

REPORT ON BOILERS.

Sld. No. 32345
Hall No. 16226

Received at London Office JAN 15 1938

Date of writing Report

19

When handed in at Local Office

13-1-1938

Port of

Middlebrough

No. in Survey held at

Stockton

Date, First Survey

19 Nov/37

Last Survey

10 Jan/38

g. Book.

M.V. DERRYMORE

(Number of Visits

8

Gross

4799

Tons

Net

2822

on the

Master

Built at Burntisland

By whom built

Burntisland S.H.C.

Yard No.

213

When built

1938

Engines made at

Sunderland

By whom made

W. Donohoe & Sons Ltd

Engine No.

202

When made

1938

Boilers made at

Stockton

By whom made

Stockton C. Eng. & Ship Repair Ltd

Boiler No.

6755

When made

1938

Nominal Horse Power

Owners

McEwen & Sons Ltd

Port belonging to

London

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Steel Company of Scotland Ltd & Colvilles Ltd

(Letter for Record

S

Total Heating Surface of Boilers

1390 sq. ft.

Is forced draught fitted

no.

Coal or Oil fired

oil.

No. and Description of Boilers

18B.

Working Pressure

120 lbs

Tested by hydraulic pressure to

230 lbs

Date of test

10.1.38

No. of Certificate

6927

Can each boiler be worked separately

Yes.

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Two direct spring.

Area of each set of valves per boiler

per Rule

12.8 sq. in.

as fitted

16.6 sq. in.

Pressure to which they are adjusted

120

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' 10"

Is oil fuel carried in the double bottom under boilers

no.

Smallest distance between shell of boiler and tank top plating

2' 10"

Is the bottom of the boiler insulated

Yes.

Largest internal dia. of boilers

11'-10 7/8"

Length

11'-0"

Shell plates: Material

S

Tensile strength

29-33

Thickness

1/16"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end

inter.

Long. seams

U.R.D.B.S

Diameter of rivet holes in

circ. seams

1 1/16"

long. seams

1 3/16"

Pitch of rivets

3 3/8"

5 3/8"

Percentage of strength of circ. end seams

plate

68.5

rivets

45.6

Percentage of strength of circ. intermediate seam

plate

84.9

rivets

83.7

Percentage of strength of longitudinal joint

plate

84.9

rivets

83.7

Working pressure of shell by Rules

123 lbs

Thickness of butt straps

outer

9/16"

inner

11/16"

No. and Description of Furnaces in each Boiler

2 cf.

Material

S

Tensile strength

26-30

Smallest outside diameter

3'-8 1/2"

Length of plain part

top

bottom

Thickness of plates

crown

13/32"

bottom

13/32"

Description of longitudinal joint

weld.

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

Working pressure of furnace by Rules

121 lbs

End plates in steam space: Material

S

Tensile strength

26-30

Thickness

27/32"

Pitch of stays

16" x 17 1/2"

How are stays secured

D.N. & W

D.N. & rivetted washers

Working pressure by Rules

139 lbs

Tube plates: Material

front

back

Steel

Tensile strength

26/30

Thickness

27/32"

13/16"

Mean pitch of stay tubes in nests

11 1/4" x 7 1/16"

Pitch across wide water spaces

13 1/2" x 7"

Working pressure

front

back

152

126

Girders to combustion chamber tops: Material

S

Tensile strength

28-32

Depth and thickness of girder

at centre

7" x 7 3/8" double

Length as per Rule

2'-6 1/2"

Distance apart

8"

No. and pitch of stays

in each

2 @ 9 1/2"

Working pressure by Rules

141 lbs

Combustion chamber plates: Material

S

Tensile strength

26-30

Thickness: Sides

19/32"

Back

9/16"

Top

19/32"

Bottom

11/16"

Pitch of stays to ditto: Sides

10" x 9"

Back

8 3/4" x 9 1/2"

Top

8" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

129 lbs

Front plate at bottom: Material

S

Tensile strength

26-30

Thickness

27/32"

Lower back plate: Material

S

Tensile strength

26-30

Thickness

27/32"

Pitch of stays at wide water space

13 1/2" x 9 1/2"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

213 lbs

Main stays: Material

S

Tensile strength

28-32

Diameter

At body of stay,

or

Over threads

2 1/4"

No. of threads per inch

6

Area supported by each stay

259 sq. in.

Working pressure by Rules

133

Screw stays: Material

S

Tensile strength

26-30

Diameter

At turned off part,

or

Over threads

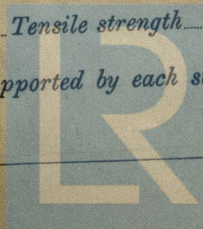
1 3/8"

No. of threads per inch

9

Area supported by each stay

74.5 sq. in.



Lloyd's Register Foundation
W25-0042

Working pressure by Rules 133 lbs Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 1 7/8" ✓
No. of threads per inch 9 ✓ Area supported by each stay 100 Working pressure by Rules 152 lbs
Tubes: Material 1/2" Weld iron External diameter { Plain 2 1/2" ✓ Thickness { 5/16 ✓ No. of threads per inch 9 ✓
Pitch of tubes 3 1/2" x 3 3/4" ✓ Working pressure by Rules P. 175 S 221 lbs Manhole compensation: Size of opening
shell plate 20" x 16" ✓ Section of compensating ring 7" x 1" ✓ No. of rivets and diameter of rivet holes 44 @ 15/16 ✓
Outer row rivet pitch at ends 7" ✓ Depth of flange if manhole flanged _____ 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 _____ Rivets _____
Internal diameter _____ Working pressure by Rules _____ Thickness of crown _____ No. and diameter _____
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 _____ Manufacturers of { Tubes _____ 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 _____ Working pressure as per _____
Rules _____ Pressure to which the safety valves are adjusted _____ Hydraulic test pressure _____
tubes _____, 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 foregoing is a correct description, yes
H. W. Bailey Manufacture
DIRECTOR

Dates of Survey { During progress of 1937 Nov 19 30 Dec 7 10 16 23 1938 Jan 5 10 Are the approved plans of boiler and superheater forwarded herewith yes
while building { During erection on board vessel - - - - -
Total No. of visits 8

Is this Boiler a duplicate of a previous case yes. If so, state Vessel's name and Report No. Boiler No 6254. Chalk Rpt

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
The boiler has been made under Special Survey in accordance with the approved plan & the Requirements of the Rules. The material & workmanship are good & the boiler was found sound & tight under hydraulic test 230 lbs.
The boiler is to be forwarded to Sunderland for fitting on board

This boiler has been securely fixed on board the vessel & examined under steam & safety valves adjusted to working pressure in accordance with Rule requirements.
In recommendation please see Melby. Rpt.

Survey Fee ... £ 9 : 6 : 0 When applied for, 14-1-1938
Travelling Expenses (if any) £ : : When received, 6. 4. 1938 frw.

H. W. Bailey
R. C. Loffitt
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute WED. 20 APR 1938

Assigned See Lth 7E 19520