

List of

Rpt. 4.

No. 543.B.

REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Date of writing Report 18th Aug. 1931 When handed in at Local Office 18th Aug. 1931 Port of HELSINGBORG.
No. in Survey held at HELSINGBORG. Date, First Survey 20th Sept. 1930 Last Survey 17th August. 1931
Reg. Bopk. 397/13 on the Single Screw Steel Steamer "CATALONIA". (Number of Visits 87)
Built at Helsingborg By whom built Hbg Varvs- & Svetsnings AB Yard No. 54 Tons Engl. 1512.27
Engines made at Helsingborg By whom made Hbg Varfs, Svetsn. AB Engine No. 28 when made 1931. Gross SW. 1755.32
Boilers made at Helsingborg By whom made Hbg Varfs, Svetsn. AB Boiler No. 132, 133 when made 1931. Net SW. 1270.03.
Registered Horse Power ✓ Owners Rederi AB Svenska Lloyd. Port belonging to Golbenburg.
Nom. Horse Power as per Rule 145 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes.
Trade for which Vessel is intended General Trade.

Engines, &c.—Description of Engines Triple expansion. Revs. per minute 94.
Dia. of Cylinders 17 3/4 - 20 1/2 - 46 3/8 Length of Stroke 27 1/16" No. of Cylinders 3 No. of Cranks 3
Crank shaft, dia. of journals as per Rule 224 mm Crank pin dia. 238 mm Crank webs Mid. length breadth 355 mm Thickness parallel to axis 155 mm
as fitted 234 mm Mid. length thickness 155 mm shrunk Thickness around eye-hole 106 mm
Intermediate Shafts, diameter as per Rule 213 mm Thrust shaft, diameter at collars as per Rule 224 mm
as fitted 222 mm as fitted 234 mm
Tube Shafts, diameter as per Rule Screw Shaft, diameter as fitted 276 mm Is the tube shaft fitted with a continuous liner No.
as fitted ✓ as fitted 276 mm as fitted ✓
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
as fitted ✓ as fitted ✓ as fitted ✓
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 Yes. Cdw No. 12. Adjustable Length of Bearing in Stern Bush next to and supporting propeller 1159 mm.
Propeller, dia. 3900 mm Pitch 3125 mm No. of Blades 4 Material Bronze whether Movable No Total Developed Surface 5.32 sq. feet
Feed Pumps worked from the Main Engines, No. 2 Diameter 70 mm Stroke 350 mm Can one be overhauled while the other is at work Yes.
Bilge Pumps worked from the Main Engines, No. 2 Diameter 80 mm Stroke 350 mm Can one be overhauled while the other is at work Yes.
Feed Pumps No. and size 1. 150 x 100 x 150 mm Dbl. Pumps connected to the Main Bilge Line No. and size 1. 190 x 115 x 175 mm. Dbl.
How driven By steam. How driven By steam.
Ballast Pumps, No. and size 1. 150 x 200 x 250 Dbl. Lubricating Oil Pumps, including Spare Pump, No. and size 1 1/2 HP cyl. 4 pipes.
Are two independent means arranged for circulating water through the Oil Cooler None. Suctions, connected to both Main Bilge Pumps and Auxiliary
Bilge Pumps;—In Engine and Boiler Room 3. 63 mm. 1. 90 mm. 1. 100 mm. 1. 63 mm in tunnel well.
In Holds, &c. 2 in each hold. 76 mm.

Main Water Circulating Pump Direct Bilge Suctions, No. and size 1. 100 mm Independent Power Pump Direct Suctions to the Engine Room Bilges,
No. and size 1. 90 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 Both.
Are they fixed sufficiently high on the ship's side to be seen without lifting the stockhold 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 Bottom tank air pipes from No. 2, 3, 4 tanks p.r.d. How are they protected By steel's strong steel casings.
What pipes pass through the deep tanks None. 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
apartment to another Yes Is the Shaft Tunnel watertight Yes Is it fitted with a watertight door Yes worked from Upper Engine Room platform.

MAIN BOILERS, &c.—(Letter for record 5) Total Heating Surface of Boilers 2337 D'
Forced Draft fitted No No. and Description of Boilers 2 Multitubular 2SB Working Pressure 200 lbs/sq. in.
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 Yes Main Boilers Yes Auxiliary Boilers ✓ Donkey Boilers ✓
(If not state date of approval) (Sep. Cover) (Sep. Cover)
Overheaters Yes (Sep. Cover) General Pumping Arrangements Yes (Sep. Cover) Oil fuel Burning Piping Arrangements ✓

SPARE GEAR. State the articles supplied:— 1 propellershaft with nut. 1 cast iron propeller.
2 connecting rod depend bolts & nuts. 2 ditto for bottom end.
1 main bearing bolts & nuts. 1 set of coupling bolts & nuts.
1 set of air-, circulating-, bilge- & feed pump valves & seats for same.
" " feed & bilge check valves.
" " piston rings for all main engine cylinders, also for HP slide valve (Common
Air pump rod. 6 junkring bolts. springs not used.)
1 number of cylinder, slide valve cover studs and bolts.
1 quantity of assorted bolts & nuts. Iron & steel of various sizes.
10 ordinary boiler tubes, 4 stay tubes. 12 condenser tubes, 20 metal bushes.

The foregoing is a correct description,
Helsingborgs Varvs- & Svetsnings Aktiebolag

Manufacturer.



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Lloyd's Register
Foundation

W561-0190

1930 Sept: 20, 22, 25; Dec: 16, 19, 23. 1931 Jan: 2, 15. Feb: 6, 11, 19, 24, 26, 28. Mch: 2, 3, 10.
 During progress of work in shops - - 16, 20, 23, 24, 24, 30, 31 April: 13, 16, 17, 20, 27, 28, 29, 29. May: 4, 11, 12, 18, 23, 28. June: 1, 2, 4, 5, 8, 8, 9, 10, 15, 19, 19, 22. July: 9, 21, 27, 30. Aug: 4.
 Dates of Survey while building
 During erection on board vessel - - 1931 April: 13. May: 4, 12, 18, 29. June: 4, 5, 17, 20, 23, 25. July: 4, 8, 15, 18, 24, 28, 30. Aug: 4, 5, 6, 8, 10, 11, 12, 13, 14, 15, 16, 17.
 Total No. of visits 87.

Dates of Examination of principal parts—Cylinders $\frac{1931}{30/3}, \frac{19/2}{3/3}, \frac{2/3}{1/5}, \frac{10/3}{18/5}, \frac{13/3}{23/5}, \frac{23/3}{8/6}$, Slides $\frac{1931}{23/3}, \frac{15/1}{30/3}, \frac{6/2}{3/3}, \frac{19/2}{11/5}, \frac{2/3}{18/5}, \frac{19/2}{27/5}, \frac{13/3}{8/6}$, Covers $\frac{1931}{6/2}, \frac{11/2}{19/2}, \frac{1/5}{8/6}$
Pistons $\frac{1931}{15/1}, \frac{6/2}{19/2}, \frac{8/6}{8/6}$, Piston Rods $\frac{1931}{4/2}, \frac{11/2}{19/2}, \frac{24/2}{8/6}$, Connecting rods $\frac{1930}{23/2}, \frac{1931}{2/1}, \frac{6/2}{19/2}, \frac{19/2}{8/6}$
Crank shaft $\frac{1931}{19/2}, \frac{24/2}{13/3}$, Thrust shaft $\frac{1931}{23/5}, \frac{8/6}{20/6}$, Intermediate shafts $\frac{1931}{23/5}, \frac{8/6}{20/6}$
Tube shaft ✓, Screw shaft $\frac{1931}{27/4}, \frac{28/4}{29/4}, \frac{20/6}{20/6}$, Propellers $\frac{1931}{3/6}, \frac{11/6}{21/7}$
Stern tube $\frac{1931}{29/4}, \frac{11/5}{18/5}, \frac{23/5}{15/5}, \frac{28/5}{15/5}, \frac{29/5}{15/5}$, Engines ^{holding down bolts:} $\frac{1931}{8/7}, \frac{16/7}{22/7}, \frac{2/1}{9/1}$, Engines ^{boiler seatings} ~~holding down bolts~~ $\frac{1931}{19/2}, \frac{24/2}{2/3}, \frac{5/3}{5/3}$
Completion of pumping arrangements $\frac{14/6-15/6}{14/6-15/6}$ Aug. 1931. Boilers fixed $\frac{4/3}{4/3}$ 1931. Engines tried under steam $\frac{10/6-17/6}{10/6-17/6}$ August.

Main boiler safety valves adjusted 17th August, 1931. Thickness of adjusting washers No washers. Stop nuts.

Crank shaft material steel. Identification Mark

LLOYD'S
Nº 4025
H.K. 21.5.30.

 Thrust shaft material steel. Identification Mark

LLOYD'S
Nº 3972
H.K. 14.3.30

Intermediate shafts, material steel. Identification Marks

LLOYD'S
Nº 3972
H.K. 14.3.30

 Tube shaft, material ✓ Identification Mark ✓

Screw shaft, material steel Identification Mark

LLOYD'S
Nº 3972
H.K. 14.3.30 H.K.

 Steam Pipes, material steel. Test pressure 50 kg/cm² Date of Test 28/5 & 21/7

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 carrying and burning oil fuel been complied with ☒ S.S. "Neda", "Tiger" & Johan Jeansson
Is this machinery duplicate of a previous case Yes. If so, state name of vessel Hbg Reports No 225, 308 & 426.

General Remarks (State quality of workmanship, opinions as to class, &c. These engine have been built under Special Survey in accordance with the approved plans & instructions and all the Rule requirements have been complied with. The workmanship is good. The materials are good. Forgings & castings as per Certificates. attached.

The main engine cylinders have been tested to 19, 12, 3 kg/cm², stern tube to 6 kg/cm².
The condenser & feed heater have manufactured by Messrs H&S Værfs- & Svendsens AB & AB Göttauerken, Got., and tested with water pressure to 3, 27 kg/cm² resp.
Feed water filters manufactured by Messrs H&S Værfs- & Svendsens AB.
The Evaporator, Manufactured by Messrs Richardson, Westgarth & Co, Ltd, Hartlepool.
Type Morrisons, 8 ts, No of Lloyd's Test 1776, 19.3.31 [5] No 4288, 19.3.31.
The bronze propeller manuf. by Messrs Theodor Zeiss, Altona, marked. LLOYD'S
No 447
MK. 4.5.31.
" cast iron spare " " " " H&S Værfs- & Svendsens AB.
The spare screw shaft as per Cert. attached. Marked: LLOYD'S
No 3977
MK. 14.3.30

The main & auxiliary engines have been tried under full working condition and found to work satisfactory.

Part of the above surveys was at the Builders specially request held on Sunday the 19th July, 1931, from 12³⁰ to 2³⁰ pm.

The Machinery of this vessel is eligible in my opinion to be classed in the Society's Register Book with record of ~~8~~ LMC 8.31 and notation of Screw Shaft 09, being in a good and safe working condition at a working pressure of 200 lbs/sq".

The amount of Entry Fee	... £ <i>R.</i>	<i>54.60</i>	When applied for,	
Special	... £ <i>R.</i>	<i>659.75</i>	<i>18.8</i>	<i>19 31</i>
Superheaters				
Doukey Boiler Fee	... £ <i>R.</i>	<i>90.00</i>	When received,	
Travelling Expenses (if any)	£ <i>R.</i>	<i>25.00</i>	<i>8/9/19</i>	<i>36</i>
Surveyors Fee for Sunday	<i>R.</i>	<i>40.00</i>		

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

Committee's Minute

FRI. 11 SEP 1931

FRI. 6 NOV 1931

Assigned

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