

REPORT ON BOILERS.

No. 52440

18 MAY 1932

Received at London Office

14. 15. 25. of writing Report

19

When handed in at Local Office

9. 5. 1932 Port of

Glasgow

In Survey held at

Glasgow

Date, First Survey

31. 8. 31

Last Survey

3-5-

1932

Book.

on the

new steel ship "ROYAL IRIS II"

(Number of Visits 58)

Gross 607
Net 226

Built at Glasgow

By whom built Harland & Wolff Ltd

Yard No. 9186

When built 1932

Ships made at

Glasgow

By whom made W & W. Henderson & Co Ltd

Engine No. 9186

When made 1932

Ships made at

Glasgow

By whom made W & W. Henderson & Co Ltd

Boiler No. 9186

When made 1932

Horse Power

185

Owners

Mayor, Aldermen & Burgesses of the
Borough of Wallasey

Port belonging to

Liverpool

6-32

TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

L. Whittles Ltd

(Letter for Record 3)

Heating Surface of Boilers

3171 sq ft

Is forced draught fitted

no

Coal or Oil fired

coal

Description of Boilers

Three single ended

Working Pressure 200

by hydraulic pressure to

350

Date of test

11-3-32

No. of Certificate

19100

Can each boiler be worked separately

yes

Firegrate in each Boiler

36.6 sq ft

No. and Description of safety valves to each boiler

Two Improved high lift

of each set of valves per boiler

(per Rule 4.05 sq ft
as fitted 4.81 sq ft)

Pressure to which they are adjusted

200

Are they fitted with easing gear

yes

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

Is oil fuel carried in the double bottom under boilers

no tank

distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

no

internal dia. of boilers

10'-6"

Length

11'-6"

Shell plates: Material

steel

Tensile strength

28-32 tons

ss

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

inter.

3.32"

ms

WBS. TR

Diameter of rivet holes in

circ. seams

1 1/16"

long. seams

1 3/32"

Pitch of rivets

7 7/16"

age of strength of circ. end seams

plate 68
rivets 45.2

Percentage of strength of circ. intermediate seam

plate

rivets

age of strength of longitudinal joint

plate 86.1
rivets 89.2
combined 90.2

Working pressure of shell by Rules

203

s of butt straps

outer 47/64
inner 55/64

No. and Description of Furnaces in each Boiler

Two Deighton 2 ft

of plain part

top

Thickness of plates

crown 31/64
bottom 64

Description of longitudinal joint

welded

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

✓

Working pressure of furnace by Rules

204

es in steam space: Material

steel

Tensile strength

26-30

Thickness

29/32

Pitch of stays

13 1/4 x 14

stays secured

DN

Working pressure by Rules

205

es: Material

front steel
back "

Tensile strength

26-30 tons

Thickness

29/32

25/32

ch of stay tubes in nests

8 3/8"

Pitch across wide water spaces

13 1/2"

Working pressure

front 22 1/2
back 313

o combustion chamber tops: Material

steel

Tensile strength

28-32 tons

Depth and thickness of girder

2 @ 9 1/4 x 11/16

Length as per Rule

28-54 3/4

Distance apart

7 1/2"

No. and pitch of stays

3 @ 9"

Working pressure by Rules

210

Combustion chamber plates: Material

steel

length

26-30 tons

Thickness: Sides

11/16"

Back

43/64"

Top

11/16"

Bottom

3/4"

ays to ditto: Sides

9 x 9"

Back

9 x 8 1/2"

Top

9 x 7 1/2"

Are stays fitted with nuts or riveted over

nuts

ressure by Rules

204

Front plate at bottom: Material

steel

Tensile strength

26-30 tons

Lower back plate: Material

steel

Tensile strength

26-30

Thickness

29/32

ays at wide water space

13 1/2 x 8 1/2"

Are stays fitted with nuts or riveted over

nuts

Pressure

235

Main stays: Material

steel

Tensile strength

28-32 tons

At body of stay,

2 1/8"

No. of threads per inch

6

Area supported by each stay

182 sq in

ressure by Rules

208

Screw stays: Material

steel

Tensile strength

26-30 tons

At turned off part,

1 3/4"

No. of threads per inch

9

Area supported by each stay

76 sq in

At turned off part,

1 3/4"

No. of threads per inch

9

Area supported by each stay

76 sq in

At turned off part,

1 3/4"

No. of threads per inch

9

Area supported by each stay

76 sq in

At turned off part,

1 3/4"

No. of threads per inch

9

Area supported by each stay

76 sq in

002907-002915-0280

Lloyd's Register
Foundation

Working pressure by Rules 238 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" / Over threads }
No. of threads per inch 9 Area supported by each stay 96 Working pressure by Rules 222
Tubes: Material Iron External diameter { Plain 3" / Stay 3" } Thickness 8 LSG No. of threads per inch 9
Pitch of tubes 4 1/4 x 4 1/8 Working pressure by Rules 250 Manhole compensation: Size of opening in
end shell plate 15 x 11 Section of compensating ring No. of rivets and diameter of rivet holes
Outer row rivet pitch at ends Depth of flange if manhole flanged 3 3/8 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 of
stays Inner radius of crown Working pressure by Rules
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 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 Working pressure as per
Rules Pressure to which the safety valves are adjusted Hydraulic test pressure:
tubes 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

DAVID & WILLIAM HENDERSON & CO. LIMITED.
The foregoing is a correct description,
J. H. Patell Director Manufacturer.

Dates of Survey { During progress of work in shops - - }
while building { During erection on board vessel - - }
SEE ACCOMPANYING MACHINERY REPORT.
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
Total No. of visits 5 8

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.)
The materials and workmanship are good.
The boilers have been constructed under special survey in accordance with the plan, satisfactorily fitted in the vessel and their safety valves adjusted.

9/5/32

Survey Fee ... £
Travelling Expenses (if any) £
When applied for, 19
When received, 19

S. C. Davis

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 17 MAY 1932

FRI. 3 JUN 1932

Assigned SEE ACCOMPANYING MACHINERY REPORT.