

REPORT ON BOILERS.

No. 12151

13 JUN 1927
29 NOV 1926

Received at London Office

of writing Report 22nd Nov. 1926, When handed in at Local Office 192 Port of HAMBURG.

Survey held at HAMBURG Date, First Survey 4th October. Last Survey 16th Nov. 1926.

(Number of Visits 8) Gross 8047 Tons Net 4972

623 on the Steel Twin Sc.Sr. "PRINSES JULIANA"

Built at Amsterdam By whom built Nederl. Scheepsbouw MYard No. - When built 1910

Lines made at Amsterdam By whom made Werkspoor Engine No. - When made 1910

made at HAMBURG By whom made BLOHM + VOSS Boiler No. 1286 When made 1926.

inal Horse Power Owners Stoomv. Maats. NEDERLAND Port belonging to AMSTERDAM

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mannesmannsche Werke: Abt. Schulz-Knaul, Hückingee (Letter for Record S.)

al Heating Surface of Boilers 195 sq. m. Is forced draught fitted y. Coal or Oil fired Coal

and Description of Boilers 1 Single ended multitubular. Working Pressure 21.2 kg/cm² (14.8 kg/cm²)

ted by hydraulic pressure to 368 lb. Date of test 5.11.26. No. of Certificate 446 Can each boiler be worked separately y.

ea of Firegrate in each Boiler 4.9 sq. m. No. and Description of safety valves to each boiler Two Spring loaded

a of each set of valves per boiler {per Rule as fitted 2 x 7.04" Pressure to which they are adjusted 21 at. Are they fitted with easing gear y.

ase of donkey boilers, state whether steam from main boilers can enter the donkey boiler y.

allest distance between boilers or uptakes and bunkers or woodwork 16" Is oil fuel carried in the double bottom under boilers y.

allest distance between shell of boiler and tank top plating 26". Is the bottom of the boiler insulated y.

gest internal dia. of boilers 4268 mm Length 3528 mm. Shell plates: Material Steel Tensile strength 44-51 kg/cm²

ckness 37 mm. Are the shell plates welded or flanged flanged Description of riveting: circ. seams {end Cp. double inter. Cp. bridge

g. seams 3.3. bridge. Diameter of rivet holes in {circ. seams 38 mm long. seams 38 mm Pitch of rivets {118.5 mm 258 mm

centage of strength of circ. end seams {plate 68% rivets 42.3% Percentage of strength of circ. intermediate seam {plate 68% rivets 63.5%

centage of strength of longitudinal joint {plate 85.2% rivets 91.1% combined 90.7% Working pressure of shell by Rules 16.2 kg/cm²

ckness of butt straps {outer 33 mm inner 33 mm No. and Description of Furnaces in each Boiler 3. Motion

terial Steel Tensile strength 44-47 kg/cm² Smallest outside diameter 1135 mm.

ngth of plain part {top bottom Thickness of plates {crown 17.5 mm bottom Description of longitudinal joint welded

ensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 15.9 kg/cm²

d plates in steam space: Material Steel Tensile strength 44-47 kg/cm² Thickness 26 mm Pitch of stays 400 x 440 mm

w are stays secured outside, inside, or double, with double, with Working pressure by Rules 17 kg/cm²

be plates: Material {front Steel Tensile strength 44-47 kg/cm² Thickness {26.5 mm 23 mm

an pitch of stay tubes in nests 196 mm Pitch across wide water spaces 345 mm Working pressure {front 15.7 kg/cm² back 17.25 kg/cm²

ders to combustion chamber tops: Material Steel Tensile strength 44-51 kg/cm² Depth and thickness of girder

centre 230 mm - 2 x 26 mm Length as per Rule 965 mm Distance apart 200 mm No. and pitch of stays

each 4 - 190 mm Working pressure by Rules 17.2 kg/cm² Combustion chamber plates: Material Steel

ile strength 44-47 kg/cm² Thickness: Sides 19 mm Back 19 mm Top 19 mm Bottom 23 mm

h of stays to ditto: Sides 190 x 200 mm Back 205 x 205 mm Top 190 x 200 mm Are stays fitted with nuts or riveted over web.

rking pressure by Rules 21.3 mm Front plate at bottom: Material Steel Tensile strength 44-47 kg/cm²

ckness 26.5 mm Lower back plate: Material Steel Tensile strength 44-47 kg/cm² Thickness 25 mm

ch of stays at wide water space 500 mm 3 x Are stays fitted with nuts or riveted over D. Sub. & w. m.

rking Pressure 16.15 kg/cm² Main stays: Material Steel Tensile strength 44-50 kg/cm²

imeter {At body of stay, 76 mm lower 70 mm No. of threads per inch 11 Area supported by each stay 400 x 440 mm

rking pressure by Rules 17.3 kg/cm² Screw stays: Material Steel Tensile strength 44-47 kg/cm²

imeter {At turned off part, 38.95 mm No. of threads per inch 11 Area supported by each stay 195 x 205 mm

W21-0240

Wimmer & Mann

Working pressure by Rules 15 kg/cm² Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 19 mm or Over threads

No. of threads per inch 11 Area supported by each stay 325 x 205 mm² Working pressure by Rules 15.5 kg/cm²

Tubes: Material Lauder External diameter { Plain 70 mm Stay 70 mm Thickness { 8 mm No. of threads per inch 11

Pitch of tubes 98 x 98 mm Working pressure by Rules 19.5 kg/cm² Manhole compensation: Size of opening 48 - 38 mm

shell plate 320 x 46 mm Section of compensating ring 940 x 840 x 37 mm No. of rivets and diameter of rivet holes 48 - 38 mm

Outer row rivet pitch at ends 176 mm Depth of flange if manhole flanged 75 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 { Plate Rivets

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of rivets

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 Manufacturers of { Tubes Steel castings

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off the boiler be worked separately

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve Are the safety valves fitted with easing gear Working pressure at Rules

Pressure to which the safety valves are adjusted Hydraulic test pressure

tubes, castings and after assembly in place Are drain cocks or valves to free the superheater from water where necessary

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

The foregoing is a correct description, *BLOHM & VOSS* Manufactured by *F. Blohm & Co.*

Dates of Survey { During progress of 4/10-7/10-9/10-12/10-27/10-1/11-5/11-15/11 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 8

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This main boiler has been built under Special Survey in accordance with the approved plan, the Survey Letter and otherwise in conformity with the requirements of the Rules. The materials used in the construction are made at works recognized by the Committee and tested by the Society's Surveyors in accordance with the Rules. When tested by hydraulic pressure to 368 lb per sq. inch it was found tight and satisfactory and in my opinion eligible for the notation "N.B.-26" subject to examination under steam.*

This boiler has now been shipped to Amsterdam and is intended to be fitted on board at that Port.

Survey Fee ... £ 14 : - : - When applied for, 22. 11. 1926

Travelling Expenses (if any) £ 1 : - : - When received, 192

Committee's Minute FRI. 17 JUN 1927 TUES. 6 DEC 1927

Assigned see Minute on AMS Rpt 10683 FRI. 9 MAR 1928 FRI. 30 SEP 1927 TUES. 3 APR 1928

Friedrich Hill Engineer Surveyor to Lloyd's Register of Shipping

Lloyd's Register Foundation

21 Dec 5.27 has 16 holes