

REPORT ON MACHINERY.

No. 34012

Received at London Office

Writing Report 4. 4 1914 When handed in at Local Office 18. 5. 1914 Port of **GLASGOW** THU. MAY. 21. 1914
 in Survey held at **Paisley** Date, First Survey 23. 7. 13 Last Survey 14. 5. 1914
 Book. on the s/s **Aberdale** (Number of Vents 31 Tons Gross 621 Net 265 When built 1914)

ter Built at **Paisley** By whom built **J. Fullerton**
 ines made at **Paisley** By whom made **Fisher & Co (200)** when made 1914
 lers made at **ditto** By whom made **A. Fraig & Co Ltd** when made 1914
 istered Horse Power Owners **W. Postlethwaite & Son** Port belonging to **Liverpool**
 2. Horse Power as per Section 28 105 Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **No**

GINES, &c.—Description of Engines **Triple Expansion** No. of Cylinders 3 No. of Cranks 3
 of Cylinders 14. 24. 40 Length of Stroke 27 Revs. per minute 120 Dia. of Screw shaft as per rule 8. 15 as fitted 8. 14 Material of screw shaft **S**
 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
 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
 the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive **Yes** If two
 are fitted, is the shaft lapped or protected between the liners **Yes** Length of stern bush 2. 9
 Tunnel shaft as per rule 4. 6 Dia. of Crank shaft journals as per rule 4. 6 Dia. of Crank pin 4. 6 Size of Crank webs 14. 5 Dia. of thrust shaft under
 4. 6 Dia. of screw 10. 0 Pitch of Screw 12. 3 No. of Blades 4 State whether moveable **No** Total surface 4. 4
 Feed pumps 2 Diameter of ditto 2. 2 Stroke 13. 2 Can one be overhauled while the other is at work **Yes**
 Bilge pumps 2 Diameter of ditto 2. 3 Stroke 13. 2 Can one be overhauled while the other is at work **Yes**
 Donkey Engines 2 Sizes of Pumps 6. 4. 6. 6. 8. 8 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 2 2. 2 In Holds, &c. 2 2. 2 Fore Peak 1. 4 After Peak 3. 4

Bilge Injections 1 sizes 3 Connected to condenser or to circulating pump **Yes** Is a separate Donkey Suction fitted in Engine room & size **Yes 2**
 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**
 All connections with the sea direct on the skin of the ship **Yes** Are they Valves or Cocks **Both**
 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 **Both**
 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**
 pipes are carried through the bunkers **Hold Suction** How are they protected **Wood Casings**
 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**
 of examination of completion of fitting of Sea Connections 31. 3. 14 of Stern Tube 31. 3. 14 Screw shaft and Propeller 31. 3. 14
 Screw Shaft Tunnel watertight **No** Is it fitted with a watertight door **Yes** worked from **Yes**

ERS, &c.—(Letter for record, \$) Manufacturers of Steel

Heating Surface of Boilers 1848 Is Forced Draft fitted **No** No. and Description of Boilers **One Single Ended**
 Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 15. 1. 14 No. of Certificate 12495
 each boiler be worked separately **Yes** Area of fire grate in each boiler 53. 6 No. and Description of Safety Valves to
 boiler **Double Spring** Area of each valve 5. 939 Pressure to which they are adjusted 185 Are they fitted with easing gear **Yes**
 least distance between boilers or uptakes and bunkers or woodwork 36 Mean dia. of boilers Length Material of shell plates
 Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
 Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
 Percentages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
 of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
 Thickness of plates crown Description of longitudinal joint No. of strengthening rings
 Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
 of stays to ditto: Sides Back Top If stays are fitted with nuts or riveted heads Working pressure by rules
 Material of stays Diameter at smallest part Area supported by each stay Working pressure by rules End plates in steam space:
 Material Thickness Pitch of stays How are stays secured Working pressure by rules Material of stays
 Diameter at smallest part Area supported by each stay Working pressure by rules Material of Front plates at bottom
 Thickness Material of Lower back plate Thickness Greatest pitch of stays Working pressure of plate by rules
 Diameter of tubes Pitch of tubes Material of tube plates Thickness: Front Back Mean pitch of stays
 Pitch across wide water spaces Working pressures by rules Girders to Chamber tops: Material Depth and
 thickness of girder at centre Length as per rule Distance apart Number and pitch of stays in each
 Working pressure by rules 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

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VERTICAL DONKEY BOILER— Manufacturers of Steel

No.	Description	Made at	By whom made	When made	Where fired
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area	Description of
Valves	No. of Safety Valves	Area of each	Pressure to which they are adjusted	Date of adjustment	
If fitted with casing 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 :—

2 Connecting Rod. 10th. Nut for top End. 10th. for bottom End. 2 Main Bearing 10th. 1 Set of Coupler
1 Set of End. Budge Pump Valves. 1 Set of Piston Rings. A Quantity of Assorted 10th. Nut & Iron of
various sizes

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building	During progress of work in shops - - -	1913 July 23. Aug 5. Sept 2. 11. 20. Oct 16. 21. Nov 6. 19. Dec 4. 10. 29.
	During erection on board vessel - - -	1914 Jan 12. 20. Feb 5. 11. 27. Mar 9. 16. 18. 25. 26. 31. Apr 8. 10. 17. 27. May 5. 8. 12. 14.
	Total No. of visits	31.

Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts—Cylinders	29. 12. 13	Slides	10. 12. 13	Covers	5. 2. 14	Pistons	27. 2. 14	Rods	27. 2. 14
Connecting rods	4. 12. 13	Crank shaft	18. 3. 14	Thrust shaft	18. 3. 14	Tunnel shafts	None	Screw shaft	18. 3. 14
Stern tube	25. 3. 14	Steam pipes tested	27. 4. 14	Engine and boiler seatings	31. 3. 14	Engines holding down bolts	17. 4. 14		
Completion of pumping arrangements	5. 5. 14	Boilers fixed	5. 5. 14	Engines tried under steam	14. 5. 14				
Main boiler safety valves adjusted	8. 5. 14	Thickness of adjusting washers	1 1/4"		1 1/4"				
Material of Crank shaft	Iron	Identification Mark on Do.	9650NCC	Material of Thrust shaft	Iron	Identification Mark on Do.			
Material of Tunnel shafts	None	Identification Marks on Do.	✓	Material of Screw shafts	Iron	Identification Marks on Do.			
Material of Steam Pipes	Copper & Iron	Test pressure	Copper 360lb. Iron 540lb.						

General Remarks (State quality of workmanship, opinions as to class, &c. These Engines & Boiler have been built under Special Survey in accordance with the approved plan & the workmanship & materials are of good quality. The Machinery is eligible in my opinion for a record of LMC 5-14

It is submitted that this vessel is eligible for THE RECORD. + LMC 5. 14.

The amount of Entry Fee	£ 2	When applied for,	18/5/14
Special	£ 15	When received,	23/5/14
Donkey Boiler Fee	£		
Travelling Expenses (if any)	£		

Committee's Minute GLASGOW 20 MAY 1914

Assigned + L.M.C 5.14.

MACHINERY CERTIFICATE WRITTEN 21.5.14



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