

## REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

JUL 13 1938

Date of writing Report 13-7-38 19 When handed in at Local Office 16-8-37 19 Port of HAMBURG  
 No. in Survey held at Lübeck Date, First Survey 16-8-37 Last Survey 30-6-38 19  
 Reg. Book. on the Steel S. "Reinbek" REINBEK (Number of Visits 24) Tons { Gross 2584  
 Net 1644  
 Built at Lübeck By whom built Lübecker Maschinenbau Gesellschaft Yard No. 267 When built 1938  
 Engines made at Berlin - Tegel By whom made Rheinmetall-Borsig AG Engine No. 8289 When made 1938  
 Boilers made at Lübeck By whom made Lüb. Maschinenb. Ges. Boiler No. 1291/2 When made 1938  
 Registered Horse Power 1800 Owners Knöcher & Burchard AG. Port belonging to Hamburg  
 Nom. Horse Power as per Rule 352 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes  
 Trade for which Vessel is intended Tramp

Engines, &c.—Description of Engines Double Compound, contra type No. 11 Revs. per minute 80  
 Dia. of Cylinders 250 mm, 100 mm Length of Stroke 1100 mm No. of Cylinders 4 No. of Cranks 4  
 Crank shaft, dia. of journals as per Rule 327 mm as fitted 350 mm Crank pin dia. 350 mm Crank webs Mid. length breadth 680 mm shrunk Thickness parallel to axis 210 mm  
 Mid. length thickness 910 mm Thickness around eye-hole 162 mm  
 Intermediate Shafts, diameter as per Rule 300.4 mm as fitted 318 mm Thrust shaft, diameter at collars as per Rule 327 mm as fitted 340 mm  
 Tube Shafts, diameter as per Rule 327 mm as fitted 340 mm Screw Shaft, diameter as per Rule 327 mm as fitted 340 mm Is the { tube } shaft fitted with a continuous liner { yes }  
 Bronze Liners, thickness in way of bushes as per Rule 18.3 mm as fitted 20.5 mm Thickness between bushes as per Rule 18.3 mm as fitted 19.25 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 yes  
 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 yes  
 If two liners are fitted, is the shaft lapped or protected between the liners yes Is an approved Oil Gland or other appliance fitted at the after end of the tube shaft no If so, state type yes  
 Length of Bearing in Stern Bush next to and supporting propeller 146 mm  
 Propeller, dia. 4500 mm Pitch 5340 mm No. of Blades 4 Material Cast Steel whether Moveable solid Total Developed Surface 7.15 sq. ft.  
 Feed Pumps worked from the Main Engines, No. none Diameter 100 mm Stroke 600 mm Can one be overhauled while the other is at work yes  
 Bilge Pumps worked from the Main Engines, No. 2 Diameter 100 mm Stroke 600 mm Can one be overhauled while the other is at work yes  
 Feed Pumps { No. and size 3, 280x160 mm, 10 mm, 10 mm, 10 mm How driven steam, simplex Pumps connected to the Main Bilge Line { No. and size 1 of 260x310 mm, 1 of 280x160 mm, 1 of 100 mm, 2 main 33.5 mm How driven all steam In addition 1 each centre of 20 mm  
 Ballast Pumps, No. and size 1, 120 mm, 1, 120 mm, 1, 120 mm Lubricating Oil Pumps, including Spare Pump, No. and size 1, 120 mm  
 Are two independent means arranged for circulating water through the Oil Cooler yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge Pumps;—In Engine and Boiler Room 6 of 80 mm φ, 2 of 80 mm φ, Boiler Room: 2 of 65 mm φ, Tunnel: 2 of 80 mm φ  
 In Pump Room yes In Holds, &c. Port: 4 of 80 mm φ, Aft: 4 of 80 mm φ

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1 of 175 mm φ Independent Power Pump Direct Suctions to the Engine Room Bilges, No. and size 1 of 150 mm φ 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 valves and cocks/main discharge  
 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 pass through the bunkers air & scupper pipes How are they protected wood casing  
 What pipes pass through the deep tanks yes 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 yes Is it fitted with a watertight door yes worked from 2.2 above main deck

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 487.6 m<sup>2</sup> 4925 4  
 Is Forced Draft fitted yes No. and Description of Boilers 2 Scotch Marine Working Pressure 15 kg/cm<sup>2</sup> = 214 lb  
 IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes  
 IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? yes  
 Is the donkey boiler intended to be used for domestic purposes only yes

PLANS. Are approved plans forwarded herewith for Shafting 16-4-37 Main Boilers 1-1-37 Auxiliary Boilers yes Donkey Boilers yes  
 (If not state date of approval)  
 Superheaters Augsburg General Pumping Arrangements 16-4-37 24 Oil fuel Burning Piping Arrangements yes

## SPARE GEAR.

Has the spare gear required by the Rules been supplied yes  
 State the principal additional spare gear supplied 1 top end brass conpl., 1 piston rod, 20 condenser tubes, 100 female threads, 4 plain tubes, 4 stay tubes, a number of parts for the former draught steam engine, 1 roller bearing for int. shaft, 10 conpl. with liner, 1 steam piston rod - 2 water piston rods for feed pumps.

The foregoing is a correct description,

Lübecker Maschinenbau-Gesellschaft

Manufacturer.



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L183-0207



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1927 Aug. 16, Nov. 11, Dec. 30, 1928 Jan. - Oct. 1, 10, 16, 22, 29 Apr. 7, 13, 23

Dates of Survey while building

During progress of work in shops - - -  
During erection on board vessel - - -

Total No. of visits 24 + 36 at Berlin (Stettin Office)

Dates of Examination of principal parts - Cylinders 20.8.37 - 4.8.38 Valves 5.10.37 - 22.3.38 Covers 2.10 - 8.12.37  
Pistons 12.7.37 - 22.3.38 Piston Rods 25.6.37 - 2.4.38 Connecting rods 11.8.37 - 22.3.38  
Crank shaft 9.7.37 - 2.4.38 Thrust shaft 20.8.37 - 22.4.38 Intermediate shafts 10.3.38  
Tube shaft 10.3.38 Screw shaft 10.3.38 Propeller 23.4.38 30.6.38 (spare)  
Stern tube 15.4.38 Engine and boiler seatings 28.4.38 Engines holding down bolts 8.6.38

Completion of fitting sea connections 23.4.38  
Completion of pumping arrangements 14.6.38 Boilers fixed 10.5.38 Engines tried under steam 30.6.38

Main boiler safety valves adjusted 20.6.38 Thickness of adjusting washers Please See Rpt 5a  
Crank shaft material S.M. Steel Identification Mark N.S. 4.1.38 Thrust shaft material S.M. Steel Identification Mark N.S. 4.1.38  
Intermediate shafts, material S.M. Steel Identification Marks 4.5. 1.2.38 Tube shaft, material Identification Mark

Screw shaft, material S.M. Steel Identification Mark 4.5. 1-2-38 Steam Pipes, material S.M. Steel Test pressure 45 lb./sq. in. Date of Test 8.6.38  
Is an installation fitted for burning oil fuel no Is the flash point of the oil to be used over 150°F. ✓

Have the requirements of the Rules for the use of oil as fuel been complied with ✓  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo no 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 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. Please see also Stettin Rpt No. 1189, 19.4.38.

This machinery has been constructed under Special Survey in accordance with the approved plans and instructions thereto and in compliance with the Rules. It has been satisfactorily fitted on board and the outfit is ample. During the trial trip the machinery has given full satisfaction under working and manoeuvring conditions. In my opinion the machinery is ample eligible for notation in the Reg. Book of:-

+LMC-6.38 and TS(CL)  
The approved plans are being retained for reference for 3 sister vessels.  
For an oil engine please see Augsburg-Bremen Report No. 1969, 31.10.37.  
This oil engine has been satisfactorily fitted on board. Under working conditions examined and found in order.

The amount of Entry Fee 1/5 2246 60.-  
Special ... £ 931.-  
Electric Fittings ... £ 450.-  
Donkey Boiler Fee ... £ 159.-  
Travelling Expenses (if any) £ 159.-

When applied for, 11-7-38 19  
When received, 27/7 1938

J.R. Winkler  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
Assigned + Lmb. 6.38 (Sp. 1)  
20, 2