

REPORT ON BOILERS.

56986
No. 56674

20 MAY 1936

Received at London Office 4 MAR 1936

Date of writing Report 10 When handed in at Local Office 29. 2. 36 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 17. 12. 35 Last Survey 27-2-1936

on the S/S "THE PRESIDENT" (Number of Visits 13) Tons {Gross 926
Net 481

Master Troon Built at Troon By whom built Ailsa SBC Co Ltd Yard No. 421 When built 1936

Engines made at Troon By whom made Ailsa SBC Co Ltd Engine No. 156 When made 1936

Boilers made at Glasgow By whom made Davie Rowan & Co Ltd Boiler No. 415 When made 1936

Nominal Horse Power _____ Owners _____ Port belonging to Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Bohills Ltd (Letter for Record (S))

Total Heating Surface of Boilers 1930 sq ft Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers one single ended Working Pressure 215

Tested by hydraulic pressure to 373 lbs Date of test 25.2.36 No. of Certificate 19678 Can each boiler be worked separately -

Area of Firegrate in each Boiler 59 sq ft No. and Description of safety valves to each boiler _____

Area of each set of valves per boiler {per Rule _____ as fitted _____} Pressure to which they are adjusted _____ 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 _____ Is oil fuel carried in the double bottom under boilers _____

Smallest distance between shell of boiler and tank top plating _____ Is the bottom of the boiler insulated _____

Largest internal dia. of boilers 14'-9" Length 10'-9" Shell plates: Material steel Tensile strength 29-33 tons

Thickness 1 25/64" Are the shell plates welded or flanged no Description of riveting: circ. seams {end DR inter. _____}

Long. seams DBS. TR Diameter of rivet holes in {circ. seams F 1 5/16" B 1 7/16" long. seams 1 7/16" Pitch of rivets {F 3.376" B 4" _____}

Percentage of strength of circ. end seams {plate F 61.1 B 64.06 rivets F 45.8 B 46.4 } Percentage of strength of circ. intermediate seam {plate _____ rivets _____}

Percentage of strength of longitudinal joint {plate 85.25 rivets 88.6 combined 88.2 } Working pressure of shell by Rules 216.5

Thickness of butt straps {outer 1 7/16" inner 1 3/16" } No. and Description of Furnaces in each Boiler Three Deighton

Material steel Tensile strength 26-30 tons Smallest outside diameter 3'-10 3/8"

Length of plain part {top _____ bottom _____} Thickness of plates {crown 1 1/16" bottom 1 1/16" } Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom _____ Working pressure of furnace by Rules 217

End plates in steam space: Material steel Tensile strength 26-30 tons Thickness 1 9/32" Pitch of stays 20 x 17 3/4"

How are stays secured DN Working pressure by Rules 215

Tube plates: Material {front steel back steel } Tensile strength {26-30 tons } Thickness {15/16" 13/16" }

Mean pitch of stay tubes in nests 10.125" Pitch across wide water spaces 14 1/8" Working pressure {front 220 back 233 }

Girders to combustion chamber tops: Material steel Tensile strength 28-32 tons Depth and thickness of girder _____

at centre 2 @ 9 5/8" x 7 1/8" Length as per Rule 33.5 Distance apart 10.25" No. and pitch of stays _____

on each 3 @ 8" Working pressure by Rules 219 Combustion chamber plates: Material steel

Tensile strength 26-30 tons Thickness: Sides 23/32" Back 1 1/16" Top 23/32" Bottom 1 1/16"

Pitch of stays to ditto: Sides 10 1/4" x 8" Back 9 1/4" x 8 1/4" Top 10 1/4" x 8" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 216 Front plate at bottom: Material steel Tensile strength 26-30 tons

Thickness 15/16" Lower back plate: Material steel Tensile strength 26-30 tons Thickness 13/16"

Pitch of stays at wide water space 13 3/8" Are stays fitted with nuts or riveted over nuts

Working Pressure 218 Main stays: Material steel Tensile strength 28-32 tons

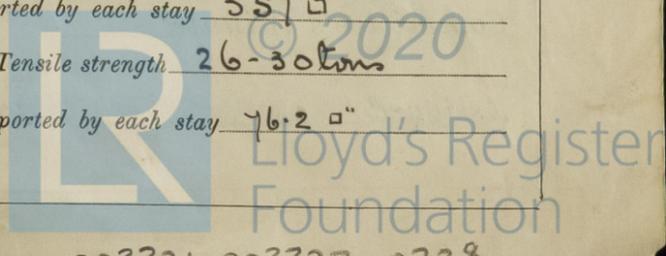
Diameter {At body of stay, 3" or Over threads _____} No. of threads per inch 6 Area supported by each stay 357 sq in

Working pressure by Rules 220 Screw stays: Material steel Tensile strength 26-30 tons

Diameter {At turned off part, 1 3/4" or Over threads _____} No. of threads per inch 9 Area supported by each stay 76.2 sq in

215
50
102
367

Ym



Working pressure by Rules 238 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 1 7/8"

No. of threads per inch 9 Area supported by each stay 94.50" Working pressure by Rules 225 lb

Tubes: Material Steel External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 8 W.S. 1/4" 9/16" 3/8" No. of threads per inch 9

Pitch of tubes 4 1/2" x 4 3/8" & 4 1/2" x 4 1/2" Working pressure by Rules 230 Manhole compensation: Size of opening shell plate 19 1/2" x 15 1/2" Section of compensating ring 10 1/2" x 1 25/64" No. of rivets and diameter of rivet holes 34 @ 1 1/2"

Outer row rivet pitch at ends 9 3/16" Depth of flange if manhole flanged 3" Steam Dome: Material none

Tensile strength _____ Thickness of shell _____ Description of longitudinal joint _____

Diameter of rivet holes 15A 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 Rowan & Co. Ltd. Manufacture
Arch. H. Grierson

Dates of Survey { During progress of work in shops - - - } 1935 Dec. 17. 18. 27 (1936) Jan. Are the approved plans of boiler and superheater forwarded herewith yes
(If not state date of approval.)
{ During erection on board vessel - - - } 7. 9. 20 Feb. 3. 5. 7. 18. 24. 25. 27 Total No. of visits 13

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 will be fitted on board the vessel at Troon.

Survey Fee £ 12 : 18 : _____ When applied for, 23 MAR 1936
Travelling Expenses (if any) £ : : _____ When received, 1. 4. 1936

S. Davis
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 3 - MAR 1936

Assigned **TRANSMIT TO LONDON**

GLASGOW 19 MAY 1936

See Gls. Rph. No. 56986