

REPORT ON BOILERS.

No. 116258.

Received at London Office

16 JUL 1941

Date of writing Report

19-5

41

When handed in at Local Office

- 9 JUL 1941

Port of

LIVERPOOL

No. in Survey held at
Book.

BIRKENHEAD

Date First Survey

15/4/40

Last Survey

14/6/41

19 41

on the

M.V.

"DEWDALE"

(Number of Vessels)

64

Tons

Gross 8265

Net 4860

Built at

BIRKENHEAD

By whom built

CAMMELL LAIRD & CO LD.

Yard No.

1054

When built

1941

Engines made at

BELFAST

By whom made

HARLAND & WOLFE LD

Engine No.

2087

When made

1941

Boilers made at

BIRKENHEAD

By whom made

CAMMELL LAIRD & CO LD.

Boiler No.

1054

When made

1941

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

D. COLVILLE & CO, STEEL CO OF SCOTLAND

(Letter for Record

(S)

Total Heating Surface of Boilers

3700 sq ft

Is forced draught fitted

Coal or Oil fired

OIL

No. and Description of Boilers

2. S.E.

Working Pressure

150 LBS/sq

Tested by hydraulic pressure to

275 LBS/sq

Date of test

13/8/40

No. of Certificate

2524

Can each boiler be worked separately

YES

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2. SPRING LOADED - H.L.

Area of each set of valves per boiler

per Rule 70

as fitted 7.94 sq

Pressure to which they are adjusted

150 LBS/sq

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

WELL CLEAR

Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating

ON FLAT

Is the bottom of the boiler insulated

YES

Largest internal dia. of boilers

12'-6"

Length

11'-6"

Shell plates: Material

STEEL

Tensile strength

29/33 TONS

Thickness

27/32"

Are the shell plates welded or flanged

NO

Description of riveting: circ. seams

end D.R.

Pitch of rivets

T.R. - D.B.S.

Diameter of rivet holes in

circ. seams 15/16"

Pitch of rivets

2.632"

Percentage of strength of circ. end seams

plate 64.

rivets 49.

Percentage of strength of circ. intermediate seam

plate 85.5.

rivets 93.

Percentage of strength of longitudinal joint

plate 89.

rivets 89.

W.P. SHELL BY RULES - 151 LBS/sq

Thickness of butt straps

outer 13/16"

inner 11/16"

No. and Description of Furnaces in each Boiler

TWO MORISON SECTION.

Material

STEEL

Tensile strength

26-30 TONS

Smallest outside diameter

3'-8 1/2"

Length of plain part

top

bottom

Thickness of plates

crown 1/2"

bottom 1/2"

Description of longitudinal joint

WELD

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

End plates in steam space: Material

STEEL

Tensile strength

26-30 TONS

Thickness

3/32"

Pitch of stays

17 1/2" x 15"

How are stays secured

D.N.

Tube plates: Material

front

back

STEEL

Tensile strength

26-30 TONS

Thickness

27/32"

25/32"

Clean pitch of stay tubes in nests

10.25"

Pitch across wide water spaces

13 3/4"

Girders to combustion chamber tops: Material

STEEL

Tensile strength

28/32 TONS

Depth and thickness of girder

Centre

9' x 23/32" DOUBLE

Length as per Rule

2'-10 1/2"

Distance apart

9"

No. and pitch of stays

Each

3 @ 8"

Combustion chamber plates: Material

STEEL

Tensile strength

26/30 TONS

Thickness: Sides

11/16"

Back

23/32"

Top

11/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

9' x 8'

Back

9 1/8' x 8 1/8'

Top

9' x 8'

Are stays fitted with nuts or riveted over

NUTS & RIVETED

Front plate at bottom: Material

STEEL

Tensile strength

26-30 TONS

Thickness

27/32"

Lower back plate: Material

STEEL

Tensile strength

26-30 TONS

Thickness

13/16"

Pitch of stays at wide water space

14 3/4"

Are stays fitted with nuts or riveted over

NUTS

Main stays: Material

STEEL

Tensile strength

28-32 TONS

Diameter

At body of stay, 2 1/2"

Over threads

No. of threads per inch

6

Crew stays: Material

STEEL

Tensile strength

26-30 TONS

Diameter

At turned off part, 1 1/2"

Over threads

No. of threads per inch

9

003075 - 003082 - 0097

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Are the stays drilled at the outer ends **NO.**

Margin stays: Diameter { At turned off part, or Over threads **1 3/4" - 1 7/8" CORNER**

No. of threads per inch **9.**

Tubes: Material **IRON. L.W.** External diameter { Plain **2 3/4"** Stay Thickness { **9. L.S.G. 5/16" - 3/8"** No. of threads per inch **9.**

Pitch of tubes **4" x 3 7/8"** shell plate **22" x 18"** Section of compensating ring **2'-10" x 2'-4 1/2" x 15/16"** No. of rivets and diameter of rivet holes **54 - 15/16"** Manhole compensation: Size of opening in

Outer row rivet pitch at ends **6 1/2"** Depth of flange if manhole flanged **3 1/2"** 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 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

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 of

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

The foregoing is a correct description,

Manufacturers

Dates of Survey { During progress of work in shops - - **Apr 15th - June 14th /41** Are the approved plans of boiler and superheater forwarded herewith **YES.** (If not state date of approval.) while building { During erection on board vessel - - - - - Total No. of visits **64.**

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

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

These boilers have been built under Special Survey, to approved plans in accordance with the Society's Rules. Materials and workmanship are good. They have been properly fitted in M.V. DEWDALE, examined under working conditions & their safety-valves adjusted to 150 lbs/sq. in.

Survey Fee ... **See Machinery Report.** Travelling Expenses (if any) £

When applied for, 19 When received, 19

H. Sutherland

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

See Minute on Liverpool H. Machinery Report.



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