

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 1943 When handed in at Local Office 22-2-43 Port of GLASGOW  
 No. in Survey held at GLASGOW Date, First Survey 14th Dec 1941 Last Survey 16th Dec 1943  
 Reg. Book on the "AIRSPRITE" (Number of Visits 57)  
 Built at GLASGOW By whom built BLYTHWOOD SB CO. LD. Yard No. 72 When built 1943  
 Engines made at -DO- By whom made DAVID ROWAN & CO. LD. Engine No. 1101 When made 1943  
 Boilers made at -DO- By whom made -DO- Boiler No. 1101 When made 1943  
 Registered Horse Power - Owners THE ADMIRALTY Port belonging to LONDON  
 Nom. Horse Power as per Rule 162 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  
 Dia. of Cylinders 15"-25 1/2"-41" Length of Stroke 30" No. of Cylinders 3 No. of Cranks 3  
 Crank shaft, dia. of journals as per Rule 8.165" as fitted 8 1/2" Crank pin dia. 8 1/2" Crank webs Mid. length breadth 16 1/2" Thickness parallel to axis 5 3/8"  
 Intermediate Shafts, diameter as per Rule 7.77" as fitted 8" Thrust shaft, diameter at collars as per Rule 8.165" as fitted 8 1/2"  
 Tube Shafts, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 8.567" as fitted 8 7/8" Is the {tube screw} shaft fitted with a continuous liner {YES  
 Bronze Liners, thickness in way of bushes as per Rule .556" as fitted 9/16" Thickness between bushes as per Rule .417" as fitted 42" 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 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  
 at NO If so, state type Length of Bearing in Stern Bush next to and supporting propeller 3'-0"  
 Propeller, dia. 9'-6" Pitch 11'-6" No. of Blades 4 Material C.I. whether Moveable NO Total Developed Surface 31.5 sq. feet  
 Feed Pumps worked from the Main Engines, No. Diameter Stroke Can one be overhauled while the other is at work YES  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 3/4" Stroke 15" Can one be overhauled while the other is at work YES  
 Feed Pumps No. and size 2 @ 7" x 5" x 18" Pumps connected to the Main Bilge Line No. and size 2 @ 7 1/2" x 7" x 15"  
 How driven Steam How driven Steam  
 Ballast Pumps, No. and size none Lubricating Oil Pumps, including Spare Pump, No. and size  
 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 1 @ 2 1/2" in E.R. 2 @ 2" in B.R. and 2 @ 2" oil line  
 In Pump Room YES In Holds, &c. YES

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 4" Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size 2 @ 3" 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 Below  
 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 YES How are they protected YES  
 What pipes pass through the deep tanks YES 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 YES

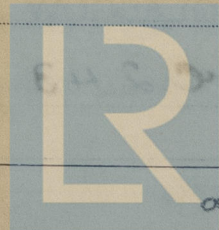
MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2624 sq. ft.  
 Which Boilers are fitted with Forced Draft Both Which Boilers are fitted with Superheaters None  
 No. and Description of Boilers 2 SE Working Pressure 190 lb.  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? YES  
 IS A DONKEY BOILER FITTED? NO If so, is a report now forwarded? YES  
 Can the donkey boiler be used for domestic purposes only YES  
 PLANS. Are approved plans forwarded herewith for Shafting YES Main Boilers YES Auxiliary Boilers YES Donkey Boilers YES  
 (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 List attached.

The foregoing is a correct description.

For David Rowan & Co. Ltd.  
 Arch. N. Grierson, Manufacturer.



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Lloyd's Register

003937-003947-0259



Dates of Survey while building  
During progress of work in shops - - 1941 Dec 4 8 25 1942 Jan 5 7 Feb 6 16 Mar 16 19 31 Apr 15 22 May 4 8 14 28 Jun 1 11 18  
27 July 1 8 10 13 14 17 23 29 Aug 4 13 14 17 28 31 Sep 1 3 4 7 11 25 29 30 Oct 5 23 30 Nov 2 23  
During erection on board vessel - - - Dec 15 19 1943 Jan 6 11 15 18 25 28 29 Feb 16  
Total No. of visits 57

Dates of Examination of principal parts - Cylinders 4-5-42 Slides 11-6-42 Covers 4-5-42  
Pistons 11-6-42 Piston Rods 11-6-42 Connecting rods 17-7-42  
Crank shaft 8-7-42 Thrust shaft 5-10-42 Intermediate shafts 5-10-42  
Tube shaft - Screw shaft 7-9-42 Propeller 30-9-42  
Stern tube 30-10-42 Engine and boiler seatings 23-11-42 Engines holding down bolts 18-1-43  
Completion of fitting sea connections 15-12-42  
Completion of pumping arrangements 29-1-43 Boilers fixed 21-9-43 Engines tried under steam 16-2-43  
Main boiler safety valves adjusted 29-1-43 Thickness of adjusting washers P 3/8" p+a. S 5/16" 3/8"  
Crank shaft material S.M. Steel Identification Mark 11729 ATB Thrust shaft material S.M. Steel Identification Mark 11202 ATB  
Intermediate shafts, material S.M. Steel Identification Marks 11202 ATB Tube shaft, material - Identification Mark -  
Screw shaft, material S.M. Steel Identification Mark 11202 ATB Steam Pipes, material Steel Test pressure 335 lb Date of Test 1942/3  
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 - 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 "NASPRITE" 46. Rpt. No 63500

General Remarks (State quality of workmanship, opinions as to class, &c.) This machinery has been built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. It has been satisfactorily installed in the vessel, tested under working conditions and, in my opinion, is eligible to be classed with record + LMC 2, 43 and notation CL

NOTE:- The following steam pipes are made of Bessemer steel and the flanges have been stamped accordingly:-  
2- 4 1/2" O.D. 6 WG H<sup>os</sup> 100, 2- 4 1/2" O.D. 6 WG H<sup>os</sup> 101  
1- each 4" O.D. 6 WG H<sup>os</sup> 110, 111 & 114 : 2- 3" O.D. 6 WG H<sup>os</sup> 115

22/2/43

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	£ 3 : -	When applied for,
Special	£ 40 : 10	23 FEB 1943
Donkey Boiler Fee	£ :	When received,
Travelling Expenses (if any)	£ :	19

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 23 FEB 1943  
Assigned -/- LMC 2.43 2D.