

REPORT ON BOILERS.

No. 54981

3 OCT 1934

Received at London Office

Date of writing Report 19 21 When handed in at Local Office 21.9.34 Port of Glasgow

No. in Reg. Book. Survey held at Glasgow Date, First Survey 15.3.34 Last Survey 20.9.1934

on the new steel S/S LOCH LOMOND (Number of Visits 61) Tons {Gross 5452 Net 3259}

Built at Glasgow By whom built D & W. Henderson & Co. Ltd. Yard No. 931 When built 1934

made at Glasgow By whom made D & W. Henderson & Co. Ltd. Engine No. 931 When made 1934

made at Glasgow By whom made D & W. Henderson & Co. Ltd. Boiler No. 931 When made 1934

al Horse Power Owners MacLay & Mac Intyre Ltd. Port belonging to Glasgow

TITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel 6 Shillies Ltd. (Letter for Record (S))

Heating Surface of Boilers 5679 Is forced draught fitted yes Coal or Oil fired coal

Description of Boilers Three single ended Working Pressure 220

by hydraulic pressure to 380 Dates of tests S-8634 S-19382 C-19389 P-19406 No. of Certificate C-19389 Can each boiler be worked separately yes

of Firegrate in each Boiler 42 No. and Description of safety valves to each boiler 2. Improved high lift

of each set of valves per boiler {per Rule 5.035 as fitted 6.280} Pressure to which they are adjusted 225 Are they fitted with easing gear yes

of donkey boilers, state whether steam from main boilers can enter the donkey boiler -

Least distance between boilers or uptakes and bunkers or woodwork 15" Is oil fuel carried in the double bottom under boilers no

Least distance between shell of boiler and tank top plating 2'-0" Is the bottom of the boiler insulated yes

Least internal dia. of boilers 14'-9" Length 12'-0" Shell plates: Material Steel Tensile strength 29-33 tons

Thickness 1 27/64" Are the shell plates welded or flanged no Description of riveting: circ. seams {end DR inter. -}

Seams DR S, DR Diameter of rivet holes in {circ. seams 1 1/2" long. seams 1 1/2"} Pitch of rivets {3-8" 10/8"}

Percentage of strength of circ. end seams {plate 60.5 rivets 51.1} Percentage of strength of circ. intermediate seam {plate 85.1 rivets 91 combined 88.2}

Percentage of strength of longitudinal joint {plate 85.1 rivets 91 combined 88.2} Working pressure of shell by Rules 220

Thickness of butt straps {outer 1 3/32" inner 1 1/32"} No. and Description of Furnaces in each Boiler Three Deighton

Material Steel Tensile strength 26-30 tons Smallest outside diameter 3'-7 1/8"

Thickness of plates {crown 23/32" bottom 1 3/32"} Description of longitudinal joint welded

Positions of stiffening rings on furnace or c.c. bottom - Working pressure of furnace by Rules 222

Stays in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 9/32" Pitch of stays 18"x20"

Are stays secured DN Working pressure by Rules 223

Front plates: Material {front steel back steel} Tensile strength {26-30 tons 26-30 tons} Thickness {29/32" 7/8"}

Pitch of stay tubes in nests 8 7/8" Pitch across wide water spaces 17 1/4" Working pressure {front 230 back 220}

Stays to combustion chamber tops: Material Steel Tensile strength 29-33 tons Depth and thickness of girder

Length 2 @ 12"x7/8" Length as per Rule 46.4" Distance apart 9" No. and pitch of stays

Thickness 4 @ 9" Working pressure by Rules 222 Combustion chamber plates: Material Steel

Tensile strength 26-30 tons Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 7/8"

Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 224 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 1 1/4"

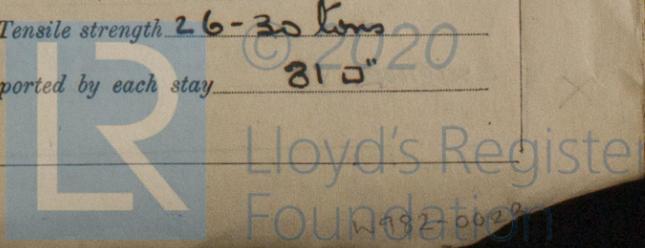
Are stays fitted with nuts or riveted over nuts

Working Pressure 225 Main stays: Material Steel Tensile strength 28-32 tons

Diameter {At body of stay, 3 1/8" or 3 1/8" Over threads. No. of threads per inch 6 Area supported by each stay 3600"}

Working pressure by Rules 238 Screw stays: Material Steel Tensile strength 26-30 tons

Diameter {At turned off part, 1 3/4" or 1 3/4" Over threads. No. of threads per inch 9 Area supported by each stay 310"}



Working pressure by Rules 224 Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 2 1/8" _{or Over threads}
 No. of threads per inch 9 Area supported by each stay _____ Working pressure by Rules 240
 Tubes: Material steel External diameter ^{Plain} 3 1/2" _{Stay} 3 1/4" Thickness ^{SWG} 5/8" <sub>1/2" No. of threads per inch 9
 Pitch of tubes 4 1/2" x 4 3/8" Working pressure by Rules 230 Manhole compensation: Size of opening in end shell plate 16 x 12 Section of compensating ring - No. of rivets and diameter of rivet holes _____
 Outer row rivet pitch at ends _____ Depth of flange if manhole flanged 4" 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 diameter of stays _____
 How connected to shell _____ Inner radius of crown _____ Working pressure by Rules _____ Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell _____ Size of doubling plate under dome _____</sub>

Type of Superheater Smoke tube Manufacturers of see New Certificate C.1683 Copy herewith.
 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 no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes
 Area of each safety valve 2.40" Are the safety valves fitted with easing gear yes Working pressure as per Rules 220 lb Pressure to which the safety valves are adjusted 227 Hydraulic test pressure _____
 tubes _____, castings _____ and after assembly in place 440 Are drain cocks or valves fitted to free the superheater from water where necessary yes
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

The foregoing is a true and correct description,
 For David & Co. Surveyors & Engineers
 J. H. Davis
 Manufacture

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____
 Dates of Survey ^{During progress of work in shops - -} _____
 while building ^{During erection on board vessel - - -} _____
 SEE ACCOMPANYING MACHINERY REPORT.
 Total No. of visits _____

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 boilers have been constructed under Special Survey. Satisfactory.
fitted in the vessel and their safety valves adjusted under steam.

21/9/34

Survey Fee ... £ See Machinery Rpt When applied for, 19 _____
 Travelling Expenses (if any) £ _____ When received, 19 _____

J. H. Davis
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 2 - OCT 1934
 Assigned SEE ACCOMPANYING MACHINERY REPORT.



Glasgow