

REPORT ON BOILERS.

No. 82273

Received at London Office

Writing Report 10 - 1 - 1928 When handed in at Local Office 13 - 1 - 1928 Port of Newcastle-on-Tyne 23 JAN 1928

Survey held at Garrow Date, First Survey 27 April 1927 Last Survey 12 Jan 1928

on the M.V. "BRITISH LOYALTY"

(Number of Visits) Gross 6950
Tons Net 4080

Built at Hebburn By whom built Palmers Co. Ltd. Yard No. 969 When built 1928

Engines made at Wintertur By whom made Sulzer Bros. Engine No. 5678 When made 1928

Boilers made at Garrow By whom made Palmers Co. Ltd. Boiler No. 969 When made 1928

Horse Power 748 Owners Tankers Ltd. Port belonging to London

TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Company of Scotland Ltd. (Letter for Record (S))

Heating Surface of Boilers 2660 Is forced draught fitted YES Coal or Oil fired OIL

No. and Description of Boilers 2 SINGLE ENDED Working Pressure 150 LBS.

Tested by hydraulic pressure to 275 LBS. Date of test 17-8-27 No. of Certificate 186-187 Can each boiler be worked separately YES

No. and Description of safety valves to each boiler 2 SPRING LOADED

Pressure to which they are adjusted 150 LBS. Are they fitted with easing gear YES

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

Least distance between boilers or uptakes and bunkers or woodwork 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 11' 6" Length 11' 6 1/2" Shell plates: Material STEEL Tensile strength 28-32 TONS

Are the shell plates welded or flanged No Description of riveting: circ. seams D.R.

Diameter of rivet holes in circ. seams 1 1/16" Pitch of rivets 3-2559"

Percentage of strength of circ. end seams plate 67.3% rivets 51.4%

Percentage of strength of longitudinal joint plate 80.0% rivets 83.4%

Working pressure of shell by Rules 153 LBS.

Thickness of butt straps outer 9/16" inner 11/16" No. and Description of Furnaces in each Boiler 2 DEIGHTON SECTION

Tensile strength 26-30 TONS Smallest outside diameter 3' 4 3/8"

Thickness of plates crown 7/16" bottom 7/16" Description of longitudinal joint WELD

Working pressure of furnace by Rules 154 LBS.

Plates in steam space: Material STEEL Tensile strength 26-30 TONS Thickness 15/16" Pitch of stays 17" x 15"

Working pressure by Rules 157 LBS.

Tensile strength 26-30 TONS Thickness 25/32" 23/32"

Working pressure front 180 LBS. back 166

Pitch of stay tubes in nests 10.5" Pitch across wide water spaces 14-25"

Tensile strength 26-30 TONS Depth and thickness of girder

Centre 8" x 1 1/4" Length as per Rule 2' 7 1/16" Distance apart 8 1/2" No. and pitch of stays

Working pressure by Rules 162 LBS. Combustion chamber plates: Material STEEL

Tensile strength 26-30 TONS Thickness: Sides 21/32" Back 3/4" Top 21/32" Bottom 21/32"

Are stays fitted with nuts or riveted over RIVETED

Working pressure by Rules 152 LBS. Front plate at bottom: Material STEEL Tensile strength 26-30

Thickness 25/32" Lower back plate: Material STEEL Tensile strength 26-30 TONS Thickness 21/32"

Are stays fitted with nuts or riveted over NUTS

Working Pressure 159 LBS. Main stays: Material STEEL Tensile strength 28-32 TONS

No. of threads per inch 6 Area supported by each stay 255

Working pressure by Rules 154 LBS. Screw stays: Material W. IRON Tensile strength 23 TONS

No. of threads per inch 9 Area supported by each stay 80

At turned off part, Over threads 1 1/2"

At body of stay, Over threads 2 3/8"

At turned off part, Over threads 1 1/2"

At body of stay, Over threads 2 3/8"

At turned off part, Over threads 1 1/2"

Working pressure by Rules 157 LBS. Are the stays drilled at the outer ends ☒ No Margin stays: Diameter $\left\{ \begin{array}{l} \text{At turned off part.} \\ \text{Over threads} \end{array} \right. 1\frac{1}{4}" , 1\frac{3}{4}" , 1\frac{7}{8}"$
No. of threads per inch 9 Area supported by each stay $130.78" , 111.25" , 96.25"$ Working pressure by Rules $163 , 163 , 158 \text{ LBS}$
Tubes: Material $W. I.$ External diameter $\left\{ \begin{array}{l} \text{Plain} \\ \text{Stay} \end{array} \right. 3" \checkmark$ Thickness $\left\{ \begin{array}{l} 9 \text{ L.S.G.} \\ 3\frac{3}{8}" , 5\frac{5}{16}" \end{array} \right. \checkmark$ No. of threads per inch 9 **Manhole compensation:** Size of open
Pitch of tubes $4\frac{1}{8}" \times 4\frac{1}{4}"$ Working pressure by Rules 190 LBS. No. of rivets and diameter of rivet holes $40 @ 1\frac{1}{4}"$
shell plate $20' \times 16'$ Section of compensating ring $2' 6" \times 2' 9" \times \frac{7}{8}"$ **Steam Dome:** Material
Outer row rivet pitch at ends $5\frac{3}{8}"$ Depth of flange if manhole flanged $3\frac{1}{4}"$
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes Pitch of rivets Percentage of strength of joint $\left\{ \begin{array}{l} \text{Plate} \\ \text{Rivets} \end{array} \right.$
Internal diameter Working pressure by Rules Thickness of crown No. and diam
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes and
of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel castings} \end{array} \right.$
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 castings and after assembly in place Are drain cocks or valves
to free the superheater from water where necessary
Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with ☒ YES

The foregoing is a correct description,
Palmers Shipbuilding & Iron Co., Ltd. Manufac

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of} \\ \text{work in shops} \end{array} \right. - -$
while building $\left\{ \begin{array}{l} \text{During erection on} \\ \text{board vessel} \end{array} \right. - - -$

See Index Report

Are the approved plans of boiler and superheater forwarded herewith
W. Brown
Manager, Engine Works

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under Special Survey, the materials and workmanship are good.*

Survey Fee £ 17 : 17 :
Travelling Expenses (if any) £ : : :

When applied for, *21 JAN. 1928*
When received, *26-28 FEB 1928*

Thomas Napier

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUES. 31 JAN 1928

Assigned

See J.C. apt attached



© 2020

Lloyd's Register
Foundation