

# REPORT ON BOILERS.

No. 97822

Received at London Office - 8 SEP 1939

Date of writing Report 19 When handed in at Local Office 4/9/1939 Port of **NEWCASTLE-ON-TYNE**

No. in Reg. Book 602 lb Survey held at **Newcastle on Tyne** Date, First Survey 30/12/38 Last Survey 30/8/1939

on the **M.V. "HAV"** (Number of Visits — ) Tons { Gross Net

Master  Built at **Newcastle** By whom built **Swan, Hunter & Wigham Richardson Ltd** Yard No **1567** When built **1939**

Engines made at **Newcastle** By whom made **S. H + W R** Engine No. **1606** When made **1939**

Boilers made at **do.** By whom made **S H + W R** Boiler No. **1606** When made **1939**

Nominal Horse Power Owners Port belonging to **OSLO.**

## MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel **The Steel Coy. of Scotland.** (Letter for Record **5.** )

Total Heating Surface of Boilers **2010 sq. ft.** Is forced draught fitted **Yes**  Coal or Oil fired **Oil fired**

No. and Description of Boilers **Two Single Ended.** Working Pressure **120 lb.**

Tested by hydraulic pressure to **230 lb.** Date of test **8/5/39** No. of Certificate **818** Can each boiler be worked separately **Yes**

Area of Firegrate in each Boiler **Oil fired** No. and Description of safety valves to each boiler **Two Improved High Lift.**

Area of each set of valves per boiler { per Rule **6.5** as fitted **7.94** } Pressure to which they are adjusted **120 lb.** Are they fitted with easing gear **Yes**

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 **No**

Smallest distance between shell of boiler and tank top plating **2'-6"** Is the bottom of the boiler insulated **Yes**

Largest internal dia. of boilers **9'-7 1/16"** Length **11'-0"** Shell plates: Material **Steel** Tensile strength **29-33 tons**

Thickness **21/32"** Are the shell plates welded or flanged **No.** Description of riveting: circ. seams { end **DR Lap.** inter. **none** }  
 Long. seams **T.R. overlap.** Diameter of rivet holes in { circ. seams **3/4"** long. seams **1"** } Pitch of rivets { **2.342** (Rule **3 7/8"**) }  
 Percentage of strength of circ. end seams { plate **67.97** rivets **45.51** } Percentage of strength of circ. intermediate seam { plate **73.33** rivets **75.93** } Working pressure of shell by Rules **123 lb.**

Percentage of strength of longitudinal joint { plate **73.33** rivets **75.93** combined } Working pressure of shell by Rules **123 lb.**

Thickness of butt straps { outer  inner  } No. and Description of Furnaces in each Boiler **Two Deighton Corrugated**

Material **Steel** Tensile strength **26-30 tons** Smallest outside diameter **31.5"**

Length of plain part { top  bottom  } Thickness of plates { crown **3/8"** bottom  } Description of longitudinal joint **fire weld.**

Dimensions of stiffening rings on furnace or c.c. bottom **none.** Working pressure of furnace by Rules **167 lb.**

End plates in steam space: Material **Steel** Tensile strength **26-30 tons** Thickness **7/8"** Pitch of stays **19 1/2" & 14"**

How are stays secured **Nuts inside + outside** Working pressure by Rules **123 lb.**

Tube plates: Material { front  back  } **Steel** Tensile strength **26-30 tons** Thickness { **7/8"** }  
 Lean pitch of stay tubes in nests **9 3/8"** Pitch across wide water spaces **13 1/2"** Working pressure { front **122 lb.** back **156 lb.** }

Girders to combustion chamber tops: Material **Steel** Tensile strength **28-32 tons** Depth and thickness of girder

at centre **7 1/2" x 15"** Length as per Rule **30 13/16"** Distance apart **9 1/2"** No. and pitch of stays

each **2 @ 9 1/2"** Working pressure by Rules **120 lb.** Combustion chamber plates: Material **Steel.**

Tensile strength **26-30 tons** Thickness: Sides **9/16"** Back **9/16"** Top **9/16"** Bottom **9/16"**

Pitch of stays to ditto: Sides **9 1/2" x 9 1/2"** Back **9 x 9 3/4"** Top **9 1/2" x 9 1/2"** Are stays fitted with nuts or riveted over **Nuts.**

Working pressure by Rules **120 lb.** Front plate at bottom: Material **Steel** Tensile strength **26-30 tons**

Thickness **7/8"** Lower back plate: Material **Steel** Tensile strength **26-30 tons** Thickness **7/8"**

Pitch of stays at wide water space **13 1/2" x 9 3/4"** (max. at top row **16 1/2" x 8 1/4"**) Are stays fitted with nuts or riveted over **Nuts.**

Working Pressure **139 lb.** Main stays: Material **Steel** Tensile strength **28-32 tons.**

Diameter { At body of stay, **2 1/2"** at centre **2 1/4"** at wings } No. of threads per inch **6.** Area supported by each stay **(17 x 19 dia) - 318 sq. ins.**

Working pressure by Rules **139 lb.** Screw stays: Material **Steel** Tensile strength **26-30 tons**

Diameter { At turned off part, **1 1/2"** } No. of threads per inch **9.** Area supported by each stay **(9 1/2" x 9 1/2") - 1.45.**



