

REPORT ON MACHINERY.

No. 67766

Received at London Office

SAT. JUL. 24. 1915

Date of writing Report 15th July 1915 When handed in at Local Office 23rd July 1915 Port of NEWCASTLE-ON-TYNE

No. in Survey held at Newcastle Date, First Survey Oct 3. 1913 Last Survey July 17 1915

Reg. Book 38 the Machinery of the steel twin S.S. Abelia Number of Visits 24 Tons Gross 3680

Master Davies Built at Newcastle By whom built Armstrong Whitworth & Co. When built 1915

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

Boilers made at Newcastle By whom made Wallsend Shipway & Eng. When made 1915

Registered Horse Power 342 Owners Flower Motor Ship Co. Port belonging to London

Nom. Horse Power as per Section 28 342 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Diesel Two Stroke Cycle Single Acting No. of Cylinders 8 No. of Cranks 4.8

Dia. of Cylinders 17 1/4" Length of Stroke 33" Revs. per minute 120 Dia. of Screw shaft 10 3/8" 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 3'-9"

Dia. of Tunnel shaft 9 3/8" Dia. of Crank shaft journals 11 3/4" Dia. of Crank pin 12" Size of Crank webs 23" X 8 1/2" Dia. of thrust shaft under

collars 10" Dia. of screw 10'-6" Pitch of Screw 9'-9" No. of Blades 3 State whether moveable No Total surface 34 sq ft

No. of Feed pumps 2 Diameter of ditto 5" Stroke 12" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 1/4" Stroke 15" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 3 Sizes of Pumps Duplex 10 X 10 1/2 X 10, 6 X 4 X 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 of 3 1/2" In Holds, &c. 3 of 3 1/2" dia. in each hold

No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump Is a separate Donkey Suction fitted in Engine room & size Yes

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 5/6/14 of Stern Tube 5/6/14 Screw shaft and Propeller 5/6/14

Is the Screw Shaft Tunnel watertight None Is it fitted with a watertight door Yes worked from Yes

BOILERS, &c.—(Letter for record None) Manufacturers of Steel Wallsend Shipway & Eng.

Total Heating Surface of Boilers None Is Forced Draft fitted None No. and Description of Boilers None

Working Pressure None Tested by hydraulic pressure to None Date of test None No. of Certificate None

Can each boiler be worked separately None Area of fire grate in each boiler None No. and Description of Safety Valves to

each boiler None Area of each valve None Pressure to which they are adjusted None Are they fitted with easing gear None

Smallest distance between boilers or uptakes and bunkers or woodwork None Mean dia. of boilers None Length None Material of shell plates None

Thickness None Range of tensile strength None Are the shell plates welded or flanged None Descrip. of riveting: cir. seams None

long. seams None Diameter of rivet holes in long. seams None Pitch of rivets None Lap of plates or width of butt straps None

Per centages of strength of longitudinal joint None Working pressure of shell by rules None Size of manhole in shell None

Size of compensating ring None No. and Description of Furnaces in each boiler None Material None Outside diameter None

Length of plain part None Thickness of plates None Description of longitudinal joint None No. of strengthening rings None

Working pressure of furnace by the rules None Combustion chamber plates: Material None Thickness: Sides None Back None Top None Bottom None

Pitch of stays to ditto: Sides None Back None Top None If stays are fitted with nuts or riveted heads None Working pressure by rules None

Material of stays None Diameter at smallest part None Area supported by each stay None Working pressure by rules None End plates in steam space: None

Material None Thickness None Pitch of stays None How are stays secured None Working pressure by rules None Material of stays None

Diameter at smallest part None Area supported by each stay None Working pressure by rules None Material of Front plates at bottom None

Thickness None Material of Lower back plate None Thickness None Greatest pitch of stays None Working pressure of plate by rules None

Diameter of tubes None Pitch of tubes None Material of tube plates None Thickness: Front None Back None Mean pitch of stays None

Pitch across wide water spaces None Working pressures by rules None Girders to Chamber tops: Material None Depth and None

thickness of None under at centre None Length as per rule None Distance apart None Number and pitch of stays in each None

Working pressure by rules None Superheater or Steam chest; how connected to boiler None Can the superheater be shut off and the boiler worked None

separately None Diameter None Length None Thickness of shell plates None Material None Description of longitudinal joint None Diam. of rivet None

holes None Pitch of rivets None Working pressure of shell by rules None Diameter of flue None Material of flue plates None Thickness None

If stiffened with rings None Distance between rings None Working pressure by rules None End plates: Thickness None How stayed None

Working pressure of end plates None Area of safety valves to superheater None Are they fitted with easing gear None

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IS A DONKEY BOILER FITTED? *2 Donkey Boilers* If so, is a report now forwarded? *Yes*
 SPARE GEAR. State the articles supplied:— *Spare cylinder & liner, 2 cylinder covers complete with all valves seats & springs, in addition one complete set of valve seats springs &c for each cylinder, one piston complete for one engine, 1 set of Ramsbottom rings for all pistons, a complete set of main skew wheels, 1 pair of crank pin bearings, 1 set of top end bearings, 2 main bearing bolts, 4 top end bolts, 1 set of coupling bolts, spare half crank, spare propeller shaft & other gear in excess of requirements.*

The foregoing is a correct description,

FOR THE WALLSEND SLIPWAY & ENGINEERING CO., LIMITED.

J. C. Henderson
 SECRETARY.

Manufacturer.

1913
 Dates of Survey while building
 During progress of work in shops - - - *Oct 3, 15, 25, Dec 12, 15, 18, 22, 23, 27, 29, Jan 12, 14, 26, 28, Feb 3, 6, 10, 13, 16, 19, 25, 27, Mar 6, 13, 23, 31, Apr 3, 6, 7, 8, 15, 17, 20, 21, 23, 24, 27, 28, 29, May 5, 8, 11, 13, 14, 18, 20, 22, 25, 26, 27, 28, 29, Jan 3, 5, 4, 16, Feb 1, 3, 15, 23, 24, Apr 6, 20, 21, 24, 27, 28, Sep 2, 10, 18, Oct 14, 22, 23, Nov 14, 27, Dec 11, 17, 1912 Jan 12, 15, Mar 9, 16, 17, Apr 6, May 18, Jun 10, 11, 15, 22, 23, 24, 30, Jul 12, 19*
 During erection on board vessel - - -
 Total No. of visits *94.*

Is the approved plan of main boiler forwarded herewith

" " " donkey " " " *Yes*

Dates of Examination of principal parts—Cylinders *15/4/14* Slides ✓ Covers *12/2/14* Pistons *12/2/14* Rods *10/2/14*
 Connecting rods *12/2/14* Crank shaft *3/1/13* Thrust shaft *3/1/13* Tunnel shafts *18/5/14* Screw shaft *18/5/14* Propeller *25/5/14*
 Stern tube *25/5/14* Steam pipes tested ✓ Engine and boiler seatings *5/6/14* Engines holding down bolts *11/12/14*
 Completion of pumping arrangements *23/3/15* Boilers fixed ✓ Engines tried under steam *10/6, 11/6 & 13/7/15*
 Main boiler safety valves adjusted ✓ Thickness of adjusting washers ✓
 Material of Crank shaft *Steel* Identification Mark on Do. *6/3/14* Material of Thrust shaft *Steel* Identification Mark on Do. *6/3/14*
 Material of Tunnel shafts *Steel* Identification Marks on Do. *29/5/14* Material of Screw shafts *Steel* Identification Marks on Do. *25/5/14*
 Material of Steam Pipes ✓ Test pressure ✓
 Is an installation fitted for burning oil fuel *Yes* Is the flash point of the oil to be used over 150°F. *Yes*
 Have the requirements of Section 49 of the Rules been complied with *Yes*
 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 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 full power with satisfactory results. In my opinion the vessel eligible for the record L.M.C. 7.15.

It is submitted that this vessel is eligible for THE RECORD + LMC 7.15.

Oil Engines. 2SC.SA.

8 Cy. 17 1/4" - 33" 342 NHP.

Wllsmd. Slipwy. Co. Ld. Nwc. 2DB. 100th.

J.P.R.

J.W.D.

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

The amount of Entry Fee ... £ 3 : :
 Special ... £ 37 : 2 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ : :
 When applied for, JUL 23 1915
 When received, 28/7/1915

Committee's Minute FRI. AUG. 13. 1915

Assigned

+ L.M.C. 7.15
 oil engines

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.

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 Secretary,
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