

# REPORT ON BOILERS.

26 MAY 1943

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No. in Reg. Book. Survey held at Clydebank Date, First Survey 28th May 1942 Last Survey 8th March 1943

on the **3/5 ASHANTIAN** (Number of Visits 123) (Gross 5123 Tons) 2855

Master Newcastle Built at Glasgow By whom built Shipbuilding Corporation (Type Brand) Yard No. 14 When built

Engines made at Newcastle By whom made North Eastern Marine Eng Works Contract No. 3121 Engine No. 496 When made

Boilers made at Clydebank By whom made John Brown & Co. L<sup>d</sup> Boiler No. A.63 When made

Nominal Horse Power Owners UNITED AFRICA CO LTD Port belonging to ordered by A/MS/M.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel **Bolvilles L<sup>d</sup>** (Letter for Record **S**)

Total Heating Surface of Boilers **5920** Is forced draught fitted **Yes** Coal or Oil fired **Coal**

No. and Description of Boilers **2 - Multitubular** Working Pressure **220**

Tested by hydraulic pressure to **380** Date of test **1-3-43** No. of Certificate **21830** Can each boiler be worked separately

Area of Firegrate in each Boiler **66.64** No. and Description of safety valves to each boiler **2 - 3 1/4" S.F.**

Area of each set of valves per boiler {per Rule **15.74** as fitted **16.58**"} Pressure to which they are adjusted Are they fitted with easing gear **Yes**

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

Smallest distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Largest internal dia. of boilers **16'-1 29/64"** Length **12'-0 15/16"** Shell plates: Material **S** Tensile strength **29-33**

Thickness **1 35/64"** Are the shell plates welded or flanged **No** Description of riveting: circ. seams {end **J.R.** inter. **hil**

long. seams **T.R.I.B.S.** Diameter of rivet holes in {circ. seams **B.1 7/8 F 1 3/8** long. seams **1 9/16"** Pitch of rivets {**B.4-196" F 3.4"** **10 13/16"**

Percentage of strength of circ. end seams {plate **F60 B62.7** rivets **44.7** } Percentage of strength of circ. intermediate seam {plate **85.5** rivets **4.7** }

Percentage of strength of longitudinal joint {plate **85.26** rivets **88.13** } Working pressure of shell by Rules **✓**

Thickness of butt straps {outer **1 1/64"** inner **1 19/64"** } No. and Description of Furnaces in each Boiler **4 - Deighton**

Material **S** Tensile strength **26-30** Smallest outside diameter **3'-5 1/4"**

Length of plain part {top **✓** bottom **✓** } Thickness of plates {crown **5/8"** bottom **5/8"** } Description of longitudinal joint **weld**

Dimensions of stiffening rings on furnace or c.c. bottom **None** Working pressure of furnace by Rules **✓**

End plates in steam space: Material **S** Tensile strength **26-30** Thickness **1 13/32"** Pitch of stays **20.5"**

How are stays secured **J.N.** Working pressure by Rules **✓**

Tube plates: Material {front **S** back **S** } Tensile strength {**26-30** } Thickness {**15/16"** **25/32"** }

Mean pitch of stay tubes in nests **10" 9.61** Pitch across wide water spaces **14"** Working pressure {front **✓** back **✓** }

Girders to combustion chamber tops: Material **S** Tensile strength **26-32** Depth and thickness of girder

at centre **10" x 1 3/4"** Length as per Rule **30.6"** Distance apart **9 3/8"** No. and pitch of stays

in each **3 - 8 3/4"** Working pressure by Rules **✓** Combustion chamber plates: Material **S**

Tensile strength **26-30** Thickness: Sides **25/32"** Back **2 1/32"** Top **25/32"** Bottom **25/32"**

Pitch of stays to ditto: Sides **8 3/4" x 9 3/8"** Back **8 1/2" x 8"** Top **9 3/8" x 8 3/4"** Are stays fitted with nuts or riveted over **nuts**

Working pressure by Rules **✓** Front plate at bottom: Material **S** Tensile strength **26-30**

Thickness **15/16"** Lower back plate: Material **S** Tensile strength **26-30** Thickness **53/64"**

Pitch of stays at wide water space **13 1/2"** Are stays fitted with nuts or riveted over **nuts**

Working Pressure **✓** Main stays: Material **S** Tensile strength **28-32**

Diameter {At body of stay, **3 1/2" - 3 1/4"** } No. of threads per inch **6** Area supported by each stay **✓**

Working pressure by Rules **✓** Screw stays: Material **S** Tensile strength **26-30**

Diameter {At turned off part, **1 5/8", 1 3/4", 1 7/8", 2 1/4"** } No. of threads per inch **9** Area supported by each stay **✓**

Working pressure by Rules  Are the stays drilled at the outer ends no Margin stays: Diameter  $\left\{ \begin{array}{l} \text{At turned off part,} \\ \text{or} \\ \text{Over threads} \end{array} \right. \frac{1}{4}''$

No. of threads per inch 9 Area supported by each stay  Working pressure by Rules

Tubes: Material S External diameter  $\left\{ \begin{array}{l} \text{Plain } 3'' \\ \text{Stay } 3'' \end{array} \right.$  Thickness  $\left\{ \begin{array}{l} 8 \text{ mc.} \\ \frac{1}{4}'' \frac{5}{16}'' \frac{3}{8}'' \frac{7}{16}'' \end{array} \right.$  No. of threads per inch 9

Pitch of tubes 4 1/8" x 4 3/16" Working pressure by Rules  Manhole compensation: Size of opening in 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  $\left\{ \begin{array}{l} \text{Plate} \\ \text{Rivets} \end{array} \right.$

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  $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel forgings} \\ \text{Steel castings} \end{array} \right.$

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off 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: tubes forgings and 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 22 inclusive for boilers been complied with

*John Brown & Company Limited.*  
The foregoing is a correct description,  
*W. Brown* Manufacturer.

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

1942 May 28 Jun 1, 4, 5, 10, 11, 18, 22, 24 Jul 3, 6, 8, 10, 13, 14, 15, 17, 27, 29, 30, 31 Aug 3, 5, 7, 10, 13, 14, 18, 26, 28, 31 Sep 3, 4, 8, 9, 10, 11, 21, 22, 23, 24, 29, 30 Oct 1, 2, 5, 6, 7, 8, 9, 12, 13, 15, 16, 19, 20, 22, 23, 26, 28, 29 Nov 2, 3, 4, 6, 10, 12, 13, 16, 18, 19, 23, 24, 25, 26, 27 Dec 1, 2, 4, 5

Are the approved plans of boiler and superheater forwarded herewith no (If not state date of approval.)

Total No. of visits 123

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. "Sichui" Gls N° 63572.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been built under special survey in accordance with the approved plan and the Society's Rules and requirements the materials and workmanship are good.

The requirements of the Ministry of Shipping specification have been carried out satisfactorily

*24-5-43*

These 2 Main Boilers have been fitted on board of ASHANTIAN, Ship Corp (Tyne Branch) Yard No 144

Note. These Boilers have been allocated to Fishgown, N.E. Har. Eng. No 3126

Blackmore Engine No 496, see Fishgown

*Advised Newca July 1943*

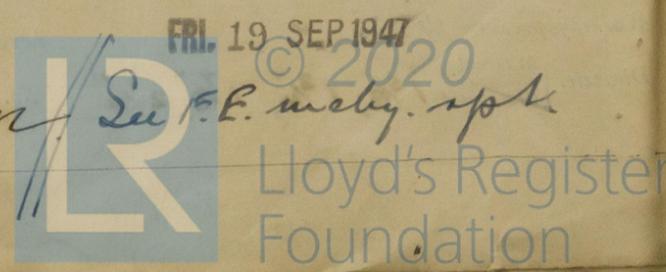
Survey Fee ... £ 32 : 5 :  
Travelling Expenses (if any) £ : :  
25% add: M.S. Spec 8-1-0

When applied for, 25 MAY 1943  
When received, 19

*Jas. Cairns.*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 25 MAY 1943

Assigned Deferred for completion



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