

# REPORT ON OIL ENGINE MACHINERY.

No. 15788<sup>b</sup>

Received at London Office

20 OCT 1939

Date of Reporting Report 11 Oct 1939 When handed in at Local Office 19 Port of Amsterdam

No. in Survey held at Amsterdam Date, First Survey 8 June 1938 Last Survey 4 Oct 1939  
Reg. Book. Number of Visits 63

on the Single } Screw vessel M.V. TARIA Tons } Gross 10354.54  
Triple } Net 6146.14  
Quadruple }

Built at Amsterdam By whom built N.V. Nederl Scheep N<sup>o</sup> Yard No. 273 When built 1939  
Engines made at Amsterdam By whom made N.V. Werkspoor Engine No. 744 When made 1939  
Donkey Boilers made at Amsterdam By whom made N.V. Werkspoor Boiler No. 2299/30 When made 1939  
Brake Horse Power 4660 Owners N.V. Petroleum N<sup>o</sup> de Caena Port belonging to 's Groenhouze  
Nom. Horse Power as per Rule 620 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
Trade for which vessel is intended Open sea Service 25-7 55-8

## OIL ENGINES, &c.—Type of Engines Werkspoor's Diesel Supercharged or 4 stroke cycle 4 Single or double acting single

Maximum pressure in cylinders 700 LBS Diameter of cylinders 650 mm Length of stroke 1400 mm No. of cylinders 10 No. of cranks 10  
Mean Indicated Pressure 135 LBS

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 855 mm Is there a bearing between each crank yes  
Revolutions per minute 120 Flywheel dia. ✓ Weight ✓ Means of ignition Solid injected Kind of fuel used Diesel oil

Crank Shaft, { Solid forged as per Rule approved Crank pin dia. 475 mm Crank Webs Mid. length breadth 960 mm Thickness parallel to axis 273  
{ Semi built dia. of journals as fitted 475 mm Mid. length thickness 273/297 mm shrunk Thickness around eye-hole 210.5  
{ All built

Flywheel Shaft, diameter as per Rule ✓ as fitted ✓ Intermediate Shafts, diameter as per Rule approved as fitted 440 mm Thrust Shaft, diameter at collars as per Rule approved as fitted 460 mm

Tube Shaft, diameter as per Rule ✓ as fitted ✓ Screw Shaft, diameter as per Rule approved as fitted 440 mm Is the tube shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule approved as fitted 21 mm Thickness between bushes as per Rule approved as fitted 16 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 C.T.

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 no If so, state type ✓ Length of Bearing in Stern Bush next to and supporting propeller 1547

Propeller, dia. 4460 mm Pitch 3660 mm No. of blades 4 Material Brass whether Moveable no Total Developed Surface 89.8 sq. feet  
Method of reversing Engines by the Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of lubrication forced

Thickness of cylinder liners 55 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. 3 Salt - 2 fresh water 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. 2 Rotary 35 ton/hour duplex 8" x 8" x 10" Diameter Stroke Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line { No. and Size 2 Rotary 35 ton/hour duplex 8" x 8" x 10"  
{ How driven Main engine steam driven  
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 one 8" x 8" x 10" Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 duplex 8" x 8" x 10"  
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 2-4", 1-4" mill aft 1-6", 2-4" off forward 2-2" oil well (oil fuel pump) In Pump Room 2-3" aft. 2-3"

In Holds, &c. Fore peak 1-4", fore hold 3-2" deep tank 2-4" fore off forward 1-5" aft off forward 1-5"  
Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1-150 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 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 yes Are they fitted with Valves or Cocks Valves & cocks  
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

What pipes pass through the bunkers ✓ How are they protected ✓  
What pipes pass through the deep tanks ✓ Have they been tested as per Rule ✓

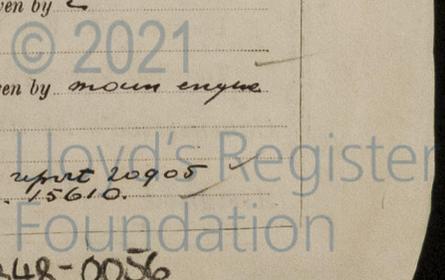
Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
Is the arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one compartment to another yes Is the Shaft Tunnel watertight ✓ 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 206-104 mm Stroke 160 mm Driven by 1 steam engine  
Small Auxiliary Air Compressors, No. ✓ No. of stages ✓ Diameters ✓ Stroke ✓ Driven by 1 Diesel engine

What provision is made for first Charging the Air Receivers One Auxiliary compressor steam driven  
Scavenging Air Pumps, No. each bottom end of cyl Diameter 650 mm Stroke 1400 mm Driven by main engine

Auxiliary Engines crank shafts, diameter as per Rule approved as fitted 6" and 95 mm Position Motor room  
Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith yes Summary report 20905 Am rep. 15610.

003341-603348-0056



AIR RECEIVERS:—Have they been made under survey *Yes* ✓ State No. of Report or Certificate *2203-2204*

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* ✓

Injection 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 *1000 cub feet* Internal diameter *1695 mm* thickness *28 mm*  
Seamless, lap welded or riveted longitudinal joint *welded* Material *SMS* Range of tensile strength *40 kg* Working pressure *—*  
by Rules *Approved*  
Actual *3504 BS*

IS A DONKEY BOILER FITTED? *Yes (Two)* ✓ If so, is a report now forwarded? *Yes* ✓  
Is the donkey boiler intended to be used for domestic purposes only *Yes* ✓

PLANS. Are approved plans forwarded herewith for Shafting *E 11-2-30* Receivers *E 2-2-30* Separate Fuel Tanks *E 15-5-39*  
(If not, state date of approval) *E 4-10-30* *E 2-12-30* *E 2-12-30*  
Donkey Boilers *E 14-2-30* General Pumping Arrangements *E 2-3-30* Pumping Arrangements in Machinery Space *E 2-12-30*  
Oil Fuel Burning Arrangements *E 13-4-39*

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.

WERKSPoor N.V. *[Signature]* Manufacturer.

1930. June 3-30, July 16, Sept 2, Oct 3, 4, 13-20, Nov 3, 11, 12, 15, 23-30, Dec 1-3, 6, 10-12, 16-22, Jan 10.

Dates of Survey while building  
During progress of work in shops - - *Feb 9-10-13-14-15-16-20, March 4-6-9-21-24, April 7-11, May 5-9-10-15, June 15-19, 30*  
During erection on board vessel - - *July 6-12-14, Aug 2-8-10-14, 23-25-28-30, Sept 4-17-19-26-27, Oct 3-4*  
Total No. of visits *63*

Dates of Examination of principal parts—Cylinders *7-4-39* Covers *15-5-39* Pistons *4-21* Rods *5 May* Connecting rods *5-15 May*  
Crank shaft *3-10 Dec 6* Flywheel shaft *—* Thrust shaft *22 Dec 23 Feb* Intermediate shafts *3-10 Dec 30 Jun* Tube shaft *—*  
Screw shaft *20 Apr 9 June* Propeller *6 July* Stern tube *15 Feb 18 June* Engine seatings *20 Aug* Engines holding down bolts *22 28 Aug*  
Completion of fitting sea connections *6 July* Completion of pumping arrangements *4 Sept* Engines tried under working conditions *26-27 Sept*  
Crank shaft, Material *SMS* Identification Mark *HPB 6-3-39* Flywheel shaft, Material *—* Identification Mark *—*  
Thrust shaft, Material *SMS* Identification Mark *HPB 23-2-39* Intermediate shafts, Material *SMS* Identification Marks *6174 HPB 30-6-39*  
Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *SMS* Identification Mark *6140 HPB 2-6-39*  
Identification Marks on Air Receivers  
*No 2203-2204*  
*Luyet's test*  
*5504 BS*  
*WP 3304 BS*  
*KK 26-1-39*

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 *tanker* 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 *MT. Tebia HMS rep-15738<sup>B</sup>*

General Remarks (State quality of workmanship, opinions as to class, &c.)

*The Machinery has been built under special survey, approved plans & Secretary's letters and the Society's rules. Material duly tested, workmanship throughout good. Fitted Machinery on the Channel of Ymuiden and Mooring beach found working good. She is eligible in my opinion for the approval of the Committee to be recorded in LMC 10-39, oil engines C.I. with continuous survey on owners request in the Society's Registerbook.*

The amount of Entry Fee *£ 72-—* : When applied for, *15-10-1939*  
Special *£ 1276.80* :  
Donkey Boiler Fee *£ 350-—* : When received, *31/10/1939 R&J.*  
Travelling Expenses (if any) *£ 44.50* :

Committee's Minute *FRI. 27 OCT 1939*  
Assigned *Limb. 10.39*  
*2203-180th* *oil eng*  
*Ch*

*[Signature]*  
Engineer Surveyor to Lloyd's Register of Shipping.  
Lloyd's Register Foundation

Certificate (if required) to be sent to Surveyors by the claimant

The Surveyors are requested not to write on or below the space for Committee's Minute.