

REPORT ON OIL ENGINE MACHINERY.

No. 284226

JUL 27 1939

Received at London Office

Date of writing Report 24-7-1939 When handed in at Local Office Alblasveldam Port of Rotterdam
 No. in Survey held at Alblasveldam Date, First Survey 29-4-39 Last Survey 17-7-1939
 Reg. Book. Single on the Twin Triple Quadruple Screw vessel motor tanker MILDRED Tons { Gross 552.39 Net 245.60
 Built at Alblasveldam By whom built W. de Noor Yard No. 577 When built 1939
 Engines made at Cologne By whom made Klöckner Humboldt & Deutz Engine No. 431051/58 When made 1939
 Key Boilers made at Amman By whom made Cochran & Co Boiler No. 14363 When made 1939
 Brake Horse Power 400 Owners N.V. Tankhuus van Mij. Port belonging to Rotterdam
 Indicated Horse Power as per Rule 94 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted Yes
 Intended for which vessel is intended

ENGINES, &c.—Type of Engines Please see Donaldson's up. 295. 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 Is there a bearing between each crank
 Distance between bearings, adjacent to the Crank, measured from inner edge to inner edge
 Revolutions per minute 300 Flywheel dia. Weight Means of ignition Compression Kind of fuel used diesel oil
 Crankshaft, { Solid forged as per Rule dia. of journals as fitted Crank pin dia. Crank Webs Mid. length breadth Thickness parallel to axis
 { Semi built dia. of journals as fitted Mid. length thickness shrunk Thickness around eye-hole
 { All built
 Propeller Shaft, diameter as per Rule Intermediate Shafts, diameter as per Rule Thrust Shaft, diameter at collars as per Rule
 as fitted as fitted as fitted 160 mm
 Propeller Shaft, diameter as per Rule Screw Shaft, diameter as per Rule Is the tube screw shaft fitted with a continuous liner
 as fitted as fitted 164 mm / 171 mm
 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 stern tube
 as fitted as fitted
 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
 If so, state type Approved London Length of Bearing in Stern Bush next to and supporting propeller 400 mm
 Propeller, dia. 1600 mm Pitch 1310 mm No. of blades 4 Material bronze whether Moveable Solid Total Developed Surface 45 sq. feet
 Method of reversing Engines by hand Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication by hand
 Thickness of cylinder liners Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with conducting material both If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine funnel
 Bilge 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 400 mm Stroke 100 mm Can one be overhauled while the other is at work
 Bilge Pumps connected to the Main Bilge Line { No. and Size 2 1 a 5 1/4" x 5" x 5" 1 a 60 g.p.h.
 { How driven steam electrically
 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
 Lubricating Pumps, No. and size 2 2 a 60 g.p.h. Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 2 tooth wheel pumps
 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 4 2 a 57 mm 2 a 65 mm In Pump Room 1 2"
 Holds, &c. cofferdam 2 2 1/2" fore pump room 1 2 1/2" fore peak 1 2 1/2"
 Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 2 a 65 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 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
 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
 How are they protected
 How are they protected
 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
 Are the means 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. one No. of stages 2 Diameters 110 x 125 mm Stroke 130 mm Driven by aux engine
 All Auxiliary Air Compressors, No. one No. of stages 2 Diameters 45 x 110 mm Stroke 75 mm Driven by hand
 Is provision made for first Charging the Air Receivers hand compressor
 Ventilating Air Pumps, No. Diameter Stroke Driven by
 Auxiliary Engines crank shafts, diameter as per Rule See Donaldson's up. No 299-316 No. 2 Position 2 cyl starboard - 3 cyl port side engine room
 as fitted Is a report sent herewith Yes
 Have the Auxiliary Engines been constructed under special survey Yes



AIR RECEIVERS:—Have they been made under survey *Yes* State No. of Report or Certificate *enclosed*

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. *✓* Total cubic capacity *✓* Internal diameter *✓* thickness *✓*

Seamless, lap welded or riveted longitudinal joint *✓* Material *✓* Range of tensile strength *✓* Working pressure *by Rules ✓ Actual ✓*

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 (If not, state date of approval) Receivers *✓* Separate Fuel Tanks *✓*

Donkey Boilers *✓* General Pumping Arrangements *✓* Pumping Arrangements in Machinery Space *✓*

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--	29/4	12-22/5	6-13-25/6	5-17/7-39
During erection on board vessel--				
Total No. of visits	7			

Dates of Examination of principal parts—Cylinders *✓* Covers *✓* Pistons *✓* Rods *✓* Connecting rods *✓*

Crank shaft *✓* Flywheel shaft *✓* Thrust shaft *✓* Intermediate shafts *✓* Tube shaft *✓*

Screw shaft *12-5-39* Propeller *12-5-39* Stern tube *29-4-39* Engine seatings *12-5-39* Engines holding down bolts *5-7-39*

Completion of fitting sea connections *12-5-39* Completion of pumping arrangements *17-7-39* Engines tried under working conditions *17-7-39*

Crank shaft, Material *✓* Identification Mark *✓* Flywheel shaft, Material *✓* Identification Mark *✓*

Thrust shaft, Material *SM steel* Identification Mark *HB 3699* Intermediate shafts, Material *✓* Identification Marks *✓*

Tube shaft, Material *✓* Identification Mark *✓* Screw shaft, Material *SM steel* Identification Mark *MB 1358 A AB 29-4-39*

Identification Marks on Air Receivers

No 568+580. Lloyd's test 60 atm. W.P. 30 atm. U.S. 15.6.37

Lloyd's No. 843. for starting aux. eng. Test 70 atm. W.P. 35 atm. M.B. 29/10-38.

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 *✓* 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 *Melissa*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery has been made and fitted in accordance with the approved plans, Secretary's letters and Society's Rules. Main and auxiliary engines and centrifugal pumps, have been tested under full working conditions and was found working - and manoeuvring satisfactorily and in my opinion eligible for the record of R.M.C. 7-39 oil engines. C.G.*

The donkey boiler safety-valves, 2 spring loaded diam 63 mm. have been adjusted under steam to 145 lb. Thickness washers 2.2.13 mm.

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

The amount of Entry Fee .. £ *Charged* When applied for, *26.7.1939*

Special £ *Disallowed*

Donkey Boiler Fee £

Travelling Expenses (if any) £ *17.50* When received, *3.8.1939*

Committee's Minute **FRI 4 AUG 1939**

Assigned *Adm. 6.7.39 oil sup*

D.B. - 145 lb

C.H. House
Engineer Surveyor to Lloyd's Register of Shipping

