

REPORT ON OIL ENGINE MACHINERY.

No. 25804

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Received at London Office

Date of writing Report 15-7-1937 When handed in at Local Office Balnes 19 Port of Rotterdam JUL 21 1937
 No. in Survey held at Balnes Date, First Survey 0-6-37 Last Survey 2-7-1937
 Reg. Book. Single on the Twin Triple Quadruple } Screw vessel motor vessel "TON. S." Tons } Gross
 Built at Balnes By whom built N.V. Boele's M. Sch. Yard No. 866 When built 1937
 Engines made at Cologne By whom made Humboldt-Deutz motor AG Engine No. 130 When made 1937
 Donkey Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
 Brake Horse Power 400 Owners N.V. Leuwaterij. TON. Port belonging to Rotterdam
 Nom. Horse Power as per Rule 94 ✓ Is Refrigerating Machinery fitted for cargo purposes ✓ Is Electric Light fitted Yes
 Trade for which vessel is intended ✓

II. ENGINES, &c.—Type of Engines See Susulda Rep. 2175 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 ✓
 Mean Indicated Pressure ✓ Span of bearings, adjacent to the Crank, measured from inner edge to inner edge ✓ Is there a bearing between each crank ✓
 Revolutions per minute 300 Flywheel dia. ✓ Weight ✓ Means of ignition compression Kind of fuel used diesel oil
 Crank Shaft, dia. of journals as per Rule ✓ Crank pin dia. ✓ Crank Webs Mid. length breadth ✓ shrunk Thickness parallel to axis ✓
as fitted ✓ Mid. length thickness ✓ Thickness around eyehole ✓
 Flywheel Shaft, diameter as per Rule ✓ Intermediate Shafts, diameter as per Rule ✓ Thrust Shaft, diameter at collars as per Rule app. ✓
as fitted ✓ as fitted ✓ as fitted 150 mm ✓
 Tube Shaft, diameter as per Rule ✓ Screw Shaft, diameter as per Rule app. ✓ Is the { tube } shaft fitted with a continuous liner { ✓
as fitted ✓ as fitted 145 mm ✓ screw } ✓
 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
as fitted ✓ as fitted ✓ 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
shaft ✓ If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 400 mm ✓
 Propeller, dia. 1800 mm Pitch 1120 mm No. of blades 4 Material bronze whether Moveable solid Total Developed Surface 127 m² sq. feet
 Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when disclutched Yes ✓ Means of lubrication
✓ Thickness of cylinder liners ✓ Are the cylinders fitted with safety valves Yes ✓ Are the exhaust pipes and silencers water cooled or lagged with
non-conducting material both ✓ 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. 2 ✓ 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. 1 ✓ Diameter 100 mm Stroke 100 mm Can one be overhauled while the other is at work ✓
 Pumps connected to the Main Bilge Line } No. and Size 2 ✓ 1 a 30 1/2 h. 1 a 25 1/4 h. ✓ also M.E. bilge pump ✓
 } How driven from aux engine by belt ✓
 Is the cooling water led to the bilges no ✓ If so, state what special arrangements are made to deal with this water in addition to the ordinary bilge pumping
arrangements ✓
 Ballast Pumps, No. and size 2 ✓ 1 a 2 1/2 1 a 2 1/2 ✓ Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 ✓ 2 belt wheel pumps ✓
 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 2 a 2" 2 a 2 1/2" ✓ In Pump Room ✓
 In Holds, &c. 4 a 2 1/2" ✓ four feet 1 a 2 3/4" ✓ 1 a 2" M.E. pump direct ✓
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 a 2 1/2" ✓ Are the Bilge Suctions in the Machinery Spaces
Are all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes ✓ Are they fitted with Valves or Cocks Valves ✓
ed 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 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 ✓
 What pipes pass through the bunkers none ✓ 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 ✓ 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 110 x 90 mm Stroke 85 mm Driven by aux engine ✓
 Scavenging Air Pumps, No. ✓ Diameter ✓ Stroke ✓ Driven by ✓
 Auxiliary Engines crank shafts, diameter as per Rule See Susulda Rep. 186 No. one hand starting ✓
as fitted ✓ Position engine room S.P. ✓

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule. *Yes*
 Can 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. Cubic capacity of each Internal diameter thickness
 Seamless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules Actual
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 Actual

IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded?
 Is the donkey boiler intended to be used for domestic purposes only

PLANS. Are approved plans forwarded herewith for Shafting *see sketch 21-1-37* Receivers Separate Fuel Tanks *7-6-37*
 Donkey Boilers General Pumping Arrangements *24-2-37* Pumping Arrangements in Machinery Space *24-2-37*
 Oil Fuel Burning Arrangements *Plan as now fitted attached*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*
 State the principal additional spare gear supplied *one set of coupling bolts, one cylinder cover and piston complete, a number of piston rings, valves, springs, fuel pump, crank pin and bearing bolts, nuts, top and bottom end bearings, etc.*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building
 During progress of work in shops-- *0-20-30/6. 2/7-37*
 During erection on board vessel--
 Total No. of visits *4*
 Dates of Examination of principal parts—Cylinders Covers Pistons Rods Connecting rods
 Crank shaft Flywheel shaft Thrust shaft Intermediate shafts Tube shaft
 Screw shaft *0-6-37* Propeller *0-6-37* Stern tube *0-6-37* Engine sealings *0-6-37* Engines holding down bolts *20-6-37*
 Completion of fitting sea connections *0-6-37* Completion of pumping arrangements *30-6-37* Engines tried under working conditions *30-6-37*
 Crank shaft, Material Identification Mark Flywheel shaft, Material Identification Mark
 Thrust shaft, Material *SM steel* Identification Mark *Lloyds no 3592 HB. 6-4-37* Intermediate shafts, Material Identification Marks
 Tube shaft, Material Identification Mark Screw shaft, Material *SM steel* Identification Mark *Lloyds no 2901 HPB. 20-4-37*

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 If so, have the requirements of the Rules been complied with
 If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with

Is this machinery duplicate of a previous case *Yes* If so, state name of vessel *de Noord's Yard 562-64-65-66.*
General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been made and fitted in accordance with the approved plans, Society's Rules and Secretary's letters. Main-auxiliary and centrifugal pumps have been tested under full working condition and found working and manoeuvring satisfactorily and in my opinion eligible for the record of 4 RMC 7-37. Oil engines.*

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

The amount of Entry Fee .. £ *715 74.40*
 Special £ *on 20.7.1937 report*
 Donkey Boiler Fee £
 Travelling Expenses (if any) £ *750-49.8 3778*
 71574.40 and 16.7.37 2418 717

Committee's Minute *FRI 30 JUL 1937*
 Assigned + Rmc 7.37 see log

W. Bourne
 Engineer Surveyor to Lloyd's Register of Shipping.

