

REPORT ON MACHINERY

No. 80702

Received at London Office

15 MAR 1918

Date of writing Report Mar. 13th 1918 handed in at Local Office 15 MAR 1918 Port of London
 No. in Survey held at London Date, First Survey 22nd Oct. 1917 Last Survey March 9th 1918
 Reg. Book. on the Trawler "Morgan Jones" Tons } Gross }
 Master Hutchinson Built at Leith By whom built Walter & Co. Glasgow When built 1918
 Engines made at Leith By whom made Fraser & Chalmers when made 1918
 Boilers made at Newcastle By whom made Palmer's S.B. & C. Ltd when made 1918
 Registered Horse Power Owners The Ministry of Shipping Port belonging to
 Nom. Horse Power as per Section 28 86 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

ENGINES, &c.—Description of Engines Triple Expansion No. of Cylinders 3 No. of Cranks 3
 Dia. of Cylinders 12 1/2 x 21 x 35 Length of Stroke 26 Revs. per minute 103 Dia. of Screw shaft 7 1/2 as per rule 7.6 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
 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 34"
 Dia. of Tunnel shaft 7 1/2 as per rule 7.6 Dia. of Crank shaft journals 6.88 as per rule 7.6 Dia. of Crank pin 7 1/2 Size of Crank web 10 3/4 x 4 1/2 Dia. of thrust shaft under
 collars 7 1/2 Dia. of screw 9.6 Pitch of Screw 11.1 1/2 No. of Blades 4 State whether moveable no Total surface 35 1/2 sq ft
 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 6 x 3.6 duplex 6 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps
 Engine Room 2- 2" dia; Bilge ejector In Holds, &c. 3- 2"

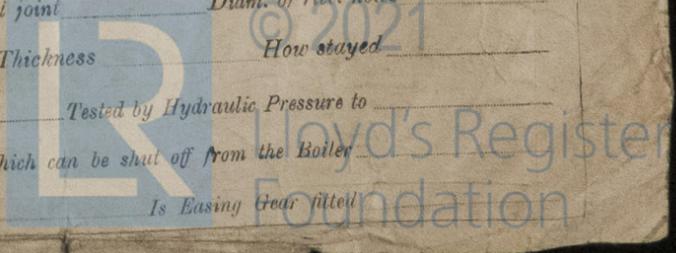
No. of Bilge Injections 1 sizes 3" Connected to condenser or to circulating pump Yes Is a separate Donkey Suction fitted in Engine room & size 2"
 Are all the bilge suction pipes fitted with roses Yes Are the roses in Engine room always accessible Yes Are the sluices on Engine room bulkheads always accessible Yes
 Are all connections with the sea direct on the skin of the ship Yes Are they Valves or 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 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 Yes 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 Yes Is it fitted with a watertight door Yes worked from

OILERS, &c.—(Letter for record 5) Manufacturers of Steel Mill under B.C. inspection
 Total Heating Surface of Boilers 1600 sq ft Is Forced Draft fitted no No. and Description of Boilers One multitubular
 Working Pressure 180 lb sq in Tested by hydraulic pressure to 360 lb sq in Date of test 19.9.17 No. of Certificate BC 2216
 Can each boiler be worked separately Yes Area of fire grate in each boiler 50 sq ft No. and Description of Safety Valves 1
 each boiler 2 Spring loaded Area of each valve 4.9 sq in Pressure to which they are adjusted 183 lb sq in Are they fitted with easing gear
 Smallest distance between boilers or uptakes and bunkers or woodwork 1-6" Mean dia. of boilers 183 lb sq in Length 183 lb sq in Material of shell plates
 Thickness 183 lb sq in Range of tensile strength 183 lb sq in Are the shell plates welded or flanged Yes Descrip. of riveting: cir. seams
 long, seams 183 lb sq in Diameter of rivet holes in long, seams 183 lb sq in Pitch of rivets 183 lb sq in Lap of plates or width of butt straps
 Per centages of strength of longitudinal joint 183 lb sq in Working pressure of shell by rules 183 lb sq in Size of manhole in shell
 Size of compensating ring 183 lb sq in No. and Description of Furnaces in each boiler 183 lb sq in Material 183 lb sq in Outside diameter
 Length of plain part 183 lb sq in Thickness of plates 183 lb sq in Description of longitudinal joint 183 lb sq in No. of strengthening rings
 Working pressure of furnace by the rules 183 lb sq in Combustion chamber plates: Material 183 lb sq in Thickness: Sides 183 lb sq in Back 183 lb sq in Top 183 lb sq in Bottom 183 lb sq in
 Pitch of stays to ditto: Sides 183 lb sq in Back 183 lb sq in Top 183 lb sq in If stays are fitted with nuts or riveted heads 183 lb sq in Working pressure by rules
 Material of stays 183 lb sq in Area at smallest part 183 lb sq in Area supported by each stay 183 lb sq in Working pressure by rules 183 lb sq in End plates in steam space:
 Material 183 lb sq in Thickness 183 lb sq in Pitch of stays 183 lb sq in How are stays secured 183 lb sq in Working pressure by rules 183 lb sq in Material of Front plates at bottom
 Area at smallest part 183 lb sq in Area supported by each stay 183 lb sq in Working pressure by rules 183 lb sq in Material of Front plates at bottom 183 lb sq in
 Thickness 183 lb sq in Material of Lower back plate 183 lb sq in Thickness 183 lb sq in Greatest pitch of stays 183 lb sq in Working pressure of plate by rules
 Diameter of tubes 183 lb sq in Pitch of tubes 183 lb sq in Material of tube plates 183 lb sq in Thickness: Front 183 lb sq in Back 183 lb sq in Mean pitch of stays
 Pitch across wide water spaces 183 lb sq in Working pressures by rules 183 lb sq in Girders to Chamber tops: Material 183 lb sq in Depth and
 thickness of girder at centre 183 lb sq in Length as per rule 183 lb sq in Distance apart 183 lb sq in Number and pitch of stays in each 183 lb sq in
 Working pressure by rules 183 lb sq in Steam dome: description of joint to shell 183 lb sq in % of strength of joint 183 lb sq in
 Diameter 183 lb sq in Thickness of shell plates 183 lb sq in Material 183 lb sq in Description of longitudinal joint 183 lb sq in Diam. of rivet holes 183 lb sq in
 Pitch of rivets 183 lb sq in Working pressure of shell by rules 183 lb sq in Crown plates 183 lb sq in Thickness 183 lb sq in How stayed 183 lb sq in

UPERHEATER. Type 183 lb sq in Date of Approval of Plan 183 lb sq in Tested by Hydraulic Pressure to 183 lb sq in
 Date of Test 183 lb sq in Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler 183 lb sq in
 Diameter of Safety Valve 183 lb sq in Pressure to which each is adjusted 183 lb sq in Is Easing Gear fitted 183 lb sq in

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IS A DONKEY BOILER FITTED?

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If so, is a report now forwarded?

SPARE GEAR. State the articles supplied:

2 main bearing bolts nuts, 2 top end bolts nuts, 2 bottom end bolts nuts, 1 set of coupling bolts nuts to transfer for Condenser. 1 set of feed pump valves & seats, 1 set of bilge pump valves & seats, 6 piston studs, nuts & copper washers, 1 expansion spanner, 1 set of eye bolts, 1 set of air pump valves, 3 condenser tubes, 3 escape valve springs, 1 set of spanners

The foregoing is a correct description,

For Main Engines only.

Fraser & Chalmers Co. Ltd. per J. A. Saunders Manufacturer. Works Glasgow

Dates of Survey while building: During progress of work in shops (1917) Oct 22nd, 26th, 29th, Nov 5th, 8th, 21st, 22nd, 29th, Dec 3rd, 10th, 13th, 15th, 17th, 20th, 22nd, 31st; During erection on board vessel (1918) Jan 4, 8, 12, 16, 29, Feb 1, 6, 9, 12, 14, 19, 21, 22, 23, 25, 26, 27, March 1, 4, 6, 7, 9. Total No. of visits 39. Is the approved plan of main boiler forwarded herewith

Dates of Examination of principal parts: Cylinders, Slides, Covers, Pistons, Rods, Connecting rods, Crank shaft, Thrust shaft, Tunnel shafts, Screw shaft, Propeller, Stern tube, Steam pipes tested Jan 4th, Engine and boiler seatings Nov 5th, Engines holding down bolts Nov 29th, Completion of pumping arrangements Feb 21st, Boilers fixed 9-3-18, Engines tried under steam 9-3-18, Completion of fitting sea connections Jan 29th, Stern tube Feb 27th, Screw shaft and propeller Feb 26th, Main boiler safety valves adjusted Feb 21st, Thickness of adjusting washers 3/8", Material of Crank shaft, Identification Mark on Do., Material of Thrust shaft, Identification Mark on Do., Material of Tunnel shafts, Identification Marks on Do., Material of Screw shafts, Identification Marks on Do., Material of Steam Pipes Copper, Test pressure 360 lbs per sq in, Is an installation fitted for burning oil fuel, 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, If so, state name of vessel

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

The Engines & Boilers have been fitted on board in accordance with the Society's Rules; they were constructed under the inspection of the British Corporation Surveyors. The boiler safety valves were adjusted under steam to blow at 183 lbs per sq in. On the Trial Trip the Low Pressure Engine did not work altogether satisfactorily. The packing rings should be again examined in brief time and the Low Pressure slide valve reset.

It is submitted that this vessel is eligible for THE RECORD. LMC. 3.18. subject to the

CO. cylinder piston rings being examined before the end of September 1918 & the LD slide valve re-set. J.W.D. 9/4/18.

J. F. Cornick

Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ : : When applied for, Special (1/4 th. of double fee) 6 : 9 : 0 : 2nd April 1918, Donkey Boiler Fee ... £ : : When received, Travelling Expenses (if any) £ : : 8-6-18 J.W.D.

Committee's Minute

Assigned

TUE APR. 9 1918.

LMC 3.18 Subject

MACHINERY CERTIFICATE WRITTEN



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Certificate (if required) to be sent to The Surveyors and registered and to write off or below the space for Committee's Minute.