

REPORT ON BOILERS.

No. 9122

Received at London Office

22 DEC 1932

Date of writing Report 16th Dec. 1932 When handed in at Local Office 19th Dec. 1932 Port of Gothenburg

No. in Survey held at Gothenburg Date, First Survey 24th September Last Survey 2nd Dec. 1932

Reg. Book No. 75521 on the M/S "AURORA" (Number of Visits 7) Tons Gross 4147 Net 2268

Built at GOTHENBURG By whom built A. B. GÖTAVERKEN Yard No. 470 When built 1932

Engines made at GOTHENBURG By whom made A. B. GÖTAVERKEN Engine No. 1011 When made 1932

Donkey Boilers made at GOTHENBURG By whom made A. B. GÖTAVERKEN Boiler No. 1855 When made 1932

Owners REDERI AKTIEB. ZENIT Port belonging to GOTHENBURG

VERTICAL DONKEY BOILER.

Made at GOTHENBURG By whom made A. B. GÖTAVERKEN Boiler No. 1855 When made 1932 Where fixed In the engine room

Manufacturers of Steel Avesta Jernverks AB Avesta

Total Heating Surface of Boiler 9.3 m² Is forced draught fitted No Coal or Oil fired Oil fired

No. and Description of Boilers One Galloway tube boiler Working pressure 100 lbs (7 kgs)

Tested by hydraulic pressure to 200 lbs / sq inch Date of test 29. 10. 32 No. of Certificate 254

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

Diam Area of each set of valves per boiler per rule 38 mm as fitted 50 mm Pressure to which they are adjusted 100 lbs Are they fitted with easing gear Yes

State whether steam from main boilers can enter the donkey boiler No main boilers 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 1000 mm

Is the base of the boiler insulated Yes Largest internal dia. of boiler 1370 mm Height 3492 mm

Shell plates: Material S. M. Steel Tensile strength 43.5 - 44.1 kg/cm² Thickness 10 mm

Are the shell plates welded or flanged No Description of riveting: circ. seams end Single riveted inter. " " long. seams Double riv. lap.

Dia. of rivet holes in circ. seams 20.5 mm Pitch of rivets 50 mm Percentage of strength of circ. seams plate 59% rivets 54.5% of Longitudinal joint plate 70.7% rivets 78% combined

Working pressure of shell by rules 9.27 kg/cm² Thickness of butt straps outer inner

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

Tensile strength 41.5 kg/cm² Thickness 15 mm Radius 1700 mm Working pressure by rules above 7.42 kg/cm²

Description of Furnace: Plain, spherical, or dished crown Plain & dished crown Material S. M. Steel Tensile strength 41.5 - 44.1 kg/cm²

Thickness 14.5 mm External diameter top 1079 mm bottom 1200 mm Length as per rule 1500 mm Working pressure by rules 7.32 kg/cm²

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 1000 mm Working pressure by rule 12.6 kg/cm²

Thickness of Ogee Ring 14.5 mm Diameter as per rule D 1370 mm d 1200 mm Working pressure by rule 8.15 kg/cm²

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

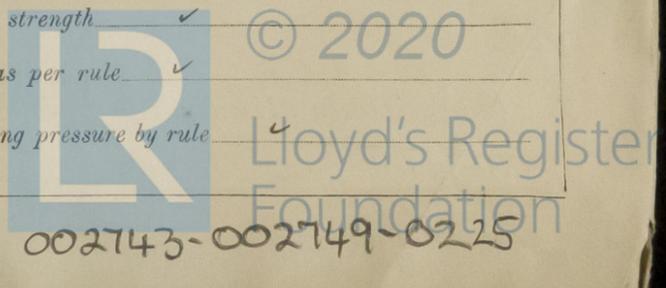
If comprising shell, Dia. as per rule front back Pitch in outer vertical rows Dia. of tube holes FRONT BACK

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



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, stay, Thickness No. of threads per inch Pitch of tubes Working pressure by rules

Manhole Compensation: Size of opening in shell plate 300×400 mm Section of compensating ring 276×15 mm No. of rivets and diameter of rivet holes 52 rivets, 20.5 mm Outer row rivet pitch at ends 115 mm Depth of flange if manhole flanged *Not flanged*

Uptake: External diameter 324 mm Thickness of uptake plate 12 mm

Cross Tubes: No. 3 External diameters 230 mm Thickness of plates 10 mm

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

The foregoing is a correct description,
ARTIEBOLAGET GOTÄVERKEN
H. G. Hammar, Manufacturer

Dates of Survey { During progress of work in shops - - $24, 29/9, 3, 26, 29/10$ } Is the approved plan of boiler forwarded herewith (If not state date of approval.)
 while building { During erection on board vessel - - $12/11, 2/12$ } Total No. of visits 7

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

This boiler has been built under special survey in accordance with approved plan and the Society's Rules. The workmanship is good.

Survey Fee $76:44$: } When applied for, $19/12$ 19 32
 Travelling Expenses (if any) £ : : } When received, $20.1.$ 19 33

E. Bernelius
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **FRI. 30 DEC 1937**

Assigned *See F. G. Rep*

