

REPORT ON BOILERS.

Received at London Office... 2-OCT-1952

Date of writing Report... 8th Sept. 1952 When handed in at Local Office... 19... Port of **HAMBURG**

No. in Reg. Book... **S 95289** Survey held at **HAMBURG** Date, First Survey... **24th March** Last Survey... **26th August 1952**

on the **M.V. "MOSOIL"** (Number of Visits... **26**) Gross... **11,348** Tons 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** 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., Mühlheim-Ruhr** (Letter for Record **S**)

Total Heating Surface of Boilers **2 x 250 sq.m (5382.2 sq. ft)** Of Superheaters **(2 x 28 m²) 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 mm²** as fitted... **11349 mm²** 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... **-**

long. seams in outer row omitted Diameter of rivet holes in { circ. seams... **32 mm** Pitch of rivets { **105.4 mm** long. seams... **32 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... **-** rivets... **-**

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/mm²** 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/mm²** 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/mm²** 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** nuts at margins

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** Over threads... **68 mm** No. of threads per inch... **6**

Screw stays: Material... **SMOH steel** Tensile strength... **41 kg/sq. mm** Diameter { At turned off part... **35.38 mm** Over threads... **39 mm** No. of threads per inch... **9**

ADW 22.10.52

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 Thickness 3.75 mm No. of threads per inch welded
 Pitch of tubes 104 x 104 mm 8 mm Manhole compensation: Size of opening
 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
 stays - Inner radius of crown -
 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 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
 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
 tubes 70 Atm. forgings and castings 70 Atm. and after assembly in place 36 Atm. Are drain cocks
 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

The foregoing is a correct description,
DEUTSCHE WERFT
AKTIENGESELLSCHAFT Manufacture

Dates of Survey while building
 During progress of work in shops - Mar.: 24, Apr.: 10, 15, 21, 22, 30
May: 2, 6, 12, 23, 27, 30,
 During erection on board vessel - Jun.: 12, Jul.: 3, 7,
Jul.: 23, 28, 30, Aug.: 6, 7,
 Total No. of visits 26
 13, 18, 21, 22, 25, 26

Are the approved plans of boiler and superheater forwarded herewith Boiler 25
Superheater 20.3.52
 (If not, state date of approval.)

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 P.E. usky. rpt.