

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

30 DEC 1936

Date of writing Report 19 When handed in at Local Office 5. 12. 1936 Port of Glasgow.
 No. in Survey held at 6 Bank, Gls. Date, First Survey 5. 6. 36 Last Survey 28-11 1936
 Req. Book on the S. S. "Crossgar" (Number of Visits 34)
 Built at Glasgow By whom built A. V. J. Inglis Yard No. 988 P Tons { Gross 661
 Engines made at Clydebank By whom made Aitchison Blair Engine No. 205 When made 1936
 Boilers made at Glasgow By whom made D. Rowan & Co. Ld Boiler No. B 421 When made 1936
 Registered Horse Power Owners John Kelly Ltd Port belonging to Belfast
 Nom. Horse Power as per Rule 104 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted yes
 Trade for which Vessel is intended Coasting

ENGINES, &c.—Description of Engines Triple expansion Revs. per minute 122
 Dia. of Cylinders 13 1/2 - 23 - 38 Length of Stroke 27 No. of Cylinders 3 No. of Cranks 3
 Crank shaft, d.a. of journals 21-3-36 Crank pin dia. 7 5/8 Crank webs Mid. length breadth 14 1/8 Thickness parallel to axis 5 1/8
 as fitted 7 5/8 Mid. length thickness 6 1/6 shrunk Thickness around eye-hole 3 3/8
 Intermediate Shafts, diameter as per Rule Thrust shaft, diameter at collars as per Rule
 as fitted none as fitted 7 1/2
 Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule
 as fitted 6 1/8 Is the { tube } shaft fitted with a continuous liner { yes
 as fitted 9 1/6 Thickness between bushes as per Rule 1/2 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 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
 No If so, state type Length of Bearing in Stern Bush next to and supporting propeller 34 3/8
 Propeller, dia. 10'-0" Pitch 10'-9" No. of Blades 4 Material C.I. whether Moveable Solid Total Developed Surface 34.8 sq. feet
 Feed Pumps worked from the Main Engines, No. 2 Diameter 2 1/4 Stroke 14 Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 2 1/4 Stroke 14 Can one be overhauled while the other is at work yes
 Feed Pumps { No. and size 1-6" x 4 1/4 x 6" Pumps connected to the { No. and size 1- Ballast 6" x 7" x 8"
 How driven Steam Main Bilge Line How driven Steam
 Ballast Pumps, No. and size 1-6" x 7" x 8" Lubricating Oil Pumps, including Spare Pump, No. and size none
 Are two independent means arranged for circulating water through the Oil Cooler
 Bilge Pumps;—In Engine and Boiler Room 2-2", 1-2 1/4"
 In Pump Room none In Holds, &c. No. 1 Hold 2-2 3/4"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1-4" Independent Power Pump Direct Suctions to the Engine Room Bilges,
 No. and size 1-3" Are all the Bilge Suction Pipes in holds and tanks 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 Cock
 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 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 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 worked from

MAIN BOILERS, &c.—(Letter for record 8) Total Heating Surface of Boilers 1834 sq. ft.
 Is Forced Draft fitted No No. and Description of Boilers 1-Multitubular Working Pressure 200
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 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 21-3-36 Main Boilers yes 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 yes
 State the principal additional spare gear supplied

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

AITCHISON BLAIR, LIMITED.

A. J. Aitchison DIRECTOR.

Manufacturer.



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Lloyd's Register
Foundation

002667-002673-0103

1936 June: 5-11-24-30 July: 6-9 Aug: 10-17-21-26 Sep: 2-9-11-14-21-23 Oct: 2-6-13-16-23-26 Nov: 3
During progress of work in shops - -
Dates of Survey while building
During erection on board vessel - - -
Total No. of visits 34

Dates of Examination of principal parts—Cylinders 17-8-36 *li* Slides 2-10-36 *li* Covers 6-7-36 *li*
Pistons 9-9-36 *li* Piston Rods 10-8-36 *li* Connecting rods 10-8-36 *li*
Crank shaft 24-6-36 *li* Thrust shaft 6-7-36 *li* Intermediate shafts ✓
Tube shaft ✓ Screw shaft 23-9-36 *li* Propeller 14-9-36 *li*
Stern tube 9-9-36 *li* Engine and boiler seatings 5-11-36 Engines holding down bolts 19-11-36
Completion of fitting sea connections 5-10-36
Completion of pumping arrangements 3-28-11-36 Boilers fixed 19-11-36 Engines tried under steam 28-11-36
Main boiler safety valves adjusted 27-11-36 Thickness of adjusting washers $P \frac{13}{32}$ $S \frac{7}{16}$
Crank shaft material 8 Identification Mark 531 Thrust shaft material 8 Identification Mark 439
Intermediate shafts, material ✓ Identification Marks ✓ Tube shaft, material ✓ Identification Mark ✓
Screw shaft, material 8 Identification Mark 439 Steam Pipes, material copper Test pressure 400 ✓ Date of Test 18-11-36
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 *no* 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 *not desired*
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 in our opinion is eligible for the record + L.M.C. 11-36.*

15/12/36.

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 :
Special $\frac{3}{5}$... £ 15 : 12 :
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 7-DEC 1936
When received, 11-12-36

James Cairns, J. Cairns, J.R. Dale.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 8-DEC 1936

Assigned + L.M.C. 11, 36