

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

MAY 18 1938

Date of writing Report 14-5-1938 When handed in at Local Office 14-5-1938 Port of Glasgow

No. in Survey held at Glydebank Date, First Survey 23-11-37 Last Survey 18-5-1938
 Reg. Book 18139 on the Single Screw Lug "M.S.C. ARCHER" (Number of Visits 26) Tons { Gross
 Built at Leith By whom built Henry Fotherby & Co. Ltd. Yard No. 265 When built 1938
 Engines made at Glydebank By whom made Aitchison Blair & Co. Engine No. 214 When made 1938
 Boilers made at Glasgow By whom made Barclay Currie & Co. Boiler No. 378 When made 1938
 Registered Horse Power _____ Owners Manchester Ship Canal Co. Port belonging to Manchester
 Nom. Horse Power as per Rule 118 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes
 Trade for which Vessel is intended For towing services on the Manchester Ship Canal

ENGINES, &c.—Description of Engines Compound Revs. per minute _____

Dia. of Cylinders 19 1/2" - 42" Length of Stroke 27" No. of Cylinders 2 No. of Cranks 2
 Crank shaft, dia. of journals as per Rule 11-5-37 Crank pin dia. 8 1/2" Crank webs Mid. length breadth 16" Thickness parallel to axis 5 5/8"
 as fitted 8 1/2" Mid. length thickness 5 5/8" Thickness around eye-hole 3 5/8"
 Intermediate Shafts, diameter as per Rule 11-5-37 Thrust shaft, diameter at collars as per Rule 11-5-37
 as fitted 8 1/8" as fitted 8 1/2"
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 11-5-37 Is the { tube } shaft fitted with a continuous liner { None }
 as fitted None as fitted 9 3/8" as fitted { screw }
 Bronze Liners, thickness in way of bushes as per Rule Thickness between bushes as per Rule Is the after end of the liner made watertight in the
 as fitted ✓ as fitted ✓ propeller boss _____
 If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner None
 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
 shaft No If so, state type Hawthorn Length of Bearing in Stern Bush next to and supporting propeller 40"
 Propeller, dia. 10'-6" Pitch 10'-8" No. of Blades 4 Material C.L. whether Moveable Solid Total Developed Surface 406 sq. feet
 Feed Pumps worked from the Main Engines, No. None Diameter ✓ Stroke 5 1/2" Can one be overhauled while the other is at work ✓
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 4" Stroke 5 1/2" Can one be overhauled while the other is at work ✓
 Feed Pumps { No. and size 2-6" x 7" x 12" Pumps connected to the { No. and size 1-Duplex 6" x 6" x 6" }
 How driven Steam Main Bilge Line How driven Steam
 Ballast Pumps, No. and size None Lubricating Oil Pumps, including spare Pump, No. and size None
 Are two independent means arranged for circulating water through the Oil Cooler None Suctions, connected to both Main Bilge Pumps and Auxiliary
 Bilge Pumps;—In Engine and Boiler Room 1-2" E.R. 1-2" B.R.
 In Pump Room No pump room In Holds, &c. 1-2"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-5" 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
 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
 Are all Sea Connections fitted direct on the skin of the ship _____ Are they fitted with Valves or Cocks _____
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates _____ Are the Overboard Discharges above or below the deep water line
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel _____ Are the Blow Off Cocks fitted with a spigot and brass covering plate
 What Pipes pass through the bunkers _____ How are they protected _____
 What pipes pass through the deep tanks _____ 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
 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 _____ 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 2304 sq. ft.
 Is Forced Draft fitted No No. and Description of Boilers 1-Multitubular Working Pressure 140
 IS A REPORT ON MAIN BOILERS NOW FORWARDED?
 IS A DONKEY BOILER FITTED? 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 _____ Main Boilers _____ Auxiliary Boilers _____ Donkey Boilers _____
 (If not state date of approval)
 Superheaters _____ General Pumping Arrangements _____ Oil fuel Burning Piping Arrangements _____

SPARE GEAR.

Has the spare gear required by the Rules been supplied _____
 State the principal additional spare gear supplied _____

The foregoing is a correct description,
 FOR AND ON BEHALF OF

AITCHISON, BLAIR, LIMITED.

Manufacturer.

Archibald Blair

DIRECTOR



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Lloyd's Register
 Foundation

007496-007505-0066

1937 Nov. 23 Dec. 3 14 23 29 (1938) Jan. 13 20 Feb. 2 9 21 28 Mar. 4 14 22
During progress of work in shops -- 29 31 Apr. 5 8 11 12 13 20 26 29 May 10 13
Dates of Survey while building
During erection on board vessel --
Total No. of visits 222 6

Dates of Examination of principal parts—Cylinders 2-2-38 di Slides 14-12-37 di Covers 14-12-37 di
Pistons 14-12-37 di Piston Rods 21-2-38 di Connecting rods 3-12-37 di
Crank shaft 23-12-37 di Thrust shaft 13-1-38 di Intermediate shafts 13-1-38 di
Tube shaft none Screw shaft 20-1-38 di Propeller 11-4-38 di
Stern tube 21-2-38 di Engine and boiler seatings Engines holding down bolts

Completion of fitting sea connections
Completion of pumping arrangements Boilers fixed Engines tried under steam
Main boiler safety valves adjusted Thickness of adjusting washers
Crank shaft material 8 Identification Mark 809 Thrust shaft material 8 Identification Mark 809
Intermediate shafts, material 8 Identification Marks 809 Tube shaft, material 1 Identification Mark 1
Screw shaft, material 8 Identification Mark 809 Steam Pipes, material Test pressure Date of Test

Is an installation fitted for burning oil fuel 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 70 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, and in my opinion will be eligible for the record & L.M.C. with date when it has been securely fitted on board, and satisfactorily tried under steam.

The machinery has been despatched to Leith

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

The amount of Entry Fee ... £ 3 : 0 : 0 When applied for,
Special 2 1/2 " 10 : 15 : 0 17 MAY 1938
Donkey Boiler Fee ... £ 5 : 18 : 0
Travelling Expenses (if any) £ : : 3/6/38
When received,

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

Committee's Minute GLASGOW 17 MAY 1938

Assigned Deferred.

FRI 1 JUL 1938

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