

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

Date of writing Report 19 When handed in at Local Office 17.6.29 Port of Glasgow
 No. in Survey held at Paisley Date, First Survey 22.10.28 Last Survey 7th June 1929
 Reg. Book. on the Twin Sc. S.S. "RATA" (Number of Visits 11)
 Built at Paisley By whom built Messrs Bow, MacLachlan & Co Ltd No. 481 Tons Gross 974
 Engines made at Paisley By whom made Messrs Bow, MacLachlan Engine No. 3983-4 when made 1929
 Boilers made at Paisley By whom made Messrs Bow, MacLachlan Boiler No. 1191-2 when made 1929
 Registered Horse Power 1200 Owners The Anchor Shipping & Foundry Port belonging to Glasgow NZ
 Nom. Horse Power as per Rule 161 196 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes
 Trade for which Vessel is intended

ENGINES, &c.—Description of Engines Twin Screw Triple Expansion Revs. per minute 136
 Dia. of Cylinders 18½"-22"-34" Length of Stroke 24 No. of Cylinders 3 No. of Cranks 8
 Crank shaft, dia. of journals as per Rule 7.27" Crank pin dia. 7.375" Mid. length breadth 10.875" Thickness parallel to axis 4.75"
 as fitted 7.375" Crank webs Mid. length thickness 4.75" Thickness around eye-hole 3.25"
 Intermediate Shafts, diameter as per Rule 6.735" Thrust shaft, diameter at collars as per Rule 7.07"
 as fitted 6.75" as fitted 7.375"
 Tube Shafts, diameter as per Rule 7.45" Screw Shaft, diameter as per Rule 7.875" Is the tube shaft fitted with a continuous liner yes
 as fitted 7.45" as fitted 7.875"
 Bronze Liners, thickness in way of bushes as per Rule 53.22" Thickness between bushes as per Rule 39" 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 yes
 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 yes
 Propeller, dia. 8'-6" Pitch 10'-3" No. of Blades 4 Material Bronze whether Moveable no Total Developed Surface 28 sq. feet
 Feed Pumps worked from the Main Engines, No. 1 Diameter 2.625" Stroke 12" Can one be overhauled while the other is at work yes
 Bilge Pumps worked from the Main Engines, No. 1 Diameter 2.625" Stroke 12" Can one be overhauled while the other is at work yes
 Feed Pumps No. and size 2 off 8½"-6"x13" Pumps connected to the Main Bilge Line (No. and size 2 off duplex 6"-4½"x6" + 7"-7"x8")
 How driven Steam How driven Steam
 Ballast Pumps, No. and size 1 off 7"-7"x8" Lubricating Oil Pumps, including Spare Pump, No. and size
 Are two independent means arranged for circulating water through the Oil Cooler
 Bilge Pumps;—In Engine and Boiler Room Engine room 2 off 2½" Boiler room 4 off 2½" 2 off 6" off bottom 2½" Tunnel well 2½"
 In Holds, &c. Fore Hold 4 off 2½" + 2 off 6" Aft Hold 2 off 2½"

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 off 6" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 off 3"
 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 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 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
 What Pipes pass through the bunkers Bilge & Ballast How are they protected Steel plate
 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 yes Is it fitted with a watertight door yes worked from Raised Quarter Deck

MAIN BOILERS, &c.—(Letter for record S) Total Heating Surface of Boilers 2.5B 3636
 Is Forced Draft fitted no No. and Description of Boilers 2 Cylinder Marine Return tubular Working Pressure 190 lbs
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes
 PLANS. Are approved plans forwarded herewith for Shafting 27.9.28 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

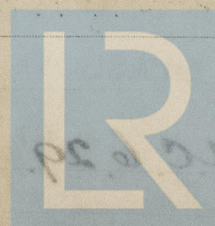
SPARE GEAR. State the articles supplied:
 2 Cast iron Propellers
 1 Propeller shaft
 1 valve spindle
 1 set piston rings & springs
 1 pair top end brasses
 1 pair bottom end brasses
 100 condenser tubes & females
 12 plain boiler tubes
 3 stay tubes
 1 set of suction & del valves for each pump.
 1 air pump bucket rod
 1 impeller
 Lloyds requirements

The foregoing is a correct description,

Bow, MacLachlan & Co., Ltd.

John Baseler

Manufacturer.



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Lloyd's Register Foundation

005337-005343-0030

During progress of work in shops -- 1929 Oct. 22-30 Nov. 6-12-21 Dec. 6-10-13-20-24 (1929) Jan. 7-14-22-25-31 Feb. 4-13-19-21-27 Mar. 11-15-19-25-27
29 Apr. 5-9-12-16-23-30 May 3-6-17-22-29 June 3-11-7

Dates of Survey while building
During erection on board vessel ---
Total No. of visits 18-4
Dates of Examination of principal parts—Cylinders 13-12-28 14-1-29 25-1-29 31-1-29 Slides 7-1-28 Covers 13-12-28
Pistons 7-1-29 Piston Rods 7-1-28 Connecting rods 7-1-28
Crank shaft 25-1-29 14-1-29 Thrust shaft 29-3-28 Intermediate shafts 27-3-29
Tube shaft 27-3-29 Propeller 12-4-29
Stern tube 15-3-29 Engine and boiler seatings 16-4-29 Engines holding down bolts 3-5-29
Completion of fitting sea connections 12-4-29
Completion of pumping arrangements 7-6-29 Boilers fixed 23-4-29 Engines tried under steam 7-6-29
Main boiler safety valves adjusted 3-6-29 Thickness of adjusting washers 29/64 7/16 27/64 3/8 7/16 3/8
Crank shaft material Steel Identification Mark See below Thrust shaft material Steel Identification Mark See below
Intermediate shafts, material Steel Identification Mark See below Tube shaft, material Steel Identification Mark See below
Screw shaft, material Steel Identification Mark See below Steam Pipes, material Steel Test pressure 570 lb. Date of Test 16-5-29
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 ✓
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.) These engines and boilers have been built under special survey in accordance with the Rules and approved plans. They have been properly secured on board, tried under steam with satisfactory results and is eligible in my opinion to have the record of + L.M.C. 6-29 T.S. 6-29 C.L.

It is submitted that this vessel is eligible for THE RECORD. + L.M.C. 6-29 C.L.

Shafting identification marks.

Port crank.	Starb crank	Port Thrust	Starb Thrust
LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.
8203	8204	8210	8208
25-1-29	14-1-29	29-3-29	29-3-29
S.E.M.	S.E.M.	S.E.M.	S.E.M.

Port Screw.	Starb Screw.	Starb Screw.	Intermediate Shafting	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.
LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.	LLOYD'S NO.
8211	8209	8212	8223	8224	8213	8214	8225	8229
27-3-29	27-3-29	27-3-29	27-3-29	27-3-29	27-3-29	27-3-29	27-3-29	27-3-29
S.E.M.	S.E.M.	S.E.M.	S.E.M.	S.E.M.	S.E.M.	S.E.M.	S.E.M.	S.E.M.

The amount of Entry Fee ... £ 3-0-0
Special See attached letter ... £ 40-5-0
Donkey Boiler Fee ... £ 49-0-0
Travelling Expenses (if any) £ :
When applied for, 18 JUN 1929
When received, 20-6-29

G. E. Murdoch
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW

Assigned + L.M.C. 6-29

CERTIFICATE WRITTEN