

REPORT ON BOILERS.

No. 50170

Received at London Office

26 FEB 1930

Date of writing Report Feb 21st 1930 When handed in at Local Office Feb 22nd 1930 Port of GLASGOW.

No. in Survey held at
eg. Book.

Yroon

Date, First Survey 29 10 29 Last Survey Feb. 20th 1930

(Number of Visits 20)

Gross 824
Net 406

on the

SS. THE EMPEROR

Master

Built at

Yroon

By whom built

Ailsa S.B. Co Ltd

Yard No. 414

When built 1930

Engines made at

Yroon

By whom made

Ailsa S.B. Co Ltd

Engine No. 149

When made 1930

Boilers made at

Glasgow

By whom made

Barclay Curle & Co Ltd

Boiler No. A10

When made 1930

Nominal Horse Power

Owners

J. Hay and Sons Ltd

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

(Letter for Record)

Total Heating Surface of Boilers

2021 sq

Is forced draught fitted

No

Coal or Oil fired

Coal

No. and Description of Boilers

One S.B.

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

No

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
rivets

Percentage of strength of circ. intermediate seam

plate
rivets

Percentage 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
bottom

Thickness of plates

crow
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 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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Foundation

W1142-0043

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

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

while building { During erection on board vessel - - } See Accompanying Machinery Report Total No. of visits 20

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

a.g.
22/2/30.

PS 002 14
Report
unapproved

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

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

Committee's Minute GLASGOW 25 FEB 1930

Assigned See Accompanying Machinery Report