

REPORT ON BOILERS.

No. 98381

Date of writing Report

19

When handed in at Local Office

1/4/40

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at
Reg. Book.

Wallsend.

Date, First Survey

28 July

Last Survey

29 March 1940

38561 on the

S S "CONFIELD"

(Number of Visits)

Gross
Tons
Net

Master

Built at

Sunderland

By whom built

J. I. Thompson & Son Ltd

Yard No.

597 When built

Engines made at

Wallsend

By whom made

N.E. Marine Eng Co (1938) Ltd

Engine No.

2956 When made

Boilers made at

By whom made

Boiler No.

2956 When made

Nominal Horse Power

Owners Confield S S Co Ltd

Port belonging to Newcastle

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

Manufacturers of Steel

Colvilles Ltd.

(Letter for Record

S

Total Heating Surface of Boilers

1235 sq ft.

Is forced draught fitted

no

Coal or Oil fired

coal

No. and Description of Boilers

1 Aux. S.B.

Working Pressure

220

Tested by hydraulic pressure to

380

Date of test

30.11.39

No. of Certificate

834

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

34 1/2 sq ft.

No. and Description of safety valves to each boiler

1 Double.

Area of each set of valves per boiler

per Rule

6.6 sq ft.

Pressure to which they are adjusted

225

Are they fitted with easing gear

yes

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

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

yes

Smallest distance between shell of boiler and tank top plating

2'-8"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

11'-9 3/32"

Length

10'-6"

Shell plates: Material

S

Tensile strength

29-33

Thickness

1 9/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

DR

long. seams

T.R. D. B. S. (5 rivets)

Diameter of rivet holes in

circ. seams

1 3/16"

Pitch of rivets

3 1/2"

Percentage of strength of circ. end seams

plate

66

rivets

44

Percentage of strength of circ. intermediate seam

plate

85.8

Percentage of strength of longitudinal joint

plate

85.8

rivets

86.2

combined

88.7

Working pressure of shell by Rules

220

Thickness of butt straps

outer

7/8"

inner

1"

No. and Description of Furnaces in each Boiler

2 cf.

Material

S

Tensile strength

26-30

Smallest outside diameter

3-5 1/32"

Length of plain part

top

bottom

Thickness of plates

crown

4 1/4"

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

226

End plates in steam space: Material

S

Tensile strength

26-30

Thickness

1 1/16"

Pitch of stays

14 1/4" 15 7/8"

How are stays secured

D.N. & thin washers

Working pressure by Rules

223

Tube plates: Material

front

back

S

Tensile strength

26-30

Thickness

1 1/16"

Mean pitch of stay tubes in nests

10'-35"

Pitch across wide water spaces

14 1/4" x 9"

Working pressure

front

240

Girders to combustion chamber tops: Material

S

Tensile strength

28-32

Depth and thickness of girder

at centre

9 1/8" x 1 1/32" double

Length as per Rule

31.9"

Distance apart

11 3/4"

No. and pitch of stays

in each

3 @ 7 1/2"

Working pressure by Rules

224

Combustion chamber plates: Material

S

Tensile strength

26-30

Thickness: Sides

25/32"

Back

25/32"

Top

25/32"

Bottom

25/32"

Pitch of stays to ditto: Sides

10 x 9 7/8"

Back

9 3/4 x 9 7/8"

Top

11 3/4 x 7 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

222

Front plate at bottom: Material

S

Tensile strength

26-30

Thickness

1 1/16"

Lower back plate: Material

S

Tensile strength

26-30

Thickness

1 1/16"

Pitch of stays at wide water space

14 1/2 x 9 7/8"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

309

Main stays: Material

S

Tensile strength

28-32

Diameter

At body of stay,

or

Over threads

2 3/8"

No. of threads per inch

6

Area supported by each stay

218 sq in

Working pressure by Rules

220

Screw stays: Material

S

Tensile strength

26-30

Diameter

At turned off part,

or

Over threads

2"

No. of threads per inch

9

Area supported by each stay

96.25 sq in

W373-0215

Working pressure by Rules 258 Are the stays drilled at the outer ends NO Margin stays: Diameter { At turned off part, or Over threads 2 1/2" Working pressure by Rules 256

No. of threads per inch 9 Area supported by each stay 111 Thickness 8/16 7/16 1/2 No. of threads per inch 9

Tubes: Material S.D. Steel External diameter { Plain 3 3/4 Stay 3 1/4 Pitch of tubes 4 1/2 4 1/2 Working pressure by Rules 227 Manhole compensation: Size of opening in shell plate 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 7/8 3 1/2 Steam Dome: Material 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 Manufacturers of { Tubes Steel forgings 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 forgings and 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

The foregoing is a correct description,
THE NORTH EASTERN MARINE ENGINEERING CO. (1935) LTD.
John Neill Manufacturer.

Dates of Survey { During progress of work in shops -- See Machinery report Are the approved plans of boiler and superheater forwarded herewith 26-5-39. (If not state date of approval.)

while building { During erection on board vessel -- Total No. of visits

Is this Boiler a duplicate of a previous case NO If so, state Vessel's name and Report No. "Argyll" except Screw Stays

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
This Auxiliary Boiler has been made under special survey in accordance with the approved plan & the requirements of the Rules
The materials & workmanship are good & the boiler was found sound & tight under hydraulic test 380 lbs " & satisfactory under steam.

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

B. C. C. C. C. C.
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned See Old J.E. 32840