

REPORT ON MACHINERY.

No. 28685-

Received at London Office

THUR. 31 MAR 1910

Date of writing Report 18.3 1910 When handed in at Local Office 24/3/ 1910 Port of Glasgow

No. in Survey held at Parsley Date, First Survey 19th Oct/19 Last Survey 24th Mar 1910
Reg. Book. 20 on the S/S "Walnut" (Number of Visits 20)

Master A. Atkinson Built at Parsley By whom built J. Fullerton & Sons (214) When built 1910
Engines made at Parsley By whom made Fishers & Co (194) when made 1910
Boilers made at ditto By whom made A. F. Craig & Co (142) when made 1910
Registered Horse Power Owners Trouton & Co S/S (189) Port belonging to Newry
Nom. Horse Power as per Section 28 66 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

ENGINES, &c.—Description of Engines Compound Surface Condensing No. of Cylinders 2 No. of Cranks 2
Dia. of Cylinders 16"-34" Length of Stroke 24" Revs. per minute 80 Dia. of Screw shaft 4 1/2" Material of screw shaft Iron
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 — If two
liners are fitted, is the shaft lapped or protected between the liners Length of stern bush 2'-6"
Dia. of Tunnel shaft 4 1/4" Dia. of Crank shaft journals 4 1/4" Dia. of Crank pin 7 1/4" Size of Crank webs 13 1/2" x 6 1/4" Dia. of thrust shaft under
collars 4 1/4" Dia. of screw 8.6" Pitch of Screw 10.3 No. of Blades 4 State whether moveable Yes Total surface 244"
No. of Feed pumps 1 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work —
No. of Bilge pumps 1 Diameter of ditto 2 1/2" Stroke 12" Can one be overhauled while the other is at work —
No. of Donkey Engines 1 Sizes of Pumps 6" 1/4" 3 1/2" 2 1/2" 5" No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 3 at 2" In Holds, &c. 2-2" in each Hold.
No. of Bilge Injections 1 sizes 3" Connected to condenser or to circulating pump Cur. Is a separate Donkey Suction fitted in Engine room & size Yes 2"
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 —
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 Bilge & Tank Suction How are they protected Wood Casings
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 18-2-10 of Stern Tube 18-2-10 Screw shaft and Propeller 18-2-10
Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door — worked from —

BOILERS, &c.—(Letter for record S) Manufacturers of Steel
Total Heating Surface of Boilers 1280 Is Forced Draft fitted No No. and Description of Boilers 1 Single Ended.
Working Pressure 130 Tested by hydraulic pressure to Date of test No. of Certificate
Can each boiler be worked separately Area of fire grate in each boiler No. and Description of Safety Valves to
each boiler Area of each valve Pressure to which they are adjusted Are they fitted with easing gear
Smallest distance between boilers or uptakes and bunkers or woodwork Mean dia. of boilers Length Material of shell plates
Thickness Range of tensile strength Are the shell plates welded or flanged Descrip. of riveting: cir. seams
long. seams Diameter of rivet holes in long. seams Pitch of rivets Lap of plates or width of butt straps
Per centages of strength of longitudinal joint rivets Working pressure of shell by rules Size of manhole in shell
Size of compensating ring No. and Description of Furnaces in each boiler Material Outside diameter
Length of plain part top Thickness of plates crown Description of longitudinal joint No. of strengthening rings
bottom Thickness of plates bottom Working pressure of furnace by the rules Combustion chamber plates: Material Thickness: Sides Back Top Bottom
Pitch 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

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:—

2 Connecting Rod bolts. Nuts for each end, 2 Main Bearing Bolts, 1 Set of Coupling bolts, 1 Set of feed & Budge pump valves, 1 Set of Piston Rings, a quantity of assorted bolts, nuts, iron of various sizes.

The foregoing is a correct description,

J. Lewis & Co

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	1909. Oct 19. 27. Nov 9. 15. 22. Dec 3. 7. 16. 24 1910. Jan 11. 18.
	During erection on board vessel - -	Feb 4. 9. 18. Mar 2. 3. 10. 15. 18. 21. 23. 24
	Total No. of visits	29.

Is the approved plan of main boiler forwarded herewith Yes No.

" " " donkey " " " Done.

Dates of Examination of principal parts—	Cylinders 11-1-10	Slides 24-12-09	Covers 11-1-10	Pistons 11-1-10	Rods 7-12-09
Connecting rods	4-12-09	Crank shaft ^{see Hull Report} attached	Thrust shaft 4-2-10	Tunnel shafts None	Screw shaft 4-2-10
Stern tube	9-2-10	Steam pipes tested 2-3-10	Engine and boiler seatings 18-2-10	Engines holding down bolts 21-3-10	
Completion of pumping arrangements	21-3-10	Boilers fixed 3-3-10	Engines tried under steam 24-3-10	Port Valve Star Valve	Star Valve 21-3-10
Main boiler safety valves adjusted	21-3-10	Thickness of adjusting washers	3/8"	5/16"	
Material of Crank shaft	Iron.	Identification Mark on Do.	LLOYDS GAH	Material of Thrust shaft	Iron Identification Mark on Do. LLOYDS W.G.M. 1910
Material of Tunnel shafts	Iron.	Identification Marks on Do.	-	Material of Screw shafts	Iron Identification Marks on Do. Lloyds
Material of Steam Pipes	Copper	Test pressure	260 lbs		

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 & material are of good quality. They have now been securely fitted on board. The Machinery is eligible in my opinion for the record of **L.M.C 3.10**. This Vessel is a duplicate of the S/S "Alder" Gls Rept. 2812

It is submitted that this vessel is eligible for THE RECORD. + L.M.C 3.10.

J.W.D. 1/4/10. J.P.S.

The amount of Entry Fee .. £	1 : - : -	When applied for,	
Special £	9 : 18 : -	29/3/1910	
Donkey Boiler Fee £	:	When received,	
Travelling Expenses (if any) £	:	20.4.1910	

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

Committee's Minute **GLASGOW 30 MAR. 1910**

Assigned + L.M.C 3.10



Glasgow.

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

J.H.H. 29.3.10.

WRITTEN 31-3-10