

a List of

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.D. & E.C. Co. Yard No. 629 When built 1928.  
Engines made at Glasgow By whom made The Fairfield S.D. & E.C. Co. Engine No. 629 When made 1928  
Donkey Boilers made at Annan By whom made Cochran & Co. (Annan) Co. Boiler No. 10444 When made 1928  
Gross Horse Power 6400 Owners British & Argentine S.N.C. Port belonging to London  
Nom. 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

**ENGINES, &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 EACH ENG. No. of cranks 6 EACH ENG.  
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 Crank pin dia. 19" Crank Webs Mid. length breadth 31" Thickness parallel to axis 12"  
as fitted 19.00" Mid. length thickness 12" shrunk Thickness around eye hole 8 7/8"  
Flywheel Shaft, diameter as per Rule 17.86 Intermediate Shafts, diameter as per Rule 13.20 Thrust Shaft, diameter at collars as per Rule 13.87  
as fitted 19.00" as fitted 13 1/2" as fitted 14 1/2"  
Tube Shaft, diameter as per Rule None Screw Shaft, diameter as per Rule 14.45 Is the screw shaft fitted with a continuous liner Yes  
as fitted None as fitted 15 1/4"  
Bronze Liners, thickness in way of bushes as per Rule 7/8 Thickness between bushes as per rule 9/16 Is the after end of the liner made watertight in the  
as fitted 3/4 as fitted 5/8  
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  
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 declutched Yes Means of lubrication  
mechanical 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, Combined 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  
in Holds, &c. Nos 1, 2, 3, 4 Holds 2-3" bore Nos 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  
drained 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  
What pipes pass through the bunkers None How are they protected —  
What 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 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  
as fitted —  
**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 Reasonable Means  
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, 20, 2-5.5 Internal diameter 6, 21 1/4, 2-11 1/8 Thickness 6, 2-1, 2-9 1/8  
Seamless, lap welded or riveted longitudinal joint Seamless Material S.M.S. Range of tensile strength Min. 32 Working pressure by Rules 1270 lb.  
Starting Air Receivers, No. 4 Total cubic capacity 868 Internal diameter 48 Thickness 1 1/8  
Seamless, lap welded or riveted longitudinal joint Riveted Material S. Range of tensile strength Specified Working pressure by Rules 600 lb.

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, on propeller shaft, two propellers

The foregoing is a correct description,  
 FOR THE FAIRFIELD SHIPBUILDING  
 AND ENGINEERING CO., LTD

*R. Strachan* MANAGER Manufacturer.

Dates of Survey while building  
 During progress of work in shops -- *1927 Mar 11-18-29 Apr 5-11-18-20-22-27 May 2-5-9-12-18-20 Jun 1-8-13-20-22-23-27-30 July 4-5-7-11-26 Aug 2-3-4-8-16-22*  
 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 6-7-9-12-13-14-15-16-19-20-23-24-25-26-27-28-29-30-31 (1928) Jan 6-7-9-10-11-12-13-14-16-17-18-19-20-23-24 Feb 2-3-9-10-13-14-15-16-17-20-22-27 Mar 1-2-7-8-15-16-19-20-21-22-23-26-27-28-29-30 Apr 2-4-6-10-12*  
 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 *12.12.27* 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 her class + LMC, 4.28.*

*A.G.*  
*14/4/28*  
*Glazgow*

The amount of Entry Fee ... £ *6.0.0*  
 Charged at *£136.8.0*  
 Special *£142.14*  
 Charged at *£6.6.0*  
 4 Ann. Revenues ... £ *12.12.*  
 Travelling Expenses (if any) £ *✓*  
 Committee's Minute *GLASGOW 24 APR 1928*  
 Assigned *+ LMC 4.28.*

*M. Lane*  
 Engineer Surveyor to Lloyd's Register of Shipping.

