

REPORT ON BOILERS.

No. 24864

Received at London Office

7 AUG 1948

Date of writing Report 18 JUNE 1948 When handed in at Local Office 5.8.1948 Port of ANTWERP

No. in Survey held at ANTWERP Date, First Survey 3rd MARCH Last Survey 12th JULY 1948

217 on the S/S "JACQUES MARIE" (EX. HARAND) (Number of Visits) (Gross 106H Tons) (Net 612)

Boiler made at Built at HAMBURG By whom built SCHEPPSW (V.J. & SCH) AG. Yard No. — When built 1921

Engines made at HANNOVER By whom made HANNOVERSCHE MACH AG. Engine No. — When made 1921

Boilers made at HAMBURG By whom made SCHEPPSW (V.J. & SCH) AG. Boiler No. 671+2 When made 1921

Indicated Horse Power 141 Owners REEDERIJ ANTOINE VAOEBERGH'S Port belonging to ANTWERP.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel — (Letter for Record —)

Total Heating Surface of Boilers 204,70 sq.m. Is forced draught fitted NO Coal or Oil fired COAL

No. and Description of Boilers TWO MULTITUBULAR 2 FURNACED. Working Pressure 13 Kg.

Tested by hydraulic pressure to 19 Kg. Date of test — No. of Certificate — Can each boiler be worked separately YES.

Area of Firegrate in each Boiler 3,76 M² No. and Description of safety valves to each boiler TWO SPRING LOADED. 70 kg per unit. 20/9/48

Area of each set of valves per boiler (per Rule 6280 sq. cm. as fitted 962.5 sq. cm. Pressure to which they are adjusted 13 Kg. Are they fitted with easing gear YES

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler —

Smallest distance between boilers or uptakes and bunkers or woodwork 12 inches Is oil fuel carried in the double bottom under boilers NO

Smallest distance between shell of boiler and tank top plating — Is the bottom of the boiler insulated —

Largest internal dia. of boilers 3700 mm Length 3050 mm Shell plates: Material SM. Tensile strength 44-52 Kg/cm².

Thickness 25 mm Are the shell plates welded or flanged FRANGED. Description of riveting: circ. seams (end DOUBLE RIVETED LAP) (inter. 96 mm 102.5 mm)

g. seams TRDBS. BUTT STRAP. Diameter of rivet holes in (circ. seams 29 mm (long. seams 29 mm Pitch of rivets (96 mm + 38 mm BUTT ROW.

Percentage of strength of circ. end seams (plate 70.8% rivets 45% Percentage of strength of circ. intermediate seam (plate — rivets —

Percentage of strength of longitudinal joint (plate 85% rivets 106% combined 82% Working pressure of shell by Rules 13.8 Kg.

Thickness of butt straps (outer 20 mm inner 20 mm No. and Description of Furnaces in each Boiler TWO CORRUGATED

Material SM. Tensile strength 34-41 Kg/cm² Smallest outside diameter 1105 mm

Length of plain part (top 240 mm bottom 240 mm Thickness of plates (crown 15 mm bottom 15 mm Description of longitudinal joint —

Dimensions of stiffening rings on furnace or c.c. bottom — Working pressure of furnace by Rules 13.8 Kg.

Diagonal plates in steam space: Material SM. Tensile strength 34/41 per plate Thickness 22 mm Pitch of stays 410 mm x 370 mm

How are stays secured NUTS in front + milled washers. Working pressure by Rules 14.5 Kg.

Diagonal plates: Material (front SM. back SM. Tensile strength (34/41 per plate Thickness (22 mm Back 22 mm 26 mm front per plate

Span pitch of stay tubes in nests 208 mm Pitch across wide water spaces 360 mm x 104 mm Working pressure (front 21 Kg. back 17.8 Kg.

Diagonal plates to combustion chamber tops: Material SM. Tensile strength — 34/41 per plate Depth and thickness of girder

centre 160 mm - 18 mm. Length as per Rule 675 mm Distance apart 195 mm No. and pitch of stays

each 2 - 200 mm Working pressure by Rules 12.24 Kg. Combustion chamber plates: Material SM.

Tensile strength — 34/41 per plate Thickness: Sides 16 mm Back 16 mm Top 16 mm Bottom 22 mm

Pitch of stays to ditto: Sides 200 mm x 200 mm Back 195 mm x 195 mm Top 200 mm x 195 mm Are stays fitted with nuts or riveted over NUTS.

Working pressure by Rules 14 Kg. Front plate at bottom: Material SM. Tensile strength — 34/41 per plate

Thickness 26 mm Lower back plate: Material SM. Tensile strength — Thickness 24 mm

Pitch of stays at wide water space 350 mm Are stays fitted with nuts or riveted over NUTS.

Working Pressure 21 Kg. Main stays: Material SM. Tensile strength — 34/41 per plate

Diameter (At body of stay, 70 mm or Over threads 70 mm No. of threads per inch 10 Area supported by each stay 370 x 410

Working pressure by Rules 15 Kg. Screw stays: Material SM. Tensile strength — 34/41 per plate

Diameter (At turned off part, 44 mm or Over threads 44 mm No. of threads per inch 10 Area supported by each stay 195 mm

Working pressure by Rules 21Kg . Are the stays drilled at the outer ends No ✓ Margin stays: Diameter { At turned off part, 41.5 or Over threads }
 No. of threads per inch 10 ✓ Area supported by each stay 273×195 Working pressure by Rules 13.2Kg .
 Tubes: Material SM . External diameter { Plain $83\frac{1}{2}$ Stay $83\frac{1}{2}$ } Thickness { $4\frac{1}{2}$ } No. of threads per inch —
 Pitch of tubes $104\frac{1}{2} \times 104\frac{1}{2}$ ✓ Working pressure by Rules 16Kg . Manhole compensation: Size of opening
 shell plate $410\frac{1}{2} \times 510\frac{1}{2}$ Section of compensating ring $20\frac{1}{2} \times 280\frac{1}{2}$ No. of rivets and diameter of rivet holes $54 - 29\frac{1}{2}$
 Outer row rivet pitch at ends $2\frac{1}{2}$ Depth of flange if manhole flanged $64\frac{1}{2}$ ✓ 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 W. SCHMIDT PATENT . Manufacturers of { Tubes — Steel castings — }
 Number of elements 16 Material of tubes SM . Internal diameter and thickness of tubes $16\frac{1}{2} \ 2\frac{1}{2}$
 Material of headers C.S. Tensile strength — Thickness $15\frac{1}{2}$ 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 $1195\frac{1}{2} \ (392\phi)$ Are the safety valves fitted with easing gear YES ✓ Working pressure of
 Rules 13Kg . Pressure to which the safety valves are adjusted (---) Hydraulic test pres-
 tubes 1000 kg/a castings 1000 kg/a and after assembly in place — Are drain cocks or valves
 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,
 Manufac

Dates of Survey { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 while building { During erection on board vessel - - - } Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The boiler, superheater, mountings etc. have now been examined throughout and found to be placed in good order.

Survey Fee £ *see Rpt. 2* } When applied for, 192
 Travelling Expenses (if any) £ : : } When received, 192

M. J. L. ...
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **FRI. 24 SEP 1948**
 Assigned *Su F.E. mchly. rpt.*



Rpt. 13.
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