

REPORT ON OIL ENGINE MACHINERY.

No. 17948

10 FEB 1931

Received at London Office

Date of writing Report 4th Feb 1931. When handed in at Local Office 9th Feb 1931. Port of Leith
 No. in Survey held at Leith Date, First Survey 3rd Nov 1930. Last Survey 31st Jan 1931
 Reg. Book. 89466 on the Single Motor "AGUILA" Screw vessel. Tons { Gross 1368.81
 { Net 821.97
 Built at Leith By whom built H. Robb Ltd. Yard No. 181 When built 1931
 Engines made at Stockholm By whom made A.-B. Atlas Diesel Engine No. 35191 When made 1931
 Donkey Boilers made at Sunderland By whom made MacBoll & Pollock Ltd. Boiler No. 679 When made 1931
 Brake Horse Power ✓ Owners Forestal Land Timber & Plyboard Port belonging to Buenos Aires
 Nom. Horse Power as per Rule 250 Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted yes
 Trade for which vessel is intended Service in River Plate

OIL ENGINES, &c.—Type of Engines 2 or 4 stroke cycle Single or double acting Single
 Maximum pressure in cylinders _____ Diameter of cylinders _____ Length of stroke _____ No. of cylinders 2 No. of cranks 2
 Span of bearings, adjacent to the Crank, measured from inner edge to inner edge _____ Is there a bearing between each crank ✓
 Revolutions per minute _____ Flywheel dia. _____ Weight see Stockholm Rpts nos 3331/2 Means of ignition _____ Kind of fuel used _____
 Crank Shaft, dia. of journals _____ as per Rule _____ as fitted for Particulars Crank pin dia. _____ Crank Webs _____ Mid. length breadth _____ Thickness parallel to axis _____
 Flywheel Shaft, diameter _____ as per Rule _____ as fitted _____ Intermediate Shafts, diameter _____ as per Rule _____ as fitted _____ Thrust Shaft, diameter at collars _____ as per Rule _____ as fitted _____
 Tube Shaft, diameter _____ as per Rule _____ as fitted _____ Screw Shaft, diameter _____ as per Rule _____ as fitted _____ Is the { tube } shaft fitted with a continuous liner {
 Bronze Liners, thickness in way of bushes _____ as per Rule _____ as fitted _____ Thickness between bushes _____ as per Rule _____ as fitted _____ Is the after end of the liner made watertight in the
 propeller boss _____ If the liner is in more than one length are the joints made by fusion through the whole thickness of the liner see Stockholm Rpts nos 3331/2
 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 see Stockholm Rpts nos 3331/2
 If two liners are fitted, is the shaft lapped for protected between the liners _____ Is an approved Oil Gland or other appliance fitted at the after end of the tube
 shaft _____ If so, state type _____ Length of Bearing in Stern Bush next to and supporting propeller _____
 Propeller, dia. _____ Pitch _____ No. of blades _____ Material _____ whether Moveable _____ Total Developed Surface _____ sq. feet
 Method of reversing Engines _____ Is a governor or other arrangement fitted to prevent racing of the engine see Stockholm Rpts nos 3331/2 Means of lubrication _____
 Thickness of cylinder liners _____ Are the cylinders fitted with safety valves _____ Are the exhaust pipes and silencers water cooled or lagged with
 non-conducting material lagged 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. _____ for Particulars 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. _____ Diameter _____ Stroke _____ Can one be overhauled while the other is at work yes
 Pumps connected to the Main Bilge Line { No. and Size One - 7 1/2" x 6" x 6" Duplex ✓
 { How driven Steam Driven
 Ballast Pumps, No. and size one - 7 1/2" x 6" x 6" Duplex Lubricating Oil Pumps, including Spare Pump, No. and size one on each main engine
 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 one - 2 1/4"
 In Holds, &c. No 1 Hold: Port 2 3/4" Star 2 3/4" No 2 Hold: Port 2 3/4" Star 2 3/4" Cofferdam 1 - 2 1/2"
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - 3 1/2"
 Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes yes Are the Bilge Suctions in the Machinery Spaces
 led 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 Valves & Cocks
 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 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 Suctions to forward holds How are they protected In steel trunks
 What pipes pass through the deep tanks _____ 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 ✓ Is it fitted with a watertight door worked from
 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. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Auxiliary Air Compressors, No. One No. of stages 2 Diameters 5 3/4" - 2 3/8" Stroke 4" Driven by Steam Engine
 Small Auxiliary Air Compressors, No. _____ No. of stages _____ Diameters _____ Stroke _____ Driven by _____
 Scavenging Air Pumps, No. _____ Diameter _____ Stroke _____ Driven by _____
 Auxiliary Engines crank shafts, diameter _____ as per Rule _____ as fitted ✓

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule _____
 Can the internal surfaces of the receivers be examined _____ What means are provided for cleaning their inner surfaces see Stockholm Rpts 3331/2
 Is there a drain arrangement fitted at the lowest part of each receiver see
 High Pressure Air Receivers, No. _____ Total cubic capacity of each _____ Internal diameter _____ thickness _____
 Seamless, lap welded or riveted longitudinal joint for Particulars Material _____ Range of tensile strength _____ Working pressure by Rules _____
 Starting Air Receivers, No. _____ Total cubic capacity _____ Internal diameter _____ thickness _____
 Seamless, lap welded or riveted longitudinal joint _____ Material _____ Range of tensile strength _____ Working pressure by Rules _____

IS A DONKEY BOILER FITTED? *Yes.*

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

PLANS. Are approved plans forwarded herewith for Shafting *✓*
(If not, state date of approval)

Receivers *✓*

Separate Tanks *✓*

Donkey Boilers *Yes*

General Pumping Arrangements *Yes*

Oil Fuel Burning Arrangements *Yes*

SPARE GEAR One cylinder cover, one piston complete, one set of piston rings, one fuel valve, one fuel pump, one starting valve, 4 piston cooling pipes, two top end bolts & nuts, two bottom end bolts & nuts, two main bearing bolts & nuts, twelve coupling bolts, two piston rings for LP compressor, ten piston rings for HP compressor, two piston rings for scavenging pump piston, two sets of valves for air compressor, four suction & delivery valves for bridge pumps, one suction & delivery valve for fuel pump, assorted springs, bolts & nuts & pipes; two brasses for top end bearings, two propeller shafts & two stern bush liners. Eight fuel needles, eight atomizers, eight sprayers, eight fuel plungers. eight valves for air compressor, eighteen scavenging pump valves.

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building { During progress of work in shops - - }
{ During erection on board vessel - - } 1930 Nov. 3, 5, 11, 19. Dec. 2, 4, 8, 10, 16, 22, 27, 29, 30. 1931 Jan. 7, 6, 8, 12, 13, 15, 21, 22, 23, 27, 28, 29, 30.
Total No. of visits 26.

Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
Screw shaft in place 8/12/30. Propellers in place 8/12/30. Stern tubes in place 4/12/30. Engine seatings 11-11-30. Engines holding down bolts 27-12-30.
Completion of fitting sea connections 5-11-30. Completion of pumping arrangements 21-1-31. Engines tried under working conditions 23-1-31.
Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark
Thrust shaft, Material Identification Mark Intermediate shafts, Material Identification Marks
Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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 *No.* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.) The Main & Auxiliary Machinery have been efficiently fitted on board, & the materials & workmanship were found sound & good. On completion of fitting out, trials were carried out at sea under full power conditions, & the Main & Auxiliary Engines were found satisfactory in all respects.

The Donkey Boiler (Sunderland Rpt. No 30520) has been efficiently fitted on board, & its safety valves have been adjusted under steam to 120 lbs.

In my opinion the Machinery of this vessel is in good order & condition, & is eligible to be classed in the Register Book with the notations of + L.M.C. 1-31 & D.B. 120 lbs.

The amount of Entry Fee ... £ 4 : 0 : 0 When applied for,
Special ... 1/5th £ 12 : 10 : 0 7/2/1931
Donkey Boiler Fee ... £ : : When received,
Travelling Expenses (if any) £ : : 14/2/1931

Committee's Minute

TUE 17 FEB 1931

Assigned

+ dmb. 1.31 09. Oil Inf.
D.B. - 120 lbs

John Houston
Engineer Surveyor to Lloyd's Register of Shipping.



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