

REPORT ON BOILERS.

No. 18943.

Received at London Office

15 AUG 1928

Date of writing Report 1st August 1928. When handed in at Local Office 10th August 1928. Port of Greenock.No. in Reg. Book. Survey held at Port Glasgow Date, First Survey 1st November 1924 Last Survey 6th Aug 1928
on the SS "ZONNEWYK". (Number of Visits ✓) Tons { Gross 4499. Net 2640Master Built at Port Glasgow By whom built Clyde S B & E Co. Ltd Yard No. 354. When built 1928
Engines made at Port Glasgow By whom made Clyde S B & E Co. Ltd Engine No. 488 When made 1928
Boilers made at " By whom made " Boiler No. 488 When made 1928
Nominal Horse Power 403. Owners Messrs Erhardt & Dekkers. Port belonging to RotterdamMULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

Manufacturers of Steel W. Beardmore & Co. Ltd. (Letter for Record S)

Total Heating Surface of Boilers 2221 square feet 6664 (3000) is forced draught fitted No. ✓ Coal or Oil fired Coal. ✓

No. and Description of Boilers Three single ended multitubular 350 Working Pressure 210 ✓

Tested by hydraulic pressure to 365 ✓ Date of test 14-6-28. No. of Certificate 1830 Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 190 sq ft No. and Description of safety valves to each boiler Two direct spring loaded. ✓

Area of each set of valves per boiler { per Rule 14.43 12.3 as fitted 14.134.0" Pressure to which they are adjusted 214 lbs ✓ Are they fitted with easing gear Yes. ✓

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓

Smallest distance between boilers or uptakes and bunkers or woodwork 5'-4" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 2'-0" Is the bottom of the boiler insulated Yes. 28/32. ✓

Largest internal dia. of boilers 15'-6" Length 10'-6" Shell plates: Material S Tensile strength 28/32. ✓

Thickness 1 15/32 Are the shell plates welded or flanged No. Description of riveting: circ. seams { end D.R.L. ✓ inter. ✓

long. seams T.R.D.B.S. Diameter of rivet holes in { circ. seams 1 1/2" ✓ long. seams 1 1/2" Pitch of rivets { 4.562" ✓ 10 7/16" ✓

Percentage of strength of circ. end seams { plate 64.11. rivets 43.31. Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓

Percentage of strength of longitudinal joint { plate 85.62. rivets 88.81 combined 89.05 Working pressure of shell by Rules 210.9.

Thickness of butt straps { outer 1 1/8" ✓ inner 1 1/4" No. and Description of Furnaces in each Boiler Three Corrugated. 3 cf. ✓

Material S Tensile strength 26/30 Smallest outside diameter 47 3/8" ✓

Length of plain part { top 10 1/2" ✓ bottom ✓ Thickness of plates { crown 1 1/16" ✓ bottom 1 1/16" Description of longitudinal joint Weld. ✓

Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules 212.4.

End plates in steam space: Material S Tensile strength 26/30 Thickness 1 5/32 Pitch of stays 18 1/2" + 15 1/4" ✓

How are stays secured Double nuts. ✓ Working pressure by Rules 216.4.

Tube plates: Material { front S Tensile strength 26/30 Thickness { 15/16" + 3/4" DOUBLER ✓ back S 3/4" ✓

Mean pitch of stay tubes in nests 9" x 9" Pitch across wide water spaces 14 1/4" Working pressure { front 211.5 back 221.2.

Girders to combustion chamber tops: Material S Tensile strength 28/32. Depth and thickness of girder

at centre 2. 9 5/8" x 3/4" Length as per Rule 34 5/8" Distance apart 8 1/2" No. and pitch of stays

in each 3 - 8 1/8" Working pressure by Rules 211.2 Combustion chamber plates: Material S

Tensile strength 26/30 Thickness: Sides 2 1/32 Back 2 1/32 Top 2 1/32 Bottom 2 9/32. ✓

Pitch of stays to ditto: Sides 8 1/8" x 8 1/2" Back 8 1/8" x 8 1/2" Top 8 1/8" x 8 1/2" Are stays fitted with nuts or riveted over nuts. ✓

Working pressure by Rules 214.5. Front plate at bottom: Material S Tensile strength 26/30

Thickness 15/16 Lower back plate: Material S Tensile strength 26/30 Thickness 2 1/32 ✓

Pitch of stays at wide water space 14 1/4" Are stays fitted with nuts or riveted over nuts. ✓

Working Pressure 214.8. Main stays: Material S Tensile strength 28/32

Diameter { At body of stay, 2 7/8" ✓ No. of threads per inch 6 Area supported by each stay 2824. ✓

Working pressure by Rules 215.5 Screw stays: Material S Tensile strength 26/30.

Diameter { At turned off part, 1 5/8" & 1 1/8" ✓ No. of threads per inch 9 Area supported by each stay 680 & 910. ✓

Working pressure by Rules 224 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 7/8" or Over threads }
No. of threads per inch 9 Area supported by each stay 91 sq Working pressure by Rules 234
Tubes: Material IRON External diameter { Plain Stay } 3 1/4" Thickness { 8 WG 5/16" & 1/16" } No. of threads per inch 9
Pitch of tubes 4 1/2" Working pressure by Rules 226 Manhole compensation: Size of opening in
shell plate 16" x 12" Section of compensating ring 4 1/8" x 1 5/32" No. of rivets and diameter of rivet holes 30 - 1 1/2"
Outer row rivet pitch at ends 10 7/16" Depth of flange if manhole flanged ✓ Steam Dome: Material ✓
Tensile strength ✓ Thickness of shell ✓ Description of longitudinal joint ✓
Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint { Plate Rivets }
Internal diameter ✓ Working pressure by Rules ✓ Thickness of crown ✓ No. and diameter of
stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓
How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and pitch
of rivets in outer row in dome connection to shell ✓

Type of Superheater NONE Manufacturers of Tubes ✓ Steel castings ✓
Number of elements ✓ Material of tubes ✓ Internal diameter and thickness of tubes ✓
Material of headers ✓ Tensile strength ✓ Thickness ✓ Can the superheater be shut off and
the boiler be worked separately ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓
Area of each safety valve ✓ Are the safety valves fitted with easing gear ✓ Working pressure as per
Rules ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test pressure:
tubes ✓, castings ✓ and after assembly in place ✓ Are drain cocks or valves fitted
to free the superheater from water where necessary ✓

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

For and on behalf of THE GLASGOW SHIPBUILDING ENGINEERING COMMITTEE
The foregoing is a correct description
Manufacturer. Secretary

Dates of Survey { During progress of work in shops - - }
while building { During erection on board vessel - - - }
Are the approved plans of boiler and superheater forwarded herewith yes.
(If not state date of approval.)
Total No. of visits ✓
See Machinery Report

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boilers have been built under special survey, in accordance with the Rules and approved plans. The materials and workmanship are good. The boilers have been securely fitted on board the vessel, and the safety valves adjusted under steam as stated.

Survey Fee ... £ : : When applied for, 192
Travelling Expenses (if any) £ : : When received, 192
Changed on Machinery report

J. A. Gray
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 14 AUG 1928

Assigned See accompanying report