

# REPORT ON BOILERS.

No. 19617

Received at London Office

Date of writing Report 1<sup>st</sup> Jan 1949 When handed in at Local Office 1<sup>st</sup> Jan 1949 Port of Southampton

No. in Reg. Book. Survey held at Portsmouth Date, First Survey 7<sup>th</sup> July Last Survey 27<sup>th</sup> Oct 1948

79553 on the S.S. WAVE KING (Number of Visits 6) Tons Gross 8159 Net 4545

Master Built at GLASGOW By whom built HARLAND & WOLFF LD Yard No 1222 G When built 1944

Engines made at Newcastle By whom made C. A. Parsons & Co. LD Engine No 2574/5 When made 1944

Boilers made at Glenrock By whom made Kincaids Boiler No 57170 When made 1944

Nominal Horse Power 1210 Owners The Admiralty Port belonging to London

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

Manufacturers of Steel (Letter for Record)

Total Heating Surface of Boilers 4160 sq ft = 2380 Is forced draught fitted Yes Coal or Oil fired oil

No. and Description of Boilers Two - S.E. Main Working Pressure 180 lbs/12

Tested by hydraulic pressure to 320 lbs/12 Date of test No. of Certificate Can each boiler be worked separately Yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 - 2 1/4" 2" High Lift

Area of each set of valves per boiler per Rule 6.670 sq ft as fitted 7.950 sq ft Pressure to which they are adjusted 180 lbs/12 Are they fitted with casing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler No

Smallest distance between boilers 21" Is oil fuel carried in the double bottom under boilers Yes

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

Largest internal dia. of boilers 13'-3 1/16" Length 11'-6" Shell plates: Material Steel Tensile strength

Thickness 1 1/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end D.R. Lap

long. seams TR DRS Diameter of rivet holes in circ. seams 3/16" Pitch of rivets 3 5/8"

Percentage of strength of circ. end seams plate 67.2 rivets 43.9 Percentage of strength of circ. intermediate seam plate 85.5 rivets

Percentage of strength of longitudinal joint rivets 92.4 combined 89.5 Working pressure of shell by Rules

Thickness of butt straps outer 7/8" inner 1" No. and Description of Furnaces in each Boiler Three Dighton corrugated

Material Tensile strength Smallest outside diameter 37 1/4"

Length of plain part top 1/2" bottom 1/2" Thickness of plates crown 1/2" bottom 1/2" Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material Tensile strength Thickness 1 5/32" Pitch of stays 19" & 17 1/2"

How are stays secured Double nuts Working pressure by Rules

Tube plates: Material Tensile strength Thickness 13/16" 1 1/16"

Mean pitch of stay tubes in nests 11 1/4" & 7 1/4" Pitch across wide water spaces 13 1/2" Working pressure

Girders to combustion chamber tops: Material Tensile strength Depth and thickness of girder

at centre 8 3/8" x (1 5/8)" = 2 x 1 3/16" Length as per Rule 32" Distance apart 10" No. and pitch of stays

in each 2 @ 10" Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides 2/32" Back 1 1/16" Top 23/32" Bottom 2 1/32"

Pitch of stays to ditto: Sides 10" & 8" Back 10 1/2" & 7 1/2" Top 10" & 10" Are stays fitted with nuts or riveted over margin stays riveted each end other - c.c. only

Working pressure by Rules Front plate at bottom: Material Tensile strength

Thickness 13/16" Lower back plate: Material Tensile strength Thickness 27/32"

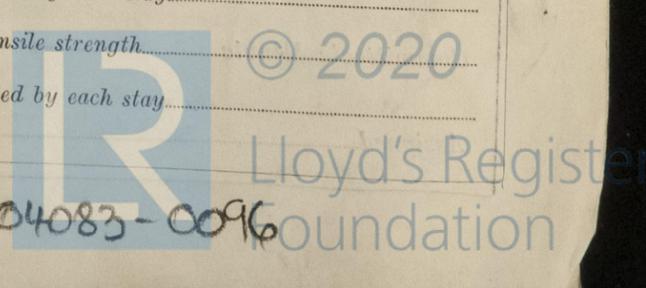
Pitch of stays at wide water space 15 1/2" & 7 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure Main stays: Material Tensile strength

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

Working pressure by Rules Screw stays: Material Tensile strength

Diameter At turned off part 1 3/4" No. of threads per inch 9 Area supported by each stay



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Working pressure by Rules. Are the stays drilled at the outer ends *No* ✓ Margin stays: Diameter { At turned off part. *17/8* ✓  
 or Over threads. *17/8* ✓  
 No. of threads per inch *9* ✓ Area supported by each stay. Working pressure by Rules.  
 Tubes: Material *Steel* External diameter { Plain *2 1/2* ✓  
 Stay *2 1/2* ✓ Thickness { *9 W.G.* No. of threads per inch *9* ✓  
*3/8 x 5/16*  
 Pitch of tubes *3 3/4* Working pressure by Rules. Manhole compensation: Size of opening in  
 shell plate *20 1/2 x 16 1/2* ✓ Section of compensating ring *9 x 1 1/8* No. of rivets and diameter of rivet holes *36 - 1 3/16* ✓  
 Outer row rivet pitch at ends *8 3/16* ✓ Depth of flange if manhole flanged *3 1/4* ✓ Steam Dome: Material *None* ✓  
 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 forgings.  
 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. forgings and 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 15 to 23 inclusive for boilers been complied with *Yes* ✓  
 The foregoing is a correct description,  
 \_\_\_\_\_  
 Manufacturer.

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

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These Boilers were built and installed under British Inspection Survey. They have now been examined throughout and found as placed in good order. Please see Report 9 herewith.*

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

*H. B. Rogers.*  
 Engineer Surveyor to Lloyd's Register of Shipping.

FEB. 11 FEB 1949

Committee's Minute  
 Assigned *See minutes on file*

