

# REPORT ON OIL ENGINE MACHINERY.

No. 12516

Received at London Office MAY 18 1939

Date of writing Report

When handed in at Local Office

13.5.39 Port of Trieste

No. in Survey held at Reg. Book.

monfalcone

Date, First Survey H. 8. 38

Last Survey 7.5. 1939

Number of Visits 26

8666 on the <sup>Single</sup> ~~Twin~~ <sup>Triple</sup> ~~Quadruple~~ Screw vessel

James J Maguire

Tons { Gross: 10525 Net: 6065

Built at Monfalcone

By whom built Cantieri Rinaldo Adriatic Yard No 1207 When built 1939

Engines made at Turin

By whom made Fiat S. G. M. Engine No 2567 When made 1939

Donkey Boilers made at Trieste

By whom made Cantieri Rinaldo Adriatic Boiler No 1820 When made 1939

Brake Horse Power 3600

Owners Oriental Tanker Co. Port belonging to London

Nom. Horse Power as per Rule 1000

Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which vessel is intended

SEE ALSO GENOA REPORT 15644 FIAT 15688 Solid Injection 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 50 Kg/cm<sup>2</sup> Diameter of cylinders 680mm (26 3/4") Length of stroke 1100 (43 1/2") No. of cylinders 8 No. of cranks 8

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 920mm Is there a bearing between each crank yes

Revolutions per minute 110 Flywheel dia 2400mm Weight 7500kg Means of ignition Compress. Kind of fuel used Diesel oil

Crank Shaft, { Solid forged dia. of journals as per Rule 414mm Crank pin dia. 450mm Crank Webs Mid. length breadth - Thickness parallel to axis 290mm Semi built as fitted 450mm Mid. length thickness - shrunk Thickness around eye-hole 212mm All built

Flywheel Shaft, diameter as per Rule - Intermediate Shafts, diameter as per Rule 324mm Thrust Shaft, diameter at collars as per Rule 344mm as fitted - as fitted 352mm as fitted 450mm

Tube Shaft, diameter as per Rule - Screw Shaft, diameter as per Rule 362mm Is the tube screw shaft fitted with a continuous liner yes as fitted - as fitted 398mm

Bronze Liners, thickness in way of bushes as per Rule 19.78mm Thickness between bushes as per Rule 15mm Is the after end of the liner made watertight in the propeller boss as fitted 23mm as fitted 18mm

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

Propeller, dia. 5000mm Pitch 3940mm No. of blades 4 Material bronze whether Moveable no Total Developed Surface 8.64 sq. m

Method of reversing Engines direct Is a governor or other arrangement fitted to prevent racing of the engine when disengaged yes Means of lubrication forced

Thickness of cylinder liners 63mm Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with non-conducting material lagged

Cooling Water Pumps, No. 1 Indip. FW - 1 Dip. Sea W. 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 60 T/h Stroke - Can one be overhauled while the other is at work -

Engine Room Pumps connected to the Main Bilge Line { No. and Size One a 60 T/h. One a 85 T/h. One a 150 T/h. One a 85 T/h from form. Coff. only How driven One by main Engine, others by 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 in Pump Spaces: Main - 2 Cargo P. - 1 Stripping a Bilge P. - forward: 2 Bilge a Coff. P. - 2 Oil Transf. P. - 1 Cargo P. One Stripping P. - 1 Main Eng. 50T

Ballast Pumps, No. and size Two 400 x 280 x 400 x 2 Power Driven Lubricating Oil Pumps, including Spare Pump, No. and size 1 independent 40T

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 1/2" - One from ER Cofferdam 2 1/4" In Pump Room Main 2 a 3 1/2" Forward 2 a 3 1/2"

In Holds, &c. 2 a 3" - 2 a 4 1/2" from Cofferdam betw. Cargo Tank & Bunker

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 a 3 1/2"; 1 a 10" for Emergency

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 with plate box 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 Suction of forward Cofferdam How are they protected -

What pipes pass through the deep tanks Fore Peak suction Have they been tested as per Rule yes

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 none 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. none No. of stages - Diameters - Stroke - Driven by -

Auxiliary Air Compressors, No. 1 Two Cyl. No. of stages 2 Diameters 240 x 205mm Stroke 255mm Driven by Steam Eng.

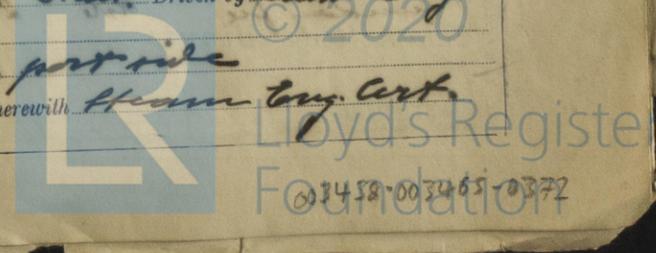
Small Auxiliary Air Compressors, No. 1 One Cyl. No. of stages 2 Diameters 165 x 75mm Stroke 150mm Driven by Electr. Gen. Steam Engine

What provision is made for first Charging the Air Receivers Steam Compressors

Scavenging Air Pumps, No. 1 Two Cyl. Tandem Diameter 1380mm Stroke 750mm 8. Oct. Driven by Main Eng.

Auxiliary Engines crank shafts, diameter as per Rule See Bremen Certificate No. 3 Position 2nd C.P. port side as fitted dated 12th October 1938

Have the Auxiliary Engines been constructed under special survey yes Is a report sent herewith Steam Eng. Cert.



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**AIR RECEIVERS:**—Have they been made under survey *yes* State No. of Report or Certificate *812/3-813/4 MB 1-4*  
 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.** *none* 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.** *Two* Total cubic capacity *2.8 m<sup>3</sup>* Internal diameter *1248* thickness *26 mm*  
 Seamless, lap welded or riveted longitudinal joint *Fusion Weld* Material *Steel* Range of tensile strength *—* Working pressure *28 bar*

**IS A DONKEY BOILER FITTED?** *yes 2 Cyl. Marine* 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 *Sec Genoa Report* Receivers *—* Separate Fuel Tanks *In the ship's structure*  
 Donkey Boilers *In London* General Pumping Arrangements *27.5.37* Pumping Arrangements in Machinery Space *5.6.37*  
 Oil Fuel Burning Arrangements *5.6.37*

**SPARE GEAR.**

Has the spare gear required by the Rules been supplied *yes*  
 State the principal additional spare gear supplied *See attached list*

The foregoing is a correct description,

Manufacturer.

Dates of Survey while building  
 During progress of work in shops -- *Please see Genoa Report No 15644*  
 During erection on board vessel -- *1938 Aug. 4, Oct. 6, 1939 Jan. 31, Feb. 9, 13, 28, Mar. 1, 2, 8, 14, 15, 21, 22, 29, Apr. 3, 7, 14, 17, 25, 26, May 1, 2, 3, 5, 6,*  
 Total No. of visits *twenty six*  
 Dates of Examination of principal parts—Cylinders *13.2.39* Covers *13.2.39* Pistons *13.2.39* Rods *13.2.39* Connecting rods *28.2.39*  
 Crank shaft *15.3.39* Flywheel shaft *—* Thrust shaft *15.3.39* Intermediate shafts *15.3.39* Tube shaft *—*  
 Screw shaft *27.4.39* Propeller *29.4.39* Stern tube *27.2.29/1/39* Engine seatings *29.4.39* Engines holding down bolts *15.3.39*  
 Completion of fitting sea connections *29.4.39* Completion of pumping arrangements *26.4.39* Engines tried under working conditions *5.5.39*  
 Crank shaft, Material *S.M.S* Identification Mark *5735.70.10.3.38* Flywheel shaft, Material *—* Identification Mark *—*  
 Thrust shaft, Material *S.M.S* Identification Mark *5786.70.20.5.38* Intermediate shafts, Material *S.M.S* Identification Marks *1506 HK 15.6.3*  
 Tube shaft, Material *—* Identification Mark *—* Screw shaft, Material *S.M.S* Identification Mark *1507 HK 15.6.3*  
 Identification Marks on Air Receivers *LLOYD'S No 812/3 WP 28 AT. 1.4.38 MB* *LLOYD'S No 813/4 WP 28 AT. 1.4.38 MB*

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 *Bulk 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 *no*  
 Is this machinery duplicate of a previous case *yes* If so, state name of vessel *John A Brown, Edwy R. Brown*

**General Remarks** (State quality of workmanship, opinions as to class, &c.) *The machinery of this vessel have been constructed under special survey. They have been satisfactorily fitted on board at manufacturers and tested under full working condition and found in order. In connection with the two cyl. boilers, two CYRO 700 Gimple tube Economizers have been satisfactorily fitted on board and their safety valves have been adjusted to blow at 205 lbs. The whole of the installation has been made in accordance with the Rules and Secretary letters and in my opinion the machinery is eligible to move in the Society's Register Book. The record of + LMC 5-39*

The amount of Entry Fee .. £	:	:	When applied for,
1/5 Special ..	2312	—	13/5/39
Additional tests etc ..	630	—	—
Donkey Boiler Fee .. £	:	:	When received,
Travelling Expenses (if any) ..	870	—	75.5.19.38/6/3
Sunday fee ..	200	—	—
Committee's Minute			

*Affidavit*  
 Surveyor to Lloyd's Register of Shipping.



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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.

Assigned *+ dmb 5.37*  
*2.50-177 H*  
*oil eng. Ch*