

REPORT ON BOILERS.

No. 84177.

Received at London Office

13 MAY 1929

Date of writing Report

192

When handed in at Local Office

192

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Hallsend - on Tyne.

Date, First Survey

Last Survey

192

on the

New Steel S. S. Kingswood.

(Number of Visits

Gross
Tons

5055.

Net
3076.

Master

Built at Willington Quay.

By whom built

Northumberland S.S. Co. Ltd.

Yard No.

1009.

When built

1929

Engines made at

Hallsend.

By whom made

North Eastern Marine & C. Co. Ltd.

Engine No.

2690

When made

1929

Boilers made at

Hallsend.

By whom made

North Eastern Marine & C. Co. Ltd.

Boiler No.

2690

When made

1929.

Nominal Horse Power

1169

Owners

Joseph Constantine S. S. Line Ltd.

Port belonging to

Middlesbrough

MULTITUBULAR BOILERS ~~MAIN~~, AUXILIARY, OR ~~DONKEY~~.

Manufacturers of Steel

D. G. Hill & Sons Ltd & Steel Coy of Scotland Ltd

(Letter for Record

S.

Total Heating Surface of Boilers

1325 sq ft

Is forced draught fitted

No

Coal or Oil fired

coal

No. and Description of Boilers

One single ended.

Working Pressure

200 lbs

Tested by hydraulic pressure to

350 lbs

Date of test

11-11-29

No. of Certificate

342

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

35 sq ft

No. and Description of safety valves to each boiler

Two spring loaded.

Area of each set of valves per boiler

per Rule

as fitted

4.9 sq ft

Pressure to which they are adjusted

205 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

1'-6"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

2'-3"

Is the bottom of the boiler insulated

yes.

Largest internal dia. of boilers

11'-9 1/8"

Length

10'-6"

Shell plates: Material

Steel

Tensile strength

29 to 33 tons

Thickness

1 1/2"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

inter.

Long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

long. seams

1 1/8"

Pitch of rivets

3 1/4"

8"

Percentage of strength of circ. end seams

plate

65.5 lbs

rivets

45.6 lbs

Percentage of strength of circ. intermediate seam

plate

circ.

Percentage of strength of longitudinal joint

plate

86

84

combined

89.3

Working pressure of shell by Rules

204.5 lbs.

Thickness of butt straps

outer

13/16"

inner

15/16"

No. and Description of Furnaces in each Boiler

Two corrugated (Deighton)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

3'-5 1/4"

Length of plain part

top

bottom

Thickness of plates

crown

bottom

Description of longitudinal joint

weld.

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

Working pressure of furnace by Rules

209.5 lbs.

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/4"

Pitch of stays

22 x 15"

How are stays secured

D. nuts.

Working pressure by Rules

206 lbs.

Tube plates: Material

front

back

Steel

Tensile strength

26 to 30 tons

Thickness

1"

Lean pitch of stay tubes in nests

8 1/8"

Pitch across wide water spaces

14 1/2" x 8 3/4"

Working pressure

front

210.5 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

centre

2 @ 4 1/8" x 3/4"

Length as per Rule

2'-3"

Distance apart

10"

No. and pitch of stays

each

2 @ 8"

Working pressure by Rules

202 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

1 1/8"

Back

23/32"

Top

1 1/8"

Bottom

1 1/8"

Pitch of stays to ditto: Sides

8 x 10"

Back

9 3/4 x 9 1/4"

Top

8 x 10"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

201 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

nuts

Pitch of stays at wide water space

14 1/8" x 9 3/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

206 lbs.

Main stays: Material

Steel

Tensile strength

29 to 33 tons

Diameter

At body of stay,

or

Over threads

2 3/4"

No. of threads per inch

6

Area supported by each stay

330 sq in

Working pressure by Rules

205 lbs.

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part,

or

Over threads

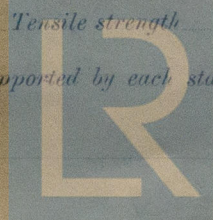
1 3/4"

No. of threads per inch

9

Area supported by each stay

90 sq in

Lloyd's Register
Foundation

W249-0276

Working pressure by Rules 201 lbs. Are the stays drilled at the outer ends no Margin stays: Diameter 2" ^{At turned off part.}
 No. of threads per inch 9 Area supported by each stay 116" Working pressure by Rules 214 lbs. ^{Over threads}
 Tubes: Material S.D. Steel External diameter 3 1/4" Thickness 3/16" No. of threads per inch 9
 Pitch of tubes 1 1/2" x 1 3/8" Working pressure by Rules W.W.S. 208.5 lbs Manhole compensation: Size of opening in
 shell plate 16" x 20" Section of compensating ring 11 3/8" x 1 1/2" No. of rivets and diameter of rivet holes 32 @ 1 3/8"
 Outer row rivet pitch at ends 10" Depth of flange if manhole flanged 3 3/4" Steam Dome: Material none
 Tensile strength none Thickness of shell none Description of longitudinal joint none
 Diameter of rivet holes none Pitch of rivets none Percentage of strength of joint none
 Internal diameter none Working pressure by Rules none Thickness of crown none No. and diameter of
 stays none Inner radius of crown none Working pressure by Rules none Diameter of rivet holes and pitch
 How connected to shell none Size of doubling plate under dome none
 of rivets in outer row in dome connection to shell none

Type of Superheater none. Manufacturers of none Tubes
 Number of elements none Material of tubes none Steel castings
 Material of headers none Tensile strength none Thickness none 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 Can the superheater be shut off and
 Area of each safety valve none Are the safety valves fitted with easing gear none Working pressure as per
 Rules none Pressure to which the safety valves are adjusted none Hydraulic test pressure
 tubes none and after assembly in place none Are drain cocks or valves fitted
 to free the superheater from water where necessary none

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

THE NORTH EASTERN MARINE ENGINEERING CO. LTD.
 The foregoing is a correct description,
 G. K. Stephenson
 Commercial Manager

Dates of Survey During progress of work in shops - - - See Machinery Dept 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 1

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

This Boiler has been built under Special Survey. Materials & Workmanship good. Hydraulic test satisfactory. It has been securely fixed in the Vessel, examined under steam & safety valves adjusted.

Survey Fee £
 Travelling Expenses (if any) £

When applied for, 192
 When received, 192

William R. Butler
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI 17 MAY 1929

Assigned

See P. 6. app. attached



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