

## REPORT ON BOILERS.

No. 50004

Received at London Office -8 JAN 1930

Date of writing Report Dec<sup>r</sup> 28<sup>th</sup> 1929 When handed in at Local Office Jan 6<sup>th</sup> 1930 Port of GLASGOW.

No. in Reg. Book. Survey held at

Yroon.

Date, First Survey 14 8 29

Last Survey Jan 3<sup>rd</sup> 1930

on the

SS THE MONARCH.

(Number of Visits 29)

Gross 824

Tons { Net 405

Master \_\_\_\_\_ Built at Yroon By whom built Ailsa S B Co Ltd Yard No. 412 When built 1930  
Engines made at Yroon By whom made Ailsa S.B. Co Ltd Engine No. 144 When made 1930  
Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 345 When made 1929  
Nominal Horse Power \_\_\_\_\_ Owners J. Hay and Sons Ltd Port belonging to Glasgow.

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

Manufacturers of Steel \_\_\_\_\_

(Letter for Record \_\_\_\_\_)

Total Heating Surface of Boilers

2021 sq ft

Is forced draught fitted No

Coal or Oil fired Coal.

No. and Description of Boilers

One S.E. Marine

Working Pressure 200 lbs

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 Cockburns Improved High Lift.

Area of each set of valves per boiler

{ per Rule 5.88"  
as fitted 6.28"

Pressure to which they are adjusted 200 lbs 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 6'-0"

Is oil fuel carried in the double bottom under boilers \_\_\_\_\_

Smallest distance between shell of boiler and tank top plating

Open floors

Is the bottom of the boiler insulated No

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  
rivetsPercentage of strength of circ. intermediate seam { plate  
rivetsPercentage of strength of longitudinal joint { plate  
rivets  
combined

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  
bottomThickness 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  
No. of threads per inch  
Tubes: Material  
Pitch of tubes  
shell plate  
Outer row rivet pitch at ends  
Tensile strength  
Diameter of rivet holes  
Internal diameter  
stays  
How connected to shell  
of rivets in outer row in dome connection to shell

Are the stays drilled at the outer ends  
Area supported by each stay  
External diameter  
Working pressure by Rules  
Section of compensating ring  
Depth of flange if manhole flanged  
Thickness of shell  
Pitch of rivets  
Working pressure by Rules  
Inner radius of crown  
Size of doubling plate under dome

Margin stays: Diameter  
Working pressure by Rules  
No. of threads per inch  
Manhole compensation: Size of opening in  
No. of rivets and diameter of rivet holes  
Steam Dome: Material  
Description of longitudinal joint  
Percentage of strength of joint  
Thickness of crown  
No. and diameter of  
Working pressure by Rules  
Diameter of rivet holes and pitch

At turn of part,  
or  
Over threads

Type of Superheater

Number of elements  
Material of headers  
Area of each safety valve  
Rules  
tubes  
to free the superheater from water where necessary

Material of tubes  
Tensile strength  
Is a safety valve fitted to every part of the superheater which can be shut off from the boiler  
Are the safety valves fitted with easing gear  
Pressure to which the safety valves are adjusted  
and after assembly in place

Manufacturers of  
Tubes  
Steel castings  
Internal diameter and thickness of tubes  
Thickness  
Can the superheater be shut off and  
Working pressure as per  
Hydraulic test pressure:  
Are drain cocks or valves fitted

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 while building  
During progress of work in shops - -  
During erection on board vessel - - -  
See Accompanying Machinery Report  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes.  
Total No. of visits 29

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 securely fitted on board and tried under steam with satisfactory results.

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

D. B. Barr  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 7-JAN 1930

Assigned See Accompanying Machinery Report



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