

REPORT ON BOILERS.

No. 57024

29 JUN 1936

20 MAY 1936

Received at London Office

Date of writing Report

19

When handed in at Local Office

16.5.

1936

Port of

Glasgow

No. in Reg. Book.

Survey held at

Glasgow

Date, First Survey

17.12.35

Last Survey

15.5

1936

on the

neg. steel S/S "BRYNYMOR"

(Number of Visits 47)

Gross

Tons

Net

Master

Built at

Buntisland

By whom built

Buntisland SBC

Yard No. 194

When built 1936

Engines made at

Glasgow

By whom made

David Rowan & Co. Ltd

Engine No. 991

When made 1936

Boilers made at

Glasgow

By whom made

David Rowan & Co. Ltd

Boiler No. 991

When made 1936

Nominal Horse Power

377

Owners

Port belonging to

Swansea

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Plates: Steel Company of Scotland Ltd. Bann. Bohiller Ltd. (Letter for Record (S) ✓)

Total Heating Surface of Boilers 1165 sq ft ✓ Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers one single ended ✓ Working Pressure 220 ✓

Tested by hydraulic pressure to 380 Date of test 24.4.36 No. of Certificate 19412 Can each boiler be worked separately

Area of Firegrate in each Boiler 36 sq ft No. and Description of safety valves to each boiler Two direct spring ✓

Area of each set of valves per boiler {per Rule 6.1960" as fitted 6.280" Pressure to which they are adjusted 220 lb Are they fitted with easing gear

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 between main boilers Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 11'-6" ✓ Length 10'-6" ✓ Shell plates: Material steel ✓ Tensile strength 29.33 tons ✓

Thickness 1 1/4" ✓ Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams {end DR ✓

long. seams DBS TR ✓ Diameter of rivet holes in {circ. seams 1 3/16" ✓ Pitch of rivets {3.1875" ✓

Percentage of strength of circ. end seams {plate 62.7 rivets 49.7 Percentage of strength of circ. intermediate seam {plate 85.15 rivets 92.7

Percentage of strength of longitudinal joint {plate 85.15 rivets 92.7 combined 88.9 Working pressure of shell by Rules 222

Thickness of butt straps {outer 3 1/2" inner 3 1/2" No. and Description of Furnaces in each Boiler Two Direct Spring ✓

Material steel ✓ Tensile strength 26.30 tons ✓ Smallest outside diameter 3'-4 3/4" ✓

Length of plain part {top 15'8" bottom 15'8" Thickness of plates {crown 15'8" bottom 15'8" Description of longitudinal joint welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 223

End plates in steam space: Material steel ✓ Tensile strength 26.30 tons ✓ Thickness 1 9/16" ✓ Pitch of stays 14" x 20" 225 1/2 ✓

How are stays secured DN ✓ Working pressure by Rules 225

Tube plates: Material {front steel ✓ Tensile strength 26.30 tons ✓ Thickness {1 9/16" ✓

Mean pitch of stay tubes in nests 10.2" ✓ Pitch across wide water spaces 14" ✓ Working pressure {front 222 back 228

Girders to combustion chamber tops: Material steel ✓ Tensile strength 26.30 tons ✓ Depth and thickness of girder

at centre 2 @ 7" x 7/8" ✓ Length as per Rule 2'-4 1/32" ✓ Distance apart 8 3/8" ✓ No. and pitch of stays

in each 2 @ 8 1/8" ✓ Working pressure by Rules 225 ✓ Combustion chamber plates: Material steel ✓

Tensile strength 26.30 tons ✓ Thickness: Sides 3/4" ✓ Back 2 1/2" ✓ Top 3/4" ✓ Bottom 3/4" ✓

Pitch of stays to ditto: Sides 8 7/8" x 8 3/8" ✓ Back 8" x 8 3/8" ✓ Top 8 7/8" x 8 3/8" ✓ Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 220 ✓ Front plate at bottom: Material steel ✓ Tensile strength 26.30 tons ✓

Thickness 1 5/16" ✓ Lower back plate: Material steel ✓ Tensile strength 26.30 tons ✓ Thickness 2 1/2" ✓

Pitch of stays at wide water space 13 1/4" ✓ Are stays fitted with nuts or riveted over nuts

Working Pressure 224 ✓ Main stays: Material steel ✓ Tensile strength 28.32 tons ✓

Diameter {At body of stay, 3" ✓ No. of threads per inch 6 ✓ Area supported by each stay 3530" ✓

Working pressure by Rules 222 ✓ Screw stays: Material steel ✓ Tensile strength 26.30 tons ✓

Diameter {At turned off part, 1 5/8" & 1 3/4" ✓ No. of threads per inch 9 ✓ Area supported by each stay 68" x 74.5" ✓

Working pressure by Rules 224 & 243 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, or Over threads 1 3/4" ✓
No. of threads per inch 9 Area supported by each stay 83" Working pressure by Rules 220 ✓
Tubes: Material Iron External diameter { Plain 3 1/4" Thickness { 8 W.G. No. of threads per inch 9 ✓
Stay 3 1/4" 1/4 9/16 3/8"
Pitch of tubes 4 3/8 x 4 7/16" Working pressure by Rules 230 ✓ Manhole compensation: Size of opening in
shell plate 19 1/2 x 15 1/2" Section of compensating ring 8 3/4 x 1 1/4" No. of rivets and diameter of rivet holes 32 @ 1 1/4" ✓
Outer row rivet pitch at ends 8 1/4" Depth of flange if manhole flanged 3" ✓ Steam Dome: Material none ✓
Tensile strength Thickness of shell Description of longitudinal joint
Diameter of rivet holes PP1 Pitch of rivets Percentage of strength of joint { Plate Rivets
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 none 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

The foregoing is a correct description,
For David Roway & Co. Ltd. Manufacturer.
Arch. W. Grierson

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

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

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

The materials and workmanship are good
The boiler has been constructed under Special Survey
It is being sent to Burntisland to be fitted in the vessel.

16/5/36

This boiler has been efficiently fitted on board examined under a team
of safety valves adjusted to 220 lbs

CHK.

Survey Fee ... £ When applied for, 10
Travelling Expenses (if any) £ When received, 10

S. J. Davis.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 19 MAY 1936

Assigned SEE ACCOMPANYING MACHINERY REPORT.

FRI, 8 JUL 1936

Lloyd's Register
Foundation