

REPORT ON BOILERS.

No. 66035

Received at London office

10 SEP 1942

1 JUL 1943

Date of writing Report

10

When handed in at Local Office

8: 9: 10: 42 Port of

Glasgow

No. in Survey held at
Reg. Book

Glasgow

Date, First Survey 29: 10: 41

Last Survey 4: 8: 1942

(Number of Vists 39)

Gross
Tons
Net

on the

EMPIRE FLOPIZEL

Built at Port Glasgow

By whom built

LITNGOW'S LTD

Yard No. 990

When built 1943

Engines made at CLYDEBANK

By whom made

JOHN BROWN & CO LTD

Engine No. A58

When made

Boilers made at Glasgow

By whom made

John Thompson (Marine Works) Ltd Boiler No. 5176 When made 1942

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Boliville Ltd.

(Letter for Record

S.

Total Heating Surface of Boilers

1786.

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

1- Marine Return-tube

Working Pressure

220.

Tested by hydraulic pressure to

380.

Date of test 10-7-42

No. of Certificate

21122

Can each boiler be worked separately

Area of Firegrate in each Boiler

45 ft²

No. and Description of safety valves to each boiler

2- Double Spring High Lift

Area of each set of valves per boiler

per Rule

9.69

for ordinary valves

as fitted

6.28.

Pressure to which they are adjusted

Are they fitted with easing gear

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

12' 9 1/2"

Length

11' 6"

Shell plates: Material

Steel

Tensile strength

29-33.

Thickness

1 1/2"

Are the shell plates welded or flanged

No.

Long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

1 5/8"

Pitch of rivets

3.79"

Percentage of strength of circ. end seams

plate

65.3.

rivets

45.2.

Percentage of strength of circ. intermediate seam

plate

c

Percentage of strength of longitudinal joint

rivets

87.8.

combined

89.7.

Thickness of butt straps

outer

1"

inner

1 1/2"

No. and Description of Furnaces in each Boiler

3 Lighter

Material

Steel

Tensile strength

26-30.

Smallest outside diameter

9' 1 1/2"

Length of plain part

top

bottom

Thickness of plates

crown

1 3/4"

bottom

Description of longitudinal joint

welded.

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

End plates in steam space: Material

Steel

Tensile strength

26-30.

Thickness

1 3/4"

Pitch of stays

19" x 16"

How are stays secured

Double Nuts.

Tube plates: Material

front

back

Steel

Tensile strength

26-30

Thickness

1 5/8"

Mean pitch of stay tubes in nests

9 1/2" 10 1/2"

Pitch across wide water space

14"

Girders to combustion chamber tops: Material

Steel

Tensile strength

28-32.

Depth and thickness of girder

at centre

20 8 1/2 x 5/8

Length as per Rule

2' 7 3/4"

Distance apart

6' 7"

No. and pitch of stays

in each

2-10"

Combustion chamber plates: Material

Steel

Tensile strength

26-30.

Thickness: Sides

1 1/6"

Back

1 1/6"

Top

1 1/6"

Bottom

3/4"

Pitch of stays to ditto: Sides

7 x 10"

Back

8 x 9 1/4"

Top

10 x 7"

Are stays fitted with nuts or riveted over

Yes

Front plate at bottom: Material

Steel

Tensile strength

26-30.

Thickness

1 5/8"

Lower back plate: Material

Steel

Tensile strength

26-30.

Thickness

2 7/8"

Pitch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

Yes

Main stays: Material

Steel

Tensile strength

28-32.

Diameter

At body of stay.

2 7/8"

Over threads

3 1/2"

No. of threads per inch

6

Screw stays: Material

Steel

Tensile strength

26-30.

Diameter

At turned off part.

1 3/4"

Over threads

1 3/4"

No. of threads per inch

9



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Foundation

Are the stays drilled at the outer ends *No* Margin stays: Diameter *2 1/8"* At turned off part or Over threads
No. of threads per inch *9*
Tubes: Material *Steel* External diameter *3"* Thickness *3/8"* No. of threads per inch *9*
Pitch of tubes *4 1/2" x 4 1/2"* Manhole compensation: Size of opening in shell plate *16 1/2" x 20 1/2"* Section of compensating ring *(1 1/2" x 12) 2* No. of rivets and diameter of rivet holes *40 - 1 1/4"*
Outer row rivet pitch at ends *9 1/8"* Depth of flange if manhole flanged *3 3/8"* 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
How connected to shell Inner radius of crown
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 *Steel forgings*
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 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,
R. M. Arthur FOR *JOHN THOMPSON (MARINE BOILERS) LTD.* Manufacturer.

Dates of Survey *During progress of work in shops - 1941 Oct. 29 Nov. 18. 25 Dec. 15* Are the approved plans of boiler and superheater forwarded herewith *Yes* No
while building - 22 (1942) Jan. 7. 9. 13. 23. 27 Feb. 12. 16. 25 (If not state date of approval.)
board vessel - 20. 24. 30 May 3. 8. 11. 14. 19. 21. 26 June 1. 3. 11 Total No. of visits *39*
25. 30 July 10 Aug. 4

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been constructed under Special Survey in accordance with the approved plan and the Society's Rules. The material and workmanship are good, and the boiler complies with the M.V.T Specification.*

LLD 1-9-42
The boiler is intended for Messrs *Wolgar Ltd. No 999 A/ms/m. 129.*
Now despatched to Greenock for *Kincaids K129. A/ms/m 224. 4/5/43*

This boiler has been effectively installed in the vessel & its safety valves adjusted under steam. For recommendation please see Greenock of N° 22357

Charles W. Hunter
21/6/43

Survey Fee ... £ *11 : 18 :* When applied for, *8 SEP 1942*
Travelling Expenses (if any) £ *3 :* When received, *13/11/19 42.*

J. R. Dale
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 8 SEP 1942*
Assigned Deferred to completion.