

## REPORT ON OIL ENGINE MACHINERY.

No. 17494  
18 JUN 1927

Received at London Office

Date of writing Report 13<sup>th</sup> June 1927 When handed in at Local Office

Port of Hamburg

No. in Survey held at Hamburg  
Reg. Book.Date, First Survey 5<sup>th</sup> May 1927 Last Survey 13<sup>th</sup> June 1927  
Number of Visits 8Single  
on the Twin  
Triple  
Quadrupleas stated intended to be fitted on a motor vessel  
Screw vessel in Hongkong, Engines purchased by Messrs. J. & C. L. & Co. Hongkong.Tons { Gross  
Net

Built at \_\_\_\_\_ By whom built \_\_\_\_\_ Yard No. \_\_\_\_\_ When built \_\_\_\_\_  
Engines made at Hamburg By whom made Gammotoren Werke Hamburg - Engines No. 2315 When made 1926  
Donkey Boilers made at \_\_\_\_\_ By whom made \_\_\_\_\_ Boiler No. \_\_\_\_\_ When made \_\_\_\_\_  
Brake Horse Power 2 x 220 Owners \_\_\_\_\_ Port belonging to \_\_\_\_\_  
Nom. Horse Power as per Rule 2 x 91.5 Is Refrigerating Machinery fitted for cargo purposes Is Electric Light fitted  
Trade for which vessel is intended \_\_\_\_\_

L ENGINES, &amp;c.—Type of Engines Diesel Engine Type P. 4. K. Henschelmann 2 or 4 stroke cycle 2 Single or double acting single

Maximum pressure in cylinders 35-41 kg/cm<sup>2</sup> Diameter of cylinders 290 mm Length of stroke 430 mm No. of cylinders 4 No. of cranks 4

Span of bearings, adjacent to the Crank, measured from inner edge to inner edge 362 mm Is there a bearing between each crank yes

Revolutions per minute 230 Flywheel dia. 1300 mm Weight 1800 kg Means of ignition Diesel principle Kind of fuel used Gas oil

Crank Shaft, dia. of journals as per Rule 174 mm as fitted 175 mm Crank pin dia. 175 mm Crank Webs Mid. length breadth 235 mm Mid. length thickness 95 mm Thickness parallel to axis shrunk Thickness around eye-hole

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 { screw } shaft fitted with a continuous liner {

Bronze Liners, thickness in way of bushes as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Thickness between bushes as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_ Is the after end of the liner made watertight in the

Propeller boss \_\_\_\_\_ If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner

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

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 \_\_\_\_\_ Length of Bearing in Stern Bush next to and supporting propeller \_\_\_\_\_

Propeller, dia. \_\_\_\_\_ Pitch \_\_\_\_\_ No. of blades \_\_\_\_\_ Material \_\_\_\_\_ whether Moveable \_\_\_\_\_ Total Developed Surface \_\_\_\_\_ sq. feet

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

forced \_\_\_\_\_ Thickness of cylinder liners no liner Are the cylinders fitted with safety valves yes Are the exhaust pipes and silencers water cooled or lagged with

non-conducting material at engine 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. \_\_\_\_\_ Is the sea suction provided with an efficient strainer which can be cleared within the vessel

Large Pumps worked from the Main Engines, No. 1 to each engine Diameter 125 mm Stroke 58 mm Can one be overhauled while the other is at work yes

Pumps connected to the Main Bilge Line { No. and Size \_\_\_\_\_ How driven \_\_\_\_\_

Lubricating Oil Pumps, including Spare Pump, No. and size 1 belt wheel pump to each engine

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 \_\_\_\_\_

Holds, &amp;c. \_\_\_\_\_

Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size \_\_\_\_\_

all the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes \_\_\_\_\_ 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

all Sea Connections fitted direct on the skin of the ship \_\_\_\_\_ Are they fitted with Valves or Cocks \_\_\_\_\_

they fixed sufficiently high on the ship's side to be seen without lifting the platform plates \_\_\_\_\_ Are the Overboard Discharges above or below the deep water line

they each fitted with a Discharge Valve always accessible on the plating of the vessel \_\_\_\_\_ Are the Blow Off Cocks fitted with a spigot and brass covering plate

at pipes pass through the bunkers \_\_\_\_\_ How are they protected \_\_\_\_\_

at pipes pass through the deep tanks \_\_\_\_\_ Have they been tested as per Rule \_\_\_\_\_

all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times

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

department to another \_\_\_\_\_ Is the Shaft Tunnel watertight \_\_\_\_\_ Is it fitted with a watertight door \_\_\_\_\_ worked from \_\_\_\_\_

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. 2 to each engine No. of stages 2 Diameters 215/65 mm Stroke 330 mm Driven by main engine

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

all Auxiliary Air Compressors, No. \_\_\_\_\_ No. of stages \_\_\_\_\_ Diameters \_\_\_\_\_ Stroke \_\_\_\_\_ Driven by \_\_\_\_\_

Refrigerating Air Pumps, No. 2 to each engine Diameter 425/215 mm Stroke 330 mm Driven by main engine

Auxiliary Engines crank shafts, diameter as per Rule \_\_\_\_\_ as fitted \_\_\_\_\_

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

the internal surfaces of the receivers be examined yes What means are provided for cleaning their inner surfaces removable covers

are a drain arrangement fitted at the lowest part of each receiver yes

Pressure Air Receivers, No. 4 Cubic capacity of each 2 of 0.050, 2 of 0.110 m<sup>3</sup> Internal diameter 190 mm 300 mm thickness 7.5 mm 12 mmless, lap welded or riveted longitudinal joint seamless Material steel Range of tensile strength 58 kg/cm<sup>2</sup> Working pressure by Rules 61 68 kg/cm<sup>2</sup>Refrigerating Air Receivers, No. 2 Total cubic capacity 2 x 1.5 m<sup>3</sup> Internal diameter 750 mm thickness 10 mmless, lap welded or riveted longitudinal joint riveted longitudinal joint Material steel Range of tensile strength 41-49 kg/cm<sup>2</sup> Working pressure by Rules 10.2 kg/cm<sup>2</sup>



IS A DONKEY BOILER FITTED?

If so, is a report now forwarded?

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

Receivers yes, but not yet approved Separate Tanks

Donkey Boilers

General Pumping Arrangements

Oil Fuel Burning Arrangements

SPARE GEAR The number of spare parts, now delivered with the engines, are not as required by the Rules and must be checked over when completely delivered.

The foregoing is a correct description of the

**Motoren-Werke Hennrich A.-G.**  
Vom. Banz, Abt. Stationärer Motorenbau  
Vort. Schiffe Hamburg  
Manufacturer.

Dates of Survey while building  
During progress of work in shops --  
During erection on board vessel --  
Total No. of visits

5/5 9/5 4/5 13/5 20/5 21/5 24/5 - 13/6 1927


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Dates of Examination of principal parts—Cylinders 5/5 9/5 Covers 5/5 9/5 Pistons 5/5 9/5 Rods Connecting rods 13/5

Crank shafts 13/5 Flywheel shaft Thrust shaft Intermediate shafts Tube shaft

Screw shaft Propeller Stern tube Engine seatings Engines holding down bolts

Completion of fitting sea connections Completion of pumping arrangements Engines tried under working conditions

Crank shaft, Material steel Identification Mark  A. C. 331 Flywheel shaft, Material Identification Mark

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

Tube shaft, Material Identification Mark Screw shaft, Material Identification Mark

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

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. These engines have been built under the survey of the Germanischer Lloyd and the materials used in the construction have been tested by that Society. In completion the motors tried on test bed and a certificate certifying that the results of these trials were carried over a period of six hours with satisfactory results was issued by the Germanischer Lloyd. (Copies are attached)  
Now all the working parts of the engines have been opened out, and cooling water chambers hydraulically tested and found all in good condition. The marks on crank shafts and air receivers are in accordance with the test certificates of the Germ. Lloyd. The air receivers have been hydraulically tested as required by the Rules.

These engines are in my opinion of good quality and the workmanship is good. In the event of being installed in a vessel classed with this Society in accordance with the requirements of the Rules, they will be eligible to have record of LMC with date when completed.

For identification purpose these engines are marked:

Starb. engine Port engine  
No. 2315 No. 2316  
Lloyd's A.C. Lloyd's A.C.  
21. 5. 27 21. 5. 27

The amount of Entry Fee (10%) £ 3 : - : - : When applied for,  
Special ... 60% £ 24 : 9 : - : 15. 6. 1927  
Donkey Boiler Fee ... £ - : - : - : When received,  
Travelling Expenses (if any) £ - : 11 : - : 16. 6. 1927

Committee's Minute

FRI. 10 FEB 1928

Assigned

See Minute on  
HKG Rpt 6225 attached

FRI. 9 NOV 1928

FRI. 30 NOV 1928

A. Carstensen  
Engineer Surveyor to Lloyd's Register of Shipping.



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Lloyd's Register  
Foundation

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

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