

REPORT ON BOILERS.

No. 16289

Received at London Office

Port of Rotterdam
 Date, First Survey 16.3.26 Last Survey 1.2.1924
 No. in Survey held at Rotterdam
 (Number of Visits 24) Gross 4905
 Net 4460
 on the SS "SIMON BOLIVAR"
 Built at Rotterdam By whom built Rottdroogd Mij Yard No. 138 When built 1924
 Engines made at Rotterdam By whom made Rottdroogd Mij Engine No. 147 When made 1924
 Boilers made at Rotterdam By whom made Rottdroogd Mij Boiler No. 41/20 When made 1926
 Nominal Horse Power 896.856 Owners Hon. Ned. Hoomb Mij Port belonging to Amsterdam

RETAIN

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

Manufacturers of Steel Mannesmannröhren Werke AG Schula Knaust (Letter for Record 12512)
 Total Heating Surface of Boilers 15411 Is forced draught fitted Yes Coal or Oil fired Oil
 No. and Description of Boilers 4 single ended multitubular main boilers Working Pressure 225 lb
 Tested by hydraulic pressure to 340 lb Date of test 25.6.26 No. of Certificate 840 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler 41.5 sq ft No. and Description of safety valves to each boiler 2 high lift spring loaded
 Area of each set of valves per boiler 14 sq ft Pressure to which they are adjusted 225 lb Are they fitted with easing gear Yes
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No donkey boiler
 Smallest distance between boilers or uptakes and bunkers or woodwork over 24" Is oil fuel carried in the double bottom under boilers Yes
 Smallest distance between shell of boiler and tank top plating 36" Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 15'8 1/16" Length 12'4 1/4" Shell plates: Material S.M. Steel Tensile strength 28-32 tons
 Thickness 1 19/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end lap 2 x riv
 Long. seams Double butt strap 3 x riv Diameter of rivet holes in circ. seams 1 15/32" Pitch of rivets 4 7/8"
 Percentage of strength of circ. end seams plate 64.4% Percentage of strength of circ. intermediate seam plate 42.3%
 Percentage of strength of longitudinal joint plate 85.4% Working pressure of shell by Rules 231 lbs
 Thickness of butt straps outer 1 7/32" No. and Description of Furnaces in each Boiler 3. Suspension bulb.
 Material S.M. Steel Tensile strength 26-30 tons Smallest outside diameter 3'10 3/8"
 Length of plain part top 1 1/32" Thickness of plates bottom 1 1/16" Description of longitudinal joint Welded
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 230 lbs
 End plates in steam space: Material S.M. Steel Tensile strength 26-30 tons Thickness 1 1/32" Pitch of stays 16 x 21"
 How are stays secured Screwed in plates with double nuts Working pressure by Rules 231 lbs
 Tube plates: Material S.M. Steel Tensile strength 26-30 tons Thickness 7/8"
 Mean pitch of stay tubes in nests 8 1/4" x 12 3/4" Pitch across wide water spaces 14" Working pressure front 228 lbs
 Girders to combustion chamber tops: Material S.M. Steel Tensile strength 28-32 tons Depth and thickness of girder back 1"
 at centre 10 1/2" x 2 x 7/8" Length as per Rule 2'8" Distance apart 9" No. and pitch of stays front 228 lbs
 in each 3 x 4" Working pressure by Rules 227 lbs Combustion chamber plates: Material S.M. Steel
 Tensile strength 26-30 tons Thickness: Sides 2 1/32" Back 3/4" Top 2 1/32" Bottom 1"
 Pitch of stays to ditto: Sides 9 x 7" Back 8 1/2" x 7 7/8" Top 7 x 9" Are stays fitted with nuts or riveted over Fitted with nuts
 Working pressure by Rules 226 lbs Front plate at bottom: Material S.M. Steel Tensile strength 26-30 tons
 Thickness 7/8" Lower back plate: Material S.M. Steel Tensile strength 26-30 tons Thickness 2 1/32"
 Pitch of stays at wide water space 14 1/2" Are stays fitted with nuts or riveted over Fitted with nuts
 Working Pressure 317 lbs Main stays: Material S.M. Steel Tensile strength 28-32 tons
 Diameter At body of stay, 3" No. of threads per inch 9 Area supported by each stay 236 sq"
Over threads, 5 1/2" - 5 1/4" Screw stays: Material Iron Tensile strength Min 21 1/2 tons
 Working pressure by Rules 233 lbs No. of threads per inch 9 Area supported by each stay 63 sq"
 Diameter At turned off part, 1 1/2"
Over threads, 1 5/8"



Lloyd's Register Foundation

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Working pressure by Rules *159 lb* Are the stays drilled at the outer ends *Yes* Margin stays: Diameter { At turned off part, *1 1/16"* or Over threads *1 1/8"*

No. of threads per inch *9* Area supported by each stay *93.50"* Working pressure by Rules *151 lb*

Tubes: Material *Iron* External diameter { Plain *3"* Stay *3"* Thickness { *1/4"* *1/8"* No. of threads per inch *9*

Pitch of tubes *4 1/4" x 4 1/8"* Working pressure by Rules *150 lb* Manhole compensation: Size of opening

shell plate *1 1/4" x 2 1/4"* Section of compensating ring *10 5/8" x 1 9/16"* No. of rivets and diameter of rivet holes *34 @ 1 1/8"*

Outer row rivet pitch at ends *1 1/8"* Depth of flange if ~~manhole~~ *ring* flanged *3 1/2"* Steam Dome: Material *---*

Tensile strength *---* Thickness of shell *---* Description of longitudinal joint *---*

Diameter of rivet holes *---* Pitch of rivets *---* Percentage of strength of joint { Plate *---* Rivets *---*

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 patent* Manufacturers of { Tubes *---* Steel castings *Chas. G. Houshhammer*

Number of elements *94* Material of tubes *Steel* Internal diameter and thickness of tubes *5/8" - 5/16"*

Material of headers *Cast Steel* Tensile strength *26.50 tons* Thickness *1"* Can the superheater be shut off

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 *3.14 sq inch* Are the safety valves fitted with easing gear *Yes* Working pressure as

Rules *---* Pressure to which the safety valves are adjusted *120 lb* Hydraulic test pressure

tubes *---*, castings *---* and after assembly in place *---* 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 *---*

The foregoing is a correct description,

W. J. Ochoa

Manufacturer

Dates { During progress of work in shops - *10/10/23/24/30/11/14/17/23/3* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *3-2-26*

while building { During erection on board vessel - *10/10/14/23/27/1* Total No. of visits *24*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The boilers have been made under special survey in accordance with the Society's Rules, Approved plans and Secretary's letters, material tested as required and workmanship good

Survey Fee ... *£ on Machinery* When applied for, 192

Travelling Expenses (if any) *£ report* When received, 192

W. J. Ochoa
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *THUR. 12 APR 1927*

Assigned *See other Rpt Same number*