

## REPORT ON OIL ENGINE MACHINERY.

No. 94350.

29 SEP 1928

Received at London Office

LIVERPOOL

Date of writing Report 1928 When handed in at Local Office

24 SEP. 1928 Port of

No. in Survey held at  
Reg. Book.

Queensferry (Chester)

Date, First Survey July 11<sup>th</sup>/28 Last Survey Sept 15 1928

Number of Visits 11

84963 on the <sup>Single</sup> Twin <sup>Triple</sup> Screw vessel "Energie"Tons { Gross 433  
Net 225

Built at Queensferry By whom built Abdela Mitchell (1925) Yard No. 535 When built 1928  
Engines made at Cologne - Daimler By whom made Maschinenfabrik Deutz A.G. Engine No. 205795 When made 1928  
Donkey Boilers made at By whom made Boiler No. 1202 When made  
Brake Horse Power 400 (total) Owners Medway Oil & Storage Co Ltd Port belonging to Rochester  
Nom. Horse Power as per Rule 114 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.  
Trade for which vessel is intended

OIL ENGINES, &amp;c.—Type of Engines Heavy oil Engine - turn screw. 2 or 4 stroke cycle 4. Single or double acting Single

Maximum pressure in cylinders 40 kg/cm<sup>2</sup> Diameter of cylinders 280 mm Length of stroke 450 mm No. of cylinders 8 (total) No. of cranks 8 (total)

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

Revolutions per minute 300 Flywheel dia. Weight Means of ignition Kind of fuel used

Crank Shaft, dia. of journals as per Rule as fitted Crank pin dia. Crank Webs Mid. length breadth shrunk Thickness parallel to axis  
as fitted Mid. length thickness Thickness around eyehole

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

Tube Shaft, diameter as per Rule as fitted Screw Shaft, diameter as per Rule as fitted Is the { tube } shaft fitted with a continuous liner { No. (short line in way of a bracket) }

Bronze Liners, thickness in way of bushes as per Rule as fitted Thickness between bushes as fitted 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

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 shaft No. Length of Bearing in Stern Bush next to and supporting propeller 1'-8 1/4"

Propeller, dia. 5'-4 1/2" Pitch No. of blades 3 Material bronze whether Moveable No Total Developed Surface sq. feet

Method of reversing Engines Is a governor or other arrangement fitted to prevent racing of the engine when declutched Means of lubrication

Thickness of cylinder liners Are the cylinders fitted with safety valves 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 Exhaust up funnel

Cooling Water Pumps, No. Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Bilge Pumps worked from the Main Engines, No. one each engine Diameter 7 1/2" Stroke 70" Can one be overhauled while the other is at work Yes

Pumps connected to the Main Bilge Line { No. and Size one, Centrifugal pump, 3166 litres per hour capacity (Slaps 2460 - 6.1.28)  
How driven 7 HP crude oil engine

Ballast Pumps, No. and size one Centry supplied Lubricating Oil Pumps, including Spare Pump, No. and size

Are two independent means arranged for circulating water through the Oil Cooler Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge

Pumps, No. and size:—In Machinery Spaces Two- 2" dia"

In Holds, &amp;c. Off peak - one 2" dia"

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size one - 2 1/2" dia"

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 Are they fitted with Valves or Cocks both

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 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 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. one per set No. of stages two Diameters 115 x 135 3/4 Stroke 70" Driven by Main Engines

Auxiliary Air Compressors, No. one No. of stages two Supplied from Deutz marked 115 x 135 3/4 6.1.28 Driven by 7 HP engine

Small Auxiliary Air Compressors, No. No. of stages Diameters Stroke Driven by

Scavenging Air Pumps, No. Diameter Stroke Driven by

Auxiliary Engines crank shafts, diameter as per Rule as fitted

AIR RECEIVERS:—Is each receiver, which can be isolated, fitted with a safety valve as per Rule

Can the internal surfaces of the receivers be examined What means are provided for cleaning their inner surfaces

Is there a drain arrangement fitted at the lowest part of each receiver

High Pressure 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. Total cubic capacity Internal diameter thickness

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

IS A DONKEY BOILER FITTED? *ho*

If so, is a report now forwarded? ☒

PLANS. Are approved plans forwarded herewith for Shafting *13.1.28*  
(If not, state date of approval)

Receivers ☒

Separate Tanks ☒

Donkey Boilers ☒

General Pumping Arrangements *yes*

Oil Fuel Burning Arrangements ☒

SPARE GEAR

*as per Rules & Dussel's Rpt N°8. Verified on board.*

The foregoing is a correct description,

*Misses J. J. Abdula & Mitchell (1925) Ltd*

Manufacturer.

*L. L. Slater manager*

Dates of Survey while building { During progress of work in shops -- ☒  
During erection on board vessel -- *1925 July 11, 16, 18, Aug 7, 24, 31, Sept 3, 10, 12, 14, 15.*  
Total No. of visits *11.*

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

Crank shaft ☒ Flywheel shaft ☒ Thrust shaft ☒ Intermediate shafts ☒ Tube shaft ☒

Screw shaft *18.7.28* Propeller *18.7.28* Stern tube *11.7.28* Engine seatings *11.7.28* Engines holding down bolts *17.8.28*

Completion of fitting sea connections *18.7.28* Completion of pumping arrangements *3.9.28* Engines tried under working conditions *10.9.28*

Crank shaft, Material ☒ Identification Mark ☒ Flywheel shaft, Material ☒ Identification Mark ☒

Thrust shaft, Material ☒ Identification Mark ☒ Intermediate shafts, Material ☒ Identification Marks ☒

Tube shaft, Material ☒ Identification Mark ☒ Screw shaft, Material *steel* Identification Mark *2412/2413 10.12.28*

Is the flash point of the oil to be used over 150° F. *yes.*

Is this machinery duplicate of a previous case *ho* If so, state name of vessel ☒

General Remarks (State quality of workmanship, opinions as to class, &c.)

*This Machinery Has been fitted on board in a satisfactory manner & in accordance with the Rules and approved plans. Upon Completion it was examined under full working conditions during trial and found satisfactory, and is now, in my opinion eligible for record of LMC 9.28 in Register book.*

The amount of Entry Fee ... £ *Def Report*  
Special *pat fee* ... £ *5.14.0*  
Donkey Boiler Fee ... £ : :  
Travelling Expenses (if any) £ *1.18.6*

When applied for,

*See letter to*

When received,

*22.12.27*

Committee's Minute

*LIVERPOOL*

*28 SEP. 1928*

Assigned

*+ LMC 9.28.*

*J. S. Milton & A. R. Howell*  
Engineer Surveyor to Lloyd's Register of Shipping.



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