

REPORT ON BOILERS.

No. 103126

Received at London Office

13 SEP 1945

Date of writing Report

19

When handed in at Local Office

6-9-1945

Port of NEWCASTLE-ON-TYNE

No. in Survey held at

Wallsend on Tyne

Date, First Survey

(1944) June 7th

Last Survey

Aug. 22nd 1945

Book.

M/V "EMPIRE NEPTUNE"

(Number of Visits)

Gross 8285
Net 4753

Built at

Newcastle
(Hetherum)

By whom built

R.W. Hawthorn, Leslie & Co. Ld

Yard No. 666

When built

Engines made at

New. (St. Peters)

By whom made

ditto

Engine No. 4010

When made

Boilers made at

New. (Wallsend)

By whom made

N.E. Mar. Eng. Co. (1938) Ld

Boiler No. 3092

When made 1945

Nominal Horse Power

277.

Owners

Anglo-Saxon Petroleum Co. Ld

Port belonging to

LONDON

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

The Steel Company of Scotland.

(Letter for Record

S. ✓

Total Heating Surface of Boilers

4160 sq. ft.

Is forced draught fitted

Yes ✓

Coal or Oil fired

Oil fired ✓

No. and Description of Boilers

2 ✓

Working Pressure

180 lbs ✓

Tested by hydraulic pressure to

320 lbs

Date of test

Port 29-1-45
Star 9-2-45

No. of Certificate

1142.
1143.

Can each boiler be worked separately

Yes ✓

Area of Firegrate in each Boiler

✓

No. and Description of safety valves to each boiler

2 of 2½" Cockburn's Imp. High Lift. ✓

Area of each set of valves per boiler

per Rule
as fitted8.0 sq. in.
9.8 ✓

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

✓

Is oil fuel carried in the double bottom under boilers

No ✓

Smallest distance between shell of boiler and tank top plating

Blrs on Flat in E. Rm.

Is the bottom of the boiler insulated

Yes ✓

Largest internal dia. of boilers

13'-0"

Length

12'-4"

Shell plates: Material

Stl

Tensile strength

29-33 tons ✓

Thickness

1 3/64 ✓

Are the shell plates welded or flanged

No ✓

Description of riveting: circ. seams

end D.R. ✓

Type of seams

T.R. Dk Butt Straps

Diameter of rivet holes in

circ. seams
long. seams

1 1/8" ✓

Pitch of rivets

3 1/4" 7 1/16" ✓

Percentage of strength of circ. end seams

plate 65.4
rivets 46.3

Percentage of strength of circ. intermediate seam

plate ✓
rivets ✓

Percentage of strength of longitudinal joint

plate 85.6
rivets 90.2
combined 89.2

Thickness of butt straps

outer 13/16
inner 15/16 ✓

No. and Description of Furnaces in each Boiler

2 c.f. mason type ✓

Material

S. ✓

Tensile strength

26-30 tons ✓

Smallest outside diameter

3'-8 3/8" ✓

Length of plain part

top ✓
bottom

Thickness of plates

crown 9/16"
bottom

Description of longitudinal joint

fire welded. ✓

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

✓

End plates in steam space: Material

S. ✓

Tensile strength

26-30 tons

Thickness

1 9/32"

Pitch of stays

1 1/4" x 1 1/5" ✓

How are stays secured

Double nuts ✓

Tube plates: Material

front S.
back ✓

Tensile strength

26-30 tons

Thickness

29/32"
25/32" ✓

Lean pitch of stay tubes in nests

9 7/8" ✓

Pitch across wide water spaces

13 3/4" x 7 3/4" ✓

Orders to combustion chamber tops: Material

S. ✓

Tensile strength

29-33 tons

Depth and thickness of girder

Centre

10" x 2 1/32" x two

Length as per Rule

3'-1 33/64"

Distance apart

10 1/2" ✓

No. and pitch of stays

Each

3 @ 9" ✓

Combustion chamber plates: Material

S. ✓

Tensile strength

26-30 tons

Thickness: Sides

45/64" ✓

Back

45/64" ✓

Top

45/64" ✓

Bottom

1" ✓

Pitch of stays to ditto: Sides

9" x 6 7/8" ✓

Back

7 1/4" x 8 3/8" ✓

Top

9" x 10 1/2" ✓

Are stays fitted with nuts or riveted over

margin stays riveted.
others riveted ✓

Front plate at bottom: Material

Stl ✓

Tensile strength

26-30 tons

Thickness

29/32" ✓

Lower back plate: Material

S. ✓

Tensile strength

26-30 tons

Thickness

7/8" ✓

Pitch of stays at wide water space

15" x 8 3/8" ✓

Are stays fitted with nuts or riveted over

with nuts ✓

Main stays: Material

Stl ✓

Tensile strength

28-32 tons ✓

Diameter

At body of stay,
or
Over threads

3" ✓

No. of threads per inch

6" ✓

Crew stays: Material

Stl ✓

Tensile strength

26-32 tons

Diameter

At turned off part,
or
Over threads

1 1/2" ✓

No. of threads per inch

9. ✓

Counts over

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121801
Are the stays drilled at the outer ends No ✓
Margin stays: Diameter { At turned off part, 1 3/4" x 2"
or Over threads
No. of threads per inch 9.
Tubes: Material L.W. IRON. ✓ External diameter { Plain 2 3/4"
Stay Thickness { 9 W.G.
3/8", 5/16" No. of threads per inch 9.
Pitch of tubes 4" x 3 7/8" ✓
Manhole compensation: Size of opening
shell plate 20 1/2" x 16 1/2" Section of compensating ring 8 1/2" x 1 1/8" ✓
No. of rivets and diameter of rivet holes 17 of 1 1/2"
Outer row rivet pitch at ends 10 1/2" ✓ Depth of flange if manhole flanged 3 3/4" ✓
Steam Dome: Material Nil
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 Thickness of crown No. and diameter
stays Inner radius of crown
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
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
Pressure to which the safety valves are adjusted Hydraulic test pressure
tubes forgings and castings and after assembly in place Are drain cocks
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

THE NORTH EASTERN MARINE ENGINEERING CO. (1888) LTD.
The foregoing is a correct description,
John Neill Manufacture
DIRECTOR

Dates { During progress of work in shops - - -
of Survey while building { During erection on board vessel - - -
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 8-1-43
1-6-43.
Total No. of visits ✓

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. NEVERITA, hmc Rpt 102268.
Harcella, Tur Rpt 102339.
(NEM. Blon 3073)

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

These 2 Donkey Boilers have been constructed under special survey
in accordance with the approved plans and the Society's Rules, and
the materials and workmanship are good.

The boilers have been efficiently fitted on board the vessel, and tested under steam, with
satisfactory results.

Survey Fee ... £ 26. 7. 0. When applied for, 11 SEP 1945
plus 25% in Spec Travelling Expenses (if any) £ 6. 11. 9. When received, 19

Aulatt REX
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute 5 OCT 1945

Assigned See J.L. Machy. Rpt.



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