

REPORT ON BOILERS.

Received at London Office.....

Date of writing Report 16th Dec. 1954. When handed in at Local Office 21st Dec. 1954. Port of GOTHENBURG. **28 DEC 1954**

No. in Reg. Book. Survey held at Gothenburg Date, First Survey 20th October Last Survey 10th December 1954.

--- on the --- "Kawatz" (Number of Visits 23) Tons {Gross --- Net ---}

Built at --- By whom built Janle Yard No. 80 When built ---

Engines made at --- By whom made --- Engine No. --- When made ---

Boilers made at Gothenburg By whom made AB Lindholmens Varv Boiler No. 3099 When made 1954

MN as per Rule 213 Owners U.S.S.R. Port belonging to ---

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Avesta Jernverks AB, AB Domnarfvet Jernverk, Jon Marshall, AB Storfors Rörverk, AB Motala Verkstad.

Total Heating Surface of Boilers 2605 sq.ft. Of Superheaters 1227 sq.ft.

Total for Register Book 3832 Is forced draught fitted 1227 sq.ft. Yes Coal or Oil fired Coal

No. and Description of Boilers One notch single ended Working Pressure 220 lbs/in²

Tested by hydraulic pressure to 380 lbs/in² Date of test 10.12.54. No. of Certificate 707 Can each boiler be worked separately ---

Area of Firegrate in each Boiler 73 sq.ft. No. and Description of safety valves to each boiler One double springloaded

Area of each set of valves per boiler {per Rule 9200 mm² as fitted 11320 mm² Pressure to which they are adjusted --- Are they fitted with easing gear ---

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler ---

Smallest distance between boilers or uptakes and bunkers or woodwork --- Is oil fuel carried in the double bottom under boilers ---

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

Largest internal dia. of boilers 4569 mm. Length 3650 mm. Shell plates: Material SM Steel Tensile strength 44-50 kg/mm²

If fusion welded, state name of welding Firm AB Lindholmens Varv Have all the requirements of the Rules for Class I vessels

been complied with Yes Thickness 40.5 mm Are the shell plates welded exchanged Yes Description of riveting: circ. seams E.W.

long. seams E.W. Diameter of rivet holes in {circ. seams --- long. seams ---} Pitch of rivets {---}

Percentage of strength of circ. end seams {plate --- rivets ---} Percentage of strength of circ. intermediate seam {plate --- rivets ---}

Percentage of strength of longitudinal joint {plate --- rivets --- combined ---} R
31/1/55

Thickness of butt straps {outer --- inner ---} No. and Description of Furnaces in each Boiler 3 Morison corrugated

Material SM Steel Tensile strength 41-47 kg/mm² Smallest outside diameter 1135 mm.

Length of plain part {top 235 mm. bottom 235 mm.} Thickness of plates 17.5 mm. Description of longitudinal joint E.W.

Dimensions of stiffening rings on furnace or c.c. bottom ---

End plates in steam space: Material SM Steel Tensile strength 41-47 kg/mm² Thickness 28 mm. Pitch of stays 440x520 mm.

How are stays secured EW with outside washers

Tube plates: Material {front SM Steel back SM Steel} Tensile strength {41-47 kg/mm² 41-47 kg/mm²} Thickness {28 mm. 22 mm.}

Mean pitch of stay tubes in nests 280 mm. Pitch across wide water spaces 370 mm.

Girders to combustion chamber tops: Material SM Steel Tensile strength 44-50 kg/mm² Depth and thickness of girder

at centre 220x40.5 mm. Length as per Rule 824 mm. Distance apart 205 mm. No. and pitch of stays

in each Cont. E.W. Combustion chamber plates: Material SM Steel

Tensile strength 41-47 kg/mm² Thickness: Sides 19 mm. Back 18 mm. Top 19 mm. Bottom 21 mm.

Pitch of stays to ditto: Sides 220x230 mm. Back 210x210 mm. Top 205xCont. E.W. Are stays fitted with nuts or riveted over E.W.

Front plate at bottom: Material SM Steel Tensile strength 41-47 kg/mm²

Thickness 28 mm. Lower back plate: Material SM Steel Tensile strength 41-47 kg/mm² Thickness 28 mm.

Pitch of stays at wide water space 370x210 mm. Are stays fitted with nuts or riveted over E.W.

Main stays: Material SM Steel Tensile strength 44-50 kg/mm²

Diameter {76 mm.} No. of threads per inch E.W.

Screw stays: Material SM Steel Tensile strength 41-47 kg/mm²

Diameter {40 mm.} No. of threads per inch E.W.

Are the stays drilled at the outer ends Margin stays: Diameter { At turned off part,
 or
 Over threads.....
 No. of threads per inch.....
 Tubes: Material External diameter { Plain..... Thickness { No. of threads per inch.....
 Stay.....
 Pitch of tubes 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 Steam Dome: Material.....
 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 Thickness of crown No. and diameter of
 stays Inner radius of crown.....
 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
 Got. rpt. No. 21466

Type of Superheater 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 is the safety valve fitted with easing gear Yes
 Pressure to which the safety valve is adjusted 15.5 kg/cm² Hydraulic test pressure:
 tubes forgings and castings and after assembly in place Are drain cocks or
 valves fitted to free the superheater from water where necessary.....
 Have all the requirements of Sections 14 to 22 inclusive of boilers been complied with.....
 Got. rpt. No. 21466

The foregoing is a correct description,
 Manufacturer.

Dates of Survey while building { During progress of work in shops - - } Gothenburg report No. 21466 Are the approved plans of boiler and superheater forwarded herewith -
 (If not state date of approval.)
 { During erection on board vessel - - - } 20.9.55 - 1.12.55. Total No. of visits 3

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Please see Gothenburg report No. 21466

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been fitted onboard under my
 supervision and to my satisfaction. Accumulation pressure test carried out with satisfactory results and the safety
 valves of boiler and superheater adjusted under steam to 15.5 kg/cm².

Survey Fee £ No charge: } When applied for, 19.....
 Travelling Expenses (if any) £ : : } When received 19.....

Just E. L. S. S.
 Engineer Surveyor to Lloyd's Register of Shipping.

FRIDAY 16 MAR 1956

Committee's Minute.....

Assigned *See Rpt. 4.*

