

REPORT ON BOILERS.

No. 29899

Received at London Office 30 NOV 1928

Date of writing Report

When handed in at Local Office 29 NOV 1928

Port of Lundeland.

No. in Survey held at

Lundeland.

Date, First Survey

Last Survey Nov. 29 1928

on the TWIN S.S. "PAQUITA"

(Number of Visits ✓) Gross 2618
Tons Net 1179

Master

Built at Lundeland By whom built L. James Lindsay & Co. Yard No. 704 When built 1928

Engines made at

Lundeland By whom made George Rank Ltd. Engine No. 1162/3 When made 1928

Boilers made at

do By whom made do Boiler No. 1162/3 When made 1928

Indicated Horse Power

234 Owners Anglo-Lux Petroleum Co. Ltd. Port belonging to Villenstall Furazzo

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

S. Cowell & Co.

(Letter for Record 5)

Total Heating Surface of Boilers

4038 sq. ft.

Is forced draught fitted yes

Coal or Oil fired oil

No. and Description of Boilers

Two 6 ft. Smith Single ended.

Working Pressure 180 lbs.

Tested by hydraulic pressure to

320 lbs.

Date of test 20/9/28. No. of Certificate 4007. Can each boiler be worked separately yes

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler 2 spring loaded.

Area of each set of valves per boiler

(per Rule 7.73 Lockdown High Lift)
(as fitted India 9.825) 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

6'-0"

Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and

TOP OF FLOORS tank top plating 2'-0"

Is the bottom of the boiler insulated yes

Largest internal dia. of boilers

13'-0"

Length 12'-3"

Shell plates: Material Steel Tensile strength 29 to 33 tons

Thickness

1 3/4"

Are the shell plates welded or flanged no

Description of riveting: circ. seams { end D.R.L. inter. ✓

Direction of 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 5/16" 7/8"

Percentage of strength of circ. end seams

{ plate 86.2% rivets 45.4%

Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓

Percentage of strength of longitudinal joint

{ plate 85.36% rivets 91.8% combined 88.97%

Working pressure of shell by Rules 181.5 LBS.

Thickness of butt straps

{ outer 1 3/8" inner 1 5/8"

No. and Description of Furnaces in each Boiler Two Inwards hungated

Material

STEEL

Tensile strength 26 to 30 tons

Smallest outside diameter 44 5/8"

Length of plain part

{ top ✓ bottom ✓

Thickness of plates { crown 7 9/16" bottom 7 7/8"

Description of longitudinal joint Welded

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

Working pressure of furnace by Rules 183 LBS.

Head plates in steam space: Material

Steel

Tensile strength 26 to 30 tons

Thickness 1 5/8"

Pitch of stays 20" x 15 3/4"

How are stays secured

D.N.Y.W.

Working pressure by Rules 182 LBS.

Head plates: Material

{ front Steel back Steel

Tensile strength { 26 to 30 tons

Thickness { 1" 3/4"

Can pitch of stay tubes in nests

9 1/4"

Pitch across wide water spaces 13 3/4" x 7 3/4"

Working pressure { front 425 LBS. back 235

Orders to combustion chamber tops: Material

STEEL

Tensile strength

Depth and thickness of girder

Centre

9 1/4" x 13 1/4"

Length as per Rule 37 1/4"

Distance apart 9 1/2"

No. and pitch of stays

Each

3 @ 9"

Working pressure by Rules 183 LBS.

Combustion chamber plates: Material STEEL

Tensile strength

26 to 30 tons

Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 7/8"

Pitch of stays to ditto: Sides

9" x 7 1/4"

Back 9" x 7 1/4"

Top 9" x 9 1/2"

Are stays fitted with nuts or riveted over NUTS

Working pressure by Rules

181 LBS.

Front plate at bottom: Material STEEL

Tensile strength 26 to 30 tons

Thickness

1"

Lower back plate: Material STEEL

Tensile strength 26 to 30 tons

Thickness 1"

Pitch of stays at wide water space

15" x 9"

Are stays fitted with nuts or riveted over RIVETTED INNER ROWS NUTS MARGINS

Working Pressure

181 LBS.

Main stays: Material STEEL

Tensile strength 28 to 32 tons

Diameter

{ At body of stay, 2 3/4" Over threads 3 5/8"

No. of threads per inch 6

Area supported by each stay 328 sq. in.

Working pressure by Rules

198 LBS.

Screw stays: Material STEEL

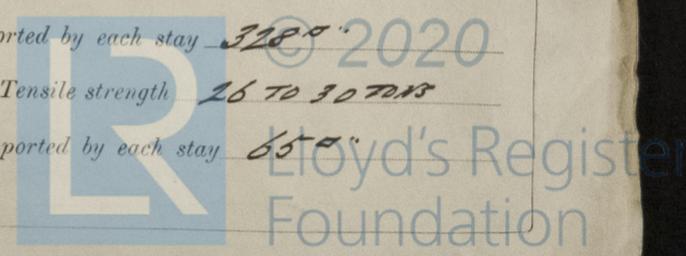
Tensile strength 26 to 30 tons

Diameter

{ At turned off part, 1 1/2" DIA. Over threads 1 1/2" DIA.

No. of threads per inch 9

Area supported by each stay 65 sq. in.



Working pressure by Rules 192 LBS Are the stays drilled at the outer ends Yes Margin stays: Diameter 1 1/4" (At turned off part, or Over threads 1 1/4")
 No. of threads per inch 9 Area supported by each stay 100" Working pressure by Rules 181 LBS
 Tubes: Material S. I. STEEL External diameter 2 3/4" (Plain 2 3/4" Stay 2 3/4") Thickness 8WG (3/8 & 5/16) No. of threads per inch 9
 Pitch of tubes 4" x 3 7/8" Working pressure by Rules 228 LBS Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 10 5/8" x 1 1/8" No. of rivets and diameter of rivet holes 40 @ 1 1/8"
 Outer row rivet pitch at ends 8 1/2" Depth of flange if manhole flanged 3 1/2" 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 ---
 How connected to shell --- Inner radius of crown --- Working pressure by Rules ---
 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 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.

The foregoing is a correct description,
FOR GEORGE CLARK LIMITED.
W. S. Spence Manufacturer.

Dates of Survey --- (During progress of work in shops --- while building ---)
 Please see Mch. Rpt. 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.) The boilers of this vessel have been built under Special Survey & the materials & workmanship are good. On completion they were tested by hydraulic pressure found sound & tight & afterwards satisfactorily fitted on board the vessel. The boilers are fitted for burning oil fuel & comply with Section 35 of the Rules fully complied with. For notation see machinery report.

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

W. S. Spence
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE. 4 DEC 1928
 Assigned see Minute on Sld Rpt
 29899 attached

