

# REPORT ON BOILERS.

13324.

11<sup>th</sup> December 41

19<sup>th</sup> Dec. 41

GOTHENBURG.

5 JAN 1942

GOTHENBURG

21<sup>st</sup> November 1940

27<sup>th</sup> November 41

SINGLE SCREW M/S TANKLAND.

18

Music: **GOTHENBURG** By whom made: **ERIKSBERGS M.V.A.B.** Ford No. **296** When built: **1941**  
 Engines made: **GOTHENBURG** By whom made: **ERIKSBERGS M.V.A.B.** Engine No. **244** When made: **1941**  
 Boilers made: **GOTHENBURG** By whom made: **ERIKSBERGS M.V.A.B.** Boiler No. **621-2** When made: **1941**  
 Nominal Horse Power: **644** Name: **REDERI AB MOTORTANK** Port belonging to: **GOTHENBURG**

## MULTITUBULAR BOILERS - MAIN - AUXILIARY OR DONKEY

Manufacturer of Boilers: **Messrs. Ruhrstahl A.G. Henrichshütte, Hadtingen.**  
 Total Heating Surface of Boilers: **2 x 130 = 260 m<sup>2</sup>** Is forced draught fitted: **Yes** (Letter for Record: **S**)  
 No. and Description of Boilers: **Two, cylindrical, multitubular.** Coal or oil fired: **oil fired. 1st boiler also exhaust gas fired.**  
 Tested by hydraulic pressure to: **12.6 kg/cm<sup>2</sup>** Date of test: **7.8.41.** No. of certificates: **349 & 350** Can each boiler be worked separately: **Yes**  
 Area of grate in each boiler: **70 mm<sup>2</sup>** No. and Description of safety valves to each boiler: **Two - double spring loaded.** Working Pressure: **10 kg/cm<sup>2</sup> = 142 lb.**  
 Area of each set of safety valves: **85 mm<sup>2</sup>** Pressure to which they are adjusted: **10 kg/cm<sup>2</sup>** Are they fitted with easing gear: **Yes**  
 In case of donkey boilers state whether steam from main boilers can enter the donkey boiler: **No main boilers**  
 Smallest distance between boilers or uptakes and **HP-bulkhead** **900 mm** Is oil fuel carried in the double bottom under boilers: **No**  
 Smallest distance between shell of water and tank top plating: **Yes** Is the bottom of the boiler insulated: **Yes**  
 Largest internal dia. of boilers: **3352 mm** Length: **3350 mm** Shell plates: Material: **SM-steel** Tensile strength: **44-50 kg/mm<sup>2</sup>**  
 Thickness: **19 mm** Are the shell plates welded or flanged: **No** Description of riveting: **Double riv. lap**  
 long, seams: **Double butt shops** Diameter of rivet holes in: **26.5 mm** Pitch of rivets: **79 mm.**  
 Percentage of strength of circumferential seam: **66.7** Percentage of strength of circumferential seam: **145 mm.**  
 Percentage of strength of longitudinal seam: **67.1** Percentage of strength of circumferential seam: **100**  
 Percentage of strength of longitudinal seam: **83.5** Working pressure of shell by Rules: **10.4 kg/cm<sup>2</sup>**  
 Thickness of shell plates: **14.5 mm.** No. and Description of Furnaces in each boiler: **Two, Morison**  
 Material: **SM-steel** Tensile strength: **41-47 kg/mm<sup>2</sup>** Smallest outside diameter: **920 mm**  
 Length of plates: **17.6 mm.** Thickness of plates: **10 mm** Description of longitudinal joint: **lap welded.**  
 Dimensions of furnace: **SM-steel** Working pressure of furnace by Rules: **10.8 kg/cm<sup>2</sup>**  
 End plates in steam space: Material: **SM-steel** Tensile strength: **41-47 kg/mm<sup>2</sup>** Thickness: **20 mm** Pitch of stays: **405 x 350 mm**  
 How are stays secured: **Nuts inside, riv. washers & nuts outside.** Working pressure by Rules: **10.75 kg/cm<sup>2</sup>**  
 Tube plates: Material: **SM-steel** Tensile strength: **41-47 kg/mm<sup>2</sup>** Thickness: **20 mm.**  
 Mean pitch of tube plates: **265.5 mm** Thickness: **21 mm.**  
 Girders to combustion chamber tops: Material: **SM-steel** Tensile strength: **44-50 kg/mm<sup>2</sup>** Depth and thickness of girder: **143 kg/cm<sup>2</sup>**  
 at center: **175 mm & 2 x 16 mm** Length as at base: **735 mm.** Distance apart: **205 mm.**  
 in each: **2, 225 mm.** Working pressure by Rules: **10.6 kg/cm<sup>2</sup>** Combustion chamber plates: Material: **SM-steel**  
 Tensile strength: **41-47 kg/mm<sup>2</sup>** Thickness: **16 mm** Top: **18 mm** Bottom: **16 mm.**  
 Pitch of stays: **240 & 225 mm.** Side: **241 & 212 mm** Top: **225 & 205 mm.** Both: **Both**  
 Working pressure by Rules: **10.85 kg/cm<sup>2</sup>** Front plate at bottom: Material: **SM-steel** Tensile strength: **41-47 kg/mm<sup>2</sup>**  
 Thickness: **20 mm** Lower head plate: Material: **SM-steel** Tensile strength: **41-47 kg/mm<sup>2</sup>** Thickness: **20 mm**  
 Pitch of stays in head: **320 mm.** Filled with nuts: **Yes**  
 Working pressure: **15.5 kg/cm<sup>2</sup>** Material: **SM-steel** Tensile strength: **44-50 kg/mm<sup>2</sup>**  
 Thickness: **57 mm.** No. of stays per row: **6**  
 Working pressure by Rules: **11.1 kg/cm<sup>2</sup>** Material: **SM-steel** Tensile strength: **41-47 kg/mm<sup>2</sup>**  
 Thickness: **38 mm.** No. of stays per row: **9**  
 Working pressure by Rules: **51092 mm<sup>2</sup>**



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Working pressure by Rules	11.1 kg/cm <sup>2</sup>	Area supported by stays	58300 mm <sup>2</sup>	Margin stays	No	Diameter	15/8" x 4/12mm
Number of stays	9	Internal diameter	62.5 mm	Working pressure by Rules	No 10 LSG	No of stays per inch	11.7 kg/cm <sup>2</sup>
Material	Steel	External diameter	63.5 mm	Thickness of crown	No 1 LSG	No of stays per inch	9
Size of tubes	95 x 89 mm	Working pressure by Rules	12.5 kg/cm <sup>2</sup>	Manhole reinforcement			
Shell plate	405 x 505 mm	Section of compensating ring	275 x 25 mm	No. of stays and diameter of stay		40, 27 mm.	
Outer case steel when a tube	175 mm	Depth of flange of manhole flange	75 mm	Manhole diameter	Material	None	
Tensile strength		Thickness of shell		Description of longitudinal joint			
Diameter of rivet holes		Pitch of rivets		Percentage of strength of rivet			
Internal diameter		Working pressure by Rules		Thickness of crown			
Stays		Inner radius of crown		Working pressure by Rules			
How connected to shell		Size of doubting plate under dome		Diameter of rivet holes and pitch			
If rivets in water row in same connection to shell							
Type of Superheater	None	Manufacturers of					
Number of elements		Material of tubes		Internal diameter and thickness of tubes			
Material of headers		Tensile strength		Thickness			
Can the boiler be worked separately		Is a safety valve fitted to every part of the superheater which can be shut off from the boiler					
Area of each safety valve		Are the safety valves fitted with casing gear		Working pressure as per			
Rules		Pressure to which the safety valves are adjusted		Hydraulic test pressure			
Tubes		Forgings and castings		and after assembly in place			
Valves fitted to feed the superheater from water where necessary							
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with	Yes						

The foregoing is a correct description.  
 Eriksberg's Mask Verk AB  
 Manufacturer  
 No, 7.10.38.

Date of Survey	During progress of work in shops	1940: Dec. 21, Apr. 22, June 25, July 10, 18, 21, Aug. 5, 7, 13.	Are the approved plans of boiler furnished herewith	No, 7.10.38.
While building	During erection on board vessel	1941: Aug. 25, Sept. 22, 24, Oct. 6, 14, 27, Nov. 21, 25, 27.	Total No. of visits	18

Is this boiler a duplicate of a previous case? Yes. If so, state Vessel's name and Report No. % Vardefjell. Got. rep. no 12932.

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, etc.)

These donkeyboilers have been built under special survey in accordance with the approved plan and the Society's Rules.

The workmanship is good.

Test sheet of the material is attached.

The boilers are marked:

Nos 349 & 350  
 LLOYD'S TEST 265 LBS  
 V/P 142 LBS  
 SA 7.8.41.

Survey Fee	354 m	When applied for	19th Dec. 41.
Traveling Expenses (if any)		When received	

S. Aspelim.  
 Lloyd's Register of Shipping.

Committee's Minute  
 TUE. 13 JAN 1942  
 Signed: Leifs. machs -at-