

## REPORT ON BOILERS.

No. 16423

Date of writing Report

192

When handed in at Local Office

27.7.26

Received at London Office

28 JUL 26

Port of

WEST HARTLEPOOL

No. in Survey held at

West Hartlepool

Date, First Survey

31st December

Last Survey

22nd July

1926

Reg. Book.

No. 351 on the

S S "OTTERPOOL"

(Number of Visits)

Tons

Gross

4867

Net

2999

Master

Built at West Hartlepool

By whom built Wm Gray &amp; Co Ltd

Yard No. 980

When built

1926

Engines made at

West Hartlepool

By whom made

Central Marine Engine

Engine No. 980

When made

1926

Boilers made at

do

By whom made

Works

Boiler No. 980

When made

1926

Nominal Horse Power

Owners

The Pool Shipping Co. Ltd

Port belonging to

West Hartlepool

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

Manufacturers of Steel

D. Colville &amp; Sons Ltd

(Letter for Record S)

Total Heating Surface of Boilers

7614 sq. ft.

Is forced draught fitted

no

Coal or Oil fired

Coal

No. and Description of Boilers

3 single ended

Working Pressure 180 lbs

Tested by hydraulic pressure to

320

Date of test

4.6.26

No. of Certificate

3684

Can each boiler be worked separately

yes

Area of Firegrate in each Boiler

634 sq. ft.

No. and Description of safety valves to each boiler

2 Cockburn's High Lift

Area of each set of valves per boiler

per Rule 10.85

as fitted 11.88

Pressure to which they are adjusted

185 lbs

Are they fitted with easing gear

yes

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

yes

Smallest distance between boilers or uptakes and bunkers or woodwork

over 4 feet

Is oil fuel carried in the double bottom under boilers

no

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

yes

Largest internal dia. of boilers

15'-9 7/8"

Length

11'-0"

Shell plates: Material

Steel

Tensile strength

28/32

Thickness

1 3/32"

Are the shell plates welded or flanged

no

Description of riveting: circ. seams

end 2R Lap

Long. seams

J.R. D.B.S.

Diameter of rivet holes in

circ. seams

1 3/8"

long. seams

1 5/16"

Pitch of rivets

4 3/8"

Percentage of strength of circ. end seams

plate 68.5

rivets 61.7

Percentage of strength of circ. intermediate seam

plate 85.8

rivets 87.8

Percentage of strength of longitudinal joint

plate 85.8

rivets 87.8

Working pressure of shell by Rules

180 lbs

Thickness of butt straps

outer 1"

inner 1 1/8"

No. and Description of Furnaces in each Boiler

3 Deightons

Material

Steel

Tensile strength

26/30

Smallest outside diameter

46 1/16"

Length of plain part

top

bottom

Thickness of plates

crown 12"

bottom 32"

Description of longitudinal joint

welded

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

Working pressure of furnace by Rules

188

End plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 5/16"

Pitch of stays

21" x 21 1/2"

How are stays secured

D. nuts &amp; washers

Working pressure by Rules

181

End plates: Material

front Steel

back Steel

Tensile strength

26/30

Thickness

7/8"

13/16"

Can pitch of stay tubes in nests

13 1/2" x 9"

Pitch across wide water spaces

14 1/4" x 9"

Working pressure

front 185

back 187

Orders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

Centre

9 1/2" x 1 1/2"

Length as per Rule

35 1/2"

Distance apart

9"

No. and pitch of stays

Each

3 - 9"

Working pressure by Rules

180

Combustion chamber plates: Material

Steel

Tensile strength

26/30

Thickness: Sides

21/32"

Back

21/32"

Top

21/32"

Bottom

3/4"

Pitch of stays to ditto: Sides

9 1/4" x 9"

Back

9 1/4" x 9"

Top

9" x 9"

Are stays fitted with nuts or riveted over

nuts

Working pressure by Rules

183

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

7/8"

Pitch of stays at wide water space

16" x 9 1/4"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

183

Main stays: Material

Steel

Tensile strength

28/32

Pitch of stays

3 3/8"

No. of threads per inch

6

Area supported by each stay

21 1/2" x 21"

Working pressure by Rules

194

Screw stays: Material

Steel

Tensile strength

26/30

Pitch of stays

1 5/8"

No. of threads per inch

9

Area supported by each stay

9 1/4" x 9"



REPORT ON BOILERS  
Working pressure by Rules 183 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 1 7/8" or Over threads 1 7/8" ✓  
No. of threads per inch 9 Area supported by each stay 11 1/2" x 9 1/4" Working pressure by Rules 200  
Tubes: Material Iron External diameter { Plain 3 3/4" Thickness { 9/16" 1/4" 5/16" No. of threads per inch 9  
Pitch of tubes 4 1/2" x 4 1/2" Working pressure by Rules 180 Manhole compensation: Size of opening  
shell plate 16" x 20" Section of compensating ring 21" x 1 3/32" No. of rivets and diameter of rivet holes 28 1 1/2"  
Outer row rivet pitch at ends 10" Depth of flange if manhole flanged ✓ 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 none 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 yes ✓  
FOR THE CENTRAL MARINE ENGINE WORKS,  
The foregoing is a correct description,  
M. J. Slubb  
MANAGING DIRECTOR, C. M. E. W.  
Dates of Survey { During progress of work in shops - - -  
while building { During erection on board vessel - - -  
See report on machinery.  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
Total No. of visits

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

See accompanying machinery report

Survey Fee ... £ : : When applied for, 192  
Travelling Expenses (if any) £ : : When received, 192

R. D. Shilston.  
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute  
Assigned See Expt. attached

FRI. 30 JUL 1926