

REPORT ON BOILERS.

No. 20695

Date of writing Report

9th Feb. 1939

When handed in at Local Office

9th Feb. 1939

Port of

Received at London Office

FEB 15 1939

No. in Survey held at

Greenock

Date, First Survey

2ND SEPT. 1938

Last Survey

3rd Feb.

1939

Reg. Book

7047 on the

Tw. Sc.

M. V. "AFRICA SHELL"

(Number of Visits)

Gross 705.82

Net 332.25

Master

Built at

Greenock

By whom built

Geo. Brown & Co. Ltd.

Yard No 207

When built 1939-2

Engines made at

Amsterdam

By whom made

N. V. Werkspoor

Engine No. 782/3

When made 1938

Boilers made at

Barfin, Glasgow

By whom made

Alex. Anderson & Sons

Boiler No. 3507

When made 1938

Nominal Horse Power

162

Owners Shell Co. of East Africa Ltd.

Port belonging to

London

(Anglo-African Petroleum Co. Ltd. Agents)

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

G.S. Rpt. 60231

(Letter for Record)

S

Total Heating Surface of Boilers

80

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

One - cylindrical single ended

Working Pressure

180 lb./sq. in.

Tested by hydraulic pressure to

G.S.

Date of test

Rpt. No. of Certificate

60231

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two - Spring loaded

Area of each set of valves per boiler

per Rule

3.9 sq. ft.

as fitted

6.28 sq. ft.

Pressure to which they are adjusted

180 lb./sq. in.

Are they fitted with easing gear

Yes

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

No main boilers

Smallest distance between boilers or uptakes and bunkers or woodwork

Well clear

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Open floor

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

Length

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

Working pressure of shell by Rules

Thickness of butt straps

outer

inner

No. and Description of Furnaces in each Boiler

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

Working pressure of furnace by Rules

End plates in steam space: Material

Tensile strength

Thickness

Pitch of stays

How are stays secured

Working pressure by Rules

Tube plates: Material

front

back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

Pitch across water spaces

Working pressure

front

back

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

Working pressure by Rules

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

Working pressure by Rules

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

Working Pressure

Main stays: Material

Tensile strength

Diameter

At body of stay

Over threads

No. of threads per inch

Area supported by each stay

Working pressure by Rules

Screw stays: Material

Tensile strength

Diameter

At turned off part

Over threads

No. of threads per inch

Area supported by each stay

W430-0203

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Lloyd's Register
Foundation

Working pressure by Rules
No. of threads per inch
Tubes: Material
Pitch of tubes
shell plate
Outer row rivet pitch at ends
Tensile strength
Diameter of rivet holes
Internal diameter
stays
How connected to shell
of rivets in outer row in dome connection to shell

Are the stays drilled at the outer ends
Area supported by each stay
External diameter
Working pressure by Rules
Section of compensating ring
Depth of flange if manhole flanged
Thickness of shell
Pitch of rivets
Working pressure by Rules
Inner radius of crown
Size of doubling plate under dome

Margin stays: Diameter
Working pressure by Rules
Thickness
No. of threads per inch
Manhole compensation: Size of opening in
No. of rivets and diameter of rivet holes
Steam Dome: Material
Description of longitudinal joint
Percentage of strength of joint
Thickness of crown
Working pressure by Rules
Diameter of rivet holes and pitch

At turned off part,
or
Over threads

Type of Superheater
Number of elements
Material of headers
the boiler be worked separately
Area of each safety valve
Rules
tubes
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

Manufacturers of
Tubes
Steel forgings
Steel castings
Internal diameter and thickness of tubes
Thickness
Can the superheater be shut off and
Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
Are the safety valves fitted with easing gear
Working pressure as per
Hydraulic test pressure:
Are drain cocks or
and after assembly in place

Tensile strength
Pressure to which the safety valves are adjusted
forgings and castings
during fitting out

The foregoing is a correct description,
Manufacturer.

Dates of Survey while building
During progress of work in shops - -
During erection on board vessel - -
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
Total No. of visits

Is this Boiler a duplicate of a previous case No If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been properly fitted on board, examined under steam & safety valves adjusted as above.

Survey Fee ... £ : : } When applied for, 19
Travelling Expenses (if any) £ : : } When received, 19

R. Boyle
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 14 FEB 1939
Assigned SEE ACCOMPANYING MACHINERY REPORT.