

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

No. 9770

Date of writing Report 10 When handed in at Local Office 29-6-27 Port of Belfast Received at London Office 30 JUN 1927

No. in Survey held at Belfast Date, First Survey 15 Feb. 1927 Last Survey 23 June 1927

Reg. Book. on the Tw. Sc. LA SALINA (Number of Visits 40)

Built at Belfast By whom built Harland & Wolff Ltd. Yard No. 794

Engines made at Belfast By whom made Harland & Wolff Ltd. Engine No. 794

Boilers made at Belfast By whom made Harland & Wolff Ltd. Boiler No. 794

Registered Horse Power Owners A. Neil & Co. Ltd. Port belonging to London

Nom. Horse Power as per Rule 472 196 Is Refrigerating Machinery fitted for cargo purposes No. Is Electric Light fitted Yes

Trade for which Vessel is intended Ocean-going

ENGINES, &c.—Description of Engines *Two screw triple expansion inverted*

Dia. of Cylinders *13 1/2" - 23 1/2" - 36"* Length of Stroke *27"* No. of Cylinders *6* Revs. per minute *125*

Crank shaft, dia. of journals as per Rule *7.3" - 7.19"* as fitted *7.3"* Crank pin dia. *7 3/8"* Crank webs Mid. length breadth *1 1/2"* Mid. length thickness *1 1/8"* shrunk Thickness parallel to axis *1 1/2"* Thickness around eye-hole *3 3/4"*

Intermediate Shafts, diameter as per Rule *6.558"* as fitted *✓* Thrust shaft, diameter at collars as per Rule *7.3" - 7.19"* as fitted *7 3/8"*

Tube Shafts, diameter as per Rule *✓* as fitted *✓* Screw Shaft, diameter as per Rule *7.6"* as fitted *7 3/8"* Is the *tube* shaft fitted with a continuous liner *Yes*

Bronze Liners, thickness in way of bushes as per Rule *526"* as fitted *675"* Thickness between bushes as per Rule *391"* as fitted *4875"* Is the after end of the liner made watertight in the propeller boss *Yes*

If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner *✓*

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 *✓* Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft *✓*

Propeller, dia. *9'0"* Pitch *9'6"* No. of Blades *4* Material *Bronze* whether Moveable *No.* Total Developed Surface *each 28* sq. feet

Feed 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*

Bilge 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*

Feed Pumps { No. and size *Two 8 1/2" x 6" x 15"* How driven *Steam* Pumps connected to the Main Bilge Line { No. and size *Two 8 1/2" x 6" x 15"* *9" x 10" x 7 1/4"* How driven *Steam*

Ballast Pumps, No. and size *One 9" x 10" x 24"* Lubricating Oil Pumps, including Spare Pump, No. and size *None*

Are two independent means arranged for circulating water through the Oil Cooler *✓*

Bilge Pumps;—In Engine and Boiler Room *Forward 1-2 1/2" Aft 1-3 1/2"* Suctions, connected to both Main Bilge Pumps and Auxiliary *(Two 2 1/2" suction from Coppeidams to O.F. Pumps)*

In Holds, &c. *Connected to pumps in cargo pump room Forward pump room 1-2" No. 1 Buoyancy spaces 2-2 1/2" No. 2 Buoyancy spaces 2-2 1/2"*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *Two 4" One 3 3/4"* Independent Power Pump Direct Suctions to the Engine Room Bilges, *Are all the Bilge Suction Pipes in holds and well fitted with strum-boxes. Yes*

Are 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*

Are all Sea Connections fitted direct on the skin of the ship *Yes* Are they fitted with 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 Overboard Discharges 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 pass through the bunkers *None* How are they protected *✓*

What pipes pass through the deep tanks *✓* Have they been tested as per Rule *✓*

Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times *Yes*

Is 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 compartment to another *Yes* Is the Shaft Tunnel watertight *✓* Is it fitted with a watertight door *✓* worked from *✓*

MAIN BOILERS, &c.—(Letter for record *S*) Total Heating Surface of Boilers *3702* sq. ft.

Is Forced Draft fitted *No.* No. and Description of Boilers *Two single ended Aft - Multi - Working Pressure 180 lbs.*

IS A REPORT ON MAIN BOILERS NOW FORWARDED? *Yes*

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

PLANS. Are approved plans forwarded herewith for Shafting *✓* Main Boilers *✓* Auxiliary Boilers *✓* Donkey Boilers *✓*

Superheaters *✓* General Pumping Arrangements *✓* Oil fuel Burning Piping Arrangements *✓*

SPARE GEAR. State the articles supplied:—*Two top end bolts & nuts. Two bottom end bolts & nuts. Two main bearing bolts. One set of coupling bolts. One set of packing rings for H. and I. pistons. One set of valves for each donkey pump. Two sets of valves for each of feed, bilge, air and circulating pumps. One top end bush. One bottom end bush. Two eccentric straps. One pair of pump link braces each set. One of each bucket rod with nut complete for air and circulating pumps. One set of safety valve springs. One screw shaft. Two cast iron propellers. 24 Condenser tubes. One set of escape valve springs. One set of valve lids for bilge valves. Two oil fuel burners & 18 tips. One suction and one delivery filter baskets.*

The foregoing is a correct description,
 For HARLAND AND WOLFF, LIMITED.
 A. T. Marshall. Manufacturer.
 Assistant Secretary.



NOTE.—The words which do not apply should be deleted.

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1927 Feb 15 Mar 7 9 11 15 14 22 23 24 29 Apr 1 4 6 11 13 20 26 29 May 3 4 5 6 9 10

Dates of Survey while building: During progress of work in shops - 12-13-16-17-20-25-26-30-31 June 1-3-8-13-17-21-23; During erection on board vessel - - - - -; Total No. of visits 40

Dates of Examination of principal parts - Cylinders 2.5.27 Slides 9.5.27 Covers 9.5.27; Pistons 9.5.27 Piston Rods 29.4.27 Connecting rods 17.5.27; Crank shafts 29.4.27 Thrust shafts 29.4.27 Intermediate shafts; Tube shaft; Screw shafts 25.5.27 Propellers 25.5.27; Stern tube 26.5.27 Engine and boiler seatings 31.5.27 Engines holding down bolts 8.6.27; Completion of fitting sea connections 26.5.27; Completion of pumping arrangements 21.6.27 Boilers fixed 17.6.27 Engines tried under steam 21.6.27; Main boiler safety valves adjusted 21.6.27 Thickness of adjusting washers Port Boiler P 5/16" S 13/32" Star Boiler P 1/2" S 13/32"; Crank shaft material S.M. Ingot Steel Identification Mark No 5 R.L.A. Thrust shaft material Sm Ingot Steel Identification Mark No 3 R.L.A.; Intermediate shafts, material Identification Marks; Tube shaft, material Identification Mark; Screw shaft, material Sm Ingot Steel Identification Mark No 2 R.L.A. Steam Pipes, material LD Copper Test pressure 360 lb. Date of Test 13.6.27; 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 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 "Laquilla" etc.

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 are 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 to the oil fuel valves and fire-extinguishing line are capable of being operated locally and from outside the engine room. In my opinion the machinery of this vessel is eligible for notation in the Society's Register Book - L.M.C. 6.26 C.L. fitted for oil fuel G.27. F.P. above 150°F.

It is submitted that this vessel is eligible for THE RECORD. + LMC 6.27. CL

Fitted for oil fuel G.27. F.P. above 150°F.

J.W.D. 1/7/27 R. Lee Amers. Engineer Surveyor to Lloyd's Register of Shipping.

The amount of Entry Fee ... £ 3 : - : When applied for, 28.6.1927; Special ... £ 49 : - :; Donkey Boiler Fee ... £ : :; Travelling Expenses (if any) £ : :; When received, 2/8/27

FRI 1 JUL 1927

Committee's Minute

Assigned + L.M.C. 6.24. C.L. Fitted for Oil Fuel G.27 F.P. above 150°F



Rpt. Date of No. in Reg. Bo Master Engines Boilers Registered MULT (Letter for Boilers No. of safety calce Are they fit Smallest di Material of Descrip. of Top of plat rules 180 boiler three Description of plates: Mate Top 8'8" x 8" smallest part 158 Pitch of stays Area supported Lower back pl Pitch of tubes water spaces girder at centre Working pressu separately holes Pit If stiffened with Working pressur Dates of Survey while building During work in board

The Surveyors are requested not to write on or below the space for Committee's Minute.