

REPORT ON BOILERS.

No. 4309

fitted to Copenhagen

Writing Report *14th October 1919* When handed in at Local Office *15th October 1919* Port of *Gothenburg* Received at London Office *WED. 29 OCT. 1919*

in Survey held at *Karlstad* Date, First Survey *30th Aug. 1918* Last Survey *1st September 1919*

Book. on the *Main Boilers for the S. S. "Svea"*, *Oresundsvaret* No. *4* (Number of Visits *7*) Gross Tons *1000* Net Tons *800*

Built at *Landskrona* By whom built *Aktief. Oresundsvaret* When built *1919*

Boilers made at *Karlstad* By whom made *Aktief. Karlstad Mek. Verkstad* When made *1919*

Indicated Horse Power *1000* Owners *Swedish Lloyd* Port belonging to *Swedish Lloyd*

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WATER-TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel *Stromans Jernverk Aktief.*

For record *S.* Total Heating Surface of Boilers *35334 sq. ft.* Is forced draft fitted *Yes* No. and Description of Boilers *Two cylindrical, multitubular* Working Pressure *200 lbs* Tested by hydraulic pressure to *250 lbs* Date of test *1st Sept 1919*

Certificate *139 & 140* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *41 sq. feet* No. and Description of Valves to each boiler *1* Area of each valve *1.5 sq. ft.* Pressure to which they are adjusted *200 lbs*

Boilers fitted with easing gear *Yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *Yes*

Least distance between boilers or uptakes and bunkers or woodwork *12 ft.* Mean dia. of boilers *4200 mm* Length *3380 mm*

Material of shell plates *Steel* Thickness *32 mm* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *No*

Direction of riveting: cir. seams *overlapped* long. seams *treble riveted* Diameter of rivet holes in long. seams *33 mm* Pitch of rivets *232 mm*

Width of butt straps *496 mm* Percentages of strength of longitudinal joint: rivets *85-6* plate *85-7* Working pressure of shell by rules *204 lbs*

Size of manhole in shell *400 x 300 mm* Size of compensating ring *1060 x 960 x 26 mm* No. and Description of Furnaces in each Boiler *Three, corrugated* Material *Steel* Outside diameter *1050 mm* Length of plain part *1000 mm* Thickness of plates: top *14 mm* bottom *14 mm*

Direction of longitudinal joint *Welded* No. of strengthening rings *1* Working pressure of furnace by the rules *209 lbs* Combustion chamber: Material *Steel* Thickness: Sides *20 mm* Back *20 mm* Top *20 mm* Bottom *20 mm* Pitch of stays to ditto: Sides *200 x 230 mm* Back *215 x 240 mm*

Stays are fitted with nuts or riveted heads *Riveted heads* Working pressure by rules *200 lbs* Material of stays *Steel* Area at top part *1190 mm²* Area supported by each stay *576 mm²* Working pressure by rules *207 lbs* End plates in steam space: Material *Steel* Thickness *25 mm*

How are stays secured *Riveted with nuts* Working pressure by rules *200 lbs* Material of stays *Steel* Area at smallest part *4657 mm²*

Supported by each stay *2068 mm²* Working pressure by rules *234 lbs* Material of Front plates at bottom *Steel* Thickness *22 mm* Material of back plate *Steel* Thickness *20 mm* Greatest pitch of stays *215 x 240 mm* Working pressure of plate by rules *200 lbs* Diameter of tubes *83 mm*

Material of tube plates *Steel* Thickness: Front *26 mm* Back *20 mm* Mean pitch of stays *228 mm* Pitch across wide spaces *375 mm* Working pressures by rules *200 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *230 x 36 mm* Length as per rule *600 mm* Distance apart *230 mm* Number and pitch of Stays in each *Two, 200 mm*

Working pressure by rules *363 lbs* Steam dome: description of joint to shell *Welded* % of strength of joint *100*

SUPERHEATER. Type *Horizontal* Date of Approval of Plan *1918* Tested by Hydraulic Pressure to *250 lbs*

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *Yes*

Pressure to which each is adjusted *200 lbs* Is Easing Gear fitted *Yes*

The foregoing is a correct description, AKTIEBOLAGET KARLSTADS MEKANISKA VERKSTAD *Per Mellin* Manufacturer. *J. Bolander*

During progress of work in shops: *1918: Aug 30, Sept 20, Oct 2, 23, Dec 4, 10* Is the approved plan of boiler forwarded herewith *Yes*

During erection on board vessel: *1919: Jan 28, March 2, April 4, May 10, June 28, July 18, 24* Total No. of visits *13*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been built under supervision in accordance with the Rules and the approved plans. The workmanship is of good quality. These boilers will be tested at Landskrona and when the survey is completed they are in our opinion in a good and safe working condition for a working pressure of 200 lbs per square inch.*

Survey Fee *£ 400.00* When applied for *17th Oct 1919*

Selling Expenses (if any) *£ 360.00* When received *1919*

Committee's Minute *TUE. MAY. 4 1920*

Paul Johansson Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

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