

Rpt. 5a.

REPORT ON BOILERS.

No. 49443

Received at London Office.

Date of writing Report 24TH DEC. 1952 When handed in at Local Office 5.1.53 Port of GLASGOW.No. in Reg. Book. Survey held at MOTHERWELL. Date, First Survey 4.5.52 Last Survey 23.12.1952on the ROCK CUTTER BARGE " LOKANUI (Number of Visits 14) Tons { Gross..... Net.....Master..... Built at..... By whom built..... Yard No. 163 When built.....

Engines made at..... By whom made..... Engine No..... When made.....

Boilers made at Barfin - MOTHERWELL By whom made Marshall & Anderson Ltd. Boiler No. 4251 When made DEC/1952

Nominal Horse Power..... Owners..... Port belonging to.....

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Bolnishes (Letter for Record.....)Total Heating Surface of Boilers 1110 sq. ft. Is forced draught fitted - Coal or Oil fired -No. and Description of Boilers One - Marine Return Tube Boiler Working Pressure 120 lb/sq. in.Tested by hydraulic pressure to 230 lb/sq. in. Date of test 23/12/52 No. of Certificate 23782 Can each boiler be worked separately -Area of Firegrate in each Boiler 33 sq. ft. No. and Description of safety valves to each boiler 2 - 2" I.H.L.Area of each set of valves per boiler { per Rule 5.14 as fitted 6.28 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 10'-6" Length 10'-0" OVER ENDS Shell plates: Material Steel Tensile strength 28/32 T/sq. in.Thickness 2 1/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams { end DOUBLE RIVETED LAP inter 2.843"long. seams TREBLE RIVETED DOUBLE BUTT STRAP Diameter of rivet holes in { circ. seams 15/16" long. seams 13/16" Pitch of rivets { 5.5"Percentage of strength of circ. end seams { plate 67 rivets 60.6 Percentage of strength of circ. intermediate seam { plate - rivets -Percentage of strength of longitudinal joint { plate 85 rivets 110.5 Working pressure of shell by Rules -Thickness of butt straps { outer 17/32" inner 2 1/32" No. and Description of Furnaces in each Boiler 2 - Morrison corrugatedMaterial Steel Tensile strength 26/30 T/sq. in. Smallest outside diameter 3'-1 1/4"Length of plain part { top 7 1/4" bottom 7 1/4" Thickness of plates { crown 7/16" bottom 7/16" Description of longitudinal joint Fusion weldedDimensions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules -End plates in steam space: Material Steel Tensile strength 26/30 T/sq. in. Thickness 3/4" Pitch of stays 15"How are stays secured NUTS BOTH SIDES - PLATE WASHERS OUTSIDE. Working pressure by Rules -Tube plates: Material { front Steel back Steel Tensile strength { 26/30 T/sq. in. Thickness { 3/4" 4/16"Mean pitch of stay tubes in nests As approved Pitch across wide water spaces 14" Working pressure { front - back -Girders to combustion chamber tops: Material Steel Tensile strength 28/32 T/sq. in. Depth and thickness of girderat centre 6" X 17/32" TWO PLATES Length as per Rule 2'-1 25/32" Distance apart 7 1/2" No. and pitch of staysin each 2 AT 8" Working pressure by Rules - Combustion chamber plates: Material SteelTensile strength 26/30 T/sq. in. Thickness: Sides 1/2" Back 17/32" Top 1/2" Bottom 3/4"Pitch of stays to ditto: Sides 8" X 8" Back 9" X 8 1/4" Top 8" X 7 1/2" Are stays fitted with nuts or riveted over Fitted with nutsWorking pressure by Rules - Front plate at bottom: Material Steel Tensile strength 26/30 T/sq. in.Thickness 3/4" Lower back plate: Material Steel Tensile strength 26/30 T/sq. in. Thickness 3/4"Pitch of stays at wide water space 8" X 7 5/8" Are stays fitted with nuts or riveted over fitted with NutsWorking pressure - Main stays: Material Steel Tensile strength 28/32 T/sq. in.Diameter { At body of stay 2" or Over threads 2" No. of threads per inch 6 Area supported by each stay -Working pressure by Rules - Screw stays: Material Steel Tensile strength 26/30 T/sq. in.Diameter { At turned off part 1 1/2" or Over threads 1 3/8" No. of threads per inch 9 Area supported by each stay -

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Working pressure by Rules. - Are the stays drilled at the outer ends. No. Margin stays: Diameter { At turned off part, 1 1/2" or Over threads. 1 1/2" ✓
No. of threads per inch. 9 ✓ Area supported by each stay. - Working pressure by Rules. -
Tubes: Material. Steel ✓ External diameter { Plain. 2 3/4" ✓ Thickness { 10 W.G. ✓ No. of threads per inch. 9 ✓
Pitch of tubes. As approved. Working pressure by Rules. - Manhole compensation: Size of opening in
shell plate. 19 1/2" x 15 1/2" Section of compensating ring. 7" x 3/4" x 3" FLANGE No. of rivets and diameter of rivet holes. 44 AT 13/16" HOLES.
Outer row rivet pitch at ends. 5 1/2" 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. 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. Working pressure as per
Rules. 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.
MARSHALL & ANDERSON LIMITED
The foregoing is a correct description.

Alfred Anderson Manufacturer
DIRECTOR

Dates { During progress of 1952 May 7, 23, June 18, 25, July 9.
ops - - Aug. 6, 13, 19, 27, Sep. 3, 17, Oct. 7, 16, Nov. 26.
sign on Dec. 10, 18, 23. Are the approved plans of boiler and superheater forwarded herewith. YES.
(If not state date of approval.)
Total No. of visits. 17

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 Boiler has been constructed under Special Survey in accordance with the approved plan & with the Rules of the Society for Boilers and Class I Pressure Vessels.

The materials and workmanship are good.

The Boiler is intended for Messrs. Lobnitz and Co., Renfrew in connection with yard No. 1131.

Survey Fee ... £ 14 : 8 : - When applied for, 19...
Travelling Expenses (if any) £ : : When received, 19...

G. McFarlane.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

GLASGOW

6 JAN 1953

Assigned *Deferred for completion*



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Lloyd's Register
Foundation