

# REPORT ON OIL ENGINE MACHINERY.

No. 10256

Received at London Office 4-NOV-1954

Date of writing Report 4-9-1954 When handed in at Local Office 19 Port of GRONINGEN

Survey held at WATERHUIZEN Date, First Survey 10-5-1954 Last Survey 3-9-1954 Number of Visits 22

on the Single on the Triple on the Quadruple Screw vessel M.V. "ORANJE POLDER" Tons Gross 499.75 Net 238.33

built at WATERHUIZEN By whom built SCHW. WATERHUIZEN Yard No. 219 When built 1954

engines made at AMSTERDAM By whom made N.V. WERKSPOR Engine No. 1734 When made 1954

Boilers made at By whom made Boiler No. When made

Indicated Horse Power Maximum Service 1100 Owners "Hornseaalshy Westpolder" N.V. Port belonging to ROTTERDAM N. as per Rule 220 Is Refrigerating Machinery fitted for cargo purposes YES Is Electric Light fitted YES

Trade for which vessel is intended OCEAN TRADE

ENGINES, &c. - Type of Engines 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

Indicated Pressure Span of bearings (i.e., distance between inner edges of bearings in length of a crank) Is there a bearing between each crank Revolutions per minute Maximum Service

Crank pin dia. Weight Moment of inertia of flywheel (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) Means of ignition Kind of fuel used

Crank shaft dia. of journals as per Rule as fitted Crank pin dia. Crank webs Mid. length breadth Thickness parallel to axis All built Mid. length thickness shrunk Thickness around eye-hole

Propeller Shaft, diameter as per Rule as fitted Intermediate Shafts, diameter as per Rule APPR. as fitted 275 Thrust Shaft, diameter at collars as per Rule as fitted

Stern Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule APPR. as fitted 270 T.P.A. 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 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 fitted at the after end of stern tube YES If so, state type VAN DAM Length of bearing in Stern Bush next to and supporting propeller 1120

Propeller, dia. 2300 Pitch 1665 No. of blades 4 Material BRONZE whether moveable SOLID Total developed surface 53.3 sq. feet Moment of inertia of propeller including entrained water (lbs. in<sup>2</sup> or Kg. cm<sup>2</sup>) 985 Kind of damper, if fitted

Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine Means of lubrication Thickness of cylinder liners Are the cylinders fitted with safety valves Are the exhaust pipes and silencers water cooled

Lagged with non-conducting material 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. and how driven Working F.W. 1 ME

Sea Suction Spare F.W. 1 BALLAST S.W. 2 BALLAST the sea suction provided with an efficient strainer which can be cleared within the vessel YES Bilge Pumps worked from the Main Engines, No. and capacity Can one be overhauled while the other is at work

Bilge Pumps connected to the Main Bilge Line (No. and capacity of each 1 @ 70 TH 1 @ 70 TH How driven A.E. ELECTR.)

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 capacity 2 @ 70 TH Power Driven Lubricating Oil Pumps, including spare pump, No. and size SPARE 9 TH

Are two independent means arranged for circulating water through the Oil Cooler YES Branch Bilge Suctions In machinery spaces 2 @ 3" In pump room

Direct Bilge Suctions to the engine room bilges, No. and size 3 @ 3"

Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes YES Are the bilge suction pipes 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 EN-CHESTS Are they fitted with valves or cocks VALVES Are they fixed efficiently 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 BELOW

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 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 MACHAETS 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

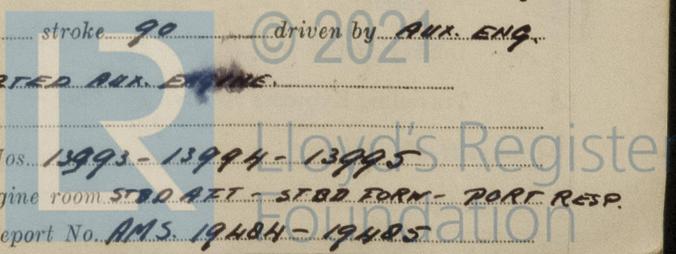
Main Air Compressors, No. 1 No. of stages 2 diameters 150/180 stroke 100 driven by M.E. Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 95/110 stroke 85 driven by AUX. ENG.

Small Auxiliary Air Compressors, No. 1 No. of stages 2 diameters 60/130 stroke 90 driven by AUX. ENG. HAND COMPRESSOR AS PER ATTACHED CERTIFICATE

What provision is made for first charging the air receivers 1 HAND COMPRESSOR & HAND STARTED AUX. ENGINE

Leaving Air Pumps or Blowers, No. How driven Auxiliary Engines Have they been made under survey YES Engine Nos. 13993-13994-13995 Makers name KROMHOUT Position of each in engine room STBD AFT - STBD FERN - PORT RESP. Report No. AMS. 19484-19485

95 1/12/54



**AIR RECEIVERS:**—Have they been made under survey YES State No. of report or certificate AIR RECEIVER: AM.S. CERT. 957  
 State full details of safety devices ✓  
 Can the internal surfaces of the receivers be examined and cleaned ✓ Is a drain fitted at the lowest part of each receiver ✓  
 Injection Air Receivers, No. ✓ Cubic capacity of each ✓ Internal diameter ✓ thickness ✓  
 Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓  
 Starting Air Receivers, No. 2 + 1 SMALL Total cubic capacity ✓ Internal diameter ✓ thickness ✓  
 Seamless, welded or riveted longitudinal joint ✓ Material ✓ Range of tensile strength ✓ Working pressure ✓

**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 4-5-54 Receivers 4-5-54 Separate fuel tanks ✓  
 (If not, state date of approval)  
 Donkey boilers ✓ General pumping arrangements 7-7-54 Pumping arrangements in machinery space 17-5-54  
 Oil fuel burning arrangements 17-5-54

Have Torsional Vibration characteristics been approved YES Date and particulars of approval 21-6-54 for a service speed of 275 R.P.M.  
**SPARE GEAR.**  
 Has the spare gear required by the Rules been supplied YES State if for "short voyages" only ✓  
 State the principal additional spare gear supplied ✓

The foregoing is a correct description, and the particulars of the installation as fitted are as approved for service vibration characteristics. Manufacturer N.V. Motorfabriek

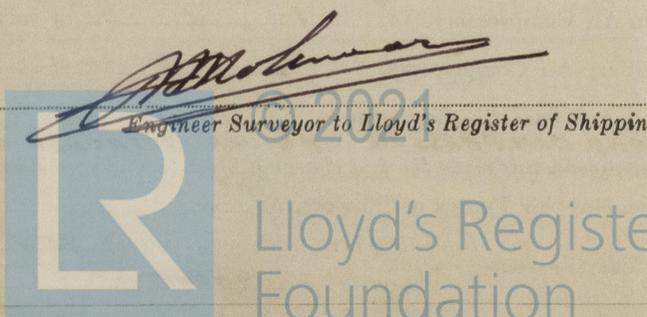
Dates of Survey while building  
 During progress of work in shops - See Amsterdam report No 19557  
 During erection on board vessel - 1954 May 18-22, June 5-9, 11-16, 22-29, July 2-15, 21-26, August 2-5, 10-13, 20-23, 27, Sept. 1-4  
 Total No. of visits 22

Dates of examination of principal parts—Cylinders ✓ Covers ✓ Pistons ✓ Rods ✓ Connecting rods ✓  
 Crank shaft ✓ Flywheel shaft ✓ Thrust shaft ✓ Intermediate shafts 17-5-54 Tube shaft ✓  
 Screw shaft 17-5-54 Propeller 13-5-54 Stern tube 10-5-54 Engine seatings 10-8-54 Engine holding down bolts 10-8-54  
 Completion of fitting sea connections 22-5-54 Completion of pumping arrangements 27-8-54 Engines tried under working conditions 1-9-54  
 Crank shaft, material ✓ Identification mark ✓ Flywheel shaft, material ✓ Identification mark ✓  
 Thrust shaft, material ✓ Identification mark ✓ Intermediate shafts, material SM Steel Identification marks 1.2116-AB, 17-5-54  
 Tube shaft, material ✓ Identification mark ✓ Screw shaft, material SM Steel Identification mark 1.2115-AB, 17-5-54  
 Identification marks on air receivers ✓

Welded receivers, state Makers' Name ✓  
 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 ✓  
 Full description of fire extinguishing apparatus fitted in machinery spaces 3 FIREFORMS @ 9 LTRS, + 1 @ 45 LTRS, + E.R. HOSE CONNECTION  
 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 ✓  
 What is the special notation desired ✓  
 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, Speed restrictions, &c.)  
This engine and auxiliaries have been constructed and fitted under special survey in accordance with the approved plans, Society's Rules and Secretary's letters. The workmanship was found good. The machinery has been tested under full working conditions on a trial trip and found working satisfactorily. On my opinion the machinery of this vessel merits the approval of the Committee and be recorded in the Society's Register Book # LMC 9-54 - OIL ENGINE - O.G.

The amount of Entry Fee ... £ 473.-  
 Special ... £  
 Donkey Boiler Fee... £  
 Travelling Expenses (if any) £ 104.-  
 When applied for 18-9-1954  
 When received 19  
**FRIDAY 3 DEC 1954**  
 Assigned ✓  
 Engineer Surveyor to Lloyd's Register of Shipping



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

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