

790

5a.

# REPORT ON BOILERS.

No. 65550

Received at London Office 23 JUN 1942

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

on the M.V. "British Vigilance" (Number of Visits ✓) Tons { Gross 8093 Net 4575

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

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

Made at Manchester. By whom made J. Adamson & Co. Ltd Boiler No. 96 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.

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

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

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

Clearance rods 19. 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. \_\_\_\_\_

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 \_\_\_\_\_

Stays 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 \_\_\_\_\_

Minimum pitch of stay tubes in nests \_\_\_\_\_ Pitch across wide water spaces \_\_\_\_\_ Working pressure { front. back \_\_\_\_\_

Supporters to combustion chamber tops: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Depth and thickness of girder \_\_\_\_\_

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

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 \_\_\_\_\_ At body of stay, \_\_\_\_\_ No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_

meter { Over threads \_\_\_\_\_

Working pressure by Rules \_\_\_\_\_ Screw stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_

meter { At turned off part, \_\_\_\_\_ No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_

meter { Over threads \_\_\_\_\_

See Manchester report of No. 10251

Working pressure by Rules *Are the stays drilled at the outer ends* Margin stays: Diameter *(At turned off part, or Over threads)*

No. of threads per inch *Area supported by each stay* Working pressure by Rules

**Tubes:** Material *External diameter* *(Plain Stay)* Thickness *No. of threads per inch*

Pitch of tubes *Working pressure by Rules* **Manhole compensation:** *Size of opening*

shell plate *Section of compensating ring* No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends *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*

stays *Inner radius of crown* Working pressure by Rules *of rivets in outer row in dome connection to shell*

How connected to shell *Size of doubling plate under dome* *Diameter of rivet holes and*

**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 casing 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,*

*See Manchester Report No. 10951*

Dates of Survey *(During progress of work in shops - -) (During erection on board vessel - - -)*

Are the approved plans of boiler and superheater forwarded herewith *(If not state date of approval.)*

**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

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

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

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**

