

REPORT ON BOILERS.

No. 1783

Received at London Office 14 APR 1936

Form of writing Report 9. 4. 1936 When handed in at Local Office 10 Port of BREMEN

No. in Survey held at VEGESACK Date, First Survey 11th Nov. 1935 Last Survey 26th March 1936

Book. 0072 on the SINGLE S.C. TANKER SOCONY (Number of Visits 20) Tons { Gross 4404 Net 3507

ster Built at VEGESACK By whom built BREMER VULKAN Yard No. 718 When built 1936

ines made at VEGESACK By whom made BREMER VULKAN Engine No. — When made 1936

ilers made at VEGESACK By whom made BREMER VULKAN Boiler No. 779/81 When made 1936

iminal Horse Power 42.5 Owners STANDARD TRANSPORTATION CO LTD. Port belonging to HONGKONG

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mann. Röhrenwerke A.G. Werk Thyssen in Mülheim a. Rh. (Letter for Record 5)

tal Heating Surface of Boilers 2 x 300 m² Is forced draught fitted yes Coal or Oil fired oil fired

and Description of Boilers 2 Multitubular Main Boilers Working Pressure 22.0 kg/cm² (15.5 kg/cm²)

tested by hydraulic pressure to 380 kg Date of test 29. 1. 36 No. of Certificate 166-167 Can each boiler be worked separately yes

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 11110 m² as fitted 15708 m² Pressure to which they are adjusted 22.0 kg Are they fitted with easing gear yes

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 no

smallest distance between shell of boiler and tank top plating 600 mm Is the bottom of the boiler insulated yes

largest internal dia. of boilers 4800 mm Length 3620 mm Shell plates: Material P.M. Steel Tensile strength 47-53 kg/cm²

thickness 38 mm Are the shell plates welded or flanged flanged Description of riveting: circ. seams { end by 2 rivets inter. 105.5 mm

ng. seams double butt straps Diameter of rivet holes in { circ. seams 39 mm long. seams 39 mm Pitch of rivets { 260 mm

percentage of strength of circ. end seams { plate 60 % rivets 70 % Percentage of strength of circ. intermediate seam { plate 85 % rivets 86 % combined 87 % Working pressure of shell by Rules 16 kg/cm²

thickness of butt straps { outer 32 mm inner 32 mm No. and Description of Furnaces in each Boiler 3 Morrison type furnaces 30

aterial P.M. Steel Tensile strength 41-47 kg/cm² Smallest outside diameter 1186 mm

ength of plain part { top 18 mm bottom 18 mm Thickness of plates { crown 18 mm bottom 18 mm Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 15.6 kg/cm²

nd plates in steam space: Material P.M. Steel Tensile strength 41-47 kg/cm² Thickness 29 mm Pitch of stays 400 x 470 mm

ow are stays secured nuts inside & outside, washers outside Working pressure by Rules 15.5 kg/cm²

ube plates: Material { front P.M. Steel back P.M. Steel Tensile strength { 41-47 kg/cm² Thickness { 28.5 mm 23 mm

lean pitch of stay tubes in nests 220 x 220 mm Pitch across wide water spaces 360 mm Working pressure { front 27 kg/cm² back 15.8 kg/cm²

irders to combustion chamber tops: Material P.M. Steel Tensile strength 47-53 kg/cm² Depth and thickness of girder

t centre 240 mm 16.5 mm Length as per Rule 840 mm Distance apart 190 mm No. and pitch of stays

a each 3 of 190 mm Working pressure by Rules 16 kg/cm² Combustion chamber plates: Material P.M. Steel

Tensile strength 41-47 kg/cm² Thickness: Sides 17 mm Back 17 mm Top 17 mm Bottom 23 mm

Pitch of stays to ditto: Sides 190 x 200 mm Back 191 x 188 mm Top 190 x 190 mm Are stays fitted with nuts or riveted over fitted with nuts

Working pressure by Rules 19 kg/cm² Front plate at bottom: Material P.M. Steel Tensile strength 41-47 kg/cm²

Thickness 28.5 mm Lower back plate: Material P.M. Steel Tensile strength 41-47 kg/cm² Thickness 26 mm

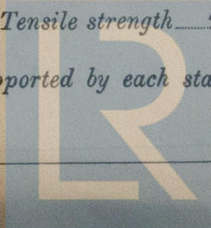
Pitch of stays at wide water space 390 x 190 mm Are stays fitted with nuts or riveted over fitted with nuts

Working Pressure 23 kg/cm² Main stays: Material P.M. Steel Tensile strength 41-47 kg/cm²

Diameter { At body of stay, 73 mm No. of threads per inch 6 Area supported by each stay 400 x 470 mm

Working pressure by Rules 16 kg/cm² Screw stays: Material P.M. Steel Tensile strength 41-47 kg/cm²

Diameter { At turned off part, 35 mm No. of threads per inch 9 Area supported by each stay 190 x 192.5 mm



Lloyd's Register
Foundation

Working pressure by Rules 16.5 kg/cm^2 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 44 Z or Over threads 48 Z ✓

No. of threads per inch 9 Area supported by each stay $265 \times 190 \text{ Z}$ Working pressure by Rules 19 kg/cm^2

Tubes: Material P. M. Steel External diameter { Plain 76 Z Stay 83 Z Thickness { 4 Z 8 Z No. of threads per inch 9 ✓

Pitch of tubes $110 \times 110 \text{ Z}$ Working pressure by Rules 16 kg/cm^2 Manhole compensation: Size of opening

shell plate $450 \times 550 \text{ Z}$ Section of compensating ring $37 \times 257 \text{ Z}$ No. of rivets and diameter of rivet holes 42 of 38 Z ✓

Outer row rivet pitch at ends 240 Z Depth of flange if manhole flanged 80 Z ✓ Steam Dome: Material no dome

Tensile strength ✓ Thickness of shell ✓ Description of longitudinal joint ✓

Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint { Plate Rivets ✓

Internal diameter ✓ Working pressure by Rules ✓ Thickness of crown ✓ No. and diameter

stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓

How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and

of rivets in outer row in dome connection to shell ✓

Type of Superheater Schmidt Smoke Tube ✓ Manufacturers of { Tubes Mittelschiffbau Röhrenwerke of Remscheid name drawn Steel castings Franz Walzwerk AG of Düsseldorf-Heikendorf

Number of elements 86 Material of tubes name drawn steel Internal diameter and thickness of tubes $20 \text{ Z} - 2.5 \text{ Z}$ ✓

Material of headers name drawn steel Tensile strength $34 - 42 \text{ kg/cm}^2$ Thickness 30 Z ✓ 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 1256 Z Are the safety valves fitted with easing gear yes ✓ Working pressure as

Rules 25 kg/cm^2 Pressure to which the safety valves are adjusted 220 lbs ✓ Hydraulic test pressure

tubes 80 kg/cm^2 ✓ steel headers 50 kg/cm^2 ✓ and after assembly in place 50 kg/cm^2 ✓ Are drain cocks or 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 ✓

Bremer Vulkan
The following is a correct description,
Kabelac M. Stahl Manufactured

Dates { During progress of work in shops - - - 1935 14/11, 16/11, 21/11, 26/11, 28/11, 5/12, 11/12, 16/12 Are the approved plans of boiler and superheater forwarded herewith yes (If not state date of approval.)

while building { During erection on board vessel - - - 28/12, 3/1, 9/1, 17/1, 21/1, 24/1, 26/1 Total No. of visits 20

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.) These boilers & superheaters have been built under Special Survey in accordance with the approved plans, the Secretary's letters, and 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 required by the Rules. Materials and workmanship are of good quality. These boilers are eligible in my opinion to be recorded in the Port Reg. Book with 220 lbs of pressure.

Marks on Boilers:

No 166	No 167
Lloyd's Test	Lloyd's Test
380 lbs	380 lbs
WP 220 "	WP 220 "
A.C. 29.1.36	A.C. 29.1.36

Heights of adjusting washers

Port Boiler: Port Valve 28 Z Start Valve 27.12 Z Superh. ✓

Starb " " 29.3 Z " " 28.12 Z " " ✓

Survey Fee ... £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

incl. in Rp. 4

A. Carstensen
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 21 APR 1936

Assigned see J.E. Machy Report.