

## REPORT ON BOILERS.

No. 94605

20 JAN 1937

Received at London Office

Date of writing Report

19

When handed in at Local Office

19/1/1037

Port of

NEWCASTLE-ON-TYNE

No. in Survey held at

Wallasey

Date, First Survey 2<sup>nd</sup> March 1936Last Survey 12<sup>th</sup> Jan 1937

Reg. Book.

(Number of Visits)

Gross

Tons

Net

on the

M.V. "HYLTON"

Master

Built at

Sunderland

By whom built

W<sup>m</sup> Dickers & Sons (Ld)

Yard No.

When built

Engines made at

Wallasey

By whom made

North Eastern Marine Eng Co. Ld.

Engine No.

When made

Boilers made at

Wallasey

By whom made

North Eastern Marine Eng Co. Ld.

Boiler No.

When made

Nominal Horse Power

343

Owners

W. A. Louter &amp; Co Ld.

Port belonging to

Newcastle on Tyne

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Co of Scotland: Boggs &amp; Co Boilers Works

(Letter for Record

S

Total Heating Surface of Boilers

2096

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

Two single ended multitubular

Working Pressure

150 lbs

Tested by hydraulic pressure to

275 lbs

Date of test

3-9-1936

No. of Certificate

686

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two spring loaded

Area of each set of valves per boiler

per Rule 7.9

as fitted 9.82

Pressure to which they are adjusted

155 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

24"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

(To deck) 24"

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

8'-10 1/16"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

2 1/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end lap

all riveted

long. seams

T.R. double Butt Straps

Diameter of rivet holes in

circ. seams 7/8"

long. seams 7/8"

Pitch of rivets

3"

Percentage of strength of circ. end seams

plate 70.8

rivets 48.4

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 81.1

rivets 88.2

combined 91.6

Working pressure of shell by Rules

152 lbs

Thickness of butt straps

outer 9/16"

inner 11/16"

No. and Description of Furnaces in each Boiler

One Beighton type.

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

41 1/8"

Length of plain part

top

bottom

Thickness of plates

crown 7/16"

bottom 7/16"

Description of longitudinal joint

weld

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

None

Working pressure of furnace by Rules

152 lbs

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

3 1/32"

Pitch of stays

18x15"

How are stays secured

Double nuts

Working pressure by Rules

157 lbs

Tube plates: Material

front Steel

back Steel

Tensile strength

26-30 tons

Thickness

3 1/32"

Pitch of stays

18x15"

Mean pitch of stay tubes in nests

9 1/16"

Pitch across wide water spaces

8"

Working pressure

front 400 lbs

back 244 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons

Depth and thickness of girder

at centre

7" x 1 1/2"

Length as per Rule

30"

Distance apart

9"

No. and pitch of stays

in each

Two

Working pressure by Rules

159 lbs

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

19/32"

Back

2 1/32"

Top

19/32"

Bottom

19/32"

Pitch of stays to ditto: Sides

9" x 9"

Back

10" x 10"

Top

9" x 9"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

150 lbs

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

3 1/32"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

3 1/32"

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

nuts

Working Pressure

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay, 2 1/4"

or

Over threads

No. of threads per inch

6

Area supported by each stay

18" x 15"

Working pressure by Rules

158 lbs

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part, 1 1/2"

or

Over threads

1 1/2 : 1 1/8 : 1 1/8"

No. of threads per inch

9

Area supported by each stay

9" x 9"

Lloyd's Register Foundation

W 404-0031



IS A DONKEY BOILER FITTED? *Yes* If so, is a report now forwarded? *Yes*  
Is the donkey boiler intended to be used for domestic purposes only? *No.*  
PLANS. Are approved plans forwarded herewith for Shafting *Yes* Receivers *Yes* Separate Tanks *Yes*  
Donkey Boilers *Yes* General Pumping Arrangements *Yes* Oil Fuel Burning Arrangements *No*

SPARE GEAR.  
Has the spare gear required by the Rules been supplied *Yes To Rule.*  
State the principal additional spare gear supplied *1 set of studs nuts for valves on 1 cylinder, 1 set of bearings Top & bottom ends & main bearing, 6 Exhaust valves, 2 inlet valves, 2 cylinder relief valves, 1 Fuel pump unit complete, 3 Reversing Engine piston rings, 6 camshaft coupling bolts, 1 Cast iron propeller, 1 propeller shaft, spare links for cam shaft chain, 1 piston 2 starting air valves, 1 Piston cooling from bore pipe.*  
*Compressors. 1 pair top & bottom end braces & bolts & nuts, 1 set of piston rings for steam cylinders & for air cylinders, 2 sets each of valve plates & springs.*  
*Auxiliary pumps. 1 set of piston rings for each size fitted, 1 set of bucket rings for each size fitted, 1 set each of valves for each size.*  
*Oil burning Installation. 4 burner bodies & caps, 16 nozzles, 16 diaphragms, 1 set of valves & springs.*  
*For engine 1 set of piston rings, 1 pair each of top & bottom end bolts.*  
*Boilers - 1 safety valve spring.*

The foregoing is a correct description.  
For THE NORTH EASTERN MARINE ENGINEERING CO LTD  
*John Neill* Manufacturer.

1936  
Dates of Survey while building  
During progress of work in shops -- *Mar. 2, 10, 12, 16, 30, Apr. 1, 6, 15, 17, 21, 23, 27, May 4, 5, 13, 18, June 5, 10, 11, July 7, 10, 14, 16, 21, 24, 28, 29, 30, Aug. 4, 10, 12, 14, 18, 19, 20, 21, 24, 25, 26, 27, 28, 31, Sep. 1, 3, 7, 8, 9, 11, 15, 17, 18, 22, 23, 30, Oct. 5, 13, 15, 16, 21, 22, 23, 26, 29, Nov. 3, 4, 5, 6, 9, 10, 11, 12, 18, 24, 25, 30, Dec. 3, 4, 8, 9, 18, 22, 23, 28, 29, 30, 1937 Jan. 5, 6, 7, 8, 11, 12.*  
During erection on board vessel --  
Total No. of visits *91*

Dates of Examination of principal parts—Cylinders *21-8-36* Covers *12-8-36* Pistons *31-8-36* Rods *1-9-36* Connecting rods *1-9-36*  
Crank shaft *26-8-36* Flywheel shaft *9-12-36* Thrust shaft *28-6-36* Intermediate shafts *23-9-36* Tube shaft —  
Screw shaft *8-9-36* Propeller *8-9-36* Stern tube *3-9-36* Engine seatings *18-11-36* Engines holding down bolts *23-12-36*  
Completion of fitting sea connections *8-10-36* Completion of pumping arrangements *12-1-37* Engines tried under working conditions *12-1-37*  
Crank shaft, Material *Steel* Identification Mark *Nº 2541 H.C.F. 26-8-36* Flywheel shaft, Material *Steel* Identification Mark *Nº 6620 WEL JES. 25-9-36 9-12-36*  
Thrust shaft, Material *Steel* Identification Mark *Nº 737 J.D. H.C.F. 25-5-36 26-8-36* Intermediate shafts, Material *Steel* Identification Mark *Nº 5590 J.D. H.C.F. 23-9-36*  
Tube shaft, Material — Identification Mark — Screw shaft, Material *Steel* Identification Mark *Nº 5723 WEL H.C.F. 8-9-36*

Is the flash point of the oil to be used over 150° F. *Yes*  
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with *Yes*  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo *No* If so, have the requirements of the Rules been complied with *Yes*  
If the notation for Ice Strengthening is desired, state whether the requirements in this respect have been complied with *Yes*  
Is this machinery duplicate of a previous case *No* If so, state name of vessel *Yes*

General Remarks (State quality of workmanship, opinions as to class, &c.)  
*The machinery of this vessel has been constructed under special survey in accordance with the Rules and approved plans; the materials and workmanship are good. The machinery has been efficiently installed in the vessel, examined under working conditions and found satisfactory, and is eligible, in our opinion, for classification, and to have the Record L.M.C. 1.37 - C.L. in the Register Book.*

The amount of Entry Fee .. £ *5 : 0 : 0* When applied for, *19 JAN 1937*  
Special ... .. £ *76 : 9 : 0*  
Donkey Boiler Fee .. £ *13 : 18 : 0* When received, *29.1.37*  
*2 Reversed Air Receivers* .. £ *4 : 4 : 0*  
Travelling Expenses (if any) £ .. ..

Committee's Minute *FRI 29 JAN 1937*  
Assigned *+ Lmbs 1.37 2 SB-15010*  
*Art. Sup. Cl.*

*S.H. Forster* & *J. S. Sells*  
Engineer Surveyor to Lloyd's Register of Shipping.

