

REPORT ON BOILERS.

No. 22304

Received at London Office

MAY -1 1937

Date of writing Report 16th April 37 When handed in at Local Office 10 Port of **HAMBURG**

No. in Survey held at **HAMBURG** Date, First Survey 21st Nov. 1936 Last Survey 15th April 1937

on the **Twin Se. "Nevea Granada"** (Number of Visits 6) Tons { Gross 9968 Net 5782

Master **W. J. ...** Built at **Hamburg** By whom built **Deutsche Werke A.G.** Yard No. 181 When built 1937

Engines made at **Angsburg** By whom made **Maschinenfabrik Angsburg-Hamburg** Engine No. 661/30/140 When made 1937

Boilers made at **Hamburg** By whom made **Deutsche Werke A.G.** Boiler No. 666/667 When made 1937

Nominal Horse Power 1171 Owners **The Texas Co. (Norway) A/S** Port belonging to **Oslo**

Waste Heat LaMont Donkey Boiler Coil System.

Manufacturers of Steel Tubes: **Mannesmann-Röhrenwerke, Remscheid** Headers: **Klöckner-Werke A.G. 116 Georg-Marienhütte** (Letter for Record)

Total Heating Surface of Boilers each boiler 100 sq. m. Is forced draught fitted Coal or Oil fired **Waste Gas Heated**

No. and Description of Boilers 2 Waste Heat "La Mont" Donkey Boilers Working Pressure 12 kg/cm²

Tested by hydraulic pressure to 24 kg/cm² Date of test 9th Jan. 37. No. of Certificate 648/649 Can each boiler be worked separately *only in combination with one donkey boiler*

Area of Firegrate in each Boiler — No. and Description of safety valves to each boiler 1 — **spring loaded**

Area of each set of valves per boiler { per Rule as fitted 962 mm² Pressure to which they are adjusted 12 kg/cm² 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 shell of boiler and tank top plating — Is the bottom of the boiler insulated

Largest internal dia. of boilers 1280 mm (Height 3300 mm) Headers Shell-plates: Material **S-M-Steel** Tensile strength 41-47 kg/cm²

Thickness { ϕ 110 mm - bore 80 mm Are the shell plates welded or flanged — Description of riveting: circ. seams { end — inter. —

Diameter of **coil tubes** in { circ. seams 26/32 mm Thickness of shell { 3 mm. of rivets { 3 mm.

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 — Working pressure of shell by Rules 16.25 kg/cm²

Thickness of butt straps { outer — inner — No. and Description of Furnaces in each Boiler —

Material — Tensile strength — Smallest outside diameter —

Length of plain part { top — bottom — Thickness of plates { crown — bottom — Description of longitudinal joint —

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

End plates in steam space: Material — Tensile strength — Thickness — Pitch of stays —

How are stays secured — Working pressure by Rules —

Tube plates: Material { front — back — Tensile strength { — Thickness { — Working pressure { front — back —

Mean pitch of stay tubes in nests — Pitch across wide water spaces — Working pressure { front — back —

Girders to combustion chamber tops: Material — Tensile strength — Depth and thickness of girder at centre —

Length as per Rule — Distance apart — No. and pitch of stays in each — Working pressure by Rules — Combustion chamber plates: Material —

Tensile strength — Thickness: Sides — Back — Top — Bottom —

Pitch of stays to ditto: Sides — Back — Top — Are stays fitted with nuts or riveted over —

Working pressure by Rules — Front plate at bottom: Material — Tensile strength —

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

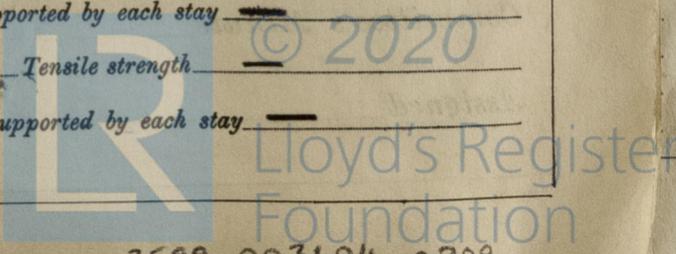
Pitch of stays at wide water space — Are stays fitted with nuts or riveted over —

Working Pressure — Main stays: Material — Tensile strength —

Diameter { At body of stay, — or Over threads — No. of threads per inch — Area supported by each stay —

Working pressure by Rules — Screw stays: Material — Tensile strength —

Diameter { At turned off part, — or Over threads — No. of threads per inch — Area supported by each stay —



Working pressure by Rules Are the stays drilled at the outer ends Margin stays: Diameter { At turned off part,
 or
 Over threads
 No. of threads per inch Area supported by each stay Working pressure by Rules
 Tubes: Material External diameter { Plain Thickness { No. of threads per inch
 Stay
 Pitch of tubes Working pressure by Rules Manhole compensation: Size of opening in
 shell plate Section of compensating ring No. of rivets and diameter of rivet holes
 Outer row rivet pitch at ends 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 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 22 inclusive for boilers been complied with yes
 The foregoing is a correct description,
DEUTSCHE WERFT Manufacturer.
 KÖNIGSBERG

Dates of Survey { During progress of work in shops - - } 21st Nov, 9th Dec. 1936, 9th Jan. Are the approved plans of boiler and superheater forwarded herewith yes
 while building { During erection on board vessel - - - } 12th + 31st March, 15th April (If not state date of approval.)
 Total No. of visits 6

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Material and workmanship
of these Waste Heat La Mont Donkey Boilers (Coil System) are of good quality.
The materials used in their construction are made at Works recognised by the
Committee and tested by the Society's Surveyors in accordance with the requirements
of the Rules.
These waste heat donkey boilers having been made under Special Survey in
conformity with the approved plan, the Society's letter and otherwise in compliance
with the requirements of the Rules are eligible in my opinion to be classed
in the Society's Register Book. Donkey Boiler pressure 171 lbs/sq. inch.

Thickness of adjusting washers = Port boiler 8.2 mm, Stb. boiler 7.5 mm.

Survey Fee £ R.M. 168: - | When applied for, 26.4.1937
 Travelling Expenses (if any) £ - : - : - | When received, 27.5.1937
 Friedrich H. Röhrs
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 7 MAY 1937
 Assigned See Ham. J.E. 22304
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