

## REPORT ON BOILERS.

No. 94713

Writing Report

19

When handed in at Local Office

16/2/1937

Received at London Office

18 FEB 7

Port of NEWCASTLE-ON-TYNE

in Survey held at

Wallcend

Date, First Survey

3<sup>rd</sup> Nov 1936

Last Survey

30 Jan 1937

(Number of Visits)

23

Tons { Gross  
Net

on the

S.S. "STANASFALT"

Built at

Newcastle

By whom built

Palmer's Co. Ltd.

Yard No.

When built 1929-4

es made at

Newcastle

By whom made

Palmer's Co. Ltd.

Engine No.

When made 1929

s made at

Wallcend

By whom made

North Eastern Marine Eng. Co. Ltd

Boiler No. 2872

When made 1936

al Horse Power

Owners

Soc Auxiliaire de Transports

Port belonging to

Rouen

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

Manufacturers of Steel

Appley-Edinburgh Steel Co. Ltd. Steel Co of Scotland. Colville Ltd.

Heating Surface of Boilers

2197 Square feet

Is forced draught fitted

Yes

(Letter for Record S)

and Description of Boilers

One single ended multitubular

Coal or Oil fired

Oil

d by hydraulic pressure to

320 lbs

Date of test 8-12-1936

No. of Certificate 697

Can each boiler be worked separately

of Firegrate in each Boiler

oil fired

No. and Description of safety valves to each boiler

Two spring loaded

of each set of valves per boiler

per Rule 14 1/2"

as fitted 19 1/4"

Pressure to which they are adjusted

180 lbs

Are they fitted with easing gear

Yes

of donkey boilers, state whether steam from main boilers can enter the donkey boiler

Yes

Least distance between boilers or uptakes and bunkers or woodwork

2'-3 1/2"

Is oil fuel carried in the double bottom under boilers

No

Least distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Yes

Least internal dia. of boilers

14'-0 3/4"

Length

11'-9"

Shell plates: Material

Steel

Tensile strength

29/33 tons

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

inter

Double riveted lap

T.R. Double Butt Straps

Diameter of rivet holes in

circ. seams

1 3/16"

long. seams

1 3/16"

Pitch of rivets

3 1/2"

8 3/8"

Stage of strength of circ. end seams

plate

66

rivets

44.6

Percentage of strength of circ. intermediate seam

plate

rivets

Stage of strength of longitudinal joint

plate

85.8

rivets

87.4

combined

89.0

Working pressure of shell by Rules

182 lbs

ess of butt straps

outer

27/32"

inner

21/32"

No. and Description of Furnaces in each Boiler

3 Bighton type etc

Material

Steel

Tensile strength

26/30

Smallest outside diameter

38 1/4"

of plain part

top

1/2"

bottom

1/2"

Thickness of plates

crown

1/2"

bottom

1/2"

Description of longitudinal joint

weld

Positions of stiffening rings on furnace or on bottom

None

Working pressure of furnace by Rules

188 lbs

plates in steam space: Material

Steel

Tensile strength

26/30 tons

Thickness

1 5/16"

Pitch of stays

24 1/4" x 1 1/2"

re stays secured

Double nuts

Working pressure by Rules

180 lbs

plates: Material

front

Steel

back

Steel

Tensile strength

26/30

26/30

Thickness

29/32"

25/32"

Pitch of stay tubes in nests

10 5/8"

Pitch across wide water spaces

14 1/4"

Working pressure

front

204 lbs

back

195 lbs

s to combustion chamber tops: Material

Steel

Tensile strength

29/33

Depth and thickness of girder

Length as per Rule

36"

Distance apart

8 7/8"

No. and pitch of stays

Two x 11"

Working pressure by Rules

208 lbs

Combustion chamber plates: Material

Steel

strength

26/30 tons

Thickness: Sides

23/32"

Back

21/32"

Top

23/32"

Bottom

23/32"

stays to ditto: Sides

11" x 8 7/8"

Back

9" x 9"

Top

11" x 8 7/8"

Are stays fitted with nuts or riveted over

nuts

pressure by Rules

181 lbs

Front plate at bottom: Material

Steel

Tensile strength

26/30 tons

Lower back plate: Material

Steel

Tensile strength

26/30 tons

Thickness

7/8"

stays at wide water space

14 1/4" x 9"

Are stays fitted with nuts or riveted over

nuts

Pressure

220 lbs

Main stays: Material

Steel

Tensile strength

28/32 tons

At body of stay,

3"

No. of threads per inch

6

Area supported by each stay

424 sq"

Over threads

Screw stays: Material

Steel

Tensile strength

26/30 tons

pressure by Rules

185 lbs

No. of threads per inch

9

Area supported by each stay

476 sq"

At turned off part,

1 3/4" x 1 5/8"

Over threads

Lloyd's Register  
Foundation  
W1060-0203



Working pressure by Rules 182 lbs Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 7/8 or Over threads 1 7/8 }  
No. of threads per inch 9 Area supported by each stay 104.6 sq Working pressure by Rules 204 lbs  
Tubes: Material Steel External diameter { Plain 3" Stay 3" } Thickness { 3/8" + 5/16 } No. of threads per inch 9  
Pitch of tubes 2 3/4 x 8 1/2 Working pressure by Rules 223 lbs Manhole compensation: Size of opening in  
shell plate 20 1/4 x 16 1/4 Section of compensating ring 22 x 1 1/8 No. of rivets and diameter of rivet holes 34 - 1 3/8  
Outer row rivet pitch at ends 10" 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 ✓ 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  
of rivets in outer row in dome connection to shell ✓

Type of Superheater

Smoke tube Manufacturers of { Tubes Messrs Talbot Stead Steel forgings Bedfordham Steel Co Steel castings Hopkinson & Sons }  
Number of elements 51 Material of tubes Solid drawn steel Internal diameter and thickness of tubes 17 mm - 2 1/2  
Material of headers Forged steel Tensile strength 26/30 tons Thickness 7/8 Can the superheater be shut off  
the boiler be worked separately No Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes  
Area of each safety valve 1.76 sq Are the safety valves fitted with easing gear Yes Working pressure by  
Rules 180 lbs Pressure to which the safety valves are adjusted 185 lbs/sq Hydraulic test press  
tubes 1500 lbs forgings and castings 540 lbs and after assembly in place 400 lbs Are drain cocks  
valves fitted to free the superheater from water where necessary Yes

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,

For THE NORTH EASTERN MARINE ENGINEERING CO LTD

John Neill

Manufactured

Dates of Survey { During progress of work in shops - - 1936 Nov. 3. 11. 18. 20. 26. Dec. 7. 8. 9. 10. } Are the approved plans of boiler and superheater forwarded herewith Yes  
while building { During erection on board vessel - - 1937 Jan. 11. 13. 15. 18. 22. 25. 27. 28. 29. } (If not state date of approval.)  
Total No. of visits 23  
30.

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.)

This boiler has been constructed under special survey, in accordance with the Rules and approved plans. The materials and workmanship are sound and good.

This boiler has been efficiently installed on the Port Side of Stoker's of the above steamer and its safety valves adjusted under steam to the approved working pressure. Rings 24 9/16" 8 1/2" Superheater 9 1/2"

L. Pickett

22 DEC 1936

Survey Fee ... .. £ 14 : 12 : 0  
Travelling Expenses (if any) £ : : }

When applied for, 19  
When received, 30.12.1936

H. B. Foster J. S. Sellar  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

TUE. 9 MAR 1937

TUE 22 JUN 1937

Assigned

See Nava Rpt.  
94712



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