

REPORT ON BOILERS.

No. 26776 d

APR 19 1938

Received at London Office

Date of writing Report 7-4-1938 When handed in at Local Office 1938

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 20-4-37

Last Survey 18-11-1937

on the motor vessel.

"OVULA"

(Number of Visits 8)

Tons { Gross
Net

Master J.M. Built at Schiedam By whom built Wieten Tjennoen Yard No. 662 When built 1938

Engines made at Schiedam By whom made Wieten Tjennoen Engine No. When made 1938

Boilers made at Rotterdam By whom made Rott Drogda My Boiler No. 545 When made 1938

Nominal Horse Power 377. Owners Petroleum My "La Corona" Port belonging to 's Gravenhage.

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

Manufacturers of Steel The Steel Co. of Scotland (Letter for Record S)

Total Heating Surface of Boilers 2560 sq. Is forced draught fitted Yes Coal or Oil fired Oil

No. and Description of Boilers One multitubular marine boiler Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs Date of test 18-11-37 No. of Certificate 1001 Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 Spring loaded

Area of each set of valves per boiler per Rule 90 mds Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Thickens washers 3 23.5 m.

Smallest distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers placed in twin deck aft.

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

Largest internal dia. of boilers 4400 mds Length 3468 mds Shell plates: Material S.M. Steel Tensile strength 46.8-52 kg/mds

Thickness 29 mds Are the shell plates welded or flanged in way of butt straps Welded at outer ends Description of riveting: circ. seams { end Lap 2 x 2W
inter. }long. seams Double butt straps 3 x riv Diameter of rivet holes in { circ. seams 30 mds Pitch of rivets { 87 mds
long. seams 30 mds 200 mds

Percentage of strength of circ. end seams { plate 65% rivets 50% Percentage of strength of circ. intermediate seam { plate 85% rivets 85% combined 87%

Percentage of strength of longitudinal joint { plate 85% rivets 85% combined 87% Working pressure of shell by Rules 12.8 kg/mds

Thickness of butt straps { outer 25 mds inner 25 mds No. and Description of Furnaces in each Boiler 3 Morrison patent

Material S.M. Steel Tensile strength 41-47 kg/mds Smallest outside diameter 1130 mds

Length of plain part { top 15 mds bottom 15 mds Thickness of plates { crown 15 mds bottom 15 mds Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 13.22 kg/mds

End plates in steam space: Material S.M. Steel Tensile strength 41-47 kg/mds Thickness 29.5 mds Pitch of stays 440-450 mds

How are stays secured Screwed in plates with nuts outside Working pressure by Rules 12.65 kg/mds

Tube plates: Material { front S.M. Steel back S.M. Steel Tensile strength { 41-47 kg/mds Thickness { 23 mds 22 mds

Mean pitch of stay tubes in nests 196 x 300 mds Pitch across wide water spaces 360 mds Working pressure { front 17.8 kg/mds back 17.8 kg/mds

Girders to combustion chamber tops: Material S.M. Steel Tensile strength 44-50 kg/mds Depth and thickness of girder

at centre 220 x 2 x 19 mds Length as per Rule 776 mds Distance apart 220 mds No. and pitch of stays

in each 3 @ 200 mds Working pressure by Rules 17.2 kg/mds Combustion chamber plates: Material S.M. Steel

Tensile strength 41-47 kg/mds Thickness: Sides 10 mds Back 19 mds Top 18 mds Bottom 25 mds

Pitch of stays to ditto: Sides 250 mds Back 200 x 19 mds Top 200 x 220 mds Are stays fitted with nuts or riveted over Riveted over

Working pressure by Rules 15.3 kg/mds Front plate at bottom: Material S.M. Steel Tensile strength 41-47 kg/mds

Thickness 23 mds Lower back plate: Material S.M. Steel Tensile strength 41-47 kg/mds Thickness 23 mds

Pitch of stays at wide water space 366 mds Are stays fitted with nuts or riveted over Fitted with nuts

Working Pressure 17.7 kg/mds Main stays: Material S.M. Steel Tensile strength 44-50 kg/mds

Diameter { At body of stay, 3" No. of threads per inch 9 Area supported by each stay 198000 mds

Over threads 3 1/4" Working pressure by Rules 15.5 kg/mds Screw stays: Material S.M. Steel Tensile strength 41-47 kg/mds

Diameter { At turned off part, 1 3/8" No. of threads per inch 9 Area supported by each stay 400000 mds

Over threads 1 1/2" Working pressure by Rules 15.5 kg/mds

Working pressure by Rules *14.1 kg/cm²* Are the stays drilled at the outer ends *yes* Margin stays: Diameter { At turned off part, *1 1/16"* or Over threads *1 7/8"*

No. of threads per inch *9* Area supported by each stay *50091 melle* Working pressure by Rules *14.1 kg/cm²*

Tubes: Material *Iron* External diameter { Plain *2 3/4"* Stay *2 3/4"* Thickness { *21.9 L 59* *5/16" - 9/16"* No. of threads per inch *9*

Pitch of tubes *98 x 100 melle* Working pressure by Rules *215 lbs* Manhole compensation: Size of opening in shell plate *370 x 470 melle* Section of compensating ring *780 x 880 x 32 melle* No. of rivets and diameter of rivet holes *54 @ 32 melle*

Outer row rivet pitch at ends *220 melle* Depth of flange if *manhole flanged* *100 melle* 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 23 inclusive for boilers been complied with

DE ROTTERDAMSCH E DROOGDOK MIJ.
The foregoing is a correct description,
M. Maape Manufacturer.

Dates of Survey { During progress of work in shops - - *24/9, 27/9, 28/9, 1/10, 12/10, 15/10, 18/10*
while building { During erection on board vessel - - -

Are the approved plans of boiler and superheater forwarded herewith *Retained*
(If not state date of approval.)
Total No. of visits *8*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been made in accordance with the approved plan, Society's Rules, and Secretary's letters, material tested as required and workmanship good.*

Survey Fee ... *£ 205.00* When applied for, 192
Travelling Expenses (if any) *—* When received, *28.2* 192 *38.*

J. J. Schoor
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 22 APR 1938

Assigned

See Rol. J.E. 26776