

REPORT ON MACHINERY.

No. 39816

Received at London Office

Writing Report

When handed in at Local Office 12.4.1920

Port of Glasgow

WED. APR. 14 1920

Survey held at Paisley

Date, First Survey 10.10.19

Last Survey Moar 18th 1920

Book on the Racia Type Lug "JAUNTY"

(Number of Visits 77) Gross 606

Builder Built at Whiteinch By whom built Ritchie Graham & Co. (343) Tons Net 57

Machinery made at Paisley By whom made Campbell & Calderwood (953) when made 1919

Machinery made at Renfrew By whom made H. M. Simons & Co. Ltd (624) when made 1918

Registered Horse Power Owners H. M. Government. Port belonging to

Horse Power as per Section 28 214 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

GINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3

of Cylinders 18 1/4" - 28 1/2" - 48 1/4" Length of Stroke 28" Revs. per minute Dia. of Screw shaft as per rule 9.55" as fitted 10 1/2" Material of screw shaft M.S.

The screw shaft fitted with a continuous liner the whole length of the stern tube No liner Is the after end of the liner made water tight

the propeller boss If the liner is in more than one length are the joints burned 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

shafts are fitted, is the shaft lapped or protected between the liners Length of stern bush 3'-6"

No. of Tunnel shaft as per rule 8.5" as fitted 8 3/4" Dia. of Crank shaft journals as per rule 8.92" as fitted 9" Dia. of Crank pin 9" Size of Crank webs 16 3/4" x 6 1/2" Dia. of thrust shaft under

bars 9" Dia. of screw 10'-7" Pitch of Screw 12'-0" No. of Blades 4 State whether moveable No Total surface 34 sq ft

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

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

No. of Donkey Engines five Sizes of Pumps 1 Ballast 3" x 6 1/2" x 15" 2 Feed No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 1 @ 2 1/2 In Holds, &c. 2 @ 2 1/2 Stokehold

1 @ 2 1/2 For 2 1 @ 2 1/2 AFT.

No. of Bilge Injections 1 sizes 6" Connected to condenser, or to circulating pump C.P. Is a separate Donkey Suction fitted in Engine room & size Yes 2 1/2"

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 No

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

How are they protected Asbestos Hood 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 23.9.19 of Stern Tube 23.9.19 Screw shaft and Propeller 23.9.19

Is the Screw Shaft Tunnel watertight No tunnel Is it fitted with a watertight door worked from

MILERS, &c.—(Letter for record S) Manufacturers of Steel The Steel Company of Scotland.

Total Heating Surface of Boilers 3600 sq ft Is Forced Draft fitted Yes No. and Description of Boilers Two Single Ended

Working Pressure 180 Tested by hydraulic pressure to 360 Date of test 31.4.18 No. of Certificate 14384

Can each boiler be worked separately Yes Area of fire grate in each boiler 66 sq ft No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 7 sq in Pressure to which they are adjusted 185 Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 12" Mean dia. of boilers 14'-1 3/4" Length 10'-6" Material of shell plates Steel

Thickness 1/32" Range of tensile strength 28/32 Are the shell plates welded or flanged Descrip. of riveting: cir. seams

Working pressure of shell by rules 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 Working pressure of shell by rules Size of manhole in shell

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

Working pressure of furnace by the rules Combustion chamber plates: Material Thickness 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

attached

Glasgow

separate

See

5310-1602100

VERTICAL DONKEY BOILER— Manufacturers of Steel *None.*

No.	Description		When made	Where fixed
Made at	By whom made			
Working pressure	tested by hydraulic pressure to	Date of test	No. of Certificate	Fire grate area
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
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 top end bolts 2 bottom end bolts 2 main bearing bolts 1 set of coupling bolts 1 set of feed and bilge pump valves Iron of various sizes and a quantity of assorted bolts & nuts. Others as per Admiralty Specification.*

The foregoing is a correct description,

Campbell & Caldwell
 Manufacturer.

Dates of Survey while building	During progress of work in shops --	1917 Oct 10. 23. Nov 1. 8. 22. 29. Dec 13. 21. 1918 Jan 14. 28 Feb 13. 21. Mar 14. 21. Apr 4. 6. 8. 16. 29.
	During erection on board vessel ---	1919 Jan 10. 15. 20. 23. 29. Feb 4. 21. Mar 13. 18. 21. May 12. 16. June 5. 20 July 11. Sept 23. Oct 10. 15. 1920 Jan 9. 15. Feb 2. 11. 12. 16. Mar 11. 13.
	Total No. of visits	<i>May</i>

Is the approved plan of main boiler forwarded herewith *Yes*
 " " " donkey " " " *Now*

Dates of Examination of principal parts—Cylinders *16.12.18.* Slides *30.10.18* Covers *16.12.18* Pistons *30.10.18.* Rods *30.10.18.*
 Connecting rods *30.10.18* Crank shaft *4.4.18* Thrust shaft *4.4.18* Tunnel shafts *4.4.18* Screw shaft *29.11.18* Propeller *16.5.19.*
 Stern tube *16.5.19.* Steam pipes tested *29/12/19.* Engine and boiler seatings *1.10.19.* Engines holding down bolts *5.11.19.*
 Completion of pumping arrangements *24/12/19* Boilers fixed *24/12/19* Engines tried under steam *11/3/20*
 Main boiler safety valves adjusted *4/2/20.* Thickness of adjusting washers *AFT PV 5/16 SY 9/32. FOR PV 2/64 SY 9/32*
 Material of Crank shaft *Steel* Identification Mark on Do. *LLOYDS No 953 W.G.M. 4.4.18.* Material of Thrust shaft *Steel* Identification Mark on Do. *LLOYDS No 953 W.G.M. 4.4.18.*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *LLOYDS No 953 W.G.M. 4.4.18.* Material of Screw shafts *Steel* Identification Marks on Do. *LLOYDS No 953 W.G.M. 4.4.18.*
 Material of Steam Pipes *SD Steel & SD Copper* Test pressure *Steel 540 lbs² Copper 360 lbs²*

General Remarks (State quality of workmanship, opinions as to class, &c. *These engines have been built under Special Survey in accordance with the approved plans and the Rules of the Society.*

The workmanship and material are of good quality throughout.
 * *The Spare crank shaft and spare propeller shaft Identification Mark:—*

The engines and boilers have been securely fitted on board the vessel and tried under steam with satisfactory results.
The machinery is eligible in our opinion to have notification LMC 4-20 in the Register Book.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 3. 20. F.D.

The amount of Entry Fee .. £	: - :	When applied for,	
Special £	65 . 14 :	1. 4. 20.	
Donkey Boiler Fee .. . £	: : :	When received,	
Travelling Expenses (if any) £	: : :	17/4/20	<i>R.B.N.</i>

Committee's Minute *GLASGOW 13 APR 1920*
 Assigned *+ LMC 4 20*
 J.W.D. *15/11/20*
 M.H. Fraser *D. C. Barr*
 Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.



GLASGOW

Certificate (if required) to be sent to

12.4.20

MACHINERY CERTIFICATE WRITTEN 14.4.20