

REPORT ON BOILERS.

No. 15909^B

Received at London Office

MAR 23 1940

Writing Report 17 March 1940. When handed in at Local Office

Port of Amsterdam

Survey held at Amsterdam

Date, First Survey 23 June

Last Survey 2 February 1940

on the S/S "STAD ALKMAAR"

(Number of Visits 13.) Tons { Gross 5750
Net

Built at Schiedam By whom built N.V. Wilton-Fijenoord Yard No. 669 When built 1940

made at Amsterdam By whom made N.V. Werkspoor Engine No. When made 1940

made at Amsterdam By whom made N.V. Werkspoor Boiler No. 2878/9 When made 1940

Horse Power 510. Owners Halcyon Lyn. N.V. Port belonging to Rotterdam

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

Manufacturers of Steel Broomfield Boiler works Colvilles Ltd Glasgow. (Letter for Record S)

Heating Surface of Boilers 672 M² (2200 ft²) Is forced draught fitted yes Coal or Oil fired Coal

Description of Boilers True Multitubular single ended Working Pressure 14 kg/cm²

by hydraulic pressure to 34 kg/cm² Date of test 17-1-40 No. of Certificate 451 Can each boiler be worked separately yes

Firegrate in each Boiler 5.1 M² No. and Description of safety valves to each boiler 2 spring loaded

each set of valves per boiler { per Rule 9100 m² as fitted 12700 m² Pressure to which they are adjusted Are they fitted with easing gear

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

distance between boilers or uptakes and bunkers or woodwork 375 mm Is oil fuel carried in the double bottom under boilers no

distance between shell of boiler and tank top plating 625 mm Is the bottom of the boiler insulated

internal dia. of boilers 4430 mm Length 3670 mm Shell plates: Material SMS. Tensile strength 44.50 kg/cm²

thickness 35 mm Are the shell plates welded or flanged ✓ Description of riveting: circ. seams { end dbl riveted inter. ✓

Reble riveted outer zone on omitted Diameter of rivet holes in { circ. seams 32 mm Pitch of rivets { 87 mm long. seams 32 mm 35 248 mm

age of strength of circ. end seams { plate 63 rivets 44 Percentage of strength of circ. intermediate seam { plate rivets

age of strength of longitudinal joint { plate 85.88 rivets 86 combined 88.9 Working pressure of shell by Rules 14.85 kg/cm²

width of butt straps { outer 31 mm inner 31 mm No. and Description of Furnaces in each Boiler 3 Morrison furnaces.

Material S.M.S. Tensile strength 41.47 kg Smallest outside diameter 1080 mm

of plain part { top ✓ bottom ✓ Thickness of plates { crown 15 mm Description of longitudinal joint welded bottom ✓

positions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 14.2 kg

plates in steam space: Material SMS Tensile strength 41.47 kg Thickness 29 mm Pitch of stays 420 x 440 mm

are stays secured Screwed into plates nuts in outside Working pressure by Rules 15.2 kg

plates: Material { front SMS back SMS Tensile strength { 41.47 kg Thickness { 24 mm 22 mm

pitch of stay tubes in nests 275 mm Pitch across wide water spaces 300 mm Working pressure { front 14.3 kg back 16.4 kg

to combustion chamber tops: Material SMS Tensile strength 44.50 kg Depth and thickness of girder

of 260 mm x 2 x 22 mm Length as per Rule 875 mm Distance apart 220 mm No. and pitch of stays

3. 200 mm Working pressure by Rules 19 kg Combustion chamber plates: Material SMS

strength 41.47 kg Thickness: Sides 17 mm Back 17 mm Top 17 mm Bottom 25 mm

stays to ditto: Sides 190 mm x 20 Back 206 x 192.5 mm Top 220 x 200 mm Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 16 kg Front plate at bottom: Material SMS Tensile strength 41.47 kg

thickness 24 mm Lower back plate: Material SMS Tensile strength 41.47 kg Thickness 24 mm

stays at wide water space 380 x 155 mm Are stays fitted with nuts or riveted over fitted with nuts

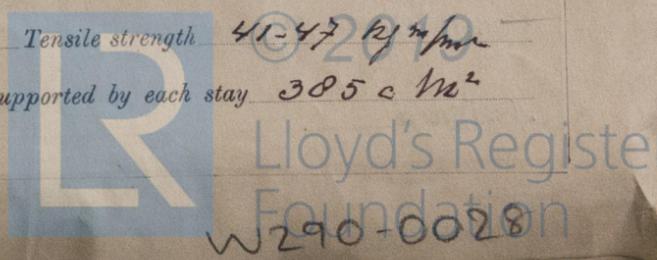
Pressure 15.6 kg Main stays: Material S.M.S. Tensile strength 44.50 kg/cm²

At body of stay, 70 mm No. of threads per inch 8 Area supported by each stay 1000 cm²

Over threads 3" pressure by Rules 16.5 kg/cm² Screw stays: Material S.M.S. Tensile strength 41.47 kg/cm²

At turned off part, 1 1/2" No. of threads per inch 9 Area supported by each stay 385 cm²

Over threads 1 1/2"



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Working pressure by Rules 14.7 kg/cm^2 Are the stays drilled at the outer ends *yes*. Margin stays: Diameter ^{At turned off part.} _{Over threads} $1\frac{5}{8} - 1\frac{3}{4}$ "

No. of threads per inch *9* Area supported by each stay $420 - 525 - 660 \text{ cm}^2$ Working pressure by Rules $16 - 15 - 14.7 \text{ kg/cm}^2$

Tubes: Material *Iron* External diameter ^{Plain} 83 mm _{Stay} 83 mm Thickness 4.06 mm 7.93 mm No. of threads per inch *9*

Pitch of tubes 110×110 Working pressure by Rules 16 kg/cm^2 Manhole compensation: Size of shell plate $515 \times 415 \text{ mm}$ Section of compensating ring 825×925 No. of rivets and diameter of rivet holes $54 - 32 \text{ mm}$

Outer row rivet pitch at ends 220 mm Depth of flange if manhole flanged 80 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 stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes of rivets in outer row in dome connection to shell

Type of Superheater *Schmidt's type* Manufacturers of Tubes *Steward & Lloyd's* Steel forgings *Werkspoor* Steel castings

Number of elements *54* Material of tubes *Solid drawn steel* Internal diameter and thickness of tubes 19 mm 3 mm

Material of headers *SMS* Tensile strength 44.50 kg Thickness 32 mm Can the superheater be shut 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 1970 cm^2 Are the safety valves fitted with casing gear *yes* Working pressure Rules 22.3 kg/cm^2 Pressure to which the safety valves are adjusted Hydraulic test tubes 42 kg forgings and castings 42 kg and after assembly in place Are drain valves fitted to free the superheater from water where necessary *yes*

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *yes*

The foregoing is a correct description,
WERKSPoor N.V.
[Signature]

1939. June 25 Sept 25. Oct. 5. 20. 30
Dates of Survey ^{During progress of work in shops - -} *Dec 4. 13. 27. Jan 11. 17. 24. 26.* _{while building} ^{Feb 2.} Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
Total No. of visits

Is this Boiler a duplicate of a previous case *no* If so, state Vessel's name and Report No.

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

These boilers have been built under special survey to approved, & Secretary's letters and the Society's rules. Material duly fitted workmanship throughout good. On completion hydr tested to 349 LBS found sound & tight. The boilers have been shipped to Schiedam and will be fitted aboard M/Vs Wilton-Fyenoord Yard No. 669

Survey Fee £ : : } When applied for, 19
Travelling Expenses (if any) £ : : } When received, 19

[Signature]
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

Assigned *No action*



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