

Rpt. 5a.

## REPORT ON BOILERS.

No. 16346

Received at London Office 10 OCT 1925

Date of writing Report

Oct 5 1925

When handed in at Local Office

8 Oct 1925

Port of

WEST HARTLEPOOL

No. in  
Reg. Book.

Survey held at

West Hartlepool

Date, First Survey

8 May

Last Survey

10 Oct

1925

35574 on the

S.S. "TRESILLIAN"

(Number of Visits

54)

Tons

Gross

4743.06

Net

1872.84

Master

Built at

West Hartlepool

By whom built

Wm Gray &amp; Co Ltd

Yard No.

968

When built

1925

Engines made at

West Hartlepool

By whom made

Central Marine Eng. Works

Engine No.

968

When made

1925

Boilers made at

ditto

By whom made

ditto

Boiler No.

968

When made

1925

Nominal Horse Power

Owners

The Hain S. S. Co Ltd

Port belonging to

London

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

Manufacturers of Steel

D. Colville &amp; Sons Ltd.

(Letter for Record

S)

Total Heating Surface of Boilers

8118 sq. ft.

Is forced draught fitted

no

Coal or Oil fired

Coal

No. and Description of Boilers

3. single ended

Working Pressure

180 lbs

Tested by hydraulic pressure to

320 lbs

Date of test

(1) 24.8.25

No. of Certificate

(2) 3671

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

648 sq. ft.

No. and Description of safety valves to each boiler

2 Cockburns high lift

Area of each set of valves per boiler

per Rule

11.58

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

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

Smallest distance between boilers or uptakes and bunkers or woodwork

about 3 feet.

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

16'-0"

Length

12'-0"

Shell plates: Material

Steel

Tensile strength

28/32

Thickness

1 5/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

D. R. Lap

Long. seams

J. R. D. B. S.

Diameter of rivet holes in

circ. seams

1 3/8"

Pitch of rivets

End 4 3/8" Inter 4 3/8"

Percentage of strength of circ. end seams

plate

68.6

rivets

63.8 of end.

Percentage of strength of circ. intermediate seam

plate

67.6

rivets

60.3

Percentage of strength of longitudinal joint

plate

85.5

rivets

91.6

Working pressure of shell by Rules

180

Thickness of butt straps

outer

1"

inner

1 1/8"

No. and Description of Furnaces in each Boiler

3 Deightons

Material

Steel

Tensile strength

26/30

Smallest outside diameter

47 1/8"

Length of plain part

top

bottom

Thickness of plates

crown

5"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

193

Steel plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 1/4"

Pitch of stays

22 1/2" x 20 1/2"

How are stays secured

D. nuts &amp; washers

Working pressure by Rules

180

Steel plates: Material

front

Steel

back

Steel

Tensile strength

26/30

Thickness

3/8"

13/16"

Pitch of stay tubes in nests

13 1/2" x 9"

Pitch across wide water spaces

14 1/4" x 9"

Working pressure

front

184

back

187

Orders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

No. and pitch of stays

centre

9 1/4" x 1 1/2"

Length as per Rule

34 1/2"

Distance apart

9 1/4"

No. and pitch of stays

each

3 9"

Working pressure by Rules

187

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

3 1/2"

Back

3 1/2"

Top

3 1/2"

Bottom

3 1/4"

Pitch of stays to ditto: Sides

9" x 9 1/4"

Back

9" x 9 1/4"

Top

9" x 9 1/4"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

180

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

3/8"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

3/8"

Pitch of stays at wide water space

9 1/4" x 14 1/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

217

Main stays: Material

Steel

Tensile strength

28/32

Pitch of stays

At body of stay,

3 3/8"

No. of threads per inch

6

Area supported by each stay

22 1/4" x 20 1/2"

Working pressure by Rules

191

Screw stays: Material

Steel

Tensile strength

26/30

Pitch of stays

At turned off part,

1 5/8"

No. of threads per inch

9

Area supported by each stay

9" x 9 1/4"

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Working pressure by Rules 183 Are the stays drilled at the outer ends *no* Margin stays: Diameter { At turned off part, *1 7/8"*  
No. of threads per inch 9 Area supported by each stay *9 1/4" x 11 5/8"* Working pressure by Rules 198  
Tubes; Material *Iron* External diameter { Plain *3 1/4"* Thickness { *9/16"* No. of threads per inch 9  
Pitch of tubes *4 1/2" x 4 1/2"* Working pressure by Rules 180 & 187 Manhole compensation: Size of opening  
*end* shell plate *12" x 16"* Section of compensating ring *✓* No. of rivets and diameter of rivet holes *✓*  
Outer row rivet pitch at ends *✓* Depth of flange if manhole flanged *4"* 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  
Internal diameter Working pressure by Rules Thickness of crown No. and diameter of rivets  
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  
Number of elements Material of tubes Steel castings  
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 23 inclusive for boilers been complied with *yes.*

**FORTHE CENTRAL MARINE ENGINE WORKS,**  
The foregoing is a correct description,

*J. H. Garne* Manufacturer

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

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

*See accompanying machinery report*

Survey Fee ... .. £ : : When applied for, *✓* 192  
Travelling Expenses (if any) £ *✓* : : When received, *✓* 192

*R. D. Shilston*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **TUES. 13 OCT 1925**

Assigned *See other report*



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