

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19... When handed in at Local Office 5. 7. 1938 Port of Glasgow
 No. in Survey held at Blydebank Date, First Survey 16th June 1937 Last Survey 2nd July 1938
 Req. Book 39958 on the Twin screw "Rafaela" (Number of Visits 60) Gross 3176.8 Tons Net 1557.7
 Built at Glasgow By whom built Blythswood S. B. Co. Ltd Yard No. 50 When built 1938
 Engines made at Blydebank By whom made Aitchison Blair & Co. Engine No. 212 When made 1938
 Boilers made at Surfsway By whom made Babcock & Wilcox Ltd Boiler No. 6/1327 When made 1938
 Registered Horse Power - Owners Curacaoische S. tv. Port belonging to Curacao
 Nom. Horse Power as per Rule 322. 365 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Dutch West Indies

ENGINES, &c.—Description of Engines Twin screw Triple expansion Revs. per minute 170
 Dia. of Cylinders 15.35" 25" 40.14" Length of Stroke 27" No. of Cylinders 3 each Eng No. of Cranks 3 each Eng
 Crank shaft, dia. of journals as per Rule 26.4.37 Crank pin dia. 8 1/8" Crank webs Mid. length breadth 15 3/4" Thickness parallel to axis 5 1/4"
 Intermediate Shafts, diameter as fitted 7 7/8" Thrust shaft, diameter at collars as per Rule 26.4.37 Thickness around eye-hole 3 13/16"
 Tube Shafts, diameter as fitted none Screw Shaft, diameter as fitted 8 1/4" Is the tube shaft fitted with a continuous liner yes
 Bronze Liners, thickness in way of bushes as per Rule 9/16" Thickness between bushes as per Rule 19/32" 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 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 light fit
 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 yes
 Propeller, dia. 2900 mm Pitch 2545 mm No. of Blades 4 Material Bronze whether Moveable Solid Total Developed Surface 2.975 sq. ft
 Feed Pumps worked from the Main Engines, No. none Diameter 1" Stroke 3/4" Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 1 each Eng Diameter 6 1/16" Stroke 4 3/4" Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 2 - 8" x 10 1/2" x 2 1/2" Pumps connected to the { No. and size 1 - Ballast 8" x 10" x 10"
 How driven steam Main Bilge Line { How driven steam
 Ballast Pumps, No. and size 1 - 8" x 10" x 10" Lubricating Oil Pumps, including Spare Pump, No. and size none
 Are two independent means arranged for circulating water through the Oil Cooler none Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 4 - 3"
 In Pump Room none (1 - 3" suction connected to pump in pump room space) In Holds, &c. none (Forward cargo hold has 2 - 3" suction connected to pumps in compartment in cargo hold).

MAIN BOILERS, &c.—(Letter for record W. T.) Total Heating Surface of Boilers 6520 sq. ft.
 Is Forced Draft fitted yes No. and Description of Boilers 2 Babcock & Wilcox Working Pressure 180
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? no
 Is the donkey boiler intended to be used for domestic purposes only no
 PLANS. Are approved plans forwarded herewith for Shafting yes Main Boilers yes Auxiliary Boilers no Donkey Boilers no
 Superheaters none 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 1 - section crank shaft, 1 - screw shaft.

The foregoing is a correct description,

Manufacturer.

A. J. Brown

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 Lloyd's Register
 Foundation

1937 June: 1. 16. 22 July: 1. 13 Aug: 17. 20. 31 Sep: 8. 16. 28 Oct: 5. 13. 18. 27 Nov: 2. 3.
 During progress of work in shops -- 23. 25 Dec: 3. 14. 23. 29 (1938) Jan: 13. 20 Feb: 2. 9. 21. 25. 28 Mar: 4. 14. 16. 22. 29
 Dates of Survey while building During erection on board vessel --- 29. 31 Apr: 5. 8. 11. 12. 20. 25. 29 May: 2. 10. 13. 18. 25. 26. 27. 31 June: 3. 6. 11. 29
 July: 2
 Total No. of visits 60

Dates of Examination of principal parts—Cylinders 5-10-37 etc Slides 2-2-38 etc Covers 16-6-37 etc
 Pistons 1-7-37 etc Piston Rods 5-10-37 etc Connecting rods 5-10-37 etc
 Crank shaft Leith 4-6-37 etc Thrust shafts 16-11-37 etc Intermediate shafts 2-11-37 etc
 Tube shaft none Screw shafts Leith 18-7-37 etc Propellers Lon 14-9-37 etc
 Stern tube 3-12-37 etc Engine and boiler seatings 12-4-38 Engines holding down bolts 9-5-38 ✓
 Completion of fitting sea connections 12-4-38 31-5-38 ✓
 Completion of pumping arrangements 20-6-38 Boilers fixed 6-6-38 Engines tried under steam 29-6-38
 Main boiler safety valves adjusted 17-6-38 Thickness of adjusting washers Port. 7/32 Starb. 5/16
 Crank shaft material S Identification Mark 3205, 3206 Thrust shaft material S Identification Mark 775, 787.
 Intermediate shafts, material S Identification Marks 775, 787. Tube shaft, material none Identification Mark ✓
 Screw shaft, material S Identification Mark 3264-56 Steam Pipes, material Steel Test pressure 540 lbs Date of Test 27-5-38
 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 Tansu 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 not required
 Is this machinery duplicate of a previous case no If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. The machinery of this vessel has been built under special survey in accordance with the approved plans, and the Society's Rules and requirements the materials and workmanship are good, it has been securely fitted on board, and satisfactorily tried under steam, and in our opinion eligible for the record + L.M.C 7-38, and notation fitted for oil fuel, flash point above 150°F, and O.F. fitted.

Job
 H-4-38

Anti ammonia NTP.

The amount of Entry Fee ... £ 5 : 0 : 0 When applied for,
 Special 3/6 ... £ 43 : 19 : 0 52 JUL 1938
 Donkey Boiler Fee ... £ 47 : 17 : 0 When received,
 Travelling Expenses (if any) £ : : 25/8 38

Jas. Cairns, A. Campbell
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 52 JUL 1938

Assigned + L.M.C 7-38 FD
 Fitted for oil fuel 7-38 F.P. above 150°F.



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