

## REPORT ON BOILERS.

No. 449.

Received at London Office

TUE APR. 17 1923

Date of writing Report

19

When handed in at Local Office

19

Port of *Malmö*

No. in

Survey held at

*Helsingborg*

Date, First Survey

*18th October 1922*

Last Survey

*14th March*

1923.

Reg. Book.

80802

on the

*Steel Steamer**"SONJA"**Helsingborgs Varfs A.B.'s Yard No. 44*

(Number of Visits

5

Gross 1828

Tons

Net 1038

Master

Built at

*Stockholm, completed at Helsingborg*

By whom built

*ars. Vacholmsvarvet*

When built

*1923*

Engines made at

*Stockholm, fitted on board at Helsingborg*

By whom made

*Perpunde Msk. V. A.B., fitted on board by Helsingborgs Varfs A.B.*

When made

*1920-22*

Boilers made at

*Stockholm, fitted on board at Helsingborg*

By whom made

*Perpunde Msk. V. A.B., fitted on board by Helsingborgs Varfs A.B.*

When made

*1920-22*

Registered Horse Power

Owners

*A.B. Transmarin*

Port belonging to

*Helsingborg*

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Bureau Veritas certificate.

(Letter for record *S*) Total Heating Surface of Boilers *700*  $\square'$  Is forced draft fitted *no* No. and Description ofBoilers *One ordinary multitubular* Working Pressure *100 lbs* Tested by hydraulic pressure to *200 lbs* Date of test *18 Oct. 1922*No. of Certificate *201* Can each boiler be worked separately *yes* Area of fire grate in each boiler *25.8*  $\square'$  No. and Description ofsafety valves to each boiler *2 spring loaded* Area of each valve *5.94*  $\square'$  Pressure to which they are adjusted *100 lbs*  $\square'$ Are they fitted with easing gear *yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *no*Smallest distance between boilers or uptakes and bunkers or woodwork *12"* Inside Mean dia. of boilers *108.27"* Length *106.3"*Material of shell plates *Steel* Thickness *16.5/32"* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *no*Descrip. of riveting: cir. seams *double riv. lap long. seams double straps of equal width* Diameter of rivet holes in long. seams *0.79"* Pitch of rivets *3.15"*Lap of plates or width of butt straps *8"* Per centages of strength of longitudinal joint rivets *85/84.5* Working pressure of shell byrules *102 lbs* Size of manhole in shell *15 3/4" x 11 3/4"* Size of compensating ring *29.5" x 0.51"* No. and Description of Furnaces in eachboiler *Two - plain* Material *Steel* Outside diameter *32.625"* Length of plain part top *77"* Thickness of plates bottom *17.6/32"*Description of longitudinal joint *welded* No. of strengthening rings *none* Working pressure of furnace by the rules *101 lbs* Combustion chamberplates: Material *Steel* Thickness: Sides *19/32"* Back *17.6/32"* Top *19/32"* Bottom *19/32"* Pitch of stays to ditto: Sides *8.1"* Back *8.1" x 7.69"*Top *8.25"* If stays are fitted with nuts or riveted heads *both* Working pressure by rules *111 lbs* Material of stays *Steel* Area atsmallest part *1.01*  $\square'$  Area supported by each stay *8.1" x 7.69"* Working pressure by rules *128 lbs* End plates in steam space: Material *Steel* Thickness *22.7/32"*Pitch of stays *11.81" x 15.75"* How are stays secured *Double nuts and riveted washers, 4/32"* Working pressure by rules *138 lbs* Material of stays *Steel* Area at smallest part *2.36"*Area supported by each stay *186*  $\square'$  Working pressure by rules *111 lbs* Material of Front plates at bottom *Steel* Thickness *22.7/32"* Material ofLower back plate *Steel* Thickness *22.7/32"* Greatest pitch of stays *12.63"* Working pressure of plate by rules *138 lbs* Diameter of tubes *3"*Pitch of tubes *4" x 3.9"* Material of tube plates *Steel* Thickness: Front *22.7/32"* Back *21.5/32"* Mean pitch of stays *9.9"* Pitch across widewater spaces *13"* Working pressures by rules *106 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness ofgirder at centre *5.9" x 2 x 15.9/32"* Length as per rule *22.4"* Distance apart *8.25"* Number and pitch of Stays in each *One, 12" x 19/32"*Working pressure by rules *125 lbs* Steam dome: description of joint to shell *none* % of strength of joint *yes*Diameter *yes* Thickness of shell plates *yes* Material *yes* Description of longitudinal joint *yes* Diam. of rivet holes *yes*Pitch of rivets *yes* Working pressure of shell by rules *yes* Crown plates *yes* Thickness *yes* How stayed *yes*SUPERHEATER. Type *yes* Date of Approval of Plan *yes* Tested by Hydraulic Pressure to *yes*Date of Test *yes* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *yes*Diameter of Safety Valve *yes* Pressure to which each is adjusted *yes* Is Easing Gear fitted *yes*

The foregoing is a correct description,

HELSINGBORGS WARFS AKTIEBOLAG

Manufacturers

Is the approved plan of boiler forwarded herewith *yes*Total No. of visits *5*

Dates

of Survey

while

building

During progress of

work in shops - -

During erection on

board vessel - -

*18/22/11, 28/11, 5/12 1922 14/3 1923*

## GENERAL REMARKS

(State quality of workmanship, opinions as to class, &amp;c.)

*This boiler has been built under the supervision of the Bureau Veritas Surveyors. The scantlings have been compared with the plan. Workmanship good as far as could be seen.**Donkey boiler marked:**201  
Lloyd's List  
200 lbs  
W.P. 100 lbs  
V.B. 18.10.22*

Survey Fee

*£36.00*

When applied for

*19/4 1923*

Travelling Expenses (if any) £

When received

*24/4/23 1923**V. Paulow*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUE. 24 APR. 1923

Assigned

Lloyd's Register  
16 8540079