

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 Aberdeen Date, First Survey 26: 2: 45 Last Survey 29: 5: 1945

on the SS " FIREBEAM " (Number of Visits 5) Gross 1553.73 Tons Net 892.58

Built at Aberdeen By whom built Hall Russell & Co. La Yard No. 485 When built 1945

Engines made at Glasgow By whom made David Rowan & Co. La Engine No. 1133 When made "

Boilers made at " By whom made " Boiler No. 1133 When made "

Nominal Horse Power " Owners Gas Light & Coke Co. La 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 No. DB No. Coal or Oil fired Coal

No. and Description of Boilers One single ended. One Cochran boiler Working Pressure 200 lbs.

Tested by hydraulic pressure to " Date of test " No. of Certificate DB 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 " 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 No.

Smallest distance between boilers or uptakes and bunkers or woodwork 5'-0" 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 " Pitch of rivets "

Percentage of strength of circ. end seams " Percentage of strength of circ. intermediate seam "

Percentage of strength of longitudinal joint "

Thickness of butt straps " No. and Description of Furnaces in each Boiler MB No. DB No.

Material " Tensile strength " Smallest outside diameter "

Length of plain part " Thickness of plates " 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 " 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 " No. of threads per inch "

Screw stays: Material " Tensile strength "

Diameter " No. of threads per inch "



009839-009847-0154

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. 69478

No. of threads per inch

Pitch of tubes

Manhole compensation: Size of opening

shell plate

See Glasgow Rpt 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

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 of Survey

During progress of work in shops - -

1945

while building

During erection on board vessel - - -

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 69435) 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.

Table with 2 columns: Description (Survey Fee, Travelling Expenses) and Amount (£ 19).

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

Committee's Minute FRI. 29 JUN 1945

Assigned Su F.E. Mackay. rpt.

