

REPORT ON BOILERS.

No. 20453.

Received at London Office MAY 31 1939

Date of writing Report 26th May 1939 When handed in at Lloyd's Office 27th May 1939 Port of GREENOCK.

No. in Survey held at Reg. Book.

Date, First Survey 22nd July 1938.Last Survey 24th May 1939.

(Number of Visits

Tons

Gross 8000 (approx.)
Net

on the

M. V. "CEDARDALE"

Master

Built at

Glasgow

By whom built

Rhyllwood & Co. Ltd.

Yard No. 54

When built 1939.

Engines made at

Greenock

By whom made

J. G. Thineaid & Co. Ltd.

Engine No. 4121

When made 1939.

Boilers made at

Do.

By whom made

Do.

Boiler No. 4121

When made 1939.

Nominal Horse Power

Owners

Anglo Saxon Petroleum Co. Ltd.

Port belonging to London.

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Colvilles Ltd.: Scottish Iron & Steel Coy.

(Letter for Record

S

Total Heating Surface of Boilers

2502 ft.²

Is forced draught fitted

Yes

Coal or Oil fired

Oil

No. and Description of Boilers

One - single-ended return tube

Working Pressure

180 lbs.

Tested by hydraulic pressure to

320 lbs.

Date of test

30-12-38

No. of Certificate

2177

Can each boiler be worked separately

Area of Firegrate in each Boiler

Oil fired

No. and Description of safety valves to each boiler

Two - spring loaded

Area of each set of valves per boiler

per Rule 16 ins.²as fitted 16.58 ins.²

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

21 6"

Is oil fuel carried in the double bottom under boilers

No

Smallest distance between shell of boiler and tank top plating

Boiler fitted at top platform

Is the bottom of the boiler insulated

Yes

Largest internal dia. of boilers

14 6"

Length

11 6"

Shell plates: Material

Steel

Tensile strength

29-33 tons

Thickness

1 5/32"

Are the shell plates welded or flanged

No

Description of riveting: circ. seams

end D.R. Lap

long. seams

T. R. D. B. S.

Diameter of rivet holes in

circ. seams 1 7/32"

long. seams 1 5/32"

Pitch of rivets

3" 5/27"

7 7/8"

Percentage of strength of circ. end seams

plate 65.4

rivets 45.3

Percentage of strength of circ. intermediate seam

plate

rivets

Percentage of strength of longitudinal joint

plate 85.32

rivets 85.75

combined 87.79

Working pressure of shell by Rules

180 lbs.

Thickness of butt straps

outer 7/8"

inner 1"

No. and Description of Furnaces in each Boiler

3 - Section

Material

Steel

Tensile strength

26-30 tons

Smallest outside diameter

3 7/8"

Length of plain part

top

bottom

Thickness of plates

crown 9/16"

bottom

Description of longitudinal joint

Weld

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

Working pressure of furnace by Rules

189 lbs.

End plates in steam space: Material

Steel

Tensile strength

26-30 tons

Thickness

1 9/32"

Pitch of stays

21" x 19 1/2"

How are stays secured

Double nuts

Working pressure by Rules

187 lbs.

Tube plates: Material

front Steel

back

Tensile strength

26-30 tons

Thickness

1 5/16"

Pitch of stays

11 1/16"

Mean pitch of stay tubes in nests

9" 3/75"

Pitch across wide water spaces

13 1/2"

Working pressure

front 225 lbs.

back 191 lbs.

Girders to combustion chamber tops: Material

Steel

Tensile strength

29-33 tons

Depth and thickness of girder

at centre 2 @ 8 1/2" x 3/4"

Length as per Rule

21 7 5/8"

Distance apart

9"

No. and pitch of stays

in each

3 @ 7 1/2"

Working pressure by Rules

193 lbs.

Combustion chamber plates: Material

Steel

Tensile strength

26-30 tons

Thickness: Sides

1 1/16"

Back

1 1/16"

Top

1 1/16"

Bottom

7/8"

Pitch of stays to ditto: Sides

7 1/2" x 7 7/16"

Back

7 1/2" x 7 7/16"

Top

7 1/2" x 9"

Are stays fitted with nuts or riveted over

Riveted

Working pressure by Rules

184 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26-30 tons

Thickness

1 5/16"

Lower back plate: Material

Steel

Tensile strength

26-30 tons

Thickness

1 3/16"

Pitch of stays at wide water space

14"

Are stays fitted with nuts or riveted over

Original stays riveted. Others riveted.

Working Pressure

189 lbs.

Main stays: Material

Steel

Tensile strength

28-32 tons

Diameter

At body of stay, 3"

or Over threads 3 1/4"

No. of threads per inch

6

Area supported by each stay

409.5 ins.²

Working pressure by Rules

191 lbs.

Screw stays: Material

Steel

Tensile strength

26-30 tons

Diameter

At turned off part, 1 3/8"

or Over threads

No. of threads per inch

9

Area supported by each stay

55.7 ins.²

002784-002789-0138

Lloyd's Register
Foundation

Working pressure by Rules 184 lbs. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 158" or Over threads }
No. of threads per inch 9 Area supported by each stay 80.3 ins.² Working pressure by Rules 189 lbs.
Tubes: Material Iron External diameter { Pin 2 1/2" Stag 2 1/2" Thickness { 9 1/32" x 1 1/32" No. of threads per inch 28
Pitch of tubes 3 3/4" x 3 3/4" Working pressure by Rules 210 lbs.
Manhole compensation: Size of opening in shell plate 16 1/2" x 20 1/2" Section of compensating ring 11 7/8" x 1 9/32" No. of rivets and diameter of rivet holes 380 15 1/16"
Outer row rivet pitch at ends 9 1/4" Depth of flange if manhole flanged 3 1/2" Steam Dome: Material Iron

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
stays Inner radius of crown Working pressure by Rules No. and diameter of
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 { Tube Steel forgings Steel casings }
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 Working pressure as per
Area of each safety valve Are the safety valves fitted with easing gear Hydraulic test pressure:
Rules Pressure to which the safety valves are adjusted and after assembly in place Are drain cocks or
tubes forgings and castings 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 No

The foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED.
Robert Burns & Co. Director, Manufacturer.

Dates { During progress of work in shops - - - } Are the approved plans of boiler and superheater forwarded herewith
of while { During erection on building board vessel - - - } Total No. of visits
SEE MACHINERY REPORT

Is this Boiler a duplicate of a previous case No 1 If so, state Vessel's name and Report No. M.V. "DOSIMIA" Feb. 1915. 20643.
GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under special survey in accordance with the Rules & the approved plans: Material & workmanship are good: this Report accompanies that of the Machinery.

Survey Fee ... £ Dr Machinery Report.
Travelling Expenses (if any) £ When received, 10

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

Committee's Minute GLASGOW 30 MAY 1939
Assigned ACCOMPANYING MACHINERY REPORT.