

# REPORT ON BOILERS.

SINGLE ENDED.

No. 83624

Received at London Office

Date of writing Report

10

When handed in at Local Office

29 APR 1922 Port of

LIVERPOOL

No. in

Survey held at

Burken head.

Date, First Survey

18th April 1919

Last Survey

18th April

1922

Reg. Book.

29756 on the

Steel Steam Vessel Steamer

"SAMARIA"

(Number of Visits)

Gross

19,602

Tons

Net

11,866

Master

Built at

Burken head.

By whom built

Cammell Laird &amp; Co Ltd

When built

1921

Engines made at

Burken head.

By whom made

Cammell Laird &amp; Co Ltd

When made

1922.

Boilers made at

do

By whom made

do

When made

do.

Registered Horse Power

Owners

Carnard, W. H. &amp; Co Ltd

Port belonging to

Liverpool.

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.

Manufacturers of Steel

J. Spenser &amp; Sons, 10, King's Quay, S.W. 1, London, W. 1.

(Letter for record 2°) Total Heating Surface of Boilers see Main Report. Is forced draft fitted Yes. No. and Description of

Boilers 3 SB + 3 DB (see Main Report for DB) Working Pressure 220 lbs. Tested by hydraulic pressure to 385 lbs. Date of test 13-1-21, 18-1-21, 11-2-21.

No. of Certificate 2165, 2166, 2168. Can each boiler be worked separately Yes. Area of fire grate in each boiler 82.94. No. and Description of

safety valves to each boiler 2 in No. Direct Spring Area of each valve 9.62 sq. Pressure to which they are adjusted 220 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 2'-6" Inside dia. of boilers 17'-6" Length 11'-6"

Material of shell plates Steel Thickness 1 1/2" Range of tensile strength 30 1/2 - 34 1/2 tons Are the shell plates welded or flanged No.

Descrip. of riveting: cir. seams D.R. Lap long. seams T.R. Double Straps Diameter of rivet holes in long. seams 1 1/2" Pitch of rivets 10 1/2"

Lap of plates or width of butt straps 23 5/8" Per centages of strength of longitudinal joint rivets 92% plate 84.228% Working pressure of shell by

rules 252. Size of manhole in shell 16" x 12" Size of compensating ring 36 1/2" x 40" x 1 1/2" No. and Description of Furnaces in each

boiler 4 Morrison's. Material Steel Outside diameter 48 7/8" Length of plain part top 11" bottom 16" Thickness of plates crown 1 1/2" bottom 1 1/2"

Description of longitudinal joint Welded. No. of strengthening rings Working pressure of furnace by the rules 232 lbs. Combustion chamber

plates: Material Steel Thickness: Sides 3/32" Back 3/32" Top 3/32" Bottom 1/16" Pitch of stays to ditto: Sides 9 1/2" x 8" Back 9 1/2" x 7 1/2"

Top 9 1/2" x 8" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 228 lbs. Material of stays Tested Iron. Area at

smallest part 2.03 sq. Area supported by each stay 76.8 sq. Working pressure by rules 238 lbs. End plates in steam space: Material Steel Thickness 1 1/2"

Pitch of stays 18" x 17 1/2" How are stays secured Double Nuts. Working pressure by rules 221 lbs. Material of stays Steel Area at smallest part 706 sq.

Area supported by each stay 317.25 sq. Working pressure by rules 232 lbs. Material of Front plates at bottom Steel Thickness 1" Material of

Lower back plate Steel Thickness 3/32" Greatest pitch of stays 14" x 14" Working pressure of plate by rules 262 Diameter of tubes 2 1/2" ext.

Pitch of tubes 4" x 4" Material of tube plates Steel Thickness: Front 1" Back 1 1/2" Mean pitch of stays 10" Pitch across wide

water spaces 13 3/4" Working pressures by rules 247 lbs. Girders to Chamber tops: Material Steel Depth and thickness of

girder at centre 8-9" x 3/4" Length as per rule 30 1/2" Distance apart 8" Number and pitch of Stays in each 2 in No. - 9 1/2"

Working pressure by rules 256 lbs. Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Schmidt's. Date of Approval of Plan 12/5/19. Tested by Hydraulic Pressure to 440 lbs/sq.

Date of Test 14.2.22, 1.3.22, 6.3.22. Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes.

Diameter of Safety Valve 2" Pressure to which each is adjusted 220 lbs. Is Easing Gear fitted Yes.

The foregoing is a correct description,

J. W. H. L. and Co. Manufacturer.

Is the approved plan of boiler forwarded herewith

Total No. of visits

Dates of Survey  
 During progress of work in shops - -  
 while building - -  
 During erection on board vessel - - -

see notes on Machinery &amp; 1st E. report.

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

- See Main Report to which this is attached

Survey Fee ... £ ... When applied for, 19

Travelling Expenses (if any) £ ... When received, 19

Committee's Minute

LIVERPOOL

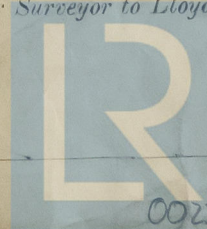
- 2 MAY 1922

Assigned

See report attached

J. W. H. L.

Engineer Surveyor to Lloyd's Register of Shipping.



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Lloyd's Register

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