

REPORT ON BOILERS.

No. 64430

-3 OCT 1941

Received at London Office

Date of writing Report 10 When handed in at Local Office 30.9.1941 Port of Glasgow

No. in Reg. Book. Survey held at Glasgow Date, First Survey 24.9.40 Last Survey 27.8.1941

on the H.M.S. "LOOSESTRIFE" (Number of Visits 7) Tons {Gross Net

Master Built at Aberdeen By whom built Hall Russell & Co. Ltd. Yard No. 461/7167 When built 1941

Engines made at Aberdeen By whom made Hall Russell & Co. Ltd. Engine No. 456 When made 1941

Boilers made at Glasgow By whom made Barclay & Co. Ltd. Boiler No. 39/28. When made 1941

Nominal Horse Power. Owners The Admiralty Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Babcock Ltd (Letter for Record S)

Total Heating Surface of Boilers 7080 sq ft Is forced draught fitted Yes Coal or Oil fired Oil.

No. and Description of Boilers 2 Single ended Working Pressure 225 lbs

Tested by hydraulic pressure to 388 lbs Date of test 27.8.41 No. of Certificate 20839 Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 1-2 1/4 Double I.H.L.

Area of each set of valves per boiler {per Rule 9.21 sq in as fitted 11.86 sq in Pressure to which they are adjusted Are they fitted with easing gear

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 Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Largest internal dia. of boilers 16'-6" Length 12'-6" Shell plates: Material S Tensile strength 30-34 Tons

Thickness 1 1/16" Are the shell plates welded or flanged No. Description of riveting: circ. seams {end DR overlap inter. 4" Pitch of rivets {11"

Long. seams DBS-TR Diameter of rivet holes in {circ. seams 1 1/2" long. seams 1 1/8"

Percentage of strength of circ. end seams {plate 62.5 rivets 44.7 Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 85.2 rivets 89.5 combined 88.3 Working pressure of shell by Rules

Thickness of butt straps {outer 1 3/16" inner 1 5/16" No. and Description of Furnaces in each Boiler 3 Dugout

Material S Tensile strength 26-30 Tons Smallest outside diameter 4'-0 1/2"

Length of plain part {top bottom Thickness of plates {crown 3/4" bottom 1/2" Description of longitudinal joint butt.

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

End plates in steam space: Material S Tensile strength 26-30 Tons Thickness 1 1/16" Pitch of stays 18 5/8 x 22 1/2"

How are stays secured Double Nuts Working pressure by Rules

Tube plates: Material {front S back S Tensile strength {26-30 Tons Thickness {15 1/16" 13 1/16"

Mean pitch of stay tubes in nests 8'6" Pitch across wide water spaces 13 1/2" Working pressure {front back

Girders to combustion chamber tops: Material S Tensile strength 28-32 Tons Depth and thickness of girder

at centre 20 10 3/8 x 15 1/16 Length as per Rule 3'-0 5/16 Distance apart 10 1/4 No. and pitch of stays

in each 30 8 5/8 Working pressure by Rules Combustion chamber plates: Material S

Tensile strength 26-30 Tons Thickness: Sides 25 1/32" Back 11 1/16" Top 25 1/32" Bottom 1"

Pitch of stays to ditto: Sides 8 5/8 x 10 3/4 Back 8 x 8 3/4 Top 8 5/8 x 10 1/4 Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules Front plate at bottom: Material S Tensile strength 26-30 Tons

Thickness 15 1/16" Lower back plate: Material S Tensile strength 26-30 Tons Thickness 1"

Pitch of stays at wide water space 15" Are stays fitted with nuts or riveted over Nuts

Working Pressure Main stays: Material S Tensile strength 28 Tons

Diameter {At body of stay, or Over threads 3 1/2" No. of threads per inch 6 Area supported by each stay

Working pressure by Rules Screw stays: Material S Tensile strength 26-30 Tons

Diameter {At turned off part, or Over threads 1 3/4" No. of threads per inch 9 Area supported by each stay

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Working pressure by Rules *Are the stays drilled at the outer ends* No. Margin stays: Diameter *{ At turned off part, 1 1/8 or Over threads*

No. of threads per inch *9* Area supported by each stay Working pressure by Rules

Tubes: Material *S* External diameter *{ Plain 2 1/2 Stay 2 1/2* Thickness *{ 8/16 5/16 8/16* No. of threads per inch *9*

Pitch of tubes *3 3/4 x 3 3/4* Working pressure by Rules Manhole compensation: Size of opening

shell plate *16 1/2 x 20 1/2* Section of compensating ring *21 x 1 9/16* No. of rivets and diameter of rivet holes *36 2 1/2*

Outer row rivet pitch at ends *11* Depth of flange if manhole flanged *3 1/4* Steam Dome: Material *Iron*

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

How connected to shell Inner radius of crown Working pressure by Rules

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 forgings 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

Area of each safety valve Are the safety valves fitted with casing gear Working pressure as per Rules

Pressure to which the safety valves are adjusted Hydraulic test pressure tubes forgings and castings and after assembly in place Are drain cocks 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

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The foregoing is a correct description, for BARCLAY, CURLE & CO., LTD. Alexander Macneil Manufacture

Dates of Survey *{ During progress of work in shops - - 1940 Sep. 24 Oct. 4 (1941) May 2* Are the approved plans of boiler and superheater forwarded herewith *Yes* (If not state date of approval.)

while building *{ During erection on board vessel - - July 3, 17 Aug. 22, 27* Total No. of visits *7*

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 and in accordance with the Rules. The materials & workmanship are good. On completion it has been tested by hydraulic pressure with satisfactory results. It has been forwarded to Aberdeen for fitting on board.

Survey Fee ... *Admin Fee* When applied for, 19

Travelling Expenses (if any) £ When received, 19

Geo. Brown for A.J. Brown Engineer Surveyor to Lloyd's Register of Shipping

FRI. 12 JAN 1942

Committee's Minute GLASGOW 1 OCT 1941

Assigned *Deferred*

See above p. 20689

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