

Rpt. 5a.

REPORT ON BOILERS.

No. 22156

20 FEB 1956

Received at London Office.

Date of writing Report 4th Feb. 1956 When handed in at Local Office 17th Feb. 1956 Port of Gothenburg

No. in Survey held at Gothenburg Date, First Survey 23rd November, 55. Last Survey 31st January, 1956
Reg. Book. "JANIA" (Number of Visits 25)on the Tons { Gross
Net

Built at Stockholm By whom built AB Finnboda Varf Yard No. 366 When built

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

Boilers made at Gothenburg By whom made AB. Lindholmens Varv Boiler No. 3135 When made 1956

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

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Degerfors Jernverks AB, Mannesmann, Stewart & Lloyds, 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 Yes Coal or Oil fired Coal

No. and Description of Boilers One scotch single ended Working Pressure 220 lbs/sq. inch

Tested by hydraulic pressure to 380 lbs/sq. inch Date of test 31.1.56. No. of Certificate 736 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 spring loaded

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 boilers or uptakes and bunkers or woodwork --- Is the bottom of the boiler insulated ---

Largest internal dia. of boilers 4569 mm Length 3650 mm Shell plates: Material S.M. 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 exposed Yes Description of riveting: circ. seams { end E.W.
interlong. 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
rivetsPercentage of strength of longitudinal joint { plate
rivets combinedThickness of butt straps { outer
inner No. and Description of Furnaces in each Boiler 3 Morison corrugatedMaterial S.M. 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 S.M. Steel Tensile strength 41-47 kg/mm² Thickness 28 mm Pitch of stays 440x520 mm.

How are stays secured E.W. with outside washers.

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

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

Girders to combustion chamber tops: Material S.M. 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 S.M. 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 S.M. Steel Tensile strength 41-47 kg/mm²Thickness 28 mm Lower back plate: Material S.M. 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 S.M. Steel Tensile strength 44-50 kg/mm²

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

Screw stays: Material S.M. Steel Tensile strength 41-47 kg/mm²

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

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Are the stays drilled at the outer ends No Margin stays: Diameter 47 mm
No. of threads per inch E.W.
Tubes: Material S.M. Steel External diameter 83 mm Thickness 4 mm No. of threads per inch 9
Pitch of tubes 114 x 110 mm Manhole compensation: Size of opening in
shell plate 401x501 mm Section of compensating ring 40.5x173 mm No. of rivets and diameter of rivet holes E.W.
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
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

Type of Superheater Smith's type Manufacturers of Stewart & Lloyds
AB. Degerfors Jernverk
Number of elements 57 Material of tubes S.M. Steel Internal diameter and thickness of tubes 19 x 3 mm
Material of headers S.M. Steel Tensile strength 41-50 kg/mm² Thickness 15 mm 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 ---
Pressure to which the safety valves are adjusted --- Hydraulic test pressure:
tubes 50 kg/cm² forgings and castings 50 kg/cm² and after assembly in place --- Are drain cocks or
valves fitted to free the superheater from water where necessary Yes
Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
AKTIEBOLAGET LINDHOLMENS VARV
Alfred Lindholm Manufacturer.

Dates of Survey During progress of work in shops - - 23.11.1955. - 31.1.1956. Are the approved plans of boiler and superheater forwarded herewith 9.7.1954.
while building During erection on board vessel - - - --- Total No. of visits 25
(If not state date of approval.)

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. Gävle Varv Nos. 85, 86, 87, 88, 89, 90, 91 & 92.
Ekensbergs Nos. 206, 207 Lindholmen Nos. 10
1045, 1046, 1047.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey
in accordance with the Rules for Welded Pressure Vessels Class I and the approved plan. The workmanship is good.
All welded parts of the boiler have been stress-relieved in accordance with the Rules. The material fulfils the
requirements of the Rules. The Manufactures have 29 boilers of this type on order and the material certificates will
be forwarded when the order has been finished. Routine tests of welding have been carried out with satisfactory results.
A plan showing the position and number of x-ray films and on which it is indicated the category in which each film
was placed by Tekniska Röntgencentralen is attached.

The boiler has been marked:-

No. 736 Got.
Lloyd's Test 380 lbs.
WP. 220 lbs.
SJ 31.1.56.
L.V. No. 3135

Survey Fee ... Kr. : 860:00 When applied for 17.2.1956.
Travelling Expenses (if any) £ --- : --- : --- When received 19.---

Committee's Minute

Assigned See Rpt. 1.

FRIDAY - 5 APR 1957



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