

REPORT ON BOILERS.

No. 1040.

Received at London Office 16 FEB 1928

Date of writing Report 5th Feb. 1928 When handed in at Local Office 19

Port of Bremen

No. in Reg. Book 10275

Survey held at

Vegorade

Date, First Survey 28th Sept 1927

Last Survey 1st Feb. 1928

1928

STEEL TWIN SC "C.O. STILLMAN"

(Number of Visits 6)

Gross 16436
Net 9643

Built at Vegorade

By whom built Krumer Vulkan

Yard No. 646 When built 1928

Engines made at Vegorade

By whom made Krumer Vulkan

Engine No. 66-71 72-77 When made 1925-28

Boilers made at Vegorade

By whom made Krumer Vulkan

Boiler No. 697/98 When made 1927

Owners INTERNATIONAL PETROLEUM CO. LD.

Port belonging to TORONTO (ONT.)

VERTICAL DONKEY BOILER.

Made at Vegorade By whom made Krumer Vulkan Boiler No. 697, 698 When made 1927 Where fixed Forward of engine

Manufacturers of Steel Mannemann Rohmwerke AG. Schützhausen, Hüringen

Total Heating Surface of Boiler 137.7 square meters each Is forced draught fitted Coal or Oil fired waste heat

No. and Description of Boilers 2 vertical waste heat boilers Working pressure 7 kg/cm²

Tested by hydraulic pressure to 14 kg/cm² Date of test 26th November 1927 No. of Certificate 133

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

Area of each set of valves per boiler { per rule 10530 mm² as fitted Pressure to which they are adjusted 7 kg/cm² Are they fitted with easing gear Y/N

State whether steam from main boilers can enter the donkey boiler Is oil fuel carried in the double bottom under boiler Smallest distance between boiler or uptake and bunkers

or woodwork 700 mm Is the base of the boiler insulated Largest internal dia. of boiler 1800 mm. Height 4370 mm.

Shell plates: Material S. M. Steel Tensile strength 44-51 kg/cm² Thickness 19 mm.

Are the shell plates welded or flanged Description of riveting: circ. seams { end single long. seams double

Dia. of rivet holes in { circ. seams 23 mm. Pitch of rivets { 68 mm. 74 mm. Percentage of strength of circ. seams { plate 66% of Longitudinal joint { plate 69% rivets combined.

Working pressure of shell by rules 7.8 kg/cm² Thickness of butt straps { outer inner

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Material

Tensile strength Thickness Radius Working pressure by rules

Description of Furnace: Plain, spherical, or dished crown Material Tensile strength

Thickness External diameter { top bottom Length as per rule Working pressure by rules

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 Diameter as per rule { D d Working pressure by rule

Combustion Chamber: Material Tensile strength Thickness of top plate

Radius if dished Working pressure by rule 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 { top S. M. Steel bottom Tensile strength { 34-41 kg/cm² Thickness { 25 mm. 25 mm. Mean pitch of stay tubes in nests 288 mm

If comprising shell, Dia. as per rule { front back Pitch in outer vertical rows { Dia. of tube holes { top 51 mm. bottom 54 mm. plain 41 mm. 50 mm.

Is each alternate tube in outer vertical rows a stay tube Working pressure by rules { front 19 kg/cm² 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

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 ☒

Tubes: Material *S. M. steel* External diameter { plain *48 mm.* stay *48 mm.* Thickness { *3 mm.* *6 mm.*

No. of threads per inch *11* Pitch of tubes *72 mm.* Working pressure by rules *11 Kgr/cm²*

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 ☒

Uptake: External diameter ☒ Thickness of uptake plate ☒

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

Manufacture

Dates of Survey { During progress of work in shops - *1927:- 28/9, 5/10, 21/11, 26/11*
while building { During erection on board vessel - *1928:- 6/1, 1/2.*

Is the approved plan of boiler forwarded herewith *9/5/27.*
(If not state date of approval.)

Total No. of visits *6*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

Three vertical waste heat boilers have been constructed under Special Survey in accordance with the approved plans, the Secretary's letters and in conformity with the Rules. The materials used in the construction and the workmanship are good. Under steam the boilers were found tight and their safety valves have been adjusted to 7 Kgr/cm² (100 lb). Thickness of adjacent work:- Forward Aft

Starboard Boiler: 30 mm 30 mm
Port - - 27 - - 27 - -

In my opinion these waste heat boilers are eligible to be classed in the Register Book with record of 100 lb.

Survey Fee *£ 8 : 8 :* When applied for, *14/2 1928*
Travelling Expenses (if any) *£ 2 : 12 :* When received, *5.3.1928*

G. H. C. F. A. M.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUES. 6 MAR 1928*
Assigned *See M. rpt. attached*