

## REPORT ON BOILERS.

No. 103754

Received at London Office 14 JUN 1945

Date of writing Report

19

When handed in at Local Office

23. x 46

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Wallsend.

Date, First Survey

(1945) Aug 10<sup>th</sup>

Last Survey

May 1<sup>st</sup> 1946

eg. Book.

(Number of Visits 13)

Gross 6442

Tons Net 3619

on the Motor Tanker "LATIA"

Built at Hebburn-on-Tyne

By whom built R.W. Hawthorn, Leslie &amp; Co. Ld

Yard No. 684

When built 1946-

Engines made at Newcastle (St Peters)

By whom made ditto

Engine No. 4022

When made 1946

DONKEY

Boiler made at Wallsend

By whom made N. E. War. Engrs. Co (1955) Ld

Boiler No. 3124

When made 1946

Nominal Horse Power 230.

Owners ANGLO-SAXON PETROLEUM Co. Ld.

Port belonging to

LONDON.

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

Manufacturers of Steel Colvelles Ltd.

(Letter for Record S.)

Total Heating Surface of Boilers

3453 sq ft

Is forced draught fitted

Yes

Coal or Oil fired

oil fired &amp; sub waste gas.

No. and Description of Boilers

ONE, SINGLE ENDED.

Working Pressure

180 LBS/sq

Tested by hydraulic pressure to

320 lb

Date of test

7-12-45

No. of Certificate

1190.

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

oil fired

No. and Description of safety valves to each boiler

Two of 3" Cockburn Improved H. Lift

Area of each set of valves per boiler

per Rule 5.59 sq in

Pressure to which they are adjusted

185 lb

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

Yes

Is oil fuel carried in the double bottom under boilers

BOILER IS ON FLAT ABOVE E.R.

Smallest distance between shell of boiler and tank top plating

Yes

Is the bottom of the boiler insulated

YES

Largest internal dia. of boilers

16'-0 3/8"

Length

12'-6" (mean)

Shell plates: Material

Steel

Tensile strength

28-32 tons

Thickness

1 5/16"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R.

long. seams

T.R. Stl butt straps

Diameter of rivet holes in

circ. seams } 1 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

Percentage of strength of longitudinal joint

plate 85.52

rivets 91.70

combined 89.34

Thickness of butt straps

outer 1"

inner 1 1/8"

No. and Description of Furnaces in each Boiler

3 2 C.f. (Morrison Section)

Material

Stl.

Tensile strength

26-30 tons

Smallest outside diameter

3'-11 7/16"

Length of plain part

top } ✓

bottom }

Thickness of plates

crown } 1 9/32"

bottom }

Description of longitudinal joint

Fire weld.

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

Nil.

End plates in steam space: Material

Stl

Tensile strength

28-32 tons

Thickness

1 1/2"

Pitch of stays

23 x 20"

How are stays secured

Nuttled inside &amp; outside.

Tube plates: Material

front } Stl

back }

Tensile strength

26-30 tons.

Thickness

29/32"

Mean pitch of stay tubes in nests

9 7/8"

Pitch across wide water spaces

13 3/4" x 7 3/4"

Girders to combustion chamber tops: Material

Stl

Tensile strength

28-32 tons

Depth and thickness of girder

at centre

11" x 7/8" double

Length as per Rule

440"

Distance apart

10 1/2"

No. and pitch of stays

in each

3 @ 9 1/2" pitch

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 1/2" x 7 1/4"

Back

9" x 7 1/4"

Top

10 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

C.C. BACK MARGINAL WITH NUTS

REMAINDER - RIVETED.

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 5/8" x 9"

Are stays fitted with nuts or riveted over

MARGINAL WITH NUTS; OTHERS RIVETED.

Main stays: Material

Stl

Tensile strength

28-32 tons

Diameter

At body of stay, 3 1/4"

or 3 1/2"

No. of threads per inch

6.

Screw stays: Material

Stl.

Tensile strength

26-30 tons

Diameter

At body of stay, 2", 1 3/4", 1 1/2"

or

No. of threads per inch

9.

Conts. over.

004125-004134-0137

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Are the stays drilled at the outer ends No.

Margin stays: Diameter { At turned off part,  
Over threads 1 3/4" + 2"

No. of threads per inch 9.

Tubes: Material SEAMLESS STEEL. External diameter { Plain } 2 3/4"  
Stay

Thickness { 9.45.  
3/8", 5/16" No. of threads per inch 9.

Pitch of tubes 3 7/8" x 4"

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: 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 of

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 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 Yes.

THE NORTH EASTERN MARINE ENGINEERING CO. (1933) LTD.

The foregoing is a correct description,

John Smith

Manufacturer.

DIRECTOR & RESIDENT MANAGER

Dates of Survey { During progress of (1945) Aug. 10. Oct. 12 Nov. 5. 9. 21 Dec.  
work in shops - (18. 21. 2) (1946) Jan. 4. 8. 10. May 1.  
while building { During erection on board vessel - - -

Are the approved plans of boiler and superheater forwarded herewith Yes.  
(If not state date of approval.) 9-4-45.

Total No. of visits 13

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 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 has been sent to Hebburn to be fitted on board H. Leslie's No 684.

This Boiler has been efficiently fitted on board the vessel and its Safety valves adjusted under steam to 180 lbs/sq. in. (see also Machinery Report).

Survey Fee ... .. £ 23 : 0 : 0

When applied for, 19

Travelling Expenses (if any) £ : :

When received, 19

Robert F. Martin

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 21 JUN 1946

Assigned see minute on S.E. Mch. Rpt.



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