

REPORT ON BOILERS.

No. 21635

Received at London Office

28 JUN 1945

Date of writing Report

✓ 10

When handed in at Local Office

5: 6: 1945

Port of

Aberdeen.

No. in Survey held at
Reg. Book.

Aberdeen

Date, First Survey

26: 2: 45

Last Survey

29: 5: 1945

(Number of Visits 5)

Gross 1553.73

Tons

Net 892.58

on the

SS FIREBEAM

Built at Aberdeen

By whom built

Hall Russell & Co. Ltd

Yard No. 485

When built 1945

Engines made at

Glasgow

By whom made

David Rowan & Co. Ltd

Engine No. 1133

When made

Boilers made at

"

By whom made

"

"

Boiler No. 1133

When made

Nominal Horse Power

Owners

Gas Light & Coke Co. Ltd

Port belonging to

London

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

Manufacturers of Steel

(Letter for Record S)

Total Heating Surface of Boilers

Is forced draught fitted

MB 192

Coal or Oil fired

Coal

No. and Description of Boilers

One Single ended. One Cochran boiler

Working Pressure 200 lbs

DB 105

Tested by hydraulic pressure to

Date of test

No. of Certificate

MB 21889

Can each boiler be worked separately

Yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 Direct Spring loaded

Area of each set of valves per boiler

{ per Rule
as fitted

Pressure to which they are adjusted 200 lbs

DB 105

Are they fitted with easing gear

Yes

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

No

Smallest distance between ~~boilers~~ or uptakes and bunkers or woodwork

5'-0" MB

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

6 feet floor

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

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

End plates in steam space: Material

Tensile strength

Thickness

Pitch of stays

How are stays secured

Tube plates: Material

{ front
back

Tensile strength

Thickness

Mean pitch of stay tubes in nests

Pitch across wide water spaces

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

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

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

Main stays: Material

Tensile strength

Diameter { At body of stay,
Over threads

No. of threads per inch

Screw stays: Material

Tensile strength

Diameter { At turned off part,
Over threads

No. of threads per inch



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Foundation

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Are the stays drilled at the outer ends

Margin stays: Diameter { At turned off part,
or
Over threads

No. of threads per inch

Tubes: Material

External diameter

Plain

Stay

No. 69438

No. of threads per inch

Pitch of tubes

Manhole compensation: Size of opening

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

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

Thickness of crown

No. and diameter of

stays

Inner radius of crown

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
MAIN BOILER

Smoke tube

Manufacturers of

Tubes

Steel forgings

Steel castings

See Newcastle
Cert No C19754

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

Are the safety valves fitted with easing gear

Yes

Pressure to which the safety valves are adjusted

200 lbs

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

Yes

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

Yes

FOR INSTALLATION ONLY.
The foregoing is a correct description,
FOR HALL RUSSELL & Co., Ltd.

Manufacturer

Dates

During progress of

work in shops - -

while

building

During erection on

board vessel - -

1945

Feb. 26. May. 25. 26. 28. 29.

Are the approved plans of boiler and superheater forwarded herewith

(If not state date of approval.)

Total No. of visits

5.

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.)

This boiler has been built under

Special Survey in accordance with the Rules and approved plans.

(See Gls Rpt No 69438) It has been securely fitted on board the vessel.

Boiler & Superheater safety valves adjusted under steam as stated. Tried

for accumulation and found satisfactory. The materials and

workmanship are good.

For opinions as to class, please see Machinery report attached.

Gls Rpt No 69336 on Donkey Boiler attached.

See Machinery report.

Survey Fee

...

...

£

:

:

When applied for,

19

Travelling Expenses (if any)

£

:

:

When received,

19

J. H. Avery

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 29 JUN 1945

Assigned

Su F.E. Mackay. rph.



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