

REPORT ON BOILERS.

No. 85398

Received at London Office 26 FEB 1930

Date of writing Report

When handed in at Local Office

21.2.1930

Port of Newcastle-on-Tyne

No. in Survey held at Reg. Book.

Wallsend-on-Tyne

Date, First Survey

4 Feb 1919

Last Survey

14 Feb

1930

on the

New Steel 16" Luxcor.

(Number of Visits

Tons

GROSS 6554

Net 3926

Master

Built at

Jarrow

By whom built

Palmer's B. & J. Co

Yard No.

994

When built

1930

Engines made at

Wallsend

By whom made

Wallsend Slipway & E. & Co. Ltd

Engine No.

885

When made

1930

Boilers made at

Wallsend

By whom made

Wallsend Slipway & E. & Co. Ltd

Boiler No.

885

When made

1930

Nominal Horse Power

449

Owners

H. E. Moss & Co

Port belonging to

Liverpool

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

Manufacturers of Steel

Debolville & Sons Ltd.

(Letter for Record

5

Total Heating Surface of Boilers

216 H.F.

Is forced draught fitted

Yes.

Coal or Oil fired

Oil

No. and Description of Boilers

Two single ended.

Working Pressure

120 lbs

Tested by hydraulic pressure to

230

Date of test

28.8.29

No. of Certificate

380

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

O.F. only

No. and Description of safety valves to each boiler

Two spring loaded, High lift.

Area of each set of valves per boiler

per Rule

12.03.2

Pressure to which they are adjusted

125 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

2'-0"

Is oil fuel carried in the double bottom under boilers

Yes.

Smallest distance between shell of boiler and tank top plating

2'-1"

Is the bottom of the boiler insulated

No

Largest internal dia. of boilers

10'-4 3/4"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

29 to 33 tons

Thickness

5/8"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end S.R.

long. seams

D.R.D.B.S.

Diameter of rivet holes in

circ. seams

15/16"

long. seams

Pitch of rivets

2.095

4 1/16"

Percentage of strength of circ. end seams

plate 55.8

rivets 48

Percentage of strength of circ. intermediate seam

plate 81.4

rivets ✓

Percentage of strength of longitudinal joint

plate 83

rivets 91.8

Working pressure of shell by Rules

124 lbs

Thickness of butt straps

outer 5/8"

inner 5/8"

No. and Description of Furnaces in each Boiler

Two corrugated (Deighton)

Material

Steel

Tensile strength

26 to 30 tons

Smallest outside diameter

2'-1 1/4"

Length of plain part

top ✓

bottom

Thickness of plates

crown 3/4"

bottom

Description of longitudinal joint

Weld

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

Working pressure of furnace by Rules

End plates in steam space: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1"

Pitch of stays

20 3/4" x 21

How are stays secured

D. nuts

Working pressure by Rules

121 lbs.

Tube plates: Material

front Steel

back

Tensile strength

26 to 30 tons

Thickness

3/4"

Mean pitch of stay tubes in nests

10 5/8"

Pitch across wide water spaces

13 1/4" x 1 1/4"

Working pressure

front 120.6 lbs

back 144 lbs

Girders to combustion chamber tops: Material

Steel

Tensile strength

29 to 33 tons

Depth and thickness of girder

at centre

2 @ 5/8" x 4 1/8"

Length as per Rule

2'-6 3/8"

Distance apart

10"

No. and pitch of stays

in each

2 @ 9 1/16"

Working pressure by Rules

123 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26 to 30 tons

Thickness: Sides

19 3/8"

Back

19 3/8"

Top

19 3/8"

Bottom

19 3/8"

Pitch of stays to ditto: Sides

9 1/16" x 10"

Back

10" x 9"

Top

10" x 9 1/16"

Are stays fitted with nuts or riveted over

Nuts

Working pressure by Rules

128 lbs

Front plate at bottom: Material

Steel

Tensile strength

26 to 30 tons

Thickness

3/4"

Lower back plate: Material

Steel

Tensile strength

26 to 30 tons

Thickness

1 1/16"

Pitch of stays at wide water space

14" x 9"

Are stays fitted with nuts or riveted over

Nuts

Working Pressure

13 1/4 lbs.

Main stays: Material

Steel

Tensile strength

28 to 32 tons

Diameter

At body of stay, or over threads

2 3/4"

No. of threads per inch

6

Area supported by each stay

415 sq"

Working pressure by Rules

133 lbs

Screw stays: Material

Steel

Tensile strength

26 to 30 tons

Diameter

At turned off part, or over threads

1 1/2"

No. of threads per inch

9

Area supported by each stay

94.4 sq"

Working pressure by Rules 132 lbs. Are the stays drilled at the outer ends ho Margin stays: Diameter { At turned off part, 1 5/8" ✓
No. of threads per inch 9 Area supported by each stay 108 sq. Working pressure by Rules 140
Tubes: Material Steel External diameter { Plain 2 1/2" Thickness { 11 L.S.G. 1/4" 5/16" No. of threads per inch 9
Pitch of tubes 3 1/8 x 3 3/4 Working pressure by Rules 140 nests Manhole compensation: Size of opening in
shell plate 19 1/2 x 15 1/8 Section of compensating ring 10 x 5/8 No. of rivets and diameter of rivet holes 44 @ 2 1/32" ✓
Outer row rivet pitch at ends 4 1/2" ✓ Depth of flange if manhole flanged 2 5/8" Steam Dome: Material None.
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 Babcock & Wilcox (nests in uptake) copy of Tubes Manufacturers of Steel castings ✓
Number of elements 36 Material of tubes S.D. Steel Internal diameter and thickness of tubes 1 1/4 x 10 wls.
Material of headers Steel Tensile strength ✓ Thickness ✓ Can the superheater be shut off and
the boiler be worked separately yes Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes
Area of each safety valve 1.74 sq. ft. Are the safety valves fitted with easing gear yes Working pressure as per
Rules 120 lbs. Pressure to which the safety valves are adjusted 125 lbs. Hydraulic test pressure:
tubes ✓ castings 360 lbs. and after assembly in place 250 lbs. Are drain cocks or valves fitted
to free the superheater from water where necessary yes
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes.

FOR THE WALLSEND SURVEY & ENGINEERING CO. LIMITED.
The foregoing is a correct description,
A. Lang Manufacturer.

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

Is this Boiler a duplicate of a previous case If so, state Vessel's name and Report No.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These Boilers have been built under Special Survey. Materials & workmanship good. Hydraulic tests satisfactory. They have been examined under steam & safety valves adjusted.

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

William D. Little
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 4 MAR 1930
Assigned See other J.E. Rpt.