

REPORT ON BOILERS.

No. 14667

Received at London Office

26 DEC 1948

by Rules... Writing Report 19 When handed in at Local Office 19 Port of **Delft**
 by Rules... Actual... Survey held at **Delft** Date, First Survey **2nd September** Last Survey **16th Nov.** 19**48**
 by Rules... Actual... on the **Motor Tanker "British Mariner" 1378 G** (Number of Visits **24**) Gross **8548** Tons Net
 Built at **Glasgow** By whom built **Harland & Wolff** Yard No. **13489** When built **1948**
 Made at **Glasgow** By whom made **Harland & Wolff** Engine No. **13489** When made **1948**
 Made at **Delft** By whom made **Harland & Wolff, Ltd.** Boiler No. **13786** When made **1948**
 at Horse Power Owners **British Tanker Co. Ltd.** Port belonging to **London**

WATER TUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel **Crabtree** (Letter for Record **S**)
 Heating Surface of Boilers **2047 x 2 sq. ft.** Is forced draught fitted **Yes** Coal or Oil fired **Oil & gas**
 and Description of Boilers **2 Cylindrical smoke tube type** Working Pressure **150 lbs. sq. in.**
 Tested by hydraulic pressure to **275 lbs.** Date of test **3. 11. 48.** No. of Certificate **1409.** Can each boiler be worked separately **Yes**
 of Firegrate in each Boiler **1** No. and Description of safety valves to each boiler **1-2 1/4 dia improved high lift double safety valve.**
 of each set of valves per boiler **per Rule 7.75 sq. in.** Pressure to which they are adjusted **150 lbs. sq. in.** Are they fitted with easing gear **Yes**
 Use of donkey boilers, state whether steam from main boilers can enter the donkey boiler **Yes**
 Smallest distance between boilers or uptakes and bunkers or woodwork **Yes** Is oil fuel carried in the double bottom under boilers **Yes**
 Smallest distance between shell of boiler and tank top plating **Sufficient** Is the bottom of the boiler insulated **Yes**
 Test internal dia. of boilers **12' 10 3/16"** Length **11' 6"** Shell plates: Material **Steel** Tensile strength **29-33 tons**
 Thickness **29/32"** Are the shell plates welded or flanged **No** Description of riveting: circ. seams **end** **DR.**
 Seams **TRDBS.** Diameter of rivet holes in **circ. seams 1 3/32"** Pitch of rivets **3.05"**
 Percentage of strength of circ. end seams **plate 64.5.** Percentage of strength of circ. intermediate seam **plate**
 rivets **53.0** Working pressure of shell by Rules **155 lbs.**
 Percentage of strength of longitudinal joint **plate 84.3.** rivets **104.** combined **89.3.**
 Thickness of butt straps **outer 23/32"** No. and Description of Furnaces in each Boiler **2 Dighton.**
 inner **27/32"** Tensile strength **26-30 tons** Smallest outside diameter **3'-8"**
 Material **Steel** Thickness of plates **crown 1/2"** Description of longitudinal joint **Forced Weld.**
 Thickness of plain part **bottom 1/2"** Working pressure of furnace by Rules **163 lbs. sq. in.**
 Extensions of stiffening rings on furnace or c.c. bottom **Yes** Thickness **15/16"** Pitch of stays **16" x 15"**
 Plates in steam space: Material **Steel** Tensile strength **26-30 tons** Working pressure by Rules **As approved.**
 Are stays secured **Nuts in and out.** Working pressure by Rules **As approved.**
 Front plates: Material **front Steel** Tensile strength **26-30 tons** Thickness **7/8"**
 back **Steel** Pitch across wide water spaces **13 1/2"** Working pressure **front As approved.**
 back **As approved.**
 Pitch of stay tubes in nests **8 5/16"** Tensile strength **28-32 tons** Depth and thickness of girder
 Material **Steel** Distance apart **9 3/8"** No. and pitch of stays
 centre **9 1/2" x 1 1/32"** Length as per Rule **32 1/2"** Working pressure by Rules **As approved.** Combustion chamber plates: Material **Steel**
 each **Welded** Thickness: Sides **3/4"** Back **3/4"** Top **3/4"** Bottom **3/4"**
 Tensile strength **26-30 tons** Are stays fitted with nuts or riveted over **at shell. Others Welded**
 Thickness of stays to ditto: Sides **8 1/2" x 8 1/2" x 9"** Back **8 1/4" x 9 1/2"** Top **Yes**
 Working pressure by Rules **As approved** Front plate at bottom: Material **Steel** Tensile strength **26-30 tons**
 Thickness **7/8"** Lower back plate: Material **Steel** Tensile strength **26-30 tons** Thickness **15/16"**
 Thickness of stays at wide water space **16 1/4" x 9 1/2"** Are stays fitted with nuts or riveted over **Needed.**
 Working Pressure **As approved.** Main stays: Material **Steel** Tensile strength **28-32 tons**
 At body of stay, **2 3/4"** No. of threads per inch **6.** Area supported by each stay **Various**
 Over threads **As approved** Screw stays: Material **Steel** Tensile strength **26-30 tons**
 At turned off part, **1 1/2"** No. of threads per inch **9.** Area supported by each stay **9 1/2" x 8 1/4"**
 Over threads **Welded in Combustion Chambers.**

Working pressure by Rules *As approved* Are the stays drilled at the outer ends ☒ Margin stays: Diameter { At turned off part, or Over threads } *1 3/4" x 2*
No. of threads per inch *Welded* Area supported by each stay *14" x 9 1/2"* Working pressure by Rules *As approved*
Tubes: Material *H.P.S.* External diameter { Plain *2 1/2"* Stay *2 1/2"* Thickness { *10 LSG.* } No. of threads per inch *9*
Pitch of tubes *3 3/4" x 3 5/8"* Working pressure by Rules *As approved* Manhole compensation: Size of opening *Welded to 8"*
shell plate *13 3/4"* Section of compensating ring *2'-8" x 2'-4" x 7/8"* 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 of rivets in outer row in dome connection to shell ☒
How connected to shell ☒ Size of doubling plate under dome ☒ Diameter of rivet holes 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 from the boiler?
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 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,
[Signature]

Dates of Survey { During progress of work in shops - *Sept. 2, 21, 22, 24, 27, 28, 29, 30* } Are the approved plans of boiler and superheater forwarded herewith *No.*
while building { During erection on board vessel - *Oct. 5, 8, 11, 13, 18, 19, 20, 21, 22, 23, 25, 26, 27, 29, 30* } (If not state date of approval.)
Total No. of visits *10.5.47*
14.6.47

Is this Boiler a duplicate of a previous case *No* If so, state Vessel's name and Report No. *No. 1362 G. REPORT No. 14543. BRITISH SECURITY. RPT No. 14587. JALTA BRITISH STRENGTH. 14623. 14660.*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been built under special survey in accordance with the Rules and approved plan. The materials and workmanship are good. They have been despatched to Glasgow for installation in the vessel.

These boilers have now been installed in the above vessel, seen under steam, evaporative test carried out as per Rules. Safety valves adjusted to 150 lbs/sq. in.

[Signature]
Glasgow
Dec/48.

Survey Fee ... £ *68. 4. :* When applied for, *3/12/ 1948*
Travelling Expenses (if any) £ : : When received, *19*

Committee's Minute *GLASGOW 18 JAN 1949*

Assigned *SEE ACCOMPANYING MACHINERY REPORT.*

Engineer Surveyor to Lloyd's Register of Shipping



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