

REPORT ON BOILERS.

No. 8626.

Received at London Office

8 JAN 1928

Date of writing Report 17-1-1928 When handed in at Local Office

192

Port of DUNDEE

No. in Survey held at Reg. Book.

DUNDEE

Date, First Survey

11-5-27

Last Survey

30-12-1927

on the

M/V. "BRITISH FAITH"

(Number of Visits 11)

Gross 6949

Tons Net 4183

Master

Built at

DUNDEE

By whom built

CALEDON S.W.E. Co. Ltd. No. 313

When built 1927

Engines made at

COPENHAGEN

By whom made

BURMEISTER & WAIN

Engine No. 1364

When made 1927

Boilers made at

DUNDEE

By whom made

CALEDON S.W.E. Co. Ltd.

Boiler No. 513

When made 1927

Nominal Horse Power

653 bhp
193 Boiler

Owners

BRITISH TANKER Co. Ltd.

Port belonging to

LONDON.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Tubes W. Beadmore & Co. Ltd. 1 Tunn. Daniel Colville & Son Ltd. (Letter for Record S.)

Total Heating Surface of Boilers

2900 ft²

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

Two single ended, return tubes

Working Pressure

150 lbs.

Tested by hydraulic pressure to

275 lbs.

Date of test

21-7-27

No. of Certificate

1020

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

oil fired

No. and Description of safety valves to each boiler

2 - spring loaded, high lift

Area of each set of valves per boiler

per Rule

8.8"

as fitted

9.8"

Pressure to which they are adjusted

155 lbs.

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

18"

Is oil fuel carried in the

cross bunker

double bottom under boilers

Yes

Smallest distance between shell of boiler and

cross bunker

top plating

2'-0"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

11'-4 1/2"

Length

11'-6"

Shell plates: Material

steel

Tensile strength

30-34 tons

Thickness

3/4"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R.

long. seams

T.R.D. B.S.

Diameter of rivet holes in

circ. seams

7/8"

long. seams

Pitch of rivets

2.89"

Percentage of strength of circ. end seams

plate

69.78

rivets

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate

85.86

rivets

Working pressure of shell by Rules

150 lbs.

Thickness of butt straps

outer

9/16"

No. and Description of Furnaces in each Boiler

Two daylight section

Material

steel

Tensile strength

26-30 tons

Smallest outside diameter

3'-0 1/4"

Length of plain part

top

bottom

Thickness of plates

crown

1 1/2"

bottom

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

168 lbs.

End plates in steam space: Material

steel

Tensile strength

26-30 tons

Thickness

7/8"

Pitch of stays

15" x 15 3/8"

How are stays secured

Double nuts

Working pressure by Rules

152 lbs.

Tube plates: Material

front

steel

back

Tensile strength

26-30 tons

Thickness

7/8"

Mean pitch of stay tubes in nests

9 3/8"

Pitch across wide water spaces

13 1/2"

Working pressure

front 160 lbs.

back 220 lbs.

Girders to combustion chamber tops: Material

steel

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

7 3/4"

2 @ 7/8"

Length as per Rule

2'-6 1/2"

Distance apart

9 1/2"

No. and pitch of stays

in each

2 - 9"

Working pressure by Rules

180 lbs.

Combustion chamber plates: Material

steel

Tensile strength

26-30 tons

Thickness: Sides

5/8"

Back

23/32"

Top

5/8"

Bottom

5/8"

Pitch of stays to ditto: Sides

9 1/2" x 9"

Back

8" x 9"

Top

9" x 9 1/2"

Are stays fitted with nuts or riveted over

c.c. side & back marginal-nuts

Working pressure by Rules

165 lbs.

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

7/8"

Pitch of stays at wide water space

13 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

176 lbs.

Main stays: Material

steel

Tensile strength

28-32 tons

Diameter

At body of stay,

or

Over threads

No. of threads per inch

6

Area supported by each stay

230 sq. in.

Working pressure by Rules

150 lbs.

Screw stays: Material

steel

Tensile strength

26-30 tons

Diameter

At turned off part,

or

Over threads

No. of threads per inch

9

Area supported by each stay

72 sq. in.

Working pressure by Rules 170 lbs. Are the stays drilled at the outer ends to Margin stays: Diameter 1 5/8" { At turned off part, or Over threads

No. of threads per inch 9 Area supported by each stay 97 sq" Working pressure by Rules 156 lbs.

Tubes: Material Iron. External diameter { Plain 2 1/2" Stay 2 1/2" Thickness { 10 W.G. 3/8" - 5/8" No. of threads per inch 9

Pitch of tubes 3 3/4" Working pressure by Rules 175 lbs. Manhole compensation: Size of opening in shell plate 16" x 20" Section of compensating ring 9 7/8" x 3/4" No. of rivets and diameter of rivet holes 32 - 1/8"

Outer row rivet pitch at ends 5 3/4" 8" Depth of flange if manhole flanged 2 1/2" 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 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 Manufacturers of { Tubes 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, 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 23 inclusive for boilers been complied with

FOR AND ON BEHALF OF
THE CALEDONIAN SHIPBUILDING & ENGINEERING CO. LD.

The foregoing is a correct description,

[Signature] Manufacturer

Dates of Survey { During progress of work in shops - - - 1927. May. 11. 17. Jun. 2. 10. 18. 22. 30. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes

while building { During erection on board vessel - - - July 8. 21. Oct. 26 - Dec. 30. Total No. of visits 11

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

The boiler have been constructed under Special Survey in accordance with the approved Plans & Rules. The materials & workmanship are of good description. The boiler have been efficiently fitted on board the vessel and are intended for Auxiliary purposes.

Survey Fee ... £ 19: 6: 0 When applied for, 16-1-1928

Travelling Expenses (if any) £ See F.B.(m) Report When received, ✓ ✓ 192

Committee's Minute

FRI. 27 JAN 1928

Assigned

[Signature] See F.B. rpt attached

Engineer Surveyor to Lloyd's Register of Shipping.



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