

REPORT ON BOILERS.

No. 122401

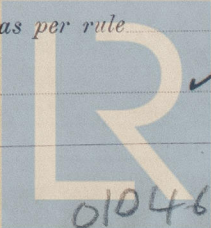
Received at London Office 7 NOV 1951

Date of writing Report 2-5-51 10 When handed in at Local Office 2-5-51 10 Port of LONDON.

No. in Survey held at London Date, First Survey 24-1-51 Last Survey 2-5-51 19
Reg. Book
on the MOTOR TANKER "BOLLSTA" (Number of Visits 3) Tons { Gross
Net
Built at Glasgow By whom built Harland & Wolff Ltd. Yard No. 14195 When built
Engines made at By whom made Engine No. When made
Boilers made at London By whom made Messrs. Towler & Son Ltd. Boiler No. 584 When made 1951.
Owners Port belonging to

VERTICAL DONKEY BOILER.

Made at London By whom made Messrs. Towler & Son Ltd. Boiler No. 584 When made 1951 Where fixed ✓
Manufacturers of Steel Shell, Messrs. Colvilles Ltd. Tube Plates, Consett Iron Works. Tubes, Talbot Steel Tube Co.
Total Heating Surface of Boiler 1500^{sq} ft. (estd/px). Is forced draught fitted ✓ Coal or Oil fired Exhaust Gas.
No. and Description of Boilers One, Spunner Patent "Swirlyflo" Exhaust Gas Boiler Working pressure 180 lb/sq in
Tested by hydraulic pressure to 320 lb/sq in ✓ Date of test 2nd May 1951. ✓ No. of Certificate 1454.
Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler One, High lift Double Main Type. 2"
Area of each set of valves per boiler { per rule. ✓ as fitted. 6.285^{sq} in. Pressure to which they are adjusted ✓ Are they fitted with easing gear. ✓
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 6'-3" Height 8'-8" ✓
Shell plates: Material Acid Open Hearth Steel Tensile strength 28/32 Tons/sq in ✓ Thickness 5/8" ✓
Are the shell plates welded or flanged Welded. If fusion welded, state name of welding firm Messrs. Henry Balfour & Co. Ltd.
Have all the requirements of the Rules for Class I vessels been complied with Yes. Description of riveting: circ. seams { end ✓ inter. ✓
long. seams ✓ Dia. of rivet holes in { circ. seams ✓ long. seams ✓ Pitch of rivets { Percentage of strength of circ. seams { plate ✓ rivets ✓
of Longitudinal joint { rivets ✓ Thickness of butt straps { outer ✓ inner ✓ Shell Crown: Whether complete hemisphere, dished partial
combined ✓
spherical, or flat ✓ Material ✓ Tensile strength ✓ Thickness ✓
Radius ✓ Description of Furnace: Plain, spherical, or dished crown ✓ Material ✓
Tensile strength ✓ Thickness ✓ External diameter { top ✓ bottom ✓ Length as per rule ✓
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 ✓
Thickness of Ogee Ring ✓ Diameter as per rule { D ✓ a ✓
Combustion Chamber: Material ✓ Tensile strength ✓ Thickness of top plate ✓
Radius if dished ✓ 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 ✓
Tube Plates: Material { TOP S.M. Steel ✓ Tensile strength { 28/32 Tons/sq in ✓ Thickness { 1" ✓ Mean pitch of stay tubes in nests ✓
BOT. S.M. Steel ✓
If comprising shell, Dia. as per rule { front ✓ back ✓ Pitch in outer vertical rows { Dia. of tube holes { TOP stay 2 1/2" BOT. stay 2 1/2" FRONT plain 2 9/16" BACK main 2 1/2"
Is each alternate tube in outer vertical rows a stay tube ✓
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 ✓



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Lloyd's Register
Foundation

Crown stays: Material hocrad Tensile strength 122.5 Diameter { at body of stay, 3.8 or over threads 3.8 }
Screw stays: Material hocrad Tensile strength 122.5
 No. of threads per inch 12 Are the stays drilled at the outer ends Yes
 Diameter { at turned off part, 2 1/2 or over threads 2 1/2 } No. of threads per inch 12 Thickness { 3/8 }
Tubes: Material Open Hearth Steel External diameter { plain 2 1/2 and 2 9/16 stay 2 1/2 }
 No. of threads per inch 12 Pitch of tubes 3 3/8" Triangular Pitch Thickness 3/8"
Manhole Compensation: Size of opening in shell plate 16 x 12 Section of compensating ring 12 x 5/8 No. of rivets and diameter
 of rivet holes 8 Outer row rivet pitch at ends 4 Depth of flange if manhole flanged Yes
Uptake: External diameter 12 Thickness of uptake plate 3/8
Cross Tubes: No. 1 External diameters { 12 } Thickness of plates 3/8
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes
 The foregoing is a correct description,
 P.P. TOWLER & SON LTD.
 J. E. Campbell Manufacturer.
 TECHNICAL MANAGER

Dates of Survey { During progress of work in shops - Jan. 24th while building { April 2nd }
 { May 2nd } Is the approved plan of boiler forwarded herewith 31-10-50
 (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. None
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built of tested material & surveyed during construction in compliance with the Society's Rules and according to the approved plan. The workmanship is of good average standard & the boiler is eligible in my opinion to be installed and used in a classed vessel.
This boiler was satisfactorily fitted on board and the safety valves adjusted under strain to 180 lbs and the accumulation found not to exceed Rule Requirements.
James E. Murray

Survey Fee ... £ 10:00 When applied for, 8 MAY 1951
 Travelling Expenses (if any) £ 0 When received, 19
 By Shore Exh 1 LTH