

REPORT ON BOILERS.

No. 20623

16 JAN 1933

Received at London Office

of writing Report 5-1-33 19 When handed in at Local Office 10 Port of Hamburg

Survey held at Kiel Date, First Survey 24-5-1932 Last Survey 3-1-33 19

g. Book: 818 on the Steel Twin Scr. "Geo. W. McNight" (Number of Visits 16) Tons { Gross 12442 Net 7097

ilt at Kiel By whom built Fried. Krupp Germania Werft A.G. Yard No. 517 When built 1933

ines made at Kiel By whom made ditto Engine No. 4141/47 When made 1933

ilers made at Kiel By whom made ditto Boiler No. 3811/12 When made 1933

ners Baltisch Amerikanische Petroleum Import Co. Port belonging to Danzig

VERTICAL DONKEY BOILER.

de at Kiel By whom made Fried. Krupp Germania Werft Boiler No. 3811/12 When made 1932/3 Where fixed Donk. Boiler Room

manufacturers of Steel Henrichshütte, Hattingen/Ruhr, Charles Mc. Neil, Glasgow.

al Heating Surface of Boilers 100 m² (Wulst) Is forced draught fitted no Coal or Oil fired exh. gas

and Description of Boilers 2 Vertical Clarkson Thimble Tube Waste Heat Donkey Boilers Working pressure 100 lbs ✓

sted by hydraulic pressure to 200 lb ✓ Date of test 1-8-32 ✓ No. of Certificate 562/68 ✓

ea of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 1, 2 springs loaded ✓

ea of each set of valves per boiler { per rule 4580, E=733 Pressure to which they are adjusted 100 lb ✓ Are they fitted with easing gear yes ✓
as fitted 5654 mm² other donkey

te 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 ✓ Largest internal dia. of boiler 2350 mm Height 4470 mm

ell plates: Material O.H. Steel Tensile strength 44-50 kg/mm² Thickness 13 mm ✓

the shell plates welded or flanged flanged Description of riveting: circ. seams { end Top SR, both D.R. long. seams double St. straps ✓
inter. S.R. Lap

a. of rivet holes in { circ. seams 23 mm Pitch of rivets { 55.5 mm top 75 bottom
long. seams 20 mm { 75 mm Percentage of strength of circ. seams { plate 58.7 - 69.4 % of Longitudinal joint { plate 73.3 %
rivets 69.8 - 63.7 % rivets 89.2 %
combined 91.3 %

orking pressure of shell by rules 8.13 kg/cm² Thickness of butt straps { outer 11 mm ✓
inner 11 mm ✓

ell Crown: Whether complete hemisphere, dished partial spherical or flat dished crown Material O.H. Steel

nsile strength 41-47 kg/mm² Thickness 20 mm Radius 1225 mm Working pressure by rules 8.04 kg/cm²

scription of Furnace: Plain, spherical, or dished crown dished crown Material O.H. Steel Tensile strength 41-47 kg/mm²

ickness 22 mm External diameter { top 1416 mm Length as per rule 2104 mm Working pressure by rules 12.04 kg/cm²
bottom 1416 mm

ch of support stays circumferentially none and vertically ✓ Are stays fitted with nuts or riveted over ✓

iameter of stays over thread ✓ Radius of spherical or dished furnace crown 1215 mm Working pressure by rule 7.75 kg/cm²

ickness of Ogee Ring 37 mm Diameter as per rule { D 2324 mm Working pressure by rule 7.7 kg/cm²
d 2250 mm

mbustion Chamber: Material ✓ Tensile strength ✓ Thickness of top plate ✓

dus if dished ✓ Working pressure by rule ✓ Thickness of back plate ✓ Diameter if circular ✓

ngth as per rule ✓ Pitch of stays ✓ Are stays fitted with nuts or riveted over ✓

iameter of stays over thread ✓ Working pressure of back/plate by rules ✓

be Plates: Material { front O.H. Steel Tensile strength { 44-50 kg/mm² Thickness { 22 mm Mean pitch of stay tubes in nests ✓
back O.H. Steel

comprising shell, Dia. as per rule { front ✓ Pitch in outer vertical rows { ✓ Dia. of tube holes FRONT { stay 83 mm BACK { stay ✓
back ✓ plain ✓ plain ✓

each alternate tube in outer vertical rows a stay tube ✓ Working pressure by rules { front ✓
back ✓

orders to combustion chamber tops: Material ✓ Tensile strength ✓

pth and thickness of girder at centre ✓ Length as per rule ✓

stance 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 ☒

Tubes: Material *O.H. Steel* External diameter *83 mm tapered to 65 mm* Thickness *5.15 mm*

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

Manhole Compensation: Size of opening in shell plate *400 x 550 mm* Section of compensating ring *thickness 25 mm* No. of rivets and diam of rivet holes *48, 23 mm* Outer row rivet pitch at ends *88 mm* Depth of flange if manhole flanged *94 mm*

Uptake: External diameter *938 mm* Thickness of uptake plate *14 mm*

Cross Tubes: No. *none* External diameters ☒ Thickness of plates ☒

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *yes.*

The foregoing is a correct description,
FRIED. KRUPP
GERMANIAWERFT
AG

Manufactured by

Dates of Survey ☒ During progress of work in shops - *1932: V 24, VI 28, VII 1, 12, 15, 15 VII 1* Is the approved plan of boiler forwarded herewith *21-3-32.*
☒ while building ☒ During erection on board vessel - *1932: IX 21, XI 2, 12, 22, 25, 29, XII 16, 16, 1933: I, 3* (If not state date of approval.) Total No. of visits *16*

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

These donkey boilers have been built under Special Survey in accordance with the approved plan, the Secretary's letters and the Society's Rules. The materials used in the construction and the workmanship are of good quality. They have been satisfactorily fitted on board and their safety valves have been adjusted under steam to a pressure of 100 lb. In my opinion they are eligible for notation in the Register Book of:

2 DB (form) pressure 100 lb.

Safety valves marked:-

Port Boiler: *four. 14.5 mm aft 15 mm*

Star. Boiler: *18 mm 21.5 mm*

The approved plan will be submitted after completion of the Builders Yard No. 518.

Survey Fee ... £ 8 : 8 : When applied for, 19

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

Committee's Minute *TUE. 24 JAN 1933*

Assigned *See F.B. Rpt.*