

REPORT ON BOILERS.

No. 94362

Received at London Office -7 OCT 1929

Date of writing Report Oct 5th 1929 When handed in at Local Office -7 OCT 1929 Port of London

No. in Reg. Book 40154 Survey held at Hitchin Date, First Survey 13th June 1929 Last Survey Oct 4th 1929

on the Steel twin E. Elkhound (Number of Visits 3) Tons { Gross 684.07 Net 201

Built at Bristol By whom built C. Hill & Son Ltd Yard No. 173 When built 1929

Engines made at Augustburg By whom made Maschinenfabrik Augsburg-Nürnberg Engine No. _____ When made 1918

Boilers made at Hitchin By whom made Spencer Hopwood & Co Boiler No. 10355 When made 1929

Owners Channel Tankers Ltd Port belonging to London

VERTICAL DONKEY BOILER.

Made at Hitchin By whom made Spencer Hopwood Boiler No. 10355 When made 1929 Where fixed _____

Manufacturers of Steel Newtons & Co

Total Heating Surface of Boiler 324 sq ft Is forced draught fitted no Coal or Oil fired oil

No. and Description of Boilers One No. 20 Spencer Hopwood Patent Working pressure 120 lbs

Tested by hydraulic pressure to 230 lbs Date of test Oct 4th 1929 No. of Certificate 1344

Area of Firegrate in each Boiler _____ No. and Description of safety valves to each boiler 2 - Spring loaded

Area of each set of valves per boiler { per rule 3.56 as fitted 6.28 } Pressure to which they are adjusted 125 lb Are they fitted with easing gear yes

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'-3" Height 12 ft 6"

Shell plates: Material Steel Tensile strength 26-32 Thickness 7/16

Are the shell plates welded or flanged _____ Description of riveting: circ. seams { end SR Lap inter SR Lap } long. seams SR Lap

Dia. of rivet holes in { circ. seams 13/16 long. seams _____ } Pitch of rivets { 2" 2 3/4" } Percentage of strength of circ. seams { plate 56.5% rivets 56.5% } of Longitudinal joint { plate 69% rivets 73.5% combined _____ }

Working pressure of shell by rules 229 Thickness of butt straps { outer _____ inner _____ }

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material Steel

Tensile strength 26-30 Thickness 11/16 Radius _____ Working pressure by rules 120

Description of Furnace: Plain, spherical, or dished crown Flat top Material Steel Tensile strength 26-30

Thickness 11/16 External diameter { top 4'-3 3/8" bottom 4'-9" } Length as per rule _____ Working pressure by rules 120

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 _____ Diameter as per rule { D _____ d _____ } Working pressure by rule _____

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 { front Steel back _____ } Tensile strength { 26-30 } Thickness { 11/16 } Mean pitch of stay tubes in nests 9"

If comprising shell, Dia. as per rule { front _____ back _____ } Pitch in outer vertical rows { _____ } Dia. of tube holes FRONT { stay _____ plain _____ } BACK { stay _____ plain _____ }

Is each alternate tube in outer vertical rows a stay tube _____ Working pressure by rules { front _____ back _____ }

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 *Spliced drawn steel* External diameter { plain $2\frac{1}{4}$ ✓ stay $2\frac{1}{4}$ ✓ } Thickness { $11\frac{1}{16}$ ✓ $1\frac{1}{4}$ ✓ }
 No. of threads per inch 11 Pitch of tubes $3\frac{1}{8}$ 1st. 3-Vert ✓ Working pressure by rules 120

Manhole Compensation: Size of opening in shell plate 14×11 ✓ Section of compensating ring $2' dia \times \frac{1}{2}"$ No. of rivets and diameter of rivet holes $24 - \frac{13}{16}$ ✓ Outer row rivet pitch at ends $5\frac{1}{2}$ ✓ Depth of flange if manhole flanged _____

Uptake: External diameter $1' 11\frac{5}{8}"$ ✓ Thickness of uptake plate $\frac{1}{16}$ ✓

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

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with $\frac{3}{4}$

SPENCER-HOPWOOD, LTD.
 The foregoing is a correct description,

J. Bradley Manufacturer.
 WORKS MANAGER

Dates of Survey { During progress of work in shops - - } 1929 SEP 13. 20 Oct 4 Is the approved plan of boiler forwarded herewith $\frac{3}{4}$
 (If not state date of approval.)
 while building { During erection on board vessel - - } 1929 Oct. 9, 15. Total No. of visits 3 (In Shops) 2 (On Board)

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

*This boiler has been built under Special Survey in accordance with the plan and the Society's Rules -
 The material has been tested by the Society's Surveyors.
 The workmanship is good.
 Upon completion the boiler was tested by hydraulic pressure to 230 lbs per sq. inch and was tight & sound at that pressure.
 The boiler is stamped:
 No. 1344
 Hydro test 230 lbs
 WP. 120 lbs
 4-10-29. H.P.C.*

This boiler has now been fitted & secured on board the Motor vessel "Elthorne" according to the Rules & tested under steam found satisfactory
John W. Gwynne

Survey Fee ... £ $4 : 4$: } When applied for, $17/4$ 24-40 pt 20. Oct 1929
 Travelling Expenses (if any) £ $: 17$ - } When received, 19 17/4 24-40 pt 20. Oct 1929

J. T. Cornick
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute $TUE. 12 NOV 1929$
 Assigned *See No Report No 12257*

