

REPORT ON BOILERS.

Received at London Office.....

Date of writing Report 20.10.1964 When handed in at Local Office 21.10.64.19..... Port of Rijeka

No. in Reg. Book Survey held at Zagreb Date, First Survey 13.2.64. Last Survey 28.8.1964

(Number of Visits 20.....) Tons {Gross Net

Built at Trogir By whom built Shipyard Trogir Yard No. 137 When built

Engines made at By whom made Engine No. When made

Boilers made at Zagreb By whom made Tvornica Parnih Kotlova Boiler No. 5162 When made 1964

MN as per Rule Owners Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Phoenix Rheinrohr, Mannesman, A.F.L. Falck

Total Heating Surface of Boilers 250 m2 Of Superheaters -

Total for Register Book 2700 ft2 Is forced draught fitted yes Coal or Oil fired oil

No. and Description of Boilers One cylindrical multitubular boiler with riveted steel and welded furnaces and combustion chambers. Working Pressure 12 kg/sq. cm

Tested by hydraulic pressure to 21.5 kg/cm2 Date of test 25.8.64. No. of Certificate 103 Can each boiler be worked separately -

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 Double High Lift size? 2 x 80 mm

Area of each set of valves per boiler per Rule 8050 mm2 as fitted 10050 mm2 Pressure to which they are adjusted 12 kg/cm2 Are they fitted with easing gear yes

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 4400 mm Length 3646 mm Shell plates: Material SM steel Tensile strength 47-54 kg/mm2

If fusion welded, state name of welding Firm Have all the requirements of the Rules for Class I vessels been complied with Thickness 3mm Are the shell plates welded or flanged no Description of riveting: circ. seams end Double riveted lap

Treble riveted butt jointed long seams with double butt straps Diameter of rivet holes in circ. seams 34mm long seams 34mm Pitch of rivets 152mm

Percentage of strength of circ. end seams plate 66.7% rivets 59% Percentage of strength of circ. intermediate seam plate 77.6% rivets 78%

Percentage of strength of longitudinal joint plate 77.6% rivets 77.6% combined

Thickness of butt straps outer 26mm inner 26mm No. and Description of Furnaces in each Boiler 3 Fox corrugated fusion welded

Material S.M. Steel Tensile strength 41-47 kg/sq. mm Smallest outside diameter 924 mm

Length of plain part front 106.5 mm back 200 mm Thickness of plates 12 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 41-47 kg/sq. mm Thickness 24mm Pitch of stays "d" = 520 mm

How are stays secured Nuts inside and outside

Tube plates: Material front SM steel back " Tensile strength 41-47 kg/sq. mm Thickness 24mm 18mm

Mean pitch of stay tubes in nests 230 mm Pitch across wide water spaces between nests 340 mm

Girders to combustion chamber tops: Material SM steel Tensile strength 44-50 kg/sq. cm Depth and thickness of girder at centre 140mm x 30mm Length as per Rule 780 mm Distance apart 165 mm No. and pitch of stays

in each Girders welded to C.C. Combustion chamber plates: Material SM Steel Tensile strength 41-47 kg/sq. mm Thickness: Sides 18mm Back 18mm Top 18mm Bottom 18mm

Pitch of stays to ditto: Sides 200 mm Back 200 mm Top - Are stays fitted with nuts or riveted over Fusion welded

Front plate at bottom: Material SM Steel Tensile strength 41-47 kg/sq. mm

Thickness 24 mm Lower back plate: Material SM steel Tensile strength 41-47 kg/sq. mm Thickness 24 mm

Pitch of stays at wide water space 470 & 480 mm Are stays fitted with nuts or riveted over fitted with nuts

Main stays: Material SM Steel Tensile strength 44-50 kg/sq. mm

Diameter At body of stay 5 at 63-5 mm, and 20 at 59 mm No. of threads per inch 9

Screw stays: Material SM steel Tensile strength 41-47 kg/sq. mm

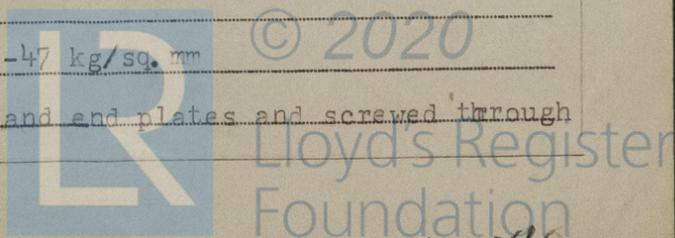
Diameter At turned off part 48 mm No. of threads per inch 9 Welded to C.C. and end plates and screwed through shell 8.55 T.P.I.

PLEASE RETURN THIS REPORT WITH YOUR FIRST ENTRY.

Is a Report also sent on the hull of the ship? If not, state whether and when, one will be sent?

(MADE AND PRINTED IN ENGLAND)

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0224-0228-0090

Are the stays drilled at the outer ends yes Margin stays: Diameter At turned off part, stay tubes
 No. of threads per inch welded
 Tubes: Material SM steel External diameter 63.5 mm Thickness 3.2 mm No. of threads per inch welded
 Pitch of tubes 92 mm Manhole compensation: Size of opening in shell plate 406 x 506 mm Section of compensating ring 30 mm No. of rivets and diameter of rivet holes 32, 34 mm
 Outer row rivet pitch at ends 143.5 mm Depth of flange if manhole flanged 110 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 -
 Internal diameter - Thickness of crown - No. and diameter of stays -
 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 -
 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 -
 Area of each safety valve - Is a safety valve fitted to every part of the superheater which can be shut off from the boiler -
 Pressure to which the safety valves are adjusted - Are the safety valves fitted with easing gear - Hydraulic test pressure: tubes - forgings and 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,
[Signature]

Manufacturer: 19.9.63
 No. 24.1.64

Dates of Survey while building During progress of work in shops - - From 13.2.64 to 28.8.64 Are the approved plans of boiler and superheater forwarded herewith -
During erection on board vessel - - - 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 of tested material in accordance with the Rules, Approved Plans and Secretary's letters. The workmanship is good, the boiler was found sound and tight under hydraulic test and is eligible in my opinion to be fitted in a classed vessel.

Survey Fee ... £ 37:16 : 0 + When applied for,19.....
 Travelling Expenses (if any) £ 79.380.-din. When received19.....
 7.11.64 20.000.-din.

[Signature]

N. Diere s
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRIDAY 28 MAY 1965

Assigned See Rpt. 1.

