

REPORT ON MACHINERY.

No. *2892*
MED. 26 OCT. 1921

Received at London Office

Date of writing Report 19 _____ When handed in at Local Office *24 OCT 1921* Port of *LIVERPOOL*
 No. in Survey held at *Bytham* Date, First Survey *7th April 1921* Last Survey *15th Oct. 1921*
 Reg. Book. _____ (Number of Visits *9*)
 on the *steamer S.S. 'Glennullen'* Tons { Gross *448*
 Net *176*
 Master _____ Built at *Bytham* By whom built *Bytham S.B. & E. Co.* When built *1921*
 Engines made at *Bytham* By whom made *DE* when made *1921*
 Boilers made at *DE* By whom made *DE* when made *1921*
 Registered Horse Power *✓* Owners *Alliance & Dublin Consumers Gas Co.* Port belonging to *Dublin*
 Nom. Horse Power as per Section 28 *88* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*

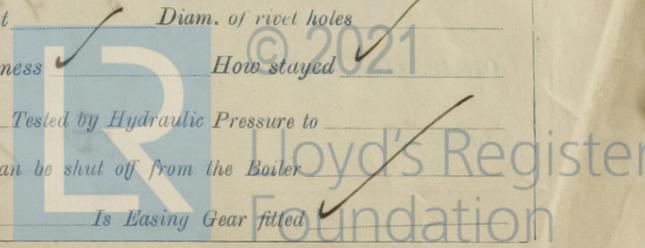
ENGINES, &c.—Description of Engines *Vertical Triple* No. of Cylinders *3* No. of Cranks *3*
 Dia. of Cylinders *14-22-38"* Length of Stroke *24"* Revs. per minute *120* Dia. of Screw shaft *as per rule 7.92* Material of screw shaft *M.S.*
 Is the screw shaft fitted with a continuous liner the whole 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 *3'-2"*
 Dia. of Tunnel shaft *as per rule 6.8* Dia. of Crank shaft journals *as per rule 7.2* Dia. of Crank pin *7/4* Size of Crank webs *11x4 3/4* Dia. of thrust shaft under collars *7/4* Dia. of screw *9'-0"* Pitch of Screw *10'-6"* No. of Blades *4* State whether moveable *no* Total surface *260'*
 No. of Feed pumps *2* Diameter of ditto *2 1/2"* Stroke *12"* Can one be overhauled while the other is at work *yes*
 No. of Bilge pumps *2* Diameter of ditto *2 1/2"* Stroke *12"* Can one be overhauled while the other is at work *yes*
 No. of Donkey Engines *2* Sizes of Pumps *1 1/2 x 6 1/2 x 8, ballast 5 1/2 x 5 1/2 x 6, feed.* No. and size of Suctions connected to both Bilge and Donkey pumps
 In Engine Room *2 @ 2 1/2", 1 @ 2 1/4"* In Holds, &c. *1 @ 2 1/2", 2 @ 2 1/2"*
 No. of Bilge Injections *1* sizes *3 1/2"* Connected to *condenser* circulating pump *yes* 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 *none*
 Are all connections with the sea direct on the skin of the ship *yes* Are they Valves & Cocks *yes*
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates *yes* Are the Discharge Pipes above *below* the deep water line *yes*
 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 *Beardmore & Co.*
 Total Heating Surface of Boilers *15200'* Is Forced Draft fitted *no* No. and Description of Boilers *one, cylindrical*
 Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* Date of test *7.4.21* No. of Certificate *2172*
 Can each boiler be worked separately *✓* Area of fire grate in each boiler *490'* No. and Description of Safety Valves to each boiler *2, spring loaded* Area of each valve *5.930"* Pressure to which they are adjusted *180 lbs* Are they fitted with easing gear *yes*
 Smallest distance between boilers or uptakes and bunkers or woodwork *18"* Mean dia. of boilers *13'* Length *10'* Material of shell plates *M.S.*
 Thickness *1 1/16"* Range of tensile strength *28-32* Are the shell plates welded or flanged *no* Descrip. of riveting: cir. seams *D.R. lap*
 long. seams *T.R. double butt* Diameter of rivet holes in long. seams *1 1/8"* Pitch of rivets *8"* Lap of plates or width of butt straps *1-4 1/4"*
 Per centages of strength of longitudinal joint rivets *86 1/2* Working pressure of shell by rules *182 lbs* Size of manhole in shell *16x12"*
 Size of compensating ring *9x1"* No. and Description of Furnaces in each boiler *3, plain* Material *M.S.* Outside diameter *3'-3"*
 Length of plain part top *6'-6"* Thickness of plates crown *3 3/4"* Description of longitudinal joint *weld* No. of strengthening rings *1, part*
 bottom *6'-5"* Working pressure of furnace by the rules *190 lbs* Combustion chamber plates: Material *M.S.* Thickness: Sides *1 1/16"* Back *5/8"* Top *1 1/16"* Bottom *1 1/16"*
 Pitch of stays to ditto: Sides *9 1/4 x 9 1/2* Back *9 1/4 x 8 1/4* Top *9 1/4 x 9 1/2* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *182, 190 lbs*
 Material of stays *M.S.* Area at smallest part *1.790"* Area supported by each stay *880"* Working pressure by rules *184 lbs* End plates in steam space:
 Material *M.S.* Thickness *1 1/8"* Pitch of stays *18 1/4"* How are stays secured *2 nuts & washers* Working pressure by rules *180 lbs* Material of stays *M.S.*
 Area at smallest part *7070"* Area supported by each stay *3300"* Working pressure by rules *220* Material of Front plates at bottom *M.S.*
 Thickness *3/4"* Material of Lower back plate *M.S.* Thickness *13/16"* Greatest pitch of stays *as per plan* Working pressure of plate by rules *184 lbs*
 Diameter of tubes *3 1/2"* Pitch of tubes *4 3/4 x 4 5/8* Material of tube plates *M.S.* Thickness: Front *3/4 + doubler* Back *3/4"* Mean pitch of stays *10 3/8"*
 Pitch across wide water spaces *14"* Working pressures by rules *184* Girders to Chamber tops: Material *M.S.* Depth and thickness of girder at centre *8 3/4 x two 7/4"* Length as per rule *31 5/8"* Distance apart *9 1/2"* Number and pitch of stays in each *2, 9 1/4"*
 Working pressure by rules *180 lbs* 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 _____

If not, state whether, and when, one will be sent

In 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:— 1 valve spindle, 1 eccentric strap, 1 set piston rings & HP piston valve rings, 1 pair each of top & bottom ^{end} brasses, 1 air pump rod, 1 propeller, 1 set of coupling bolts & of top & bottom end & main bearing bolts; 1 set of air, w.c. feed & bilge pump valves; assorted iron & bolts; 12 condenser tubes, 6 boiler tubes.

THE LYTHAM SPECIALIZING
ENGINEERING COMPANY, LIMITED

W. Lewis
DIRECTOR

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - - 1921 Feb. 2 - Mar. 11 }
{ During erection on board vessel - - - Apr. 7 - June 1 - 27 - July 13 - 27 - August 8 - 29 - Oct. 15 - 17 }
Total No. of visits 15

Is the approved plan of main boiler forwarded herewith

Is the approved plan of donkey boiler forwarded herewith

Dates of Examination of principal parts—Cylinders 4.3.21 Slides 4.3.21 Covers 4.3.21 Pistons 4.3.21 Rods 3.2.21
Connecting rods 3.2.21 Crank shaft 3.2.21 Thrust shaft 4.3.21 Tunnel shafts Screw shaft 23.3.21 Propeller 27.7.21
Stern tube 27.7.21 Steam pipes tested 29.9.21 Engine and boiler seatings 8.9.21 Engines holding down bolts 22.9.21
Completion of pumping arrangements 17.10.21 Boilers fixed 22.9.21 Engines tried under steam 17.10.21
Completion of fitting sea connections 4.8.21 Stern tube 4.8.21 Screw shaft and propeller 4.8.21
Main boiler safety valves adjusted 17.10.21 Thickness of adjusting washers 5/16"

Material of Crank shaft M.S. Identification Mark on Do. 1350 Material of Thrust shaft M.S. Identification Mark on Do. 1348

Material of Tunnel shafts Identification Marks on Do. Material of Screw shafts M.S. Identification Marks on Do. 1447

Material of Steam Pipes solid drawn copper Test pressure 360 lbs; feed delivery 450 lbs.

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 'Glenageary'

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under Special Survey. The materials & workmanship are good. Engines & boiler fitted on board in an efficient manner, & tried under steam with satisfactory results, & are now eligible for record of + L.M.C. 10.21.

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

MACHINERY CERTIFICATE
WRITTEN 14.12.21
(dated 26/10/21)

L. Y. Lewis
28/10/21

The Surveyors are requested not to write on or below the space for Committee's Minute.

The amount of Entry Fee ... £ 2 : :
Special ... £ 22 : :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 5 : 9.1 : 12.12.21

When applied for, 25 OCT 1921

When received, 12.12.21

P. Townend
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 25 OCT 1921

Assigned L.M.C. 10.21.
When fee is paid

