

REPORT ON BOILERS.

No. 28981

Received at London Office

31 DEC 1924

Date of writing Report

192

When handed in at Local Office

30 DEC 1924

Port of

Sunderland

No. in Survey held at

Sunderland

Date, First Survey

15th Dec 1924

1924

Book.

(Number of Visits)

Gross

on the new steel S.S. "PARAGUANA"

Net

Master

Built at Garrow-on-Tyne

By whom built Palmer Shipby Co

Yard No. 953 When built 1924

Engines made at

Sunderland

By whom made

MacColl & Pallock

Engine No. 344 When made 1924

Boilers made at

Sunderland

By whom made

MacColl & Pallock

Boiler No. 344 When made 1924

Nominal Horse Power

186

Owners

Gulf Refining Co

Port belonging to

Maracaibo

Venezuela

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

Manufacturers of Steel

John Smeets & David Colville & Sons Ltd

(Letter for Record (S) ✓)

Total Heating Surface of Boilers

3249 ✓

Is forced draught fitted

No ✓

Coal or Oil fired

oil ✓

No. and Description of Boilers

Two single ended marine ^{2SB} type ✓

Working Pressure 180 lbs ✓

Tested by hydraulic pressure to

320 ✓

Date of test

14-11-24

No. of Certificate

3906 ✓

Can each boiler be worked separately

yes ✓

Area of Firegrate in each Boiler

oil ✓

No. and Description of safety valves to each boiler

Two Direct Spring loaded ✓

Area of each set of valves per boiler

per Rule 12.44 ✓

as fitted 14.12 ✓

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

✓

Smallest distance between boilers or uptakes and bunkers or woodwork

✓

Is oil fuel carried in the double bottom under boilers

No ✓

Smallest distance between shell of boiler and tank top plating

23 1/4" ✓

Is the bottom of the boiler insulated

No ✓

Largest internal dia. of boilers

12-6 29/32" ✓

Length

11-6" ✓

Shell plates: Material

Steel ✓

Tensile strength 28 to 32 tons ✓

Thickness

1 3/4" ✓

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 1/8" ✓

long. seams 1 1/8" ✓

Pitch of rivets

3 1/2" ✓

4.9" ✓

Percentage of strength of circ. end seams

plate 69.49 ✓

rivets 42.8 ✓

Percentage of strength of circ. intermediate seam

plate ✓

Percentage of strength of longitudinal joint

plate 85.46 ✓

rivets 92.2 ✓

combined 90.0 ✓

Working pressure of shell by Rules

182 lbs. ✓

Thickness of butt straps

outer 7/8" ✓

inner 1" ✓

No. and Description of Furnaces in each Boiler

2 - Deighton ✓

Material

Steel ✓

Tensile strength

26 to 30 tons ✓

Smallest outside diameter

45 3/8" ✓

Length of plain part

top ✓

bottom ✓

Thickness of plates

crown 9/16" ✓

bottom 7/16" ✓

Description of longitudinal joint

welded ✓

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

Working pressure of furnace by Rules

184 lbs. ✓

End plates in steam space: Material

Steel ✓

Tensile strength

26 to 30 tons ✓

Thickness

1 1/2" ✓

Pitch of stays

18 x 16 1/2" ✓

How are stays secured

Double nuts and washers ✓

Working pressure by Rules

186 lbs. ✓

Tube plates: Material

front Steel ✓

back Steel ✓

Tensile strength

26 to 30 tons ✓

Thickness

3/32" ✓

3/4" ✓

Mean pitch of stay tubes in nests

12 3/4" x 8 1/4" ✓

Pitch across wide water spaces

14" ✓

Working pressure

front 184 lbs ✓

back 182 lbs ✓

Girders to combustion chamber tops: Material

Steel ✓

Tensile strength

26 to 30 tons ✓

Depth and thickness of girder

at centre

2 @ 8 1/8" x 7/8" ✓

Length as per Rule

31 5/8" ✓

Distance apart

10" ✓

in each

2 @ 10" ✓

Working pressure by Rules

185 ✓

Combustion chamber plates: Material

Steel ✓

Tensile strength

26 to 30 tons ✓

Thickness: Sides

4/16" ✓

Back

21/32" ✓

Top

23/32" ✓

Pitch of stays to ditto: Sides

9 1/4" x 9 3/8" ✓

Back

9 1/4" x 9" ✓

Top

10" x 10" ✓

Are stays fitted with nuts or riveted over

Nuts in C.C. ✓

Working pressure by Rules

180 ✓

Front plate at bottom: Material

Steel ✓

Tensile strength

26 to 30 tons ✓

Thickness

27/32" ✓

Lower back plate: Material

Steel ✓

Tensile strength

26 to 30 tons ✓

Thickness

13/16" ✓

Pitch of stays at wide water space

13" x 9" ✓

Are stays fitted with nuts or riveted over

Nuts ✓

Working Pressure

215 ✓

Main stays: Material

Steel ✓

Tensile strength

28 to 32 tons ✓

Diameter

At body of stay, 4 wing stay 2 3/4" ✓

Over threads, other stay 2 5/8" ✓

No. of threads per inch

6 ✓

Area supported by each stay

297 sq. in. ✓

Working pressure by Rules

186 ✓

Screw stays: Material

Steel ✓

Tensile strength

26 to 30 tons ✓

Diameter

At forward part, 1 3/4" at side ✓

Over threads, 1 5/8" at back ✓

No. of threads per inch

9 ✓

Area supported by each stay

83.250 ✓

