

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

30 SEP 1927

Surveying Report 18th Sept 1927 When handed in at Local Office 29th Sept 1927 Port of Belfast
 in Survey held at Belfast Date, First Survey 25th April 1927 Last Survey 23rd Sept 1927
 Book. (Number of Visits 4-8)
 on the STEEL T.W. SC. "ORANVESTAD"
 at Belfast By whom built Harland & Wolff Ltd. Yard No. 809 Tons { Gross 2102 / Net 1742
 nes made at Belfast By whom made Harland & Wolff Ltd. Engine No. 809 When built 1927
 ers made at Belfast By whom made Harland & Wolff Ltd. Boiler No. 809 when made 1927
 LAGO SHIPPING CO.
 Owners A. WEIR & Co. Port belonging to LONDON
 Horse Power as per Rule 196 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 for which Vessel is intended Ocean going.

INES, &c.—Description of Engines Two screw inverted triple expansion Revs. per minute 125
 of Cylinders 13 1/2" - 23 1/2" - 36" Length of Stroke 27" No. of Cylinders 6 No. of Cranks 6
 k shaft, dia. of journals as per Rule 7 3/8" Crank pin dia. 7 3/8" Crank webs Mid. length breadth 14 1/2" Thickness parallel to axis 4 3/8"
 as fitted 7 3/8" Mid. length thickness 4 3/8" shrunk Thickness around eye-hole 3 1/8"
 rmediate Shafts, diameter as per Rule 6.858" Thrust shaft, diameter at collars as per Rule 7 3/8"
 as fitted 7 3/8" Is the { tube / screw } shaft fitted with a continuous liner { Yes }
 e Shafts, diameter as per Rule 7 3/8" as fitted 7 3/8" Is the { tube / screw } shaft fitted with a continuous liner { Yes }
 ze Liners, thickness in way of bushes as per Rule 5 1/8" Thickness between bushes as per Rule 5 1/8" Is the after end of the liner made watertight in the
 as fitted 5 1/8" If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner Yes
 e 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
 o liners are fitted, is the shaft lapped or protected between the liners Yes Is an approved Oil Gland or other appliance fitted at the after
 of the tube shaft Yes Length of Bearing in Stern Bush next to and supporting propeller 36"
 peller, dia. 9'0" Pitch 9'6" No. of Blades 4 Material Manila whether Moveable No Total Developed Surface each 28 sq. feet
 d Pumps worked from the Main Engines, No. 2 Diameter 2 1/4" Stroke 13 1/2" Can one be overhauled while the other is at work Yes
 ge Pumps worked from the Main Engines, No. 2 Diameter 2 1/4" Stroke 13 1/2" Can one be overhauled while the other is at work Yes
 ed { No. and size Two 8 1/2" x 6" x 15" Pumps connected to the { No. and size Two 9" x 10" x 24" 8 1/2" x 6" x 15"
 ups { How driven STEAM Main Bilge Line { How driven STEAM
 last Pumps, No. and size One 9" x 10" x 24" Lubricating Oil Pumps, including Spare Pump, No. and size NONE
 two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary
 e Pumps;—In Engine and Boiler Room FORWARD 1-2 1/2" AFT 1-3 1/2" (2-2 1/2" IN E.R. COFFERDAM TO O.F. PUMPS)
 Holds, &c. (CONNECTED TO PUMP IN CARGO TUMP ROOM FORWARD PUMP ROOM 1-2" No 1 BUOYANCY SPACES 2-2 1/2" No 2 BUOYANCY SPACES 2-2 1/2"
13 BUOYANCY SPACES 2-2 1/2" AFTER COFFERDAM FRAMES 4 To 45 1-3 1/2")
 in Water Circulating Pump Direct Bilge Suctions, No. and size Two 4" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 and size One 3 3/4" Are all the Bilge Suction Pipes in holds and well fitted with strum-boxes Yes
 the Bilge Suctions in the Machinery Space led from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes
 all Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks both
 they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates Yes Are the Overboard Discharges above or below the deep water line Above
 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
 at Pipes pass through the bunkers None How are they protected Yes
 at pipes pass through the deep tanks Yes Have they been tested as per Rule Yes
 e all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes
 the arrangement of Valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one
 apartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Yes

IN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 3702 sq
 Forced Draft fitted No No. and Description of Boilers Two Single-end Cyl. Multi? Working Pressure 180 lb.
 A REPORT ON MAIN BOILERS NOW FORWARDED? Yes
 A DONKEY BOILER FITTED? No If so, is a report now forwarded? Yes

ANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers 13: 4: 27 Auxiliary Boilers Yes Donkey Boilers Yes
 (If not state date of approval)
 erheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

ARE GEAR. State the articles supplied:—Two TOPEND BOLTS & NUTS: Two BOTTOMEND BOLTS & NUTS: Two MAIN BEARING BOLTS: ONE SET OF COUPLING BOLTS: ONE SET OF PACKING
 ggs FOR H.P. & I.P. PISTONS: ONE SET OF VALVES FOR EACH DONKEY PUMP: TWO SETS OF VALVES FOR FEED, BILGE, AIR AND CIRCULATING PUMPS: ONE TOPEND BUSH: ONE
 TTOMEND BUSH: TWO ECCENTRIC STRAPS: ONE PAIR OF PUMP LINK BRASSES OF EACH SIZE: ONE BUCKET, ROD & NUT FOR AIR PUMP: ONE BUCKET, ROD & NUT FOR
 CULATING PUMP: ONE SET OF SAFETY VALVE SPRINGS: ONE SCREW SHAFT: TWO CAST IRON PROPELLERS: 24 CONDENSER TUBES: ONE SET OF ESCAPE VALVE SPRINGS
 E SET OF VALVE LIDS FOR BOILER VALVES: TWO OIL FUEL BURNERS: 18 TIPS: ONE SUCTION AND ONE DELIVERY FILTER BASKET.
 SORTED BOLTS, NUTS AND IRON.

The foregoing is a correct description,
 For HARLAND AND WOLFF, LIMITED,

Rebeck

Manufacturer.



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Lloyd's Register
 Foundation

W203-0246

1924
 April 25 May 9-10-16-20-24-25-31 June 7-9-10-16-20-23-24-25-27-28
 29 July 5-8 Aug. 1-8-10-11-12-15-16-17-18-19-22-24-26-29-30-31
 Sept 2-5-6-8 9-12-13-19-20-22-23
 Dates of Survey while building
 During progress of work in shops - -
 During erection on board vessel - -
 Total No. of visits 48

Dates of Examination of principal parts—Cylinders 17.8.27 19.8.27 Slides 29.8.27 Covers 19.8.27
 Pistons 15.8.27 Piston Rods 11.8.27 Connecting rods 16.8.27
 Crank shaft 1.8.27 9.8.27 Thrust shaft 9.8.27 1.8.27 Intermediate shafts
 Tube shaft Screw shaft 24.8.27 Propeller 24.8.27
 Stern tubes 22.8.27 24.8.27 Engine and boiler seatings 31.8.27 Engines holding down bolts 13.9.27
 Completion of fitting sea connections 31.8.27 Boilers fixed 13.9.27 Engines tried under steam 22.9.27
 Completion of pumping arrangements 27.9.27 Thickness of adjusting washers Pat. Boils. P. 1/2 S 1/2 Standard Riles P. 5 1/2
 Main boiler safety valves adjusted 27.9.27 Thrust shaft material S.M. INGOT STEEL Identification Mark No. 7 R.L.A.
 Crank shaft material S.M. INGOT STEEL Identification Marks Tube shaft, material Identification Mark
 Intermediate shafts, material Identification Marks Steam Pipes, material S.D. COPPER Test pressure 360 LBS. Date of Test 18.8.27
 Screw shaft, material S.M. STEEL Identification Mark No. 7 R.L.A. Is the flash point of the oil to be used over 150°F. YES
 Is an installation fitted for burning oil fuel YES Have the requirements of the Rules for carrying and burning oil fuel been complied with YES
 Is this machinery duplicate of a previous case YES If so, state name of vessel SAN CARLOS

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

The machinery of this vessel has been constructed under special survey. The materials and workmanship sound and good. It has been efficiently installed on board the vessel. The main and auxiliary engines have been tried under steam. The oil fuel pipe lines have been tested in accordance with the rules. The controls of the oil fuel lines are capable of being operated as required by the rules. In my opinion the machinery of this vessel is eligible for notation in the Society's Register. Bo. + L.M.C. 9.27 C.L. fitted for oil fuel 9.27 F.P. above 150°F.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 9.27 C.L.

Fitted for oil fuel 9.27 F.P. above 150°F.

The amount of Entry Fee ... £ 2 : - :
 Special ... £ 49 : - :
 Donkey Boiler Fee ... £ : - :
 Travelling Expenses (if any) £ : - :
 When applied for, 29 Sept 1924
 When received, 15.10.1924

R. Lee Auneas
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUES. 4 OCT 1927

Assigned

+ L.M.C. 9.27 C.L.
 Fitted for Oil fuel 9.27 F.P. above 150°F

CERTIFICATE WRITTEN.

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