

REPORT ON BOILERS.

No. 61742

Received at London Office

15 NOV 1939

Writing Report

19

When handed in at Local Office

13. 11. 1939

Port of GLASGOW

Survey held at

GLASGOW

Date, First Survey

16. 6. 39

Last Survey

8th Nov. 1939

3 on the

S.S. "DAN-Y-BRYN"

(Number of Visits

40)

Tons

Gross 5717

Net 3034

Built at BURNTISLAND

By whom built

BURNTISLAND S.B. Co.

Yard No.

239

When built

made at

GLASGOW

By whom made

D. ROWAN & Co. LD.

Engine No.

1049

When made

1939

made at

GLASGOW

By whom made

D. ROWAN & Co. LD.

Boiler No.

1049

When made

1939

Horse Power

458

Owners

Brynmor Steamship Co Ltd

Port belonging to

London

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Constructors of Steel

COLVILLES LD.

(Letter for Record S)

Coating Surface of Boilers

5322 (5646 Oil Burners) forced draught fitted YES

Coal or Oil fired EITHER

Description of Boilers

TWO SINGLE-ENDED

Working Pressure 220 lb.

by hydraulic pressure to

380 lb.

Date of test

6-10-39

No. of Certificate

20460

Can each boiler be worked separately YES

Firegrate in each Boiler

63.25

No. and Description of safety valves to each boiler

2 SPRING LOADED

each set of valves per boiler

per Rule 15.0160"

as fitted 16.580"

Pressure to which they are adjusted

-220 lb. Are they fitted with easing gear - yes.

of donkey boilers, state whether steam from main boilers can enter the donkey boiler

-10" at sides 9" to bulkhead.

distance between boilers or uptakes and bunkers or woodwork

-10" at sides

Is oil fuel carried in the double bottom under boilers -

distance between shell of boiler and tank top plating

-2'-5"

Is the bottom of the boiler insulated - yes.

External dia. of boilers

16'-0"

Length

11'-6"

Shell plates: Material

STEEL - Tensile strength

29-33 tons

Are the shell plates welded or flanged

NO

Description of riveting: circ. seams

end D.R.

Diameter of rivet holes in

circ. seams F 1 7/16" B 1 9/16"

long. seams

1 9/16"

Pitch of rivets

F 3 7/8" B 4 1/4"

Percentage of strength of circ. end seams

plate F 61.9 B 60

rivets F 45.2 B 45.8

Percentage of strength of circ. intermediate seam

plate -

Percentage of strength of longitudinal joint

plate 85.1

rivets 89.6

combined 88

Working pressure of shell by Rules 221 lb.

No. and Description of Furnaces in each Boiler

THREE DEIGHTON

Material

STEEL

Tensile strength

26-30 tons

Smallest outside diameter

3'-11 1/2"

Thickness of plates

crown 4 7/16"

bottom 4 7/16"

Description of longitudinal joint

WELDED

Working pressure of furnace by Rules

227 lb.

Material

STEEL

Tensile strength

26-30 tons

Thickness

1 7/16"

Pitch of stays 21 7/8"-20 7/8"

Working pressure by Rules

220 lb.

Material

STEEL

Tensile strength

26/30 tons

Thickness

15 1/16" front 25" back

Pitch of stay tubes in nests

9.7"

Pitch across wide water spaces

14"

Working pressure

front 229 lb. back 232 lb.

Material

STEEL

Tensile strength

28-32 tons

Depth and thickness of girder

Length as per Rule

34 1/2"

Distance apart

8 1/4"

No. and pitch of stays

Working pressure by Rules

224 lb.

Combustion chamber plates: Material

STEEL

Thickness: Sides

21 1/32"

Back

23 1/32"

Top

21 1/32"

Bottom

27 1/32"

Sides

8 1/4" x 8 1/4"

Back

10" x 8"

Top

8 1/4" x 8 1/4"

Are stays fitted with nuts or riveted over NUTS

Working pressure by Rules

220 lb.

Front plate at bottom: Material

STEEL

Tensile strength

26-30 tons

Material

STEEL

Tensile strength

26-30 tons

Thickness

53 1/6"

Working pressure by Rules

227 lb.

Are stays fitted with nuts or riveted over NUTS

Main stays: Material

STEEL

Tensile strength

28-32 tons

At body of stay

3 1/4" + 3 1/2"

No. of threads per inch

6

Area supported by each stay 4040" x 4600"

Working pressure by Rules

228 + 236 lb.

Screw stays: Material

STEEL

Tensile strength

26-30 tons

At turned off part

1 5/8" + 1 3/4"

No. of threads per inch

9

Area supported by each stay 6800" x 8000"

At turned off part

1 5/8" + 1 3/4"

No. of threads per inch

9

Area supported by each stay 6800" x 8000"

Shipp

Working pressure by Rules **223.2** 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 **94 sq"** Working pressure by Rules **228 lb.**
Tubes: Material **IRON** External diameter { Plain **3"** Thickness { **8 W.G.** No. of threads per inch **9**
Pitch of tubes **4 3/16" x 4 1/8"** Working pressure by Rules **250 lb.** Manhole compensation: Size of opening **1 1/2"**
shell plate **19 1/2" x 15 1/2"** Section of compensating ring **11" x 1 3/4"** No. of rivets and diameter of rivet holes **34 @ 1 9/16"**
Outer row rivet pitch at ends **10 1/2"** Depth of flange if manhole flanged **3"** 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 - Rivets -
Internal diameter - Working pressure by Rules - Thickness of crown - No. and diameter of stays -
How connected to shell - Inner radius of crown - Working pressure by Rules -
of rivets in outer row in dome connection to shell - Size of doubling plate under dome - Diameter of rivet holes -

Type of Superheater **NORTH EASTERN SMOKE TUBE** Manufacturers of { Tubes **See HWC. CERT. No 9824. City**
Steel forgings **Leith.**
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 from the boiler?
the boiler be worked separately **NO** 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 **1.76 sq"** Are the safety valves fitted with easing gear **YES** Working pressure -
Rules - Pressure to which the safety valves are adjusted - Hydraulic test -
tubes - forgings and castings - and after assembly in place - **440 lbs.** Are drains -
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,
For David Rowan & Co. Ltd.
Arch^{ts} N. Grierson

Dates of Survey { During progress of work in shops - -
while building { During erection on board vessel - -

SEE ACCOMPANYING MACHINERY REPORT

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
Total No. of visits **41**

Is this Boiler a duplicate of a previous case **YES** If so, state Vessel's name and Report No. **"CEFH-Y-BRYN" 915. RPT**

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

The materials and workmanship are good.
The boilers have been constructed under special survey in accordance with Rules and approved plan, and have been sent to Burntisland to be installed in the vessel.

Rob 13/11/39 These boilers have been efficiently fitted on board and the safety valves adjusted to 220 lbs/sq".
J. Campbell

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

Committee's Minute **GLASGOW 14 NOV 1939**

Assigned

SEE ACCOMPANYING MACHINERY REPORT.

Engineer Surveyor to Lloyd's Register of

TUE. 23 JAN 1940

See L.R. 20005
Lloyd's Register Foundation