

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 9th 1928 When handed in at Local Office

10

Port of

London

Survey held at

Hitchin

Date, First Survey

3rd May 1928

Last Survey

June 7th 1928

on the No. 2 Spencer-Hopwood Patent Boiler for Messrs. Swan, Hunter & Wigham Richardson No. 1272

(Number of Visits 3)

Gross 798.3

Net 492.6

FOR THE TWIN SCREW MOTOR VESSEL

"PORT ALMA"

Yard No.

When built

made at Sunderland

By whom made

Wigham Richardson

Engine No. 140

When made 1928

made at

By whom made

Boiler No.

When made

Commander, Dominion Line Ltd.

Port belonging to

London

TICAL DONKEY BOILER.

Hitchin

By whom made

Spencer-Hopwood & Co.

Boiler No.

8190

When made

1928

Where fixed Engraving room

Constructors of Steel

Messrs. Stewart & Lloyd Ltd.

Heating Surface of Boiler

36 sq.

Is forced draught fitted

No

Coal or Oil fired

Oil

Description of Boilers

One Spencer-Hopwood Patent Vertical

Working pressure

100 lb.

by hydraulic pressure to

200 lb.

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. & Co.

each set of valves per boiler

per rule

3.14 sq.

Pressure to which they are adjusted

100 lbs.

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

work

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

end

single

long. seams

double

rivet holes in

circ. seams

1 3/16"

Pitch of rivets

2"

Percentage of strength of circ. seams

25%

plate

59.3

of Longitudinal joint

plate

69

rivets

86.4

combined

pressure of shell by rules

220

Thickness of butt straps

outer

inner

Whether complete hemisphere, dished partial spherical, or flat

Flat

Material

Steel

strength

26-30 tons

Thickness

3/8"

Radius

-

Working pressure by rules

143

tion of Furnace: Plain, spherical, or dished crown

Material

Tensile strength

External diameter

top

bottom

Length as per rule

Working pressure by rules

support stays circumferentially

and vertically

Are stays fitted with nuts or riveted over

of stays over thread

Radius of spherical or dished furnace crown

Working pressure by rule

ss of Ogee Ring

Diameter as per rule

D

d

Working pressure by rule

tion Chamber: Material

Steel

Tensile strength

26-30 tons

Thickness of top plate

3/8"

if dished

Working pressure by rule

100

Thickness of back plate

Diameter if circular

is per rule

Pitch of stays

Are stays fitted with nuts or riveted over

of stays over thread

Working pressure of back plate by rules

ates: Material

front

back

Steel

Tensile strength

26-30

Thickness

3/8"

Mean pitch of stay tubes in nests

rising shell, Dia. as per rule

front

back

Pitch in outer vertical rows

Dia. of tube holes FRONT

stay

2 1/4"

BACK

stay

2 1/4"

plain

alternate tube in outer vertical rows a stay tube

Yes - 6 stay tubes

Working pressure by rules

front

back

100

to combustion chamber tops: Material

Tensile strength

and thickness of girder at centre

Length as per rule

apart

No. and pitch of stays in each

Working pressure by rule

004900-004905-0027

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 1/8* 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 *Shenli & Howard*
Signed *P. Bradley* Manufacturer.
Workman

Dates of Survey { During progress of work in shops - *1928 May 2, June 5 & 7* Is the approved plan of boiler forwarded herewith *Yes*
 while building { During erection on board vessel - - - (If not state date of approval.)
 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 marked: -

No. 1533
Hydr. test
200 lbs.
W.P. 100 lbs.
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 working pressure.

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

As Rules No. 8189

Committee's Minute
 Assigned

See Nwc. J. E. 41 No. 83570

FRI. 14 DEC 1928

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

Lloyd's Register
 Foundation