

# REPORT ON BOILERS.

No. 49047

10 APR 1929

Received at London Office

Date of writing Report *April 4<sup>th</sup> 1929* When handed in at Local Office *April 6<sup>th</sup> 1929* Port of *GLASGOW*

No. in Survey held at *Groon* Date, First Survey *11.10.28* Last Survey *Mar 29<sup>th</sup> 1929*

on the *SS LEEUWARDEN* (Number of Visits *27*) Tons { Gross } Net }

Master *Groon* Built at *Groon* By whom built *Ailsa S.B. Co Ltd* Yard No. *409* When built *1929*

Engines made at *Groon* By whom made *Ailsa S.B. Co Ltd* Engine No. *144* When made *1929*

Boilers made at *Glasgow* By whom made *David Rowan & Co Ltd* Boiler No. *364* When made *1929*

Nominal Horse Power *General Steam Nav. Co Ltd* Port belonging to *London*

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record )

Total Heating Surface of Boilers *5834 sq. ft.* Is forced draught fitted *No* Coal or Oil fired *Coal*

No. and Description of Boilers *Two S.E. Marine* Working Pressure *200 lbs. sq. in.*

Tested by hydraulic pressure to Date of test No. of Certificate Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler *One pair of Spring-loaded valves*

Area of each set of valves per boiler { per Rule. *20.34* as fitted *22.09* Pressure to which they are adjusted *200 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

Smallest distance between boilers or uptakes and bunkers or woodwork *3'-0"* Is oil fuel carried in the double bottom under boilers *No*

Smallest distance between shell of boiler and tank top plating *14"* Is the bottom of the boiler insulated *Yes*

Largest internal dia. of boilers Length Shell plates: Material Tensile strength

Thickness Are the shell plates welded or flanged Description of riveting: circ. seams { end } inter. }

long. seams Diameter of rivet holes in { circ. seams } { long. seams } Pitch of rivets {

Percentage of strength of circ. end seams { plate } { rivets } Percentage of strength of circ. intermediate seam { plate } { rivets }

Percentage of strength of longitudinal joint { plate } { rivets } Working pressure of shell by Rules

Thickness of butt straps { outer } { inner } No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part { top } { bottom } Thickness of plates { crown } { bottom } Description of longitudinal joint

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

End plates in steam space: Material Tensile strength Thickness Pitch of stays

How are stays secured Working pressure by Rules

Tube plates: Material { front } { back } Tensile strength Thickness

Mean pitch of stay tubes in nests Pitch across wide water spaces Working pressure { front } { back }

Girders to combustion chamber tops: Material Tensile strength Depth and thickness of girder

at centre Length as per Rule Distance apart No. and pitch of stays

in each Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

Working pressure by Rules Front plate at bottom: Material Tensile strength

Thickness Lower back plate: Material Tensile strength Thickness

Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Working Pressure Main stays: Material Tensile strength

Diameter { At body of stay, } { or } { Over threads } No. of threads per inch Area supported by each stay

Working pressure by Rules Screw stays: Material Tensile strength

Diameter { At turned off part, } { or } { Over threads } No. of threads per inch Area supported by each stay

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Working pressure by Rules Are the stays drilled at the outer ends Margin stays: Diameter { At turned off part, or Over threads

No. of threads per inch Area supported by each stay Working pressure by Rules

Tubes: Material External diameter { Plain Stay Thickness { No. of threads per inch

Pitch of tubes Working pressure by Rules Manhole compensation: Size of opening in

shell plate Section of compensating ring No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends 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 Boilers made at

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 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,

Manufacturer.

Dates of Survey { During progress of work in shops - - } See Accompanying Machinery Report

while building { During erection on board vessel - - }

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits 27

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The boilers have been securely fitted on board and tried under steam with satisfactory results.

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

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

David C Barr.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 9 - APR 1929

Assigned See Accompanying Machy. Report.



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