

Part of Rpt. 4b.
MAY 1944

REPORT ON OIL ENGINE MACHINERY.

No. 22688.

Received at London Office

Date of writing Report **11th MAY 1944** When handed in at Local Office **12th MAY 1944** Port of **GREENOCK**

No. in Survey held at **GREENOCK** Date, First Survey **22nd APRIL 1943** Last Survey **5th May 1944**
 Reg. Book **5952** on the **Single** Screw vessel **TREVIDER** Number of Visits **44**
Triple Tons Gross **7376**
Quadruple Tons Net **5133**

Built at **PORT GLASGOW** By whom built **LITHGOWS L^o** Yard No. **986** When built **1944**
 Engines made at **GLASGOW** By whom made **HARLAND & WOLFF L^o** Engine No. **82462/M** When made **1944**
 Donkey Boilers made at **GREENOCK** By whom made **JOHN G. KINCAID CO L^o** Boiler No. **1157** When made **1944**
 Brake Horse Power **3300** Owners **HAIN STEAMSHIP CO L^o** Port belonging to **London**
 Nom. Horse Power as per Rule **490** Is Refrigerating Machinery fitted for cargo purposes **No** Is Electric Light fitted **Yes**
 Trade for which vessel is intended **OPEN SEA SERVICE**

2 or 4 stroke cycle **Single or double acting**

Maximum pressure in cylinders
 Mean Indicated Pressure
 Diameter of cylinders
 Length of stroke
 No. of cylinders
 No. of cranks
 Position of bearings, adjacent to the Crank, measured from inner edge to inner edge
 Is there a bearing between each crank
 Revolutions per minute
 Flywheel dia.
 Weight
 Means of ignition
 Kind of fuel used
 Rank of Shaft, { Solid forged dia. of journals as per Rule
 Semi built as fitted
 All built
 Crank pin dia.
 Crank Webs
 Mid. length breadth
 Mid. length thickness
 Thickness parallel to axis
 Thickness around eye-hole
 Flywheel Shaft, diameter as per Rule as fitted
 Intermediate Shafts, diameter as per Rule as fitted
 Thrust Shaft, diameter at collars as per Rule as fitted
 Propeller Shaft, diameter as per Rule as fitted
 Screw Shaft, diameter as per Rule as fitted
 Is the tube screw shaft fitted with a continuous liner
 Bronze Liners, thickness in way of bushes as per Rule as fitted
 Thickness between bushes as per Rule as fitted
 Is the after end of the liner made watertight in the propeller boss
 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
 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
 If so, state type
 Length of Bearing in Stern Bush next to and supporting propeller
 Propeller, dia. Pitch No. of blades Material whether Moveable Total Developed Surface sq. feet
 Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication
 Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled or lagged with non-conducting material
 If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine
 Cooling Water Pumps, No. **1 - Main eng. 150 ton/hr**
2 - Steam 200 ton/hr Is the sea suction provided with an efficient strainer which can be cleared within the vessel **Yes**
 Bilge Pumps worked from the Main Engines, No. **None** Diameter **✓** Stroke **✓** Can one be overhauled while the other is at work **✓**
 Pumps connected to the Main Bilge Line { No. and Size **1 @ 100 ton/hr ✓ 1 @ 170 ton/hr ✓**
 How driven **Steam**
 Is the cooling water led to the bilges **No** If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping arrangements
 Ballast Pumps, No. and size **1 @ 170 ton/hr** Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size **1 - 100 ton/hr ✓ 2 - 100 ton/hr ✓**
 Are two independent means arranged for circulating water through the Oil Cooler **Yes** Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces **Two @ 3" three @ 2 1/2" tunnel well one @ 2 1/2"** In Pump Room **✓**
 Holds, &c. **N^o 1. 2 @ 3" N^o 2. 2 @ 3 1/2" N^o 3. 2 @ 3" N^o 4. 2 @ 3" Deep tank 2 @ 2 1/2"**
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **Two @ 5" ✓**
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes **Yes** Are the Bilge Suctions in the Machinery Spaces
 fitted 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 platform 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**
 Do all pipes pass through the bunkers **✓** How are they protected **✓**
 Do all pipes pass through the deep tanks **For hold suction ✓** 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 **Access from U.D.**
 On a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork **✓**

SEE GLASGOW REPORT No 68212

Main Air Compressors, No. **One** No. of stages **two** Diameters **4 3/4 & 1 1/4** Stroke **8"** Driven by **Steam**
 Auxiliary Air Compressors, No. **✓** No. of stages **✓** Diameters **✓** Stroke **✓** Driven by **✓**
 Small Auxiliary Air Compressors, No. **✓** No. of stages **✓** Diameters **✓** Stroke **✓** Driven by **✓**
 What provision is made for first Charging the Air Receivers **Steam compressor above**
 Scavenging Air Pumps, No. **✓** Diameter **✓** Stroke **✓** Driven by **✓**
 Auxiliary Engines crank shafts, diameter as per Rule as fitted **Spawick Cord No 9750 17/6/43** Position **Engine room platform**
 Have the Auxiliary Engines been constructed under special survey **✓** Is a report sent herewith **✓**



AIR RECEIVERS: - Have they been made under survey... *yes* ✓ State No. of Report or Certificate
 Is each receiver, which can be isolated, fitted with a safety valve as per Rule... *yes* ✓
 Can the internal surfaces of the receivers be examined and cleaned... *yes* ✓
 Is a drain fitted at the lowest part of each receiver... *yes* ✓
Injection Air Receivers, No. *✓* Cubic capacity of each *✓* Internal diameter *✓* thickness *✓*
 Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure by Rules *✓*
Starting Air Receivers, No. *One* ✓ Total cubic capacity *750 cu ft.* ✓ Internal diameter *6'-4"* ✓ thickness *1/32"* ✓
 Seamless, lap welded or riveted longitudinal joint *TP DBS.* Material *SHS* Range of tensile strength *29/33 tons* Working pressure by Rules *368 lb* Actual *356 lb* ✓

IS A DONKEY BOILER FITTED? *yes* (✓) If so, is a report now forwarded? *yes* ✓
 Is the donkey boiler intended to be used for domestic purposes only... *no* ✓
PLANS. Are approved plans forwarded herewith for Shafting... *GLS. of N° 68212* Receivers *29-5-42* Separate Fuel Tanks *1-4-43*
 Donkey Boilers *8-5-42* General Pumping Arrangements *25-11-42* Pumping Arrangements in Machinery Space *9-2-43*
 Oil Fuel Burning Arrangements *16-6-43*

SPARE GEAR.

Has the spare gear required by the Rules been supplied
 State the principal additional spare gear supplied
See separate list ✓

The foregoing is a correct description.
 For JOHN G. WINCAID & CO. LIMITED.
W. Cairns Director. Manufacturer.

Dates of Survey while building
 During progress of work in shops - - (1943) APRIL 22-29. MAY 11-13. JUNE 23-29. 30. JULY 21-28. AUG. 2-14-13. (1944) JAN. 25-26-28-31. FEB 28-9-11
 During erection on board vessel - - 24-25-29. MAR. 1-3-4. 15-21-30-31. APRIL 4-6-7-10-12-13-24-25-28-30. MAY 1-3-5.
 Total No. of visits *44.*

Dates of Examination of principal parts - Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓
 Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts ✓ Tube shaft ✓
 Screw shaft ✓ Propeller ✓ Stern tube ✓ Engine seatings *29-2-44* Engines holding down bolts *28-4-44*
 Completion of fitting sea connections *8-2-44* Completion of pumping arrangements *3-5-44* Engines tried under working conditions *3-5-44*
 Crank shaft, Material ✓ Identification Mark ✓ Flywheel shaft, Material ✓ Identification Mark ✓
 Thrust shaft, Material ✓ Identification Mark ✓ Intermediate shafts, Material ✓ Identification Marks ✓
 Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material ✓ Identification Mark ✓
 Identification Marks on Air Receivers *N° 2357*
110 YDS TEST
556 lb / sq"
WR 356 lb / sq"
C.H. 22-10-43

Is the flash point of the oil to be used over 150° F. *yes* ✓
 Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *yes* ✓
 Description of fire extinguishing apparatus fitted *Steam in ER*
 Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *Not emergency only* If so, have the requirements of the Rules been complied with *See app' 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 *"Jouvanion" GLS. of N° 67774. GTR. of N° 22560.*

General Remarks (State quality of workmanship, opinions as to class, &c.)
The machinery & boilers of this vessel have been built under special survey in accordance with the Rules & approved plans. They have been efficiently installed in the vessel & tested out on a short sea trial with satisfactory results. The installation is eligible in my opinion to be classed in the Society's Register Book with Record.
+ LMC 5-44 & Notation "Part shaft CL. 2 DBn 150 lbs"
For particulars not on this report please see Glasgow of N° 68212

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

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|------------------------------|-----------|-------------------|----------------------------|
| The amount of Entry Fee | £ 32 : 17 | When applied for, | 12 th MAY 1944. |
| Special | £ | | |
| Donkey Boiler Fee | £ 19 : 10 | When received, | 19 |
| AIR RECEIVER | | | |
| Travelling Expenses (if any) | £ 4 : 4 | | |

Charles J. Hunt
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW** 16 MAY 1944
 Assigned - 1- Rule 5.44 air lug 2 DB 150 lbs.

