

## REPORT ON MACHINERY

No. 69039

FRI. 18. AUG. 1916

Date of writing Report 12<sup>th</sup> July 1916 When handed in at Local Office AUG 17 1916 Port of NEWCASTLE-ON-TYNE  
 No. in Survey held at Newcastle Date 1914 Last Survey 25<sup>th</sup> July 1916  
 Reg. Book on the S.S. "Glenogla" (Number of Tonnage 7682 Gross 7682 Net 4857)  
 Master Built at Newcastle By whom built Hawthorn Leslie & Co. Ltd. When built 1916

Engines made at Newcastle By whom made Wallsend Slipway Co. Ltd. No. 742 when made 1916  
 Boilers made at Newcastle By whom made Wallsend Slipway Co. Ltd. when made 1916

Registered Horse Power Owners (McGregor & Co.) Ltd. Port belonging to Glasgow

Nom. Horse Power as per Section 28 842 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Quadruple Expansion No. of Cylinders 4 No. of Cranks 4

Dia. of Cylinders 29"-42"-60"-86" Length of Stroke 57" Revs. per minute 70 Dia. of Screw shaft as per rule 17.3" Material of Steel as fitted 18.25" 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 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 Yes If two

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

Dia. of Tunnel shaft as per rule 15.26" Dia. of Crank shaft journals as per rule 16.55.5" Dia. of Crank pin 17 1/4" Size of Crank webs 28" x 11 1/4" Dia. of thrust shaft under

collars 17 1/4" Dia. of screw 20'-6" Pitch of Screw 19'-0" No. of Blades 4 State whether moveable Yes Total surface 138 sq

No. of Feed pumps 2 Diameter of ditto 5" Stroke 30" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 5" Stroke 30" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 10"x10"x10" + 9"x6"x10" No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room Four 3 1/2" In Holds, &c. Two in each hold 3 1/2", one

in tunnel well 3"

No. of Bilge Injections 1 sizes 11" Connected to condenser, or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size Yes 4 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 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 Both

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 Yes

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 20-3-16 of Stern Tube 20-3-16 Screw shaft and Propeller 20-3-16

Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper deck

BOILERS, &c.—(Letter for record S) Manufacturers of Steel & Ironwork & Sons & Hillingier Hiltnerwerke

Total Heating Surface of Boilers 12000 sq Is Forced Draft fitted Yes No. and Description of Boilers Four, single-ended

Working Pressure 220 lbs Tested by hydraulic pressure to 440 lbs Date of test 22-7-14 No. of Certificate 8678

Can each boiler be worked separately Yes Area of fire grate in each boiler 76 sq No. and Description of Safety Valves to

each boiler Two - Spring Area of each valve 9.62 sq Pressure to which they are adjusted 220 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 20" Mean dia. of boilers 16'-3" Length 12'-0" Material of shell plates Steel

Thickness 1 21/32" Range of tensile strength 31-35 Are the shell plates welded or flanged No Descrip. of riveting: cir. seams & Lap

long. seams 885 x 1/2" Diameter of rivet holes in long. seams 1 21/32" Pitch of rivets 10 1/2" Lap of plates or width of butt straps 23 3/4"

Per centages of strength of longitudinal joint rivets 91.7 Working pressure of shell by rules 238 lbs Size of manholes in shell 16" x 12"

Size of compensating ring Flanged No. and Description of Furnaces in each boiler 4 - Molins Material Steel Outside diameter 45"

Length of plain part top 43 1/4" Thickness of plates crown 1/4" Description of longitudinal joint Welded No. of strengthening rings

bottom 1/4" Working pressure of furnace by the rules 245 lbs Combustion chamber plates: Material Steel Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/8"

Pitch of stays to ditto: Sides 6 5/8" x 8" Back 8 3/4" x 8" Top 8 7/8" x 7 1/4" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 229 lbs

Material of stays Steel Diameter at smallest part 2.03" Area supported by each stay 67 sq Working pressure by rules 273 lbs End plates in steam space:

Material Steel Thickness 1 1/32" Pitch of stays 20 3/16" x 1 3/8" How are stays secured Sn - 11 Working pressure by rules 253 lbs Material of stays Steel

area Diameter at smallest part 8.48" Area supported by each stay 330 sq Working pressure by rules 267 lbs Material of Front plates at bottom Steel

Thickness 1" Material of Lower back plate Steel Thickness 1" Greatest pitch of stays 14 1/2" Working pressure of plate by rules 257 lbs

Diameter of tubes 2 1/2" Pitch of tubes 3 3/4" x 3 5/8" Material of tube plates Steel Thickness: Front 1" Back 3/4" Mean pitch of stays 7 3/8"

Pitch across wide water spaces 13 1/4" Working pressures by rules 234 lbs Girders to Chamber tops: Material Steel Depth and

thickness of girder at centre 10 1/2" x 1 1/2" Length as per rule 33" Distance apart 8 7/8" Number and pitch of stays in each 3 - 7 3/8"

Working pressure by rules 230 lbs Superheater or Steam chest; how connected to boiler None 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

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



IS A DONKEY BOILER FITTED? ☒

If so, is a report now forwarded? ☒

SPARE GEAR.

State the articles supplied:— Two top-end, two bottom-end & two main-bearing bolts & nuts, a set of coupling bolts, a set of feed & bilge pump valves, a quantity of assorted bolts nuts & iron, a piston shaft, an air pump bucket & rod, an impeller shaft for circulating pump, 12 boiler tubes, 50 condenser tubes, 2 safety valve springs.

The foregoing is a correct description,

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

Manufacturer.

DIRECTOR.

Dates of Survey while building  
During progress of work in shops - 1914 Apr 3, May 1, 12, 21, 22, 25, Jun 4, 8, 16, Jul 7, 16, 22, Aug 18, 26, Oct 22, Nov 2, 20, Dec 10, 21, 1915 Jan 17, 22, 24, 29, Apr 15, 26, May 11, 17, Jun 7, 17, Aug 18, Sep 13, Oct 25, Nov 4, 19, Dec 8, 9, 1916 Jan 5, 24, 25, Feb 4, 7, 9, 11, 15, Mar 3, 8, 13, 14, 17, 21, 25, 27, 29, 30, Apr 4, 7, 10, 11, 12, 17, 26, 28, May 11, 15, 18, 30, Jun 14, 20, 30, Jul 1, 10, 11.  
During erection on board vessel - 1914 Apr 19, 24, 25, 1915 May 11, 15, 18, 30, Jun 14, 20, 30, Jul 1, 10, 11.  
Total No. of visits 76

Is the approved plan of main boiler forwarded herewith ☒

" " " donkey " " " none

Dates of Examination of principal parts—Cylinders 22-2-16 Slides 11-5-15 Covers 10-12-15 Pistons 16-2-16 Rods 18-2-16

Connecting rods 18-2-16 Crank shaft 25-2-16 Thrust shaft 26-4-15 Tunnel shafts 26-4-15 Screw shaft 4-11-15 Propeller 8-12-15

Stern tube 17-3-16 Steam pipes tested 1-5-16 Engine and boiler seatings 15-5-16 Engines holding down bolts 15-5-16

Completion of pumping arrangements 10-7-16 Boilers fixed 15-5-16 Engines tried under steam 11-7-16

Main boiler safety valves adjusted 10-7-16 Thickness of adjusting washers FPB  $F\frac{1}{2}A\frac{7}{16}$  ESB  $E\frac{3}{4}A\frac{7}{16}$  APBF  $\frac{13}{32}A\frac{13}{32}$  ASB  $F\frac{7}{16}A\frac{7}{16}$

Material of Crank shaft Steel Identification Mark on Do. CC 25-2-16 Material of Thrust shaft Steel Identification Mark on Do. CC 26-4-15

Material of Tunnel shafts Steel Identification Marks on Do. CC 26-4-15 Material of Screw shafts Steel Identification Marks on Do. CC 4-11-15

Material of Steam Pipes Iron Test pressure 660 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 No ☒ If so, state name of vessel ☒

General Remarks (State quality of workmanship, opinions as to class, &c. The engines & boilers of

this vessel have been constructed under special survey & the

materials & workmanship are found to be good.

The engines have been tried under steam & the boiler

safety valves adjusted at the working pressure.

The machinery is now in good & safe working condition

& eligible in my opinion to have the notation of +LMC 7-16

A report on the electric installation will be forwarded when

received from the Electrician.

The approved plan of repairs to beplate is forwarded herewith, together

with a copy of correspondence between Builders & Owners regarding

same.

It is submitted that  
this vessel is eligible for  
THE RECORD + LMC 7.16. ED.

The amount of Entry Fee ... £ 3 0 0 When applied for.

Special ... £ 62 1 0 AUG 14 1916

Donkey Boiler Fee ... 18 8 1916 19/8/16

Travelling Expenses (if any) £ ...

Committee's Minute TUE 22 AUG 1916

Assigned + L. MC 7.16 F.D.

NEWCASTLE-ON-TYNE

Certificate (if required) to be sent to Committee's Minute.

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