

REPORT ON BOILERS.

No. 16908

Received at London Office 7 - JUL 1926

Reporting Office 26 JUNE 1926 When handed in at Local Office 19 Port of HAMBURG.

Survey held at TIEL Date, First Survey 11th Sept. 1925 Last Survey 22nd June 1926

on the Steel Twin Sc. M.S. "URANIA" (Number of Visits 16.) Gross 8744 Tons Net 5026

TIEL By whom built HOWALDTSWERKE Yard No. 674 When built 1926

Made at LUDWIGSHAFEN By whom made GEB. SULZER F.G. Engine No. 5509-12 13-16 When made 1926

Made at TIEL By whom made HOWALDTSWERKE Boiler No. 1414 1415 1419 When made 1926

BALTISCH-AMERIK. PETROL. IND. G. m. b. H. Port belonging to DANZIG.

HEATING DONKEY BOILER.

Made at TIEL By whom made Howaldtswerke Boiler No. 1419 When made 1926 Where fixed ^{Closed compartment} Eng. room 26. forward

Manufacturers of Steel Gule Hoffmann, hütte - Oberhausen.

Heating Surface of Boiler 22 sq. m. Is forced draught fitted ☒ Coal or Oil fired ☒ oil

Description of Boilers 1 Vertical Donkey Boiler for Heating Purposes Working pressure 5 kg. (71 lb.)

Hydraulic pressure to 10 kg. (142 lb.) Date of test 9. 3. 26. No. of Certificate 419.

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

Each set of valves per boiler ^{per rule 2690 sq. m.} _{as fitted 3927 sq. m.} Pressure to which they are adjusted 5 kg. (71 lb.) Are they fitted with easing gear ☒ ☒

Whether steam from main boilers can enter the donkey boiler ☒ No - non return valve fitted Smallest distance between boiler or uptake and bunkers 2600 mm.

Is oil fuel carried in the double bottom under boiler ☒ No. Smallest distance between base of boiler and tank top plating 1100 mm.

Is the base of the boiler insulated ☒ No. Largest internal dia. of boiler 1350 mm. Height 3323 mm.

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

Shell plates welded or flanged ☒ Flanged Description of riveting: circ. seams ^{top: 56 mm} _{bottom: 76 mm} long. seams ^{top: 59 mm} _{bottom: 69.8 mm}

Net holes in ^{circ. seams 23 mm} _{long. seams 25 mm} Pitch of rivets ^{top: 56 mm} _{bottom: 76 mm} Percentage of strength of circ. seams ^{plate: 55.2 %} _{rivets: 81.2 %} Longitudinal joint ^{plate: 66.6 %} _{rivets: 89.5 %} combined 78 %

Pressure of shell by rules 10.5 kg./cm² Thickness of butt straps ^{outer} _{inner}

When: Whether complete hemisphere, dished partial spherical, or flat dished partial spherical Material Steel

Length 41-47 kg. Thickness 14 mm. Radius 1350 mm. Working pressure by rules 8.56 kg./cm²

Form of Furnace: Plain, spherical, or dished crown partial spherical Material Steel Tensile strength 41 kg.

External diameter ^{top: 1120 mm} _{bottom: 1164 mm} Length as per rule 1075 mm. Working pressure by rules 7.92 kg./cm²

Support stays circumferentially and vertically Are stays fitted with nuts or riveted over

Radius of spherical or dished furnace crown 1100 mm. Working pressure by rule 7.44 kg./cm²

Radius of Ogee Ring 13 mm. Diameter as per rule ^{D 1164 mm} _{d 1322 mm} Working pressure by rule 6.96 kg./cm²

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

Working pressure by rule 7.44 kg./cm² Thickness of back plate 13 mm. Diameter if circular 1120 mm.

Pitch of stays ^{circumf.: 182 mm} _{vertically: 320 mm} Are stays fitted with nuts or riveted over ☒ riveted over.

Working pressure of back plate by rules 7.68 kg./cm²

Material ^{front: Steel} _{back: Steel} Tensile strength 41-47 kg. Thickness 18 mm. Mean pitch of stay tubes in nests 270 mm.

Working shell, Dia. as per rule ^{front: 1200 mm} _{back: 1200 mm} Pitch in outer vertical rows 270 mm. Dia. of tube holes FRONT ^{stay: 64 mm} _{plain: 65 mm} BACK ^{stay: 60 mm} _{plain: 60 mm}

Working pressure by rules ^{front: 10.1 kg./cm²} _{back: 11.5 kg./cm²}

Combustion chamber tops: Material Tensile strength

Thickness of girder at centre Length as per rule

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 Leamers mild steel External diameter ✓ { plain 65 in. Thickness 3 1/4 in. stay 60 in. 6 in.

No. of threads per inch 9 Pitch of tubes 90 in. Working pressure by rules 9 kg.

Manhole Compensation: Size of opening in crann plate 300 x 400 in. Section of compensating ring ✓ No. of rivets and of rivet holes ✓ Outer row rivet pitch at ends ✓ Depth of flange if manhole flanged 85 in.

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,

HOWALDTSWERKE

Dates of Survey while building { During progress of work in shops - - { 1/9-2/10-9/10-2/11-17/11-11/12-23/12-29/12/25-23/1-2/3-9/3/26 Is the approved plan of boiler forwarded herewith (If not state date of approval.)

{ During erection on board vessel - - { 4/5-19/5-8/6-15/6-23/6/26 Total No. of visits 16

GENERAL REMARKS

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

Material and workmanship of this Donkey Boiler are of good quality. The materials used in the construction are made at Yorks recognized by the Committee and tested in accordance with the requirements of the Rules. This Donkey Boiler having been built in Special Survey in accordance with the approved plan, the Secretary's letter otherwise in conformity with the requirements of the Rules is eligible in my opinion for record of 'N. D. B. 26'

Survey Fee

Travelling Expenses (if any)

£ 4 : 4 : -

When applied for,

1. 7. 1926

When received,

19. 7. 1926

Committee's Minute

Assigned

FRI 16 JUL 1926

See P. 6 apt attached



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