

## REPORT ON BOILERS.

No. 63500

FEB 27 1941

Received at London Office

Date of writing Report

When handed in at Local Office

25: 2: 1941

Port of GLASGOW

No. in Survey held at

Glasgow

Date, First Survey

18: 7: 40

Last Survey

11th Feb. 1941

Reg. Book.

on the 5/5

"NASPRITE"

(Number of Visits)

✓

Gross

965

Tons

Net 306

Built at

Glasgow

By whom built

Blythwood SB Co. Ltd.

Yard No. 65

When built 1941

Engines made at

do

By whom made

David Brown &amp; Co. Ltd.

Engine No. 1067

When made 1941

Boilers made at

do

By whom made

do

Boiler No. 1067

When made 1941

Nominal Horse Power

162

Owners

The Admiralty

Port belonging to

London

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

Manufacturers of Steel

The Steel Company of Scotland, Ltd.

(Letter for Record)

S

Total Heating Surface of Boilers

2624 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

2 Single-ended

Working Pressure

190 lb.

Tested by hydraulic pressure to

335 lb.

Date of test

25-10-40

No. of Certificate

20660

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2-1 3/4" L.H.L.

Area of each set of valves per boiler

{per Rule 40" ✓  
as fitted 4.80" ✓

Pressure to which they are adjusted

190 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

6'-6"

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

18"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

11'-0"

Length

11'-6"

Shell plates: Material

steel

Tensile strength

29/33 tons

Thickness

15/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

{end 2.78" ✓  
inter. —

Long. seams

DBS TR

Diameter of rivet holes in

{circ. seams 1 1/16" ✓  
long. seams 1" ✓

Pitch of rivets

{plate 2.78" ✓  
rivets 7 1/4" ✓

Percentage of strength of circ. end seams

{plate 61.8 ✓  
rivets 53.9 ✓

Percentage of strength of circ. intermediate seam

{plate — ✓  
rivets —

Percentage of strength of longitudinal joint

{plate 86.2 ✓  
rivets 86 ✓  
combined 89.5 ✓

Thickness of butt straps

{outer 2 3/32" ✓  
inner 2 7/32" ✓

No. and Description of Furnaces in each Boiler

2 Single-ended

Material

steel

Tensile strength

26/30 tons

Smallest outside diameter

3'-2 1/32" ✓

Length of plain part

{top — ✓  
bottom — ✓

Thickness of plates

{crown 33/64" ✓  
bottom 1/4" ✓

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 tons

Thickness

15/16" ✓

Pitch of stays

12"x16" ✓

How are stays secured

DN ✓

Tube plates: Material

{front steel ✓  
back —

Tensile strength

26/30 tons

Thickness

{15/16" ✓  
3/4" ✓

Mean pitch of stay tubes in nests

9.87" ✓

Pitch across wide water spaces

13 3/4" ✓

Girders to combustion chamber tops: Material

steel

Tensile strength

28/32 tons

Depth and thickness of girder

at centre

2 @ 6 1/2"x 7/8"

Length as per Rule

2'-4 9/16"

Distance apart

8 1/2"

No. and pitch of stays

in each

2 @ 9 1/4"

Combustion chamber plates: Material

steel

Tensile strength

26/30 tons

Thickness: Sides

1 1/16" ✓

Back

1 1/16" ✓

Top

1 1/16" ✓

Bottom

1 1/16" ✓

Pitch of stays to ditto: Sides

9 1/4"x 8 3/8"

Back

9"x 8 1/2"

Top

9 1/4"x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Front plate at bottom: Material

steel

Tensile strength

26/30 tons

Thickness

15/16" ✓

Lower back plate: Material

steel

Tensile strength

26/30 tons

Thickness

15/16" ✓

Pitch of stays at wide water space

13 1/2" ✓

Are stays fitted with nuts or riveted over

nuts

Main stays: Material

steel

Tensile strength

28/32 tons

Diameter

{At body of stay, 2 1/4" ✓  
or —  
Over threads —

No. of threads per inch

6

Crew stays: Material

steel

Tensile strength

26/30 tons

Diameter

{At turned off part, 1 5/8" ✓  
or —  
Over threads —

No. of threads per inch

9

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Are the stays drilled at the outer ends no

Margin stays: Diameter { At turned off part, ✓  
or  
Over threads 1 3/4"

No. of threads per inch 9

Tubes: Material Iron External diameter { Plain 2 3/4" ✓  
Stay 2 3/4" ✓ Thickness { 9 W G ✓  
5/16" + 3/8" No. of threads per inch 9

Pitch of tubes 4" x 3 7/8" Manhole compensation: Size of opening in  
shell plate 15 1/2" x 19 1/2" Section of compensating ring 6 1/4" x 1 5/16" No. of rivets and diameter of rivet holes 36 @ 1 1/8"

Outer row rivet pitch at ends 7 1/4" Depth of flange if manhole flanged 3" Steam Dome: Material Iron

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 \_\_\_\_\_ Inner radius of crown \_\_\_\_\_

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 { Tubes  
Steel forgings  
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 \_\_\_\_\_

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

The foregoing is a correct description,  
For David Rowan & Co. Ltd.  
Arch. W. Grierson Manufacturer.

Dates { During progress of  
of Survey { work in shops - - }  
while { During erection on  
building { board vessel - - - }

Are the approved plans of boiler and superheater forwarded herewith Yes  
(If not state date of approval.)

SEE ACCOMPANYING MACHINERY REPORT.

Total No. of visits

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

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 plans, and the materials and workmanship are good.  
They have been satisfactorily installed in the vessel and the  
safety valves have been adjusted to the working pressure.

Survey Fee ... .. £ \_\_\_\_\_ When applied for, \_\_\_\_\_ 19 \_\_\_\_\_

Travelling Expenses (if any) £ See memo. : \_\_\_\_\_ When received, \_\_\_\_\_ 19 \_\_\_\_\_

M. J. Brown  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 25 FEB 1941

Assigned \_\_\_\_\_

SEE ACCOMPANYING MACHINERY REPORT.



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