

# REPORT ON BOILERS.

No. 2023

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Date of writing Report. 8th Sept. 52 When handed in at Local Office. 19. Port of HAMBURG

No. in Reg. Book. Survey held at HAMBURG Date, First Survey 24th March Last Survey 26th August 19 52

S 95289 on the M.V. "MOSOIL" (Number of Visits. 26) 11.348 Tons Gross Net 6.713

Built at Hamburg By whom built Deutsche Werft A.G., Yard No. 640 When built 1952

Engines made at Augsburg By whom made M.A.N. Engine No. 501528 When made 1952

Boilers made at Hamburg By whom made Deutsche Werft A.G., Boiler No. 1200 12001 When made 1952

Nominal Horse Power. 1330 Owners Compania de Navegacion Martora S.A. Port belonging to Panama City

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Rheinisch Röhrenwerke A.G., Mülheim-Ruhr (Letter for Record S)

Total Heating Surface of Boilers 2 x 250 sq.m ( 5382.2 sq. ft) Of Superheaters ( 2 x 28 m<sup>2</sup>) 602.8 sq. ft.

Total for Register Book 5985 sq. ft. Is forced draught fitted yes Coal or Oil fired oil

No. and Description of Boilers Two, Scotch Type, Marine Single Ended, 3 Furnace Working Pressure 170.7 lbs

Tested by hydraulic pressure to 305.8 lbs Date of test 7.7.52 No. of Certificate 32 & 33 Can each boiler be worked separately yes

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler One, Double spring loaded ordinary

Area of each set of valves per boiler { per Rule 11280 mm<sup>2</sup> as fitted 11349 mm<sup>2</sup> Pressure to which they are adjusted 170.7 lbs 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 well clear Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating well clear Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 4400 mm Length 3516 mm Shell plates: Material SMOH steel Tensile strength 50.8 kgs/sq.mm

If fusion welded, state name of welding Firm riveted Have all the requirements of the Rules for Class I vessels been complied with Thickness 27.5 mm Are the shell plates welded or flanged no Description of riveting: circ. seams { end double riveted inter -

Tr. DBS with alternate rivets long. seams in outer row omitted Diameter of rivet holes in { circ. seams 32 mm long. seams 32 mm Pitch of rivets { 105.4 mm 206.0 mm

Percentage of strength of circ. end seams { plate 69.5 rivets 42.4 Percentage of strength of circ. intermediate seam { plate 84.5 rivets 102

Percentage of strength of longitudinal joint { plate 84.5 rivets 102 combined 91

Thickness of butt straps { outer 27.5 mm inner 27.5 mm No. and Description of Furnaces in each Boiler Three, Morrison Corrugated

Material SMOH steel Tensile strength 41 kgs/mm<sup>2</sup> Smallest outside diameter 1078 mm

Length of plain part { top - bottom - Thickness of plates 14 mm Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom none

End plates in steam space: Material SMOH steel Tensile strength 41 kg/mm<sup>2</sup> Thickness front 24 mm back 22 mm Pitch of stays 420 x 400 mm

How are stays secured Screwed both ends, nuts both sides, riveted washers

Tube plates: Material { front SMOH steel back SMOH steel Tensile strength { 41 kg/mm<sup>2</sup> 41 kg/mm<sup>2</sup> Thickness { 24 mm 22 mm

Mean pitch of stay tubes in nests 208 x 208 mm Pitch across wide water spaces 208 x 360 mm

Girders to combustion chamber tops: Material SMOH steel Tensile strength 47 kg/sq.mm Depth and thickness of girder at centre 275 x 22 mm Length as per Rule 760 mm Distance apart 200 mm, centre 175 mm No. and pitch of stays in each welded

Combustion chamber plates: Material SMOH steel Tensile strength 41 kg/sq.mm Thickness: Sides 16 mm Back 19 mm Top 16 mm Bottom 22 mm

Pitch of stays to ditto: Sides 190 x 200 mm Back 200 x 200 mm Top welded Are stays fitted with nuts or riveted over in nests riveted over

Front plate at bottom: Material SMOH steel Tensile strength 41 kg/sq.mm

Thickness 24 mm Lower back plate: Material SMOH steel Tensile strength 41 kg/sq.mm Thickness 22 mm

Pitch of stays at wide water space 360 x 200 mm Are stays fitted with nuts or riveted over fitted with nuts

Main stays: Material SMOH steel Tensile strength 41 kg/sq.mm

Diameter { At body of stay 62.58 mm No. of threads per inch 6 Over threads 68 mm

Screw stays: Material SMOH steel Tensile strength 41 kg/sq.mm

Diameter { At turned off part 35.38 mm No. of threads per inch 9 Over threads 39 mm



Are the stays drilled at the outer ends no Margin stays: Diameter 38.38 mm  
 No. of threads per inch 9 42 mm  
 Tubes: Material SMOH steel External diameter 76 mm Plain 76 mm Thickness 3.75 mm No. of threads per inch welded  
 Pitch of tubes 104 x 104 mm Manhole compensation: Size of opening 36 - 32 mm Dia  
 shell plate 420 x 525 mm Section of compensating ring 550 x 27.5 mm No. of rivets and diameter of rivet holes 36 - 32 mm Dia  
 Outer row rivet pitch at ends 218 mm Depth of flange if manhole flanged 85 mm Steam Dome: Material none  
 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 - Inner radius of crown -  
 of rivets in outer row in dome connection to shell - Size of doubling plate under dome - Diameter of rivet holes and pitch -  
 Type of Superheater Uptake Superheaters Manufacturers of Rheinische Röhrenwerke A.G., Düsseldorf  
Stahl & Röhrenwerk Reisholz A.G.  
 Number of elements 4 Material of tubes SMOH steel Internal diameter and thickness of tubes 36.5 + 4 mm  
 Material of headers SMOH steel Tensile strength 43 kg/sq.mm Thickness 24 mm Can the superheater be shut off yes  
 the boiler be worked separately yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes  
 Area of each safety valve 8.04 sq.cm Are the safety valves fitted with easing gear yes  
 Pressure to which the safety valves are adjusted 170.7 lbs Hydraulic test pressure 36 Atm.  
 tubes 70 Atm. forgings and castings 70 Atm. and after assembly in place 36 Atm. Are drain cocks yes  
 valves fitted to free the superheater from water where necessary yes  
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

DEUTSCHE WERFT  
 AKTIENGESELLSCHAFT

Dates of Survey while building Mar.: 24, Apr.: 10, 15, 21, 22, 30  
May: 2, 6, 12, 23, 27, 30,  
Jun.: 12, Jul.: 3, 7,  
Jul.: 23, 28, 30, Aug.: 6, 7,  
13, 18, 21, 22, 25, 26  
 Are the approved plans of boiler and superheater forwarded herewith Boiler 25  
Superheater 20.3.52  
 Total No. of visits 26

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. " MOSTANK " Rpt. Ham. 1861

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under Special Survey in conformity with the Society's Rules and Regulations, the approved plans and the Secretary's letters. The materials and workmanship are good. The boilers have been examined during construction, properly installed in the above vessel, examined under working conditions and found good.

Survey Fee SEE Rpt. 4 b. When applied for 19  
 Travelling Expenses (if any) £ When received 19

H. Benhard - R. Kähler  
 Engineer Surveyors to Lloyd's Register of Shipping.

Committee's Minute FRI. 24 OCT 1952  
 Assigned See R.E. mshy. rpt.