

REPORT ON BOILERS.

No. 20695

Date of writing Report 9th Feb. 1939 When handed in at Local Office 9th Feb. 1939 Port of GREENOCK. Received at London Office FEB 15 1939

No. in Reg. Book 7047 Survey held at Greenock Date, First Survey 2ND SEPT. 1938. Last Survey 3rd Feb. 1939
Tons 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 Coy. of East Africa Ltd. Port belonging to London.
(Anglo-African Petroleum Co. Ltd. Agents.)

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Geo. 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 lbs./sq. in.

Tested by hydraulic pressure to 80. 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 ins.² ✓ as fitted 6.28 ins.² Adjusting Number: 1 1/2" P. 3/4" S. Pressure to which they are adjusted 180 lbs./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 _____

At body of stay, _____ Diameter {Over threads} _____ No. of threads per inch _____ Area supported by each stay _____

Working pressure by Rules _____ Screw stays: Material _____ Tensile strength _____

At turned off part, _____ Diameter {Over threads} _____ No. of threads per inch _____ Area supported by each stay _____



Working pressure by Rules *Are the stays drilled at the outer ends* Margin stays: Diameter { *At turned off part,*
or
Over threads } Working pressure by Rules
No. of threads per inch Area supported by each stay Thickness { No. of threads per inch
Tubes: Material External diameter { *Plain*
Stay } Working pressure by Rules Manhole compensation: Size of opening in
Pitch of tubes Section of compensating ring No. of rivets and diameter of rivet holes
shell plate Depth of flange if manhole flanged Steam Dome: Material
Outer row rivet pitch at ends Thickness of shell Description of longitudinal joint
Tensile strength Pitch of rivets Percentage of strength of joint { *Plate*
Rivets }
Diameter of rivet holes Working pressure by Rules Thickness of crown No. and diameter of
Internal diameter Inner radius of crown Working pressure by Rules
stays 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 forgings
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:
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 *being fitted out* been complied with *yes*
The foregoing is a correct description,
Manufacturer.

Dates of Survey { *During progress of*
work in shops - - } Are the approved plans of boiler and superheater forwarded herewith
while { *During erection on*
board vessel - - - } (If not state date of approval.)
building 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

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

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

