No. and Description of Boilers
1830	Yes	One S.E. Marine

Tested by hydraulic pressure to 260 lbs. Date of test 12.6.1912 No. of Certificate 11648

boiler	Area of fire grate in each boiler	No. and Description of Safety Valves to
Pair spring loaded	4.62 $\frac{1}{4}$	135 $\frac{1}{2}$

Mean dia. of boilers $14'-0"$ Length $10'-6"$ Material of shell plates Stl

Range of tensile strength $28/32$ Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *D.R.*

Diameter of rivet holes in long. seams $1\frac{1}{8}$ Pitch of rivets $\frac{1}{2}$ Lap of plates or width of butt straps $1'-5"$
 Percentages of strength of longitudinal joint rivets 89.4 Working 120

of compensating ring $\frac{1}{2} \times \frac{2}{8}$ ✓ plate 83 Working pressure of shell by rules 133 lbs Size of manhole in shell 16" x 12" ✓
No. and Description of Furnaces in each boiler 3 Plain Material Steel 3-5 1/2"

h of plain part top 6-6 ✓ crown 21 ✓ Description of longitudinal joint weld ✓ No. of strengthening rings One ✓
bottom 5-10 1/2 Thickness of plates bottom 32 ✓

ing pressure of furnace by the rules 143 1/2. Combustion chamber plates: Material Steel Thickness: Sides $\frac{9}{16}$ Back $\frac{9}{16}$ Top $\frac{9}{16}$ Bottom $\frac{3}{32}$

If stays are fitted with nuts or riveted heads
 Area at smallest part $1.45 \square$ Area supported by each stay $81 \square$ Working pressure by rules 1356 lbs.

Steel Thickness $\frac{1}{32}$ Pitch of stays $19\frac{1}{2} \times 18$ How are stays secured D.N. Working pressure by rules 135 lbs Material of stays Steel

at smallest part 3-05 Area supported by each stay 351 \square Working pressure by rules 496 Material of Front plates at bottom Steel

Material of Lower back plate Steel Thickness 4 Greatest pitch of stays 102 x 132 Working pressure of plate by rules 133 lbs.

across wide water spaces $14''$ $\frac{1}{4}$ D.P. Working pressures by rules 200 lbs Girders to Chamber tops: Material Steel Depth and

ss of girder at centre $\frac{1}{4} \times \frac{1}{8}$ (double length as per rule) $2'-9\frac{1}{4}"$ Distance apart $9"$ Number and pitch of stays in each $3-9"$

pressure by rules 154 lbs Superheater or Steam chest; how connected to boiler ✓ Can the superheater be shut off and the boiler worked

✓	Pitch of rivets	✓	Working pressure of shell by rules	✓	Diameter of flue	✓	Material of flue plates	✓	Thickness	✓	Length	✓	Thickness of shell plates	✓	Material	✓	Description of longitudinal joint	✓	Diam. of rivet
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Lined with rings ✓ Distance between rings ✓ Working pressure by rules ✓ End plates: Thickness ✓ How stayed ✓

pressure of end plates ✓ Area of safety valves to superheater ✓ Are they fitted with easing gear ✓

W1641 - 0045

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No.	Description	When made	Where fixed
Made at	By whom made	No. of Certificate	Fire grate area
Working pressure	tested by hydraulic pressure to	Date of test	Description of Safety
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted
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
Working pressure of shell by rules	Thickness of shell crown plates	Radius of do.	No. of stays to do.
Diameter of furnace Top	Bottom	Length of furnace	Thickness of furnace plates
Working pressure of furnace by rules	Thickness of furnace crown plates	Radius of do.	Stayed by
Diameter of uptake	Thickness of uptake plates	Thickness of water tubes	Dates of survey

SPARE GEAR. State the articles supplied:— 2 top end bolts & nuts, 2 bottom end bolts & nuts, 2 main bearing bolts, 1 set coupling bolts, 1 set feed & bilge pump valves, 1 set air & circulating pump valves, 1 propeller, quantity condenser and boiler tubes and assorted bolts & nuts.

The foregoing is a correct description,

MUIR & HOUSTON, LIMITED.

Manufacturer.

Dates of Survey	During progress of work in shops --	1912 Feb. 21 March 1-4-7-13-15-20-23-29 April 2-11-25-29 May 3-7-9-10-15-22-28-31
while building	During erection on board vessel --	June 4-5-11-12-17-25-28 July 4-8-24-29 Aug 3-6-8-14-16-21-26-27-29
Total No. of visits		45

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts	Cylinders	3.5.12	Slides	3.5.12	Covers	3.5.12	Pistons	3.5.12	Rods	2.4.12
Connecting rods	2.4.12	Crank shaft	4.3.12	Thrust shaft	2.4.12	Tunnel shafts	✓	Screw shaft	8.6.12	Propeller
Stern tube	8.6.12	Steam pipes tested	24.8.12	Engine and boiler seatings	3-8-12	Engines holding down bolts	21.8.12			
Completion of pumping arrangements	29.8.12	Boilers fixed	2.9.12	Engines tried under steam	12.9.12					
Main boiler safety valves adjusted	10.9.12	Thickness of adjusting washers	7/16 P. 3/8 S.							
Material of Crank shaft	Iron	Identification Mark on Do.	2941	Material of Thrust shaft	Steel	Identification Mark on Do.	54			
Material of Tunnel shafts	✓	Identification Marks on Do.	✓	Material of Screw shafts	Iron	Identification Marks on Do.	2944			
Material of Steam Pipes	Copper	Test pressure	260 lbs.							

General Remarks (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good. The machinery and boilers of this vessel have been built under special survey and in accordance with the Rules and approved plans, securely fitted aboard and satisfactorily tried under steam and are, in my opinion, eligible for classification and to have record + L.M.C 9.12.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C 9.12

The amount of Entry Fee	£ 2-0-0	When applied for,
Special	£ 15-0-0	16/9/12
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ :	18/9/12
Committee's Minute	GLASGOW	17 SEP. 1912
Assigned	+ L.M.C	9.12

FRI. SEP. 20. 1912

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

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Lloyd's Register Foundation

Glasgow

Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)
14/11/12