

# REPORT ON STEAM RECIPROCATING ENGINE MACHINERY.

Received at London Office

27 MAY 1935

Date of writing Report **22nd May, 1935.** When handed in at Local Office **22nd May, 1935.** Port of **HELSINGBORG.**

No. in Survey held at **Helsingborg** Date, First Survey **25th April.** Last Survey **21st May, 1935.**  
Reg. Book. (Number of Visits --)

**80987** on the **Steel Single Screw Steamer "MAURITZ". /ex Luksefjell, etc./** Tons { Gross **1480.**  
Net **814.**

Built at **Bergen.** By whom built **Bergens Mek. Vaerksted.** Yard No. **192** When built **1917**

Engines made at **Bergen.** By whom made **Bergens Mek. Vaerksted.** Engine No. **--** when made **1917**

Boilers made at **Bergen.** By whom made **Bergens Mek. Vaerksted.** Boiler No. **--** when made **1917.**

Registered Horse Power **850** Owners **Råå Rederi A/B.** Port belonging to **Råå.**

Nom. Horse Power as per Rule **151** <sup>158</sup> 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 **62.**  
Dia. of Cylinders **457-739-1245 mm.** Length of Stroke **838 mm.** No. of Cylinders **3** No. of Cranks **3**  
Crank shaft, dia. of journals as per Rule **--** <sup>237</sup> as fitted **241 mm.** Crank pin dia. **241 mm.** Crank webs Mid. length breadth **460 mm.** Thickness parallel to axis **165 mm.**  
Mid. length thickness **165 mm.** <sup>shrunk</sup> Thickness around eye-hole **109,5 mm.**

Intermediate Shafts, diameter as per Rule **--** <sup>226</sup> as fitted **228 mm.** Thrust shaft, diameter at collars as per Rule **--** <sup>237</sup> as fitted **230 - 241 mm.**

Tube Shafts, diameter as per Rule **--** as fitted **--** Screw Shaft, diameter as per Rule **--** <sup>255</sup> as fitted **259 mm.** Is the <sup>tube</sup> screw shaft fitted with a continuous liner **Yes.**

Bronze Liners, thickness in way of bushes as per Rule **--** <sup>15.3</sup> as fitted **13 mm.** Thickness between bushes as per Rule **--** as fitted **13 mm.** Is the after end of the liner made watertight in the propeller boss **Yes, Rubber packing** 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 **No.**

Length of Bearing in Stern Bush next to and supporting propeller **1100 mm.**

Propeller, dia. **4180 mm.** Pitch **--** No. of Blades **4** Material **Cast I.** whether Moveable **No.** Total Developed Surface **--** sq. feet

Feed Pumps worked from the Main Engines, No. **2** Diameter **75 mm.** Stroke **419 mm.** Can one be overhauled while the other is at work **Yes**

Bilge Pumps worked from the Main Engines, No. **2** Diameter **70 mm.** Stroke **419 mm.** Can one be overhauled while the other is at work **Yes**

Feed Pumps { No. and size **1. 102x150x150 mm. dbl.** Pumps connected to the { No. and size **1. 102x150x150 mm. dbl.**  
How driven **By steam.** Main Bilge Line How driven **By steam.**

Ballast Pumps, No. and size **1. 235x235x250 mm. dbl.** Lubricating Oil Pumps, including Spare Pump, No. and size **None.**

Are two independent means arranged for circulating water through the Off Cooler **None.** Suctions, connected to both Main Bilge Pumps and Auxiliary **28/5/35.**

Bilge Pumps;—In Engine and Boiler Room **2 - 2 1/2".** **2 - 2.1/4".** **1 - 4".**

In Holds, &c. **Fore hold 2 - 2 1/2".** **After hold 2 - 2 1/2" and 2 - 2.1/4".** **Tunnel 1 - 2.1/4".**

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. 65 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, & on a stand.** 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 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 **Upper E.R. platform.**

**MAIN BOILERS, &c.**—(Letter for record **Yes**) Total Heating Surface of Boilers **2352 m<sup>2</sup>** <sup>2532</sup>

Is Forced Draft fitted **No.** No. and Description of Boilers **2 multitubular.** Working Pressure **12,7 kg/cm<sup>2</sup>** <sup>180 lb.</sup>

**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)

Superheaters **--** General Pumping Arrangements **--** Oil fuel Burning Piping Arrangements **--**

**SPARE GEAR.** State the articles supplied:— **1 propeller shaft.** **1 cast iron propeller.**

**2 connecting rod top end bolts and nuts, 2 ditto for bottom end.** **1 slide valve rod.**

**2 main bearing bolts and nuts.** **18 coupling bolts and nuts.**

**1 set of air-, circulating-, bilge- and feed pump valves.**

**1 set of feed- and bilge check valves.** **1 set of piston rings for IP cylinder.**

**A number of cylinder and slide valve cover studs and junkring bolts.**

**A quantity of assorted bolts and nuts.** **Iron and steel of various sizes.**

**5 ordinary boiler tubes.** **Safety valve springs.** **5 condenser tubes.** **Condenser bushes.**

The foregoing is a correct description,

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Manufacturer.



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003056-003064-0159

THE SURVEYORS ARE REQUESTED NOT TO WRITE ACROSS THE MARGIN.

Dates of Survey while building }  
 During progress of work in shops - - }  
 During erection on board vessel - - - } **See Report on form 9.**  
 Total No. of visits. ✓

**Examination of principal parts**—Cylinders **Good.** Slides **Good.** Covers **Good.**  
 Pistons **Good.** Piston Rods **Good.** Connecting rods **Good.**  
 Crank shaft **Good.** Thrust shaft **Good.** Intermediate shafts **Good.**  
 Tube shaft **--** Screw shaft **Good.** Propeller **Good.**  
 Stern tube **Good.** Engine and boiler seatings **Good.** Engines holding down bolts **Good.**  
 Completion of fitting sea connections **Good.**  
 Completion of pumping arrangements **Good.** Boilers fixed **Good.** Engines tried under steam **Yes.**  
 Main boiler safety valves adjusted **Yes, 185 lbs/ "** Thickness of adjusting washers **No washers, stop nuts.**  
 Crank shaft material **Steel.** Identification Mark N.V.  
30-2/15  
K.N. Thrust shaft material **Steel.** Identification Mark **--**  
 Intermediate shafts, material **Steel.** Identification Marks **--** Tube shaft, material **None.** Identification Mark **--**  
 Screw shaft, material **Steel.** Identification Mark **--** Steam Pipes, material **Steel.** Test pressure **--** Date of Test **--**  
 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 **--**  
 Is this machinery duplicate of a previous case **--** If so, state name of vessel **--**

**General Remarks** (State quality of workmanship, opinions as to class, &c. **The machinery of this vessel has been carefully examined throughout /See report on Form No.9/. The workmanship is good. The materials are good.**

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

**Secretary letter initiated "M" of the 21st January, 1935.**

**The machinery of this vessel is eligible in my opinion to be classed in the Society's Register Book with record of LMC 5,35 and notation of screwshaft CL 5,35, being in a good and safe working condition at a working pressure of 180 lb. pr sq. inch.**

The amount of Entry Fee ... **Kr. 200:00.** When applied for,  
 Special ... £ ✓ : **22/5, 1935.**  
 Donkey Boiler Fee ... £ ✓ :  
 Travelling Expenses (if any) £ ✓ : **27.7 1935**

**T. Anson**  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute  
 Assigned

**WED. 12 JUN 1935**

**TUE. 27 AUG 1935**

*See Hbg. J.E. 913*



Shipping office

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