

## REPORT ON BOILERS.

No. 1522.

Received at London Office 18 JAN 1933

Date of writing Report 14<sup>th</sup> Jan. 1933 When handed in at Local Office 19 Port of BREMENNo. in Survey held at VEGESACK Date, First Survey 1<sup>st</sup> June 1932 Last Survey 5<sup>th</sup> Jan. 1933  
Reg. Book on the STEEL TWIN SC. VICTOR ROSS (Number of Visits 12) Gross 12424 Tons Net 7098Built at VEGESACK By whom built BREMER VULKAN Yard No. 699 When built 1933  
Engines made at VEGESACK By whom made BREMER VULKAN Engine No. 305/308 209/312 When made 1933  
Boilers made at VEGESACK By whom made BREMER VULKAN Boiler No. 735/36 When made 1933  
Owners BALTISCH AMERIKANISCHE PETROLEUM IMPORT GMBH. Port belonging to DANZIG

## VERTICAL DONKEY BOILER.

Made at VEGESACK By whom made BREMER VULKAN Boiler No. 735 & 736 When made 1933 Where fixed <sup>from</sup> upper Eng. Room

Manufacturers of Steel Vereinigte Stahlwerke, Stahl- &amp; Walzwerke Thyssen, Mülheim-Ruhr.

Total Heating Surface of Boiler 46.5 m<sup>2</sup> each Is forced draught fitted — Coal or Oil fired Exhaust gas firedNo. and Description of Boilers 2 Vertical Blackens on Trimble Tube, Exhaust Gas Donkey Boilers Working pressure 100 lbs (7 kg/cm<sup>2</sup>)Tested by hydraulic pressure to 200 lbs Date of test 27<sup>th</sup> September 1932 No. of Certificate 148 & 149

Area of Firegrate in each Boiler — No. and Description of safety valves to each boiler 2 spring loaded Safety Valves

Area of each set of valves per boiler { per rule 3546 mm<sup>2</sup> as fitted 7262 mm<sup>2</sup> Pressure to which they are adjusted 100 lbs Are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler no Smallest distance between boiler or uptake and bunkers

Is oil fuel carried in the double bottom under boiler — Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated yes Largest internal dia. of boiler 2400 mm Height 4200 mm

Shell plates: Material S. M. Steel Tensile strength 44-50 kg/cm<sup>2</sup> Thickness 14.5 mmAre the shell plates welded or flanged flanged Description of riveting: circ. seams <sup>top single</sup> <sub>bottom double</sub> long. seams double butt straps

Dia. of rivet holes in { circ. seams 13.26 mm Pitch of rivets { 57.4 86.1 mm Percentage of strength of circ. seams { plate 58% 70% rivets 42% 69% Longitudinal joint { plate 64% rivets 70% combined

Working pressure of shell by rules 7.8 kg/cm<sup>2</sup> Thickness of butt straps { outer 13 mm inner 13 mm

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat dished, partial spherical Material S. M. Steel

Tensile strength 41-47 kg/cm<sup>2</sup> Thickness 19 mm Radius 1920 mm Working pressure by rules 8.2 kg/cm<sup>2</sup>Description of Furnace: Plain, spherical, or dished crown dished part sph. Material S. M. Steel Tensile strength 41-47 kg/cm<sup>2</sup>

Thickness 26 mm External diameter { top 1427 mm bottom 1427 mm Length as per rule 2180 mm Working pressure by rules as approved

Pitch of support stays circumferentially — and vertically — Are stays fitted with nuts or riveted over —

Diameter of stays over thread — Radius of spherical or dished furnace crown — Working pressure by rule —

Thickness of Ogee Ring 82 mm Diameter as per rule { D 2400 mm d 1427 mm Working pressure by rule approved

Combustion Chamber: Material S. M. Steel Tensile strength 41-47 kg/cm<sup>2</sup> Thickness of top plate 17.5 mmRadius if dished 1120 mm Working pressure by rule 9.2 kg/cm<sup>2</sup> Thickness of back plate — Diameter if circular —

Length as per rule — Pitch of stays — Are stays fitted with nuts or riveted over —

Diameter of stays over thread — Working pressure of back plate by rules —

Tube Plates: Material { front — back — Tensile strength { — Thickness { — Mean pitch of stay tubes in nests —

If comprising shell, Dia. as per rule { front — back — Pitch in outer vertical rows { — Dia. of tube holes FRONT { stay — plain — BACK { stay — plain —

Is each alternate tube in outer vertical rows a stay tube — Working pressure by rules { 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 rule —

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Crown 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 ☒

THIMBLE  
Tubes: Material *S. M. Steel* External diameter { plain *83/53 mm* / stay ☒ Thickness { *5.15 mm*

No. of threads per inch ☒ Pitch of tubes ☒ Working pressure by rules ☒

Manhole Compensation: Size of opening in shell plate *300 x 400 mm* Section of compensating ring ☒ No. of rivets and diameter of rivet holes ☒ Outer row rivet pitch at ends ☒ Depth of flange if manhole flanged *76 mm*

Uptake: External diameter *950 mm* Thickness of uptake plate *17.5 mm*

Cross Tubes: No. ☒ External diameters { ☒ Thickness of plates ☒

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *yes*

The foregoing is a correct description,

**Bremer Vulkan**  
Schiffbau und Maschinenfabrik  
Vegesack

*i/v. Wolke*

Manufacturer

1932  
Dates of Survey { During progress of work in shops - *1/6 5/7 12/7 2/8 18/8 2/9 22/9 27/9*  
while building { During erection on board vessel - *3/11 8/12 14/12 5/1.33*

Is the approved plan of boiler forwarded herewith *8.2.32*  
(If not state date of approval.)

Total No. of visits *12*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These Boilers have been constructed under special survey in accordance with the approved plans, the Secretary's letters and otherwise in conformity with the requirements of the Rules. The Materials used in the construction are made at works recognized by the Committee and tested as per Rule by the Port Surveyors. Materials & workmanship are of good quality.*

Marks on Boilers:

<i>No 148 &amp; 149</i>
<i>LLOYD'S TEST</i>
<i>200 lbs</i>
<i>W.P. 100 lbs</i>
<i>AC 37.9.32</i>

Height of adjusting washers:

Port Boiler	Port <i>17.5 mm</i>	Starb. <i>16.5 mm</i>
Starb Boiler	<i>15.5 mm</i>	<i>18.8 mm</i>

*These boilers are eligible in my opinion to be noted in the Port. Reg. Book with: 2 IB pressure 100 lbs.*

Please see Rpt. 4th.  
Survey Fee ... .. £ *8 : 8 :* When applied for, ..... 19  
Travelling Expenses (if any) £ ..... : : When received, ..... 19

*in London*

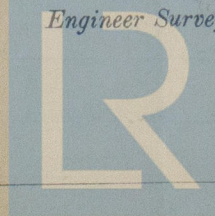
*A. Carstensen*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 20 JAN 1933**

Assigned

*See F. G. Rpt.*



Lloyd's Register  
Foundation