

MAIN.  
REPORT ON BOILERS.

No. 104651

Received at London Office

Date of writing Report 15-7-47

When handed in at Local Office 7. 8. 19 47

Port of NEWCASTLE-ON-TYNE

No. in Reg. Book. Survey held at Wallsend

Date, First Survey 6/8/46

Last Survey 15. 7. 1947

on the S/S 'ASHANTIAN'

(Number of Visits 62)

Gross 5123

Tons Net 2855

Built at Walker (Nwc.) By whom built Ship. Corp. (Tyne Branch).

Yard No. 144

When built 1947-7-20

Engines made at Wallsend (Nwc.) By whom made N.E. Mar. Eng. Co. (1938) Ltd.

Engine No. 3121

When made 1947

Boilers made at CLYDEBANK.

By whom made John Brown &amp; Co. Ltd.

Boiler No. A63

When made 1943.

Nominal Horse Power

Owners

UNITED AFRICA Co LTD

Port belonging to

MULTITUBULAR BOILERS MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

Manufacturers of Steel

SEE GLASGOW RPT. N° 67128.

(Letter for Record S. ✓)

Total Heating Surface of Boilers

5920 sq. ft. 2219 sq. ft.

Is forced draught fitted Yes

Coal or Oil fired Oil fired. ✓

No. and Description of Boilers

2. S.B.

Working Pressure

220 LBS. ✓

Tested by hydraulic pressure to

380

Date of test

1-3-43

No. of Certificate

21339

Can each boiler be worked separately

Yes ✓

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 of 3 1/4" S.L.

Area of each set of valves per boiler

{ per Rule

15.74

{ as fitted

16.58

Pressure to which they are adjusted

225 lbs

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

18"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

24"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

16'-1 3/4"

Length

12'-0 1/16"

Shell plates: Material

Tensile strength

Thickness

Are the shell plates welded or flanged

Description of riveting: circ. seams { end

{ inter.

long. seams

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

Thickness of butt straps {

{ outer

{ inner

No. and Description of Furnaces in each Boiler

4 Cf. Deighton

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

End plates in steam space: Material

Tensile strength

Thickness

Pitch of stays

How are stays secured

Tube plates: Material {

{ front

{ back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

Pitch across wide water spaces

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder

at centre

Length as per rule

Distance apart

No. and pitch of stays

in each

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto

Back

Top

Are stays fitted with nuts or riveted over

Front plate at bottom: Material

Tensile strength

Thickness

Lower back plate: Material

Tensile strength

Thickness

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

Main stays: Material

Tensile strength

Diameter {

{ At body of stay,

{ or

{ Over threads

No. of threads per inch

Screw stays: Material

Tensile strength

Diameter {

{ At turned off part

{ or

{ Over threads

No. of threads per inch

FOR SUPERHEATERS.

CONTD. OVER



Are the stays drilled at the outer ends

FOR SUPERHEATERS.

Margin stays: Diameter { At turned off part, or Over threads

No. of threads per inch

Tubes: Material

External diameter { Plain Stay

Thickness {

No. of threads per inch

Manhole compensation: Size of opening in

Pitch of tubes

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

Thickness of crown

No. and diameter of

stays

Inner radius of crown

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

N.E. MAR. SMOKETUBE TYPE

Manufacturers of

Tubes

Tubes Lts

Steel forgings

applied + Frodingham Street Co.

Steel castings

Internal diameter and thickness of tubes 17" m.m. x 2" m.m.

Number of elements

128

Material of tubes

S.D. STEEL

Material of headers

Woot Steel

Tensile strength

26 to 30 tons

Thickness

7/8"

Can the superheater be shut off and

the boiler be worked separately

Yes

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Yes

Area of each safety valve

3.14 sq. ft.

Are the safety valves fitted with easing gear

Yes

Pressure to which the safety valves are adjusted

230 lbs

Hydraulic test pressure:

tubes

1500 lbs

forgings and castings

660 lbs

and after assembly in place

440 lbs

Are drain cocks or

valves fitted to free the superheater from water where necessary

Yes

Spt. Heating Surface, 2210 sq. ft.

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

Yes

FOR SUPERHEATERS ONLY.

THE NORTH EASTERN MARINE ENGINEERING CO. LTD.

The foregoing is a correct copy of the

Manufacturer.

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

See Machinery Report

Are the approved plans of boiler and superheater forwarded herewith

No

(If not state date of approval.)

Sptn. N.E. Mar. Standard.

Total No. of visits

Is this Boiler a duplicate of a previous case

Yes

If so, state Vessel's name and Report No.

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

These 2 main Boilers, build at Clydebank by Messrs John Brown & Co. Ltd. - have been fitted with Smoketube type Superheaters at Wallsend, made & fitted by N.E. Mar. Eng. Wks. The Boilers were efficiently fitted on board and satisfactorily tested under steam under working conditions

See also Machinery Rpt 4.

Survey Fee ... .. £

When applied for, 19

Travelling Expenses (if any) £

When received, 19

A. Watt

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 19 SEP 1947

Assigned

See F.F. Mch. rpt.



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