

# REPORT ON BOILERS.

No. 23140

Received at London Office

15 JUN 1948

Date of writing Report 8. 6. 19 48, when handed in at Local Office 14. 6. 1948. Port of GRIMSBY.

No. in Survey held at IMMINGHAM. Date, First Survey 3rd May Last Survey 20th May, 19 48.

9878 on the S/S "BALTONIA" (Number of Visits 3) Tons { Gross 1944 Net 965

built at Hamburg. By whom built Deutsche Werft A.G. Yard No. - When built 1944

Engines made at Hamburg. By whom made Deutsche Werft A.G. Engine No. - When made 1944

Boilers made at Hamburg. By whom made Deutsche Werft A.G. Boiler No. - When made 1944

Boiler No. - When made 1944  
Mach. Numeral 327 Owners United Baltic Corporation, Ltd. Port belonging to London.

## MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~

Manufacturers of Steel - (Letter for Record)  
Total Heating Surface of Boilers including water tube portion 3660 sq.ft. Is forced draught fitted Yes. Coal or Oil fired Coal.  
No. and Description of Boilers Two. Multitubular & water tube combined (Capus) Working Pressure 216 lbs.

Tested by hydraulic pressure to - Date of test - No. of Certificate - Can each boiler be worked separately Yes.  
Area of Firegrate in each Boiler 92 1/2 sq.ft. No. and Description of safety valves to each boiler 2 - Spring loaded.

Area of each set of valves per boiler as fitted 14 sq.in. Pressure to which they are adjusted 216 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 and bunkers 11" Is oil fuel carried in the double bottom under boilers No.

Smallest distance between shell of boiler and tank top plating 21" Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 12'9" Length 13'0" Shell plates: Material Steel Tensile strength -  
Thickenss 1 1/4" Are the shell plates welded or flanged - Description of riveting: circ. seams end double riveted.

Long. seams Treble riveted double butt strap Diameter of rivet holes in circ. seams 1.7/16" Pitch of rivets 4 1/2"  
long. seams 1.7/16"

Percentage of strength of circ. end seams plate rivets - Percentage of strength of circ. intermediate seam plate rivets -

Percentage of strength of longitudinal joint plate rivets - combined -

Thickness of butt straps outer 1 1/4" inner 1 1/4" No. and Description of Furnaces in each Boiler 3 Corrugated furnaces.

Material Steel Tensile strength - Smallest outside diameter 36.11/16"  
Length of plain part top 5'8" Thickness of plates crown 5/8" bottom 5/8" Description of longitudinal joint welded.

Dimensions of stiffening rings on furnace or e.c. bottom None.

End plates in steam space: Material Steel Tensile strength - Thickness 2.1/16" Pitch of stays 17 1/4" x 16"

How are stays secured Screwed with external nuts and washers.

Tube plates: Material front Steel Tensile strength - Thickness 1.1/16"  
back Steel

Mean pitch of stay tubes in nests 8 1/4" x 8 1/4" Pitch across wide water spaces 14 1/4"

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 - Combustion chamber plates: Material - Tensile strength -

Tensile strength - Thickness: Sides - Back - Top - Bottom -

Pitch of stays to ditto: Sides - Back - Top - Are stays fitted with nuts or riveted over -

Front plate at bottom: Material Steel Tensile strength - Thickness 1.1/16"

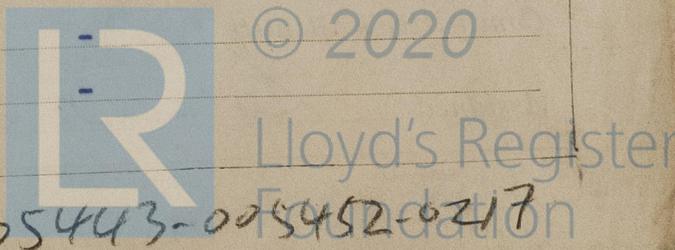
Lower back plate: Material Steel Tensile strength - Thickness 1.1/16"

Pitch of stays at wide water space - Are stays fitted with nuts or riveted over -

Main stays: Material Steel Tensile strength -

Diameter { At body of stay, 3" x 3.3/8" No. of threads per inch 6 & 9.  
or Over threads 3.5/16" x 3.3/4"

Screw stays: Material - Tensile strength -  
Diameter { At turned off part, - No. of threads per inch -  
or Over threads -



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Are the stays drilled at the outer ends  Margin stays: Diameter  At turned off part,  or  Over threads

No. of threads per inch

Tubes: Material Steel External diameter  Plain 3" Stay 3" Thickness  5/16"  3/8" No. of threads per inch 9

Pitch of tubes 4.1/8" x 4.1/8" Manhole compensation: Size of opening shell plate 12 1/2" x 16 1/2" Section of compensating ring 7 1/2" x 1 1/4" No. of rivets and diameter of rivet holes 26. - 1.7/16"

Outer row rivet pitch at ends 6 3/4" Depth of flange if manhole flanged  Steam Dome: Material Steel

Tensile strength  Thickness of shell 5/8" Description of longitudinal joint

Diameter of rivet holes  Pitch of rivets  Percentage of strength of joint  Plate  Rivets

Internal diameter 2 - 6 1/4" Thickness of crown 5/8" No. and diameter of stays  Inner radius of crown 25 1/4"

How connected to shell Double riveted. Size of doubling plate under dome  Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell 4 1/8"

Type of Superheater Smoke tube type.

Manufacturers of  Tubes  Steel forgings  Steel castings

Number of elements 35. Material of tubes Steel Internal diameter and thickness of tubes 1 1/16" - 5/32"

Material of headers Steel Tensile strength  Thickness  Can the superheater be shut off and the boiler be worked separately Yes. Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes.

Area of each safety valve 1 1/2 sq.in. Are the safety valves fitted with casing gear Yes.

Pressure to which the safety valves are adjusted 220 lbs/sq.in. Hydraulic test pressure tubes  forgings and castings  and after assembly in place  Are drain cocks or valves fitted to free the superheater from water where necessary Yes.

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

The foregoing is a correct description,

Manufacturer.

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 (If not state date of approval.)

Total No. of visits

Is this Boiler a duplicate of a previous case No. If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) Water tube portion (each boiler),

4 Steam drums:- Internal dia. 18 1/2", thickness 13/16", flanged at end and welded to back end of multitubular boiler longitudinal welded; dia. of tube holes 2.1/16", pitch of tubes 4.3/16", ext. dia. of tubes 2", thickness 1/4", number 198.

2 Water drums:- Similar scantlings to the steam drums.

The boilers were examined internally and externally together with safety valves, mountings, manhole doors, superheaters and found in good condition; later examined under steam and the safety valves adjusted to 216 lbs./sq.in. (Spt. 220 lbs).

The material and workmanship is good. The boilers, in my opinion, are in a satisfactory condition for a working pressure of 216 lbs./sq.in.

Survey Fee ... .. £ See: Rpt.:9. } When applied for, 19

Travelling Expenses (if any) £ : : } When received, 19

G.B. Vaux

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FBI, 23 JUL 1948

Assigned

See minute in Rpt. 9



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