

REPORT ON BOILERS.

No. 13065

Received at London Office

10 NOV 1924

Date of writing Report 16 Aug 1924 When handed in at Local Office

192

Port of

Rotterdam

No. in Survey held at

Rotterdam

Date, First Survey

5th Jan

Last Survey

4th Jun 1924

Reg. Book.

on the Steel Screw Hopper Barge TATAM IV

(Number of Visits 14)

Gross

Tons

Net

Master Built at Schiedrecht By whom built Wey de Vloot Yard No. 201 When built 1924

Engines made at Schiedrecht By whom made Wey de Vloot Engine No. 132 When made 1924

Boilers made at Rotterdam By whom made Rott Droogdok Mij Boiler No. 287 When made 1924

Nominal Horse Power 100 Owners Chem. C. H. Campbell Ltd Port belonging to London

8-1-24 MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

8-1-24

Manufacturers of Steel Wotho & Beagb & Eisenhuthen Gesellschaft (Letter for Record S ✓)

8-1-24

Total Heating Surface of Boilers 2180 sq ft Is forced draught fitted No ✓ Coal or Oil fired Coal ✓

8-1-24

No. and Description of Boilers One single ended Multitubular boiler ✓ Working Pressure 185 lbs

Tested by hydraulic pressure to 330 lbs Date of test 4-6-24 No. of Certificate 795 Can each boiler be worked separately -

Area of Firegrate in each Boiler 53 sq ft No. and Description of safety valves to each boiler 2 High lifting springs loaded

Area of each set of valves per boiler { per Rule 9.08 High lift as fitted 11.88 Pressure to which they are adjusted 185 lbs Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler None ✓

Smallest distance between boilers or uptakes and bunkers or woodwork Over 30" ✓ Is oil fuel carried in the double bottom under boilers No ✓

Smallest distance between shell of boiler and tank top plating Open bulges ✓ Is the bottom of the boiler insulated -

Largest internal dia. of boilers 13' 6" Length 10' 10" Shell plates: Material S.M. Steel Tensile strength 28-32 tons

Thickness 1 5/16" Are the shell plates welded or flanged No ✓ Description of riveting: circ. seams { end Lap 2 x riv inter. -

Pitch of rivets { 3 7/8" 8 1/8" ✓

Percentage of strength of circ. end seams { plate 67% rivets 42% Percentage of strength of circ. intermediate seam { plate - rivets -

Percentage of strength of longitudinal joint { plate 85.38% rivets 89.8% combined 88% Working pressure of shell by Rules 187 lbs 2 Cf.

Thickness of butt straps { outer 7/8" inner 7/8" No. and Description of Furnaces in each Boiler 2 Monsons patent

Material S.M. Steel Tensile strength 26-30 tons Smallest outside diameter 4' 2 1/8" ✓

Length of plain part { top - bottom - Thickness of plates { crown 1 1/16" 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 199 lbs

End plates in steam space: Material S.M. Steel Tensile strength 26-30 tons Thickness 1 1/8" Pitch of stays 18" x 16" ✓

How are stays secured Screwed in plates with nuts and washers outside Working pressure by Rules 190 lbs

End plates: Material { front S.M. Steel Tensile strength 26-30 tons Thickness 1 1/8" ✓

Pitch of stay tubes in nests 8 3/4" x 13 1/16" Pitch across wide water spaces 15 1/2" Working pressure { front 269 lbs back 228 lbs

Risers to combustion chamber tops: Material S.M. Steel Tensile strength 28-32 tons Depth and thickness of girder

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

each 2 x 10" Working pressure by Rules 199 lbs Combustion chamber plates: Material S.M. Steel

Tensile strength 26-30 tons Thickness: Sides 7/8" Back 3/4" Top 7/8" Bottom 7/8" ✓

Pitch of stays to ditto: Sides 10" x 9 1/4" Back 8 1/8" x 7 1/8" Top 10" x 8 1/2" Are stays fitted with nuts or riveted over Riveted over ✓

Working pressure by Rules 186 lbs Front plate at bottom: Material S.M. Steel Tensile strength 26-30 tons

Thickness 1 1/16" Lower back plate: Material S.M. Steel Tensile strength 26-30 tons Thickness 3/4" ✓

Pitch of stays at wide water space 15 1/8" Are stays fitted with nuts or riveted over Fitted with nuts

Working Pressure 200 lbs Main stays: Material S.M. Steel Tensile strength 28-32 tons

Pitch of stays { At body of stay, 2 1/2" No. of threads per inch 9 Area supported by each stay 288 sq in

Working pressure by Rules 186 lbs Screw stays: Material S.M. Steel Tensile strength 26-30 tons

Pitch of stays { At turned off part, 1 5/16" No. of threads per inch 9 Area supported by each stay Sides 91.25 sq in Back 61.7 sq in Top 85 sq in

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Lloyd's Register

Working pressure by Rules 180 lbs Are the stays drilled at the outer ends No Margin stays: Diameter ^{At turned off part,} 1 9/16"
^{or} 1 3/4"
^{Over threads}
 No. of threads per inch 9 Area supported by each stay 89.5 lbs Working pressure by Rules 201 lbs
 Tubes; Material Iron External diameter ^{Plain} 5 1/4" ^{Stay} 5 1/4" Thickness 8 L 5 9/16" No. of threads per inch 9
 Pitch of tubes 4 1/16" x 4 7/8" Working pressure by Rules 230 lbs Manhole compensation: Size of opening in
 shell plate 16 3/4" x 20 3/4" Section of compensating ring 8 1/4" x 1 1/16" No. of rivets and diameter of rivet holes 43 at 1 1/16"
 Outer row rivet pitch at ends 7 1/2" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material Cast Steel
 Tensile strength ✓ Thickness of shell 3/4" 3/4" Description of longitudinal joint ✓
 Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint ^{Plate} ✓
^{Rivets} ✓
 Internal diameter ✓ 12" Working pressure by Rules ✓ Thickness of crown 3/4" 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 and pitch
 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 and
 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 per
 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 Yes
 The foregoing is a correct description,
B. D. Ochoa Manufacturer.

Dates of Survey ^{During progress of} 12-14-23 7-24-23 3-13-23 11-11-19 5-6-8-11-20 4/
^{work in shops - -} ✓ ✓ ✓ ✓ ✓ ✓ Are the approved plans of boiler and superheater forwarded herewith ✓
^{while} ✓ ✓ ✓ ✓ ✓ ✓ (If not state date of approval.) 11-12-23
^{building} ✓ ✓ ✓ ✓ ✓ ✓ Total No. of visits 14
^{board vessel - - -} ✓ ✓ ✓ ✓ ✓ ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This boiler has been made in accordance with the Rules,
approved plans and Secretary's letter, material tested as
required and workmanship good.

Survey Fee ... 176.00 When applied for 10/10 1924
 Travelling Expenses (if any) 5.00 When received 24/10 1924

B. D. Ochoa
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 14 NOV 1924

Assigned