

Rpt. 5a.

REPORT ON BOILERS.

No. 15716B

NOV 30 1939

Date of writing Report 5 July 1939 When handed in at Local Office

Received at London Office

JUL 21 1939

No. in Reg. Book.

Survey held at

Date, First Survey

Port of

Last Survey

1939

31154 on the

Single Screw Motor vessel "OVATTELLA"

(Number of Visits 11)

Gross 6316.50

Net 3636.55

Master

Built at

By whom built

Yard No.

When built

Engines made at

By whom made

Engine No.

When made

Boilers made at

By whom made

Boiler No.

When made

Nominal Horse Power

Owners The Anglo Saxon Petroleum Co.

Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Shell C^y of Scotland Broomside Boiler works

(Letter for Record S)

Total Heating Surface of Boilers 2560

Is forced draught fitted Yes

Coal or Oil fired oil fired

No. and Description of Boilers One horizontal Multitubular boiler

Working Pressure 180 lbs

Tested by hydraulic pressure to 3204 BS Date of test 26-6-39 No. of Certificate 443. Can each boiler be worked separately ✓

Area of Firegrate in each Boiler ✓

No. and Description of safety valves to each boiler 2 sprung loaded

Area of each set of valves per boiler {per Rule applied as fitted 1960" ✓

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 No main boilers.

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 boiler resting on platform ✓

Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 4400 mm Length 3460 mm Shell plates: Material SMS Tensile strength 26.30 ton

Thickness 29 mm Are the shell plates welded or flanged ✓

Description of riveting: circ. seams {end all riveted inter. ✓

long. seams all butt straps ✓ Diameter of rivet holes in {circ. seams 30 mm ✓ long. seams 30 mm ✓

Pitch of rivets {27 mm ✓ 200 mm ✓

Percentage of strength of circ. end seams {plate 67.5% rivets 42.3% ✓

Percentage of strength of circ. intermediate seam {plate 85.2% rivets 85.2% ✓

Percentage of strength of longitudinal joint {plate 85.2% rivets 85.2% combined 87.2% ✓

Working pressure of shell by Rules 184 BS

Thickness of butt straps {outer 25 mm inner 35 mm ✓

No. and Description of Furnaces in each Boiler 3 Morrison

Material SMS

Tensile strength 26.30 ton

Smallest outside diameter 1130 mm

Length of plain part {top ✓ bottom ✓

Thickness of plates {crown 15 mm ✓ bottom 15 mm ✓

Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom ✓

Working pressure of furnace by Rules 193 BS

End plates in steam space: Material SMS

Tensile strength 26.30 ton

Thickness 29 mm Pitch of stays 440 x 450 mm

How are stays secured double nuts

Working pressure by Rules 198 BS

Tube plates: Material {front SMS back SMS

Tensile strength {26.30 ton do

Thickness {23 mm 22 mm ✓

Mean pitch of stay tubes in nests 240 mm

Pitch across wide water spaces 360 mm

Working pressure {front 230 BS back 210 BS

Girders to combustion chamber tops: Material SMS

Tensile strength 28.32 ton

Depth and thickness of girder

at centre 220 x 38 mm

Length as per Rule 700 mm

Distance apart 220 mm

No. and pitch of stays

in each 3. 200 mm

Working pressure by Rules 210 BS

Combustion chamber plates: Material SMS

Tensile strength 26.30 ton

Thickness: Sides 18 mm Back 19 mm Top 18 mm Bottom 25 mm

Pitch of stays to ditto: Sides 200 x 200 mm Back 226 x 195 mm Top 200 x 229 mm Are stays fitted with nuts or riveted over riveted over

Working pressure by Rules 196 BS

Front plate at bottom: Material SMS

Tensile strength 26.30 ton

Thickness 23 mm

Lower back plate: Material SMS

Tensile strength 26.30 ton Thickness 23 mm

Pitch of stays at wide water space 366 mm

Are stays fitted with nuts or riveted over fitted with nuts

Working Pressure 190 BS

Main stays: Material SMS

Tensile strength 28.32 ton

Diameter {At body of stay 3" ✓ Over threads ✓

No. of threads per inch 8

Area supported by each stay 3060"

Working pressure by Rules 220 BS

Screw stays: Material SMS

Tensile strength 26.30 ton

Diameter {At turned off part 1 1/2" ✓ Over threads 1 1/2" ✓

No. of threads per inch 11

Area supported by each stay 68.250"

W375-0154

Lloyd's Register Foundation

Working pressure by Rules 1954BS Are the stays drilled at the outer ends Yes Margin stays: Diameter At turned off part, 1 5/8"
No. of threads per inch 11 Area supported by each stay 77.50" Working pressure by Rules 1964BS
Tubes: Material Iron External diameter Plain 2 3/4" Thickness Nº 9 Z.S.G. 5/16" + 7/16" No. of threads per inch 11
Pitch of tubes 100 x 98 mm Working pressure by Rules plain tubes 215 lbs 7/16" = 195 Manhole compensation: Size of opening in
shell plate 370 x 470 Section of compensating ring 370" No. of rivets and diameter of rivet holes 54 - 33 mm
Outer row rivet pitch at ends 220 mm Depth of flange if manhole flanged 80 mm Steam Dome: Material None
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
Number of elements Material of tubes Steel forgings
Material of headers Tensile strength Steel castings
the boiler be worked separately Thickness Can the superheater be shut off and
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 forgings and 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,

WERKSPOR N.V. Manufacturer.

Dates of Survey { During progress of work in shops - - } Sept 2, Oct 10, Jan 16, April 14
while building { During erection on board vessel - - } May 6, June 16, 19, 20, 23, 24
21/8, 24/8, 28/8, 31/8, 14/9, 20/9, 27/9, 10/10, 11/10, 20/10 Are the approved plans of boiler and superheater forwarded herewith
25/10, 8/11, 3/12 (If not state date of approval.)
Total No. of visits 11 + 11 = 22

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M.V. Oscilla Amrup 156476

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

The Boiler has been made under special survey to approved plan, Secretary's letters and the Society's rules.

Material duly tested as per rules, workmanship throughout good.

Boiler hydraulic tested as per rules found sound & tight

The Boiler has been shipped to Odense and will be fitted aboard

Mens Odense's Staalthibraent yard Nº 81.

The boiler has been fitted on board the vessel in accordance with the Society's Rules and the approved plans, and on completion the whole steam plant, including the cargo oil pumping arrangement, was tested under working conditions and found satisfactory.

For feeding purpose two vertical Weir's pumps, 6' x 8 1/2' x 18" simplex, have been fitted.

Recommend the vessel to have notation of 1 D.B. 180 LB. in the Reg. Book.

Survey Fee ... £204 : When applied for, 10.7.1939
Travelling Expenses (if any) £ : When received, 11/8/1939

Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 8 DEC 1939

Assigned No action