

REPORT ON BOILERS.

No. 16396

Received at London Office

15 JUN 1925

Date of writing Report 30th May 1925 When handed in at Local Office

Port of HAMBURG

No. in Survey held at
eg. Book.

NIEL

Date, First Survey 2nd July 1924. Last Survey 3rd May 1925

on the Steel Twin Sc. Motor V. "PERSEPHONE" (Number of Visits 13) Gross 8956 Tons Net 5041.

Built at NIEL By whom built FRIED. KRUPP. GERMANIA WERFT AG. No. 470 When built 1925

Engines made at NIEL By whom made FRIED. KRUPP. GERMANIA WERFT AG. Engine No. 1760 Port: 1760 When made 1925

Boilers made at NIEL By whom made FRIED. KRUPP. GERMANIA WERFT AG. Boiler No. 3632, 3633, 3644 When made 1925

Owners BALTISCH-AMERIKANISCHE PETROLEUM IMPORT G.m.b.H. Port belonging to DANZIG.

VERTICAL DONKEY BOILER.

Made at NIEL By whom made Fried. Krupp - Germania W. No. 3644 When made 1925 Where fixed closed compartment, Eng. room & forward.

Manufacturers of Steel Mannesmannröhrenwerke - Düsseldorf

Total Heating Surface of Boiler 26 sq. m. Is forced draught fitted yes Coal or Oil fired oil.

No. and Description of Boilers 1 vertical. Donkey Boiler for heating purposes. Working pressure 5 kg. (71 lb.)

Tested by hydraulic pressure to 10 kg./cm² (143 lb./sq. inch) Date of test 16. 12. 24. No. of Certificate 366.

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 2690 sq. cm. as fitted 3770 sq. cm. Pressure to which they are adjusted 5 kg. (71 lb.) Are they fitted with easing gear yes.

State whether steam from donkey boilers can enter the donkey boiler no. - non return valve fitted. Smallest distance between boiler or uptake and bunkers 1000 mm.

Is oil fuel carried in the double bottom under boiler no. Smallest distance between base of boiler and tank top plating 800 mm.

Is the base of the boiler insulated yes. Largest internal dia. of boiler 1350 mm. Height 3080 mm.

Shell plates: Material Steel. Tensile strength 44-50 kg. Thickness 11 mm.

Are the shell plates welded or flanged flanged. Description of riveting: circ. seams base top 1/4 in. single. long. seams 1/4 in. double. riveted.

Dia. of rivet holes in circ. seams 24 mm. Pitch of rivets 61 mm. Percentage of strength of circ. seams plate 60.6%, rivets 55%, of Longitudinal joint plate 68.6%, rivets 81%, combined 81%.

Working pressure of shell by rules 8.3 kg./cm² Thickness of butt straps outer inner.

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

Tensile strength 41-47 kg. Thickness 14 mm. Radius 1350 mm. Working pressure by rules 8.58 kg./cm².

Description of Furnace: Plain, spherical, or dished crown Plain with dished part. Material Steel. Tensile strength 41 kg.

Thickness 13 mm. External diameter top 1170 mm. bottom 1190 mm. Length as per rule 743 mm. Working pressure by rules 9.62 kg./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 1100 mm. Working pressure by rule 7.44 kg./cm².Thickness of Ogee Ring 13 mm. Diameter as per rule D 1350 mm. Working pressure by rule 6.96 kg./cm².

Combustion Chamber: Material Steel. Tensile strength 41 kg. Thickness of top plate 14 mm.

Radius if dished 1100 mm. Working pressure by rule 10.6 kg./cm² Thickness of back plate 13 mm. Diameter if circular 1074 mm.

Length as per rule 1240 mm. Pitch of stays 182 x 320 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 266 kg.

Tube Plates: Material Steel. Tensile strength 41-47 kg. Thickness 18 mm. Mean pitch of stay tubes in nests 270 mm.

comprising shell, Dia. as per rule front 200 mm. Pitch in vertical rows 270 mm. Dia. of tube holes FRONT stay 65.75 mm. BACK stay 59.6 mm. plain 63.5 mm.

each alternate tube in outer vertical rows a stay tube no. Working pressure by rules front 10.1 kg./cm² back 10.7 kg./cm².

Orders 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 _____
Tubes: Material seamless mild steel. ✓ External diameter { plain 63.5 mm. ✓ stay 60 mm. ✓ Thickness { 3 mm. ✓ 7 mm. ✓
No. of threads per inch 9 ✓ Pitch of tubes 90 mm. ✓ Working pressure by rules 9 kg/cm² ✓
Manhole Compensation: Size of opening in shell plate 300 x 400 mm. ✓ Section of compensating ring _____ No. of rivets and diam _____
of rivet holes _____ Outer row rivet pitch at ends _____ Depth of flange if manhole flanged 85 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,
FRIEDRICH KRUPP
GERMANIA WERFT
Aktiengesellschaft
Friedrich Krupp Manufacture

Dates of Survey { During progress of work in shops - - 9/7 - 14/8 - 3/10 - 4/11 - 25/11 - 2/12 - 16/12/24 Is the approved plan of boiler forwarded herewith yes.
while building { During erection on board vessel - - 27/2 - 13/3 - 6/4 - 17/4 - 27/4 - 3/5/25 (If not state date of approval.)
Total No. of visits 13

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Material and workmanship of this Donkey boiler are of good quality. The material used in the construction is made at works recognized by the Committee and tested by the Society's Surveyor in accordance with the Rules. The Donkey boiler has been made in accordance with the approved plan, the Secretary's letter and otherwise in conformity with the requirements of the Rules and was found to light & run under steam in every respect. The safety valves have been adjusted by me to 71 lb. per sq. inch, and the Donkey boiler is eligible in my opinion for record "N.D.B.-25".

MARK ON BOILER.

No 366.
LLOYD'S TEST
143 lbs.
W.P. 71 lbs.
F.W. 16.12.24.

THICKNESS OF ADJ. SHEETS.

For W. 22.5 mm. Aft. 22 mm.

Survey Fee ... £ 4. : 4. : } When applied for, 5th June 1925
Travelling Expenses (if any) £ — : } When received, 13th June 1925

Committee's Minute
Assigned

See other report

FRI. 19 JUN 1925

FRI. 14 AUG 1925

FRI. 20 NOV 1925

FRI. 27 NOV 1925

FRI. 4 SEP 1925

TUES. 18 JUN 1926

Engineer Surveyor to Lloyd's Register of Shipping.

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