

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

14 MAY 1930

Date of writing Report 19 When handed in at Local Office 10.5.1930 Port of Glasgow.

No. in Survey held at Glasgow Date, First Survey 27.5.29 Last Survey 3-5.1930  
Reg. Book. on the s.s. "City of Barcelona" (Number of Visits 94.)

Built at Glasgow By whom built Barclay Curle & Co. Ltd. Yard No. 636 Tons Gross 5698  
Engines made at Glasgow By whom made Barclay Curle & Co. Ltd. Engine No. 636 when made 1930  
Boilers made at Glasgow By whom made Barclay Curle & Co. Ltd. Boiler No. 636 when made 1930

Registered Horse Power 1543 RECIP. ENGS Owners The Ellerman Lines Ltd. Port belonging to Liverpool  
Nom. Horse Power as per Rule 1655 EX/TURBO/MOTOR. Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which Vessel is intended

EXHAUST TURBINE IN CONNECTION WITH ELECTRIC MOTOR.

ENGINES, &c.—Description of Engine triple expansion with Caprotti Valve gear. Revs. per minute 86

Dia. of Cylinders 23½-40½-50-50" Length of Stroke 48" No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 14 13/16" Crank pin dia. 15 1/4" Mid. length breadth 23" Thickness parallel to axis 9 1/4"✓  
as fitted 14 13/16" Crank webs 9 1/4" shrunk Thickness around eye-hole 6 1/2"✓

Intermediate Shafts, diameter as per Rule 14 5/32" Thrust shaft, diameter at collars as per Rule 14 7/8"✓  
as fitted 14 5/32" (FROM METROPOLITAN-VECKERS) fitted 14 7/8"✓

Tube Shafts, diameter as per Rule 15 1/4" Is the tube shaft fitted with a continuous liner? yes ✓  
as fitted 15 1/4" Screw Shaft, diameter as per Rule 16 7/8"✓ Is the screw shaft fitted with a continuous liner? yes ✓

Bronze Liners, thickness in way of bushes as per Rule 13 1/6-27/32" Thickness between bushes as per Rule 5/8" Is the after end of the liner made watertight in the propeller boss? yes ✓  
as fitted 13 1/6-27/32" 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? yes ✓ Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft? yes ✓

Propeller, dia. 18'9" Pitch 14'6" No. of Blades 4 Material Bronze whether Moveable yes Total Developed Surface 116 sq. feet

Feed 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 2 @ 8" x 10 1/2" x 22" Pumps connected to the { No. and size 1 @ 9" x 10" x 24", 2 @ 6 1/2" x 7" x 15", 1 @ 10 1/2" x 8" x 22"  
How driven 1 @ 5" x 7" x 12" Main Bilge Line How driven Steam

Ballast Pumps, No. and size 1 @ 9" x 10" x 24" Lubricating Oil Pumps, including Spare Pump, No. and size 1 @ 3 1/2" x 4" x 9"✓

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 ER-2 @ 3 1/2", 2 @ 2 1/2" B.R. 2 @ 3 1/2"✓  
In Holds, &c. N°1-2 @ 2 3/4" N°2-2 @ 3 1/2" N°3-2 @ 2 3/4" N°4-2 @ 2 1/2"✓

Tunnel well 1 @ 2 1/4"✓

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 @ 13" Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 @ 5" - 1 @ 4" 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 lead 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? none ✓ How are they protected? —

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 upper deck ✓

MAIN BOILERS, &c.—(Letter for record (S)) Total Heating Surface of Boilers 7276 sq. ft.✓

Is Forced Draft fitted? yes ✓ No. and Description of Boilers 2 MB, 1 Aux B - SE Working Pressure 265 lb.✓

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes ✓ 25B 1 Aug

IS A DONKEY BOILER FITTED? no ✓ If so, is a report now forwarded? —

PLANS. Are approved plans forwarded herewith for Shafting 23-6-29 Main Boilers 30-4-29 Auxiliary Boilers 30-4-29 Donkey Boilers —  
(If not state date of approval) in machinery 17-9-29 Oil fuel Burning Piping Arrangements —

Superheaters — General Pumping Arrangements Space

SPARE GEAR. State the articles supplied:— All as per Rule Required.

For Caprotti gear —

- 1 Complete half swinging inlet beam
- 2 Rollers with pins for inlet
- 2 swinging beam springs
- 2 Exhaust Cam rollers
- 1 Steam & Exhaust valve cage for H.P.
- 1 Steam & Exhaust valve cage for M.P. & L.P.
- 1 Complete Caprotti Cam gear box for H.P. & M.P. cylinders
- 1 Complete Caprotti Cam gear box for L.P. cylinders

The foregoing is a correct description,  
FOR BARCLAY, CURLE & CO., LTD.

John Alexander  
GENERAL MANAGER ENGINE WORKS

Manufacturer.



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Foundation

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