

REPORT ON BOILERS.

See Litch Rpt. No. 20005

No. 61742

Received at London Office 15 NOV 1939

Writing Report 19 When handed in at Local Office 13. 11. 1939 Port of **GLASGOW**
 Size of ship 1916 Survey held at **GLASGOW** Date, First Survey 16. 6. 39 Last Survey 24. 11. 1939.
 Name of ship on the **S/S "DAN-Y-BRYN"** (Number of Visits 40) Gross Tons 5117.
 Net Tons 3034.
 Built at **BURNTISLAND** By whom built **BURNTISLANDS B. Co.** Yard No. 239 When built
 To, and diamade at **GLASGOW** By whom made **D. ROWAN & Co. LD.** Engine No. 1049 When made 1939
 made at **-DO-** By whom made **-DO-** Boiler No. 1049 When made 1939
 Horse Power 458 Owners **Brynmor Steamships Ltd** Port belonging to **London**

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

Name of Steel **Colvilles Ltd.** (Letter for Record **S**)
 Heating Surface of Boilers 1266 sq. ft. (Oil burning) Is forced draught fitted **No** Coal or Oil fired **Either**
 Description of Boilers **One single ended** Working Pressure 220 lbs.
 Hydraulic pressure to 380 lbs. Date of test 6-10-39 No. of Certificate 20461 Can each boiler be worked separately **Yes**
 Firegrate in each Boiler 32.9 sq. ft. No. and Description of safety valves to each boiler **2 Spring loaded**
 each set of valves per boiler {per Rule 6.73 sq. ft. as fitted 7.95 sq. ft. Pressure to which they are adjusted **-220 lbs.** Are they fitted with easing gear **- Yes.**
 of donkey boilers, state whether steam from main boilers can enter the donkey boiler **-**
 distance between boilers or uptakes and bunkers or woodwork **- Between main boilers.** Is oil fuel carried in the double bottom under boilers **-**
 distance between shell of boiler and tank top plating **- 3'-0"** Is the bottom of the boiler insulated **- Yes.**
 External dia. of boilers 11'-6" Length 10'-6" Shell plates: Material **Steel** Tensile strength 29/32 tons
 Thickness 1 7/16" Are the shell plates welded or flanged **No** Description of riveting: circ. seams {end D.R. inter. 3.1875"
 D. B.S. T.R. Diameter of rivet holes in {circ. seams 1 3/16" long. seams 1 3/16" Pitch of rivets {plate 8" rivets 8"
 Age of strength of circ. end seams {plate 62.7 rivets 49.7 Percentage of strength of circ. intermediate seam {plate - rivets -
 Age of strength of longitudinal joint {plate 85.15 rivets 92.7 Working pressure of shell by Rules 222 lbs.
 combined 88.9
 of butt straps {outer 2 7/32" inner 3 1/32" No. and Description of Furnaces in each Boiler **2 Brighten**
 Material **Steel** Tensile strength 26/30 tons Smallest outside diameter 3'-4 3/4"
 Thickness of plates {crown 5/8" bottom 5/8" Description of longitudinal joint **welded**
 Working pressure of furnace by Rules 223 lbs.
 Tensile strength 26/30 tons Thickness 1 1/4" Pitch of stays 2 1/2" x 14"
 Working pressure by Rules 221 lbs.
 Tensile strength {26/30 tons Thickness {15/16" 25/32"
 Pitch across wide water spaces 14" Working pressure {front 229 tons back 222 tons
 Depth and thickness of girder
 to combustion chamber tops: Material **Steel** Tensile strength 26/30 tons
 Length as per Rule 28 1/16" Distance apart 9 1/4" No. and pitch of stays
 Working pressure by Rules 220 lbs. Combustion chamber plates: Material **Steel**
 Thickness: Sides 3/4" Back 2 1/32" Top 3/4" Bottom 3/4"
 Are stays fitted with nuts or riveted over **nuts**
 Front plate at bottom: Material **Steel** Tensile strength 26/30 tons
 Lower back plate: Material **Steel** Tensile strength 26/30 tons Thickness 5 3/16"
 Are stays fitted with nuts or riveted over **nuts**
 Main stays: Material **Steel** Tensile strength 28/32 tons
 No. of threads per inch 6 Area supported by each stay 2800" x 3210"
 Screw stays: Material **Steel** Tensile strength 26/30 tons
 No. of threads per inch 9 Area supported by each stay 680" x 830"

Working pressure by Rules **224+220** Are the stays drilled at the outer ends **no** Margin stays: Diameter { At turned off part, or Over threads **1 3/4" + 1**
No. of threads per inch **9** Area supported by each stay **830" 910"** Working pressure by Rules **220 lb. + 2**
Tubes: Material **Iron** External diameter { Plain **3"** Thickness { **8 W.G.** No. of threads per inch **9** pt. 13
Pitch of tubes **4 3/16" x 4 1/8"** Working pressure by Rules **250 lb.** Manhole compensation: Size of
shell plate **19 1/2" x 15 1/2"** Section of compensating ring **8 3/4" x 1 7/16"** 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 Pitch of rivets Percentage of strength of joint { Plate Rivets
Internal diameter Working pressure by Rules Thickness of crown No. and dia
stays Inner radius of crown Working pressure by Rules
How connected to shell Size of doubling plate under dome Diameter of rivet holes built a
of rivets in outer row in dome connection to shell

Type of Superheater **None**

Manufacturers of

Number of elements Material of tubes Internal diameter and thickness of tubes
Material of headers Tensile strength Thickness Can the superheater be sh
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 pressu
Rules Pressure to which the safety valves are adjusted Hydraulic test
tubes forgings and castings and after assembly in place Are drain
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. H. Grierson

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.)
Total No. of visits

SEE ACCOMPANYING MACHINERY REPORT.

Is this Boiler a duplicate of a previous case **Yes** If so, state Vessel's name and Report No. **"CEFN-Y-BRYN" 96.R. 6**

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **This boiler has been constructed under special survey in accordance with the Rules approved plan, and the materials and workmanship are good. It has been sent to Burntisland for installation in the vessel.**

This boiler has been efficiently fitted on board and the safety valves adjusted to 220 lbs/sq.

26
13/11/39

J. I. Campbell

Survey Fee ... £ **See thick "Rpt."** When applied for, 19
Travelling Expenses (if any) £ : : When received, 19

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

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**

Engineer Subeyor to Lloyd's Register of

TUE 23 JAN 1940

See
Lib. 76 20005