

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

-4 JUL 1934

Date of writing Report 24-6-34 When handed in at Local Office 26-6-34 Port of Glasgow
 No. in Survey held at Glasgow & Bowling Date, First Survey 3-2-34 Last Survey 21-6-1934
 Reg. Book. on the S.S. "Broom" (Number of Visits 28)
 Built at Bowling By whom built Scott & Sons Yard No. 325 When built 1934
 Engines made at Glasgow By whom made Aitchison Blair & Co. Engine No. 186 When made 1934
 Boilers made at Glasgow By whom made D. Rowan & Co. Boiler No. 392 When made 1934
 Registered Horse Power 48-5-1 Owners Kirkcaldy S.S. Co. Ltd. Port belonging to Kew
 Nom. Horse Power as per Rule 79 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes No
 Trade for which Vessel is intended Coasting

ENGINES, &c.—Description of Engines Triple Expansion Revs. per minute 130
 Dia. of Cylinders 11 1/4" - 20" - 32" Length of Stroke 24" No. of Cylinders 3 No. of Cranks 3
 Crank shaft, dia. of journals as per Rule 30-12-33 Crank pin dia. 6 5/8" Crank webs 13 1/8" Thickness parallel to axis 4 5/16"
 Intermediate Shafts, diameter as per Rule 30-12-33 Thrust shaft, diameter at collars as per Rule 30-12-33
 Tube Shafts, diameter as per Rule 30-12-33 Screw Shaft, diameter as per Rule 30-12-33 Is the { tube } shaft fitted with a continuous liner { yes }
 Bronze Liners, thickness in way of bushes as per Rule 19/32" Thickness between bushes as per Rule 9/16" 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 one length
 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 light
 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 shaft no
 Propeller, dia. 9'-0" Pitch 9'-3" No. of Blades 4 Material O.C. whether Moveable yes Total Developed Surface 28 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2" Stroke 12 1/2" Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2" Stroke 12 1/2" Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 1-6 1/4" x 5" x 6" Pumps connected to the { No. and size 1-6 1/4" x 5" x 6" (Ballast pump) }
 How driven Steam Main Bilge Line How driven Steam
 Ballast Pumps, No. and size 1-6 1/4" x 5" x 6" Lubricating Oil Pumps, including Spare Pump, No. and size none
 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 yes
 In Pump Room none In Holds, &c. 3 - 2 1/4"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-2 1/2" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-2 1/2"
 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 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 Hold sections, & fore peak How are they protected Wood ceiling
 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 none Is it fitted with a watertight door yes worked from yes

MAIN BOILERS, &c.—(Letter for record 8) Total Heating Surface of Boilers 1489 sq. ft.
 Is Forced Draft fitted no No. and Description of Boilers 1 - Multitubular Working Pressure 205
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes See Report N° 54408
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes
 Is the donkey boiler intended to 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 2 - propeller Blades

The foregoing is a correct description,

AITCHISON, BLAIR, LIMITED

Manufacturer.

Lloyd's Register Foundation

1934 Feb: 13 Mar: 18 13 22 28 Apr: 3 11 19 25 May: 2 10 16 18
 During progress of work in shops --
 Dates of Survey while building
 During erection on board vessel --
 Total No. of visits 28
 Dates of Examination of principal parts—Cylinders 13-2-34 di Slides 25-4-34 di Covers 13-2-34 di
 Pistons 1-3-34 di Piston Rods 1-3-34 di Connecting rods 1-3-34 di
 Crank shaft 8-3-34 di Thrust shaft 13-3-34 di Intermediate shafts none
 Tube shaft ✓ Screw shaft 3-4-34 di Propeller 2-5-34 di
 Stern tube 28-3-34 di Engine and boiler seatings 4-5-34 Engines holding down bolts 5-6-34
 Completion of fitting sea connections 17-5-34
 Completion of pumping arrangements 15-6-34 Boilers fixed 8-6-34 Engines tried under steam 21-6-34
 Main boiler safety valves adjusted 15-6-34 Thickness of adjusting washers P 9/32", S 5/16
 Crank shaft material 8 Identification Mark 9383 Thrust shaft material 8 Identification Mark 9428
 Intermediate shafts, material none Identification Marks Tube shaft, material none Identification Mark ✓
 Screw shaft, material 8 Identification Mark 9428 Steam Pipes, material Copper Test pressure 410 Date of Test 8-6-34
 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.) *The machinery of this vessel has been built under special survey in accordance with the approved plans, and the Society's Rules and requirements the materials and workmanship are good, it has been securely fitted on board, and satisfactorily tried under steam, and is in our opinion eligible for the record + L. M. C. 6-34.*

Certificate to be sent to Glasgow.

23/6/34

The amount of Entry Fee ...	£ 2 : -	When applied for
3/5 Special ...	£ 11 : 17	27.6.34
Donkey Boiler Fee ...	£ :	When received
Travelling Expenses (if any) £ :		2.7.34

Jas. Cairns, W. M. S.
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 3 JUL 1934

Assigned + L.M.C. 6, 34

CERTIFICATE WRITTEN