

REPORT ON MACHINERY.

No. 16019.

Received at London Office 14th 27 OCT. 1921

Date of writing Report 26th Oct 1921 When handed in at Local Office 30th Oct 1921 Port of Leith
 No. in Survey held at Leith Date, First Survey 19th May 1920 Last Survey 19th Oct 1921
 Reg. Book. on the S. S. "Gt. Gt. Mount" (Number of Visits 34)
 Master Built at Leith By whom built Cran & Jonesville (N^o 126) When built 1921
 Engines made at Leith By whom made Cran & Jonesville (N^o 238) when made 1921
 Boilers made at Renfrew By whom made Wm Finlay & Co Ltd (647 B) when made 1920
 Registered Horse Power Owners Samuel Gray Port belonging to Belfast
 Nom. Horse Power as per Section 28 60 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Compound No. of Cylinders 2 No. of Cranks 2
 Dia. of Cylinders 15" 32" Length of Stroke 24" Revs. per minute 130 Dia. of Screw shaft as per rule 7.79" as fitted 8.16" Material of Steel 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 ✓ 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 2.8"
 Dia. of Tunnel shaft as per rule 6.44" as fitted 6.15" Dia. of Crank shaft journals as per rule 6.76" as fitted 6.516" Dia. of Crank pin 6.15" Size of Crank webs 13.7" x 5.8" Dia. of thrust shaft under collars 6.15" Dia. of screw 8.6" Pitch of Screw 10.0" No. of Blades 4 State whether moveable no Total surface 24 sq
 No. of Feed pumps 1 Diameter of ditto 2.4" Stroke 12" Can one be overhauled while the other is at work ✓
 No. of Bilge pumps 1 Diameter of ditto 2.4" Stroke 12" Can one be overhauled while the other is at work ✓
 No. of Donkey Engines 1 Sizes of Pumps 6" x 4.4" x 6" No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room 4 Bl. Am. = 3-2" & 1 spec 2" In Holds, &c. 2-2"

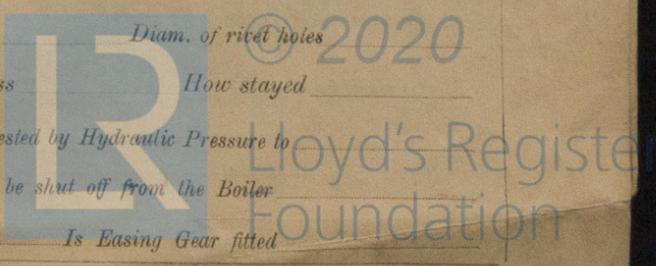
No. of Bilge Injections 1 sizes 3.2" Connected to condenser, or to circulating pump hump Is a separate Donkey Suction fitted in Engine room & size yes - 2"
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads 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 none How are they protected ✓
 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
 Is the Screw Shaft Tunnel watertight none Is it fitted with a watertight door ✓ worked from ✓

BOILERS, &c.—(Letter for record S) Manufacturers of Steel D. Colville & Son
 Total Heating Surface of Boilers 1168 sq Is Forced Draft fitted no No. and Description of Boilers one single ended
 Working Pressure 130 lbs Tested by hydraulic pressure to 260 Date of test 4.10.20 No. of Certificate 15515
 Can each boiler be worked separately ✓ Area of fire grate in each boiler 44 sq No. and Description of Safety Valves to each boiler double spring loaded Area of each valve 5.93" Pressure to which they are adjusted 135 lbs Are they fitted with easing gear yes
 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 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 Thickness of plates Description of longitudinal joint No. of strengthening rings
 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 Area 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
 Area 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 Steam dome: description of joint to shell % of strength of joint
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

W289-0152

If not, state whether, and when, one will be sent? Is a Report also sent on the Hull of the Ship?



IS A DONKEY BOILER FITTED? no

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:— 2 top end bolts & nuts for connecting rod: 2 connecting rod bottom end bolts & nuts: 2 main bearing bolts: 1 set of coupling bolts: 1 set of feed & bilge pump valves: a quantity of assorted bolts & nuts: iron of various sizes: 1 propeller.

The foregoing is a correct description.

J. DUCAN & SONS LTD.

J. Duncan Crau.

Manufacturer.

MANAGING DIRECTOR.

Dates of Survey while building: During progress of work in shops (1920) May 19.27 Jun 3.16 Jly 1 Aug 26 Sept 2.7.17 Oct 6 Nov 3.15.21 Jan 12.19.21 Feb 10.28 up to May 31 1921; During erection on board vessel (1921) June 9.15.29 Jly 5 Aug 4.19.21 Sept 13.23 Oct 12.19; Total No. of visits 34. Is the approved plan of main boiler forwarded herewith? no

Dates of Examination of principal parts—Cylinders 31.1.21 Slides 15.11.20 Covers 31.1.21 Pistons 15.11.20 Rods 6.10.20 Connecting rods 6.10.20 Crank shaft 6.10.20 Thrust shaft 10.2.21 Tunnel shafts ✓ Screw shaft 10.2.21 Propeller 10.2.21 Stern tube 10.2.21 Steam pipes tested 19.7.21 Engine and boiler seatings 31.5.21 Engines holding down bolts 5.7.21 Completion of pumping arrangements 19.10.21 Boilers fixed 5.7.21 Engines tried under steam 19.10.21 Completion of fitting sea connections 31.5.21 Stern tube 26.5.21 Screw shaft and propeller 31.5.21 Main boiler safety valves adjusted 19.10.21 Thickness of adjusting washers Star 11/32" Port 13/32" Material of Crank shaft steel Identification Mark on Do. 5164 Material of Thrust shaft steel Identification Mark on Do. 91 Material of Tunnel shafts ✓ Identification Marks on Do. ✓ Material of Screw shafts steel Identification Marks on Do. 5262 Material of Steam Pipes copper Test pressure 260 lbs per sq. in. Is an installation fitted for burning oil fuel? no Is the flash point of the oil to be used over 150°F. ✓ Have the requirements of Section 49 of the Rules been complied with? ✓ Is this machinery duplicate of a previous case? yes If so, state name of vessel "Palway Fifth" ✓

General Remarks (State quality of workmanship, opinions as to class, &c.)

The machinery has been built under special survey, the material and workmanship being good, and proved satisfactory on steam trial. It is submitted that this vessel is eligible for a record of + L.M.C. 10.21 in the Register Books.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. - 10.21. C.L.

L. G. 31/10/21. [Signature]

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

The amount of Entry Fee ... £ 2-0-0 When applied for. Special ... £ 9-0-0 26-10-1921 Donkey Boiler Fee ... £ Travelling Expenses (if any) ... £ 10-11-10 When received.

A. T. Thomas Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute Assigned + L.M.C. 10.21 [Signature]

TUE. NOV. 7 1921



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