

# REPORT ON OIL ENGINE MACHINERY.

No. 30951B

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No. in Survey held at Heerden Date, First Survey 10/0 Last Survey 24/11 1948  
Reg. Book. Number of Visits 8

on the Tonnage Single Screw vessel M.V. "ELISA" Tons Gross 487.96 Net 257.77

Built at Heerden By whom built M. de Haan & Deulmans Yard No. 250 When built 1948

Engines made at Winthuis By whom made Geb. Sijben 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 Rotterdam

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 190 mm Crank pin dia. 190 mm Crank webs Mid. length breadth 315 mm Kind of fuel used Diesel oil  
Semi built as fitted 190 mm Crank webs Mid. length thickness 95 mm shrunk Thickness parallel to axis  
All built

Flywheel Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as fitted  
as fitted 195 mm as fitted 220 mm

Tube Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the shaft fitted with a continuous liner  
as fitted 200 mm as fitted 200 mm tube screw no

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 2 mm as fitted 2 mm 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

nd of tube shaft 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  
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  
Thickness of cylinder liners 2 mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled

or 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. 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 05 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 05 x 160 mm How driven main 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 50 mm Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 way 12 15 mm  
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 103" 342" In pump room  
In holds, &c. 34 2 1/2"

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 103" ✓  
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 none How are they protected  
What 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

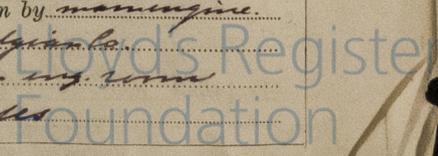
spaces, or from one compartment to another yes Is the shaft tunnel watertight Is it fitted with a watertight door worked from  
If a wood vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Main Air Compressors, No. 1 No. of stages 2 diameters 95 mm stroke 300 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 main engine

Small Auxiliary Air Compressors, No. No. of stages diameters stroke driven by  
What provision is made for first charging the air receivers air compressor driven by hand started auxiliary engine

Scavenging Air Pumps, No. 1 diameter 750 mm 8450 mm stroke 800 mm driven by main engine  
Auxiliary Engines crank shafts, diameter as per Rule 80 mm pins 73 mm Position Not formed in Lloyd's Register

Have the auxiliary engines been constructed under special survey no letter E 1/40 Is a report sent herewith yes



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**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 Actual.   
**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 A.T.S.* 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. *10'40*  
 (If not, state date of approval)  
 Donkey boilers.  General pumping arrangements. *30/4'40* Pumping arrangements in machinery space. *30/4'40*  
 Oil fuel buring 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 10/9, 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. *15/11, 2/12* Engine scatings. *10/12* Engine holding down bolts. *7/10*  
 Completion of fitting sea connections. *22/9* Completion of pumping arrangements. *24/11* Engines tried under working conditions. *24/11*  
 Crank shaft, material.  Identification mark.  Flywheel shaft, material.  Identification mark. *LLOYDS W B 555 PFW 22-9-40*  
 Thrust shaft, material.  Identification mark.  Intermediate shafts, material. *SM steel* Identification marks. *LLOYDS ERB 51.0 PFW 22-9-40*  
 Tube shaft, material.  Identification mark.  Screw shaft, material. *SM steel* Identification mark. *LLOYDS ERB 51.0 PFW 22-9-40*  
 Identification marks on air receivers. *No 11 TP 80 A.T.S. WP 40 A.T.S. CSR 25-5-46* *No 35 TP 80 A.T.S. WP 40 A.T.S. 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 tried 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 B 11-40 O.G.*

The amount of Entry Fee ... £  
 Special ... £ *107*  
 Donkey Boiler Fee... £ *25*  
 Travelling Expenses (if any) £ *41.50*  
 When applied for. *24/12 1948*  
 When received. *19*  
 Committee's Minute *FBI 28 JAN 1949*  
 Assigned *+ LMC 11-48 Oeb Eng. O.G. + NE made 1945 fitted 1948*



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