

Original report with Swan Hunter No 1270.

NEWCASTLE-ON-TYNE

No. 83570

-8 DEC 1928

Extract from No. 92759

REPORT ON BOILERS.

Received at London Office

Writing Report June 7th 1928 When handed in at Local Office 10 Port of London

Survey held at Hitchin Date, First Survey 3rd May 1924 Last Survey June 7th 1928

on the No. 2 Spence's Hooped Patent Boiler for Messrs. Swan, Hunter & Wigham Richardson No. 1272 (Number of Visits 3) Gross 798.3 Tons Net 492.6

FOR THE TWIN SCREW MOTOR VESSEL "PORT ALMA" Yard No. _____ When built _____

made at Lunderland By whom made Wigham Richardson Engine No. 140 When made 1928

made at _____ By whom made _____ Boiler No. _____ When made _____

Commanchee, Dominion Line Ltd. Port belonging to London

TYPICAL DONKEY BOILER.

Hitchin By whom made Spence's Hooped Boiler No. 8190 When made 1928 Where fixed Engine room

Manufacturers of Steel Wm. Stewart & Lloyd Ltd.

Heating Surface of Boiler 36 sq. ft. Is forced draught fitted No Coal or Oil fired Oil

Description of Boilers One Spence's Hooped Patent Vertical Working pressure 100 lbs. sq. in.

Tested by hydraulic pressure to 200 lbs. sq. in. Date of test 7.6.28 No. of Certificate 1333

Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 - 2" Pop. Valve

Each set of valves per boiler per rule Pressure to which they are adjusted 100 lbs. sq. in. Are they fitted with easing gear Yes

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 YES Smallest distance between base of boiler and tank top plating -

Is the base of the boiler insulated YES Largest internal dia. of boiler 2'-6" Height 7'-0"

Material Steel Tensile strength 28-32 tons Thickness 3/8"

Shell plates welded or flanged no Description of riveting: circ. seams single long. seams double

Rivet holes in circ. seams 1 3/16" Pitch of rivets 2" Percentage of strength of circ. seams 59.3 of Longitudinal joint 86.4

Working pressure of shell by rules 220 Thickness of butt straps outer 3/8" inner 3/8"

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

Strength 26-30 tons Thickness 3/8" Radius - Working pressure by rules 143

Position of Furnace: Plain, spherical, or dished crown _____ Material _____ Tensile strength _____

External diameter top 2'-6" Length as per rule _____ Working pressure by rules _____

Support stays circumferentially _____ and vertically _____ Are stays fitted with nuts or riveted over _____

Radius 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 _____

Position Chamber: Material Steel Tensile strength 26-30 tons Thickness of top plate 3/8"

Whether dished ✓ Working pressure by rule 100 Thickness of back plate _____ Diameter if circular _____

Pitch of stays _____ Are stays fitted with nuts or riveted over _____

Working pressure of back plate by rules _____

Material Steel Tensile strength 26-30 Thickness 3/8" Mean pitch of stay tubes in nests _____

Rising shell, Dia. as per rule front 2'-4" Pitch in outer vertical rows ✓ Dia. of tube holes FRONT stay 2'-4" BACK stay 2'-4"

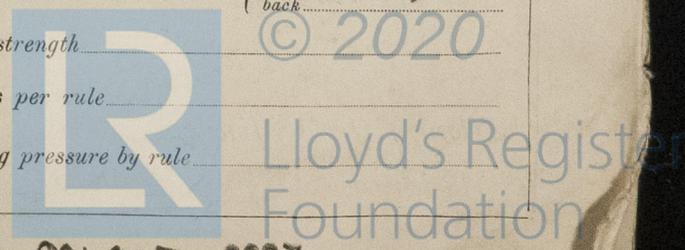
Alternate tube in outer vertical rows a stay tube Yes - 6 stay tubes Working pressure by rules front 100 back 100

Material _____ Tensile strength _____

Length as per rule _____

No. and pitch of stays in each _____ Working pressure by rule _____

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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* stay *2 1/4* Thickness { *11/16* *5/16*
 No. of threads per inch *11* Pitch of tubes *3/8* Working pressure by rules *100*
Manhole Compensation: Size of opening in shell plate *16 x 12* Section of compensating ring *2-2" x 1-10" x 1/2* No. of rivets and diameter _____
 of rivet holes *32 - 13/16* Outer row rivet pitch at ends _____ Depth of flange if manhole flanged _____
Uptake: External diameter *9"* 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*

The foregoing is a correct description,
 Stamped *Wm. Wood & Co.*
 Signed *P. Bradley* Manufacturer.
Wm. Wood & Co.

Dates of Survey { During progress of work in shops - - *1928 May 2, June 5 + 7* Is the approved plan of boiler forwarded herewith (If not state date of approval.) *Yes*
 while building { During erection on board vessel - - _____ Total No. of visits _____

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 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 per sq. in. & showed no sign of weakness or defect.
The boiler is mounted: -
As 1533
Height 200 th.
WT 100 th.
7-6-28 H.P.C.

This boiler has now been securely fitted on board the vessel & its safety valves adjusted under steam to 100 lbs per sq. inch working pressure.

Survey Fee ... £ : : } When applied for, 19
 Travelling Expenses (if any) £ : : } When received, 19
No. Rules No. 8189

Committee's Minute *See NWC. J. E. 4/1 No. 83570*
 Assigned _____

H. P. Smith
 Engineer Surveyor to Lloyd's Register of Shipping.
Wm. A. Ferguson
 Newcastle-on-Tyne.

FRI. 14 DEC 1928

