

## REPORT ON OIL ENGINE MACHINERY.

No. 309513

Received at London Office 30 DEC 1948

Date of writing Report 29/11 1948 When handed in at Local Office 19 Port of Rottterdam  
 No. in Survey held at Heurden Date, First Survey 10/6 Last Survey 24/11 1948  
 Reg. Book. Heurden Number of Visits 8  
 on the Single Screw vessel M.V. "ELISA" Tons Gross 487.96  
Triple Net 257.77  
Quadruple  
 Built at Heurden By whom built Mun de Haan & Delemans Yard No. 250 When built 1948  
 Engines made at Winkler By whom made Geb. Sulzer Engine No.          When made           
 Donkey Boilers made at          By whom made          Boiler No.          When made           
 Brake Horse Power 450 Owners N.V. "Motorship Elisa" Port belonging to Rottterdam  
 Nom. Horse Power as per Rule 114 = MN Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which vessel is intended Seagoing trade

OIL ENGINES, &c. — Type of Engines Heavy oil engines 2 or 4 stroke cycle 2 Single or double acting single  
 Maximum pressure in cylinders 60 kg/cm<sup>2</sup> Diameter of cylinders 290 mm Length of stroke 500 mm No. of cylinders 5 No. of cranks 5  
 Mean Indicated Pressure 5.5 kg/cm<sup>2</sup> Span of bearings, adjacent to the crank, measured from inner edge to inner edge 354 mm Is there a bearing between each crank yes  
 Revolutions per minute 200 Flywheel dia. 1595 mm Weight 1040 kg Means of ignition compression Kind of fuel used Diesel oil  
 Crank Shaft, Solid forged dia. of journals as per Rule Crank pin dia. 190 mm Crank webs Mid. length breadth 315 mm Thickness parallel to axis           
Semi built as fitted 190 mm as fitted 190 mm Mid. length thickness 95 mm shrunk Thickness around eye hole           
All built  
 Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted 220 mm  
as fitted as fitted 195 mm as fitted  
 Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube shaft fitted with a continuous liner no  
as fitted as fitted as fitted as fitted  
 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 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 tube shaft yes If so, state type sulfuring 35/10 mm Length of bearing in Stern Bush next to and supporting propeller 200 mm  
 Propeller, dia. 1050 mm Pitch 1200 mm No. of blades 4 Material bronze whether moveable no Total developed surface          sq. feet  
 Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched yes Means of  
 lubrication from Thickness of cylinder liners 11 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled  
 or lagged with non-conducting material yes If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned  
 back to the engine to 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. one Diameter 85 mm Stroke 160 mm Can one be overhauled while the other is at work           
 Pumps connected to the Main Bilge Line { No. and size one 85 x 160 mm two 80 mm  
 How driven main engine aux engine  
 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 way 80 mm Power Driven Lubricating Oil Pumps, including spare pump, No. and size 1 way 12 1/2 x 15 1/2  
 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 1 1/2" 3 1/2" In pump room           
 In holds, &c. 3 1/2 1/2"  
 Independent Power Pump Direct Suctions to the engine room bilges, No. and size 1 1/2"  
 Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes yes Are the bilge suction 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          Are they fitted with valves or cocks 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           
 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. 1 No. of stages 2 diameters 95 mm stroke 100 mm driven by main engine  
 Auxiliary Air Compressors, No. one No. of stages 2 diameters 3 1/4 x 1 1/2 stroke 3 1/4 driven by aux engine  
 Small Auxiliary Air Compressors, No.          No. of stages          diameters          stroke          driven by           
 What provision is made for first charging the air receivers aux air compressor driven by hand started aux engine  
 Scavenging Air Pumps, No. 1 diameter 750 mm 2 450 mm stroke 800 mm driven by main engine  
 Auxiliary Engines crank shafts, diameter as per Rule as fitted 80 mm pins 73 mm Position Not formed in  
 Have the auxiliary engines been constructed under special survey no Is a report sent herewith yes



**AIR RECEIVERS:**—Have they been made under survey. *BV survey* State No. of report or certificate. *✓*  
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. *✓*  
Starting Air Receivers, No. *2 ✓* Total cubic capacity. *1000 lbs* Internal diameter. *4.99 in* thickness. *11 in*  
Seamless, lap welded or riveted longitudinal joint. *handless* Material. *SM steel* Range of tensile strength. *✓* Working pressure. *Actual 30 ATS* Built at.

**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. *14/4/40* Receivers. *✓* Separate fuel tanks. *10/4/40*  
(If not, state date of approval)  
Donkey boilers. *✓* General pumping arrangements. *30/4/40* Pumping arrangements in machinery space. *30/4/40*  
Oil fuel burning arrangements. *✓*

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied. *yes ✓*  
State the principal additional spare gear supplied. *✓*

The foregoing is a correct description, Manufacturer.

Dates of Survey while building  
During progress of work in shops. *✓*  
During erection on board vessel. *1940 10/8, 25/10, 2/11, 22/11, 25/11, 7/12, 29/12, 24/1*  
Total No. of visits. *8*  
Dates of examination of principal parts—Cylinders. *✓* Covers. *✓* Pistons. *✓* Rods. *✓* Connecting rods. *✓*  
Crank shaft. *✓* Flywheel shaft. *✓* Thrust shaft. *✓* Intermediate shafts. *22/9* Tube shaft. *✓*  
Screw shaft. *22/9* Propeller. *22/9* Stern tube. *15/2/9* Engine scatings. *10/8* Engine holding down bolts. *7/10*  
Completion of fitting sea connections. *22/9* Completion of pumping arrangements. *24/1* Engines tried under working conditions. *24/1*  
Crank shaft, material. *✓* Identification mark. *✓* Flywheel shaft, material. *✓* Identification mark. *✓*  
Thrust shaft, material. *✓* Identification mark. *✓* Intermediate shafts, material. *SM steel* Identification marks. *✓*  
Tube shaft, material. *✓* Identification mark. *✓* Screw shaft, material. *SM steel* Identification mark. *✓*  
Identification marks on air receivers. *No 11 TP 80 ATS WP 40 ATS CSR 25-5-46* *No 35 TP 80 ATS WP 40 ATS CH 9-5-46*

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 ✓*  
Description of fire extinguishing apparatus fitted. *3-2 gallon foam extinguishers, hose and connection (all in original)*  
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. *✓*  
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. *✓* If so, state name of vessel. *✓*

**General Remarks** (State quality of workmanship, opinions as to class, &c.) *The machinery has been satisfactorily fitted in the vessel in accordance with the Society's Rules, approved plans and Secretary's letters workmanship good. The machinery is true under full working condition and was found in good working and manoeuvring order and is in my opinion eligible to be classed in the Society's Registerbook with + Lloyds LMC oil engines 11-40 and 3 11-40 O.G.*

The amount of Entry Fee ... £  
Special ... £ *107- ✓*  
Donkey Boiler Fee... £ *57- ✓*  
Travelling Expenses (if any) £ *14/50 ✓*  
When applied for. *24/12 1948*  
When received. *19*

Committee's Minute  
Assigned *+ LMC 11-48 O.G. Eng. O.G. + NE made 1945 fitted 1948*

*Twilling*  
Engineer Surveyor to Lloyd's Register of Shipping.  
Lloyd's Register Foundation