

REPORT ON MACHINERY.

No. 79

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Date of writing Report 2nd June 18 When handed in at Local Office Belfast Port of Belfast
No. in Survey held at Belfast Date, First Survey 26-6-17 Last Survey 28-5-1916
Reg. Book. on the S.S. War Lemur (Number of Visits 45)

Master _____ Built at Belfast By whom built Holland & Wolff L³ Tons } Gross }
Engines made at Belfast By whom made _____ } Net }
Boilers made at Glasgow By whom made L. Brown & Co L² When built 1918
Registered Horse Power _____ Owners The Shipping Controller Port belonging to London
Nom. Horse Power as per Section 28 518 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines Single Screw Triple Expansion Cylinders 3 No. of Cranks 3
Dia. of Cylinders 27"-44"-43" Length of Stroke 48 Revs. per minute 78 Dia. of Screw shaft as per rule 14.68 Material of S. 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 60 1/2"
Dia. of Tunnel shaft as per rule 13.3" Dia. of Crank shaft journals as per rule 13.9" Dia. of Crank pin 14 1/2" Size of Crank webs 28-9 Dia. of thrust shaft under
collars 14 1/2" Dia. of screw 17-6" Pitch of Screw 16-6" No. of Blades 4 State whether moveable No Total surface 102 1/2 sq ft
No. of Feed pumps 2 Diameter of ditto 4" Stroke 24 Can one be overhauled while the other is at work Yes
No. of Bilge pumps 2 Diameter of ditto 4" Stroke 24 Can one be overhauled while the other is at work Yes
No. of Donkey Engines _____ No. and size of Suctions connected to both Bilge and Donkey pumps
In Engine Room 4-3 1/2" In Holds, &c. 9-3 1/2" & 1-3"
No. of Bilge Injections 1 sizes 8" Connected to condenser, or to circulating pump Pumps Is a separate Donkey Suction fitted in Engine room & size 1-3 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 ✓
Are all connections with the sea direct on the skin of the ship Yes - Except Main Tank Suction Chest 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 Below
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 Fore hold suction How are they protected Wood Casings
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 Yes Is it fitted with a watertight door No - W. T. trunk from deck

BOILERS, &c.—(Letter for record _____) Manufacturers of Steel _____
Total Heating Surface of Boilers _____ Is Forced Draft fitted _____ No. and Description of Boilers _____
Working Pressure _____ Tested by hydraulic pressure to _____ Date of test _____ No. of Certificate _____
Can each boiler be worked separately _____ Area of fire grate in each boiler _____ No. and Description of Safety Valves to
each boiler _____ Area of each valve _____ Pressure to which they are adjusted _____ Are they fitted with easing gear _____
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 _____

BE172-0722(1/2)

IS A DONKEY BOILER FITTED? *No* If so, is a report now forwarded?

SPARE GEAR. State the articles supplied: - *See separate sheet*

The foregoing is a correct description,
For HARLAND & WOLFF Ltd.

Submitting

Manufacturer.

Dates of Survey while building: During progress of work in shops - *1917 June 26* - *up till 28th May 1918*
During erection on board vessel -
Total No. of visits *45*

Is the approved plan of main boiler forwarded herewith *1918*

Dates of Examination of principal parts - Cylinders *3* - Slides *17* - Covers *5* - Pistons *5* - Rods *5*
Connecting rods *7-5-18* Crank shaft *13* - Thrust shaft *17* Tunnel shafts *5* Screw shaft *25-3-18* Propeller *15-3-18*
Stern tube *15-3-18* Steam pipes tested *9-11-17* Engines and boiler seatings *10-5-18* Engines holding down bolts *13-5-18*
Completion of pumping arrangements *24-5-18* Boilers fixed *10-5-18* Engines tried under steam *28-5-18*
Completion of fitting sea connections *19-4-18* Stern tube *19-4-18* Screw shaft and propeller *1-5-18*
Main boiler safety valves adjusted *24-5-18* Thickness of adjusting washers *1/2"*

Material of Crank shaft *Steel* Identification Mark on Do. *LLOYDS* Material of Thrust shaft *Do* Identification Mark on Do. *Do*
Material of Tunnel shafts *Do* Identification Marks on Do. *25-3-18* Material of Screw shafts *Do* Identification Marks on Do. *Do*
Material of Steam Pipes *W. Iron* Test pressure *540-lb*

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 *Man Pittman Man Python etc*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery of the vessel has been constructed under Special Survey, and in accordance with the Rules, also as per Specifications and instructions issued by the Shipping Controller. The workmanship and the materials are of good description, and on trial under steam in Belfast Lough, the machinery worked satisfactorily. In our opinion, it is eligible for records + L.M.C. 5-18, with notation "Fixed Draft" + "Electric Light"

It is submitted that
this vessel is eligible for
THE RECORD. + L.M.C. 5. 18. F.D.

17/6/18

John Collock
R. J. Berenoff
Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £
Special ... £ *86-8-4* When applied for, *31-5-18*
Donkey Boiler Fee ... £ *28-16-1* Due to Glasgow
Travelling Expenses (if any) £ *22-6-18* When received, *24-6-18*

Committee's Minute
Assigned *FRI 14 JUN 1918*
+ L.M.C. 5. 18 F.D.

MACHINERY CERTIFICALLY WRITTEN

Surveyor's Signature

Rpt. 9a. Port of *Belfast* Continuation of Report No. *7969* dated *2nd June 1918* on the *P.S. War Lenuir*

- 1 Ballast Pump 10 1/2" x 14" x 24"*
- 1 General - 9 1/2" x 7" x 18"*
- 1 Feed - 9 1/2" x 7" x 18"*

- 1. Propeller C.I. Solid*
- 1 - H.P. piston valve*
- 2 - Top end bolts ✓*
- 2 - Bottom - ✓*
- 2 - Main bearing - ✓*
- 3 - Crank shaft coupling bolts + nuts ✓*
- 3 - ✓*
- 1 Feed pump suction valve ✓*
- 1 - discharge - ✓*
- 1 Bilge - ✓*
- 1 - suction - ✓*
- 3 Main feed check valves*
- 3 Donkey -*
- 24 Bolts + nuts ✓*
- 6 Cylinder cover studs + nuts ✓*
- 6 Steam chest - ✓*
- 12 Junk ring - ✓*
- 5 Bars round iron ✓*
- 3 - flat ✓*
- Spare fire bars etc*

R. J. Berenoff