

# REPORT ON BOILERS.

No. 4125

Received at London Office

10 SEP 1933

Survey Report 17/9/33 When handed in at Local Office 16/9 33 Port of Oslo  
 Survey held at Oslo Date, First Survey 5th May Last Survey 6th 5/7 1933  
 on the A.A. "SVEND FOYN" (Oslo Report No. 4111) (Number of Visits 9)  
 Tons { Gross 14576 Net 8032  
 Built at Haverton Hill on Tees By whom built Furness & Co. Ltd. Yard No. \_\_\_\_\_ When built 1931  
 made at Hartlepool By whom made Richardsons Westgarth & Co. Engine No. \_\_\_\_\_ When made 1931  
 made at Oslo By whom made Ms. Kvarner Brug Boiler No. \_\_\_\_\_ When made 1933  
 Horse Power \_\_\_\_\_ Owners St. Helier Shipowners Ltd. Port belonging to London

ating whale oil Boilers.

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

cturers of Steel approved works (Letter for Record E. 20/7/33)  
 eating Surface of Boilers ✓ Is forced draught fitted ✓ Coal or Oil fired ✓  
 Description of Boilers Rotating whale oil boiler, six off. Working Pressure 60 lbs./in.<sup>2</sup>  
 by hydraulic pressure to 120 lbs./in.<sup>2</sup> Date of test 1/7, 4/7, 5/7 No. of Certificate \_\_\_\_\_ Can each boiler be worked separately ✓  
 Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 1 off, single spring-loaded, 2" dia.  
 each set of valves per boiler { per Rule \_\_\_\_\_ as fitted 2.244 in. Pressure to which they are adjusted ✓ Are they fitted with easing gear ✓  
 of donkey boilers, state whether steam from main boilers can enter the donkey boiler ✓  
 Many distance between boilers or uptakes and bunkers or woodwork ✓ Is oil fuel carried in the double bottom under boilers ✓  
 distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated ✓  
 internal dia. of boilers 2600 mm Length 6897 mm Shell plates: Material S.M. steel Tensile strength 28-35 kg./mm.<sup>2</sup>  
13 mm Are the shell plates welded or flanged End pl. flanged Description of riveting: circ. seams { end single inter. double  
D.R. single butt straps Diameter of rivet holes in { circ. seams 23.5 mm Pitch of rivets { 60.3 mm  
 { long. seams 23.5 mm { 75.2 "  
 tage of strength of circ. end seams { plate 61% Percentage of strength of circ. intermediate seam { plate 61%  
 { rivets 41% { rivets 82.5%  
 tage of strength of longitudinal joint { plate 68% Working pressure of shell by Rules 6.5 kg./cm.<sup>2</sup>  
 { rivets 133% { combined ✓  
 ess of butt straps { outer 15 mm No. and Description of Furnaces in each Boiler ✓  
 { inner ✓ Tensile strength \_\_\_\_\_ Smallest outside diameter \_\_\_\_\_  
 of plain part { top ✓ Thickness of plates { crown ✓ Description of longitudinal joint ✓  
 { bottom ✓ { bottom \_\_\_\_\_  
 sions of stiffening rings on furnace or c.c. bottom \_\_\_\_\_ Working pressure of furnace by Rules \_\_\_\_\_  
 plates in steam space: Material S.M. steel Tensile strength 26-30 ton/in.<sup>2</sup> Thickness 25 mm Pitch of stays ✓  
 re stays secured ✓ Working pressure by Rules \_\_\_\_\_  
 plates: Material { front \_\_\_\_\_ Tensile strength { \_\_\_\_\_ Thickness { \_\_\_\_\_  
 { back \_\_\_\_\_ { \_\_\_\_\_ { \_\_\_\_\_  
 pitch of stay tubes in nests \_\_\_\_\_ Pitch across wide water spaces \_\_\_\_\_ Working pressure { front \_\_\_\_\_  
 { back \_\_\_\_\_  
 s to combustion chamber tops: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Depth and thickness of girder \_\_\_\_\_  
 Length as per Rule \_\_\_\_\_ Distance apart \_\_\_\_\_ No. and pitch of stays \_\_\_\_\_  
 Working pressure by Rules \_\_\_\_\_ Combustion chamber plates: Material \_\_\_\_\_  
 e strength \_\_\_\_\_ Thickness: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_  
 of stays to ditto: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Are stays fitted with nuts or riveted over \_\_\_\_\_  
 ng pressure by Rules \_\_\_\_\_ Front plate at bottom: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_  
 \_\_\_\_\_ Lower back plate: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_ Thickness \_\_\_\_\_  
 of stays at wide water space \_\_\_\_\_ Are stays fitted with nuts or riveted over \_\_\_\_\_  
 ng Pressure \_\_\_\_\_ Main stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_  
 ter { At body of stay, \_\_\_\_\_ No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_  
 { Over threads \_\_\_\_\_  
 ng pressure by Rules \_\_\_\_\_ Screw stays: Material \_\_\_\_\_ Tensile strength \_\_\_\_\_  
 ter { At turned off part, \_\_\_\_\_ No. of threads per inch \_\_\_\_\_ Area supported by each stay \_\_\_\_\_  
 { Over threads \_\_\_\_\_

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Working pressure by Rules. Are the stays drilled at the outer ends. Margin stays: Diameter { At turned off part, Over threads. No. of threads per inch. Area supported by each stay. Working pressure by Rules. Tubes: Material. External diameter { Plain Stay. Thickness. No. of threads per inch. Pitch of tubes. Working pressure by Rules. Manhole compensation: Size of 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 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 from the boiler. 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. Rules. Pressure to which the safety valves are adjusted. Hydraulic test. tubes, castings and after assembly in place. Are drain cocks or valves 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, Pn. 1/5 KWERNER BRUG

Dates of Survey { During progress of work in shops - - 2/5, 5/5, 10/5, 30/6, 6/7, 29/6 while building { During erection on board vessel - - 11/7, 4/7 5/7. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval) T. Total No. of visits 9

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. C.A. Larsen, 'Kornett', 'Kew', 'Tafelberg', 'Vikinger'.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The whole oil boilers have been constructed in accordance with the plans which were subsequently approved. The amendments indicated on the plans already embodied in the actual boilers. The boilers were examined during construction, tested by hydraulic pressure to 120 lb./in<sup>2</sup> and found tight and sound at that pressure. The workmanship is good. The cast steel material and the steel plates employed have been made at approved works and tested by the Society's Surveyors. The boilers were marked:

B  
Lloyd's Test  
120 lb.  
WP at 100.  
Date  
P.B.R. O.P.E.

It is recommended that the boilers be entered in the Society's Register.

The boilers were not examined under steam as steam is not raised until arrival on the wharf.

Survey Fee ...	K <sup>£</sup> 480.-	When applied for, 21/7	1933
Travelling Expenses (if any) £	72.-	When received, 21/8	1933

Alfred  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 26 SEP 1933 TUE. 12 DEC 1933 Assigned