

REPORT ON BOILERS.

No. 16302

13 APR 1929

Received at London Office

Date of writing Report 12-4-1929 When handed in at Local Office 12-4-1929 Port of Grimsby

No. in Reg. Book Lincoln Survey held at Lincoln Date, First Survey 5-2-29 Last Survey 4-4-1929

(Number of Visits 8) Gross Tons Not Not

Built at Yokohama By whom built Yokohama Dock Co. No. ? When built

Engines made at Lincoln By whom made Habcock & Welton, Ltd. Engine No. 73/4596 When made 1929

Boilers made at Lincoln By whom made Habcock & Welton, Ltd. Boiler No. 73/4596 When made 1929

Owners Lincoln Port belonging to Lincoln

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Habcock & Welton, Ltd. No. 73/4596 When made 1929 Where fixed -

Manufacturers of Steel Parkgate I.S. Co. Ltd.

Total Heating Surface of Boiler 350 sq ft Is forced draught fitted - Coal or Oil fired oil & gas

No. and Description of Boilers One, black iron, waste heat Working pressure 100 lbs

Tested by hydraulic pressure to 200 lbs Date of test 27th March 1929 No. of Certificate 267

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler Two spring loaded

Area of each set of valves per boiler per rule 4.576 (3.9) as fitted 6.28 Pressure to which they are adjusted - Are they fitted with easing gear -

State whether steam from main boilers can enter the donkey boiler - Smallest distance between boiler or uptake and bunkers or woodwork -

Is oil fuel carried in the double bottom under boiler - Smallest distance between base of boiler and tank top plating -

Is the base of the boiler insulated - Largest internal dia. of boiler 5'-0" Height 8'-3 7/8"

Shell plates: Material S.L. steel Tensile strength 28/32 T Thickness 7/16"

Are the shell plates welded or flanged DR Lap Description of riveting: circ. seams SK & DR Lap long. seams DR Lap

Dia. of rivet holes in circ. seams 13/16" long. seams 13/16" Pitch of rivets 1 7/8" & 2 1/8" Percentage of strength of circ. seams plate 57.069 rivets 52.274 of Longitudinal joint plate 69 rivets 74 combined 75

Working pressure of shell by rules 133 lbs Thickness of butt straps outer - inner -

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material S.L. steel

Tensile strength 26/30 T Thickness 5/8" Radius - Working pressure by rules 230 lbs

Description of Furnace: Plain, spherical, or dished crown dished Material S.L. steel Tensile strength 26/30 T

Thickness 13/16" External diameter top 4'-1 1/4" bottom 4'-1 1/4" Length as per rule 5'-2 1/2" Working pressure by rules 112 lbs

Pitch of support stays circumferentially - and vertically - Are stays fitted with nuts or riveted over -

Diameter of stays over thread - Radius of spherical or dished furnace crown - Working pressure by rule -

Thickness of Ogee Ring 7/8" Diameter as per rule D 4-11 1/8" a 4-1 1/4" Working pressure by rule 182 lbs

Combustion Chamber: Material - Tensile strength - Thickness of top plate -

Radius if dished - Working pressure by rule - Thickness of back plate - Diameter if circular -

Length as per rule - Pitch of stays - Are stays fitted with nuts or riveted over -

Diameter of stays over thread - Working pressure of back plate by rules -

Tube Plates: Material - Tensile strength - Thickness - Mean pitch of stay tubes in nests -

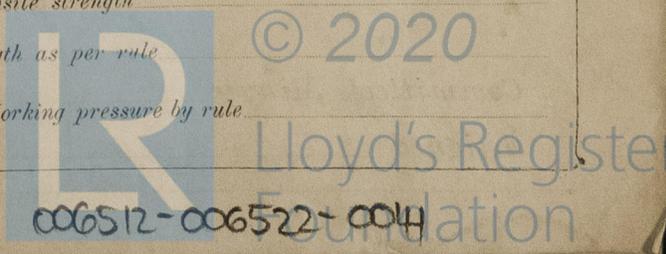
If comprising shell, Dia. as per rule - Pitch in outer vertical rows - Dia. of tube holes FRONT - BACK -

Is each alternate tube in outer vertical rows a stay tube - Working pressure by rules -

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 - Working pressure by rule -



Crown stays: Material _____ Tensile strength _____ Diameter ^{at body of stay,} _____ _{or} _____ _{over threads} _____

No. of threads per inch _____ Area supported by each stay _____ Working pressure by rules _____

Screw stays: Material _____ Tensile strength _____ Diameter ^{at turned off part,} _____ _{or} _____ _{over threads} _____ No. of threads per inch _____

Area supported by each stay _____ Working pressure by rules _____ Are the stays drilled at the outer ends _____

Tubes: Material _____ External diameter ^{plain} _____ _{stay} _____ Thickness _____ **6 1/2**

No. of threads per inch _____ Pitch of tubes _____ Working pressure by rules _____

Manhole Compensation: Size of opening in 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 _____

Uptake: External diameter _____ Thickness of uptake plate _____

Cross Tubes: No. _____ External diameters _____ Thickness of plates _____

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

The foregoing is a correct description, **BABCOCK & WILCOX LTD** (Lincoln Branch), Manufacturer.

Annual Survey Report

Dates of Survey while building ^{During progress of work in shops - -} 1929 *Sept 5-13-22-26* ^{During erection on board vessel - -} *Mar 15-27* *Apr* Is the approved plan of boiler forwarded herewith (If not state date of approval.) *Yes*

Total No. of visits *8*

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 and approved plan. The materials and workmanship are good. This boiler has now been despatched to Yokohama.*

This case is a duplicate of Quincy Reg. No. 16297.

Survey Fee £ *4:4* When applied for, *3/4/29*

Travelling Expenses (if any) £ *1:8* When received, *3-7-29*

W. G. Kinley
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute
Assigned

