

REPORT ON BOILERS.

No. 12801

Received at London Office

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Date of writing Report 25th Jan 1940When handed in at Local Office 31st Jan 1940

Port of GOTHENBURG.

No. in Survey held at

GOTHENBURG.

Date, First Survey 22nd Aug. 1939Last Survey 15th Jan 1940

Reg. Book. 39774

on the M/S KOLLSKEGG.

(Number of Visits 14)

Gross 9857.78
Tons Net 5844.81

Master ☒ Built at GOTHENBURG By whom built ERIKBERGS M.V.A.B. Yard No. 291 When built 1940

Engines made at GOTHENBURG By whom made ERIKBERGS M.V.A.B. Engine No. 231 When made 1940

Boilers made at GOTHENBURG By whom made ERIKBERGS M.V.A.B. Boilers No. 604 605 When made 1940

Nominal Horse Power 861 Owners ODD BERGS TANKREDERI A.S. Port belonging to OSLO

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Messrs Ruhrstahl A.G. Henrichshütte, Hattingen-Ruhr (Letter for Record S)

Total Heating Surface of Boilers $2 \times 151 = 302 \text{ m}^2$ Is forced draught fitted Yes Coal or Oil fired Oil fired Post boiler

No. and Description of Boilers Two cylindrical, multitubular Working Pressure 142 lbs

Tested by hydraulic pressure to 265 lbs Date of test 6.10.39 No. of Certificate 327 & 328 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler Double spring loaded.

Diam. of each set of valves per Rule 74 mm Pressure to which they are adjusted 142 lbs 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 AP-tank 750 mm Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 3500 mm Length 3350 mm Shell plates: Material S.M. steel Tensile strength 44-55 kg/mm²

Thickness 20 mm Are the shell plates welded or flanged No Description of riveting: circ. seams end double riveted lap
inter. no inter. seams.

long. seams Double butt straps Diameter of rivet holes in circ. seams 27 mm Pitch of rivets 86 mm
long. seams 26 mm 147 mm

Percentage of strength of circ. end seams plate 69% rivets 54% Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 83% rivets 102% Working pressure of shell by Rules 10.1 kg/cm²

Thickness of butt straps outer 16 mm inner 19 mm No. and Description of Furnaces in each Boiler Two Morison

Material S.M. steel Tensile strength 41-47 kg/mm² Smallest outside diameter 920 mm

Length of plain part top 10 mm Thickness of plates crown 10 mm Description of longitudinal joint Lap welded.

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 10.8 kg/cm²

End plates in steam space: Material S.M. steel Tensile strength 41-47 kg/mm² Thickness 20 mm Pitch of stays 370 & 405 mm

How are stays secured Nuts inside, riveted washers and nuts outside Working pressure by Rules 13.8 kg/cm²

Tube plates: Material front S.M. steel Tensile strength 41-47 kg/mm² Thickness 20 mm back S.M. steel Tensile strength 41-47 kg/mm² Thickness 20 mm

Mean pitch of stay tubes in nests 250 mm Pitch across wide water spaces 382 mm Working pressure front 10.6 kg/cm² back 10.6 kg/cm²

Girders to combustion chamber tops: Material S.M. steel Tensile strength 44-50 kg/cm² Depth and thickness of girder

at centre 175 mm, 2 x 16 mm Length as per Rule 705 mm Distance apart 205 mm No. and pitch of stays

in each Two, 225 mm Working pressure by Rules 11.6 kg/cm² Combustion chamber plates: Material S.M. steel

Tensile strength 41-47 kg/mm² Thickness: Sides 16 mm Back 18 mm Top 16 mm Bottom 16 mm

Pitch of stays to ditto: Sides 235 x 225 mm Back 209 x 250 mm Top 225 x 205 mm Are stays fitted with nuts or riveted over As per plan

Working pressure by Rules 11.3 kg/cm² Front plate at bottom: Material S.M. steel Tensile strength 41-47 kg/mm²

Thickness 20 mm Lower back plate: Material S.M. steel Tensile strength 41-47 kg/mm² Thickness 20 mm

Diam. of largest circle 445 mm 390 Are stays fitted with nuts or riveted over Fitted with nuts

Working Pressure 11.5 kg/cm² Main stays: Material S.M. steel Tensile strength 44-50 kg/mm²

Diameter At body of stay, 57 mm No. of threads per inch 6 Area supported by each stay 150000 mm²

Working pressure by Rules 10.5 kg/cm² Screw stays: Material S.M. steel Tensile strength 41-47 kg/mm²

Diameter At turned off part, 38 mm No. of threads per inch 9 Area supported by each stay 52250 mm²

Working pressure by Rules *10.8 kg/cm²* Are the stays drilled at the outer ends *No* Margin stays: Diameter { At turned off part, *41 mm* or Over threads }
 No. of threads per inch *9* Area supported by each stay *56500 mm²* Working pressure by Rules *10 kg/cm²*
 Tubes: Material *Steel* External diameter { Plain *2 3/4"* Stay *2 3/4"* Thickness { LSG *10* LSG *1* No. of threads per inch *9*
 Pitch of tubes *100 x 100* Working pressure by Rules *11 kg/cm²* Manhole compensation: Size of opening in shell plate *505 x 405 mm* Section of compensating ring *275 x 25 mm* No. of rivets and diameter of rivet holes *40 - 1 1/4" holes*
 Outer row rivet pitch at ends *175 mm* Depth of flange if manhole flanged *75 mm* Steam Dome: Material *No domes*
 Tensile strength ☒ Thickness of shell ☒ Description of longitudinal joint ☒
 Diameter of rivet holes ☒ Pitch of rivets ☒ Percentage of strength of joint { Plate ☒ Rivets ☒
 Internal diameter ☒ Working pressure by Rules ☒ Thickness of crown ☒ No. and diameter of stays ☒ Inner radius of crown ☒ Working pressure by Rules ☒
 How connected to shell ☒ Size of doubling plate under dome ☒ Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell ☒
 Type of Superheater *No superheaters* Manufacturers of { Tubes ☒ Steel forgings ☒ Steel castings ☒
 Number of elements ☒ Material of tubes ☒ Internal diameter and thickness of tubes ☒
 Material of headers ☒ Tensile strength ☒ Thickness ☒ Can the superheater be shut off and 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 easing 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 ☒ Are drain cocks on valves fitted to free 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 Mek. Verkstads Aktiebolag
Vandervort Manufacturer.

Dates of Survey { During progress of work in shops - *1939 Aug. 22, 23, Sept. 18, 21, Oct. 6, 16, 19, 27, Nov. 29* Are the approved plans of boiler and superheater forwarded herewith *No, 13438* while building { During erection on board vessel - *1939 Dec. 8, 19, 1940 Jan. 9, 10, 15* (If not state date of approval.)
 Total No. of visits *14*

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These Donkey boilers have been built under special survey in accordance with the approved plan and Society's Rules.
The workmanship is good.
Test sheet of the material is attached herewith.
The boilers are marked as below:

No 327 & 328
LLLOYD'S TEST 265 LBS
W/P 142 LBS
6.10.39. SF

Survey Fee ... *£ 410.00* When applied for, *1st Febr. 1940*
 Travelling Expenses (if any) £ : : When received, *24/2/ 1940 26/2*

J. Aspelin
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *TUE 27 FEB 1940*
 Assigned *See for. J.C. 12801*