

REPORT ON MACHINERY.

No. 16019.

Received at London Office

1921 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 & Son, Leith (No. 126)* Tons { Gross
Engines made at *Leith* By whom made *Cran & Son, Leith (No. 238)* when made *1921* Net
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"* Material of *Steel*
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"* Dia. of Crank shaft journals *as per rule 6.76"* Dia. of Crank pin *6.15"* Size of Crank webs *38" x 58"* 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 3/4"* Stroke *12"* Can one be overhauled while the other is at work *✓*
No. of Bilge pumps *1* Diameter of ditto *2 3/4"* Stroke *12"* Can one be overhauled while the other is at work *✓*
No. of Donkey Engines *1* Sizes of Pumps *6" x 4 1/4" x 6"* No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room *4 Bl. Rm. : 3-2" 1 spec 2"* In Holds, &c. *2-2"*

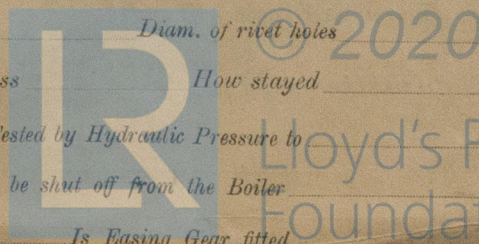
No. of Bilge Injections *1* sizes *3 1/2"* Connected to condenser, or to circulating pump *hump* Is a separate Donkey Suction fitted in Engine room & size *yes - 2"*
Are all the bilge suction pipes fitted with roses *yes* Are the roses in Engine room always accessible *yes* Are the sluices on Engine 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. Calville & 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.

JOHN CHAN & GOSWELL LTD.

J. Duncan Chan.

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *1920 May 19. 27 June 3. 16 July 1 Aug 26 Sept 2. 7. 17. 24 Oct 6 Nov 3. 15. 21 Jan 12. 19. 31. Feb 10. 28 up to May 31*
During erection on board vessel -- *1921 June 9. 15. 29 July 5 Aug 4. 19. Sept 13. 23 Oct 12. 19*
Total No. of visits *34*

Is the approved plan of main boiler forwarded herewith *no*

" " " donkey " " " *✓*

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 $\frac{11}{32}$ Port $\frac{13}{32}$*

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 Book.

It is submitted that this vessel is eligible for THE RECORD. + L. M. C. - 10. 21. C. L.

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

The amount of Entry Fee ... £ *2-0-0* When applied for.

Special ... £ *9-0-0* *26-10-1921*

Donkey Boiler Fee ... £ : : When received.

Travelling Expenses (if any) £ : : *10-11-21*

Committee's Minute

Assigned

TUE. NOV. 21 1921

+ L. M. C. 10. 21 [Signature]

A. T. Thomas

Engineer Surveyor to Lloyd's Register of Shipping.



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