

# REPORT ON OIL ENGINE MACHINERY.

No. 13091

Received at London Office

Date of writing Report 19 When handed in at Local Office 24/8/47 Port of Trieste

No. in Survey held at Trieste & Manfredonia Date, First Survey 13/11/1945 Last Survey 3/8/47 19

Reg. Book. Single on the Twin Triple Quadruple Screw vessel M/T JAIKUS Tons Gross 6273 Net 3701

Built at Manfredonia By whom built Cantieri Riuniti dell'Adriatico Yard No. 1384 When built

Engines made at Trieste By whom made CRDA Fabbrica Macchine Engine No. 5432 When made

Donkey Boilers made at Trieste By whom made " " " Boiler No. 1894 When made

Brake Horse Power 4200 Owners Western Chartering Co. Port belonging to Panama City

Nom. Horse Power as per Rule 842 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended Carrying Petroleum in bulk

Oil Engines, &c. Type of Engines CRDA-sulzer 6SD 72 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 55 kg/cm<sup>2</sup> Diameter of cylinders 720 mm Length of stroke 1250 No. of cylinders 6 No. of cranks 6

Mean Indicated Pressure 5.57 kg/cm<sup>2</sup> Span of bearings, adjacent to the crank, measured from inner edge to inner edge 930 mm

Revolutions per minute 125 Flywheel dia 2423 mm Weight 2194 kg Means of ignition compress. Kind of fuel used Heavy Oil

Crank Shaft, Solid forged Semi built All built dia. of journals as per Rule 465 mm as fitted 490 mm Crank pin dia. 490 mm Crank webs Mid. length breadth 900 mm Thickness parallel to axis 305 mm

Flywheel Shaft, diameter as per Rule 490 mm as fitted 490 mm Intermediate Shafts, diameter as per Rule 341.4 mm as fitted 347 mm Thrust Shaft, diameter at collar as fitted 360 mm as per Rule 490 mm

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule 375.4 mm as fitted 380 mm Is the shaft fitted with a continuous liner yes

Bronze Liners, thickness in way of bushes as per Rule 16 mm as fitted 19 mm Thickness between bushes as per Rule 12 mm as fitted 15 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 no

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 no

If two liners are fitted, is the shaft lapped or protected between the liners no Is an approved Oil Gland or other appliance fitted at the after end of tube shaft no

Propeller, dia 4400 Pitch 3700 No. of blades 4 Material bronze whether moveable no Total developed surface 6.31 sq. m

Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when de-clutched yes

Means of lubrication forced Thickness of cylinder liners 4.3/27 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 no

Cooling Water Pumps, No. 3 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. 1 Diameter 220 mm Stroke 160 mm Can one be overhauled while the other is at work no

Pumps connected to the Main Bilge Line No. and size 2 - 1 a 100 T/h - 1 a 60 T/h How driven Steam

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 no

Ballast Pumps, No. and size two a 8 T/h in E.R. Power Driven Lubricating Oil Pumps, including spare pump, No. and size 2 a 25 T/h - 2 a 5 T/h

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 3 a 3 3/4", 1 a 2" from Wheel Well, 1 a 2" from E.R. Coffdam

In pump rooms No. 1 a 2 one to each hold, &c. a 2" Forward spaces 5 a 2" - 2 Cargo P. in each Pump Space a 250 T/h & 1 Bilge P. a 27 T/h. In Fore Pump space 1 O.F. Pump a 27 T/h & 1 Bilge & Ballast P. a 40 T/h

Independent Power Pump Direct Suctions to the engine room bilges, No. and size 2 a 5" - 1 a 6 1/4" Are all the bilge suction pipes in holds and tunnel well fitted with strum-boxes yes

1310-518300-808300-0131

**AIR RECEIVERS:**—Have they been made under survey *yes. Of the Reg. It 27.* State No. of report or certificate *see London Letter 18.2.46*  
 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* —  
 Starting Air Receivers, No. *2* Total cubic capacity *10 m<sup>3</sup> each* Internal diameter *1306.7* thickness *22* Working pressure *Actual* —  
 Seamless, lap welded or riveted longitudinal joint *rivet. D.B.S.* Material *Steel* Range of tensile strength *48-55* Working pressure *by Rules 8.7 pp. 1* Actual *30 K/cm<sup>2</sup>*

**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 —  
**PLANS.** Are approved plans forwarded herewith for shafting *14.3.46 & 23.5.46* Receivers *18.2.46* Separate fuel tanks —  
 (If not, state date of approval)  
 Donkey boilers *18.2.46* General pumping arrangements *15.3.46* Pumping arrangements in machinery space *15.3.46*  
 Oil fuel burning arrangements *15.3.46*

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied *yes*  
 State the principal additional spare gear supplied *1 Propeller Shaft, 1 Water piston & rod for each Pump on main Eng. 1 Steam & 1 water piston & rod for each independent steam pump. Miscellaneous for all auxiliaries*

**CANTIERI RIUNITI DELL'ADRIATICO**

*Fabbrica Macchine S. Andrea*  
 Manufacturer.

Dates of Survey while building  
 During progress of work in shops - - *1945 Nov 26, 29, Dec 5, 1946 Apr 5, 10, 27, May 13, 21, 28 Aug 9, 13 1947 Jan 11, 18, Apr 7, 10, May 23, June 6, 16, 25, July 1, 7, 16*  
 During erection on board vessel - - *1945 Nov 13, 1946 Feb 15, Mar 24, Apr 15, July 29, Sep 3, Oct 7, 21, Nov 12, 1947 Mar 24, Apr 17, 19, May 12, June 26, July 11, Aug 2, 3, 11, 21*  
 Total No. of visits *112*

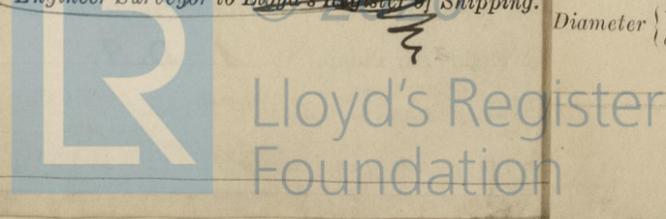
Dates of examination of principal parts—Cylinders *29.7.46* Covers *29.7.46* Pistons *27.7.46* Rods — Connecting rods *15.4.46*  
 Crank shaft *24.3.47* Flywheel shaft *24.3.47* Thrust shaft *24.3.47* Intermediate shafts *26.6.47* Tube shaft —  
 Screw shaft *15.7.47* Propeller *11.7.47* Stern tube *15.7.47* Engine seatings *15.4.46* Engine holding down bolts *3.9.46*  
 Completion of fitting sea connections *2.8.47* Completion of pumping arrangements *19.4.47* Engines tried under working conditions *3.8.47*  
 Crank shaft, material *Steel* Identification mark *22110/9174* Flywheel shaft, material *Steel* Identification mark *22110/9288*  
 Thrust shaft, material *Steel* Identification mark *22110/9288* Intermediate shafts, material *Steel* Identification marks *9174/761*  
 Tube shaft, material — Identification mark — Screw shaft, material *Steel* Identification mark *9174/797*  
 Identification marks on air receivers *No 8297 & 8298*

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 *Steam and 2 portable Foam & 140L. 24 & 9L. 5 CO<sub>2</sub> & 5 kg.*  
 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 *no*  
 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, &c. *This Engine has been constructed in Trieste in 1944 under supervision of the Registro Italiano on account of the G.L. In 1946 the Engine has been disconnected and several parts, damaged by bombs, have been removed. The re-fitting on the bench was carried out under survey and also the whole installation on board was carried out under survey in accordance with the Rules and approved plans. The machinery has been tested at sea in full working condition and found in order and in my opinion is eligible to have in the Society's Register Book the notation of LMC 8-37. For the vibration characteristic please see letter herewith attached.*

The amount of Entry Fee ... *£166.287*  
 Special Balance ... *£152.113* When applied for *28/1/47*  
 Donkey Boiler Fee ... *£* When received *24/3/47*  
 Sunday Fee ... *£ 3.00*  
 Travelling Expenses (if any) *£*

*P. Alparicio*  
 Engineer Surveyor to Lloyd's Register of Shipping.



Certificate (if required) to be sent to: Trieste Office

Committee's Minute  
 Assigned *LMC 8.47*  
*S(OH) 7.47*

Rpt. ...  
 Date of ...  
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 Master ...  
 Engines ...  
 Boilers ...  
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