

REPORT ON BOILERS.

No. 98396.

11 MAR 1931

Received at London Office

to of writing Report

19

When handed in at Local Office

9 MAR 1931

Port of

LIVERPOOL

No. in Survey held at

Birkenhead

Date, First Survey March 19th 1930. Last Survey March 3rd 1931.

Book.

440 on the

S.S. 'Athelbeach'

(Number of Visits 86.) Gross 6450 Tons Net

ster

Built at Birkenhead By whom built Cammell Laird & Co. Ltd. Yard No. 973 When built 1930

ines made at

Greenock

By whom made John Kineaid & Co. Ltd. Engine No. 760 When made 1930

ilers made at

Birkenhead

By whom made Cammell Laird & Co. Ltd. Boiler No. 973 When made 1930

imal Horse Power

490

Owners United Indispensables Ltd Port belonging to Liverpool

MULTITUBULAR BOILERS - MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville Sons; Earl & Dudley (Letter for Record S)

al Heating Surface of Boilers 1823 sq. ft. Is forced draught fitted Yls Coal or Oil fired oil

and Description of Boilers One Cylindrical multitubular Working Pressure 180 lb. sq. in.

ted by hydraulic pressure to 320 lb. Date of test 9.7.30 No. of Certificate 2366 Can each boiler be worked separately

of Firegrate in each Boiler No. and Description of safety valves to each boiler Two spring loaded

of each set of valves per boiler per Rule high lift valves Pressure to which they are adjusted 180 lb. Are they fitted with easing gear Yls

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

allest distance between boilers or uptakes and bunkers or woodwork 21" Is oil fuel carried in the double bottom under boilers Yls

allest distance between shell of boiler and tank top plating on 2nd deck Is the bottom of the boiler insulated Yls

rest internal dia. of boilers 13'-4 7/8" Length 11'-1" Shell plates: Material steel Tensile strength 28-32 tons sq. in.

kness 1 1/8" Are the shell plates welded or flanged No Description of riveting: circ. seams end DR lap

seam Double R. Double butts Diameter of rivet holes in circ. seams 1 1/4" Pitch of rivets 3.85"

entage of strength of circ. end seams plate 67.5 rivets 47 Percentage of strength of circ. intermediate seam plate 85.8 rivets 47

entage of strength of longitudinal joint plate 90.4 rivets 89.7 Working pressure of shell by Rules 180 lb. sq. in.

kness of butt straps outer 7/8" inner 1" No. and Description of Furnaces in each Boiler Three Corrugated

Material steel Tensile strength 26-30 tons sq. in. Smallest outside diameter 37"

th of plain part top bottom Thickness of plates crown 15/32" Description of longitudinal joint weld.

ensions of stiffening rings on furnace or c.c. bottom none Working pressure of furnace by Rules 182 lb. sq. in.

plates in steam space: Material steel Tensile strength 26-30 tons sq. in. Thickness 1 3/32" Pitch of stays 18 1/2" x 18 1/2"

are stays secured double nuts & plain washers Working pressure by Rules 182 lb. sq. in.

e plates: Material front steel Tensile strength 26-30 tons sq. in. Thickness 31/32"

back steel Tensile strength 26-30 Thickness 25/32"

pitch of stay tubes in nests 9 3/4" Pitch across wide water spaces 14" Working pressure front 243 lb. sq. in. back 215 lb. sq. in.

ers to combustion chamber tops: Material steel Tensile strength 28-32 tons sq. in. Depth and thickness of girder

atre 2 @ 9 1/2" x 7 1/8" Length as per Rule 3'-1 9/16" Distance apart 9" No. and pitch of stays

ch 3 @ 9" Working pressure by Rules 194 lb. sq. in. Combustion chamber plates: Material steel

le strength 26-30 tons sq. in. Thickness: Sides 21/32" Back 21/32" Top 21/32" Bottom 13/16"

of stays to ditto: Sides 9 x 9 1/4" Back 9 x 8 1/2" Top 9 x 9" Are stays fitted with nuts or riveted over hats

ing pressure by Rules 180 lb. sq. in. Front plate at bottom: Material steel Tensile strength 26-30 tons sq. in.

ness 31/32" Lower back plate: Material steel Tensile strength 26-30 tons sq. in. Thickness 13/16"

of stays at wide water space 14 3/8" x 9" Are stays fitted with nuts or riveted over hats

ing Pressure 187 1/4 lb. sq. in. Main stays: Material steel Tensile strength 28-32 tons sq. in.

At body of stay, 3" No. of threads per inch 6 Area supported by each stay 342 sq. in.

Over threads 196 lb. sq. in. Screw stays: Material steel Tensile strength 26-30 tons sq. in.

At turned up part, 1 5/8" No. of threads per inch 9 Area supported by each stay 83 sq. in.

Over threads



Lloyd's Register Foundation

W334-0030

Working pressure by Rules 180 lb Are the stays drilled at the outer ends no Margin stays: Diameter 1 3/4"
No. of threads per inch 9 Area supported by each stay 103 sq" Working pressure by Rules 207 lb
Tubes: Material B.B. Iron External diameter 3" Thickness 1/4" No. of threads per inch 9
Pitch of tubes 4 9/16" x 4 3/16" Working pressure by Rules 205 lb Manhole compensation: Size of opening in
shell plate 21 x 17" Section of compensating ring 9 3/4" x 1 3/16" No. of rivets and diameter of rivet holes 36 @ 1 7/16"
Outer row rivet pitch at ends 8 3/4" 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 ✓
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 None Manufacturers of ✓
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,
J. W. Laid Manufacturer.

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

Is this Boiler a duplicate of a previous case yes If so, state Vessel's name and Report No. Athelmaid (96791)

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

This boiler has been constructed under special survey, and is in accordance with the Rules and the approved plan. It has been examined under steam and found satisfactory, and is eligible in my opinion for notation of DB 180 lb in Register book.

Survey Fee £ 12. 0. 0

When applied for, 10 MAR. 1931

Travelling Expenses (if any) £

When received, 18. 3. 31

J. W. Laid
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 10 MAR. 1931

Assigned See Machinery rpt.



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