

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

17 APR 1929

Date of writing Report *3rd April 1929*. When handed in at Local Office *15th April 1929* Port of *DANZIG*  
 No. in Survey held at *DANZIG* Date, First Survey *15th May 1928* Last Survey *8th April 1929*  
 Reg. Book. *91324* on the *Shul Le Nordvanger* (Number of Visits *37*)  
 Built at *Danzig* By whom built *The Intern. Shipbuilding & Eng. Co. Ltd.* and No. *53* Tons { Gross *2400*  
 Engines made at *Danzig* By whom made *The Intern. Shipb. & Eng. Co. Ltd.* Engine No. *361* Net *1386*  
 Boilers made at *Danzig* By whom made *The Intern. Shipb. & Eng. Co. Ltd.* Boiler No. *542/73* When built *1929*  
 Registered Horse Power *229* Owners *Skibsartieselskabet "Karaibien"* Port belonging to *Oslo*  
 Nom. Horse Power as per Rule *199* Is Refrigerating Machinery fitted for cargo purposes *no* Is Electric Light fitted *yes*  
 Trade for which Vessel is intended *20*

ENGINES, &c.—Description of Engines *Lentz type 35 7/16* Revs. per minute *90*  
 Dia. of Cylinders *2 of 420 x 900 mm* Length of Stroke *1900 mm* No. of Cylinders *4* No. of Cranks *4*  
 Crank shaft, dia. of journals *as per Rule 265 mm* Crank pin dia. *293 mm* Crank webs *Mid. length breadth 540 mm* Thickness parallel to axis *183 mm*  
 Intermediate Shafts, diameter *as per Rule 253 mm* Thrust shaft, diameter at collars *as per Rule 265 mm* Thickness around eye-hole *136 mm*  
 Tube Shafts, diameter *as fitted 255 mm* Screw Shaft, diameter *as per Rule 282 mm* Is the *tube* shaft fitted with a continuous liner *yes*  
 Bronze Liners, thickness in way of bushes *as per Rule 16.5 mm* Thickness between bushes *as per Rule 12.5 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 *—*  
 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 *—* Length of Bearing in Stern Bush next to and supporting propeller *1250 mm*  
 Propeller, dia. *4200 mm* Pitch *3500 mm* No. of Blades *4* Material *Brongze* whether Moveable *no* Total Developed Surface *4.8 sq. m.*  
 Feed Pumps worked from the Main Engines, No. *—* Diameter *—* Stroke *—* Can one be overhauled while the other is at work *—*  
 Bilge Pumps worked from the Main Engines, No. *2* Diameter *85 mm* Stroke *300 mm* Can one be overhauled while the other is at work *yes*  
 Feed Pumps { No. and size *2, 9 1/2' x 4' x 21"* Pumps connected to the { No. and size *2 of 85 x 300 mm, 1 of 2 x 150 x 200 x 150 mm*  
 How driven *Steam (Heir)* Main Bilge Line { How driven *connected* steam.  
 Ballast Pumps, No. and size *—* 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; — In Engine and Boiler Room *4 of 70 mm, tunnel 1 of 64 mm*  
 In Holds, &c. *Forward 4 of 64 mm, Aft 4 of 64 mm, cofferdams each 2 of 70 mm int. dia.*

Main Water Circulating Pump Direct Bilge Suctions, No. and size *1 of 185 mm* Independent Power Pump Direct Suctions to the Engine Room Bilges,  
 No. and size *1 of 100 mm int. dia.* Are all the Bilge Suction Pipes in holds and tunnel well fitted with strum-boxes *yes*  
 Are the Bilge Suctions in the Machinery Space 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 stokehold 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 are carried 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 *yes* Is it fitted with a watertight door *yes* worked from *Cylinder*  
*grating*

MAIN BOILERS, &c.—(Letter for record *S*) Total Heating Surface of Boilers *314 sqm = 3380 sqft.* Working Pressure *14.5 Kgs.*  
 Is Forced Draft fitted *yes* No. and Description of Boilers *2 Multitubular Single End*  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? *yes*  
 IS A DONKEY BOILER FITTED? *no* If so, is a report now forwarded? *—*

PLANS. Are approved plans forwarded herewith for Shafting *29.2.28* Main Boilers *14.9.28* Auxiliary Boilers *—* Donkey Boilers *—*  
 (If not state date of approval)  
 Superheaters *—* General Pumping Arrangements *1.1.29* Oil fuel Burning Piping Arrangements *—*

SPARE GEAR. State the articles supplied:—

*All articles of spare gear, required and recommended in Section 37 of the Society's Rules have been supplied, with exception of the crank shaft.*



1928 May 15; Aug. 22; Sept. 19, 19; Oct. 1, 2, 8, 30; Nov. 9, 17, 20; Dec. 4, 7, 7, 27

During progress of work in shops - -

Dates of Survey while building - -

1929 Jan. 3, 8, 10, 11, 14, 14, 30; Feb. 2, 6, 7, 18, 21, 25, 28; Mar. 2, 5, 8, 15, 18, 27, 28; Apr. 8

During erection on board vessel - -

Total No. of visits 37

Dates of Examination of principal parts—Cylinders From 9.11.28 to 7.12.28 Slides From 9.11.28 to 7.12.28 Covers From 9.11.28 to 7.12.28

Pistons From 9.11.28 to 7.12.28 Piston Rods From 1.10.28 to 6.2.29 Connecting rods From 22.8.28 to 6.2.29

Crank shaft From 15.5.28 to 5.3.29 Thrust shaft 2.3.29 Intermediate shafts From 9.11.28 to 5.3.29

Tube shaft ✓ Screw shaft From 9.11.28 to 5.3.29 Propeller 4.12.28 to 7.12.28 - 15.3.29; dry dock

Stern tube From 20.11.28 to 7.12.28 Engine and boiler seatings From 1.10.28 to 14.1.29 Engines holding down bolts 14.1.29

Completion of pumping arrangements 27.3.29 Boilers fixed 14.1.29 Engines tried under steam 28.3.29

Main boiler safety valves adjusted 28.3.29 Thickness of adjusting washers *St. boiler* 26.20 mm *P. boiler* 26.21 mm

Crank shaft material *steel* Identification Mark { LLOYDS No. 54,520,523,524 Thrust shaft material *steel* Identification Mark No 4621 J.L. 21.7.28

Intermediate shafts, material *steel* Identification Marks { LLOYDS No. 1447 MK 2.6.28. Tube shaft, material - Identification Mark -

Screw shaft, material *steel* Identification Mark No 2476 JQ 29.6.28 Steam Pipes, material *steel* Test pressure 44 kg Dates of Test From 27.12.28 to 18.3.29

Is an installation fitted for burning oil fuel *no* Is the flash point of the oil to be *used* over 150°F. *yes*

Have the requirements of the Rules for carrying *and burning* oil fuel been complied with *yes*

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 machinery has been constructed under Special Survey in accordance with the requirements of the Rules, the Secretary's letters and the approved plans. Materials and workmanship are of good quality, the outfit is ample. The machinery has been tried under full working and manoeuvring conditions and gave entire satisfaction.

It is submitted that this machinery is eligible in our opinion to be classed +LMC-3, 29 in the Society's Register Book.

\* As the last Survey on the machinery of this vessel was held on the 8th April 1929 and she has not yet left the Builders' yard it is submitted that a record of +LMC 4, 29 be assigned.

Copy of certificate attached.

The 'Electric Light' Report has been sent to the Electrical Engineers in Germany for signature & will be forwarded as soon as possible.

NOTE: Of the Special Survey fee £ 24.15.0 to be placed to the credit of Daurig. The remaining amounts to be credited to Stettin

The amount of Entry Fee ... £ 4 : 0 : When applied for,

Special ... £ 40 : 15 : 15.4.1929

Donkey Boiler Fee ... £ - : - : When received,

Travelling Expenses (if any) £ 23 : 15 : 27.10.1929

Committee's Minute

FRI. 26 APR 1929

Assigned

+LMC 4: 29

F. D. C.

Engineer Surveyor to Lloyd's Register of Shipping.

James C. Dykes  
Surveyor to Lloyd's Register  
of Shipping



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Foundation