

REPORT ON BOILERS.

No. 9972

Received at London Office

23 MAY 1928

Writing Report

192

When handed in at Local Office 22nd May 1928

Port of

Belfast

in Surrey held at

Belfast

Date, First Survey

See first entry mch. report.

Last Survey

192

on the

STEEL TWIN SC.

PUNTA GORDA

(Number of Visits)

Tons

Gross

Net

Built at

Belfast

By whom built

Harland & Wolff Ltd.

Yard No.

835

When built 1928

es made at

Glasgow

By whom made

Harland & Wolff Ltd.

Engine No.

835

When made 1928

s made at

Belfast

By whom made

Harland & Wolff Ltd.

Boiler No.

835

When made 1928

nal Horse Power

196

Owners Lagg Shipping Co. Ltd (A. Weir & Co. Mgrs)

Port belonging to

London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

D. Colville & Sons Ltd.

(Letter for Record S.)

Heating Surface of Boilers

3702

Is forced draught fitted

No.

Coal or Oil fired

Oil

and Description of Boilers

Two single ended

Cylindrical

253

Working Pressure

180 lbs.

by hydraulic pressure to

320 lbs.

Date of test 19.3.28

No. of Certificate

920

Can each boiler be worked separately

Yes

of Firegrate in each Boiler

49

No. and Description of safety valves to each boiler

Two Spring-loaded

of each set of valves per boiler

per Rule 14.24.0

as fitted 2 x 9.62.0

Pressure to which they are adjusted

180 lbs.

Are they fitted with easing gear

Yes

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

Yes

test distance between boilers or uptakes and bunkers or woodwork

Yes

Is oil fuel carried in the double bottom under boilers

Yes

test distance between shell of boiler and tank top plating

Yes

Is the bottom of the boiler insulated

Yes

test internal dia. of boilers

14'-0"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

28-32 tons

thickness

1 5/16"

Are the shell plates welded or flanged

No.

Description of riveting: circ. seams

end

double

seams

heble

d. t. s.

Diameter of rivet holes in

circ. seams

1 1/4"

long. seams

1 1/4"

Pitch of rivets

3.6"

8 3/8"

centage of strength of circ. end seams

plate

65.2

rivets

48.5

Percentage of strength of circ. intermediate seam

plate

8

centage of strength of longitudinal joint

plate

85.07

rivets

97.8

Working pressure of shell by Rules

180 lbs.

centage of strength of longitudinal joint

plate

85.07

rivets

97.8

Working pressure of shell by Rules

180 lbs.

thickness of butt straps

outer

2 3/8"

inner

1 1/16"

No. and Description of Furnaces in each Boiler

Three horizontal

3 C.F.

material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

40 1/16"

th of plain part

top

bottom

Thickness of plates

crown

1 7/8"

bottom

3/2"

Description of longitudinal joint

weld.

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

Yes

Working pressure of furnace by Rules

191 lbs.

plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/8"

Pitch of stays 17 1/2 x 20 1/2

are stays secured

double nuts, screwed into end plates + washers

Working pressure by Rules

184 lbs.

plates: Material

front

Steel

back

Steel

Tensile strength

26-30 tons

Thickness

7/8"

1 1/16"

pitch of stay tubes in nests

11'-2"

Pitch across wide water spaces

14 1/4" x 8 3/4"

Working pressure

front

187 lbs.

ers to combustion chamber tops: Material

Steel

Tensile strength

28-32 tons

Depth and thickness of girder

No. and pitch of stays

8 1/4" - 1 1/2"

entre

8 1/4" - 1 1/2"

Length as per Rule

30 7/8"

Distance apart

8 1/8"

No. and pitch of stays

ch

Three 8"

Working pressure by Rules

215 lbs.

Combustion chamber plates: Material

Steel

le strength

26-30 tons

Thickness: Sides

5/8"

Back

5/8"

Top

5/8"

Bottom

3/4"

of stays to ditto:

Sides

8 1/2" x 8"

Back

9 1/2" x 7 1/2"

Top

8 1/2" x 8"

Are stays fitted with nuts or riveted over

nuts

ing pressure by Rules

190 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

ness

7/8"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

1 1/16"

of stays at wide water space

13 1/2" x 7 1/2"

Are stays fitted with nuts or riveted over

nuts

ing Pressure

225 lbs.

Main stays: Material

Steel

Tensile strength

28-32 tons

eter

At body of stay,

or

Over threads

3"

No. of threads per inch

five

Area supported by each stay

308.4 sq. in.

ing pressure by Rules

211 lbs.

Screw stays: Material

Steel

Tensile strength

26-30 tons

eter

At turned off part,

or

Over threads

1 7/8"

No. of threads per inch

ten

Area supported by each stay

69.375 sq. in.

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W257-0181

Working pressure by Rules *219 lb* Are the stays drilled at the outer ends *No* Margin stays: Diameter *At turned off part, 1 3/4" 1 1/2"*
No. of threads per inch *ten* Area supported by each stay *99 sq* Working pressure by Rules *183 lb*
Tubes: Material *Iron* External diameter *Plain 3 1/4" Stay 3 1/4"* Thickness *No. 7 m.s. 1/4" 5/16"* No. of threads per inch *ten*
Pitch of tubes *4 1/2" x 4 3/8"* Working pressure by Rules *plain 280 lb Stay 225 lb* Manhole compensation: Size of opening
shell plate *16" x 12"* Section of compensating ring *36" x 3 1/2" x 1 1/2" double* No. of rivets and diameter of rivet holes *28-1 1/4"*
Outer row rivet pitch at ends *8"* Depth of flange if manhole flanged
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes Pitch of rivets Percentage of strength of joint
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 *none* Manufacturers of Tubes
Number of elements Material of tubes Steel castings
Material of headers Tensile strength Internal diameter and thickness of tubes
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
Rules Pressure to which the safety valves are adjusted Hydraulic test press
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*
The foregoing is a correct description,
HARLAND AND WOLFE, LIMITED
Deebleck Manufact

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

Are the approved plans of boiler and superheater forwarded herewith *7. 11. 2*
(If not state date of approval.)
Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been constructed under special survey and to an approved plan. The material and workmanship are sound and good. They have been tested by hydraulic pressure with satisfactory results, have been efficiently fastened on board the vessel and the safety valves have been adjusted under steam.

Survey Fee ... £
Travelling Expenses (if any) £

When applied for, 192
When received, 192

R. Lee Amers.
Engineer Surveyor to Lloyd's Register of Ships

Committee's Minute

FRI. 25 MAY 1928

Assigned

See Report attached



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