

RECEIVED
Rpt. 5a.
20 DEC 1946
IN D.O.

NEWCASTLE-on-TYNE No 104516

REPORT ON BOILERS.

No. 10413

Received at London Office

18 DEC 1946

Date of writing Report

19

When handed in at Local Office

16.12.46

Port of NEWCASTLE-ON-TYNE

No. in
Reg. Book.

Survey held at Wallsend

Date, First Survey (1946) Oct. 12th

Last Survey

Dec. 11th 1946

(Number of Visits 13)

Gross

6437.59

Tons

Net

3625.14

on the

M.V. LAMPANIA

Master

Built at

Hebburn

By whom built

Hawthorn, Leslie & Co

Yard No. 690

When built

1947

Engines made at

Newcastle (St Peters)

By whom made

ditto

Engine No. 4038

When made

1947.

Boilers made at

Wallsend

By whom made

N.E. MAR. ENG. CO (1938) LTD

Boiler No. 3159

When made

1946.

Nominal Horse Power

230.

Owners

Anglo-Saxon Petroleum Co. Ltd

Port belonging to

London.

MULTITUBULAR BOILER MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

COLNIELLS LTD

(Letter for Record S.)

Total Heating Surface of Boilers

3453 sq ft.

Is forced draught fitted YES

Coal or Oil fired

OIL FIRED
OR EXH. GAS.

No. and Description of Boilers

One, Single Ended

Working Pressure

180 LBS/sq in

Tested by hydraulic pressure to

320 $\frac{1}{2}$ lbs

Date of test

6-12-46

No. of Certificate

1233.

Can each boiler be worked separately

YES

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two of 3" Cockburns Imp'd High Lift.

Area of each set of valves per boiler

per Rule

11.13 sq ins

as fitted

14.12

Pressure to which they are adjusted

11.07

Are they fitted with easing gear

YES

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

no main Boiler.

Smallest distance between boilers or uptakes and bunkers or woodwork

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

16'-0 $\frac{3}{8}$ "

Length

12'-6" (mean)

Shell plates: Material

Stl

Tensile strength

28-32 tons

Thickness

1 $\frac{5}{16}$ "

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end

D.R.

long. seams

T.R. 8bb butt straps

Diameter of rivet holes in

circ. seams

1 $\frac{3}{8}$ "

Pitch of rivets

4"

Percentage of strength of circ. end seams

plate

65.6

rivets

46.4

Percentage of strength of circ. intermediate seam

plate

85.52

rivets

91.7

Percentage of strength of longitudinal joint

plate

85.52

rivets

91.7

combined

89.34

Working pressure of shell by Rules

180.8 lbs/sq in

Thickness of butt straps

outer 1"

inner 1 $\frac{1}{8}$ "

No. and Description of Furnaces in each Boiler

3 C.F. (Morison type)

Material

Stl

Tensile strength

26-30 tons

Smallest outside diameter

3'-11 $\frac{7}{16}$ "

Length of plain part

top

bottom

Thickness of plates

crown

1 $\frac{9}{32}$ "

Description of longitudinal joint

fire weld

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

N/A

Working pressure of furnace by Rules

181 lbs

End plates in steam space: Material

Stl

Tensile strength

28-32 tons

Thickness

1 $\frac{1}{32}$ "

Pitch of stays

23" x 20"

How are stays secured

Nutted inside & outside

Working pressure by Rules

182 lbs

Tube plates: Material

front } Stl

back }

Tensile strength

26-30 tons

Thickness

front 29/32"

back 25/32"

Mean pitch of stay tubes in nests

9 $\frac{7}{8}$ "

Pitch across wide water spaces

13 $\frac{3}{4}$ " x 7 $\frac{3}{4}$ "

Working pressure

front 225 lbs.

back 223 lbs

Girders to combustion chamber tops: Material

Stl

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

11" x 7 $\frac{1}{8}$ " dble.

Length as per Rule

40"

Distance apart

10 $\frac{1}{2}$ "

No. and pitch of stays

in each

3 of 9 $\frac{1}{2}$ " pitch

Working pressure by Rules

196 lbs

Combustion chamber plates: Material

Stl

Tensile strength

26-30 tons

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

9 $\frac{1}{2}$ " x 7 $\frac{1}{4}$ "

Back

9" x 7 $\frac{1}{16}$ "

Top

10 $\frac{1}{2}$ " x 9 $\frac{1}{2}$ "

Are stays fitted with nuts or riveted over

C.C. marginal & corner are NUTTED.

Remainder - riveted over.

Working pressure by Rules

min. 185 lbs (at sides)

Front plate at bottom: Material

Stl

Tensile strength

26-30 tons

Thickness

29/32"

Lower back plate: Material

Stl

Tensile strength

26-30 tons

Thickness

7/8"

Pitch of stays at wide water space

14 $\frac{7}{8}$ " x 9"

Are stays fitted with nuts or riveted over

Remainder - riveted over.

Working Pressure

212 lbs.

Main stays: Material

Stl

Tensile strength

28-32 tons

Diameter

At body of stay, 3 $\frac{1}{2}$ "

Over threads, 3 $\frac{1}{2}$ "

No. of threads per inch

6.

Area supported by each stay

460 sq ins

Working pressure by Rules

200 lbs

Screw stays: Material

Stl.

Tensile strength

26-30 tons

Diameter

At turned off part, 2"

Over threads, 2", 1 $\frac{3}{4}$ ", 1 $\frac{1}{2}$ "

No. of threads per inch

9.

Area supported by each stay

Top = 99.75 sq ins

Back = 69.2

Sides = 68.9

Contd over

003385-003390-0136

Working pressure by Rules 182 lb Are the stays drilled at the outer ends No Margin stays: Diameter ^{At turned off part} 1 3/4" x 2"
No. of threads per inch 9 Area supported by each stay 100.6 sq in Working pressure by Rules 180 lb
Tubes: Material Seamless Stl External diameter ^{Plain} 2 3/4" Thickness ^{Stay} 9.45 No. of threads per inch 9
Pitch of tubes 3 7/8" x 4" Working pressure by Rules 210 lb min (for 5/16" thick) Manhole compensation: Size of opening in
shell plate 20 1/2" x 16 1/2" Section of compensating ring 17" x 1 3/8" No. of rivets and diameter of rivet holes 34 of 1 1/2" dia
Outer row rivet pitch at ends 10 1/2" Depth of flange if manhole flanged 4" 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}
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 NIL Manufacturers of tubes
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.

Manufacturer.

Dates of Survey { During progress of (1946) Oct. 1, 31 Nov. 15, 18, 19, 21, 27, 29 Dec 2
work in shops - - - 4, 6, 9, 11. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) DIRECTOR 3/6/46.
while building { During erection on board vessel - - - } Total No. of visits 13

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M.V. LATIA.
NE Mar Bk No 3124. New Rpt. 103754

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

This Donkey Boiler has been constructed under special Survey in accordance with the approved plan & the Society's Rules, and the materials and workmanship are good

The Boiler is to be sent to Hebburn to be fitted on board, Hawthorn, Leslie's Yard No 690.

The boiler has been efficiently installed on board, examined under steam and the safety valves adjusted to the approved pressure.

J. A. Osle Newcastle-on-Tyne

Survey Fee ... £ 34 : 10 : } When applied for, 19
Travelling Expenses (if any) £ : : } When received, 19

117 DEC 1946

A. A. Watt

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 27 JUN 1947

Assigned Su F.E. mchey. rpt.



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Foundation