

Rpt. 4  
RECEIVED  
13 MAR 1944

No. 68146

# 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 524 Owners Shaw's 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 15.29" as per Rule 15.29" Crank pin dia. 15.5" Crank webs 23" Mid. length breadth 9.8" Thickness parallel to axis 9.8"  
as fitted 15.8" as fitted 15.5" as fitted 9.8" as fitted 9.8" Thickness around eye-hole 7.12" x 7.16"  
Intermediate Shafts, diameter 14.56" as per Rule 15.29" Thrust shaft, diameter at collars 15.8" as fitted 15.8"  
as fitted 14.8" as fitted 15.8"  
Tube Shafts, diameter 16.102" as per Rule 16.102" Is the tube shaft fitted with a continuous liner Yes  
as fitted 16.8" as fitted 16.8"  
Screw Shaft, diameter 16.8" as per Rule 16.8"  
as fitted 16.8"  
Bronze Liners, thickness in way of bushes .792" as per Rule .594" Thickness between bushes .3" as fitted .3" Is the after end of the liner made watertight in the propeller boss 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 4 3/4" Stroke 24" Can one be overhauled while the other is at work Yes  
Bilge Pumps worked from the Main Engines, No. 2 Diameter 4 3/4" Stroke 24" Can one be overhauled while the other is at work Yes  
Feed Pumps { No. and size 2 @ 10 1/2" - 8" x 24" Pumps connected to the Main Bilge Line { No. and size Ballast Pumps: General Service  
How driven Steam How driven Steam Steam  
Ballast Pumps, No. and size One 8" centrifugal Lubricating Oil Pumps, including Spare Pump, No. and size Yes  
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 2 @ 3 1/2", one @ 2 1/2" Eng Room, 2 @ 3 1/2" Stoker hold  
In Pump Room Yes In Holds, &c. No 1-2 @ 3 1/2", No 2-2 @ 3 1/2", No 3-2 @ 3 1/2", No 4-2 @ 3 1/2"  
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 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 For hold suction How are they protected Wood bearings  
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 No worked from Yes

MAIN BOILERS, &c.—(Letter for record (r)) Total Heating Surface of Boilers 8208 1/2  
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 If so, is a report now forwarded? Yes  
IS A DONKEY BOILER FITTED? 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 Yes Donkey Boilers Yes  
(If not state date of approval)  
Superheaters Yes General Pumping Arrangements Yes Oil fuel Burning Piping Arrangements Yes

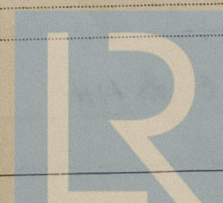
## SPARE GEAR.

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. H. 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 26-31 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  
During erection on board vessel - - Feb 1  
(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 8-2-44  
Main boiler safety valves adjusted 8-2-44 Thickness of adjusting washers PORT BLK 5 5/16" 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/SQ IN 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.

The amount of Entry Fee ... £ 6 : 0 : 0 When applied for,  
Special 460/80-19-0 ... £ 101 : 4 : 16/3/1944  
Donkey Boiler Fee ... £ 8 : 6 :  
Travelling Expenses (if any) £ : : When received, 19

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

Committee's Minute  
Assigned -1- Linc 8.44