

REPORT ON BOILERS.

No. 82190

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Date of writing Report 1. 7. 1954 When handed in at Local Office 2. 7. 1954 Port of GLASGOW
 No. in Reg. Book. Survey held at GLASGOW Date, First Survey 24. 9. 53. Last Survey 18. 6. 1954
 on the S.S. "J. P. YEBB" (Number of Visits 8) Tons Gross Net
 Built at PORT GLASGOW By whom built FERGUSON BROS. Yard No. 408 When built
 Engines made at By whom made Engine No. When made
 Boilers made at GLASGOW By whom made DAVID ROWAN CO. Boiler No. B586 When made 1954
 MN as per Rule Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, ~~SUPPLEMENTARY~~, OR DONKEY.

Manufacturers of Steel Colvilles Ltd.
 Total Heating Surface of Boilers 2765 sq ft Of Superheaters —
 Total for Register Book 2765 sq ft Is forced draught fitted YES. Coal or Oil fired OIL
 No. and Description of Boilers One S.E. Cylindrical Multitubular Working Pressure 200 lbs/sq in
 Tested by hydraulic pressure to 350 lbs/sq in Date of test 18/6/54 No. of Certificate 24171 Can each boiler be worked separately YES
 Area of Firegrate in each Boiler 66 sq ft No. and Description of safety valves to each boiler 1-DBL SPRING 2 1/2" IMPROVED HIGH LIFT.
 Area of each set of valves per boiler { per Rule 8.87 sq ft as fitted 9.82 sq ft Pressure to which they are adjusted 180 lbs/sq in Main engines approved for 180 lbs/sq in 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 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 16'-3" Length 11'-9" Shell plates: Material Steel Tensile strength 29/33 Tons
 If fusion welded, state name of welding Firm Have all the requirements of the Rules for Class I vessels been complied with — Thickness 17/16" Are the shell plates welded or flanged NO Description of riveting: circ. seams end DR Lap inter Front 3.3907, Back 4.06"
 long. seams TRDBS Diameter of rivet holes in { circ. seams Front 15/16" Back 1 1/2" long. seams 1 1/2" Pitch of rivets Front 3.3907, Back 4.06"
 Percentage of strength of circ. end seams { plate Front 61.31, Back 63.05 rivets " 44.06 " 48.04 Percentage of strength of circ. intermediate seam { plate 85.0 rivets 91.43
 Percentage of strength of longitudinal joint { plate 88.28 rivets 91.43 combined 88.28
 Thickness of butt straps { outer 1 3/32" inner 1 7/32" No. and Description of Furnaces in each Boiler 3 Deighton Section
 Material Steel Tensile strength 26/30 Tons Smallest outside diameter 4'-1 3/8" WELDED
 Length of plain part { top 8 3/4" bottom 11/16" Thickness of plates 11/16" Description of longitudinal joint WELDED
 Dimensions of stiffening rings on furnace or c.c. bottom —
 End plates in steam space: Material Steel Tensile strength 26/30 Tons Thickness 1 15/32" Pitch of stays 20 1/2" x 2 1/4"
 How are stays secured Double Nuts
 Tube plates: Material { front Steel back Steel Tensile strength { 26/30 Tons 26/30 Tons Thickness { 29/32" 13/16"
 Mean pitch of stay tubes in nests 10 9/16" Pitch across wide water spaces 14"
 Girders to combustion chamber tops: Material Steel Tensile strength 28/32 Tons Depth and thickness of girder at centre 2 @ 8 3/8" x 7/8" Length as per Rule 34 1/2" Distance apart 8" No. and pitch of stays in each 3 @ 8 1/4"
 Combustion chamber plates: Material Steel Tensile strength 26/30 Tons Thickness: Sides 2 1/32" Back 1 1/16" Top 2 1/32" Bottom 1 3/16"
 Pitch of stays to ditto: Sides 8 1/4" x 8" Back 9 1/2" x 8" Top 8 1/4" x 8" Are stays fitted with nuts or riveted over Nuts & caulked
 Front plate at bottom: Material Steel Tensile strength 26/30 Tons Thickness 29/32"
 Lower back plate: Material Steel Tensile strength 26/30 Tons Thickness 25/32"
 Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over Nuts
 Main stays: Material Steel Tensile strength 28/32 Tons
 Diameter { At body of stay or over threads 4 @ 3 1/2" 6 @ 3 1/4" 3 3/4" 3 1/2" No. of threads per inch 6
 Screw stays: Material Steel Tensile strength 26/30 Tons
 Diameter { At turned off part or over threads 1 5/8" 1 7/8" 2" 1 5/8" 1 7/8" 2" No. of threads per inch 9

Are the stays drilled at the outer ends..... No ✓ Margin stays: Diameter { At turned off part..... 1 5/8", 1 7/8", 2" or Over threads..... 1 7/8", 1 7/8", 2"

No. of threads per inch..... 9 ✓

Tubes: Material..... Steel External diameter { Plain..... 3" ✓ Stay..... 3" ✓ Thickness { 8 w.g. No. of threads per inch..... 9

Pitch of tubes..... 4 1/4" x 4 1/8" ✓ Manhole compensation: Size of opening in shell plate..... 19 1/2" x 15 1/2" ✓ Section of compensating ring..... 13 1/2" x 1 7/16" No. of rivets and diameter of rivet holes..... 32 x 1 1/2"

Outer row rivet pitch at ends..... 10" ✓ Depth of flange if manhole flanged..... 3" ✓ Steam Dome: Material..... -

Tensile strength..... 80A Thickness of shell..... 120A Description of longitudinal joint.....

Diameter of rivet holes..... Pitch of rivets..... Percentage of strength of joint { Plate..... Rivets.....

Internal diameter..... Thickness of crown..... No. and diameter of stays..... Inner radius of crown.....

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..... Manufacturers of { Tubes..... Steel forgings..... 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.....

Pressure to which the safety valves are adjusted..... Hydraulic test pressure: tubes..... forgings and 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..... Yes ✓

The foregoing is a correct description,
R. McDonald for David Rowan & Co Ltd Manufacturer.

Dates of Survey while building { During progress of work in shops - - { 1953 Sep. 24, Dec. 30, 1954 Feb. 17 Mar. 2-22. { 1953 May 13, May 14, June 18. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

{ During erection on board vessel - - - { Total No. of visits.....

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

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

The Main boiler was constructed under Special Survey in accordance with the Rules and approved plans, the materials and workmanship being good. The boiler, will in my opinion be eligible to be classed in the Register Book with the main machinery when efficiently installed in the Vessel. The boiler is being dispatched to Port Glasgow.

THE BOILER HAS BEEN EFFICIENTLY INSTALLED ON BOARD THE VESSEL AND THE SAFETY VALVES WERE ADJUSTED UNDER STEAM TO 180 ^{lb}/sq. in. A SATISFACTORY ACCUMULATION TEST WAS CARRIED OUT.

RINGS:- PORT VALVE 5 1/8" H.K. Taylor.
STARBOARD VALVE 15 1/2"

Survey Fee ... £ 33 : 12 : 0 × When applied for..... 6 JUL 1954 19.....

Travelling Expenses (if any) £ 7 : 0 } When received..... 19.....

Committee's Minute.....

Assigned..... Deferred for completion

GLASGOW 6 JUL 1954

John Macleod
Engineer Surveyor to Lloyd's Register of Shipping.