

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office 18 JAN 1935

Date of writing Report 17th Dec 1934 When handed in at Local Office 17th Dec 1934 Port of Montreal
 No. in Survey held at Lanjon, S.G. Date, First Survey 13th Oct Last Survey 17th Nov 1934
 Reg. Book. on the Steel double screw Ferry "Dartmouth" Tons { Gross 531.11
 Net 247.42
 Built at Lanjon, S.G. By whom built Davie Shipbuilding & Repairing Co. Ltd. Yard No. 510 When built 1934
 Engines made at Glydebank. By whom made Archibison Blair & Co. Ltd. Engine No. 190 When made 1934
 Boilers made at Glasgow By whom made David Rowan & Co. Ltd. Boiler No. 401 When made 1934
 Registered Horse Power Owners Dartmouth Ferry Commission Port belonging to Halifax, N.S.
 Nom. Horse Power as per Rule 98 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended Ferry purposes.

ENGINES, &c.—Description of Engines Two Compound, Coupled together Revs. per minute 154
 Dia. of Cylinders 12" - 24" Length of Stroke 18" No. of Cylinders 4 No. of Cranks 4
 Crank shaft, dia. of journals as per Rule app. 2-8-34 Crank pin dia. 6 1/2" Crank webs Mid. length breadth 12 3/4" Thickness parallel to axis 4 5/16"
 as fitted 6 1/2" Mid. length thickness 4 3/4" Thickness around eye-hole 2 3/16"
 Intermediate Shafts, diameter as per Rule app. 2-8-34 Thrust shaft, diameter at collars as per Rule app. 2-8-34
 as fitted 6 3/4" as fitted 6 1/2"
 Tube Shafts, diameter as per Rule none Screw Shaft, diameter as per Rule app. 2-8-34 Is the tube shaft filled with a continuous liner yes
 as fitted none as fitted 6 5/8" as fitted screw
 Bronze Liners, thickness in way of bushes as per Rule 9/16" Thickness between bushes as per Rule 1/2" Is the after end of the liner made watertight in the
 as fitted 9/16" as fitted 1/2" 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 continuous
 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 ✓ If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 27 1/4"
 Propeller, dia. 6' 5" Pitch 8' 0" No. of Blades 4 Material 6.5 whether Movable yes Total Developed Surface 14 sq. feet
 Suction 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. none Diameter ✓ Stroke ✓ Can one be overhauled while the other is at work ✓
 Feed Pumps { No. and size One 4" dia. 6" stroke + 1 1/2" stroke Pumps connected to the { No. and size One 7 1/2" x 5 1/2" x 10"
 How driven Steam driven (Main) Main Bilge Line { How driven Steam driven
 Ballast Pumps, No. and size One 7 1/2" x 5" x 10" 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 1/2" - 2" dia. In Holds, &c. 2 1/2" 3-2" 2-2" in plan
 In Pump Room ✓ See L.L. 1/2/35.

Main Water Circulating Pump Direct Bilge Suctions, No. and size One 3 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1 1/2" Gector 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 Valves, Blowdowns/ cocks
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stowhold plates yes Are the Overboard Discharges above or below the deep water line above
 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 Bilge & Ballast How are they protected By steel trunk
 What pipes pass through the deep tanks 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 ✓ Is it fitted with a watertight door ✓ worked from ✓

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2460 sq
 Is Forced Draft fitted no No. and Description of Boilers 2 - Range type Working Pressure 120 lbs.
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? Copy of report
 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 yes Main Boilers ✓ Auxiliary Boilers ✓ Donkey Boilers ✓
 (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
2 connecting rods, 2 piston rods, 2 propeller bosses, 2 tail shafts, 4 propeller blades, 1 set coupling bolts, 2 main bearing bolts, spare piston rings for each piston, 100 boiler tubes, 6 stay tubes, 12 condenser tubes, 24 feed pump valves.

The foregoing is a correct description,
 DAVIE SHIPBUILDING & REPAIRING COMPANY, Limited
 per. Alex. G. Campbell Manufacturer.



1934 Aug. 29 Sept. 3. 10. 18. 27 Oct. 4. 8. 10. 12. 15. 22.
 During progress of work in shops - - - }
 11. *Initial visits*
 Dates of Survey while building }
 During erection on board vessel - - - } 1st & 13th Oct. 12th & 17th Nov. 1934
 Total No. of visits 4.

Dates of Examination of principal parts—Cylinders 18-9-34 Slides 10-9-34 Covers 18-9-34
 Pistons 18-9-34 Piston Rods 10-9-34 Connecting rods 10-9-34
 Crank shaft 10-9-34 Thrust shaft 10-10-34 Intermediate shafts 18-9-34
 Tube shaft ✓ Screw shaft 18-9-34 Propeller 10-10-34
 Stern tube 13-10-34 Engine and boiler seatings 13-10-34 Engines holding down bolts 12-11-34
 Completion of fitting sea connections 13-10-34
 Completion of pumping arrangements 12-11-34 Boilers fixed 12-11-34 Engines tried under steam 17-11-34
 Main boiler safety valves adjusted 17-11-34 Thickness of adjusting washers Port boiler 7/16 Star boiler 7/16
 Crank shaft material *L* Identification Mark 5148 Thrust shaft material *L* Identification Mark 5148
 Intermediate shafts, material *L* Identification Marks 5148 Tube shaft, material ✓ Identification Mark ✓
 Screw shaft, material *L* Identification Mark 5148 Steam Pipes, material *Copper* Test pressure 240 lbs Date of Test 12-11-34
 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 ✓ 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.)

This machinery has been built under special survey at Glasgow as per Glasgow Reports N° 55103 & 54997. It has now been fitted on board under special survey in accordance with the Rules and approved plans and the workmanship and materials are good. The engines and boilers have been tried under steam and found satisfactory and the safety valves adjusted under the approved working pressure of 120 lbs. per sq. inch. They are in good and safe working condition and eligible, in my opinion to receive the notation + L.M.C. 11-34.

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

The amount of Entry Fee ... £ 90⁰⁰ :
 Special ... £ :
 Donkey Boiler Fee ... £ :
 Travelling Expenses (if any) £ :
 When applied for, 17th Dec 1934
 When received, 31st Dec 1934

Geo. Allan
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 26 FEB 1935
 Assigned + L.M.C. 11. 34 C.L.