

## REPORT ON BOILERS.

No. 12223

Received at London Office

OCT 10 1938

Date of writing Report

19

When handed in at Local Office

19

Port of *Belfast**Please see accompanying report.*No. in  
Reg. Book.

Survey held at

*Belfast*

Date, First Survey

Last Survey

19

on the

*M. V. British Trust*

(Number of Visits)

Gross 8466  
Tons Net 4913

Master

Built at

*Govan*

By whom built

*Harland & Wolff*

Layard No. 10119

When built 1939

Engines made at

*Govan*

By whom made

*Harland & Wolff*

Engine No. 10116

When made 1938

Boilers made at

*Belfast*

By whom made

*Harland & Wolff*

Boiler No. 10116

When made 1938

Nominal Horse Power

Owners

*British Tanker Co Ltd*

Port belonging to

*Glasgow*

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

Manufacturers of Steel

*Colvilles Ltd*(Letter for Record *S*)

Total Heating Surface of Boilers

*1495<sup>0</sup>*

Is forced draught fitted

*Yes*

Coal or Oil fired

*Oil*

No. and Description of Boilers

*One S.E. cylindrical*Working Pressure *150 lb*

Tested by hydraulic pressure to

*275 lb*

Date of test

*23.9.38*

No. of Certificate

*1051*

Can each boiler be worked separately

*Yes*

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

*One double spring 2" H.L. app.*

Area of each set of valves per boiler

per Rule

*5.7<sup>0</sup>*

Pressure to which they are adjusted

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

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

Length

Shell plates: Material

Tensile strength

Thickness

Are the shell plates welded or flanged

Description of riveting: circ. seams

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

Working pressure of shell by Rules

Thickness of butt straps

outer

inner

No. and Description of Furnaces in each Boiler

*2 Dighton*

Material

*S*

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

*S*

Tensile strength

Thickness

Pitch of stays

How are stays secured

*D.N.*

Working pressure by Rules

End plates: Material

front

back

Tensile strength

*26/30 ton*

Thickness

*31/32"**13/16"*

Lean pitch of stay tubes in nests

*9.375"*

Pitch across wide water spaces

*13 1/2"*

Working pressure

front *196 lb*back *269 lb*

Orders to combustion chamber tops: Material

*S*

Tensile strength

*25/32 ton*

Depth and thickness of girder

Centre

*8 3/4" x 1 3/4"*

Length as per Rule

*34 1/2"*

Distance apart

*11 1/2"*

No. and pitch of stays

Each

*309"*

Working pressure by Rules

*157.3*

Combustion chamber plates: Material

*S*

Tensile strength

*26/30 ton*

Thickness: Sides

*1/16"*

Back

*1/16"*

Top

*1/16"*

Bottom

*3/4"*

Pitch of stays to ditto: Sides

*9 x 9*

Back

*8 3/8" x 8 3/8"*

Top

*9 x 11 1/2"*

Are stays fitted with nuts or riveted over

*Others - backs only*

Working pressure by Rules

*155 lb*

Front plate at bottom: Material

*S*

Tensile strength

*26/30 ton*

Thickness

*31/32"*

Lower back plate: Material

*S*

Tensile strength

*26/30 ton*

Thickness

*31/32"*

Pitch of stays at wide water space

*13 x 8 3/8"*

Are stays fitted with nuts or riveted over

*Nuts*

Working Pressure

*208 lb*

Main stays: Material

*S*

Tensile strength

*25/32 ton*

Diameter

At body of stay,

*2 1/2"*

No. of threads per inch

*6*

Area supported by each stay

*240"*

Working pressure by Rules

*184.6 lb*

Screw stays: Material

*S*

Tensile strength

*26/30 ton*

Diameter

At turned off part,

*1 1/2"*

No. of threads per inch

*9*

Area supported by each stay

*81"**70.4"**108.5"*

Diameter

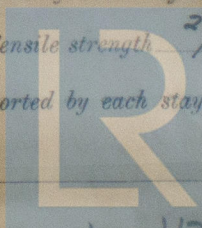
Over threads

*1 1/2"**1 5/8"**1 3/4"*

No. of threads per inch

*9*

Area supported by each stay

*81"**70.4"**108.5"*Lloyd's Register  
Foundation

W 1125 0042



Working pressure by Rules 154.64 Are the stays drilled at the outer ends No Margin stays: Diameter <sup>At turned off part,</sup> 1 5/8"  
 No. of threads per inch 9 Area supported by each stay 89.4" Working pressure by Rules 170.4  
 Tubes: Material W.I. External diameter <sup>Plain</sup> 2 1/2" Thickness <sup>10154</sup> 1/4" 1/32" 5/16" No. of threads per inch 9  
 Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 166.54 Manhole compensation: Size of opening  
 shell plate 2 1/2" x 16 1/2" Section of compensating ring 2'8" x 3'0" x 3/4" No. of rivets and diameter of rivet holes 28 - 1 5/32"  
 Outer row rivet pitch at ends 9" Depth of flange if manhole flanged Mr Nils door 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  
 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 Manufacturers of <sup>Tubes</sup>  
 Number of elements Material of tubes <sup>Steel castings</sup>  
 Material of headers Tensile strength Thickness Can the superheater be shut off at  
 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 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 ✓

For HARBOR The foregoing is a correct description,

A. J. Marshall Manufacturer

Secretary

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

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 Yes If so, state Vessel's name and Report No. Belfast No 12209

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

This boiler has been constructed under special survey & is approved deep  
 The materials & workmanship are good. It has been satisfactorily tested by  
 hydraulic pressure in accordance with the Rules. It is intended for a vessel  
 building at Govan.

This boiler has been satisfactorily fitted on board. Safety valves  
 afterwards adjusted under steam to 150 lbs per sq. inch and found  
 sound and tight. Safety valve washers P. 23/64 S 23/64  
 Position Port Boiler G. E. Murdoch.

Survey Fee ... £ 10 : 0 : 0 When applied for, 8-10-1938

Travelling Expenses (if any) £ : : When received, 16.11.1938  
 (per L. 100)

Charles H. Hunter  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUE 24 JAN 1939

Assigned

See fls. J.C. 60600



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 Foundation