

REPORT ON BOILERS.

No. **BOX CASE 4521**

Received at London Office 18 APR 1935

Date of writing Report **12/4** 19**35** When handed in at Local Office **12/4** 19**35** Port of **Oslo**

No. in Survey held at **Sandefjord** Date, First Survey **1/1** Last Survey **29/1** 19**35**

1837 on the **Tank Ste. 4 bunk. 'N.T. NIELSEN ALONSO'** (Number of Visits **3**) Tons **Gross 9341 Net 8558**

Master Built at **Glasgow** By whom built **C. Connell & Co.** Yard No. When built **1900**
Engines made at **Glasgow** By whom made **Dummin & Jackson** Engine No. When made **1900**
Boilers made at **Berlin** By whom made **Rud Hartman** Boiler No. When made **1926**
Nominal Horse Power Owners **Amelfaughnesk. Tolaris** Port belonging to **Larvik**

Whale oil

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record)

Is forced draught fitted Coal or Oil fired **shut to the** Working Pressure **45 lb.**

Description of Boilers **6 Filling tanks for whale oil boilers**

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler **one single spring loaded**

Area of each set of valves per boiler **11.4 cm²** Pressure to which they are adjusted Are they fitted with easing gear

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

Largest internal dia. of boilers **2000 mm** Length **1600 mm** Shell plates: Material **S.M. steel** Tensile strength **42-50 kg.**

Thickness **10 mm** Are the shell plates welded or flanged **not flanged** Description of riveting: circ. seams **end S.R. overlap**

Percentage of strength of circ. end seams **plate 60.4 rivets 48.5** Percentage of strength of circ. intermediate seam **plate 92.4 rivets 73.4**

Working pressure of shell by Rules **6.7 kg/cm²**

No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part **top bottom** Thickness of plates **crowns bottom** Description of longitudinal joint

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

Stays in steam space: Material **S.M. steel** Tensile strength **42-50 kg.** Thickness **15 mm** Pitch of stays

How are stays secured **lashed and Rod. 2800 mm** Working pressure by Rules **4.56 kg/cm²**

Stays: Material **front back** Tensile strength Thickness

Pitch of stay tubes in nests Pitch across wide water spaces Working pressure **front back**

Stays to combustion chamber tops: Material Tensile strength Depth and thickness of girder

Centre Length as per Rule Distance apart No. and pitch of stays

Working pressure by Rules **Combustion chamber plates: Material**

Tensile strength Thickness: Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

Working pressure by Rules **Front plate at bottom: Material** Tensile strength

Thickness **Lower back plate: Material** Tensile strength Thickness

Pitch of stays at wide water space Are stays fitted with nuts or riveted over

Shipping Pressure **Main stays: Material** Tensile strength

At body of stay, or Over threads No. of threads per inch Area supported by each stay

Working pressure by Rules **Screw stays: Material** Tensile strength

At turned off part, or Over threads No. of threads per inch Area supported by each stay



W107-0049

Working pressure by Rules _____ Are the stays drilled at the outer ends _____ Margin stays: Diameter ^{At turned off part, or Over threads} _____
 No. of threads per inch _____ Area supported by each stay _____ Working pressure by Rules _____
 Tubes: Material _____ External diameter ^{Plain} _____ Thickness ^{Stay} _____ No. of threads per inch _____
 Pitch of tubes _____ Working pressure by Rules _____ 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 _____ Working pressure by Rules _____ Thickness of crown _____ No. and diameter of stays _____
 Inner radius of crown _____ Working pressure by Rules _____
 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 _____ Manufacturers of ^{Tubes} _____
^{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 _____ Are the safety valves fitted with easing gear _____ Working pressure as per Rules _____
 Pressure to which the safety valves are adjusted _____ Hydraulic test pressure _____
 tubes _____ 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 for boilers been complied with _____
 The foregoing is a correct description, _____
 Manufacture _____

Dates of Survey ^{During progress of work in shops - -} _____
^{While building} ^{During erection on board vessel - - -} _____
 16/1, 28/1 & 29/1.35
 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 Total No. of visits 3*

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. "Viking", 4419.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 These fitting vessels for whole oil apparatus were constructed at Berlin by Rich. Haden, and the owner states that the material used has been tested by Gen. Lloyd Surveys. The boilers were now examined and the results noted. The workmanship appears to be good.

Survey Fee £ : : | When applied for, 19
 Travelling Expenses (if any) £ : : | When received, 19

Perfor. Haden
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute WED. 8 MAY 1935 TUE. 8 OCT 1935

Assigned _____

