

## REPORT ON BOILERS.

No. 81352

Received at London Office 19 MAY 1927

16.17.23.

28. Nov. 24.

0. 21.22.28.

Date of writing Report 14 May 1927 When handed in at Local Office

18/51

Port of

NEWCASTLE-ON-TYNE

No. in  
eq. Book.

Survey held at Walker on Tyne

Date, First Survey 16 May

Last Survey 12 May 1927

(Number of Visits — ) Gross 6917.37  
Tons Net 4142.63

on the STEEL SCREW STEAMER BRITISH COLONY

4.3.27

Master

Built at Walker

By whom built S H + W R Ltd

Yard No. 1224 When built 1927.5

27. 27.1.27

Engines made at Walker

By whom made Susan Hunter &amp; Richardson Ltd

Engine No. 1224 When made 1927.5

27. 27.1.27

Boilers made at Walker

By whom made Susan Hunter &amp; Richardson Ltd

Boiler No. 1224 When made 1927.5

4.4.27

Nominal Horse Power

585 584

Owners British Tanker Co Ltd

Port belonging to London

1927

1927

13.7.26

11.04.26

12.5.26

30. April 27

28 April 27

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Slater, B.S. David Calver &amp; Sons Ltd

Manufacturers of Steel Steel Company of Scotland Ltd

(Deighton Furnace Co Ltd)

(Letter for Record S)

Total Heating Surface of Boilers 8634 sq ft

Is forced draught fitted yes

Coal or Oil fired oil

No. and Description of Boilers 3 SE. CYL. MULTITUBULAR

Working Pressure 200 lb

Tested by hydraulic pressure to 350 lb Date of test 24.9.26 No. of Certificate 120

Can each boiler be worked separately yes

Area of Firegrate in each Boiler oil fuel No. and Description of safety valves to each boiler 2 direct spring high lift

Area of each set of valves per boiler per Rule 13.24

as fitted 14.14 Pressure to which they are adjusted 205 lb

Are they fitted with easing gear yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler N R V.

Smallest distance between boilers or uptakes and bunkers or woodwork 1'-0"

Is oil fuel carried in the double bottom under boilers yes

Smallest distance between shell of boiler and tank top plating 2'-3"

Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 15.9 9/16 Length 12'-0"

Shell plates: Material Steel

Tensile strength 30/34 tons

Thickness 1 1/32 Are the shell plates welded or flanged no

Description of riveting: circ. seams end DR Lap

Long. seams T.R.D.B.S Diameter of rivet holes in circ. seams 1 1/2

Pitch of rivets 4.68

Percentage of strength of circ. end seams plate 67.94%

Percentage of strength of circ. intermediate seam plate 85.33%

Percentage of strength of longitudinal joint rivets 43.08%

Working pressure of shell by Rules 200 lb

Percentage of strength of longitudinal joint rivets 84.71%

Working pressure of shell by Rules 200 lb

Percentage of strength of longitudinal joint combined 87.60%

Working pressure of shell by Rules 200 lb

Thickness of butt straps outer 1 1/32 inner 1 5/32

No. and Description of Furnaces in each Boiler 4 Deighton Corrugated

Material Steel Tensile strength 26/30 tons

Smallest outside diameter 3' 2 3/4"

Length of plain part top bottom Thickness of plates crown 9/16 bottom

Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom

Working pressure of furnace by Rules 210 lb

End plates in steam space: Material Steel Tensile strength 26/30 tons

Thickness 1 1/4 Pitch of stays 21 3/8 x 16 1/2

How are stays secured Double nuts and washers

Working pressure by Rules 200 lb

Tube plates: Material Steel Tensile strength 26/30 tons

Thickness 1 1/4 Working pressure front 209 lb back 229 lb

Lean pitch of stay tubes in nests 1 9 3/8 Pitch across wide water spaces 13 1/2

Working pressure front 209 lb back 229 lb

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 tons

Depth and thickness of girder

Centre 9 5/8 x 13 3/8 Length as per Rule 32 1/2

Distance apart 9 5/8 No. and pitch of stays

Each 3 7/8 pitch Working pressure by Rules 203 lb

Combustion chamber plates: Material Steel

Tensile strength 26/30 tons Thickness: Sides 1 1/16 Back 1 3/4 Top 1 1/6

Are stays fitted with nuts or riveted over other stay riveted inside

Pitch of stays to ditto: Sides 8 3/8 x 9 Back 8 1/2 x 7 1/2 Top 8 x 9 3/8

Working pressure by Rules 205 lb

Working pressure by Rules 205 lb Front plate at bottom: Material Steel Tensile strength 26/30 tons

Thickness 1 1/4

Lower back plate: Material Steel Tensile strength 26/30 tons

Thickness 1 1/4

Pitch of stays at wide water space 13 1/2 x 7 1/2

Are stays fitted with nuts or riveted over marginal stay riveted off back

Working Pressure 282 lb Main stays: Material Steel Tensile strength 28/32 tons

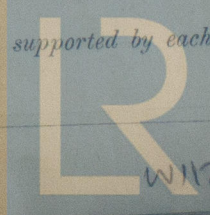
Thickness 1 1/4

Diameter At body of stay 3 3/8 No. of threads per inch 6 Area supported by each stay (20 7/8 x 17) - 6.6

Working pressure by Rules 212 lb Screw stays: Material Steel Tensile strength 26/30 tons

Diameter At turned off part 1 5/8 No. of threads per inch 9 Area supported by each stay (9 x 8 3/8) - 1.73

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Working pressure by Rules *206 lb* Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, or Over threads *1 3/4"* ✓  
 No. of threads per inch *9* ✓ Area supported by each stay *(11 7/16 x 7 1/2") - 2"* Working pressure by Rules *216 lb* ✓  
 Tubes: Material *iron* ✓ External diameter { Plain *2 1/2"* ✓ Thickness { *9 W G* ✓ No. of threads per inch *9* ✓  
 Pitch of tubes *3 3/4"* ✓ Working pressure by Rules *200 lb* ✓ Manhole compensation: Size of opening in  
 shell plate *20" x 16"* ✓ Section of compensating ring *3' 5 7/8 x 2' 11 7/8 x 1 3/2"* No. of rivets and diameter of rivet holes *32 dia of holes 1 9/16"* ✓  
 Outer row rivet pitch at ends *10 7/8"* ✓ Depth of flange if manhole flanged *2 3/4 x 1 3/2"* ✓ 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  
 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 Manufacturers of { Tubes 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: Tested by hydr  
 tubes , 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 14 to 23 inclusive for boilers been complied with  
 The foregoing is a correct description

Dates of Survey { During progress of work in shops - - }  
 while building { During erection on board vessel - - }

*See mch Report*

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

Total No. of visits

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

*The boilers built and fitted up on board the vessel under Special Survey  
 The material and workmanship found good and efficient.*

*See mch report on mch*

Survey Fee ... .. £ : : }

Travelling Expenses (if any) £ : : }

When applied for, 192

When received, 192

FRI. 20 MAY 1927

Committee's Minute

Assigned

*See NWC P.E. rpt. attached*

*L. G. Shallowcross*

Engineer Surveyor to Lloyd's Register of Shipping



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