

REPORT ON MACHINERY.

No. 26750

Received at London Office

SAT. SEP. 27, 1913

Date of writing Report 25th Sep. 1913 When handed in at Local Office 26.9.13 Port of Hull
No. in Survey held at Hull Date, First Survey Feb. 26th 1913 Last Survey Sep. 16th 1913
Reg. Book. "Waldorf" (Number of Vents 22)
1st Saf. on the "Waldorf" Tons { Gross 293
Net 132
Master Leby Built at Leby By whom built Cochrane & Sons. Ltd. When built
Engines made at Hull By whom made C. D. Holmes & Co. when made 1913
Boilers made at Hull By whom made C. D. Holmes & Co. when made 1913
Registered Horse Power 79 Owners John. Grant & Widdett Port belonging to Trinity
Nom. Horse Power as per Section 28 79 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
Dia. of Cylinders 12 3/4 - 22 - 36 Length of Stroke 24 Revs. per minute 7.44 Material of Iron
Dia. of Screw shaft 7 3/4 as fitted 7 3/4 as per rule 7 1/2 screw shaft)
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 36"
Dia. of Tunnel shaft 6.674 as per rule 7.008 Dia. of Crank shaft journals 7 1/4 as per rule 7 1/4 Dia. of Crank pin 7 1/4 Size of Crank webs 4 1/2 x 14 Dia. of thrust shaft under
collars 7 1/4 Dia. of screw 9-0 Pitch of Screw 11-0 No. of Blades 4 State whether moveable no Total surface 295
No. of Feed pumps 1 Diameter of ditto 2 3/8 Stroke 14 1/4 Can one be overhauled while the other is at work yes
No. of Bilge pumps 1 Diameter of ditto 2 3/8 Stroke 14 1/4 Can one be overhauled while the other is at work yes
No. of Donkey Engines 1 Sizes of Pumps 6" x 4 1/2" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room Two - 2" one forward, one aft In Holds, &c. One 2" 1/2 aft, slush well, one 2" 1/2 for d
slush well, one 2" 1/2 for fore room, one 2" 1/2 for fore hold, 2 1/2" ejector from all bilges.
No. of Bilge Injections 1 sizes 3 Connected to condenser, or to circulating pump pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2" ejector
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 none
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 Welded Suctions How are they protected Wood casing
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 17.6.13 of Stern Tube 17.6.13 Screw shaft and Propeller 17.6.13
Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes

BOILERS, &c.—(Letter for record S) Manufacturers of Steel Messrs. Phoenix, Abt. Horder, Vermin. of Horder
Total Heating Surface of Boilers 1295 Is Forced Draft fitted no No. and Description of Boilers One single-ended
Working Pressure 200 lbs Tested by hydraulic pressure to 400 Date of test 25.8.13 No. of Certificate 2007
Can each boiler be worked separately yes Area of fire grate in each boiler 48 No. and Description of Safety Valves to
each boiler 2 Spring loaded Area of each valve 4.9 Pressure to which they are adjusted 205 lbs Are they fitted with easing gear yes
Smallest distance between boilers or uptakes and bunkers or woodwork 7" Mean dia. of boilers 13-6 Length 10-6 Material of shell plates S
Thickness 3/16 Range of tensile strength 29 Are the shell plates welded or flanged yes Descrip. of riveting: cir. seams D.R.C.
long. seams Y.R.C.B.S. Diameter of rivet holes in long. seams 1 3/16" Pitch of rivets 8" Lap of plates or width of butt straps 16 5/8"
Per centages of strength of longitudinal joint 85 Working pressure of shell by rules 206 Size of manhole in shell 16 x 12
Size of compensating ring 7 x 1 3/16 No. and Description of Furnaces in each boiler 3 plain Material S Outside diameter 38
Length of plain part 6-7 Thickness of plates 25 Description of longitudinal joint welded No. of strengthening rings 3 x 3 x 3/4
Working pressure of furnace by the rules 204 Combustion chamber plates: Material S Thickness: Sides 23 Back 23 Top 3/4 Bottom 23
Pitch of stays to ditto: Sides 9 1/2 x 8 1/2 Back 10 1/2 x 8 Top 10 1/2 x 8 1/2 stays are fitted with nuts or riveted heads yes Working pressure by rules 205
Material of stays S Diameter at smallest part 2.4 Area supported by each stay 100 Working pressure by rules 216 End plates in steam space:
Material S Thickness 1 3/32 Pitch of stays 18 x 19 How are stays secured D.M.W.S. Working pressure by rules 205 Material of stays S
Diameter at smallest part 7.5 Area supported by each stay 346.5 Working pressure by rules 225 Material of Front plates at bottom S
Thickness 16 Material of Lower back plate S Thickness 29 Greatest pitch of stays 14 1/2 x 8 Working pressure of plate by rules 206
Diameter of tubes 3 1/2 Pitch of tubes 5 x 5 Material of tube plates S Thickness: Front 15 Back 7/8 Mean pitch of stays 10
Pitch across wide water spaces 4.5 Working pressures by rules 315 Girders to Chamber tops: Material S Depth and
thickness of girder at centre 10 3/4 - 1 3/4 Length as per rule 2-11 7/8 Distance apart 10 1/2 Number and pitch of stays in each 3-8 1/2
Working pressure by rules 211 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked
separately yes Diameter 10 Length 10 Thickness of shell plates 15 Material S Description of longitudinal joint yes Diam. of rivet
holes 10 Pitch of rivets 10 Working pressure of shell by rules 211 Diameter of flue 10 Material of flue plates S Thickness 15
If stiffened with rings yes Distance between rings 10 Working pressure by rules 211 End plates: Thickness 15 How stayed yes
Working pressure of end plates 211 Area of safety valves to superheater yes Are they fitted with easing gear yes

W1654-0135

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	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 :— Two each top & bottom connecting rod bolts & nuts. Two main bearing bolts & nuts, one set of coupling bolts & nuts, one set each feed & bilge pump valves, iron of various sizes, a quantity of assorted bolts & nuts etc.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building	During progress of work in shops	1913 - Feb. 26. Apr 25. Jun 14. 16. 17. 30 July 3. 10. 23. 25. 29. 30. Aug 7. 8. 15. 16. 19.
	During erection on board vessel	Aug 25 Sep 5 10. 11. 16.
	Total No. of visits	22

Is the approved plan of main boiler forwarded herewith yes

Dates of Examination of principal parts—	Cylinders	15.8.13.	Slides	15.8.13.	Covers	15.8.13.	Pistons	8.8.13.	Rods	8.8.13.	
Connecting rods	8.8.13.	Crank shaft	15.8.13.	Thrust shaft	7.8.13.	Tunnel shafts	✓	Screw shaft	16.6.13.	Propeller	16.6.13.
Stern tube	16.6.13.	Steam pipes tested	5.9.13.	Engine and boiler seatings	17.6.13.	Engines holding down bolts	10.9.13.				
Completion of pumping arrangements	11.9.13.	Boilers fixed	10.9.13.	Engines tried under steam	10.9.13.						
Main boiler safety valves adjusted	10.9.13.	Thickness of adjusting washers	AV 3/8 FV 1/16								
Material of Crank shaft	S	Identification Mark on Do.	1163.	Material of Thrust shaft	S.	Identification Mark on Do.	1163				
Material of Tunnel shafts		Identification Marks on Do.		Material of Screw shafts	S.	Identification Marks on Do.	1163.				
Material of Steam Pipes	Solid drawn copper.		Test pressure	400 lbs. hyd. press.							

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boiler of this vessel have been constructed under special survey in accordance with the Rules. The materials & workmanship are found good. The boiler tested by hydraulic pressure & with the engines secured on board & tested under steam they are now in good order & safe-working condition & respectfully submitted as being eligible in my opinion to be classed with the notation of LMC 9.13 in the Register book.

It is submitted that this vessel is eligible for THE RECORD. + LMC 9.13.

The amount of Entry Fee	£ 1 :	When applied for,	26.9.13.
Special	£ 11 :	When received,	30/9/13
Donkey Boiler Fee	£ :		
Travelling Expenses (if any)	£ 4 :		

Committee's Minute TUE. SEP. 30. 1913

Assigned

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



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