

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

26 OCT 1931

Date of writing Report 17th Oct. 1931 When handed in at Local Office 17th Oct. 1931 Port of Danzig

No. in Survey held at Danzig Date, First Survey 14th October 1930 Last Survey 14th October 1931
 Reg. Book 40004 on the Beel So. "Dalvanger" (Number of Visits 51)

Built at Danzig By whom built The Ins. S. B. & Eng Co. Ltd Yard No. 65 Tons Gross 2412
Net 1392

Engines made at Danzig By whom made The Ins. S. B. & Eng Co. Ltd Engine No. 438 When built 1931

Boilers made at " By whom made " Boiler No. 658/9 When made 1931

Registered Horse Power " Owners Friskars. Karabien Port belonging to Oslo
(Göteborgs & S. Aktie. Ags)

Nom. Horse Power as per Rule 229 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

Trade for which Vessel is intended 16th Ocean going 35 7/16

ENGINES, &c.—Description of Engines Double compound (Lentz type) Revs. per minute 90

Dia. of Cylinders 2 x 420/900 mm Length of Stroke 900 mm No. of Cylinders 4 No. of Cranks 4

Crank shaft, dia. of journals as per Rule 264 mm Crank pin dia. 293 mm Crank webs Mid. length breadth 570 mm Thickness parallel to axis 183 mm
as fitted 293 mm Mid. length thickness 183 mm shrunk Thickness around eye-hole 136 + 128.5

Intermediate Shafts, diameter as per Rule 254 mm Thrust shaft, diameter at collars as per Rule 264 mm
as fitted 254 mm as fitted 293 mm

Tube Shafts, diameter as per Rule Screw Shaft, diameter as per Rule 296 mm Is the tube shaft fitted with a continuous liner without liner
as fitted as fitted 306 mm screw

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

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 yes If so, state type Bedervall gland Length of Bearing in Stern Bush next to and supporting propeller 1200 mm

Propeller, dia. 4200 mm Pitch 3500 mm No. of Blades 4 Material bronze whether Movable no Total Developed Surface 4.8 sq. m.

Feed Pumps worked from the Main Engines, No. none Diameter — Stroke — Can one be overhauled while the other is at work —

Bilge Pumps worked from the Main Engines, No. 2 Diameter 70 mm Stroke 450 mm Can one be overhauled while the other is at work yes

Feed Pumps { No. and size 2 of 9 1/2" x 4" x 2 1/2" Pumps connected to the { No. and size 2 of 70 x 450 mm 1 of 2 x 140 x 190 x 350 mm
 How driven Steam (Hair's) Main Bilge Line { How driven Connected Steam

Ballast Pumps, No. and size 1 of 2 x 140 x 190 x 350 mm 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 6 of 60 mm tunnel 1 of 60 mm Colferdams 2 of 60 mm

In Pump Room — In Holds, &c. Forehold 4 of 60 mm, After hold 4 of 60 mm

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 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 yes

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 yes

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 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 Engine room

MAIN BOILERS, &c.—(Letter for record S!) Total Heating Surface of Boilers 314 sqm - 3380 sq ft top grating

Is Forced Draft fitted yes No. and Description of Boilers 2 Multitubular S.C. Working Pressure 206 lbs

IS A REPORT ON MAIN BOILERS NOW FORWARDED? yes 250

IS A DONKEY BOILER FITTED? no If so, is a report now forwarded? —

Is the donkey boiler intended to be used for domestic purposes only —

PLANS. Are approved plans forwarded herewith for Shaftings 23.1.30 as for Main Boilers 30.8.30 Auxiliary Boilers ✓ Donkey Boilers ✓
 (If not state date of approval)

Superheaters ✓ General Pumping Arrangements 22.8.31 Oil fuel Burning Piping Arrangements 22.8.31

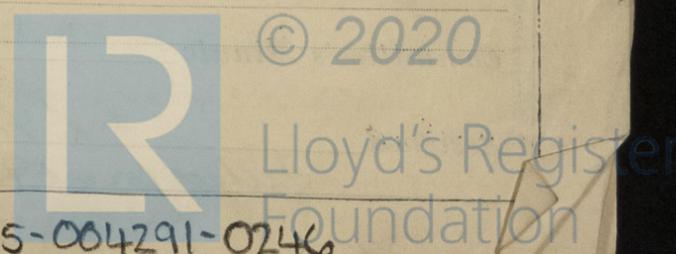
SPARE GEAR.

Has the spare gear required by the Rules been supplied yes

State the principal additional spare gear supplied one propeller shaft, propeller (cast iron), after bearing of stern bush.
No 637.
JCD.-4.2.31.

NOTE.—The words which do not app

The foregoing is a true and correct copy of the Report, as presented to the Registrar, at the request of the Applicant,
SHIPBUILDING AND ENGINEERING CO. LTD.
 (Danziger Werft und Eisenbahnwerks AG) **Manufacturer.**



004285-004291-0246

GENERAL REMARKS
the Plans
by the Com
Copy of into
the vessel

Dates of Survey while building
 During progress of work in shops - - { 1930. 14.10, 28.10, 1.11, 7.11, 13.11, 18.11, 5.12, 11.12, 19.12. 1931. 15.1, 23.1, 31.1, 4.2, 6.3, 13.3, 18.3, 19.3, 20.3, 14.4, 17.4, 1.5, 11.5, 19.5, 2.6, 4.6, 16.6.
 During erection on board vessel - - - { 1931. 17.6, 18.6, 20.6, 7.7, 9.7, 31.7, 3.8, 5.8, 6.8, 7.8, 12.8, 14.8, 18.8, 19.8, 26.8, 27.8, 3.9, 7.9, 8.9, 11.9, 29.9, 30.9, 5.10, 10.10, 14.10.
 Total No. of visits 51

Dates of Examination of principal parts—Cylinders 4.2.31 - 1.5.31. Valves Slides 13.3 - 9.5.31. Covers 4.2 - 1.5.31.
 Pistons 13.11.30 - 17.6.31. Piston Rods 13.11.30 - 24.9.31. Connecting rods 13.11.30 - 24.9.31.
 Crank shaft 14.10.30 - 9.7.31. Thrust shaft 18.11.30 - 1.5.31. Intermediate shafts 18.11.30 - 31.9.31.
 Tube shaft — Screw shaft 5.12.30 - 1.5.31. Propeller 4.6.31.
 Stern tube 11.5.31, 2.6.31. Engine and boiler seatings 20.6.31. Engines holding down bolts 19.8.31.
 Completion of fitting sea connections 16.6.31. Boilers fixed 20.6.31. Engines tried under steam 29.9.31, 14.10.31.
 Completion of pumping arrangements 29.9.31. Thickness of adjusting washers Sub boiler: 2.24.5, P boiler: 2.28.5.
 Main boiler safety valves adjusted 30.9.31. Crank shaft material S. Ch. Steel Identification Mark No. 618. Thrust shaft material S. Ch. Steel Identification Mark No. 622.
 Intermediate shafts, material S. Ch. Steel Identification Marks Nos. 624-628. Tube shaft, material — Identification Mark —
 Screw shaft, material S. Ch. Steel Identification Mark JCD-301. Steam Pipes, material Steel Test pressure 45 lbs Date of Test 2.8-11.9.31.
 Is an installation fitted for burning oil fuel yes. Is the flash point of the oil to be used over 150°F. yes.
 Have the requirements of the Rules for the use of oil as fuel been complied with yes.
 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 —
 Is this machinery duplicate of a previous case yes. If so, state name of vessel, "Desvanger, Ausvanger".

General Remarks (State quality of workmanship, opinions as to class, &c.)
 This machinery has been built 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.
 Main engines and auxiliaries have been tried in ballast ship on the 29th Sept. during a twelve hours trial at sea under full working and manœuvring conditions with satisfactory results, only the vacuum in the condenser could not be raised higher than 24-25" at 105 rev. p. m., temperature of circulating water inlet 13°, outlet 23°C. (The air pump in this vessel works from the main engine, whilst those of the above sister ships are separate).
 A second trial with loaden ship, to which Mr. R. Stapelfeld attended, took place on the 14th October, after steam jets (vacuum augmenter) as additional dry air pump were fitted to the condenser. The engines gave now full satisfaction, 28.5" of vacuum could easily be maintained.
 The machinery is eligible in our opinion to be classed, + LMC-10, 31" in the Society's Register Book with notations of "Fitted for oil fuel 10, 31, F.P. above 150°F. and "Electric lights." ✓

FRAME
15
49
89
31 1/2 32
88 1/2 89
11 1/2 112
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132
94
128
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The amounts entered below to be apportioned as follows: To the credit of Stellen: £4.0.0 (First Entry Fee), £49.5.0 (Part Sp. Survey Fee) £36.16.0 (Expenses). To the credit of Danzig: £8.0.0 (Part Sp. Survey Fee)

The amount of Entry Fee ... £4 : 0 :
 Special ... £57 : 5 :
 Donkey Boiler Fee ... £ : :
 Travelling Expenses (if any) £ 36 : 16 :
 When applied for, 22.10.1931
 When received, 14.11.1931

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

Committee's Minute FRI. 30 OCT 1931
 Assigned + L.M.C. 10.31 F.D. O.G.
 Fitted for oil fuel 10, 31 F.P. above 150°F.



Date 28th July 1930
 Dates held v October 5, 12, 14.

CERTIFICATE WRITTEN.