

REPORT ON OIL ENGINE MACHINERY.

No. 12100

24 NOV 1930

Received at London Office

Date of writing Report 20 November 1930. When handed in at Local Office

Port of **AMSTERDAM**

No. in Survey held at **AMSTERDAM**
Reg. Book.

Date, First Survey 12 February Last Survey 5 November 1930
Number of Visits 34.

on the ^{Single} ~~Twin~~ ~~Triple~~ ~~Quadruple~~ Screw vessel **"ANASTASIA"**

Tons { Gross -
Net -

Built at **Rotterdam** By whom built **N.V. Burgerhout's Machine** Yard No. **123** When built **1930**

Engines made at **Amsterdam** By whom made **N.V. Werkspoor** Engine No. - When made **1930**

Boiler No. - When made -

Indicated Horse Power **400 each** Owners **Anglo Saxon Petroleum Co., Ltd.** Port belonging to **London**

Net Horse Power as per Rule **2 x 190** Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

Trade for which vessel is intended -

MAIN ENGINES, &c. Type of Engines **Diesel Engine** 2 or 4 stroke cycle **Single or double acting**

Maximum pressure in cylinders **500 lb.** Diameter of cylinders **460 mm** Length of stroke **900 mm** No. of cylinders **6 = 12** No. of cranks **6**

Position of bearings, adjacent to the Crank, measured from inner edge to inner edge **640 mm** Is there a bearing between each crank **Yes**

Revolutions per minute **150** Flywheel dia. **1930 mm** Weight **4200 kg** Means of ignition **Air injection** Kind of fuel used **Diesel oil**

Crank Shaft, dia. of journals **300 mm** as per Rule **approved** as fitted **300 mm** Crank pin dia. **300 mm** Crank Webs Mid. length breadth **1050 mm** Thickness parallel to axis **200 mm**

Flywheel Shaft, diameter **300 mm** as per Rule **approved** as fitted **300 mm** Intermediate Shafts, diameter **213 mm** as per Rule **approved** as fitted **213 mm** Thrust Shaft, diameter at collars **215 mm** as per Rule **approved** as fitted **215 mm**

Stern Tube Shaft, diameter **215 mm** as per Rule **approved** as fitted **215 mm** Is the ^{tube} ~~screw~~ shaft fitted with a continuous liner **Yes**

Bronze Liners, thickness in way of bushes **as per Rule** Thickness between bushes **as per rule** 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 **Yes**

Does 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 **Yes**

Are two liners are fitted, is the shaft lapped or protected between the liners **Yes** Is an approved Oil Gland or other appliance fitted at the after end of the tube **Yes**

Length of Bearing in Stern Bush next to and supporting propeller **as per Rule**

Propeller, dia. **as per Rule** Pitch **as per Rule** No. of blades **as per Rule** Material **as per Rule** whether Moveable **as per Rule** Total Developed Surface **as per Rule** sq. feet

Method of reversing Engines **Camshaft** Is a governor or other arrangement fitted to prevent racing of the engine when declutched **Yes** Means of lubrication **as per Rule**

Are the cylinders fitted with safety valves **Yes** Are the exhaust pipes and silencers water cooled or lagged with non-conducting material **Yes** Is the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine **Yes**

Boiling Water Pumps, No. **one for each engine** Is the sea suction provided with an efficient strainer which can be cleared within the vessel **Yes**

Large Pumps worked from the Main Engines, No. **1** Diameter **90 mm** Stroke **330 mm** Can one be overhauled while the other is at work **Yes**

Pumps connected to the Main Bilge Line { No. and Size **as per Rule** How driven **as per Rule**

Ballast Pumps, No. and size **as per Rule** Lubricating Oil Pumps, including Spare Pump, No. and size **as per Rule**

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 **as per Rule** In Pump Room **as per Rule**

Holdings, &c. **as per Rule**

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size **as per Rule**

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

removed 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 **Yes**

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 **as per Rule** How are they protected **as per Rule**

What pipes pass through the deep tanks **as per Rule** Have they been tested as per Rule **Yes**

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 **as per Rule**

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

Main Air Compressors, No. **one on each engine** No. of stages **3** Diameters **440 x 580 x 90 mm** Stroke **330 mm** Driven by **main engine**

Auxiliary Air Compressors, No. **as per Rule** No. of stages **as per Rule** Diameters **as per Rule** Stroke **as per Rule** Driven by **as per Rule**

Small Auxiliary Air Compressors, No. **as per Rule** No. of stages **as per Rule** Diameters **as per Rule** Stroke **as per Rule** Driven by **as per Rule**

Revolving Air Pumps, No. **as per Rule** Diameter **as per Rule** Stroke **as per Rule** Driven by **as per Rule**

Auxiliary Engines crank shafts, diameter **as per Rule** as fitted **as per Rule**

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

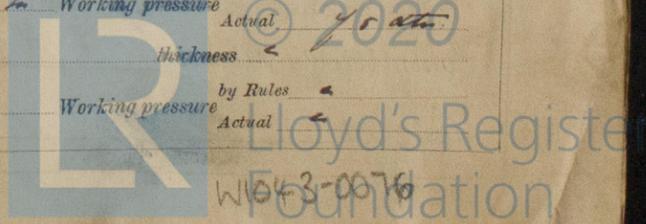
Are the internal surfaces of the receivers be examined and cleaned **Yes** Is a drain fitted at the lowest part of each receiver **Yes**

High Pressure Air Receivers, No. **2** Cubic capacity of each **285 L.** Internal diameter **400 mm** thickness **18 mm**

Are all receivers seamless, lap welded or riveted longitudinal joint **Seamless** Material **S.M. Steel** Range of tensile strength **5000 kg/cm²** Working pressure **by Rules 1480 kg/cm²** Actual **20 kg/cm²**

Starting Air Receivers, No. **as per Rule** Total cubic capacity **as per Rule** Internal diameter **as per Rule** thickness **as per Rule**

Are all receivers seamless, lap welded or riveted longitudinal joint **as per Rule** Material **as per Rule** Range of tensile strength **as per Rule** Working pressure **by Rules** Actual **as per Rule**



Rp

If so, is a report now forwarded?

IS A DONKEY BOILER FITTED?

Is the donkey boiler intended to be used for domestic purposes only?

PLANS. Are approved plans forwarded herewith for Shafting Referenced Receivers in London Separate Tanks Office
(If not, state date of approval) Sunday's letter 2. 17. 2. 30. & 4. 30. 24. 12. 29.
Donkey Boilers General Pumping Arrangements Oil Fuel Burning Arrangements General Pumping Arrangements

SPARE GEAR.

Has the spare gear required by the Rules been supplied? Yes
State the principal additional spare gear supplied Plans see List attached.

The foregoing is a correct description,
WERKSPOR N.V.

Manufacturer.

Dates of Survey while building
During progress of work in shops -- 12/1, 14/2, 3/3, 11/5, 24/5, 9/4, 24/4, 4/5, 20/5, 10/6, 16/6, 24/6, 24/6, 30/6, 6/7, 6/8, 4/8, 14/8, 21/8, 29/8, 2/9.
During erection on board vessel -- 3/9, 14/9, 15/9, 11/9, 24/9, 28/9, 1/10, 2/10, 4/10, 10/10, 14/10, 9/11.
Total No. of visits 34.

Dates of Examination of principal parts -- Cylinders 9/4 - 2/6 Covers 9/4 - 2/6 Pistons 9/4 - 2/6 Rods 3/3 - 2/10 Connecting rods 3/3 - 2/10
Crank shaft 24/4 - 14/8 Flywheel shaft 24/4 - 14/8 Thrust shaft 24/4 - 14/8 Intermediate shafts 24/4 - 14/8 Tube shaft 24/4 - 14/8
Screw shaft 24/4 - 14/8 Propeller 24/4 - 14/8 Stern tube 24/4 - 14/8 Engine seatings 24/4 - 14/8 Engines holding down bolts 24/4 - 14/8

Completion of fitting sea connections 24/4 - 14/8 Completion of pumping arrangements 24/4 - 14/8 Engines tried under working conditions 24/4 - 14/8
Crank shaft, Material Steel Identification Mark 411 D.S. 24.330, 322 D.S. 24.330, 206 D.S. 11.330, 207 D.S. 11.330 Flywheel shaft, Material Steel Identification Mark 411 D.S. 24.330, 322 D.S. 24.330, 206 D.S. 11.330, 207 D.S. 11.330
Thrust shaft, Material Steel Identification Mark 3540 N.K. 12.4.30, 14214 K.H. 19.6.30 Intermediate shafts, Material Steel Identification Marks 3540 N.K. 12.4.30, 14214 K.H. 19.6.30
Tube shaft, Material Steel Identification Mark 3540 N.K. 12.4.30, 14214 K.H. 19.6.30 Screw shaft, Material Steel Identification Mark 3540 N.K. 12.4.30, 14214 K.H. 19.6.30

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
If so, have the requirements of the Rules been complied with? Yes
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo? Yes
If so, have the requirements of the Rules been complied with? Yes
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with? Yes
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 engines have been constructed under special survey in accordance with the approved plans and Sunday's letter.
All matters tested as required and workmanship good.

A copy of this Report has been forwarded to the Schuyler at Rotterdam.

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 1/60 : When applied for, 19
4/5 Special ... 1/108 :
Donkey Boiler Fee £ :
Travelling Expenses (if any) 1/24 :
When received, 5.12.30

P. H. Bennett
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

TUE. 27 JAN 1931

See Rot. J.G. 19996



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Lloyd's Register Foundation



This Certificate is to be understood as an acknowledgment of the publication of the Society's Report.

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