

REPORT ON BOILERS.

No. 20418

Received at London Office 11 NOV 1936

Writing Report to 10 November 1936 When handed in at Local Office 10-11-36 Port of ANTWERP

Survey held at ANTWERP Date, First Survey 10-10-36 Last Survey 16-10-1936
 Book (Number of Visits 3) Gross 3430
 on the S/S "HANNAH" Tons Net 2311

at Newcastle By whom built Tyne T. S. B. Co. Ltd. Yard No. ✓ When built 1913-4
 engines made at Stockton By whom made Blair & Co. Ltd. Engine No. ✓ When made 1913
 boilers made at Stockton By whom made Blair & Co. Ltd. Boiler No. ✓ When made 1913
 Name of Steamship "Hannah" Port belonging to Rotterdam

VERTICAL DONKEY BOILER.

at AMSTERDAM By whom made WERKSPORR Boiler No. 2499 When made 1932 Where fixed FOREWARD OF MAIN BOILERS

Manufacturers of Steel ✓
 Heating Surface of Boiler 60 m² ✓ Is forced draught fitted NO Coal fired YES

Description of Boilers ONE COCHRAN TYPE ✓ Working pressure 100 lb/0"

Tested by hydraulic pressure to 150 lb/0" Date of test 10-10-36 No. of Certificate ✓

Area of Firegrate in each Boiler 3.8 m² No. and Description of safety valves to each boiler TWO SPRING LOADED ✓

Area of each set of valves per boiler { per rule 2368 as fitted 2512 mm² Pressure to which they are adjusted 100 lb/0" Are they fitted with easing gear YES ✓

Is steam from main boilers can enter the donkey boiler NO ✓ Smallest distance between boiler or uptake and bunkers

Goodwork 2 ft. ✓ Is oil fuel carried in the double bottom under boiler NO ✓ Smallest distance between base of boiler and tank top plating

Is the base of the boiler insulated NO ✓ Largest internal dia. of boiler 2200 mm. Height 5225 mm.

Shell plates: Material S.M. STEEL Tensile strength 44/50 Kg/cm² Thickness 14 mm.

Are the shell plates welded or flanged FLANGED Description of riveting: circ. seams { end SINGLE ✓ inter. SINGLE ✓ long. seams DOUBLE LAP ✓

Size of rivet holes in { circ. seams 2.4 mm ✓ Pitch of rivets { 6.0 mm ✓ Percentage of strength of circ. seams { plate 60% ✓ rivets 44.4% ✓ of Longitudinal joint { plate 68% ✓ rivets 44.4% ✓ combined ✓

Working pressure of shell by rules 8.22 Kg/cm² Thickness of butt straps { outer ✓ inner ✓

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat DISHED PARTIAL SPHERICAL Material S.M. STEEL

Tensile strength 40/46 Kg/cm² Thickness 18 mm. Radius 1460 mm. Working pressure by rules 8.36 Kg/cm²

Description of Furnace: Plain, spherical, or dished crown DISHED CROWN Material S.M. STEEL Tensile strength 40/46 Kg/cm²

Thickness 19 mm. External diameter { top ✓ bottom ✓ 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 1369 mm. Working pressure by rule 8.24 Kg/cm²

Thickness of Ogee Ring ✓ Diameter as per rule { D ✓ d ✓ Working pressure by rule ✓

Combustion Chamber: Material ✓ Tensile strength ✓ Thickness of top plate 22 mm.

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 S.M. STEEL Tensile strength { 33/44 Kg/cm² ✓ Thickness { 22 mm. ✓ Mean pitch of stay tubes in nests VERTICAL 408 mm. ✓ HORIZONTAL 380 mm. ✓ MEAN 394 mm. ✓

Comprising shell, Dia. as per rule { front ✓ back ✓ Pitch in outer vertical rows { front ✓ back ✓ Dia. of tube holes FRONT { stay 68.5 mm. ✓ plain 65 mm. ✓ BACK { stay 68.5 mm. ✓ plain 65 mm. ✓

Is each alternate tube in outer vertical rows a stay tube YES ✓ Working pressure by rules { front 8.02 Kg/cm² ✓ back 4.9 Kg/cm² ✓

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 IRON External diameter ☒ plain 63.5 mm. ☒ Thickness Nº 9 6.35 mm. ☒
 No. of threads per inch 11 Pitch of tubes HORIZONTAL 95 mm. ☒ VERTICAL 68 mm. ☒ Working pressure by rules ☒
Manhole Compensation: Size of opening in shell plate 305 x 405 mm. ☒ Section of compensating ring 25 mm. ☒ No. of rivets and diam. of rivet holes H₀ - 25 mm. ☒ Outer row rivet pitch at ends ☒ Depth of flange if manhole flanged 70 mm. ☒
Uptake: External diameter ☒ Thickness of uptake plate ☒
Cross Tubes: No. ☒ External diameters ☒ Thickness of plates ☒

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

The foregoing is a correct description.

Manufactured by

Dates of Survey ☒ During progress of work in shops - 10th and 14th October 1936 ☒ Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes
☒ While building ☒ During erection on board vessel - 16th October 1936 ☒ Total No. of visits 3

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

See Secty's letter, 25th September 1936 addressed to the Amsterdam Surveyor.
 This Donkey Boiler has now been fitted on board the above vessel, examined internally and externally together with mountings and safety valves, tested under hydraulic pressure to 150 lbs per sq. inch, examined under steam, safety valves adjusted to 100 lbs, per sq. inch w. p., accumulation test made and all found satisfactory and in accordance with the approved plan as amended and with the Rules.
 The materials and workmanship so far as could be ascertained are satisfactory.
 This vessel's machinery is therefore eligible, in our opinion, to have notation in Register Book of D.B. new 1932 fitted 10, 36 100 lbs per sq. inch. w. p.

See Cont. Rep. No 20681.

Survey Fee ... £ : : When applied for. 19
 Travelling Expenses (if any) £ : : When received. 19

Committee's Minute

Assigned

TUE. 17 NOV 1936

G. Tatchers
 Engineer Surveyor to Lloyd's Register of Shipping
 F. L. R.

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