

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

MAR -1 1939

Date of writing Report 21<sup>st</sup> Feb. 1939 When handed in at Local Office 23<sup>rd</sup> Feb. 1939 Port of Greenock  
 No. in Survey held at Greenock Date, First Survey 18<sup>th</sup> MARCH 1938 Last Survey 21<sup>st</sup> Feb. 1939  
 Reg. Book. T/S S "Blau Fraser" (Number of Visits 49) Tons { Gross 7529  
72462 on the T/S S "Blau Fraser" Net 3524  
 Built at Greenock By whom built Greenock Dockyard & Co. Ltd. Yard No. 435 When built 1939  
 Engines made at auto By whom made John & Tinsand & Co. Engine No. 694 When made 1939  
 Boilers made at auto By whom made auto Boiler No. 694 When made 1939  
 Registered Horse Power LP Turbine 413 Owners The Blau Line Steamers Ltd Port belonging to Elongore  
 Nom. Horse Power as per Rule MAN Eng 1146 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
 Trade for which Vessel is intended Torpedo

ENGINES, &c. — Description of Engines Triple Expansion (285 & 142.5 Turbines) Revs. per minute 92  
 Dia. of Cylinders 26" 42" 68" Length of Stroke 48" No. of Cylinders 6 No. of Cranks 6  
 Crank shaft, dia. of journals as per Rule 14.4 Crank pin dia. 15" Crank webs shrunk Thickness parallel to axis 9.48  
 as fitted 15" Mid. length thickness shrunk Thickness around eye-hole 6.78  
 Intermediate Shafts, diameter as per Rule 13.4 Thrust shaft, diameter at collars as per Rule 14.4  
 as fitted 14.3/8" as fitted 15"  
 Tube Shafts, diameter as per Rule 15.13 Is the tube screw shaft fitted with a continuous liner Yes  
 as fitted 16 3/8" as fitted 15"  
 Screw Shaft, diameter as per Rule 15.13 Is the tube screw shaft fitted with a continuous liner Yes  
 as fitted 16 3/8" as fitted 15"  
 Bronze Liners, thickness in way of bushes as per Rule .8 Thickness between bushes as per Rule .76 Is the after end of the liner made watertight in the  
 as fitted 7/8" as fitted 7/8" 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 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 Is an approved Oil Gland or other appliance fitted at the after end of the tube  
 shaft No If so, state type — Length of Bearing in Stern Bush next to and supporting propeller 5' 2 1/2"  
 Propeller, dia. 14' 0" Pitch 18' 6" No. of Blades 4 Material Brass whether Movable Yes Total Developed Surface 100 sq. feet  
 Feed Pumps worked from the Main Engines, No. None Diameter — Stroke — Can one be overhauled while the other is at work Yes  
 Bilge Pumps worked from the Main Engines, No. None Diameter — Stroke — Can one be overhauled while the other is at work Yes  
 Feed Pumps { No. and size 4 (2.15 1/2 + 1.1 1/2 + 2.4) (2.12 1/2 + 9.5 + 2.4) Pumps connected to the { No. and size 4 (2.7 1/2 + 9.15) (1.10 1/2 + 2.2 + 2.1) (1.9 1/2 + 1.1 + 1.8)  
 How driven Steam Main Bilge Line How driven Steam  
 Ballast Pumps, No. and size 1 - 10 1/2 + 12 1/2 + 2" Lubricating Oil Pumps, including Spare Pump, No. and size 3 at 9 1/2 + 10 1/2 + 24"  
 Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary  
 Bilge Pumps; — In Engine and Boiler Room ER. 2. 3 1/2 + 1. 3" BR. 2. 2 1/2 + 2. 3 1/2 Tunnel well 1. 2 1/2"  
 In Pump Room — In Holds, &c. 90.1. 2. 3 1/2 + 90.2. 2. 3 1/2 + 90.3. 2. 2 1/2 Brookbanker 2. 2 1/2"  
 Side Suctions 2. 3" 90.4. 2. 3" 1 - 2 1/2" 90.5. 1. 3"  
 Main Water Circulating Pump Direct Bilge Suctions, No. and size 2 at 13" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size one 5 1/2" Are all the Bilge Suction Pipes in holds and tunnel 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 Yes  
 Are they sized 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 None Have they been tested as per Rule Yes  
 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 Yes Is it fitted with a watertight door Yes worked from UPPER PLATFORM

MAIN BOILERS, &c. — (Letter for record S) Total Heating Surface of Boilers 17780 #  
 Is Forced Draft fitted Yes No. and Description of Boilers 5 Single Endia Working Pressure 220  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes  
 IS A DONKEY BOILER FITTED? No If so, is a report now forwarded? —  
 Is the donkey boiler intended to be used for domestic purposes only —

PLANS. Are approved plans forwarded herewith for Shafting Yes Main Boilers Yes Auxiliary Boilers — Donkey Boilers —  
 (If not state date of approval)  
 Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

## SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes  
 State the principal additional spare gear supplied one Propeller Shaft fitted with continuous liner. stamped &  
 Lloyd's 7659 W.G.M. 8. 12 38

The foregoing is a correct description,  
 For JOHN G. KINCAID & CO. LIMITED.

Director. Manufacturer.

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Lloyd's Register

W374-0053n

(1938) MAR. 18. APRIL 15. MAY 3. 11. 16. 23. 26. JUNE 2. 9. 14. 17. 24. 27. AUG. 13. 16. 17. 25. 26. SEPT. 6. 13. 21. 24. OCT. 3. 5. 11. 12. 14. 17. 18. 24. 26. 31.  
 During progress of work in shops - - -  
 Nov. 2. 4. 9. 11. 14. 16. 21. 24. 25. 28. 29. DEC. 2. 5. 6. 7. 8. 9. 13. 14. 15. 16. 19. 21. 23. 26. 27. 30. (1939) JAN. 10. 11. 12. 13. 16. 17. 18. 20. 23. 25. 27.  
 30. 31. FEB. 2. 3. 6. 14. 17. 21.  
 Dates of Survey while building  
 During erection on board vessel - - -  
 Total No. of visits **49**

Dates of Examination of principal parts—Cylinders **8-10-38** Slides **23-10-38** Covers **18-10-38**  
 Pistons **23-10-38** Piston Rods **21-11-38** Connecting rods **21-11-38**  
 Crank shaft **21-11-38** Thrust shaft **21-11-38** Intermediate shafts **15-12-38**  
 Tube shaft **✓** Screw shaft **25-11-38** Propeller **21-11-38**  
 Stern tube **15-11-38** Engine and boiler seatings **21-11-38** Engines holding down bolts **23-1-39**  
 Completion of fitting sea connections **19-12-38**  
 Completion of pumping arrangements **17-2-39** Boilers fixed **6-2-39** Engines tried under steam **21-2-39**  
 Main boiler safety valves adjusted **14-2-39** Thickness of adjusting washers **17/64" 19/64" 5/16" 3/8" 1/2" 5/8" 3/4"**  
 Crank shaft material **S** Identification Mark **LR 7669 WGM** Thrust shaft material **S** Identification Mark **LR 7669 WGM**  
 Intermediate shafts, material **S** Identification Marks **LR 7659 WGM** Tube shaft, material **✓** Identification Mark **✓**  
 Screw shaft, material **S** Identification Mark **LR 7659 WGM** Steam Pipes, material **S** Test pressure **660 lb** Date of Test **6-2-39**  
 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 the use of oil as fuel been complied with **yes**  
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo **No** If so, have the requirements of the Rules been complied with **-**  
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with **✓**  
 Is this machinery duplicate of a previous case **yes** If so, state name of vessel **SS 'Glan Forter' LR 20662**

**General Remarks** (State quality of workmanship, opinions as to class, &c. These two engines & boilers have been built under special survey in accordance with the approved plans & the workmanship & material are of good quality. They have been securely fitted on board. Fired under steam of good pressure. The machinery is eligible in my opinion for the record of **✓** L.M. 2-39. Notation of Fitted for Oil Fuel 2-39. F.P. above 150°F. **5 S B (Sgt)**  
 The two L.P. Turbines (LR 60390) now securely fitted on board.

The amount of Entry Fee ... £ **6** : - : When applied for,  
 Special ... £ **128.13** : - : **24th FEB. 1939**  
 Donkey Boiler Fee ... £ - : - : When received,  
 Travelling Expenses (if any) £ - : - : **1.3 19.39 1/3**

Committee's Minute **GLASGOW 28 FEB 1939**

Assigned **✓** **Amc 2.39 20.**  
**Liua for oil fuel 2.39 20 above 150°F**

**George Gordon-Munroe**  
 Engineer Surveyor to Lloyd's Register of Shipping.