

RECEIVED

No. 68446

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

10 MAR 1944

Date of writing Report 19... When handed in at Local Office 19... Port of Glasgow

No. in Survey held at Glasgow & Greenock Date, First Survey 6. 4. 43 Last Survey 18. 2. 1944
 Reg. Book (Number of Visits 63)

on the S.S. "GEOLOGIST" Tons (Gross 6201.95 Net 3662.78)

Built at Port Glasgow By whom built Messrs Lithgows Ltd Yard No. 989 When built 1944

Engines made at Glasgow By whom made David Rowan & Co. Ltd Engine No. 1132 When made 1944

Boilers made at -do- By whom made -do- Boiler No. 1132 When made 1944

Registered Horse Power... Owners Maritime S.S. Co. Ltd Port belonging to Liverpool

Nom. Horse Power as per Rule 524 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes

Trade for which vessel is intended Foreign

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

Dia. of Cylinders 27", 43", 77" Length of Stroke 54" No. of Cylinders 3 No. of Cranks 3

Crank shaft, dia. of journals as per Rule 15.29" Crank pin dia. 15.5" Crank webs Mid. length breadth 23" Thickness parallel to axis 9.5"
as fitted 15.8" Mid. length thickness 9.7" shrunk Thickness around eye-hole 7.5" x 7.6"

Intermediate Shafts, diameter as per Rule 14.56" Thrust shaft, diameter at collars as per Rule 15.29"
as fitted 14.5" as fitted 15.8"

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 16.102" Is the tube shaft fitted with a continuous liner Yes
as fitted as fitted 16.8" screw

Bronze Liners, thickness in way of bushes as per Rule .792" Thickness between bushes as per Rule .594" Is the after end of the liner made watertight in the
as fitted .8" as fitted .4" 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 Yes Length of Bearing in Stern Bush next to and supporting propeller 6'-2"

Propeller, dia. 18'-6" Pitch 18'-6" No. of Blades 4 Material C.I. whether Moveable Yes Total Developed Surface 110 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 4.75" Stroke 24" Can one be overhauled while the other is at work Yes

Feed Pumps { No. and size 2 @ 10.5" - 8" x 24" Pumps connected to the { No. and size Ballast Pumps: General Service 10.5" x 8" x 24"
 How driven Steam Main Bilge Line { How driven Steam Steam

Ballast Pumps, No. and size { One 8" centrifugal Lubricating Oil Pumps, including Spare Pump, No. and size ✓
One @ 10.5" - 13" x 24"

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 2 @ 3.5", one @ 2.5" Eng Room, 2 @ 3.5" Stoker hold
 In Pump Room ✓ In Holds, &c. No 1 - 2 @ 3.5"; No 2 - 2 @ 3.5"; No 3 - 2 @ 3.5"; Deep Tank No 4 - 2 @ 3.5"
No 5 - 2 @ 3.5"; No 6 - hold well one @ 3"; Tunnel well one @ 3"

Main Water Circulating Pump Direct Bilge Suctions, No. and size One @ 10" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size One @ 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, but main inlet on reserve Are they fitted with Valves or Cocks Both

Are they fixed sufficiently high on the ship's side to be seen without lifting the stoker hold 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 Fore hold suction How are they protected Wood bearings

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 No worked from ✓

MAIN BOILERS, &c.—(Letter for record (r)) Total Heating Surface of Boilers 8208.4

Which Boilers are fitted with Forced Draft None Which Boilers are fitted with Superheaters None

No. and Description of Boilers Two D.E. multitubular Working Pressure 210 LBS/SQ"

IS A REPORT ON MAIN BOILERS NOW FORWARDED? Yes

IS A DONKEY BOILER FITTED? Yes If so, is a report now forwarded? Yes

Can the donkey boiler be used for domestic purposes only No

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

(If not state date of approval)

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

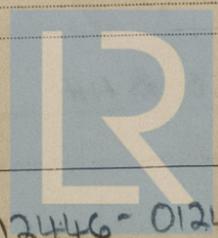
SPARE GEAR.

Has the spare gear required by the Rules been supplied Yes

State the principal additional spare gear supplied List attached

The foregoing is a correct description.
 For David Rowan & Co. Ltd
 Arch. W. Drummond

Manufacturer.



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Lloyd's Register Foundation

012446-012459-0128

Dates of Survey while building:

 During progress of work in shops: 1943 Apr 6-20 May 11-21 Jun 4-11 15-22 July 28-30 Aug 5-10 16-18 23-25 26-27 Sep 9-10 15-16 17-21 29 Oct 8-11 15-18 25-28 Nov 1-2 10-18 22-23 Dec 1-6 9-14 21-27 28-29 1944 Jan 6-10 17-21 27-28 29 Feb 1

 During erection on board vessel: (GREENOCK) (1943) DEC 4 (1944) JAN 21-24 28 FEB 1-4 8 11 16 18

 Total No. of visits: 63

Dates of Examination of principal parts:

 Cylinders 26-8-43 Slides 26-8-43 Covers 26-8-43

 Pistons 9-9-43 Piston Rods 26-8-43 Connecting rods 28-7-43

 Crank shaft 25-8-43 Thrust shaft 16-8-43 Intermediate shafts 18-10-43

 Tube shaft ✓ Screw shaft 18-10-43 Propeller 2-11-43

 Stern tube 22-11-43 Engine and boiler seatings 9.12.43 Engines holding down bolts 24.1.44

 Completion of fitting sea connections 9.12.43

 Completion of pumping arrangements 8.2.44 Boilers fixed 21.1.44 Engines tried under steam P. 5' 8.2.44

 Main boiler safety valves adjusted 8.2.44 Thickness of adjusting washers PORT BAR 5 1/16" STAR 5 1/4" DON 5 1/32"

 Crank shaft material S.M. Steel Identification Mark 12308 N.K. Thrust shaft material S.M. Steel Identification Mark 12308 A.J.B.

 Intermediate shafts, material S.M. Steel Identification Marks 12308 J.S. Tube shaft, material ✓ Identification Mark ✓

 Screw shaft, material S.M. Steel Identification Mark 12308 J.S. Steam Pipes, material Steel Test pressure 630 LBS/10" Date of Test Jan'y, 1944

 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 War Emergency only If so, have the requirements of the Rules been complied with See approved plans

 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 "PROSPECTOR" Glasgow Report No 67793

General Remarks (State quality of workmanship, opinions as to class, &c. This machinery has been built under special survey in accordance with the Rules & approved plans, and the materials and workmanship are good. It has been satisfactorily installed in the vessel, tested under working conditions and, in our opinion, is eligible to be classed in the Register Book with record S.L.M.C. 2.44. & notation C.L.

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

The amount of Entry Fee	£ 6 : 0	When applied for,
Special <i>£60-80-19-0</i>	£ 101 : 4	<i>16/3/44</i>
Donkey Boiler Fee	£ 8 : 6	When received,
Travelling Expenses (if any)	£ : :	19

James Stevenson & M. Caldwell
 Engineer Surveyors to Lloyd's Register of Shipping.

GLASGOW - 7 MAR 1944

Committee's Minute
 Assigned *-1- LMC 8.44*

