

REPORT ON BOILERS.

No. 17446

11 MAY 1928

Received at London Office

Date of writing Report 4-5 1928 When handed in at Local Office

192

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 24-8-27 Last Survey 24-4 1928

2375 on the two main boilers of the steel screw steamer, GAASTERLAND Tons {Gross 1091 Net 655

Built at Rotterdam By whom built Weyl & Co. Yard No. When built 1915

Engines made at Rotterdam By whom made M. J. F. J. J. Engine No. When made 1915

Boilers made at Rotterdam By whom made R. Dam. Drydock Comp. Boiler No. 457/58 When made 1928

Original Horse Power Owners Scheepvaart & Steenkolen Mij. Port belonging to Rotterdam

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mens. Viskovics Steel & Iron Works Corporation (Letter for Record S)

Total Heating Surface of Boilers 2 x 1446 sq feet Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers 2 multitubular marine boilers Working Pressure 180 lbs.

Tested by hydraulic pressure to 320 lb. Date of test 13-12-27 No. of Certificate 879 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 41 sq ft No. and Description of safety valves to each boiler 2 spring loaded

Area of each set of valves per boiler {per Rule 9.3 as fitted 18.6 sq ft Pressure to which they are adjusted 180 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 10" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating no tank Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12'-0" Length 10'-7" Shell plates: Material S.M. steel Tensile strength 20-32 tons

Thickness 1 1/32" Are the shell plates welded or flanged No Description of riveting: circ. seams {end 2 x riv. lap joint inter. 1 1/8" 1 1/8" Pitch of rivets {3 1/2" 7 1/2"

Long. seams double butt 3 x riv Diameter of rivet holes in {circ. seams 1 1/8" long. seams 1 1/8" Percentage of strength of circ. end seams {plate 68% rivets 51%

Percentage of strength of circ. intermediate seam {plate 85% rivets 87.5% Working pressure of shell by Rules 183 lbs.

Percentage of strength of longitudinal joint {plate 85% rivets 87.5% combined 87.5%

Thickness of butt straps {outer 1 1/32" inner 1 1/32" No. and Description of Furnaces in each Boiler 2 Morrison's patent

Material S.M. steel Tensile strength 26-30 tons Smallest outside diameter 3' 9 3/16"

Length of plain part {top 19" bottom 132" Thickness of plates {crown 19" bottom 132" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 190 lbs.

End plates in steam space: Material S.M. steel Tensile strength 26-30 tons Thickness 7/8" Pitch of stays 16" x 14"

How are stays secured screwed in plates with nuts outside Working pressure by Rules 200 lbs.

End plates: Material {front S.M. steel back S.M. steel Tensile strength {26-30 tons 26-30 tons Thickness {3/16" 1/16"

Span pitch of stay tubes in nests 13 1/2" x 8 1/2" Pitch across wide water spaces 13 1/4" Working pressure {front 192 lbs back 192 lbs

Orders to combustion chamber tops: Material S.M. steel Tensile strength 20-32 tons Depth and thickness of girder

centre 8 1/4" x 2" x 7/8" Length as per Rule 2'-8" Distance apart 3" 8" No. and pitch of stays

each 8 x 8 Working pressure by Rules 210 lbs Combustion chamber plates: Material S.M. steel

Tensile strength 26-30 tons Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 1"

Pitch of stays to ditto: Sides 8" x 7 1/2" Back 7 1/2" x 7 1/2" Top 8" x 8" Are stays fitted with nuts or riveted over fitted with nuts

Working pressure by Rules 207 lbs Front plate at bottom: Material S.M. steel Tensile strength 26-30 tons

Thickness 13/16" Lower back plate: Material S.M. steel Tensile strength 26-30 tons Thickness 3/4"

Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over fitted with nuts

Working Pressure 190 lbs Main stays: Material S.M. steel Tensile strength 20-32 tons

Diameter {At body of stay, 2 1/2" or 2 3/4" No. of threads per inch 9 Area supported by each stay 252 sq in

Working pressure by Rules 207 lbs Screw stays: Material S.M. steel Tensile strength 26-30 tons

Diameter {At turned off part, 1 1/2" or 1 1/2" No. of threads per inch 9 Area supported by each stay 60 sq in

Working pressure by Rules 207 lbs

Diameter {At turned off part, 1 1/2" or 1 1/2" No. of threads per inch 9 Area supported by each stay 60 sq in

Working pressure by Rules 207 lbs

Diameter {At turned off part, 1 1/2" or 1 1/2" No. of threads per inch 9 Area supported by each stay 60 sq in

Working pressure by Rules 207 lbs

Diameter {At turned off part, 1 1/2" or 1 1/2" No. of threads per inch 9 Area supported by each stay 60 sq in



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Working pressure by Rules *209 lbs* Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, *1 7/8"* or Over threads *1 7/8"*
No. of threads per inch *9* Area supported by each stay *40.75 sq"* Working pressure by Rules *275 lbs*
Tubes: Material *Iron* External diameter { Plain *3 1/4"* Stay *3 1/4"* Thickness { *7/16"* *9/16"* No. of threads per inch *9*
Pitch of tubes *4 1/2" x 4 1/4"* Working pressure by Rules *100 lbs* Manhole compensation: Size of opening
shell plate *16 x 20* Section of compensating ring *7/8" x 6 1/2"* No. of rivets and diameter of rivet holes *38 at 1 1/2"*
Outer row rivet pitch at ends *8 1/4"* Depth of flange if manhole flanged *✓* 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 *✓* 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 as
Rules *✓* Pressure to which the safety valves are adjusted *✓* Hydraulic test pressure
tubes *✓* castings *✓* and after assembly in place *✓* Are drain cocks or valves fitted
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,
ROTTERDAMSCHES PROBECK-AMATSON-APPLI Manufactured

Dates of Survey { During progress of work in shops - - *24/8 - 3-19/10 1-7-10-22/11 3-6-12/12-27* Are the approved plans of boiler and superheater forwarded herewith *Retained*
while building { During erection on board vessel - - - *17-24/4-18* (If not state date of approval.) *2. 8. 27*
Total No. of visits *12*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These boilers have been made under special survey, in accordance with the approved plan, Society's Rules and Secretary's letters, tested by hydraulic pressure and found sound and tight.*

Survey Fee £ *231.60* When applied for, *4/5* 1923
Travelling Expenses (if any) £ *7.50* When received, *30.5* 1923

Committee's Minute *✓* FRI. 18 MAY 1928

Assigned *+ A.B. 4:28*

Y. J. Oetow
Engineer Surveyor to Lloyd's Register of Shipping
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Foundation