Rpt. 4b.

REPORT ON OIL ENGINE MACHINERY.

No. 11746.

Date of writing Report 10 Dec 1929 When handed in at Local Office 19 Received at London Office 23 DEC 1929 Port of AMSTERDAM

No. in Reg. Book. 39262 on the ~~Single~~ ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel "APOLLINARIS IV"

Survey held at APPINGEDAM Date, First Survey 23 Aug. Last Survey 12 Dec. 1929 Number of Visits 8

Tons Gross 199 Net 152

Built at Zalt-Bommel By whom built J.Meyer's S.B.Co. Yard No. 553 When built 1929

Engines made at Appingedam By whom made Appingedammer BRONSMotoren Fabriek Engine No. 1608 When made 1929

Donkey Boilers made at - By whom made - Boiler No. - When made - -

Brake Horse Power 120 Owners H. Mulder Port belonging to Voorburg

Nom. Horse Power as per Rule 25.34 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted no

Trade for which vessel is intended Coasting

OIL ENGINES, &c.—Type of Engines 1 Brons heavy oil engine 2 or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 45 kg Diameter of cylinders 270 m/M Length of stroke 340 m/M No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 360 m/M

Revolutions per minute 290 Flywheel dia. 1320 m/M Weight 1000 kg Means of ignition self injection Kind of fuel used heavy oil

Crank Shaft, dia. of journals as per Rule appn. as fitted 140 m/M Crank pin dia. 155 m/M Crank Webs Mid. length breadth 210 m/M M.d. length thickness 95 m/M Shrunk Thickness parallel to axis - Thickness around eyehole -

Flywheel Shaft, diameter as per Rule appn. as fitted 140 m/M **Intermediate Shafts,** diameter as per Rule appn. as fitted 105 m/M **Thrust Shaft,** diameter at collars as per Rule appn. as fitted 110 m/M

Tube Shaft, diameter as per Rule - as fitted - **Screw Shaft,** diameter as per Rule appn. as fitted 120 m/M Is the {~~tube~~ screw} shaft fitted with a continuous liner no

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 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 or ~~protected between~~ the liners - Is an approved **Oil Gland** or other appliance fitted at the after end of the tube no If so, state type as per approved plan Length of Bearing in **Stern Bush** next to and supporting propeller 460 m/M

...er, dia. 1300 m/M Pitch 1040 m/M No. of blades 4 Material Cast Iron whether Moveable no Total Developed Surface 0.7 m² ~~sq. feet~~

... of reversing Engines Reversing gear Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication ...appn. Thickness of cylinder liners 25 m/M Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with ...cting material lagged / cooled If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel

Cooling Water Pumps, No. two 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. one centrifugal pump belt driven ~~Diameter~~ ~~Stroke~~ Can one be overhauled while the other is at work -

Pumps connected to the **Main Bilge Line** {No. and Size 1. 65 m/M x 42 m/M / How driven Auxiliary Motor}

Ballast Pumps, No. and size two centrifugal / **Lubricating Oil Pumps,** including Spare Pump, No. and size 2 rotary pumps

Are two independent means arranged for circulating water through the **Oil Cooler** no cooler **Suctions,** connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces 2 - 2 1/4" /

In Holds, &c. 2 - 2 1/2" - 1 - 2" forepeak & 1 - 2" afterpeak

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 - 2 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 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 none

What pipes pass through the bunkers - How are they protected -

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 none 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. -	No. of stages	Diameters	Stroke	Driven by	
Small Auxiliary Air Compressors, No. one	No. of stages 2	Diameters 45 - 95 m/M	Stroke 70 m/M	Driven by Belt driven Main Motor Auxiliary Motor	
Scavenging Air Pumps, No. -	Diameter -	Stroke -	Driven by -		

Auxiliary Engines crank shafts, diameter as per Rule - as fitted 2"

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 -

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

High Pressure Air Receivers, No. -	Cubic capacity of each -	Internal diameter -	thickness -		
Seamless, lap welded or riveted longitudinal joint -	Material -	Range of tensile strength -	Working pressure by Rules -		
Starting Air Receivers, No. 3	Total cubic capacity 270 L	Internal diameter 253 m/M	thickness 7 m/M		
Seamless, lap welded or riveted longitudinal joint Seamless	Material S.M.S	Range of tensile strength 28/32 kg	Working pressure by Rules -		

Im.8.28.

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IS A DONKEY BOILER FITTED? nil *If so, is a report now forwarded?* —

PLANS. *Are approved plans forwarded herewith for Shafting* 12-5-29 & 4-7-29 *Receivers* 6-4-29 *Separate Tanks* —
(If not, state date of approval)

Donkey Boilers ✓ *General Pumping Arrangements* 16-7-29 & 5-9-29 *Oil Fuel Burning Arrangements* —

SPARE GEAR

As per rules.

The foregoing is a correct description,

N.V. App. Broumotorenfabriek

Manufacturer.

Dates of Survey while building

During progress of work in shops — 23 Aug 4-20 Sept 4-15 Oct

During erection on board vessel — 5-19 Nov 12 Dec

Total No. of visits 8

Dates of Examination of principal parts—*Cylinders* 20-9-29 *Covers* 20-9-29 *Pistons* 20-9-29 *Rods* ✓ *Connecting rods* 4-9-29

Crank shaft 20-9-29 *Flywheel shaft* 4-9-29 *Thrust shaft* 4-9-29 *Intermediate shafts* 4-9-29 *Tube shaft* —

Screw shaft 23-8-29 *Propeller* 23-8-29 *Stern tube* 4-9-29 *Engine seatings* 5-11-29 *Engines holding down bolts* 19-11-2

Completion of fitting sea connections 23-8-29 *Completion of pumping arrangements* 19-11-29 *Engines tried under working conditions* 12-12-2

Crank shaft, Material S M S. *Identification Mark* 1421 N°K + 20-9-29 HPB *Flywheel shaft, Material* S M S *Identification Mark* 1421 N°

Thrust shaft, Material S M S *Identification Mark* 560 HPB 23-8-29 *Intermediate shafts, Material* S M S *Identification Marks* 1421 N°K

Tube shaft, Material ✓ *Identification Mark* — *Screw shaft, Material* S M S *Identification Mark* 560 HPB 23-8-29

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* Appolonius III bms rep 11694

General Remarks (*State quality of workmanship, opinions as to class, &c.*)

The Machinery of this Vessel have been made in accordance with the rules and approved plans & Secretary's letter Workmanship good The engines have been tested under full working condition and satisfactory. and they is eligible in my opinion to be classed + LMC. 12-29

+ LMC 12.29

oil Engines 4 4c 4a.
4cy 10 5/8 - 13 3/8 94 N.H.P.
Brons Motoren Fabriek
Appingedam.

23/12/29

Engineer Surveyor to Lloyd's Register of Shipping.

Certificate (if required) to be sent to

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

The amount of Entry Fee	£ 24:—	When applied for,	
Special ✓	£ 100.—	19	
Donkey Boiler Fee	£ :	When received,	
Travelling Expenses (if any)	£ 123.55	31-1-30 19	

Committee's Minute

TUE. 24 DEC 1929

+ L.M.C. 12.29
Oil Engines

Assigned

CERTIFICATE NEEDED

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