

REPORT ON BOILERS.

64614
No. 10,353

Received at London Office Feb 3 1941

Date of writing Report 28/1/41 When handed in at Local Office 28/1/41 Port of MANCHESTER

No. in Survey held at Hyde Date, First Survey 23/9/40 Last Survey 15/1/41

Reg. Book. 3 on the M/V NOTTINGHAM (Number of Visits 7) Gross Tons 575 Net Tons 576

Built at Govan By whom built Alex. Stephen & Sons Yard No. 576 When built 1941

Engines made at Glasgow By whom made Barclay Curle & Co Ltd Engine No. EW129 When made 1941

Boilers made at Hyde By whom made J. Adamson & Co Ltd Boiler No. 2567 When made 1940

Owners The Federal Steam Navig. Co Ltd Port belonging to London

VERTICAL DONKEY BOILER.

Made at Hyde By whom made J. Adamson & Co. Ltd. Boiler No. 2567 When made 1940 Where fixed ✓

Manufacturers of Steel Guest Keen Baldwins Iron & Steel Co. Ltd. Port Talbot.

Total Heating Surface of Boiler 675 Sq. ft. Is forced draught fitted ✓ Coal or Oil fired and/or Exh. Gas. ✓

No. and Description of Boilers One Clark's Shrinkable Tube Boiler Working pressure 100 lbs/sq. inch

Tested by hydraulic pressure to 200 lbs/sq. inch Date of test 21st December 1940 No. of Certificate 95

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 1 fitted by J. Adamson & Co. Ltd.

Area of each set of valves per boiler per rule 7.33 Sq. ins. Pressure to which they are adjusted 9.820" 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 4'-6" Height 14'-9"

Shell plates: Material O.H. Steel Tensile strength 28/32 tons/sq. inch Thickness 1/2"

Are the shell plates welded ✓ Description of riveting: circ. seams end only long. seams D.R. Butt Straps

Dia. of rivet holes in circ. seams 13/16" Pitch of rivets Long + Int. = 2" Butt. 2 3/4" Percentage of strength of circ. seams plate 59.3% rivets 42.7% of Longitudinal joint plate 69.5% rivets 115% combined ✓

Working pressure of shell by rules 110 lbs/sq. inch Thickness of butt straps outer 1/2" inner 1/2"

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

Tensile strength 26/30 tons/sq. inch Thickness 13/16" Radius 6'-6" Working pressure by rules 105 lbs/sq. inch

Description of Furnace: Plain, spherical, or dished crown ✓ Material ✓ Tensile strength ✓

Thickness ✓ External diameter ✓ Length as per rule ✓ Working pressure by rules ✓

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 ✓ Working pressure by rule ✓

Thickness of Ogee Ring (Butt. have Plate) 15/16" Diameter as per rule ✓ Working pressure by rule 101 lbs/sq. inch

Combustion Chamber: Material O.H. Steel Tensile strength 26/30 tons/sq. inch Thickness of top plate 2 1/32"

Radius if dished 4'-0" Working pressure by rule 113 lbs/sq. inch Thickness of tube plate 1 1/8" Diameter if circular 4'-5 7/8" inside

Length as per rule 7'-8 1/8" Pitch of stays ✓ Are stays fitted with nuts or riveted over ✓

Diameter of stays over thread ✓ Working pressure of tube plate by rules As approved.

Tube Plates: Material ✓ Tensile strength ✓ Thickness ✓ Mean pitch of stay tubes in nests ✓

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

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

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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Lloyd's Register
Foundation

W1201-0131

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 _____

Shimble Tubes: Material **Steel** External diameter { plain **4"** stay _____ Thickness { **9 LSG.** _____

No. of threads per inch **✓** Pitch of tubes **Vert. 4 3/8" Horiz. 7.053"** Working pressure by rules **✓**

Mudhole Compensation: Size of opening in shell plate **6" x 4"** Section of compensating ring **11 1/4" x 9 1/4" x 5/8"** No. of rivets and diameter _____

of rivet holes **8- 13/16" dia.** Outer row rivet pitch at ends **3"** **16" x 12" in Shell Row** Depth of flange if manhole flanged **3"**

Uptake: External diameter **2'-11"** Thickness of uptake plate **1/2"**

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,
FOR JOSEPH ADAMSON & CO. LIMITED.
J. Adamson Manufacturer.
Joint Managing Director.

Dates of Survey { During progress of work in shops - **23.9.40, 2.11.40, 4.11.40, 30.11.40** } Is the approved plan of boiler forwarded herewith (If not state date of approval) **Yes.**

while building { During erection on board vessel - **✓** } Total No. of visits **Seven.**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **This boiler has been constructed under Special Survey of tested materials and is in accordance with the Secretary's letters, approved plans and Rule Requirements. The materials and workmanship are of good quality and the boiler, when tested in the shop under hydraulic pressure of 200 lbs per sq. inch, was found sound and tight. This boiler is, in my opinion, eligible to be fitted on board a vessel classed with this Society.**

FOR IDENTIFICATION PURPOSES
BOILER MARKED:-

Nº 95
LLOYDS TEST
200 LBS.
W.P. 100 LBS.
W.T.M. 21.12.40

Glasgow 3-11-41 The boiler has been satisfactorily fitted in the vessel and its safety valves adjusted under steam to 100 lbs.

Safety valves made by A. Leveburn and tested by J. Sim 28-3-40 to 200 lbs per sq. inch. **✓**

Survey Fee ... £ **4 : 4/-** When applied for. **31st Jan 1941**

Travelling Expenses (if any) £ **1 : 1/-** When received, **19**

L. P. Mathieson **L. Davis**
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 11 NOV 1941**
Assigned **SEE ACCOMPANYING MACHINERY REPORT.**

