

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

11 MAR 1931

Date of writing Report 19 When handed in at Local Office 23 10 31 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 26 8 30 Last Survey 28 2 1931
 Reg. Book. on the new steel S/S "DALIA" (Number of Visits 77)

Built at Port Glasgow By whom built Robert Duncan & Co Ltd Yard No. 400 When built 1931
 Engines made at Glasgow By whom made David Rowan & Co Ltd Engine No. 939 When made 1931
 Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 939 When made 1931
 Registered Horse Power Owners 06-51-81 Port belonging to Durban
 Nom. Horse Power as per Rule 506 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 75

Dia. of Cylinders 27-44-73 Length of Stroke 48" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 13.85" as fitted 14" Crank pin dia. 14 1/2" Crank webs Mid. length breadth 21" Thickness parallel to axis 9"
 Mid. length thickness 9" shrunk Thickness around eye-hole 6 9/16"

Intermediate Shafts, diameter as per Rule 13.2" as fitted 13 9/8" Thrust shaft, diameter at collars as per Rule 13.85" as fitted 14" (Michell)

Tube Shafts, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule 14.69" as fitted 15 1/8" Is the {tube / screw} shaft fitted with a continuous liner { yes

Bronze Liners, thickness in way of bushes as per Rule .749" as fitted 3/4" Thickness between bushes as per Rule .56" as fitted 1/16" 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 yes
 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 no If so, state type - Length of Bearing in Stern Bush next to and supporting propeller 5-1"

Propeller, dia. 18-0" Pitch 17-6" No. of Blades 4 Material Brnze whether Moveable yes Total Developed Surface 99 sq. feet

Feed Pumps worked from the Main Engines, No. none Diameter - Stroke - Can one be overhauled while the other is at work -
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 1/2" Stroke 27" Can one be overhauled while the other is at work yes

Feed Pumps { No. and size 2 @ 10 1/2" - 8 + 22" and general service Pumps connected to the { No. and size 1 Bendoria - 8-5 x 8 & Ballast pump
 How driven steam Main Bilge Line { How driven steam supr steam

Ballast Pumps, No. and size 1 @ 9-12 x 12 supr Lubricating Oil Pumps, including Spare Pump, No. and size -
 Are two independent means arranged for circulating water through the Oil Cooler - Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 3 @ 2 3/4"
 In Pump Room - In Holds, &c. Fitted complete at Greenock. The following sizes are taken from copy of pumping plan supplied to ship. N-1-2 @ 2 3/4" N-2-2 @ 3 1/2" Deep tank 2 @ 2 1/2" N-3-3 @ 2 1/2" Tunnel well-1 @ 2 1/2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 8" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 5"
 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 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 both
 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 forward hold suction How are they protected under timber boards
 What pipes pass through the deep tanks none 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 yes Is it fitted with a watertight door yes worked from upper deck

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 7401 sq ft

Is Forced Draft fitted yes No. and Description of Boilers 3 SB Working Pressure 180

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes 22/7/30

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 no Main Boilers yes Auxiliary Boilers - Donkey Boilers -
 (If not state date of approval)
 Superheaters - General Pumping Arrangements with ship report Oil fuel Burning Piping Arrangements -

SPARE GEAR.
 Has the spare gear required by the Rules been supplied yes
 State the principal additional spare gear supplied One screw shaft. two cast iron propeller blades, one air pump rod. one bilge pump ram. one eccentric strap one impeller for circulating pump.

The foregoing is a correct description,
 For David Rowan & Co. Ltd
 Archd. N. Grierson

Manufacturer.



002630-002638-0148

1930 Aug 26 Sep 17 19 24 30 Oct 2 9 10 15 16 22 27 28 30 31 Nov 3 4 5 12 13 14 17
 During progress of work in shops -- 19 20 21 24 25 26 28 Dec 1 2 3 4 5 8 10 11 15 16 17 18 19 22 23 24 26 29 30 (1931)
 During erection on board vessel --- Jan 1 12 15 16 19 20 21 22 23 26 27 28 30 Feb 2 3 4 6 7 10 12 13 17 18 25 26 26 27
 Total No. of visits **77**

Dates of Examination of principal parts—Cylinders **4-12-30** Slides **8-12-30** Covers **11-12-30**
 Pistons **15-12-30** Piston Rods **18-12-30** Connecting rods **3-11-30**
 Crank shaft **2-12-30** Thrust shaft **30-12-30** Intermediate shafts **21-11-30**
 Tube shaft **✓** Screw shafts **24-12-30 19-1-31** Propeller **24-12-30**
 Stern tube **10-12-30** Engine and boiler seatings **ENR** Engines holding down bolts **3-2-31**

Completion of fitting sea connections **ENR**
 Completion of pumping arrangements **10-2-31** Boilers fixed **2-2-31** Engines tried under steam **27-2-31**

Main boiler safety valves adjusted **13-2-31** Thickness of adjusting washers **Portals P 5/16 S 3/32 Bentalls P 3/8 S 3/32 Standalls P 3/4 S 3/32**
 Crank shaft material **9. steel** Identification Mark **LLOYDS N°939 L.C.D. 2-12-30** Thrust shaft material **9. steel** Identification Mark **LLOYDS N°4197 L.C.D. 30-12-30**

Intermediate shafts, material **9. steel** Identification Marks **LLOYDS N°4249 L.C.D. 24-12-30** Tube shaft, material **✓** Identification Mark **✓**
 Screw shaft, material **9. steel** Identification Mark **LLOYDS N°4249 L.C.D. 24-12-30** Steam Pipes, material **Steel** Test pressure **570lb** Date of Test **23-12-30**

Is an installation fitted for burning oil fuel **no** Is the flash point of the oil to be used over 150°F. **✓**
 Have the requirements of the Rules for the use of oil as fuel been complied with **✓**
 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 **no** If so, state name of vessel **✓**

General Remarks (State quality of workmanship, opinions as to class, &c.)
 The materials and workmanship are good.
 The machinery has been constructed under special survey in accordance with the Rules, satisfactorily fitted in the vessel, tried under steam and found good.
 It is eligible in my opinion for classification and the Record **FLMC 2, 31**

Glasgow

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

The amount of Entry Fee ... £ **6** : - : } When applied for, **9/3/31**
 Special ... £ **100** : **6** : }
 Donkey Boiler Fee ... £ : : } When received, **11/3/31**
 Travelling Expenses (if any) £ : : }

S. Davis J. J. Batt.
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **GLASGOW 10 MAR 1931**

Assigned **FLMC 2, 31** **J.S.**

CERTIFICATE WRITTEN



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