

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) Gross Tons Net

Master Built at Aberdeen By whom built Hall Russell & Co. Ltd. Yard No. 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. 3928 When made 1941

Nominal Horse Power Owners The Admiralty Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Bethlehem Ltd (Letter for Record S ✓)

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

No. and Description of Boilers 2 Single End Working Pressure 225 lb

Tested by hydraulic pressure to 388 lb 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 inch I.H.L. ✓

Area of each set of valves per boiler {per Rule 9.219" as fitted 11.869" 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 outlp inter. 4" Pitch of rivets {11"

Long. seams DBS-TR Diameter of rivet holes in {circ. seams 1 1/2" long. seams 1 5/8"

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 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 Dugton

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 1/2" bottom 3 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 5/8" 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 22 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

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

Tensile strength 26-30 Tons Thickness: Sides 25 3/32" Back 11 1/16" Top 25 3/32" 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 Into

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 Into

Working Pressure Main stays: Material S Tensile strength 28 1/2 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

Working pressure by Rules
No. of threads per inch 9
Tubes: Material S
Pitch of tubes 3 3/4 x 3 3/4
shell plate 16 1/2 x 20 1/2
Outer row rivet pitch at ends 11
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 No.
Margin stays: Diameter { At turned off part, 1 1/8 or Over threads
Area supported by each stay
External diameter { Plain 2 1/2 Stay 2 1/2
Thickness { 5/16 8/16 16
No. of threads per inch 9
Working pressure by Rules
Manhole compensation: Size of opening
No. of rivets and diameter of rivet holes 36 2 1/2
Depth of flange if manhole flanged 3 1/4
Steam Dome: Material None
Description of longitudinal joint
Percentage of strength of joint { Plate Rivets
Thickness of crown
No. and diameter of
Working pressure by Rules
Inner radius of crown
Working pressure by Rules
Size of doubling plate under dome
Diameter of rivet holes and pitch

Type of Superheater

Manufacturers of

Number of elements
Material of headers
the boiler be worked separately
Area of each safety valve
Rules
tubes
valves fitted 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
forgings and castings
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with
Internal diameter and thickness of tubes
Thickness
Can the superheater be shut off and
Working pressure as per
Hydraulic test pressure
Are drain cocks

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



The foregoing is a correct description,
Alexander Macneil
Manufacture

Dates of Survey { During progress of work in shops - - 1940 Sep. 24 Oct. 4 (1941) May 2
while building { During erection on board vessel - - July 3 17 Aug. 22 27
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes
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 ...
Travelling Expenses (if any) £
When applied for, 19
When received, 19

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
20689

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