

# REPORT ON BOILERS.

No. 80769

Received at London Office

15 DEC 1926

of writing Report

192

When handed in at Local Office

13/12/1926

Port of

Newcastle-on-Tyne

No. in Survey held at

Newcastle-on-Tyne

Date, First Survey

31<sup>st</sup> March 1925

Last Survey

11<sup>th</sup> Dec

1926

Book.

(Number of Visits)

Gross

2759

Tons

Net 1633

476 on the

Steel Co.

CITY OF OXFORD

ster

Built at Newcastle

By whom built Swan Hunter & Wigham

Richardson

Yard No. 1291

When built 1926

gines made at Newcastle

By whom made Wallsend Slipway & Eng. Co. Ltd.

Engine No. 863

When made 1926

Boilers made at Newcastle

By whom made Wallsend Slipway & Eng. Co. Ltd.

Boiler No. 863

When made 1926

nominal Horse Power

308 306.

Owners

Ellerman & Co. Ltd

Port belonging to

WING

ULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

shut off manufacturers of Steel

SA Colville & Sons Ltd.

(Letter for Record S ✓)

al Heating Surface of Boilers

3590 3588 ft

Is forced draught fitted

no ✓

Coal or Oil fired

Coal ✓

ssure and Description of Boilers

Two single end cylindrical

Working Pressure

185 lbs.

st pressed by hydraulic pressure to

328 lbs

Date of test 30.4.26

No. of Certificate 9997

Can each boiler be worked separately

Yes ✓

valves of Firegrate in each Boiler

52.5 ft

No. and Description of safety valves to each boiler

Two spring-loaded high-lift

of each set of valves per boiler

per Rule 11.21.9 x 3 = 7.470"

as fitted 7.960"

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

Yes ✓

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

✓

allest distance between boilers or uptakes and bunkers or woodwork

4'-7"

Is oil fuel carried in the double bottom under boilers

no ✓

allest distance between shell of boiler and tank top plating

19 1/2"

Is the bottom of the boiler insulated

Yes ✓

argest internal dia. of boilers

13'-9"

Length 10'-9"

Shell plates: Material Steel

Tensile strength 30 to 34 tons

ickness

1 3/32"

Are the shell plates welded or flanged

no ✓

Description of riveting: circ. seams

end D.R.

g. seams

Heble - D.R.S.

Diameter of rivet holes in

circ. seams 1 5/32"

long. seams 1 5/32"

Pitch of rivets

3.48"

centage of strength of circ. end seams

plate 66.7

rivets 42.6

Percentage of strength of circ. intermediate seam

plate

centage of strength of longitudinal joint

plate 85.5

rivets 86.2

combined 88.4

Working pressure of shell by Rules

189 lbs.

ickness of butt straps

outer 3/32"

inner 3/32"

No. and Description of Furnaces in each Boiler

Three Deighton

aterial

Steel

Tensile strength

26-30 tons

Smallest outside diameter

39 1/4"

ngth of plain part

top

Thickness of plates

crown 3/32"

bottom 5/64"

Description of longitudinal joint

weld

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

✓

Working pressure of furnace by Rules

189 lbs.

d plates in steam space: Material

Steel

Tensile strength 26 to 30 tons

Thickness

1 3/16"

Pitch of stays 17 1/2" x 20"

ow are stays secured

Double nuts

Working pressure by Rules

186 lbs.

be plates: Material

front Steel

back Steel

Tensile strength

26-30 tons

Thickness

1 3/4"

an pitch of stay tubes in nests

11 1/8"

Pitch across wide water spaces

14"

Working pressure

front 189 lbs

back 192 lbs.

orders to combustion chamber tops: Material

Steel

Tensile strength

28 to 32 tons

Depth and thickness of girder

centre 8 1/8" and 1 1/2"

Length as per Rule

32"

Distance apart

8 3/4"

No. and pitch of stays

each Two 10"

Working pressure by Rules

191 lbs

Combustion chamber plates: Material

Steel

nsile strength 26 to 30 tons

Thickness: Sides

1 1/16"

Back

3/32"

Top

1/16"

Bottom

1/16"

ch of stays to ditto: Sides

8 3/4" x 10"

Back

9" x 8 3/8"

Top

8 3/4" x 10"

Are stays fitted with nuts or riveted over

nuts ✓

orking pressure by Rules

189 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

ickness

1 3/4"

Lower back plate: Material

Steel

Tensile strength 26-30 tons

Thickness

2 7/8"

ch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

nuts

of Shipping Pressure

212 lbs.

Main stays: Material

Steel

Tensile strength 28 to 32 tons

meter

At body of stay,

3"

No. of threads per inch

six

Area supported by each stay

350 sq"

orking pressure by Rules

192 lbs.

Screw stays: Material

Steel

Tensile strength 26-30 tons

meter

At turned off part,

1 5/8"

1 3/4"

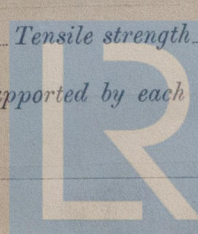
No. of threads per inch

nine

Area supported by each stay

9" x 8 3/8"

10" x 8 3/4"



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W 155-0030



Working pressure by Rules *190 lbs* Are the stays drilled at the outer ends *No.* ✓ Margin stays: Diameter { At turned off part. *1 1/2"* or Over threads *1 1/2"* ✓  
 No. of threads per inch *nine* ✓ Area supported by each stay *11 1/2" x 8 3/8"* Working pressure by Rules *209 lbs.*  
 Tubes: Material *Iron* ✓ External diameter { Plain *3 1/4"* Stay *3 1/4"* ✓ Thickness { *No. 8 W.G.* *5/16"* No. of threads per inch *nine* ✓  
 Pitch of tubes *4 1/2" x 4 3/8"* ✓ Working pressure by Rules *plain 220 lbs Stay 187 lbs* Manhole compensation: Size of opening  
 shell plate *19" x 15"* ✓ Section of compensating ring *32" x 36 5/8" x 1 3/32"* No. of rivets and diameter of rivet holes *Forty - 1 1/16"* ✓  
 Outer row rivet pitch at ends *8 3/16"* ✓ Depth of flange if manhole flanged *8 3/32"* ✓ 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 \_\_\_\_\_ 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  
 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 at  
 Rules \_\_\_\_\_ Pressure to which the safety valves are adjusted \_\_\_\_\_ Hydraulic test pressure  
 tubes \_\_\_\_\_, castings \_\_\_\_\_ and after assembly in place \_\_\_\_\_ Are drain cocks or valves  
 to free the superheater from water where necessary \_\_\_\_\_

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with *Yes* ✓ FOR THE WALLSEND SLIPWAY & ENGINEER  
 The foregoing is a correct description, *✓*  
 Manufactured by \_\_\_\_\_

Dates of Survey { During progress of work in shops - - - } *See Machinery Report* Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
 while building { During erection on board vessel - - - } Total No. of visits \_\_\_\_\_

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
*These Boilers have been constructed under special survey. The materials & workman are sound & good. They have been tested by hydraulic pressure in accordance with the rule. They are efficiently fitted and fastened on board the vessel. The safety valves have been adjusted under steam.*

Survey Fee ... £ *See Machinery Report* When applied for, 192  
 Travelling Expenses (if any) £ *See Machinery Report* When received, 192

Committee's Minute *FRI. 17 DEC 1926*  
 Assigned *See Sec 6 rpt. attached*  
 R Lee Amess  
 Engineer Surveyor to Lloyd's Register of Shipping  
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