

# REPORT ON BOILERS.

No. 13024

Received at London Office

MIDDLESBROUGH.

Writing Report

6.9.1927

When handed in at Local Office

6.9.1927

Port of

MIDDLESBROUGH.

Date, First Survey

See Machinery Report

Last Survey

192

Survey held at

Sup on the

S.S. "MONAGAS"

(Number of Visits)

Gross 2650

Net 1510.

Built at

Larrow.

By whom built

Palmer S.A.C.

Yard No.

944

When built

1927.

nes made at

MIDDLESBROUGH.

By whom made

Richardson, Westgarth & Co. Ld.

Engine No.

2541.

When made

1924

rs made at

MIDDLESBROUGH.

By whom made

. do.

Boiler No.

2541

When made

1924.

inal Horse Power

Owners

Gulf Refining Co.

Port belonging to

Newcastle

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

Manufacturers of Steel

Steel Company of Scotland

(Letter for Record S.)

al Heating Surface of Boilers

4055

Is forced draught fitted

no.

Coal or Oil fired

oil

and Description of Boilers

2-S.E. Marine

Working Pressure

180 lbs.

ted by hydraulic pressure to

320 lbs.

Date of test

8.9.27

No. of Certificate

S.6555

Can each boiler be worked separately

Yes.

na of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Pair Spring loaded.

na of each set of valves per boiler

per Rule 15.6

as fitted 16.58

Pressure to which they are adjusted

185 lbs.

Are they fitted with easing gear

Yes.

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

allest distance between boilers or uptakes and bunkers on woodwork

8'-4"

Is oil fuel carried in the double bottom under boilers

no.

allest distance between shell of boiler and tank top plating

1'-11"

Is the bottom of the boiler insulated

no.

argest internal dia. of boilers

14'-0"

Length

11'-6"

Shell plates: Material

Steel

Tensile strength

28/32

ickness

1/32

Are the shell plates welded or flanged

no.

Description of riveting: circ. seams

end

inter.

g. seams

T.R.D.B.S.

Diameter of rivet holes in

circ. seams

13/16"

Pitch of rivets

3 1/2"

centage of strength of circ. end seams

plate 66.0

Percentage of strength of circ. intermediate seam

plate 45.9

centage of strength of longitudinal joint

plate 85.3

Working pressure of shell by Rules

181 lbs.

ickness of butt straps

7/8"

No. and Description of Furnaces in each Boiler

3 Corrugated

aterial

Steel

Tensile strength

26/30

Smallest outside diameter

3'-4 1/2"

ngth of plain part

top

Thickness of plates

1/32"

Description of longitudinal joint

weld

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

Working pressure of furnace by Rules

189 lbs.

nd plates in steam space: Material

Steel

Tensile strength

26/30

Thickness

1 1/2"

Pitch of stays

19 1/4 x 16"

ow are stays secured

D.N.

Working pressure by Rules

182 lbs.

be plates: Material

front

Steel

Tensile strength

26/30

Thickness

3/4"

can pitch of stay tubes in nests

9 3/4"

Pitch across wide water spaces

13 1/2"

Working pressure

front 188 lbs.

back 211 lbs.

rders to combustion chamber tops: Material

Steel

Tensile strength

28/32

Depth and thickness of girder

centre 9 1/4 x 13 1/2 (double)

Length as per Rule

2'-10"

Distance apart

9 1/4"

No. and pitch of stays

each 3-9 1/2 x 8"

Working pressure by Rules

202 lbs.

Combustion chamber plates: Material

Steel

tensile strength

26/30

Thickness: Sides

13/16"

Back

7/8"

Top

7/8" (united)

Bottom

13/16"

itch of stays to ditto: Sides

9 1/8"

Back

10 1/2 x 9"

Top

9 1/4 x 8"

Are stays fitted with nuts or riveted over

riveted (back)

Working pressure by Rules

181 lbs.

Front plate at bottom: Material

Steel

Tensile strength

26/30

Thickness

13/16"

Lower back plate: Material

Steel

Tensile strength

26/30

Thickness

7/8"

itch of stays at wide water space

13 1/2 x 9"

Are stays fitted with nuts or riveted over

nuts

Working Pressure

238 lbs.

Main stays: Material

Steel

Tensile strength

28/32

Diameter

At body of stay,

or

Over threads

2 7/8"

No. of threads per inch

6.

Area supported by each stay

316

Working pressure by Rules

193 lbs.

Screw stays: Material

Steel

Tensile strength

26/30

Diameter

At turned off part,

or

Over threads

1 3/4"

No. of threads per inch

9

Area supported by each stay

92

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Working pressure by Rules 196 lb. Are the stays drilled at the outer ends ☒ No. Margin stays: Diameter { At turned off part, 1 1/8" or Over threads 1 1/8" ✓  
No. of threads per inch 9. ✓ Area supported by each stay 106 sq. Working pressure by Rules 201 lb. ✓  
Tubes: Material Iron External diameter { Plain 2 1/2" ✓ Stay 2 1/2" ✓ Thickness { 9/16" ✓ No. of threads per inch 9. ✓  
Pitch of tubes 4 x 3 3/4" Working pressure by Rules p. 230 S. 198. Manhole compensation: Size of opening in shell plate 16 1/2" x 13" Section of compensating ring 4 3/4" x 1 1/32" ✓ No. of rivets and diameter of rivet holes 32 - 1 3/16" ✓  
Outer row rivet pitch at ends 8 1/2" ✓ Depth of flange if manhole flanged ✓ 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  
Number of elements Material of tubes Steel castings  
Material of headers Tensile strength Thickness  
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 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. ✓

The foregoing is a correct description,  
FOR RICHARDS & WESTBETH & CO. LIMITED. Manufacturer.

Dates of Survey { During progress of work in shops - - } See Machinery Report. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) Yes. ✓  
while building { During erection on board vessel - - }  
Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good. These boilers have been constructed under special survey in accordance with the Rules and approved plans, securely fitted aboard and their safety valves have been adjusted and tested under steam with satisfactory results.

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

A. H. Ma... Engineer Surveyor Lloyd's Register of Shipping.

Committee's Minute

FRI. 9 SEP 1927

Assigned

See Minute on  
Mab Rpt 13027 attached



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