

REPORT ON BOILERS.

6177.

No.

88606

Received at London Office - 9 FEB 1925

Date of writing Report - 8 FEB 1925

When handed in at Local Office

3rd Feb 1925

Port of

London and Gothenburg

No. in

Reg. Book

Supplement

37904

Survey held at

Loughborough

Date, First Survey

Aug 4

22nd Dec 1924

Last Survey

Aug 20 1925

(Number of Visits

4)

Gross

4896

Net

2853

Built at

Gothenburg

By whom built

A/B Götaverken

Yard No.

M/S 391

When built

1915

Engines made at

Gothenburg

By whom made

A/B Götaverken

Engine No.

1676

When made

1925

Boilers made at

By whom made

Boiler No.

When made

Owners

Rederiaktiebolaget Nordstjärnan

Port belonging to

Stockholm

VERTICAL DONKEY BOILER.

Made at Loughborough By whom made H.W. Coltman & Co^{ld} Boiler No. 4746 When made 1925 Where fixed

Manufacturers of Steel David Colville & Sons Ltd

Total Heating Surface of Boiler 14 m² = 150.7 Sqft Is forced draught fitted Coal or Oil fired Oil

No. and Description of Boilers One Vertical Cross tube Working pressure 85 lbs

Tested by hydraulic pressure to 140 lbs Date of test 2nd February 1925 No. of Certificate 1283

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Double 2" diaphragm Spring type

Area of each set of valves per boiler per rule as fitted 3.14 sq ft Pressure to which they are adjusted 85 lbs 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 Yes Smallest distance between base of boiler and tank top plating

abt. 3' Is the base of the boiler insulated No Largest internal dia. of boiler 4'-9" Height 13'-0"

Shell plates: Material Steel Tensile strength 28/32 tons Thickness 3"

Are the shell plates welded or flanged No Description of riveting: circ. seams end S.R. Lap inter. A long. seams S.R. Lap

Dia. of rivet holes in circ. seams 13" Pitch of rivets 2" Percentage of strength of circ. seams plate 59.3 rivets 54 of Longitudinal joint plate 68.5 rivets 89 combined

Working pressure of shell by rules 116 lbs Thickness of butt straps outer inner

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

Tensile strength 26/30 tons Thickness 9/16" Radius 4'-9" Working pressure by rules 116 lbs

Description of Furnace: Plain, spherical, or dished crown Yes Material Steel Tensile strength 26/30 tons

Thickness 1/2" External diameter top 4'-0" bottom 4'-2" Length as per rule 2'-8" between stays Working pressure by rules 109 lbs

Pitch of support stays circumferentially 8" and vertically 2'-8" Are stays fitted with nuts or riveted over riveted

Diameter of stays over thread 1 1/8" Radius of spherical or dished furnace crown 4'-0" x 9/16" Working pressure by rule 138 lbs

Thickness of Ogee Ring Furnace flanged 3/4" 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 back Tensile strength Thickness Mean pitch of stay tubes in nests

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

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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 *Steel* Tensile strength *26/30 tons* Diameter { at turned off part, _____
or
over threads. *18* No. of threads per inch *12*

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

Tubes: Material ☒ External diameter { plain _____
stay _____ Thickness { _____

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

Handholes *4 1/2 x 3* *2 1/2 x 3* *6 x 1 1/2* *12* Section of compensating ring *12 x 1/2* No. of rivets and diameter _____

Manhole Compensation: Size of opening in shell plate _____

of rivet holes *42* *2 1/2* *5* Outer row rivet pitch at ends _____ Depth of flange if manhole flanged _____

Uptake: External diameter *14* Thickness of uptake plate *3/8*

Cross Tubes: No. *Four* External diameters { *10* Thickness of plates *3/8*

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

The foregoing is a correct description,

Walter D. Collman & Co. Ltd. Manufacturer
Walter D. Collman Director

Dates of Survey { During progress of work in shops - *1924 Dec 22* *1925 Jan 6* *19 Feb 2* Is the approved plan of boiler forwarded herewith *Yes with invoice for plan*
(If not state date of approval.)
while building { During erection on board vessel - *1925 Aug 4* *20* Total No. of visits *4* *12*

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

This boiler has been built under special survey in accordance with the rule requirements and the approved plan. The materials and workmanship are good and the boiler was sound and tight under hydraulic test.

The boiler is intended for the above vessel being built to Class

This donkey boiler has been fitted on board this vessel under my inspection and to my satisfaction.

Survey Fee £ *44* - - - When applied for, *8 FEB 1925*
Travelling Expenses (if any) £ *35* - - - When received, *27/25*

J. Hoddart *Apnandi*

TUES. 8 SEP 1925

Committee's Minute

Assigned

See Gen. J.E. 6177

Engineer Surveyor to Lloyd's Register of Shipping.



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