

Rpt. 5a.

REPORT ON BOILERS.

No. 2631

Received at London Office.....

Date of writing Report..... 23-4-1963. When handed in at Local Office..... 24-4-1963. Port of..... Groningen

No. in Reg. Book. Survey held at..... Veendam Date, First Survey..... 27-9-62 Last Survey..... 1-4-1963

(Number of Visits..... 15.....) Tons { Gross..... Net.....

Built at..... Rotterdam By whom built..... N.V. Rotterdamsche Droogdok Mij. Yard No..... 307 When built.....

Engines made at..... By whom made..... Engine No..... When made.....

Boilers made at..... Veendam By whom made..... N.V. Veendammer Machinefabriek Boiler No..... 5267 When made..... 1963. v/h J. ten Hron,

MN as per Rule..... Owners..... Port belonging to.....

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel..... Messrs. Phoenix-Rheinrohr A.G., Mülheim.

Total Heating Surface of Boilers..... 85 m² (914 sq. ft) Of Superheaters.....

Total for Register Book..... 85 m² (914 sq. ft) Is forced draught fitted..... Coal or Oil fired.....

No. and Description of Boilers..... 1 horizontal multitubular marine boiler Working Pressure..... 10 kg/cm²

Tested by hydraulic pressure to..... 18½ kg/cm² Date of test..... 1-4-63 No. of Certificate..... 240 Can each boiler be worked separately.....

Area of Firegrate in each Boiler..... No. and Description of safety valves to each boiler..... 1 double enclosed springloaded high lift

Area of each set of valves per boiler { per Rule..... 3230 mm² as fitted..... 3926 mm² Pressure to which they are adjusted..... Are they fitted with easing gear.....

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..... Is oil fuel carried in the double bottom under boilers.....

Smallest distance between boilers or uptakes and bunkers or woodwork..... Is the bottom of the boiler insulated.....

Largest internal dia. of boilers..... 2371 mm Length..... 3500 mm Shell plates: Material..... SM Steel Tensile strength..... 46.9/47.2 kg/mm²

If fusion welded, state name of welding Firm..... N.V. Veendammer Machinefabriek Have all the requirements of the Rules for Class I vessels

been complied with..... Yes Thickness..... 14½ mm Are the shell plates welded or flanged..... welded Description of riveting: circ. seams { end..... inter.....

long. seams..... Diameter of rivet holes in { circ. seams..... long. seams..... Pitch of rivets {

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

Percentage of strength of longitudinal joint { plate..... rivets..... combined.....

Thickness of butt straps { outer..... inner..... No. and Description of Furnaces in each Boiler..... 1 corrugated furnace

Material..... SM steel Tensile strength..... 45.3/44.5 kg/mm² Smallest outside diameter..... 972 mm. ✓

Length of plain part { front..... 300 mm end..... 104 mm Thickness of plates..... 11 mm ✓ Description of longitudinal joint..... fusion welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom.....

End plates in steam space: Material..... SM steel Tensile strength..... 46.0/44.8 kg/mm² Thickness..... 20 mm ✓ Pitch of stays..... 450 mm. ✓

How are stays secured..... welded

Tube plates: Material { front..... SM steel back..... SM steel Tensile strength { 46.0/44.8 kg/mm² 46.0/44.8 kg/mm² Thickness { 20 mm ✓ 20 mm ✓

Mean pitch of stay tubes in nests..... 315 mm. ✓ Pitch across wide water spaces.....

Girders to combustion chamber tops: Material..... SM steel Tensile strength..... 46.0/44.8 kg/mm² Depth and thickness of girder

at centre..... 250 x 20 ✓ Length as per Rule..... as per plan Distance apart..... 345 mm ✓ No. and pitch of stays

in each..... welded ✓ Combustion chamber plates: Material..... SM steel

Tensile strength..... 47.3/46.0 kg/mm² Thickness: Sides..... 26 mm ✓ Back..... 20 mm ✓ Top..... 26 mm ✓ Bottom..... 26 mm ✓

Pitch of stays to ditto: Sides..... none Back..... 290 mm ✓ Top..... Are stays fitted with nuts or riveted over..... welded

Front plate at bottom: Material..... Tensile strength.....

Thickness..... Lower back plate: Material..... Tensile strength..... Thickness.....

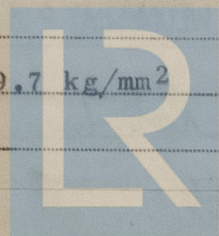
Pitch of stays at wide water space..... Are stays fitted with nuts or riveted over.....

Main stays: Material..... SM steel Tensile strength..... 50.3 kg/mm²

Diameter { At body of stay..... 70 mm or Over threads..... No. of threads per inch..... welded ✓

Screw stays: Material..... SM steel Tensile strength..... 49.3/49.7 kg/mm²

Diameter { At turned off part..... 45 mm or Over threads..... No. of threads per inch..... welded ✓



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Are the stays drilled at the outer ends yes Margin stays: Diameter At turned off part, 4.5 mm
 No. of threads per inch welded
 Tubes: Material SM steel External diameter { Plain 7.6 mm Stay 7.6 mm Thickness { 4 mm 6 mm No. of threads per inch welded/expand
 Pitch of tubes 105 mm Manhole compensation: Size of opening in
 shell plate 450 x 350 mm Section of compensating ring 100 x 25 mm No. of rivets and diameter of rivet holes welded
 Outer row rivet pitch at ends - Depth of flange if manhole flanged - Steam Dome: Material SM steel
 Tensile strength 46.9/47.2 kg/mm² Thickness of shell 14.5 mm Description of longitudinal joint welded
 Diameter of rivet holes - Pitch of rivets - Percentage of strength of joint { Plate - Rivets -
 Internal diameter 572 mm Thickness of crown 12 mm No. and diameter of
 stays - Inner radius of crown 480 mm
 How connected to shell welded Size of doubling plate under dome 100 x 20 mm Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell welded
 Type of Superheater: Manufacturers of { Tubes - Steel forgings - 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 - Hydraulic test pressure:
 Pressure to which the safety valves are adjusted - and after assembly in place - Are drain cocks or
 tubes - forgings and castings -
 valves fitted to free the superheater from water where necessary -

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with as far as applicable: yes
 The foregoing is a correct description,

Dates of Survey while building { During progress of work in shops - 1962 2/1, 8/1, 6/1, 12/1, 20/1, 24/1, 6/1, 12/1 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 During erection on board vessel - 1963 2/1, 20/1, 3/1, 6/1, 20/1, 24/1, 1/1, 14/1
 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.) This boiler has been constructed under
Special Survey in accordance with the Society's Rules, Secretary's letters and the approved plans.
Materials used tested as required and the design and workmanship are good.
In my opinion this boiler merits the favourable approval of the Committee to be fitted in a
classed vessel.

Boiler marked for identification:

No. 240

Lloyd's Test Gro.

T.P. 18.5 kg/cm²

W.P. 10 kg/cm²

G.B. 1-4-63.

Survey Fee ... £l. 3.15 =

Travelling Expenses (if any) £l. 15.8 =

Turnover tax £l. 20.13

When applied for, 29.1.19.63

When received 19.63

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute WEDNESDAY 23 DEC 1964

Assigned See Rpt. 1.



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