

REPORT ON BOILERS.

30 AUG 1930

Received at London Office

29 AUG. 1930

Date of writing Report

192 When handed in at Local Office

Port of *Sunderland.*

No. in Survey held at

Sunderland.

Date, First Survey *15 May*

Last Survey *27 Aug*

1930

on the

M. V. LONGWOOD

(Number of Visits *12*)

Gross *9463*

Tons Net *5559*

Master

Built at *Sunderland*

By whom built

Lu Jansen & Co. Ltd. Yard No. 712

When built *1920*

Engines made at

Greenock.

By whom made

John G. Nicolson & Co. Ltd.

Engine No. *451*

When made *1920.*

Boilers made at

Sunderland

By whom made

George Black Ltd.

Boiler No. *11942*

When made *1930*

Nominal Horse Power

109.

Owners

John J. Jacobs & Co. Ltd

Port belonging to

London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

Thyssen Werke Mulheim.

(Letter for Record *S.*)

Total Heating Surface of Boilers

3390 sq ft (2 boilers)

Is forced draught fitted *yes.*

Coal or Oil fired *oil.*

No. and Description of Boilers

2 Bellmouth (S.E.)

Working Pressure *150 lbs/sq in*

Tested by hydraulic pressure to

275 lbs/sq in

Date of test *26/5/30*

No. of Certificate *4101*

Can each boiler be worked separately *yes*

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

*Two spring loaded COCKBURN'S HIGH LIFE 2 1/2" Are they fitted with easing gear *yes**

Area of each set of valves per boiler

per Rule 7.70"

as fitted 9.816"

Pressure to which they are adjusted *155 lbs/sq in*

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 *8'-0"*

Is oil fuel carried in the double bottom under boilers *No. FITTED BETWEEN DECK.*

Smallest distance between shell of boiler and tank top plating *yes*

Is the bottom of the boiler insulated *YES.*

Largest internal dia. of boilers *12'-11 1/8"*

Length *11'-6"*

Shell plates: Material *Steel*

Tensile strength *28 to 32 TONS*

Thickness *7/8"*

Are the shell plates welded or flanged *No*

Description of riveting: circ. seams *end DRL*

long. seams *TR.DBS.*

Diameter of rivet holes in

circ. seams 15/16"

Pitch of rivets *2 1/8"*

Percentage of strength of circ. end seams

plate 67.2%

rivets 43.5%

Percentage of strength of circ. intermediate seam *plate - rivets -*

Percentage of strength of longitudinal joint

plate 85.29%

rivets 92%

combined 91%

Working pressure of shell by Rules *150 lbs/sq in.*

Thickness of butt straps

outer 1 1/8"

inner 1 3/16"

No. and Description of Furnaces in each Boiler *Three Deighton's*

Smallest outside diameter *2'-11 1/8"*

Material *Steel*

Tensile strength *26 to 30 TONS*

Description of longitudinal joint *Welded.*

Length of plain part

Thickness of plates *top 13/16"*

bottom 3/32"

Working pressure of furnace by Rules *164 lbs/sq in.*

End plates in steam space: Material *Steel*

Tensile strength *26 to 30 TONS*

Thickness *1 1/8"*

Pitch of stays *19 x 17*

How are stays secured *D.N. & W.*

Working pressure by Rules *161 lbs/sq in.*

Tube plates: Material *Steel*

Tensile strength *26 to 30 TONS*

Thickness *7/8 3/4"*

Mean pitch of stay tubes in nests *10 x 8*

Pitch across wide water spaces *13 3/4 x 8*

Working pressure *front 345 lbs/sq in. back 250 .. "*

Girders to combustion chamber tops: Material *Steel*

Tensile strength *29 to 33 TONS*

Depth and thickness of girder

at centre *8 3/8 x 1 3/4"*

Length as per Rule *37 1/8"*

Distance apart *9"*

No. and pitch of stays

in each *32 9"*

Working pressure by Rules *154 lbs/sq in*

Combustion chamber plates: Material *Steel*

Tensile strength *26 to 30 TONS*

Thickness: Sides *1/8"*

Back *5/16"*

Top *1/8"*

Bottom *1/8"*

Pitch of stays to ditto: Sides *9 x 9 3/8"*

Back *9 x 9 3/4"*

Top *9 x 9 7/8"*

Are stays fitted with nuts or riveted over *Nuts*

Working pressure by Rules *157 lbs/sq in.*

Front plate at bottom: Material *Steel.*

Tensile strength *26 to 30 TONS*

Thickness *7/8"*

Lower back plate: Material *Steel.*

Tensile strength *26 to 30 TONS*

Thickness *1 1/8"*

Pitch of stays at wide water space *15 1/2 x 9"*

Are stays fitted with nuts or riveted over *Nuts.*

Working Pressure *167 lbs/sq in.*

Main stays: Material *Steel*

Tensile strength *28 to 32 TONS*

Diameter

At body of stay, 2 1/2"

No. of threads per inch *6*

Area supported by each stay *19 x 17*

Working pressure by Rules *165 lbs/sq in.*

Screw stays: Material *Steel*

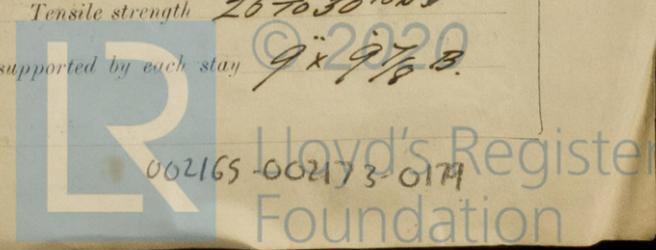
Tensile strength *26 to 30 TONS*

Diameter

At turned off part, 1 5/8"

No. of threads per inch *9*

Area supported by each stay *9 x 9 7/8"*



Working pressure by Rules *169 lbs* Are the stays drilled at the outer ends *No* Margin stays: Diameter *1 3/4* (At turned off part, or Over threads *1 3/4*)
 No. of threads per inch *9* Area supported by each stay *12 1/2 x 9* Working pressure by Rules *159 lbs*
 Tubes: Material *Steel* External diameter (Plain *2 3/4*, Stay *2 3/4*) Thickness *8 W.G.* No. of threads per inch *9*
 Pitch of tubes *4* Working pressure by Rules *215 lbs* Manhole compensation: Size of opening in shell plate *16 x 20* Section of compensating ring *10 1/2 x 7 1/2* No. of rivets and diameter of rivet holes *40 @ 1 1/2*
 Outer row rivet pitch at ends *7 1/4* 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 22 inclusive for boilers been complied with *Yes.*

The foregoing is a correct description,

W. B. Munn Manufacturer.

Dates of Survey (During progress of work in shops *30 May, 15, 17, 20, 22, 23, 26, 30*; During erection on board vessel *June 2, 5, 11, 16, Aug. 27*) Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)
 Total No. of visits *12*

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

These boilers have been built under special survey & the materials & workmanship are good. On completion they were satisfactorily fitted in the vessel & the safety valves adjusted under steam. For notation see machinery report.

Survey Fee ... £ *28-5-0* When applied for, *8 Aug 1930*
 Travelling Expenses (if any) £ : : When received, *13 Aug 1930*

Harbottle
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *FRI. 5 SEP 1930*

Assigned *See F.E. Rpt.*



© 2020

Lloyd's Register Foundation