

REPORT ON BOILERS.

No. 67107

Received at London Office 26 MAY 1943

Date of writing Report

19

When handed in at Local Office

24.5 1943

Port of

Glasgow

No. in Survey held at

Glasgow

Date, First Survey

1st Oct 1941

Last Survey

18th May 1943

Reg. Book.

(Number of Visits 86)

Gross

Tons

Net

on the

M/V.

"SOCOTRA"

Built at

Glasgow

By whom built

Barclay Curle & Co. Ltd.

Yard No. 691

When built

1943

Engines made at

Glasgow

By whom made

-do-

Engine No. 691

When made

1943

Boilers made at

-do-

By whom made

-do-

Boiler No. 691

When made

1943

Nominal Horse Power

1721

Owners

P. & O. Steam Nav. Co. Ltd.

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colvilles, Ltd.

(Letter for Record S)

Total Heating Surface of Boilers

4559 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Oil & Gas

No. and Description of Boilers

One Oil Fired & Exhaust Gas

Working Pressure

120 lb.

Tested by hydraulic pressure to

230 lb.

Date of test

26-10-42

No. of Certificate

21232

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

-

No. and Description of safety valves to each boiler

1-3 3/4" L.H.L. donkey

Area of each set of valves per boiler

per Rule 210"

as fitted 220"

Pressure to which they are adjusted

120 lb.

Are they fitted with easing gear

Yes

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

Yes

Smallest distance between boilers or uptakes and bunkers or woodwork

will clear

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

16'-0"

Length

11'-9"

Shell plates: Material

S

Tensile strength

29/33 tons

Thickness

7/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end donkey

long. seams

DBS. TR.

Diameter of rivet holes in

circ. seams 1"

long. seams 15/16"

Pitch of rivets

3-29"

Percentage of strength of circ. end seams

plate 69.6

rivets 43.2

Percentage of strength of circ. intermediate seam

plate

Percentage of strength of longitudinal joint

plate 86.3

rivets 85.2

combined 84.8

Thickness of butt straps

outer 11/16"

inner 13/16"

No. and Description of Furnaces in each Boiler

2 Deighton

Material

S

Tensile strength

26/30 tons

Smallest outside diameter

39 1/4"

Length of plain part

top

Thickness of plates

crown 3/8"

bottom

Description of longitudinal joint

welded

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

End plates in steam space: Material

S

Tensile strength

26/30 tons

Thickness

1 3/32"

Pitch of stays

21" x 21 1/2"

How are stays secured

D.M.

Tube plates: Material

front S

back

Tensile strength

26/30 tons

Thickness

11/16"

Mean pitch of stay tubes in nests

7.94"

Pitch across wide water spaces

13 1/2"

Girders to combustion chamber tops: Material

S

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

2 @ 8 1/2" x 11/16"

Length as per Rule

34 23/32"

Distance apart

9 1/2" W 8 1/2" C

No. and pitch of stays

in each

2 @ 11"

Combustion chamber plates: Material

S

Tensile strength

26/30 tons

Thickness: Sides

2 1/32"

Back

19/32"

Top

2 1/32"

Bottom

2 1/32"

Pitch of stays to ditto: Sides

11" x 11 1/4"

Back

10" x 10"

Top

11" x 9 1/2" x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Front plate at bottom: Material

S

Tensile strength

26/30 tons

Thickness

11/16"

Lower back plate: Material

S

Tensile strength

26/30 tons

Thickness

2 1/32"

Pitch of stays at wide water space

13 1/2"

Are stays fitted with nuts or riveted over

nuts

Main stays: Material

S

Tensile strength

28/32 tons

Diameter

At body of stay, 2 5/8"

or Over threads

No. of threads per inch

6

Screw stays: Material

S

Tensile strength

26/30 tons

Diameter

At turned off part, 1 1/2"

or Over threads

No. of threads per inch

9

Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 5/8" + 1 3/4"
or Over threads
No. of threads per inch 9
Tubes: Material 5 External diameter { Plain 2 1/2" + 1 3/4" Thickness { 1 1/4" W.G. No. of threads per inch 9
Stay 2 1/2" 1 1/4" + 5/16"
Pitch of tubes 3 3/4" x 3 3/4" Manhole compensation: Size of opening in
shell plate 20" x 16" Section of compensating ring 9 1/2" x 7/8" No. of rivets and diameter of rivet holes 40 @ 1 1/8"
Outer row rivet pitch at ends 7 1/2" Depth of flange if manhole flanged 3 1/4" 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 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
Pressure to which the safety valves are adjusted
tubes forgings and castings and after assembly in place
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 Yes



The foregoing is a true and correct description,
Albion Macmillan Manufacturer.

Dates of Survey { During progress of work in shops - -
while building { During erection on board vessel - -
See attached machinery report
Are the approved plans of boiler and superheater forwarded herewith Yes
(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 built under special survey in accordance with the Rules and approved plans, and the materials and workmanship are good. It has been satisfactorily installed in the vessel and the safety valves have been adjusted to the working pressure.

Survey Fee ... £ 27 : 14 : - When applied for, 25 MAY 1943
Travelling Expenses (if any) £ : : When received, 19

A. J. Brown
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 25 MAY 1943

Assigned SEE ACCOMPANYING MACHINERY REPORT



© 2021

Lloyd's Register
Foundation