

Rpt. 4b

## REPORT ON OIL ENGINE MACHINERY.

No. 7850

25 APR 1928

Received at London Office

Date of writing Report 14 April 1928 When handed in at Local Office 14 April 1928 Port of Glasgow

To. in Survey held at Glasgow

Date, First Survey 11.3.28

Last Survey 12.4.1928

eg. Book.

Number of Visits 140

Single  
Twin  
Triple  
Quadruple  
Screw vessel

"EL ARGENTINO"

Tons { Gross 9501  
Net 6023

Built at Glasgow

By whom built The Fairfield S.B. &amp; E.C. Co. Yard No. 629 When built 1928.

Engines made at Glasgow

By whom made The Fairfield S.B. &amp; E.C. Co. Engine No. 629 When made 1928

Donkey Boilers made at Annan

By whom made Cochran &amp; Co. (Annan) Ld. Boiler No. 10444 When made 1928

Horse Power 6400

Owners British &amp; Argentine S.N.C. Port belonging to London

Horse Power as per Rule 1708

Is Refrigerating Machinery fitted for cargo purposes Yes

Is Electric Light fitted Yes

Trade for which vessel is intended United Kingdom - River Plate

L ENGINES, &amp;c.—Type of Engines Fairfield Sulzer 2 or 4 stroke cycle 2 Single or double acting Single

Maximum pressure in cylinders 600 lb. Diameter of cylinders 28 1/2" Length of stroke 39" No. of cylinders 6 No. of cranks 6

Distance of bearings, adjacent to the Crank, measured from inner edge to inner edge 40" Is there a bearing between each crank Yes

Revolutions per minute 118 Flywheel dia. 85 7/8" Weight 6.5 Tons Means of ignition Compression Kind of fuel used Diesel fuel oil

Crank Shaft, dia. of journals as per Rule 17.86 as fitted 19.00" Crank pin dia. 19" Crank Webs Mid. length breadth 31" Thickness parallel to axis 12" shrunk Thickness around eye hole 8 7/8"

Flywheel Shaft, diameter as per Rule 17.86 as fitted 19.00" Intermediate Shafts, diameter as per Rule 13.20 as fitted 13 1/2" Thrust Shaft, diameter at collars as per Rule 13.87 as fitted 14 1/2"

Tube Shaft, diameter as per Rule 17.86 as fitted None Screw Shaft, diameter as per Rule 14.45 as fitted 15 1/4" Is the screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule 7.4 as fitted 3/4" Thickness between bushes as per rule 9 1/4" as fitted 9 3/8" 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 No joints

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 Length of Bearing in Stern Bush next to and supporting propeller 5'-6"

Propeller, dia. 15'-0" Pitch 14'-0" No. of blades 4 Material Bronze whether Moveable No Total Developed Surface 75.2 sq. feet

Method of reversing Engines Cam Is a governor or other arrangement fitted to prevent racing of the engine when decelerated Yes Means of lubrication

Thickness of cylinder liners 2 3/16" Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine

Cooling Water Pumps, No. 3 Jacket, 3 Piston Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes

Bilge Pumps worked from the Main Engines, No. None Diameter — Stroke — Can one be overhauled while the other is at work

Pumps connected to the Main Bilge Line No. and Size Three - 100, 150, 250 Tons per hour capacity How driven Electric Motors

Ballast Pumps, No. and size 1, 250 Tons per hour Lubricating Oil Pumps, including Spare Pump, No. and size 2, 2 1/2" Rotary

Are two independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces Engine Room, 4 3 1/2" Duct Keel, 1-5" Tunnels, 5-3" bore

Holds, &amp;c. Nos 1, 2, 3, 4 Holds 2-3" inch No 5, 1-3" bore. Remaining aft spaces drained to Tunnels

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2-5" bore

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces

d 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 Yes

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform 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

That pipes pass through the bunks None How are they protected

That pipes pass through the deep tanks None 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 Yes Is it fitted with a watertight door Yes worked from 3rd Deck

If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No. Two No. of stages 3 1/2-1-3 1/2-2 1/2 Diameters 19 1/2, 23 1/2-6 1/2 Stroke 27" Driven by Main Camshaft

Auxiliary Air Compressors, No. Two No. of stages 3 Diameters 16 1/2, 9, 4 1/2 Stroke 9 1/2 Driven by Stern

Small Auxiliary Air Compressors, No. None No. of stages — Diameters — Stroke — Driven by —

Scavenging Air Pumps, No. Two, Tandem Diameter 4'-7 1/2" x 2 Stroke 27" Driven by Main Camshaft

Auxiliary Engines crank shafts, diameter as per Rule See Grimsby Certificate C2212

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes

Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Runnable Cones

Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. 8 Cubic Capacity of each 6, -28, 2-5.5 f. Internal diameter 6, -21 1/4, 2-11 7/8 Thickness 6, -2, 2-9 1/16

Seamless, lap welded or riveted longitudinal joint Seamless Material S.M.S. Range of tensile strength Min. 32 Working pressure by Rules 1270 lb. 0

Starting Air Receivers, No. 4 Total cubic capacity 868 f. Internal diameter 48" thickness 1 1/8" Working pressure by Rules 600 lb. 0

Seamless, lap welded or riveted longitudinal joint Riveted Material S. Range of tensile strength Specified Working pressure by Rules 600 lb. 0

Lloyd's Register

Foundation

W1173-0218



IS A DONKEY BOILER FITTED? *Yes. Three*

If so, is a report now forwarded? *Yes*

PLANS. Are approved plans forwarded herewith for casting *26.4.26*

Receivers *Yes*

Separate Tanks *Yes*

Donkey Boilers *Yes*

General Pumping Arrangements *Yes*

Oil Fuel Burning Arrangements *Yes*

SPARE GEAR

*In accordance with requirements of the Society's Rules, a number of items additional thereto, one flywheel shaft, two propellers*

The foregoing is a correct description,

AND ENGINEERING CO., LTD

*R. Strachan*

Manufacturer.

Dates of Survey while building  
During progress of work in shops -- *1927 Mar 11-18 29 Apr 5-11-14 20 22-27 May 2-5-9-12-18-24 Jun 1-8-13-20-22-23-27-30 July 4-5-7-11-26 Aug 2-3-4-8-16-22-29*  
During erection on board vessel -- *Sep 7-8-19-20-23-27-29 Oct 4-6-7-11-13-18-20-21-24-25-27-28-31 Nov 1-2-3-4-7-8-9-15-16-21-23-25-28-30 Dec 6-7-9-12-13-14-15-16-19-20-21-22-23-24-25-26-27-28-29-30-31*  
Total No. of visits *140*

Dates of Examination of principal parts—Cylinders *7.1.28* Covers *9.1.28* Pistons *9-20.2.28* Rods *29.12.27* Connecting rods *29.12.27*

Crank shafts *23.11.27* Flywheel shafts *23.11.27* Thrust shafts *23.11.27* Intermediate shafts *12.1.28* Tube shaft *None*

Screw shafts *12.11.27* Propellers *21-24.12.27* Stern tube *5.12.12.27* Engine seatings *25.11.27* Engines holding down bolts *21-23.3.28*

Completion of fitting sea connections *13.12.27* Completion of pumping arrangements *12.4.28* Engines tried under working conditions *12.4.28*

Crank shaft, Material *545* Identification Mark *629.W.C.* Flywheel shaft, Material *545* Identification Mark *36J.37*

Thrust shaft, Material *545* Identification Mark *36J.37J* Intermediate shafts, Material *545* Identification Mark *60K.12K.45*

Tube shaft, Material *None* Identification Mark *✓* Screw shaft, Material *545* Identification Mark *14K.96*

Is the flash point of the oil to be used over 150° F. *Yes*

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*

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 *Yes* If so, state name of vessel *"DUNSTER GRANGE"*

General Remarks (State quality of workmanship, opinions as to class, &c. *This machinery has been constructed under special survey, in accordance with the Society's Rules.*

*The materials and workmanship employed in its manufacture are sound and good, it has been fitted on board the above vessel in a satisfactory manner and found satisfactory under working conditions.*

*The vessel is eligible, in my opinion, to be rated + LMC, 4.28.*

The amount of Entry Fee ... £ *6.0.0*

*Charged at 60s. 17s. 8d. 136. 8. 0*

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4 Ann. R. ... £ *12.12.0*

Travelling Expenses (if any) £ *✓*

Committee's Minute *GLASGOW 24 APR 1928*

Assigned *+ LMC 4.28.*

When applied for, *18/4/28*

When received, *19.5.28*

*M. Lane*

Engineer Surveyor to Lloyd's Register of Shipping.



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CERTIFICATE WRITTEN.