

REPORT ON BOILERS.

No. 98976

Received at London Office

NOV 27 1940

Date of writing Report

19

When handed in at Local Office

25/11/1940

Port of

NEWCASTLE-on-TYNE

No. in Survey Book

Wallsend

Date, First Survey

2nd Nov 1939

Last Survey

15th Nov 1940

(Number of Visits)

Gross Tons

Net

built at

SS RICHMOND HILL

By whom built

Bartram & Sons Ltd

Yard No.

284

When built

1940

engines made at

Wallsend

By whom made

N.E. Marine Eng Co (1938) Ltd

Engine No.

2954

When made

1940

boilers made at

"

By whom made

"

Boiler No.

2954

When made

1940

nominal Horse Power

Owners

Rethymnis & Kukulund Ltd

Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colvilles Ltd & Steel Co of Scotland Ltd.

(Letter for Record

S

Total Heating Surface of Boilers

1532 sq ft

Is forced draught fitted

yes

Coal or Oil fired

oil

No. and Description of Boilers

1 aux. S.B.

Working Pressure

220

tested by hydraulic pressure to

380

Date of test

19.4.40

No. of Certificate

847

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

4.1 sq ft

No. and Description of safety valves to each boiler

1 Double Improved High Lift

Area of each set of valves per boiler

per Rule

4.8 sq ft

Pressure to which they are adjusted

225 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

yes

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

2'-2"

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

11'-9 1/16"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29-33

Thickness

1 7/32"

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 1/4"

Pitch of rivets

3 3/4"

Percentage of strength of circ. end seams

plate

66.7%

Percentage of strength of circ. intermediate seam

plate

8 9/16"

Percentage of strength of longitudinal joint

plate

85.5%

Percentage of strength of longitudinal joint

plate

92.2%

Thickness of butt straps

outer

7/8"

No. and Description of Furnaces in each Boiler

2 cf.

Material

Steel

Tensile strength

26-30

Smallest outside diameter

41 9/16"

Length of plain part

top

bottom

Thickness of plates

crown

2 1/32"

Description of longitudinal joint

weld

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

End plates in steam space

Material

Steel

Tensile strength

26-30

Thickness

1 7/16"

Pitch of stays

22" x 15"

How are stays secured

Double nuts

Tube plates

Material

front

back

Steel

Tensile strength

26-30

Thickness

3/32"

1 3/16"

Lean pitch of stay tubes in nests

10.25"

Pitch across wide water spaces

14 1/2" x 8 3/4"

Girders to combustion chamber tops

Material

Steel

Tensile strength

29-33

Depth and thickness of girder

At centre

10 x 3/4" double

Length as per Rule

34"

Distance apart

9 1/2"

No. and pitch of stays

In each

3

2 10 3/16"

Combustion chamber plates: Material

Steel

Tensile strength

26-30

Thickness: Sides

2 7/32"

Back

2 7/32"

Top

2 7/32"

Bottom

2 7/32"

Pitch of stays to ditto

Sides

10 3/16" x 9 1/2"

Back

10 3/16" x 9 1/2"

Top

10 3/16" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Front plate at bottom

Material

Steel

Tensile strength

26-30

Thickness

3/32"

Lower back plate: Material

Steel

Tensile strength

26-30

Thickness

1 7/16"

Pitch of stays at wide water space

15" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Main stays

Material

Steel

Tensile strength

28-32

Diameter

At body of stay

3"

No. of threads per inch

6

crew stays

Material

Steel

Tensile strength

26-30

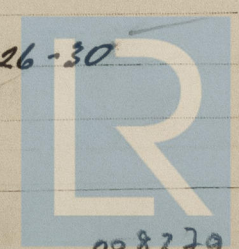
Diameter

At turned off part

1 7/8"

No. of threads per inch

9



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Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 2 1/8" or Over threads 2 1/8" pt. 4c

No. of threads per inch 9

Tubes: Material S.D. Steel External diameter { Plain 2 1/2" Stay 2 1/2" Thickness { 8 W.G. 3/8" + 7/16" No. of threads per inch 9 Date of survey

Pitch of tubes 3 3/4" x 3 3/4" Manhole compensation: Size of opening 9 No. in Reg. Bo.

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 4" & 3 1/2" Steam Dome: Material ✓

Tensile strength ✓ Thickness of shell ✓ Description of longitudinal joint ✓ Built

Diameter of rivet holes ✓ Pitch of rivets ✓ Percentage of strength of joint { Plate ✓ Rivets ✓ Owners

Internal diameter ✓ Thickness of crown ✓ No. and diameter ✓ Oil En

stays ✓ Inner radius of crown ✓ General

How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes and pitch ✓ No. of

of rivets in outer row in dome connection to shell ✓

Type of Superheater ✓ Manufacturers of { Tubes ✓ Steel forgings ✓ Steel castings ✓ IL E

Number of elements ✓ Material of tubes ✓ Internal diameter and thickness of tubes ✓ Maximu

Material of headers ✓ Tensile strength ✓ Thickness ✓ Can the superheater be shut off a Span of

the boiler be worked separately ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓ Revoluti

Area of each safety valve ✓ Are the safety valves fitted with easing gear ✓

Pressure to which the safety valves are adjusted ✓ Hydraulic test pressure ✓ Eng

tubes ✓ forgings and castings ✓ and after assembly in place ✓ Are drain cocks ✓ Boi

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. For

THE NORTH-EASTERN MARINE ENGINEERING CO. (1933) LTD.
The foregoing is a correct description,
John Neill Manufactur

Dates of Survey { During progress of work in shops - - See Mch report Are the approved plans of boiler and superheater forwarded herewith 15-7-39 (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. ✓

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This 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 & proved satisfactory under working conditions.

Survey Fee ... See Mch report When applied for, 19

Travelling Expenses (if any) £ See Mch report When received, 19

Committee's Minute

Assigned

FRI 13 DEC 1940

See Std J.C. 33009



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