

REPORT ON BOILERS.

No. 13290

3 MAY 1928

Received at London Office

Date of writing Report 2.5.1928 When handed in at Local Office 2.5.1928 Port of MIDDLESBROUGH.

No. in Survey held at STOCKTON Date, First Survey See Mchyl report Last Survey 28.4.1928.

654. S.S. on the sc. "LLANDILO" (Number of Visits 1) Tons { Gross _____ Net _____

Master _____ Built at Sundelana. By whom built Barham & Sons. Yard No. 262. When built 1928.

Engines made at Stockton By whom made Blair & Co (1926) Ltd Engine No. 1969 When made 1928.

Boilers made at do. By whom made do. Boiler No. 1969 When made 1928.

Nominal Horse Power _____ Owners Gwenllian S.S. Co Ltd. Port belonging to London.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville & Sons Ltd. (Letter for Record S.)

Total Heating Surface of Boilers 7917 sq ft Is forced draught fitted no Coal or Oil fired Coal.

No. and Description of Boilers 3 S.B. Working Pressure 180 lbs.

Tested by hydraulic pressure to 320 lbs. Date of test 4.3.28. No. of Certificate 6623. Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 65.6 sq ft No. and Description of safety valves to each boiler Pair Cockburns High Lift

Area of each set of valves per boiler per Rule 11.27 as fitted 11.88 Pressure to which they are adjusted 185 lbs. Are they fitted with easing gear Yes.

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes.

Smallest distance between boilers uptakes and bunkers or woodwork 4'-3" Is oil fuel carried in the double bottom under boilers no.

Smallest distance between shell of boiler and tank top plating 3'-6" Is the bottom of the boiler insulated no.

Largest internal dia. of boilers 15'-9 7/16" Length 11'-6" Shell plates: Material steel Tensile strength 28/32

Thickness 1 9/32" Are the shell plates welded or flanged no. Description of riveting: circ. seams { end D.R. inter. _____

Long. seams T.R.D.B.S. Diameter of rivet holes in { circ. seams 1 3/8" long. seams 1 7/16" Pitch of rivets { 4 1/4" 9 7/16"

Percentage of strength of circ. end seams { plate 67.6. rivets 44.7. Percentage of strength of circ. intermediate seam { plate _____ rivets _____

Percentage of strength of longitudinal joint { plate 85.9 rivets 86.6 combined 89.1 Working pressure of shell by Rules 180 lbs.

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

Material steel Tensile strength 26/30 Smallest outside diameter 44 9/32"

Length of plain part { top _____ bottom _____ Thickness of plates { crown 37" bottom 64" Description of longitudinal joint weld.

Dimensions of stiffening rings on furnace or c.c. bottom _____ Working pressure of furnace by Rules 190 lbs.

End plates in steam space: Material steel Tensile strength 26/30 Thickness 1 3/16" Pitch of stays 19 1/4" x 20 1/2"

How are stays secured D.N.W. Working pressure by Rules 199 lbs.

End plates: Material { front steel back _____ Tensile strength { 26/30 Thickness { 1 7/16" 13" 7/16"

Can pitch of stay tubes in nests, 11 3/32" Pitch across wide water spaces 14 1/2" x 9 3/4" Working pressure { front 185 lbs. back 193 lbs.

Orders to combustion chamber tops: Material steel Tensile strength 28/32 Depth and thickness of girder

centre 8' x 15" (double) Length as per Rule 33 3/4" Distance apart 9" No. and pitch of stays

each 3-8 1/2" Working pressure by Rules 186 lbs. Combustion chamber plates: Material steel

Tensile strength 26/30 Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 1 3/16"

Pitch of stays to ditto: Sides 9" x 8 3/4" Back 9 3/4" x 9" Top 9" x 8 1/2" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 187 lbs. Front plate at bottom: Material steel Tensile strength 26/30

Thickness 1 5/16" Lower back plate: Material steel Tensile strength 26/30 Thickness 2 9/32"

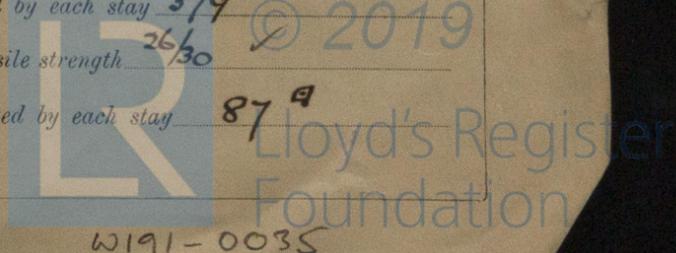
Pitch of stays at wide water space 14" x 9" Are stays fitted with nuts or riveted over nuts

Working Pressure 244 lbs. Main stays: Material steel Tensile strength 28/32

At body of stay, _____ or _____ meter 3 3/8" No. of threads per inch 6 Area supported by each stay 379 sq in

Working pressure by Rules 195 lbs. Screw stays: Material steel Tensile strength 26/30

At turned off part, _____ or _____ meter 1 3/4" No. of threads per inch 8 Area supported by each stay 87 sq in



Working pressure by Rules 205 lbs. Are the stays drilled at the outer ends no. Margin stays: Diameter 1 7/8" (At turned off part, or Over threads)

No. of threads per inch 8. Area supported by each stay 106 sq Working pressure by Rules 195 lbs.

Tubes: Material Iron External diameter 3 1/2" Thickness 9/16" No. of threads per inch 9

Pitch of tubes 4 3/4 x 4 7/8" Working pressure by Rules p. 215 & 201 Manhole compensation: Size of opening in shell plate 16 x 12" Section of compensating ring 8" x 1 9/32" No. of rivets and diameter of rivet holes 28 - 1 5/16"

Outer row rivet pitch at ends 9 7/16" 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 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

Number of elements _____ Material of tubes _____ Manufacturers of (Tubes Steel castings) _____ Internal diameter and thickness of tubes _____

Material of headers _____ Tensile strength _____ Thickness _____ Can the superheater be shut off and the boiler be worked separately _____

Area of each safety valve _____ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler _____ Working pressure as per Rules _____

Pressure to which the safety valves are adjusted _____ Hydraulic test pressure: _____

Are the safety valves fitted with easing gear _____ Are drain cocks or valves fitted to free the superheater from water where necessary _____

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes.

The foregoing is a correct description, For BLAIR & CO. (1926) LIMITED.

H. J. Macnamara Secretary, Manufacturer's reference

Dates of Survey (During progress of work in shops - - -) See Machinery Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____

(During erection on board vessel - - -) Repair Total No. of visits _____

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

The materials and workmanship are good. These boilers have been built under special survey in accordance with the Rules and approved Plan, securely fitted aboard and their safety valves have been adjusted and tested under steam with satisfactory results.

Survey Fee £ See machy. : When applied for, 192

Travelling Expenses (if any) £ repat. : When received, 192

A. J. Macnamara
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 8 MAY 1928

Assigned See Std Sp. 6-41 No 29707