

REPORT ON MACHINERY

No. 67623
FRI. JUN. 11. 1915

Received at London Office

Date of writing Report 8th June 1915 When handed in at Local Office 10th June 1915 Port of NEWCASTLE-ON-TYNE.

No. in Survey held at Newcastle Date, First Survey Oct. 15. 1913 Last Survey June 3. 1915

Reg. Book. 499 on the Machinery of the Twin S.S. Gleniffer Number of Visits 61

Master J. Mcgregor Built at Newcastle By whom built Hawthorn Leslie & Co Tons { Gross 7428
Net 6021

Engines made at Newcastle By whom made Wallend Shipway & Eng. When made 1915

Boilers made at " By whom made " when made 1915

Registered Horse Power " Owners Mr. Gregor Gow & Co Port belonging to Glasgow

Nom. Horse Power as per Section 28 988 Is Refrigerating Machinery fitted for cargo purposes Yes Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Twin triple No. of Cylinders 6 No. of Cranks 63
 Dia. of Cylinders 24" 40 1/2" 68" Length of Stroke 48" Revs. per minute 79 Dia. of Screw shaft 14.78" Material of screw shaft 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 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 5'-2"
 Dia. of Tunnel shaft 12.89" Dia. of Crank shaft journals 13.5" Dia. of Crank pin 14" Size of Crank webs 22 X 9 1/4" Dia. of thrust shaft under collars 14" Dia. of screw 17'-0" Pitch of Screw 17'-9" No. of Blades 3 State whether moveable Yes Total surface 875"
 No. of Feed pumps 2 Diameter of ditto 4 1/2" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Bilge pumps 2 Diameter of ditto 5" Stroke 24" Can one be overhauled while the other is at work Yes
 No. of Donkey Engines 6 Sizes of Pumps 12 X 12 X 12, 6 X 6 X 6 & 4 X 4 X 5 No. and size of Suctions connected to both Bilge and Donkey pumps In Engine Room 5' of 3 1/2" In Holds, &c. 2 of 3 1/2" in each hold & one of 3" in tunnel well.
 No. of Bilge Injections 2 sizes 9 1/2" Connected to condenser, or to circulating pump as a separate Donkey Suction fitted in Engine room & size 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 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 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 26/5/15 of Stern Tube 26/5/15 Screw shaft and Propeller 26/5/15
 Is the Screw Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Top platform

BOILERS, &c.—(Letter for record S) Manufacturers of Steel J. Spencer & Sons
 Total Heating Surface of Boilers 14775 Is Forced Draft fitted Yes No. and Description of Boilers 5 Single-ended
 Working Pressure 200 lbs Tested by hydraulic pressure to 400 lbs Date of test 22/5/14 No. of Certificate 8658
 Can each boiler be worked separately Yes Area of fire grate in each boiler 76 9" No. and Description of Safety Valves to each boiler 2 Direct spring Area of each valve 11.04 Pressure to which they are adjusted 205 lbs Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork 1'-9" Mean dia. of boilers 16'-1 1/2" Length 11'-9" Material of shell plates Steel
 Thickness 1 9/16" Range of tensile strength 29 1/2-33 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams d. r. lap long. seams T. r. d. butt Diameter of rivet holes in long. seams 1 9/16" Pitch of rivets 10 1/2" Lap of plates or width of butt straps 23"
 Per centages of strength of longitudinal joint rivets 87 plate 85.1 Working pressure of shell by rules 234 lbs Size of manhole in shell 16" X 12"
 Size of compensating ring flanged No. and Description of Furnaces in each boiler 4 Morions Material Steel Outside diameter 45"
 Length of plain part top 58" bottom 58" Thickness of plates crown 58" bottom 58" Description of longitudinal joint welded No. of strengthening rings Yes
 Working pressure of furnace by the rules 223 lbs Combustion chamber plates: Material Steel Thickness: Sides 5/8" Back 2 1/32" Top 5/8" Bottom 1 1/32"
 Pitch of stays to ditto: Sides 9 X 7 1/8" Back 8 1/2 X 8 1/4" Top 9 X 7 1/8" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 205 lbs
 Material of stays Steel Diameter at smallest part 2.03 Area supported by each stay 70 Working pressure by rules 255 lbs End plates in steam space: Material Steel Thickness 1 1/4" Pitch of stays 20 X 16" How are stays secured d. n. Working pressure by rules 213 lbs Material of stays Steel Diameter at smallest part 7.24 Area supported by each stay 320 Working pressure by rules 235 lbs Material of Front plates at bottom Steel Thickness 1" Material of Lower back plate Steel Thickness 3 1/32" Greatest pitch of stays 15 1/2 X 8 1/2" Working pressure of plate by rules 209 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 1/4" Back 2 5/8" Mean pitch of stays 7 3/8"
 Pitch across wide water spaces 13 1/4" Working pressures by rules 233 lbs Girders to Chamber tops: Material Steel Depth and thickness of girder at centre 9 X 1 1/2" Length as per rule 30 5/16" Distance apart 9" Number and pitch of stays in each 3 of 7 1/8"
 Working pressure by rules 203 lbs Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately Yes Diameter Yes Length Yes Thickness of shell plates Yes Material Yes Description of longitudinal joint Yes Diam. of rivet holes Yes Pitch of rivets Yes Working pressure of shell by rules Yes Diameter of flue Yes Material of flue plates Yes Thickness Yes
 If stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes
 Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

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



IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:—

*Two top end & 2 bottom end bolts, 2 main bearing bolts
2 sets of coupling bolts, 1 set of feed & bilge pump valves
2 sets of piston springs, a quantity of assorted bolts nuts
& iron, propeller shaft, 1 propeller blade, bottom end
air pump bucket & valve, 1 impeller for each circulating
pump & minor details.*

The foregoing is a correct description,

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.

Andrew Laing

Manufacturer.

DIRECTOR

Dates of Survey while building	{ During progress of work in shops -- } ¹⁹¹³ Oct. 15, 27 - Nov. 17 Dec 18 ¹⁹¹⁴ Jan. 22, 26 Feb. 25 Mar 26 Apr. 23, 21, 20 May 1, 2, 12, 21, 22, 25 Jun 12 { During erection on board vessel --- } Jul. 1, 3, 9, 15, 24, Aug. 26 Oct. 2, 6, 22, Nov. 6, 9, 11, 12, 13, 20, Dec. 2, 8, 15, 16, 21, 28, 30 ¹⁹¹⁵ Jan 26, Feb. 3 Total No. of visits <i>61.</i>	Is the approved plan of main boiler forwarded herewith <i>Yes</i>
		" " " donkey " " " <input checked="" type="checkbox"/>
		" " " " " " <input checked="" type="checkbox"/>

Dates of Examination of principal parts—Cylinders *20/3/15* Slides *3/12/14* Covers *1/7/14* Pistons *9/11/14* Rods *6/10/14*
 Connecting rods *18/12/14* Crank shaft *4/9/14* Thrust shaft *3/11/13* Tunnel shafts *10/10/13* Screw shaft *11/11/14* Propeller *3/12/14*
 Stern tube *3/12/14* Steam pipes tested *5/10/14* Engine and boiler seatings *16/12/14* Engines holding down bolts *14/4/15*
 Completion of pumping arrangements *3/6/15* Boilers fixed *14/4/15* Engines tried under steam *3/6/15*
 Main boiler safety valves adjusted *3/6/15* Thickness of adjusting washers *A 3/4" F 3/4" A 1/2" P F 3/4" A 1/2" F P F 1/2" A 1/2" S F 1/2" A 1/2"*
 Material of Crank shaft *Steel* Identification Mark on Do. *3/10/14* Material of Thrust shaft *Steel* Identification Mark on Do. *3/11/13*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *see Minutes* Material of Screw shafts *Steel* Identification Marks on Do. *13/11/14 R.W.C.*
 Material of Steam Pipes *Loop-welded iron* Test pressure *600 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 *S.S. "Glengyle"*

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

The machinery of this vessel has been built under special survey, the materials used are good, and the workmanship is satisfactory, it has been properly fitted on board and secured, and the engines have been tried under steam. In my opinion this vessel is eligible for the record of L.M.C. 6, 15.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 6. 15. F.D.

J.W.D.
10/6/15

Charles Cooper
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

The amount of Entry Fee ...	£ 3 :	When applied for,
Special ...	£ 69 : 8 :	JUN 10 1915
Donkey Boiler Fee ...	£ :	When received,
Travelling Expenses (if any) £	:	16/6/1915 17/6/15

Committee's Minute *FRI. JUL. 16. 1915*

WED. 29. DEC. 1915

Assigned *L.M.C. 6. 15*

NEWCASTLE-ON-TYNE.

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

MACHINERY COST ...
BOTTLE



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