

REPORT ON BOILERS.

No. 14303

23 DEC 1946

Received at London Office

Date of writing Report

19

When handed in at Local Office

20/12

1946

Port of

BELFAST

Vessels included in F.E. survey

No. in Survey held at
Reg. Book

BELFAST

Date, First Survey

Last Survey

19

on the

M.V. "PATELLA"

(Number of Visits)

Gross 8277
Net 4121

Master

✓

Built at

BELFAST

By whom built

HARLAND & WOLFF

Yard No. 1316

When built 1946

Engines made at

BELFAST

By whom made

HARLAND & WOLFF, LD.

Engine No. 1316

When made 1946

Boilers made at

BELFAST

By whom made

HARLAND & WOLFF, LD.

Boiler No. 1316

When made 1946

Nominal Horse Power

552

Owners

ANGLO SAXON PETROLEUM CO. LD

Port belonging to

LONDON

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

COLVILLES

(Letter for Record S)

Total Heating Surface of Boilers

4160 FT²

Is forced draught fitted

YES

Coal or Oil fired OIL & EXH. GAS.

No. and Description of Boilers

2 S.E. MULTITUBULAR

Working Pressure 180 LB/IN²

Tested by hydraulic pressure to

320 LBS

Date of test

6/6/46

No. of Certificate

1351-2

Can each boiler be worked separately

YES

Area of Firegrate in each Boiler

—

No. and Description of safety valves to each boiler

ONE 2 1/4" DOUBLE IMP. HIGH LIFT.

Area of each set of valves per boiler

per Rule 6.66

as fitted 7.95

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

—

BOILERS ON

Smallest distance between boilers or uptakes and bunkers or woodwork

AMPLE

Is oil fuel carried in the double bottom under boilers

TWEEN DK.

Smallest distance between shell of boiler and tank top plating

AMPLE

Is the bottom of the boiler insulated

YES

Largest internal dia. of boilers

12'-9 29/32"

Length

12'-3"

Shell plates: Material

S

Tensile strength

29/33 T/IN²

Thickness

1 3/64"

Are the shell plates welded or flanged

NO

Description of riveting: circ. seams

end 3.04" - D.R.

long. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams 1 3/32"

long. seams 1 3/32"

Pitch of rivets

3.04"

Percentage of strength of circ. end seams

plate 64

rivets 48

Percentage of strength of circ. intermediate seam

plate —

rivets —

Percentage of strength of longitudinal joint

plate 85.4

rivets 89.2

combined 88.6

Working pressure of shell by Rules

184 LB/IN²

Thickness of butt straps

outer 13/16"

inner 15/16"

No. and Description of Furnaces in each Boiler

2 - MORISON CORRUGATED.

Material

S.

Tensile strength

26/30 T/IN²

Smallest outside diameter

3'-8 1/8"

Length of plain part

top —

bottom —

Thickness of plates

crown 9/16"

bottom —

Description of longitudinal joint

FIRE WELD.

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

—

Working pressure of furnace by Rules

AS APP.

End plates in steam space: Material

S.

Tensile strength

26/30 T/IN²

Thickness

1 1/16"

Pitch of stays

VARIOUS

How are stays secured

NUTS & WASHERS IN & OUT

Working pressure by Rules

AS APP.

Tube plates: Material

front S.

back S.

Tensile strength

26/30 T/IN²

Thickness

7/8"

Mean pitch of stay tubes in nests

9.1"

Pitch across wide water spaces

14"

Working pressure

front AS APP.

back —

Girders to combustion chamber tops: Material

S.

Tensile strength

28/32 T/IN²

Depth and thickness of girder

at centre

9 3/4" x 2 x 7/8"

Length as per Rule

35.4"

Distance apart

11"

No. and pitch of stays

in each

3 @ 8 3/4"

Working pressure by Rules

AS APP.

Combustion chamber plates: Material

S

Tensile strength

26/30 T/IN²

Thickness: Sides

3/4"

Back

3/4"

Top

3/4"

Bottom

3/4"

Pitch of stays to ditto: Sides

7 3/4" x 8 3/4"

Back

8 3/8" x 8 1/4"

Top

11" x 8 3/4"

Are stays fitted with nuts or riveted over

GIRDERS & MARGINS

NUTTED, OTHERS RIVT.

Working pressure by Rules

AS APP.

Front plate at bottom: Material

S

Tensile strength

26/30 T/IN²

Thickness

7/8"

Lower back plate: Material

S

Tensile strength

26/30 T/IN²

Thickness

7/8"

Pitch of stays at wide water space

13"

Are stays fitted with nuts or riveted over

NUTS

Working Pressure

AS APP.

Main stays: Material

S

Tensile strength

28/32 T/IN²

At body of stay,

2 3/4"

Over threads

No. of threads per inch

6

Area supported by each stay

VARIOUS

Working pressure by Rules

AS APP.

Screw stays: Material

S

Tensile strength

26/30 T/IN²

At turned off part,

1/2", 1 3/4", 2"

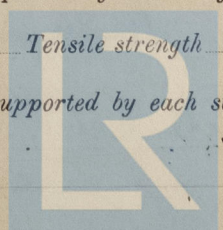
Over threads

No. of threads per inch

9

Area supported by each stay

VARIOUS

Lloyd's Register
Foundation

004630-004634-0221

Working pressure by Rules *As App.* Are the stays drilled at the outer ends *No.* Margin stays: Diameter { At turned off part, *1 3/4"* or *2"* Over threads }
No. of threads per inch *9* Area supported by each stay *10 1/16" x 8 1/4"* Working pressure by Rules *As App.*
Tubes: Material *S.* External diameter { Plain *2 3/4"* Stay *2 3/4"* Thickness { *9 L.S. 9"* *1/4"*, *5/16"*, *3/8"* No. of threads per inch *9*
Pitch of tubes *4" x 3 7/8"* Working pressure by Rules *As App.* Manhole compensation: Size of opening in
shell plate *16 1/2" x 12 1/2"* Section of compensating ring *2 (10 x 7/8)* No. of rivets and diameter of rivet holes *28 @ 1 1/32"*
Outer row rivet pitch at ends *9 3/4"* Depth of flange if manhole flanged *3 3/8" (END PLATE)* 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 forgings 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 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

YES

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - }
while building { During erection on board vessel - - }

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

YES

Total No. of visits

Is this Boiler a duplicate of a previous case YES

If so, state Vessel's name and Report No. *M.V. "NEOTHYRIS" Bel. 14111*

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

These boilers have been built under Special Survey in accordance with the Society's Rules and Approved plan. The materials and workmanship are good. The boilers have been efficiently fitted on board, the safety valves adjusted for a working pressure of 180 lb./sq. and a satisfactory accumulation test held.

Survey Fee *ALL F.E. RPT.*

Travelling Expenses (if any) £

When applied for,

19

When received,

19

John McGee and Edwin Grieses.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

JAN. 24 JAN 1947

Assigned *For minute see J.E. Kelly Rpt*



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