

REPORT ON BOILERS.

No. 12634.

Received at London Office 3 - NOV 1939

Date of writing Report 19th Oct. 1939 When handed in at Local Office 20th Oct. 1939 Port of **GOTHENBURG.**

No. in Survey held at **GOTHENBURG.** Date, First Survey 19th April Last Survey 10th Oct 1939
UPPL. 3. (Number of Visits 14) Tons }
40560 on the **SINGLE SCREW M/S PONTFIELD.** }
Gross
Net

Master Built at **GOTHENBURG** By whom built **ERIKSBERGS M.V.A.B.** Yard No. **289** When built **1939**
Engines made at **GOTHENBURG** By whom made **ERIKSBERGS M.V.A.B.** Engine No. **226** When made **1939**
Boilers made at **GOTHENBURG** By whom made **ERIKSBERGS M.V.A.B.** Boilers No. **597-8** When made **1939**
Nominal Horse Power **644** Owners **HUNTING & SON, LTD.** Port belonging to **NEWCASTLE**

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Furnaces: Messrs. Deighton's Patent Flue & Tube Co. Ltd., Leeds.
Plates: Messrs. Ruhstahl & G. Henrichshütte, Hattingen.

Manufacturers of Steel (Letter for Record **S**)
Total Heating Surface of Boilers $2 \times 161.4 = 322.8 \text{ m}^2$ Is forced draught fitted **Yes** Coal or Oil fired **Oil**
No. and Description of Boilers **Two cylindrical, multitubular.** Working Pressure **142 lbs/sq"**
Tested by hydraulic pressure to **265 LBS** Date of test **19.7.39.** No. of Certificate **320 & 321** 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.**
Area of each set of valves per boiler {per Rule **8900 mm²** Pressure to which they are adjusted **142 lbs/sq"** are they fitted with easing gear **Yes**
as fitted **11300 mm²**
In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler **No main boilers**
Smallest distance between boilers **and AP-bulkhead 1000 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 **44-50 kg/mm²**
Thickness **20 mm** Are the shell plates welded or flanged **No** Description of riveting: circ. seams {end **Double riveted lap**
inter. **None**
long. seams **Double butt straps** Diameter of rivet holes in {circ. seams **27 mm** Pitch of rivets { **86 mm**
long. seams **25 mm** " **147 mm.**
Percentage of strength of circ. end seams {plate **68.6** Percentage of strength of circ. intermediate seam {plate
rivets **46.9** rivets
Percentage of strength of longitudinal joint {plate **83.0** Working pressure of shell by Rules **10 kg/cm² = 142 lbs/sq"**
rivets **91.6** combined
Thickness of butt straps {outer **16 mm** No. and Description of Furnaces in each Boiler **Two Deighton**
inner **19 mm** Material **S.M.-steel** Tensile strength **41-47 kg/mm²** Smallest outside diameter **920 mm**
Length of plain part {top Thickness of plates {crown **10 mm** Description of longitudinal joint **Lap welded**
bottom bottom **10 mm.**
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules **10.8 kg/cm² = 153 lbs/sq"**
End plates in steam space: Material **S.M.-steel** Tensile strength **41-47 kg/mm²** Thickness **20 mm** Pitch of stays **405 x 370 mm**
How are stays secured **Riveted washers, nuts inside and outside** Working pressure by Rules **14 kg/cm² = 200 lbs/sq"**
Tube plates: Material {front **S.M.-steel** Tensile strength **41-47 kg/cm²** Thickness { **20 mm**
back **S.M.-steel** Tensile strength **41-47 kg/cm²** Thickness { **21 mm.**
Mean pitch of stay tubes in nests **238 mm.** Pitch across wide water spaces **382 mm.** Working pressure {front **10.5 kg/cm² = 150 lbs/sq"**
back **11.8 kg/cm² = 165 lbs/sq"**
Girders to combustion chamber tops: Material **S.M.-steel** Tensile strength **44-50 kg/mm²** Depth and thickness of girder
at centre **175 and 2 x 16 mm.** Length as per Rule **705 mm.** Distance apart **205 mm.** No. and pitch of stays
in each **2 - 225 mm** Working pressure by Rules **11.75 kg/cm² = 165 lbs/sq"** Combustion chamber plates: Material **S.M.-steel**
Tensile strength **41-47 kg/mm²** Thickness: Sides **16 mm** Back **16 mm** Top **16 mm** Bottom **16 mm.**
Pitch of stays to ditto: Sides **225 x 235 mm** Back **208 x 250 mm** Top **205 x 225 mm** Are stays fitted with nuts or riveted over **Fitted with nuts**
Working pressure by Rules **11.8 kg/cm² = 165 lbs/sq"** Front plate at bottom: Material **S.M.-steel** Tensile strength **41-47 kg/cm²**
Thickness **20 mm** Lower back plate: Material **S.M.-steel** Tensile strength **41-47 kg/cm²** Thickness **20 mm.**
Pitch of stays at wide water space **382 and 208 mm** Are stays fitted with nuts or riveted over **Fitted with nuts**
Working Pressure **12 kg/cm² = 170 lbs/sq"** Main stays: Material **S.M.-steel** Tensile strength **44-50 kg/mm²**
Diameter {At body of stay, **2 1/4"** No. of threads per inch **6** Area supported by each stay **142000 mm²**
or **2 1/4"** Over threads **10.3 kg/cm² = 145 lbs/sq"** Screw stays: Material **S.M.-steel** Tensile strength **41-47 kg/mm²**
Diameter {At turned off part, **1 1/2"** No. of threads per inch **9** Area supported by each stay **52000 mm²**
or **1 1/2"** Over threads



