

REPORT ON BOILERS.

No. 21940

Received at London Office 15 JUN 1936

Date of writing Report 24/5/36 19 When handed in at Local Office 19 Port of Hamburg

No. in Survey held at Kiel Date, First Survey 2/4/36 Last Survey 12/5/36 19
Reg. Book on the steel Se. Sr. " " (Number of Visits 5) Gross Tons Net

uilt at Elbing By whom built F. Schichau G.m.B.H. Yard No. 1357 When built 1936
Engines made at By whom made Engine No. When made
Boilers made at Kiel By whom made Deutsche Werke Kiel A.G. Boiler No. 1170 When made 1936
Owners Port belonging to

VERTICAL DONKEY BOILER.

Made at Kiel By whom made Deutsche Werke Kiel A.G. Boiler No. When made 1936 Where fixed
Manufacturers of Steel Deutsche Röhrenwerke, Werk Thyssen of Mülheim-Ruhr.

Total Heating Surface of Boiler 25 m² Is forced draught fitted no. Coal or Oil fired oil

No. and Description of Boilers 1 Vertical Cross Tube Donkey Boiler Working pressure 100 lb.

Tested by hydraulic pressure to 200 lb. Date of test 22/5/36 No. of Certificate 620

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 1, two springs loaded

Area of each set of valves per boiler { per rule 2300 m² Pressure to which they are adjusted Are they fitted with easing gear
as fitted

State whether steam from main boilers can enter the donkey boiler 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 1720 mm Height 4970 mm

Shell plates: Material O.H. Steel Tensile strength 44 ÷ 50 kg/mm² Thickness 10.- mm

Are the shell plates welded or flanged flanged Description of riveting: circ. seams { end lap joint
inter. 5.2 long. seams lap joint D. 2

Dia. of rivet holes in { circ. seams 20/23 mm Pitch of rivets 49.7/58.2 mm Percentage of strength of circ. seams { plate 59.7 58.5
long. seams 20 mm rivets 51.6 58.5 Longitudinal joint { plate 68.-
combined 77.3

Working pressure of shell by rules 7.2 kg/cm² Thickness of butt straps { outer none
inner none

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

Tensile strength 41 ÷ 47 kg/mm² Thickness 14.5 mm Radius 1700 mm Working pressure by rules 7.6 kg/cm²

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

Thickness 18.- mm External diameter { top 1500 mm Length as per rule 1300 mm Working pressure by rules 6.9 kg/cm²
bottom 1500 mm

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 1500 mm Working pressure by rule 7.1 kg/cm²

Thickness of Ogee Ring 20.- mm Diameter as per rule { D 1720 mm Working pressure by rule 5.4 kg/cm²
d 1680 mm

Combustion Chamber: Material Tensile strength Thickness of top plate

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

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

Diameter of stays over thread Working pressure of back plate by rules

Tube Plates: Material { front Tensile strength Thickness Mean pitch of stay tubes in nests
back

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

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

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

W264-0284

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 _____ External diameter ^{plain} _{stay} _____ Thickness _____
 No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____
Manhole Compensation: Size of opening in shell plate 400×300 mm Section of compensating ring 100×25 mm No. of rivets and diameter _____
 of rivet holes $24, 20$ mm ϕ Outer row rivet pitch at ends 135 mm Depth of flange if manhole flanged _____
Uptake: External diameter 528 mm Thickness of uptake plate 14 mm
Cross Tubes: No. 8 External diameters 418 mm Thickness of plates 10 mm

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

The foregoing is a correct description.

Deutsche Werke Kiel
 Aktiengesellschaft

Manufacturer.

Dates of Survey while building { During progress of work in shops - 1936. Apr: 2 May: 5, 12, 19, 22
 { During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith yes 27/2/36.
 (If not state date of approval.)

Total No. of visits 5

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

This Donkey Boiler has been built under Special Survey in accordance with the approved plan, the Secretary's letters and instructions thereto and the Society's Rules. The materials used in the construction are made at works recognized by the Committee and have been tested by the Society's Surveyors. Workmanship and material are of good quality. In my opinion this Donkey Boiler is eligible for notation in the Society's Reg. Bk. for notation of DB - 100 lb.

when it has been satisfactorily fitted on board, examined under steam and its safety valves adjusted to 100 lb pressure.

Please note: - This donkey boiler is a duplicate of that one fitted on board the m.s. Toulouse, Hamb. Rpt. no. 21017.

Survey Fee RMK £ 84 -

Travelling Expenses (if any) £ 26 -

When applied for, 15/6/36

When received, 5/8/36

1936

1936

Committee's Minute

Assigned

TUE. 22 DEC 1936

FRI 5 MAR 1937

FRI 7 MAY 1937

FRI 6 AUG 1937

Lloyd's Register
 Foundation