

REPORT ON BOILERS.

No. 17945

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Date of writing Report *7 Nov.* 192*8* When handed in at Local Office *1928* Port of *Rotterdam*
 No. in Survey held at *Rotterdam* Date, First Survey *29 June '28* Last Survey *6 Nov.* 192*8*
 Book. *1* (Number of Visits *17*) Gross *1463.77* Tons Net *706.11*
 on the *S.S. "Jonge Johanna"*
 Built at *Rotterdam* By whom built *P. Smit Jr* Yard No. *437* When built *1928*
 Engines made at *Rotterdam* By whom made *P. Smit Jr* Engine No. *445* When made *1928*
 Boilers made at *Rotterdam* By whom made *P. Smit Jr* Boiler No. *555/556* When made *1928*
 Manager *Alcidellandse Scheepvaart Compagnie*
 Nominal Horse Power *158* Owners *S.S. "Jonge Johanna"* Port belonging to *Rotterdam*

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *Mannesmannröhrenwerke Abteilung Schulschlaudt* (Letter for Record *2 (S)*)
 Heating Surface of Boilers *340 cks² 3660#* Is forced draught fitted *Yes* Coal or Oil fired *Coal*
 No. and Description of Boilers *2 Multitubular Marine boilers 2SB* Working Pressure *13.4 k.g. = 190 lb.*
 Tested by hydraulic pressure to *335 lb.* Date of test *10-9-28* No. of Certificate *893* Can each boiler be worked separately *Yes*
 Area of Firegrate in each Boiler *3.9 cks² 42#* No. and Description of safety valves to each boiler *2 Spring loaded High lifted.*
 Area of each set of valves per boiler *per Rule 2827 mm² as fitted 60 mm dia.* Pressure to which they are adjusted *190 lb.* Are they fitted with easing gear *Yes*
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *Yes*
 Smallest distance between boilers or uptakes and bunkers or woodwork *Over 2 feet* Is oil fuel carried in the double bottom under boilers *No*
 Smallest distance between shell of boiler and tank top plating *1 foot* Is the bottom of the boiler insulated *No*
 Largest internal dia. of boilers *3900 mm* Length *3410 mm* Shell plates: Material *St. Ck. Steel* Tensile strength *44-50 k.g.*
 Thickness *29 mm* Are the shell plates welded or flanged *Yes* Description of riveting: circ. seams *end lap 3 x riv.*
 Long. seams *Double butt 3 x riv.* Diameter of rivet holes in *circ. seams 34.5 mm long. seams 32 mm* Pitch of rivets *105 mm 210 mm*
 Percentage of strength of circ. end seams *plate 69.14% rivets 50.24%* Percentage of strength of circ. intermediate seam *plate 84.76% rivets 101.26% combined 89.77%*
 Percentage of strength of longitudinal joint *plate 84.76% rivets 101.26% combined 89.77%* Working pressure of shell by Rules *14.3 k.g.*
 Thickness of butt straps *outer 23 mm inner 26 mm* No. and Description of Furnaces in each Boiler *2 Morison. 2 cf.*
 Material *St. Ck. Steel* Tensile strength *41-47 k.g.* Smallest outside diameter *1182 mm*
 Length of plain part *top 16 mm bottom 16 mm* Thickness of plates *crown 16 mm bottom 16 mm* Description of longitudinal joint *Welded.*
 Dimensions of stiffening rings on furnace or c.c. bottom *Yes* Working pressure of furnace by Rules *13.89 k.g.*
 End plates in steam space: Material *St. M. Steel* Tensile strength *41-47 k.g.* Thickness *20.5 mm* Pitch of stays *420 x 450 mm*
 How are stays secured *Nuts inside, washers and nuts outside thread on plate* Working pressure by Rules *13.9 k.g.*
 End plates: Material *front St. M. Steel back St. M. Steel* Tensile strength *41-47 k.g.* Thickness *22 mm 22 mm*
 Mean pitch of stay tubes in nests *204 mm* Pitch across wide water spaces *360 mm* Working pressure *front 17.6 k.g. back 17.6 k.g.*
 Girders to combustion chamber tops: Material *St. M. Steel* Tensile strength *44-50 k.g.* Depth and thickness of girder *2 x 16 x 240 mm*
 Length as per Rule *800 mm* Distance apart *220 mm* No. and pitch of stays *each 3 a 190 mm*
 Working pressure by Rules *16.5 k.g.* Combustion chamber plates: Material *St. M. Steel*
 Tensile strength *41-47 k.g.* Thickness: Sides *19 mm* Back *19 mm* Top *19 mm* Bottom *25 mm*
 Pitch of stays to ditto: Sides *200 x 202 mm* Back *200 x 213 mm* Top *190 x 220 mm* Are stays fitted with nuts or riveted over *riveted over.*
 Working pressure by Rules *18 k.g.* Front plate at bottom: Material *St. M. Steel* Tensile strength *41-47 k.g.*
 Thickness *22 mm* Lower back plate: Material *St. M. Steel* Tensile strength *41-47 k.g.* Thickness *22 mm*
 Pitch of stays at wide water space *360 mm* Are stays fitted with nuts or riveted over *riveted over.*
 Working Pressure *22 k.g.* Main stays: Material *St. Ck. Steel* Tensile strength *44-50 k.g.*
 Diameter *At body of stay, 70 mm Over threads 70 mm* No. of threads per inch *6* Area supported by each stay *189000 mm²*
 Working pressure by Rules *16 k.g.* Screw stays: Material *St. M. Steel* Tensile strength *41-47 k.g.*
 Diameter *At turned off part, 41.2 mm Over threads 41.2 mm* No. of threads per inch *9* Area supported by each stay *44304 mm²*

Working pressure by Rules *154 k.g.* Are the stays drilled at the outer ends *No* Margin stays: Diameter *At turned off part, 44.4 mm.*
 No. of threads per inch *9* Area supported by each stay *60492 mm²* Working pressure by Rules *13.5 k.g.*
 Tubes: Material *iron.* External diameter *Plain 46.1 mm, Stay 46.1 mm* Thickness *3.65 mm* No. of threads per inch *9*
 Pitch of tubes *102 mm* Working pressure by Rules *13.5 k.g.* Manhole compensation: Size of opening
 shell plate *400x500 mm* Section of compensating ring *770x070 mm* No. of rivets and diameter of rivet holes *34 a 34.5 mm*
 Outer row rivet pitch at ends *154 mm* Depth of flange if manhole flanged *40 mm* Steam Dome: Material
 Tensile strength Thickness of shell Description of longitudinal joint
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint
 Internal diameter Working pressure by Rules Thickness of crown No. and diameter
 stays Inner radius of crown Working pressure by Rules
 How connected to shell Size of doubling plate under dome Diameter of rivet holes and
 of rivets in outer row in dome connection to shell

Type of Superheater *Schmidt.* Manufacturers of *Schmidt'sche Heissdampf Gesell.*
 Number of elements *2 x 66* Material of tubes *Steel.* Steel castings - *shaft Kassel-Wilhelms höhe*
 Material of headers *Cast Steel.* Tensile strength *See Certificate No 24207* Internal diameter and thickness of tubes *16 mm - 1 1/2 mm*
 the boiler be worked separately *Yes.* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes.*
 Area of each safety valve *1376 mm²* Are the safety valves fitted with easing gear *Yes.* Working pressure as
 Rules Pressure to which the safety valves are adjusted *190 H.* Hydraulic test pressure
 tubes *725 H.* castings *725 H.* and after assembly in place *600 H.* Are drain cocks or valves fitted
 to free the superheater from water where necessary *Yes*

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *Yes.*

The foregoing is a correct description,
 MACHINEFABRIEK & SCHEEPSWERF
 van P. SMIT Jr. Manufacture

Dates of Survey { During progress of work in shops - *June 29 July 4-10-12-16-25* Are the approved plans of boiler and superheater forwarded herewith *2-3-2*
 while building { During erection on board vessel - *Aug 1-3-10-20-27 Sept 7-18* Total No. of visits *14*
25 Oct 9-19-Nov: 6

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been made under Special Survey in accordance with the approved plans Society's Rules and Secretary's letter. Material tested as required and workmanship good.*

Survey Fee ... *On Machinery* When applied for, 192
 Travelling Expenses (if any) *report* When received, 192

Mr. Young
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute *FRI. 16 NOV 1928*

Assigned *see Minute on Rot. Rpt 17945*