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# REPORT ON BOILERS.

No. 65550

Received at London Office

23 JUN 1942

Rules of writing Report 19 When handed in at Local Office 1. 6. 1942 Port of Glasgow.

Survey held at Glasgow. Date, First Survey 21st May 1942. Last Survey 21st May 1942.

M. V. "British Vigilance" (Number of Visits 1) Tons { Gross 8093 Net 4575 }

Built at Glasgow. By whom built Messrs Harland & Wolff Ltd. Engine No. 1116. When built 1942.

By whom made Messrs Harland & Wolff Ltd. Engine No. 1116. When made 1942.

Boilers made at Manchester. By whom made J. Adamson & Co. Ltd. Boiler No. 97. When made 1942.

Owners Port belonging to

## WATER TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record)

Heating Surface of Boilers Is forced draught fitted yes. Coal or Oil fired Oil.

Description of Boilers Working Pressure 150 lbs.

Tested by hydraulic pressure to Date of test No. of Certificate Can each boiler be worked separately yes.

Firegrate in each Boiler No. and Description of safety valves to each boiler 1. 2 1/4" dia Double Spring High Lift S.V. Informal.

of each set of valves per boiler { per Rule 3.638 inches 7.265 for 144. Pressure to which they are adjusted 150 lbs. Are they fitted with easing gear yes.

as fitted 3.98 " " x 2 = 7.96

Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Least distance between boilers or uptakes and bunkers or woodwork will clear. Is oil fuel carried in the double bottom under boilers

Least distance between shell of boiler and tank top plating Is the bottom of the boiler insulated yes.

Least internal dia. of boilers Length Shell plates: Material Tensile strength

Thickness Are the shell plates welded or flanged Description of riveting: circ. seams { end. inter. }

Seams Diameter of rivet holes in { circ. seams long. seams } Pitch of rivets { }

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 } Working pressure of shell by Rules

Thickness of butt straps { outer inner } No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part { top bottom } Thickness of plates { crown bottom } Description of longitudinal joint

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

Plates in steam space: Material Tensile strength Thickness Pitch of stays

Are stays secured Working pressure by Rules

Front plates: Material { front back } Tensile strength Thickness

Pitch of stay tubes in nests Pitch across wide water spaces Working pressure { front back }

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

Centre Length as per Rule Distance apart No. and pitch of stays

Each Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom

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

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

Thickness Lower back plate: Material Tensile strength Thickness

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

Working Pressure Main stays: Material Tensile strength

of Shipping meter { 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

meter { At turned off part, or Over threads } No. of threads per inch Area supported by each stay



*See Manchester Report No. 10951*

Working pressure by Rules \_\_\_\_\_ Are the stays drilled at the outer ends \_\_\_\_\_ Margin stays: Diameter { At turned off part, or Over threads } \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_ Thickness { \_\_\_\_\_ No. of threads per inch \_\_\_\_\_

Tubes: Material \_\_\_\_\_ External diameter { Plain Stay } \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Manhole compensation: Size of opening \_\_\_\_\_

Pitch of tubes \_\_\_\_\_ Section of compensating ring \_\_\_\_\_ No. of rivets and diameter of rivet holes \_\_\_\_\_

shell plate \_\_\_\_\_ Depth of flange if manhole flanged \_\_\_\_\_ Steam Dome: Material \_\_\_\_\_

Outer row rivet pitch at ends \_\_\_\_\_ Thickness of shell \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_

Tensile strength \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Percentage of strength of joint { Plate Rivets } \_\_\_\_\_

Diameter of rivet holes \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Thickness of crown \_\_\_\_\_ No. and diam \_\_\_\_\_

Internal diameter \_\_\_\_\_ Inner radius of crown \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

stays \_\_\_\_\_ Size of doubling plate under dome \_\_\_\_\_ Diameter of rivet holes and \_\_\_\_\_

How connected to shell \_\_\_\_\_

of rivets in outer row in dome connection to shell \_\_\_\_\_

Type of Superheater \_\_\_\_\_ 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 \_\_\_\_\_

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 \_\_\_\_\_

Rules \_\_\_\_\_ Pressure to which the safety valves are adjusted \_\_\_\_\_ Hydraulic test pressure \_\_\_\_\_

tubes \_\_\_\_\_ forgings and castings \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Are drain cocks \_\_\_\_\_

valves fitted to free the superheater from water where necessary \_\_\_\_\_

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

The foregoing is a correct description, \_\_\_\_\_

Dates of Survey { During progress of work in shops - - - } \_\_\_\_\_ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) \_\_\_\_\_

while building { During erection on board vessel - - - } \_\_\_\_\_

**SEE ACCOMPANYING MACHINERY REPORT**

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 have been satisfactorily fitted on board, examined under full working conditions and found satisfactory. Safety valves adjusted under steam to 150 lbs per sq inch.*

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

Committee's Minute **GLASGOW 2 JUN 1942**

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**

*G. E. Murdoch*  
 Engineer Surveyor to Lloyd's Register of Shipping

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