

## REPORT ON BOILERS.

No. 7428

-6 MAR 1929

Received at London Office

Date of writing Report 2nd March 1929 When handed in at Local Office 2nd March 1929 Port of Gothenburg  
No. in Survey held at Gothenburg Date, First Survey 28th November 1927 Last Survey 19th February 1929  
Reg. Book on the Steel Twin L. "HERBJÖRN" (Number of Visits 13) Gross 8037.70  
Tons Net 4766.82  
Master Built at Gothenburg By whom built AKT. GÖTAVERKEN When built 1929  
Engines made at Gothenburg By whom made AKT. GÖTAVERKEN When made 1929  
Boilers made at Gothenburg By whom made AKT. LINDHOLMEN-MOTALA When made 1929  
Registered Horse Power 634 Owners SKIBSAKTIESELSKAPET HERBJÖRN Port belonging to MOSS

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ DONKEY. — Manufacturers of Steel Plates Messrs Henschel & Sohn, Hallungen  
Stays Messrs AB Lindholmen-Motala, Motala  
Tube Messrs Völklingerhütte, Pilsen

(Letter for record S) Total Heating Surface of Boilers 24133 m<sup>2</sup> [24131.65 sq ft] Is forced draft fitted yes No. and Description of Boilers 2 cylindrical multitubular Working Pressure 105 kg/cm<sup>2</sup> [1506 lb] Tested by hydraulic pressure to 194 kg/cm<sup>2</sup> Date of test 20.8.28

No. of Certificate 230/231 Can each boiler be worked separately yes Area of fire grate in each boiler oil fired No. and Description of safety valves to each boiler double spring loaded Area of each valve 75 m<sup>2</sup> Pressure to which they are adjusted 150 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  
and AP oil tank bulkhead

Smallest distance between boilers on uptakes and bunkers or woodwork 700 mm Mean dia. of boilers 3505 mm Length 3380 mm

Material of shell plates 14 Steel Thickness 20 mm Range of tensile strength 45.7-49 kg/cm<sup>2</sup> Are the shell plates welded or flanged No  
270 mm 878 mm

Descrip. of riveting: cir. seams double riv lap long seams double butt straps Diameter of rivet holes in long. seams 238 mm Pitch of rivets 136 mm

Lap of plates or width of butt straps inner 540 mm outer 378 mm Per centages of strength of longitudinal joint 105 Working pressure of shell by rules 11.3 kg/cm<sup>2</sup> Size of manhole in shell 400x500 mm Size of compensating ring 300x200x20 mm flanged No. and Description of Furnaces in each boiler 2 corrugated (Harrison) Material 14 Steel Outside diameter 1200 mm Length of plain part top bottom Thickness of plates 12

Description of longitudinal joint Welded No. of strengthening rings 1 Working pressure of furnace by the rules 10.75 kg/cm<sup>2</sup> Combustion chamber plates: Material 14 Steel Thickness: Sides 17 mm Back 17 mm Top 17 mm Bottom 17 mm Pitch of stays to ditto: Sides 210x210 mm Back 205x215 mm

Top 207x210 mm If stays are fitted with nuts or riveted heads riveted over Working pressure by rules 10.70 kg/cm<sup>2</sup> Material of stays 14 Steel Area at smallest part 57 mm

over thread smallest part 38 mm Area supported by each stay 260x205 mm Working pressure by rules 10.56 kg/cm<sup>2</sup> End plates in steam space: Material 14 Steel Thickness 20x21 mm

Pitch of stays 405x330 mm How are stays secured double nut & out side was Working pressure by rules 13 kg/cm<sup>2</sup> Material of stays 14 Steel Area at smallest part 57 mm

Area supported by each stay 405x230 mm Working pressure by rules 12.0 kg/cm<sup>2</sup> Material of Front plates at bottom 14 Steel Thickness 21 mm Material of Lower back plate 14 Steel Thickness 20 mm Greatest pitch of stays as per plan Working pressure of plate by rules 10.9 kg/cm<sup>2</sup> Diameter of tubes 2 1/2"

Pitch of tubes 89x95 mm Material of tube plates 14 Steel Thickness: Front 21 mm Back 18 mm Mean pitch of stays 280 mm Pitch across wide water spaces 330 mm Working pressures by rules 11.52 kg/cm<sup>2</sup> Girders to Chamber tops: Material 14 Steel Depth and thickness of girder at centre 185x17 mm Length as per rule 735 mm Distance apart 207 mm Number and pitch of Stays in each 2-210 mm

Working pressure by rules 12.13 kg/cm<sup>2</sup> Steam dome: description of joint to shell ✓ % of strength of joint ✓

Diameter ✓ Thickness of shell plates ✓ Material ✓ Description of longitudinal joint ✓ Diam. of rivet holes ✓

Pitch of rivets ✓ Working pressure of shell by rules ✓ Crown plates ✓ Thickness ✓ How stayed ✓

UPERHEATER. Type ✓ Date of Approval of Plan ✓ Tested by Hydraulic Pressure to ✓

Date of Test ✓ Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler ✓

Diameter of Safety Valve ✓ Pressure to which each is adjusted ✓ Is Easing Gear fitted ✓

The foregoing is a correct description,

Manufacturer.

Dates of Survey 1927: 2<sup>3</sup>/<sub>11</sub>, 6<sup>1</sup>/<sub>12</sub>, 2<sup>1</sup>/<sub>12</sub>, 3<sup>1</sup>/<sub>12</sub>, 1928 2<sup>3</sup>/<sub>12</sub>, 1<sup>1</sup>/<sub>3</sub>, 1<sup>1</sup>/<sub>4</sub>, 2<sup>9</sup>/<sub>8</sub>  
During progress of work in shops - - -  
while building 1928 2<sup>1</sup>/<sub>12</sub>, 1929 5<sup>1</sup>/<sub>12</sub>, 2<sup>4</sup>/<sub>11</sub>, 3<sup>1</sup>/<sub>12</sub>, 19<sup>1</sup>/<sub>2</sub>  
board vessel - - -

Is the approved plan of boiler forwarded herewith No  
Plan approved 30.6.27  
Total No. of visits 13

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

These boilers have been built under Special Survey in accordance with the Society's Rules & approved plans. The workmanship is good. The material as per Test sheets forwarded with report No. 7328.

Survey Fee ... Her. 345:80 : When applied for, 2nd March 1929  
Travelling Expenses (if any) £ : : When received, 7.5.29

Committee's Minute

TUE. 12 MAR 1929

Assigned

See Minute on Got. Rpt

7428 attached

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register

00441-00447-0029