

REPORT ON BOILERS.

Gothenburg No. 7779
No. 6739

Received at London Office
Gothenburg 4 MAY 1929

18th Jan. 1930 18th Jan 1930
Date of writing Report 3-5-1929 When handed in at Local Office 3-5-1929

Port of Manchester
5th Dec. 1929

Survey held at Halifax. Date, First Survey 10th April, 1929 Last Survey 30th April 1929

(Number of Visits 2 + 2) Gross 4817 Tons Net 2475

Surveyed at Gothenburg By whom built A.B. Götaverken Yard No. 486 When built 1930

Engines made at Gothenburg By whom made A.B. Götaverken Engine No. 860 When made 1930

Boilers made at Halifax By whom made Lumby's Ltd. Boiler No. 3880 When made 1929

Owners A.B. Götaverken A.B. Svenska Smickan Meckelinien Port belonging to Gothenburg

VERTICAL DONKEY BOILER.

Made at Halifax By whom made Lumby's Ltd. Boiler No. 3880 When made 1929 Where fixed

Manufacturers of Steel Park Gate Iron & Steel Co. Ltd.

Total Heating Surface of Boiler 100 sq. ft. Is forced draught fitted Coal or Oil fired Oil

No. and Description of Boilers One Vertical cross Tube Working pressure 85 lbs/sq. in.

Tested by hydraulic pressure to 170 lbs/sq. in. Date of test 30th April, 1929 No. of Certificate 76

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler One double spring loaded

Diam. of each set of valves per boiler per rule 2" as fitted Pressure to which they are adjusted 88 lbs/sq. in. Are they fitted with easing gear Yes

State whether steam from main boilers can enter the donkey boiler No main boilers Smallest distance between boiler or uptake and bunkers

Is oil fuel carried in the double bottom under boiler Yes Smallest distance between base of boiler and tank top plating

About 3 feet Is the base of the boiler insulated Yes Largest internal dia. of boiler 4'-0" Height 11'-0"

Shell plates: Material Steel Tensile strength 28-32 tons Thickness 3/8"

Are the shell plates welded or flanged No Description of riveting: circ. seams end. Single inter. Single long. seams Double

Dia. of rivet holes in circ. seams 13/16" Pitch of rivets 2 1/8" 2.6" Percentage of strength of circ. seams plate 61.8 rivets 45.5 of Longitudinal joint plate 70.4 rivets 69.48 combined

Working pressure of shell by rules 139.7 lbs. Thickness of butt straps outer inner

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

Tensile strength 26-30 tons Thickness 1/2" Radius 4'-0" Working pressure by rules 121.9 lbs.

Description of Furnace: Plain, spherical, or dished crown Dished crown Material Steel Tensile strength 26-30 tons

Thickness 1/2" External diameter top 3'-3" bottom 3'-6" Length as per rule 5'-6" Working pressure by rules 89.5 lbs.

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 3'-3 1/2" Working pressure by rule 104.4 lbs.

Thickness of Ogee Ring Diameter as per rule Working pressure by rule

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 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

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 ✓ 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" x 12" ✓ Section of compensating ring 5 1/2" x 1/2" No. of rivets and dia
 of rivet holes 40 - 13/16" Outer row rivet pitch at ends 3 1/2" Depth of flange if manhole flanged ✓

Uptake: External diameter 12" Thickness of uptake plate 1/2" ✓

Cross Tubes: No. 3 ✓ External diameters { 10" ✓ Thickness of plates 3/8" ✓

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description,

LUMBYS LIMITED,

A. S. Taylor :
 DIRECTOR

Dates of Survey while building { During progress of work in shops - 1929. April 10th & 30th.
 { During erection on board vessel - 1929: Dec 5th 1930: Jan 7

Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes
 Total No. of visits 2, 2

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

This boiler has been built under special survey, to the approved plans and the materials tested in accordance with the rules of this Society. The materials and workmanship are good and the boiler was tested in my presence by hydraulic pressure to 170 lbs per square inch with satisfactory results; the working pressure not to exceed 85 lbs per square inch. This boiler is eligible in my opinion, to be classed with this Society and is stamped for identification :-

No 76.

LLOYD'S TEST 170 lbs.

W.P. 85 lbs

J.F.C. 30.4.29 JF

This donkey boiler has been fitted on board this vessel under my inspection and to my satisfaction.

Survey Fee ... £ 4 : 4 : } When applied for, 3-5-1929
 Travelling Expenses (if any) £ 1 : 15 : } When received, 29-5-1929
See letter C/H. 29/5/29.

Committee's Minute Assigned

FRI. 24 JAN 1930
See lot 5E 7779

J. F. Campbell :
 Engineer Surveyor to Lloyd's Register of Shipping.



Lloyd's Register Foundation