

# REPORT ON OIL ENGINE MACHINERY.

No. 25678

JUN 14 1937  
JUL 23 1937

Received at London Office

Date of writing Report 1-6-1937. When handed in at Local Office

Port of Rotterdam

No. in Survey held at Schiedam. Reg. Book.

Date, First Survey 20-8-36 Last Survey 25-5-1937

Number of Visits 37

Single motor Triple Screw vessel

## NEDERLAND

Tons Gross 8147. Net 4762.

Built at Schiedam. By whom built N.V. Wilton-Fynboord. Yard No. 660 When built '36-'37

Engines made at So. By whom made So. Engine No. 1057 When made '36-'37

Donkey Boilers made at Schiedam. By whom made Robt. Broer & Co. Wilton-Fynboord. Boiler No. 540/1465 When made '37

Brake Horse Power 3600. Owners Nederlandsche Pacific Tankvaart Port belonging to 's Gravenhage

Nom. Horse Power as per Rule 872 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted Yes

Trade for which vessel is intended 26 3/4 47 1/4

TYPE OF ENGINES, &c.—Type of Engines M.A.N. Solid injection 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 45 kg/cm<sup>2</sup> Diameter of cylinders 680 mm Length of stroke 1200 mm No. of cylinders 7 No. of cranks 7

Mean Indicated Pressure 5.48 kg/cm<sup>2</sup> Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 910 mm Is there a bearing between each crank Yes

Revolutions per minute 110 Flywheel dia. 2100 mm Weight 3120 kg Means of ignition Compression Kind of fuel used Diesel oil

Crank Shaft, dia. of journals as per Rule App. as fitted 460 mm Crank pin dia. 460 mm Crank Webs Mid. length breadth 800 mm shrunk Thickness parallel to axis -

Flywheel Shaft, diameter as per Rule App. as fitted 460 mm Intermediate Shafts, diameter as per Rule App. as fitted 360 mm Thrust Shaft, diameter at collars as per Rule App. as fitted 380 mm

Tube Shaft, diameter as per Rule - as fitted - Screw Shaft, diameter as per Rule App. as fitted 390 mm Is the tube screw shaft fitted with a continuous liner Yes

Bronze Liners, thickness in way of bushes as per Rule App. as fitted 21 mm Thickness between bushes as per Rule App. as fitted 15 mm 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 -

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 1430 mm

Propeller, dia. 4530 mm Pitch 3560 mm No. of blades 4 Material Bronze whether Moveable solid Total Developed Surface 7.16 M<sup>2</sup> sq. feet

Method of reversing Engines by air Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication

forged. Thickness of cylinder liners 49 mm Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material Lagged 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. - Diameter - Stroke - Can one be overhauled while the other is at work -

Pumps connected to the Main Bilge Line No. and Size 2. 1. 250 M<sup>3</sup> p.h. rotary. 1. 200 x 260 x 350. 105 M<sup>3</sup>. How driven electrically. steam.

Is the cooling water led to the bilges overboard. 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 1. 320 x 220 x 450. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2. 40 M<sup>3</sup> p.h. rotary. 40 M<sup>3</sup> p.h. elekt. driven.

Are there 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 5. 2. 90. 3. 2. 125. Schiedam 40-41. 1. 2. 125. In Pump Room 2. 2. 100

Holds, &c. Fore pump room 1. 2. 50. Hold P. S. 1. 2. 50. Forepeak deck 1. 2. 50 P. S. 50 Chain locker 1. 2. 50. Cofferdam 159-160. 1. 2. 100

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2. 2. 125 mm

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

protected 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 valves

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

That pipes pass through the bunkers suction to cofferdam. How are they protected Steel pipes controlled valves from deck each end.

That pipes pass through the deep tanks none 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 - 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 -

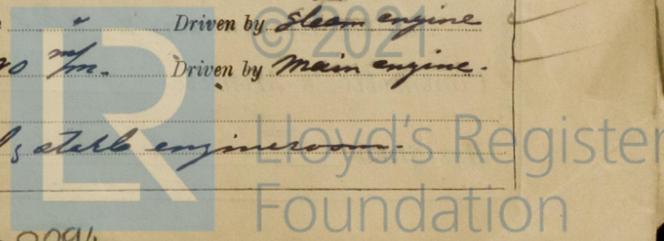
Auxiliary Air Compressors, No. 2 No. of stages 2 Diameters 280-252 Stroke 180 Driven by aux engine

Small Auxiliary Air Compressors, No. 1 No. of stages 2 Diameters Russell's Stroke Driven by steam engine

Scavenging Air Pumps, No. 2 tandem Diameter 1200 mm Stroke 990 mm Driven by main engine

Auxiliary Engines crank shafts, diameter as per Rule See Bureau of N. 1800. No. 2 Position Port & starboard engines

as fitted -



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. *2* Total cubic capacity *2 x 6 m<sup>3</sup>* Internal diameter *1395 mm* thickness *23 mm*

Seamless, lap welded or riveted longitudinal joint *3 x double butt* Material *S.M. steel* Range of tensile strength *46-52 kg* Working pressure by Rules *30 kg* Actual *30 kg*

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

Is the donkey boiler intended to be used for domestic purposes only *no*

PLANS. Are approved plans forwarded herewith for Shafting *16-7-36, 3-6-36* Receivers *23-7-36* Separate Fuel Tanks *✓*

Donkey Boilers *8-6-36* General Pumping Arrangements *9-12-36* Pumping Arrangements in Machinery Space *3-12-36*

Oil Fuel Burning Arrangements *13-10-36*

SPARE GEAR.

Has the spare gear required by the Rules been supplied *Yes*

State the principal additional spare gear supplied *as per attached list.*

The foregoing is a correct description,

WILTON-FIJENOORD.

(M.V. WILTON'S Machinefabriek en Scheepswerf (WILTON'S Engineering & Slipway Co.) Maatschappij voor Scheeps- en Werktuigbouw

Manufacturer.

Dates of Survey while building: During progress of work in shops-- *20/8 - 4-17-26 / 9 - 12-14-16-30 / 10 - 19-24-25-27-30 / 11 - 2-4-17-24 / 12-36*  
During erection on board vessel-- *13-20-22-26 / 27-28-29-30 / 31 - 5-26 / 2 - 5-23 / 3 - 5-8-12-16-17-29-30 / 4 - 5-18-21-25 / 5 - 37*  
Total No. of visits *37*

Dates of Examination of principal parts—Cylinders *20/8 - 4-17-26 / 9 - 16/10 - 24/11 - 27/11* Pistons *17-26/12* Rods *26-9-36* Connecting rods *26-9-36*  
Crank shaft *4-12-36* Flywheel shaft *4-12-36* Thrust shaft *17-12-36* Intermediate shafts *4-12-36* Tube shaft *✓*  
Screw shaft *26-2-37* Propeller *26-2-37* Stern tube *5/2 - 26/2 - 27* Engine seatings *26-2-37* Engines holding down bolts *12-4-37*  
Completion of fitting sea connections *26-2-37* Completion of pumping arrangements *13-5-37* Engines tried under working conditions *25-5-37*  
Crank shaft, Material *S.M. steel* Identification Mark *Lloyds no. 11569-70* Flywheel shaft, Material *S.M. steel* Identification Mark *Lloyds no. 9374*  
Thrust shaft, Material *S.M. steel* Identification Mark *BN 23-10-36* Intermediate shafts, Material *S.M. steel* Identification Marks *EB 4-12-36*  
Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *S.M. steel* Identification Mark *EB 4-12-36*

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 *Tanks* 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 *no* If so, state name of vessel *✓*

General Remarks (State quality of workmanship, opinions as to class, &c.) *The machinery has been made and fitted in accordance to the Society's Rules, approved plans and Secretary's letters. Material tested as required and workmanship good. The whole was found in a good working condition and manoeuvring satisfactory during a trial trip and I am of opinion that this vessel is eligible to be recorded in the Society's Register Book with \*LMC 5-37 oil engines C.L.*

The amount of Entry Fee *£ 72.00* : When applied for, *10.6.1937*  
Special *air vessels* *£ 1425.00* :  
Donkey Boiler Fee *£ 100.00* : When received, *30.6.1937*  
Travelling Expenses (if any) *£ 28.00* : *30.6.1937*

*J.H. Bounce*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI 18 JUN 1937*  
Assigned *+ LMC 5.37 Oil Eng*  
*DB 250 lb*  
*DB 150 lb Cl*

