

REPORT ON BOILERS.

No 67629

Received at London Office 14 OCT 1943

Date of writing Report

19

When handed in at Local Office

11. 10. 1943. Port of

Glasgow.

No. in Survey held at
Reg. Book.

Glasgow.

Date, First Survey

19th July 1943

Last Survey

5th Oct. 1943.

19 43.

(Number of Visits

24)

Gross 8908

Tons { Net 5658

on the

M.V. "Empire Mackay"

Built at

Glasgow.

By whom built

Harland & Wolff Ltd.

Yard No.

11676 When built 1943.

Engines made at

do

By whom made

do.

Engine No.

1167 When made 1943.

Boilers made at

Hyde.

By whom made

Joseph Adamson & Co. Ltd

Boiler No.

2585 When made 1943.

Nominal Horse Power

Owners

Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

(Letter for Record S.

Total Heating Surface of Boilers

3836 sq. ft.

Is forced draught fitted

Yes

Oil fired

Yes.

No. and Description of Boilers

2. S.B.

Working Pressure

150 lb

Tested by hydraulic pressure to

Date of test

No. of Certificate

Port 105

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

2 1/2" dia Double Spring Improved H.L.

Area of each set of valves per boiler

{ per Rule 3.63 sq. inches

Pressure to which they are adjusted

150 lb 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

will clear

Is oil fuel carried in the double bottom under boilers

Yes

Smallest distance between shell of boiler and tank top plating

36"

Is the bottom of the boiler insulated

Yes.

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

Long. seams

Diameter of rivet holes in { circ. 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

Thickness of butt straps

{ outer

{ inner

No. and Description of Furnaces in each Boiler

Material

Tensile strength

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 of 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,

{ or

{ Over threads

No. of threads per inch

crew stays: Material

Tensile strength

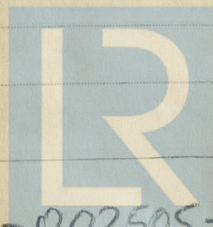
Diameter

{ At turned off part,

{ or

{ 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 _____ Thickness { _____ 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 _____
 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 _____
 stays _____ Inner radius of crown _____
 How connected to shell _____ Size of double 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 _____ 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 _____
 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 Yes

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 - - - Total No. of visits 24
 1943 July 19 21 22 23 26 28 29 Aug 4 6 12 13 16 18
 24 25 27 30 Sep 2 6 8 16 23 28 Oct 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.) These boilers have been satisfactorily fitted on board, examined under full working conditions and found satisfactory. Safety valves adjusted under steam to 150 lbs per sq. inch and found satisfactory. Safety valve compression washer.
Port Boiler Starboard boiler.
P. S. P. S.
7/16" 7/16" 13/32" 15/32"

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

G. E. Murdoch.
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute GLASGOW 12 OCT 1943
 Assigned _____