

## REPORT ON BOILERS.

No. 10438.

Received at London Office

JAN 18 1938

Date of writing Report 13<sup>th</sup> January 1938 When handed in at Local Office

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Port of Copenhagen

No. in  
Reg. Book

Survey held at

Copenhagen

Date, First Survey

6<sup>th</sup> July

Last Survey

29<sup>th</sup> December 1937.

(Number of Visits 16)

Gross 5415

Tons Net 3260

38482 on the Single Sc. Motor Vessel "HÖEGH SILVERSTAR"

Built at

Copenhagen

By whom built

Apt. Burmeister & Wain  
Haskin & Skibsløgger

Yard No. 631

When built 1938

Engines made at

Copenhagen

By whom made

Apt. Burmeister & Wain  
Haskin & Skibsløgger

Engine No. 2694

When made 1938

Boilers made at

Copenhagen

By whom made

Apt. Burmeister & Wain  
Haskin & Skibsløgger

Boiler No. 1943

When made 1938

Owners

Skibs A/S NORUEGA, Skibs A/S ABACO  
" " ARUBA " " ASTREA

Port belonging to

Oslo

## VERTICAL DONKEY BOILER.

Made at Copenhagen By whom made Apt. Burmeister &amp; Wain Boiler No. 1943 When made 1938 Where fixed engine room

Manufacturers of Steel Plates: The Appley-Frithingham Steel Co. Ltd. Rivets: Hume Bros, Copenhagen

Total Heating Surface of Boiler 600 sq. ft. 5.57 m<sup>2</sup> Is forced draught fitted no Coal or Oil fired oil fired

No. and Description of Boilers 1 off cross tube type Working pressure 100 lbs/sq. in.

Tested by hydraulic pressure to 200 lbs/sq. in. Date of test 23.8.37 No. of Certificate 613

Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler 1 of 50 lbs diam. direct spring loaded

Area of each set of valves per boiler per rule 1960 sq. in. as fitted 1960 sq. in. Pressure to which they are adjusted 90 lbs Are they fitted with easing gear yes

State whether steam from main boilers can enter the donkey boiler no main boiler Smallest distance between boiler or uptake and tank 300 sq. in.

Is oil fuel carried in the double bottom under boiler yes Smallest distance between base of boiler and tank top plating 1200 sq. in.

Is the base of the boiler insulated yes Largest internal dia. of boiler 1295 sq. in. Height 2600 sq. in.

Shell plates: Material S. M. Steel Tensile strength 44 kg/mm<sup>2</sup> Thickness 10 sq. in.

Are the shell plates welded or flanged no Description of riveting: circ. seams single long. seams double stagger

Dia. of rivet holes in circ. seams 19 sq. in. Pitch of rivets 45.6 sq. in. Percentage of strength of circ. seams plate 58.3 rivets 50.9 of Longitudinal joint plate 68.7 rivets 76.5 combined

Working pressure of shell by rules 137 lbs/sq. in. Thickness of butt straps outer inner

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

Tensile strength 46 kg/mm<sup>2</sup> Thickness 15 sq. in. Radius - Working pressure by rules 146 lbs/sq. in.Description of Furnace: Plain, spherical, or dished crown dished Material S. M. Steel Tensile strength 42.2 kg/mm<sup>2</sup>

Thickness 12 sq. in. External diameter top 994 sq. in. bottom 1149 sq. in. Length as per rule 1050 sq. in. Working pressure by rules 105 lbs/sq. in.

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 1270 sq. in. Working pressure by rule 207 lbs/sq. in.

Thickness of Ogee Ring 12 sq. in. Diameter as per rule D 1295 sq. in. a 1149 sq. in. Working pressure by rule 95 lbs/sq. in.

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 - 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 - External diameter - { plain - Thickness -  
stay -

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

**Manhole Compensation:** Size of opening in shell plate 300 x 400 mm Section of compensating ring mm No. of rivets and diameter  
of rivet holes - Outer row rivet pitch at ends - Depth of flange if manhole flanged 70 mm

**Uptake:** External diameter 504 mm 304 Thickness of uptake plate 12 mm

**Cross Tubes:** No. 2 External diameters 230 mm Thickness of plates 10 mm

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes

The foregoing is a correct description.  
ARTIESELSKABET  
BURMEISTER & WAIN'S MASKIN- OG SKIBSBYGGERI  
Dr. Houmoller Manufacturer.

Dates of Survey { During progress of 6/7-7/7-9/7-14/7-16/7-31/7-11/8-23/8 1937 Is the approved plan of boiler forwarded herewith yes  
work in shops - - - - - (If not state date of approval.)  
while building { During erection on 4/2-13/2-14/2-18/2-20/2-24/2-28/2-29/2 1937 Total No. of visits 16  
board vessel - - - - -

Is this Boiler a duplicate of a previous case no If so, state Vessel's name and Report No. -

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**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) The above country boiler has been constructed and fitted on board in accordance with the Rules, the approved plans and the requirements contained in the Secretary's letter E dated 13/2-37. - under Special Survey.

The material used in construction has been tested as required by the Rules and the workmanship is good.

Survey Fee ... £ 94.08 : : When applied for, 17.1.38  
Travelling Expenses (if any) £ : : When received, 9/3 1938

Committee's Minute  
Assigned

FRI. 11 FEB 1938

See Cpn. J.E. 10438

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register  
Foundation