

# 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 Reg. Book.

Glasgow

Date, First Survey 27.5.29

Last Survey 3-5 (Number of Visits 94)

1930

on the

S.S.

"City of Barcelona"

Built at

Glasgow

By whom built

Barclay Curle & Co. Ltd.

Yard No. 636

Tons

Gross 5698

Net 3525

When built

1930

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

165 EX/TURBO/MOTOR

Is Refrigerating Machinery fitted for cargo purposes

no

Is Electric Light fitted

yes

Trade for which Vessel is intended

**ENGINES, &c.**—Description of Engine *JEMHAUST TURBINE IN CONNECTION WITH ELECTRIC MOTOR, triple expansion with Caprotti valve gear.* Revs. per minute **86**

Dia. of Cylinders **23 1/2 - 40 1/2 - 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**

Intermediate Shafts, diameter as per Rule **14 5/32** Crank webs **14** Mid. length thickness **9 1/2** shrunk Thickness around eye-hole **6 1/2**

Tube Shafts, diameter as per Rule **15.4** Thrust shaft, diameter at collars (FROM METROPOLITAN-VICKERS) fitted **14.78**

Screw Shaft, diameter as per Rule **16 1/8** Is the shaft fitted with a continuous liner? **yes**

Bronze Liners, thickness in way of bushes as per Rule **13/16 - 27/32** Thickness between bushes as per Rule **5/8** 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? **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 Main Bilge Line { 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"**

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"**

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** **2SB 1 Aug**

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

PLANS. Are approved plans forwarded herewith for Shafting **30-4-29** Main Boilers **30-4-29** Auxiliary Boilers **30-4-29** Donkey Boilers **✓**

Superheaters **✓** General Pumping Arrangements **Space 17-9-29** Oil fuel Burning Piping Arrangements **✓**

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 inlets
- 2 swinging beam springs
- 2 Exhaust Cam rollers
- 1 Steam & Exhaust valve cage for HP.
- 1 Steam Exhaust valve cage for MP & LP.
- 1 Complete Caprotti Cam gear box for HP & MP cylinders.
- 1 Complete Caprotti Cam gear box for LP cylinders.

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

John Alexander GENERAL MANAGER ENGINE WORKS

Manufacturer.



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