

# REPORT ON BOILERS.

No. 4743

Received at London Office 23 JUN 1936

pt. 5a.

Date of writing Report 17/6 1936 When handed in at Local Office 17/6 1936 Port of Oslo  
No. in Survey held at Oslo Date, First Survey 20/8. 35 Last Survey 19/6 1936

on the whaling factory "TERJE VIKEN" (Number of Visits 16) Tons { Gross Net

Built at Wesen By whom built Deutsche Schiff- und Maschinenbau Yard No. When built  
By whom made Engine No. When made  
Boilers made at Oslo By whom made Kvaerner Bryg Boiler No. When made 1936  
Owners United Whalers Ltd manager: N. Bugge. Tansberg Port belonging to London.

Whale oil

## TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Vittoria Metal, ironworks corp., Calvillo Ltd. (Letter for Record on next page.)

Total Heating Surface of Boilers Is forced draught fitted Coal or Oil fired

Description of Boilers 28 horizontal whale oil boilers, with rotating drums Working Pressure 60 lbs/in<sup>2</sup>

Are drain cooled by hydraulic pressure to 120 lbs Date of test same as page No. of Certificate Can each boiler be worked separately yes

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 { per Rule as fitted 2.24 in<sup>2</sup> Pressure to which they are adjusted 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

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Largest internal dia. of boilers 2600 mm Length 7015 mm Shell plates: Material S. M. steel Tensile strength 44.55 kg/cm<sup>2</sup>

Thickness 13 mm. Are the shell plates welded or flanged Description of riveting: circ. seams { end S.R. lap inter. S.R. single strap

g. seams D.R. single strap Diameter of rivet holes in { circ. seams 23.5 mm long. seams 23.5 mm Pitch of rivets { 61 mm 75.2 mm

Percentage of strength of circ. end seams { plate 61. rivets 41.5 Percentage of strength of circ. intermediate seam { plate 61.0 rivets 41.5

Percentage of strength of longitudinal joint { plate 68.6 rivets 66.4 combined Working pressure of shell by Rules 6.3 kg/cm<sup>2</sup>

Thickness of butt straps { outer 15 mm inner No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part { top bottom Thickness of plates { crown bottom Description of longitudinal joint

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

Diagonal plates in steam space: Material S. M. steel Tensile strength 41-47 kg/cm<sup>2</sup> Thickness 25 x 30 mm Pitch of stays Diagonal ends

How are stays secured Radius of diaphragm ends 3300 mm Working pressure by Rules 6.43 kg/cm<sup>2</sup>

Diagonal plates: Material { front back Tensile strength Thickness

Can pitch of stay tubes in nests Pitch across wide water spaces Working pressure { front back

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

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

each 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

Working Pressure Main stays: Material Tensile strength

Diameter { 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

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

W91-0144



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 { \_\_\_\_\_ No. of threads per inch \_\_\_\_\_  
 Stay \_\_\_\_\_

Pitch of tubes \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_ Manhole compensation: Size of opening \_\_\_\_\_

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 \_\_\_\_\_

stays \_\_\_\_\_ Inner radius of crown \_\_\_\_\_ Working pressure by Rules \_\_\_\_\_

How connected to shell \_\_\_\_\_ Size of doubling plate under dome \_\_\_\_\_ Diameter of rivet holes and \_\_\_\_\_

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 \_\_\_\_\_

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 pressure \_\_\_\_\_

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,  
 For M/s KVERNER BRUG  
*J. P. Wilson*

Dates of Survey { During progress of work in shops - - - 20/8, 29/8, 14/12, 18/12, 19/12 - 35  
 while building { During erection on board vessel - - - 25/3, 27/3, 7/4, 7/4, 15/4, 20/4, 23/4, 29/4, 5/5, 7/5, 14/6, 19/36  
 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 20/12.34, see Serials E 24/36  
 Total No. of visits 16

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. 'Solglimt', Oslo Reg. no 4637.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
 These boilers were constructed in accordance with the approved plan. The boilers were examined during construction, & tested by hydraulic pressure to 120 lbs per square inch, and found in order. The workmanship was good. The steel material employed was of the best approved make and tested by the Society's Surveyors.

The boilers were worked: R. LLOYDSTEST. 120 LBS. W.P. 60 LBS., and the following dates of tests and initials:

1 off 20.8.35 P.E	2 off 1.4.36 P.B.R	2 off 7.5.36 P.B.R.
2 " 29.8.35 P.E	2 " 7.4.36 P.B.R.	
2 " 14.12.35 P.E	2 " 15.4.36 P.B.R.	
2 " 18.12.35 P.E	2 " 20.4.36 P.B.R.	
1 " 19.12.35 P.E	2 " 23.4.36 P.B.R.	
2 " 25.3.36 P.E	2 " 29.4.36 P.B.R.	
2 " 27.3.36 P.E	2 " 5.5.36 P.B.R.	

Survey Fee ... .. 16 1.120 : When applied for, 16/6 1936  
 Travelling Expenses (if any) 85. : When received, 28-7 1936 3/17

*Puede Perjon-Roie*  
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 16 OCT 1936  
 Assigned see Bureau 1829

