Rpt. 4b

REPORT ON OIL ENGINE MACHINERY.

No. 109094

Received at London Office 11 FEB 1928 23 APR 1928

Date of writing Report 8 Feb 1928 When handed in at Local Office ... 19 ... Port of AMSTERDAM

No. in Reg. Book. -- Survey held at AMSTERDAM Date, First Survey 17 Sept 1927 Last Survey 19 Jan 1928

Number of Visits 11.

on the ~~Single~~ Twin ~~Triple~~ ~~Quadruple~~ Screw vessel Messrs. Gebr. Pot's Yard No.800 Tons Gross - Net -

RETAIN

Built at Bolnes By whom built Gebr. Pot Yard No.800 When built 1928

Engines made at Amsterdam By whom made N.V.Kromhout Motoren Fabr. Engine No.4351 type 4MH When made 1928

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

Brake Horse Power 200 Owners Ned.Ind. Tankstoomboot My. Port belonging to Rotterdam

Nom. Horse Power as per Rule 57 ✓ Is Refrigerating Machinery fitted for cargo purposes - Is Electric Light fitted -

Trade for which vessel is intended -

OIL ENGINES, &c. Type of Engines Kromhout Oil engine ✓ 2 ~~or 4~~ stroke cycle Single ~~or double~~ acting

Maximum pressure in cylinders 256 Kg/cm² 18 kg/cm² Diameter of cylinders 13 3/16" 335 m/M Length of stroke 13 3/4" 350 m/M No. of cylinders 4 ✓ No. of cranks 4 ✓

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 350 m/M ✓ Is there a bearing between each crank yes ✓

Revolutions per minute 320 ✓ Flywheel dia. 1000 m/M Weight 1490 kg Means of ignition ignition plate ✓ Kind of fuel used Crude oil ✓

Crank Shaft, dia. of journals as per Rule approved as fitted 135 m/M ✓ Crank pin dia. 135 m/M Crank Webs Mid. length breadth 175 m/M ✓ Mid. length thickness 70 m/M ✓ shrunk Thickness parallel to axis Thickness around eyehole solid ✓

Flywheel Shaft, diameter as per Rule approved as fitted 135 m/M **Intermediate Shafts,** diameter as per Rule approved as fitted 125 m/M ✓ **Thrust Shaft,** diameter at collars as per Rule approved as fitted 130 m/M

Tube Shaft, diameter as per Rule as fitted / **Screw Shaft,** diameter as per Rule - as fitted 140 m/M ✓ Is the {~~tube~~ screw} shaft fitted with a continuous liner {yes ✓}

Bronze Liners, thickness in way of bushes as per Rule as fitted 12.5 m/M ✓ Thickness between bushes as per rule as fitted 12.5 m/M ✓ 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 one length ✓

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 shaft ✓ Length of Bearing in **Stern Bush** next to and supporting propeller 600 m/M ✓

Propeller, dia. ✓ Pitch ✓ No. of blades - Material ✓ whether Moveable ✓ Total Developed Surface - sq. feet

Method of reversing Engines clutch ✓ Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes ✓ Means of lubrication forced ✓ Thickness of cylinder liners none ✓ Are the cylinders fitted with safety valves no Are the exhaust pipes and silencers water cooled or lagged with non-conducting material water cooled ✓ 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. 1 Is the sea suction provided with an efficient strainer which can be cleared within the vessel ✓

Bilge Pumps worked from the **Main Engines,** No. 1 Diameter 105 m/M Stroke 60 m/M Can one be overhauled while the other is at work ✓

Pumps connected to the **Main Bilge Line** {No. and Size ✓ / How driven ✓}

Ballast Pumps, No. and size ✓ **Lubricating Oil Pumps,** including Spare Pump, No. and size 2 of 10 feeds ✓

Are two independent means arranged for circulating water through the **Oil Cooler** ✓ **Suctions,** connected to both Main Bilge Pumps and Auxiliary Bilge Pumps, No. and size:—In Machinery Spaces ✓

In Holds, &c. ✓

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size ✓

Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes ✓ Are the Bilge Suctions in the Machinery Spaces drawn from easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges ✓

Are all **Sea Connections** fitted direct on the skin of the ship ✓ Are they fitted with Valves or Cocks ✓

Are they fixed sufficiently high on the ship's side to be seen without lifting the platform plates ✓ Are the Overboard Discharges above or below the deep water line

Are they each fitted with a Discharge Valve always accessible on the plating of the vessel ✓ Are the Blow Off Cocks fitted with a spigot and brass covering plate ✓

Do pipes pass through the bunkers ✓ How are they protected ✓

Do 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

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 ✓ Is the Shaft Tunnel watertight ✓ Is it fitted with a watertight door ✓ worked from ✓

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

Starting Air Compressors, No. - No. of stages - Diameters - Stroke - Driven by

Auxiliary Air Compressors, No. one No. of stages two Diameters 4½" - 3 1/4" Stroke 4" Driven by aux engine

Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Charging 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 ✓

Is 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. 1 x 150 L 1 x 75 L Total cubic capacity 375 L Internal diameter 325 m/M & 208 260 m/M ✓ thickness 8.5 m/M ✓

Seamless, lap welded or riveted longitudinal joint Seamless ✓ Material S.M.S. ✓ Range of tensile strength 44/50 kg ✓ Working pressure by Rules approved ✓

1m.1.27.

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? ~

PLANS. Are approved plans forwarded herewith for Shafting Returned Receivers in London Separate Tanks office E.D. 29-9-
(If not, state date of approval)

Donkey Boilers ~ General Pumping Arrangements ~ Oil Fuel Burning Arrangements ~

SPARE GEAR

As per attached list

The foregoing is a correct description,
N.V. KROMHOUT MOTOREN FABRIEK
p.p. GOEDKOOP Jr.
X Manufacturer.

Dates of Survey while building — During progress of work in shops: 1927. Sept 17. Nov. 23. 24. 28. Dec 1. 12. 15. 20. 1928 Jan 6. 10. 19.
During erection on board vessel:
Total No. of visits 11 -

Dates of Examination of principal parts—Cylinders 23/Nov. 20/12 Covers 28/11 - 30/12 Pistons 24/11 - 1/12 Rods ~ Connecting rods 1/12 12/12

Crank shaft 1/12 12/12 20/12 Flywheel shaft 12/12 30/12 Thrust shaft 6/1 Intermediate shafts 6/1 Tube shaft ~

Screw shaft 6/1 Propeller ~ Stern tube 23 Nov. 1 Dec Engine seatings ~ Engines holding down bolts ~

Completion of fitting sea connections ~ Completion of pumping arrangements ~ Engines tried under working conditions ~

Crank shaft, Material SMS Identification Mark Lloyd's 13 15 M.K. Flywheel shaft, Material SMS Identification Mark Lloyd's 1315 McK

Thrust shaft, Material ~ Identification Mark ~ Intermediate shafts, Material SMS Identification Marks No 959. M.K.

Tube shaft, Material ~ Identification Mark ~ Screw shaft, Material ~ Identification Mark ~

Is the flash point of the oil to be used over 150° F. ~

Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with ~

Is the vessel (not being an oil tanker) fitted for carrying oil as cargo ~ 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 oil engine has been built under special survey, in accordance with the approved plan and Secretary's letter. material tested as required, workmanship good.
The engine on bench under full working condition found working satisfactorily.

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

The amount of Entry Fee ... £ 200 — : When applied for, ... 19...
Special ... ... £ : : When received, 20. 2. 28
Donkey Boiler Fee ... £ : :
Travelling Expenses (if any) £ 2 — :

FRI. 27 APR 1928

Committee's Minute

Assigned See Rot. Rpt. 17391

Engineer Surveyor to Lloyd's Register of Shipping