

REPORT ON BOILERS.

No. 8936.

MAY 29 1937

Received at London Office

Date of writing Report 29 May 1937 When handed in at Local Office 27 May 1937 Port of MANCHESTER
 No. in Survey held at HALIFAX Date, First Survey 15 Feb 1937 Last Survey 25 May 1937
 Reg. Book on the Morviken (Number of Visits 3) Gross ✓
Oresundsvanet No. 49 Tons Net ✓
 Built at GM By whom built ✓ Yard No. ✓ When built ✓
 Engines made at ✓ By whom made ✓ Engine No. ✓ When made ✓
 Boilers made at ✓ By whom made ✓ Boiler No. ✓ When made ✓
 ORDER of MESSRS A/B CALDARIA, GOTHENBURG. Port belonging to ✓

VERTICAL DONKEY BOILER.

Made at Halifax By whom made Messrs Humphys Ltd. Boiler No. 5710 When made 1937 Where fixed ✓
 Manufacturers of Steel The Park Gate Iron & Steel Co. Ltd. Rotherham.
 Total Heating Surface of Boiler 157 SQ. FT. Is forced draught fitted No. Coal or Oil fired OIL.
 No. and Description of Boilers ONE VERTICAL CROSS TUBE DONKEY BOILER. Working pressure 85 lbs/sq. in.
 Tested by hydraulic pressure to 170 lbs/sq. in. Date of test 25 May 1937 No. of Certificate 91.
 Area of Firegrate in each Boiler 15 SQ. FT. No. and Description of safety valves to each boiler DOUBLE 2 IN. SPRING LOADED.
 Area of each set of valves per boiler per rule 6.28 SQ. INS. Pressure to which they are adjusted ✓ Are they fitted with easing gear YES.
as fitted 6.28 SQ. INS.
 State whether steam from main boilers can enter the donkey boiler ✓ Smallest distance between boiler or uptake and bunkers or woodwork ✓ 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 4 FT 9 INS. Height 11 FT. 6 INS.
 Shell plates: Material Mild Steel, open hearth, acid. Tensile strength 28-32 TONS/SQ. IN. Thickness 3/8 INS.
 Are the shell plates welded or flanged No. Description of riveting: circ. seams SINGLE LAP long. seams DOUBLE LAP.
 Dia. of rivet holes in 13/16 INS. Pitch of rivets 2.125 INS. Percentage of strength of circ. seams plate 61.77 of Longitudinal joint plate 68.74
13/16 INS. 2.6 INS. 45.53 74.44
 Working pressure of shell by rules 116.5 lbs / SQ. IN. Thickness of butt straps outer inner
 Shell Crown: Whether complete hemisphere, dished partial spherical, or flat DISHED PARTIAL SPHERICAL Material Mild Steel, O.H. Acid.
 Tensile strength 26-30 TONS/SQ. IN. Thickness 1/2 IN. Radius 4 FT. 9 INS. Working pressure by rules 102.7 lbs/sq. in.
 Description of Furnace: Plain, spherical, or dished crown DISHED CROWN. Material Mild Steel O.H. Acid. Tensile strength 26-30 TONS/SQ. IN.
 Thickness 9/16. External diameter top 3 FT 9 5/8 INS. Length as per rule 3 FT 7 1/2 INS. Working pressure by rules 127.3 lbs/sq. in.
 Pitch of support stays circumferentially 7 INS. and vertically ✓ Are stays fitted with nuts or riveted over RIVETED.
 Diameter of stays over thread 1 1/4 INS. Radius of spherical or dished furnace crown 3 FT 9 INS. Working pressure by rule 91.7 lbs/sq. in.
 Thickness of Ogee Ring 9/16 INS. Diameter as per rule D. 4 FT 8 1/4 INS. Working pressure by rule 174.4 lbs/sq. in.
a. 4 FT 4 1/2 INS.

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 back Tensile strength ✓ Thickness ✓ Mean pitch of stay tubes in nests ✓

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

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

Girders to combustion chamber tops: Material ✓ Tensile strength ✓ 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 _____ 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 16 INS X 12 INS. Section of compensating ring 5 1/2 INS X 1/2 IN. No. of rivets and diameter of rivet holes 40 - 13/16. Outer row rivet pitch at ends 4" Depth of flange if manhole flanged _____

Uptake: External diameter 15 INS. Thickness of uptake plate 1/2 IN.

Cross Tubes: No. 5 External diameters { 9 INS. Thickness of plates 3/8 INS.

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

The foregoing is a correct description.

FOR AND ON BEHALF OF
LUMBYS LIMITED. Manufacturer.

Dates of Survey { During progress of work in shops - Feb 15th March 10th May 25th 1937. Is the approved plan of boiler forwarded herewith Yes.
while building { During erection on board vessel - ✓ (If not state date of approval.)

Total No. of visits 3.

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. Report No. 8935 Mch.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey, of tested materials, and in accordance with the Secretary's letters, approved plans, and rule requirements. The workmanship and materials were found to be good, and the boiler was subjected to a hydraulic test of 170 lbs/sq. in. with satisfactory results.

This boiler is, in my opinion, eligible to be fitted on board a vessel classed with this Society.

FOR IDENTIFICATION PURPOSES
BOILER MARKED.

5710.

No 91
LLOYDS TEST
170 lbs
W.P. 85 lbs
G.R.C. 25.5.37.

Survey Fee ... £ 4 : 4 : When applied for, 28th May 1937

Travelling Expenses (if any) £ 10/6. When received, 3-6-1937

George R. Chappell.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned See Hbg J.E. 1187

FRI. 24 JUN 1938

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