

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 10 Port of Krimin

No. in Survey held at Vegorack Date, First Survey 6th Jan. Last Survey 1st Feb. 1928

Reg. Book 10275 on the STEEL TWIN SC "C. O. STILLMAN" (Number of Visits 2) Tons { Gross 16436 Net 9643 }

Built at Vegorack By whom built Krimmer Vulkan Yard No. 646 When built 1928

Engines made at Vegorack By whom made Krimmer Vulkan Engine No. 66-71 When made 1925-28

Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓

Owners International Petroleum Co. Ltd. Port belonging to Toronto

VERTICAL DONKEY BOILER.

Made at Niel By whom made Friedr. Krupp, Germania Boiler No. 3688 When made 1926 Where fixed forward of engine space

Manufacturers of Steel Messrs. Henschel & Sohn, Kattingen.

Total Heating Surface of Boiler 23.22 sq. meters Is forced draught fitted ✓ Coal or Oil fired oil

No. and Description of Boilers 1 vertical donkey boiler for heating purposes Working pressure 7 kgr/cm² (100 lb)

Tested by hydraulic pressure to 200 lb Date of test 3rd Aug. 1926 No. of Certificate Hamburg 489

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 2402 mm² as fitted 2513 } Pressure to which they are adjusted 7 kgr/cm² 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 or woodwork 514 mm Is oil fuel carried in the double bottom under boiler no Smallest distance between base of boiler and tank top plating 1930 mm. Is the base of the boiler insulated no Largest internal dia. of boiler 1350 mm. Height 3378 mm

Shell plates: Material S.M. steel Tensile strength 44-50 kgr/mm² Thickness 11 mm.

Are the shell plates welded or flanged flanged Description of riveting: circ. seams { top - lap single } long. seams lap double

Dia. of rivet holes in { circ. seams 24.22 mm } Pitch of rivets { 51-78 mm } Percentage of strength of circ. seams { plate 62.3% } longitudinal joint { rivets 71.8% } combined ✓

Working pressure of shell by rules 10.25 kgr/cm² Thickness of butt straps { outer ✓ inner ✓ }

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

Tensile strength 41 kgr. Thickness 15 mm. Radius 1350 mm Working pressure by rules 7.1 kgr.

Description of Furnace: Plain, spherical, or dished crown spherical Material steel Tensile strength 34-41 kgr.

Thickness crown 15 mm - 13 mm External diameter { top 1100 mm } Length as per rule 1075 mm. Working pressure by rules 8.3 kgr/cm²

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 ✓ } Working pressure by rule ✓

Combustion Chamber: Material steel Tensile strength 34-41 kgr. Thickness of top plate 15 mm.

Radius if dished 1100 mm. Working pressure by rule 8 kgr. Thickness of back plate 13 mm Diameter if circular 1074 mm.

Length as per rule 1060 mm. Pitch of stays 320 x 180 mm. Are stays fitted with nuts or riveted over riveted over

Diameter of stays over thread 37.9 mm. Working pressure of back plate by rules 7 kgr/cm²

Tube Plates: Material { front steel } Tensile strength { 34-41 kgr. } Thickness { 18 mm. } Mean pitch of stay tubes in nests 270 mm.

If comprising shell, Dia. as per rule { front 1208 mm } Pitch in outer vertical rows { 90 mm } Dia. of tube holes FRONT { stay 65.7 mm } BACK { stay 59.6 mm }

Is each alternate tube in outer vertical rows a stay tube no Working pressure by rules { front 11.12 kgr/cm² } back 11.12

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 *Steel* Tensile strength *46.47 Kgr.* Diameter { at turned off part, *34.29 mm.* or over threads *37.9 "* No. of threads per inch *9*

Area supported by each stay *182 x 320 mm.* Working pressure by rules *7 Kgr.* Are the stays drilled at the outer ends *no*

Tubes: Material *Seamless, mild steel* External diameter { plain *63.5 mm.* stay *60 "* Thickness { *3 mm.* *6 "*

No. of threads per inch *9* Pitch of tubes *90 x 90 mm.* Working pressure by rules *9 Kgr.*

Manhole Compensation: Size of opening in ~~shell~~ ^{crown} 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 *65 mm.*

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,

(please see Hamburg Report 17211 Manufacture

Dates { During progress of work in shops - - }
of Survey while building { During erection on board vessel - - } *6/1 & 1/2. 1928*

Is the approved plan of boiler forwarded herewith *with Hamburg Report 17211*
(If not state date of approval.)
Total No. of visits *2*

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

This vertical Donkey Boiler has been satisfactorily fitted on board, examined under steam, found tight and its safety valves have been adjusted to 7 Kgr. per sq. cm. (100 lb). Thickness of adjusting washers:- Starboard 14 mm. Port 14 mm.

The Boiler is in my opinion eligible to be classed in The Register Book with record of 100 lb.

Survey Fee ... £ *2 : 0 :* When applied for, *14.2.28*
Travelling Expenses (if any) £ *0 : 10 :* When received, *5.3.28*

G. H. C. Ham
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES 6 MAR 1928

Assigned

See B. attached