

# REPORT ON BOILERS.

No. 80769

15 DEC 1926

Received at London Office

of writing Report

192

When handed in at Local Office

13/12/1926

1926

Port of Newcastle-on-Tyne

No. in Survey held at

Newcastle-on-Tyne

Date, First Survey

31<sup>st</sup> March 1926

Last Survey

11<sup>th</sup> Dec

1926

Book.

(Number of Visits)

Gross 2759

on the

Steel &c.

CITY OF OXFORD

Net 1633

ster

Built at Newcastle-on-Tyne

By whom built Swan Hunter & Wigham

Richardson

Yard No. 1291

When built 1926

gines made at

Newcastle-on-Tyne

By whom made

Hallend Shipways & Engineering Co. Ltd.

Engine No. 863

When made 1926

ilers made at

do.

By whom made

do.

Boiler No. 863

When made 1926

iminal Horse Power

308

Owners

Ellerman Lines Ltd.

Port belonging to

Liverpool

(G. Smith, Mgr.)

## CENTRE

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

Manufacturers of Steel

Ed. Colville & Son Ltd.

(Letter for Record 3)

tal Heating Surface of Boilers

1562 sq ft

158

Is forced draught fitted

No

Coal or Oil fired Coal

and Description of Boilers

One single-ended cylindrical

Working Pressure 185 lbs

sted by hydraulic pressure to

328 lbs

Date of test

30.4.26

No. of Certificate

9997

Can each boiler be worked separately Yes

ea of Firegrate in each Boiler

41 sq ft

No. and Description of safety valves to each boiler

Two spring loaded high lift

ea of each set of valves per boiler

per Rule

9.76 sq ft = 6.5 sq ft

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

Yes

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'-2"

Is the bottom of the boiler insulated Yes

rgest internal dia. of boilers

13'-0"

Length

10'-9"

Shell plates: Material

Steel

Tensile strength 30 to 34 Tons

ickness

1 1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

g. seams

Irish

D.B.S.

Diameter of rivet holes in

circ. seams 1 1/8"

long. seams 1 1/8"

Pitch of rivets

3 1/2"

Percentage of strength of circ. end seams

plate 67.2

rivets 45.7

Percentage of strength of circ. intermediate seam

Percentage of strength of longitudinal joint

plate 85.6

rivets 88.5

Working pressure of shell by Rules

185 lbs

ickness of butt straps

outer 15/16"

inner 15/16"

No. and Description of Furnaces in each Boiler

Two Deighton

aterial

Steel

Tensile strength

26 to 30 Tons

Smallest outside diameter

3'-10 1/4"

ngth of plain part

top

Thickness of plates

crown 19/32"

bottom 3/32"

Description of longitudinal joint

Weld

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

Working pressure of furnace by Rules

186 lbs

d plates in steam space: Material

Steel

Tensile strength

26-30 Tons

Thickness

1 1/2"

Pitch of stays

17 1/2" x 19"

ow are stays secured

Double nuts

Working pressure by Rules

187 lbs

be plates: Material

front Steel

back Steel

Tensile strength

26 to 30 Tons

Thickness

1 1/2"

Working pressure

front 189 lbs

back 19 1/2 lbs

an pitch of stay tubes in nests

11 1/8"

Pitch across wide water spaces

14"

Working pressure

front 189 lbs

back 19 1/2 lbs

rders to combustion chamber tops: Material

Steel

Tensile strength

28 to 32 Tons

Depth and thickness of girder

centre

8 1/8" - 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

26-30 Tons

Thickness: Sides

11/16"

Back

2 1/2"

Top

11/16"

Bottom

3/32"

ch of stays to ditto: Sides

8 3/4" x 10"

Back

9" x 9"

Top

8 3/4" x 10"

Are stays fitted with nuts or riveted over Nuts

orking pressure by Rules

185 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 Tons

ickness

1 1/4"

Lower back plate: Material

Steel

Tensile strength

26-30 Tons

Thickness

1 1/4"

ch of stays at wide water space

14"

Are stays fitted with nuts or riveted over Nuts

orking Pressure

194 lbs

Main stays: Material

Steel

Tensile strength

28 to 32 Tons

iameter

At body of stay, or Over threads

3"

No. of threads per inch

Six

Area supported by each stay

332.5 sq in

orking pressure by Rules

202 lbs

Screw stays: Material

Steel

Tensile strength

26-30 Tons

iameter

At turned off part, or Over threads

1 5/8"

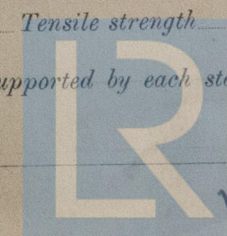
1 3/4"

No. of threads per inch

Nine

Area supported by each stay

81 sq in 87.5 sq in



Lloyd's Register  
155-0029



Working pressure by Rules 188 lbs. Are the stays drilled at the outer ends No. ✓ Margin stays: Diameter { At turned off part, 1 3/4" ✓ or Over threads. 208 lbs. ✓  
No. of threads per inch nine ✓ Area supported by each stay 108.5 sq. in. ✓ Working pressure by Rules 208 lbs. ✓  
Tubes: Material Iron ✓ External diameter { Plain 3 1/4" ✓ Stay 3 1/4" ✓ Thickness { No. 8, 11.5" ✓ No. of threads per inch nine ✓  
Pitch of tubes 4 1/2" x 4 3/8" ✓ Working pressure by Rules plain 230 lbs. stay 187 lbs. ✓ Manhole compensation: Size of opening 18" ✓  
shell plate 19" x 15" ✓ Section of compensating ring 30" x 36" x 1 1/2" ✓ No. of rivets and diameter of rivet holes forty 1 1/2" ✓  
Outer row rivet pitch at ends 7 13/16" ✓ Depth of flange if manhole flanged 3 1/16" ✓ Steam Dome: Material none. ✓  
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 from the boiler  
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 and Design  
Rules Pressure to which the safety valves are adjusted Hydraulic test pressed by hydraulic  
tubes, castings and after assembly in place Are drain cocks or valves fitted to the superheater  
to free the superheater from water where necessary  
Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes ✓  
The foregoing is a correct description. ✓

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
This boiler has been constructed under special survey. The materials and workmanship are sound & good. It has been tested by hydraulic pressure in accordance with the rules. It is efficiently fitted and fastened on board the vessel. The safety valves have been adjusted under steam.

Survey Fee ... £ See Machinery Report  
Travelling Expenses (if any) £  
When applied for, 192  
When received, 192  
R Lee Amess  
Engineer Surveyor to Lloyd's Register of Shipping  
Committee's Minute FRI. 17 DEC 1928  
Assigned See Machinery Report attached  
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