

REPORT ON BOILERS.

No. 91438

Received at London Office 23 MAY 1927

Writing Report *May 21st 1927* When handed in at Local Office *23 MAY 1927* Port of *LONDON*
 in Survey held at *Stitchin* Date, First Survey *2nd May 1927* Last Survey *May 17th 1927*
 on the *Spencer-Hopwood Boilers for Beng & Burg.* (Number of Visits *3*) Tons *Gross* *Net*

By whom built _____ Yard No. _____ When built _____
 By whom made _____ Engine No. _____ When made _____
 By whom made _____ Boiler No. _____ When made _____
 Port belonging to _____

VERTICAL ~~DONKEY~~ ^{Heating} BOILER.

at *Stitchin* By whom made *Spencer-Hopwood* Boiler No. *6481* When made *1927* Where fixed _____
 Manufacturers of Steel *The Leeds Forge Co. Ltd.*

Heating Surface of Boiler *464 sq ft* Is forced draught fitted *no* Coal or Oil fired *oil fired*

Description of Boilers *One Vertical Spencer-Hopwood patent* Working pressure *180 lbs*
 tested by hydraulic pressure to *200 lbs* Date of test *17-5-27* No. of Certificate *1312*

Area of Firegrate in each Boiler *23.76 sq ft* No. and Description of safety valves to each boiler *2 Spring loaded.*
 of each set of valves per boiler *per rule 6.02 as fitted 9.802* Pressure to which they are adjusted _____ Are they fitted with easing gear _____

Whether steam from main boilers can enter the donkey boiler _____ Smallest distance between boiler or uptake and bunkers _____

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 *6ft.* Height *14-8"*
 plates: Material *Steel* Tensile strength *28-32* Thickness *1 1/32*

Are the shell plates welded or flanged *no* Description of riveting: circ. seams *Int. CR* long. seams *SR butt straps*

of rivet holes in *circ. seams 7/8* Pitch of rivets *25-35* Percentage of strength of circ. seams *plate 59.6-70.9 rivets 49.70* of Longitudinal joint *plate 71 rivets 120*

Working pressure of shell by rules *130* Thickness of butt straps *outer 1/2" inner 1/2"*

Crown: Whether complete hemisphere, dished partial spherical, or flat *Flat* Material *Steel*
 Tensile strength *28-32* Thickness *3/4* Radius _____ Working pressure by rules *100*

Description of Furnace: Plain, spherical, or dished crown *plain* Material *Steel* Tensile strength *26-30*
 Thickness *3/4* External diameter *top 4-10 1/2 4-3 1/2 bottom 5-6* Length as per rule *5-10* Working pressure by rules *129*

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* _____ Working pressure by rule _____

Combustion Chamber: Material _____ Tensile strength _____ Thickness of top plate _____
 as if dished _____ Working pressure by rule _____ Thickness of back plate _____ Diameter if circular _____

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 _____

Plates: Material *Steel* Tensile strength *26-30* Thickness *3/4* Mean pitch of stay tubes in nests *10 15/16*

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

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

Stays to combustion chamber tops: Material _____ Tensile strength _____
 thickness 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 Steel ✓ External diameter { plain 2 1/4 ✓ 5 1/2 ✓ stay _____ Thickness { 11/16 ✓ 1/4 ✓

No. of threads per inch 11 ✓ Pitch of tubes 3 1/4 x 3 ✓ Working pressure by rules 100 ✓

Manhole Compensation: Size of opening in shell plate 14 x 11 ✓ Section of compensating ring 2 1/4 dia x 9/16 ✓ No. of rivets and diameter of rivet holes 24 - 7/8 ✓ Outer row rivet pitch at ends 5 1/2 ✓ Depth of flange if manhole flanged _____ ✓

Uptake: External diameter 27 ✓ Thickness of uptake plate 3/4 ✓

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

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with Yes

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

J. P. Bradley Manufacturer.
WORKS MANAGER,

Dates of Survey { During progress of work in shops - - } 1927 MAY 26 17
while building { During erection on board vessel - - }

Is the approved plan of boiler forwarded herewith (If not state date of approval.) Yes ✓

Total No. of visits 3 (IN SHOPS)

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

This boiler has been built under Special Survey, in accordance with the plan & the Society's Rules - The steel used in its construction has been tested according to the Rules.

The workmanship is good.

Upon completion the boiler was tested by hydraulic pressure to 200 lbs. and showed no signs of weakness or defect.

The boiler is stamped: -

No. 1312

Hydr. test

200 lbs.

WP. 100 lbs.

17-5-27 H.P.C.

Survey Fee £ 4 : 4 : -

When applied for, 23 MAY 1927

Travelling Expenses (if any) £ 1 : 19/8 : -

When received, 11. 8. 27 *W.P.*

Committee's Minute Assigned

*Not for classing
Committee*

J. P. Cornish
Engineer in Charge to Lloyd's Register of Shipping.

TUES. 15 NOV 1927

Lloyd's Register Foundation