

## REPORT ON BOILERS.

No. 14623

Received at London Office 1 OCT 1948

Date of writing Report

19

When handed in at Local Office

28/9

1948

Port of

Belfast

No. in Reg. Book.

Survey held at

Belfast.

Date, First Survey

15<sup>th</sup> April 1948.

Last Survey

17<sup>th</sup> Sept. 1948

on the

M. V. "Jalta"

(Number of Visits 30)

Gross 8247.40

Tons Net 4683.68.

Master

Built at

Belfast.

By whom built

Harland &amp; Wolff.

Yard No.

When built 1948

Engines made at

Belfast.

By whom made

Harland &amp; Wolff Ltd.

Engine No. 1373.

When made 1948

Boilers made at

Belfast.

By whom made

Harland &amp; Wolff Ltd.

Boiler No. 1373.

When made 1948

Nominal Horse Power TOTAL MHP 341

Owners

A/S. Bulls Tankerederi

Port belonging to

Sandefjord.

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

Manufacturers of Steel

Colvilles.

(Letter for Record S.)

Total Heating Surface of Boilers

2047 x 2 ft.

Is forced draught fitted

Yes.

Coal or Oil fired

Oil &amp; kerosene.

No. and Description of Boilers

2 Cylindrical smoke tube type.

Working Pressure

150 lb.

Tested by hydraulic pressure to

275 lb.

Date of test

26.7.48.

No. of Certificate

1393.

Can each boiler be worked separately

yes.

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

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

Area of each set of valves per boiler

per Rule 7.75 sq. in.

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

Yes.

Smallest distance between boilers or uptakes and bunkers or woodwork

Ample.

Is oil fuel carried in the double bottom under boilers

No. on flat above engine room.

Smallest distance between shell of boiler and tank top plating

on aft flat.

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

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"

Pitch of rivets

3.08"

6 9/16"

Percentage of strength of circ. end seams

plate

64.5.

rivets

53.0.

Percentage of strength of circ. intermediate seam

plate

✓

Percentage of strength of longitudinal joint

plate

84.3.

rivets

104.

Working pressure of shell by Rules

155 lb.

Thickness of butt straps

outer

23/32"

inner

27/32"

No. and Description of Furnaces in each Boiler

2. Saginaw. Corrugated.

Material

Steel.

Tensile strength

26-30 tons

Smallest outside diameter

3' 8"

Length of plain part

top

✓

Thickness of plates

crown

1/2"

Description of longitudinal joint

Joke Weld.

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

✓

Working pressure of furnace by Rules

163 lb.

16 x 16"

End plates in steam space: Material

Steel.

Tensile strength

26-30 tons

Thickness

15/16"

Pitch of stays

16 x 15"

How are stays secured

DN.W.

Working pressure by Rules

As approved.

Tube plates: Material

front

7/8"

back

3/4"

Tensile strength

26-30 tons

Thickness

7/8"

Mean pitch of stay tubes in nests

8 5/16"

Pitch across wide water spaces

13 1/2"

Working pressure

front

As approved.

Girders to combustion chamber tops: Material

Steel.

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

9 1/2" x 1 1/32"

Length as per Rule

32 1/2"

Distance apart

9 1/2"

No. and pitch of stays

in each

Welded.

Working pressure by Rules

As approved.

Combustion chamber plates: Material

Steel.

Tensile strength

26-30 tons

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"

Back

8 1/4" x 9 1/2"

Top

✓

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

Thickness

7/8"

Lower back plate: Material

Steel.

Tensile strength

26-30 tons

Thickness

15/16"

Pitch of stays at wide water space

16 1/4" x 9 1/2"

14 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

Diameter

At body of stay,

2 3/4"

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

Diameter

At turned off part,

1 1/2"

No. of threads per inch

9.

Area supported by each stay

9 1/2" x 8 1/4"

Screwed 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  $\left\{ \begin{array}{l} \text{At turned off part, } 1\frac{3}{4} \times 2 \\ \text{or} \\ \text{Over threads} \end{array} \right.$

No. of threads per inch *Welded* Area supported by each stay  $14\frac{1}{2} \times 9\frac{1}{2}$  Working pressure by Rules *As approved*

Tubes: Material *H.D.S* External diameter  $\left\{ \begin{array}{l} \text{Plain } 2\frac{1}{2} \\ \text{Stay } 2\frac{1}{2} \end{array} \right.$  Thickness  $\left\{ \begin{array}{l} 10 \text{ LSG } 1\frac{1}{4} - 5\frac{1}{16} \\ 13 \text{ " } 1\frac{3}{8} \end{array} \right.$  No. of threads per inch *9*

Pitch of tubes  $3\frac{3}{4} \times 3\frac{5}{8}$  Working pressure by Rules *As approved* Manhole compensation: Size of opening in shell plate  $13\frac{3}{4} \times 17\frac{3}{4}$  Section of compensating ring  $2'-8" \times 2'-4" \times \frac{7}{8}$  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  $\left\{ \begin{array}{l} \text{Plate} \\ \text{Rivets} \end{array} \right.$

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  $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel forgings} \\ \text{Steel castings} \end{array} \right.$

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 *Yes*

*For FARLAND AND SOLETT LIMITED*  
The foregoing is a correct description,

*Manufacturer.*

Dates of Survey  $\left\{ \begin{array}{l} \text{During progress of work in shops} \\ \text{while building} \end{array} \right.$   $\left\{ \begin{array}{l} \text{Apr 15, 30 May 3, 10, 12, 14, 25, 28} \\ \text{June 3, 9, 14, 22, 23, 29 July 7, 15, 16, 19, 20, 21, 26, 29} \\ \text{Aug 10, 20, 27, 30 Sept 8, 11} \end{array} \right.$  Are the approved plans of boiler and superheater forwarded herewith *Yes* (If not state date of approval.)

Total No. of visits *30*

Is this Boiler a duplicate of a previous case *Yes* If so, state Vessel's name and Report No. *1362 G. Report No 14543.*

# 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 lbs  $\square$  and a satisfactory accumulation test held.*

*See ME Machinery rpt*  
Survey Fee  $\pounds$  *4* : - : When applied for, 19  
Travelling Expenses (if any)  $\pounds$  : : : When received, 19

*A. B. Bates & E. Grieves.*  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

FRI. 29 OCT 1946

*See minute on  
J.E. machinery rpt*



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Foundation