

## REPORT ON BOILERS.

No. 14660

Received at London Office

29 NOV 1948

Date of writing Report

19

When handed in at Local Office

25/11/48

Port of

Delft.

For visits, please see Rpt. 146.

No. in Survey held at

Delft.

Date, First Survey

Last Survey

19

Reg. Book.

on the

M.V. "British Strength"

(Number of Visits)

Gross  
Tons  
Net

Master

Built at

Delft.

By whom built

Harland &amp; Wolff Ltd

Yard No.

1365. When built

1948.

Engines made at

Delft.

By whom made

Harland &amp; Wolff Ltd

Engine No.

1365. When made

1948

Boilers made at

Delft.

By whom made

Harland &amp; Wolff Ltd

Boiler No.

1365. When made

1948.

Nominal Horse Power

M.N. Total 341.

Owners

British Tanker Co Ltd

Port belonging to

London.

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

Manufacturers of Steel

Coburns.

(Letter for Record S.)

Total Heating Surface of Boilers

2047 x 2 ft.

Is forced draught fitted

Yes.

Coal or Oil fired

Oil &amp; Gas.

No. and Description of Boilers

2 Cylindrical smoke tube type.

Working Pressure

150 lb sq in.

Tested by hydraulic pressure to

275 lb

Date of test

23.6.48.

No. of Certificate

1390.

Can each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

1 - 2 1/4" improved high lift double safety valve.

Area of each set of valves per boiler

per Rule 7.75 sq ft.

as fitted

8.0 sq ft.

Pressure to which they are adjusted

150 lb.

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

Ample.

Is oil fuel carried in the double bottom under boilers

Boilers on flat above E. Room.

Smallest distance between shell of boiler and tank top plating

Ample.

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

12' - 10 3/16". Length

11' - 6"

Shell plates: Material

Steel

Tensile strength

29-33 tons sq in.

Thickness

29/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end DR.

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 3/32"

long. seams

1 1/32"

Pitch of rivets

3.08"

Percentage of strength of circ. end seams

plate 64.5

rivets 53.0.

Percentage of strength of circ. intermediate seam

plate 84.3.

rivets 104.

Percentage of strength of longitudinal joint

plate 84.3.

rivets 104.

combined 89.3.

Working pressure of shell by Rules

155 lb sq in.

Thickness of butt straps

outer 28/32"

inner 27/32"

No. and Description of Furnaces in each Boiler

2. Single.

Material

Steel

Tensile strength

26-30 tons sq in.

Smallest outside diameter

3'-8"

Length of plain part

top

bottom

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

Lock weld.

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

Yes

Working pressure of furnace by Rules

163 lb sq in.

End plates in steam space: Material

Steel

Tensile strength

26-30 tons sq in.

Thickness

15/16"

Pitch of stays

16" x 15"

How are stays secured

Nuts in and out.

Working pressure by Rules

As approved.

Tube plates: Material

front Steel

back Steel

Tensile strength

26-30 tons sq in.

Thickness

3/4"

Mean pitch of stay tubes in nests

8 5/16"

Pitch across wide water spaces

13 1/2"

Working pressure

front As approved.

back As approved.

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons sq in.

Depth and thickness of girder

at centre

9 1/2" x 1 1/32"

Length as per Rule

32 1/2"

Distance apart

9 1/8"

No. and pitch of stays

in each

Welded

Working pressure by Rules

As approved.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons sq in.

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

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

Back

8 1/4" x 9 1/2"

Top

Yes

Are stays fitted with nuts or riveted over at shell others welded

Working pressure by Rules

As approved.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons sq in.

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26-30 tons sq in.

Thickness

15/16"

Pitch of stays at wide water space

16 1/4" x 9 1/2"

Are stays fitted with nuts or riveted over

Welded.

Working Pressure

As approved.

Main stays: Material

Steel

Tensile strength

28-32 tons sq in.

Diameter

At body of stay, 2 3/4"

or Over threads

No. of threads per inch

6

Area supported by each stay

Various

Working pressure by Rules

As approved

Screw stays: Material

Steel

Tensile strength

26-30 tons sq in.

Diameter

At turned off part, 1 1/2"

or Over threads

No. of threads per inch

9

Area supported by each stay

9 1/2" x 8 1/4"

Riveted at shell only. Welded in combustion chambers.

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Working pressure by Rules *As approved* Are the stays drilled at the outer ends ☒ Margin stays: Diameter <sup>At turned off part.</sup> *13/4" x 2"*  
No. of threads per inch *Welded* Area supported by each stay *14" x 9 1/2"* Working pressure by Rules *As approved*  
Tubes: Material *H.D.S.* External diameter <sup>Plain</sup> *2 1/2"* Thickness *10 L.S.A.* No. of threads per inch *9*  
Pitch of tubes *3 3/4" x 3 5/8"* Working pressure by Rules *As approved* Manhole compensation: Size of opening in  
shell plate *13 3/4"* Section of compensating ring *2'-8" x 2'-4" x 7/8"* No. of rivets and diameter of rivet holes *Welded to shell*  
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 <sup>Plate</sup> ☒  
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 *None* Manufacturers of <sup>Tubes</sup> ☒  
<sup>Steel forgings</sup> ☒  
<sup>Steel castings</sup> ☒  
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 casing 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

The foregoing is a correct description,

Manufacturers

Dates of Survey <sup>During progress of</sup> ☒  
<sup>work in shops - -</sup> ☒  
while building <sup>During erection on</sup> ☒  
<sup>board vessel - -</sup> ☒

Are the approved plans of boiler and superheater forwarded herewith *10. 5. 4*  
(If not state date of approval.)

Total No. of visits

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

*1362 G. Rpt No. 14543.*  
*British Security. Rpt No 14587.*  
*Galata. Rpt No. 14623.*

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

*These boilers have been built under  
Special Survey in accordance with the Rules and approved plan.  
The materials and workmanship are good.  
The boilers have been efficiently installed on board the vessel, the  
safety valves adjusted under steam for a working pressure of 150 lb  $\square$   
And a satisfactory Accumulation test carried out.  
The oil burning installation, Remote Controls and Steam  
Extinguishing System have been tested and found satisfactory.*

Survey Fee *See machinery report* When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

*W. Balch.*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 17 DEC 1940*

Assigned *See F.E. mch. rpt.*



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