

REPORT ON OIL ENGINE MACHINERY.

No. 1794 B
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. Number of Visits 76

89466 on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Motor Screw vessel "AGUILA" Tons { Gross 1368.87
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 Jostal 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

Maximum pressure in cylinders Diameter of cylinders Length of stroke No. of cylinders No. of cranks

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 ^{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
Mid. length thickness shrunk Thickness around eyehole

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 } { screw } 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 ^{see Stockholm Rpt No 51068} Is the after end of the liner made watertight in the

propeller boss If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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 ^{for Particulars} 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 ^{see Stockholm Rpts nos 3331/2} 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 of Spare Pumps: 1-6" x 6" x 6" Duplex Steam driven

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 ^{Stockholm Rpts 3331/2}

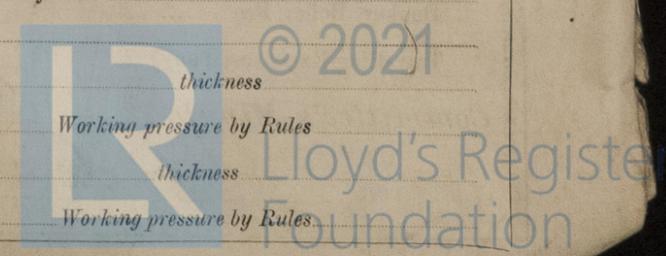
Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure 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

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 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} ~~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 pump, 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 9/12/30 Propellers in place 9/12/30 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. N° 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
Special ... *1/5th* £ 12 : 10 : 0
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ : :
When applied for, 7/2/1931
When received, 14/2/1931

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

Committee's Minute TUE 17 FEB 1931
Assigned + d.m.b. 1.31 Oil Inf. D.B. - 120 lbs



Certificate (if required) to be sent to
(The Surveyors are requested not to write on or below the space for Committee's Minute.)