

REPORT ON BOILERS.

No. 15941

8261 1111 82

Received at London Office

Date of writing Report 27.7.1928 When handed in at Local Office 27.7.1928 Port of Grimsby

No. in Reg. Book 92048 Survey held at Lincoln Date, First Survey 7.3.28 Last Survey 23.7.1928

(Number of Visits 13) Gross 7747.17 Tons Net 4581.48

on the Steel Twin S. Motor vessel "SIR KARL KNUDSEN"

Built at Kaarskov By whom built Aktieselskabet Kaarskov Skipsvaerft Yard No. 33 When built 1928

Engines made at Copenhagen By whom made Ns Bunnister & Wain Engine No. 1407-8 When made 1928

Boilers made at Lincoln By whom made Babcock & Wilcox Ltd Boiler No. 73/4566 When made 1928

Owners A. F. Klavens & Co. a/s Port belonging to Oslo

VERTICAL DONKEY BOILER.

Made at Lincoln By whom made Babcock & Wilcox Ltd Boiler No. 73/4566 When made 1928 Where fixed -

Manufacturers of Steel Parkgate Iron & Steel Co. Ltd.

Total Heating Surface of Boiler 150 sq ft Is forced draught fitted Coal or Oil fired Expansive

No. and Description of Boilers One "Clarkson" Thimble Tube Type Working pressure 150 lbs

Tested by hydraulic pressure to 275 lbs Date of test 23rd July 1928 No. of Certificate 2391

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Two 2" dead spring loaded

Area of each set of valves per boiler per rule 3.52 as fitted 6.28 Pressure to which they are adjusted 150 lbs 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 3'-0" Height 7'-0"

Shell plates: Material S. M. steel Tensile strength 28/32 T Thickness 7/16"

Are the shell plates welded or flanged Description of riveting: circ. seams S. K. Lap long. seams D. K. Lap

Dia. of rivet holes in circ. seams 13/16 Pitch of rivets 1 13/16 Percentage of strength of circ. seams plate 5.5 rivets 5.3.5 of Longitudinal joint plate 6.9 rivets 7.5 combined 7.5

Working pressure of shell by rules 227 lbs Thickness of butt straps outer - inner -

Shell Crown: Whether complete hemisphere, dished partial spherical, or flat Flat Material S. M. steel

Tensile strength 26/30 T Thickness 9/16" Radius - Working pressure by rules 250 lbs

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

Thickness External diameter top - bottom - Length as per rule Working pressure by rules

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 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 Tensile strength Thickness Mean pitch of stay tubes in nests

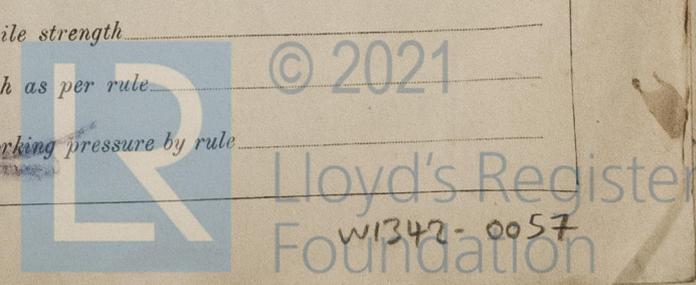
If comprising shell, Dia. as per rule front - back - Pitch in outer vertical rows Dia. of tube holes FRONT stay - plain - BACK stay - plain -

Is each alternate tube in outer vertical rows a stay tube Working pressure by rules front 180 lbs 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 *Sh. steel* External diameter { plain *2" 5 1/2"* Thickness { *11 5/8"* stay
 No. of threads per inch Pitch of tubes *2 3/8" Vertical / 3-3" Circle* Working pressure by rules
Manhole Compensation: Size of opening in shell plate Section of compensating ring No. of rivets and diameter of rivet holes Outer row rivet pitch at ends Depth of flange if manhole flanged
Uptake: External diameter Thickness of uptake plate
Cross Tubes: No. External diameters { Thickness of plates

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

Annual Survey Request

The foregoing is a correct description,

 Manufacturer.

Dates of Survey while building { During progress of work in shops - - *1928 Mar 7, Apr 5, 13, 17, May 10, 18, 21, Jun 13, 22* Is the approved plan of boiler forwarded herewith *yes*
 { During erection on board vessel - - *Jun 29, Jul 13, 23* (If not state date of approval.)
 Total No. of visits *13*
18/10, 30/10, 20/11, 28/11, 23/12, 28. *5*

GENERAL REMARKS (State quality of workmanship, opinions as to class, etc.) *This boiler has been built under Special Survey and in accordance with the Rules and approved plan. The materials and workmanship are good.*

The donkey boiler has been fitted on board the vessel under my supervision and to my satisfaction, and two feed pumps, 3 1/4" x 2" x 4" duplex, have been fitted in connection therewith.

Recommend the vessel to have notation of 1 DB 150 16 in the Register Book.

The donkey boiler is placed in the centulium of the vessel, under the poop deck, abaft the oil fired donkey boilers.

Survey Fee £ *4: 4: 7* When applied for, *27.7.1928.*
 Travelling Expenses (if any) £ *1: 9: 9* When received, *1.9.28*

paid according to letter dated London 3/7/28.

Committee's Minute
 Assigned

See Gen. Report No. 7858
 TUE. 15 JAN 1929, FRI. 22 FEB 1929


 Engineer Surveyor to Lloyd's Register of Shipping.
 Lloyd's Register Foundation