

REPORT ON BOILERS.

No. 34519

Received at London Office

23 AUG 1946

Date of writing Report

192

When handed in at Local Office

22 AUG 1946

Port of

Sunderland

No. in Survey held at
Reg. Book.

SUNDERLAND

Date, First Survey

Last Survey 13 Aug 1946

on the

HESPERIDES

(Number of Visits

Gross 5125

Net 2850

Master

Built at

Sunderland

By whom built

Ship's Corp. (Lucas Brand) No. 9

When built

1946

Engines made at

Sunderland

By whom made

G. Clark (1938) 1st

Engine No.

1373

When made

1946

Boilers made at

Wallsend

By whom made

Wallsend Shipway & Eng Co

Boiler No.

401B

When made

1945

Nominal Horse Power

Owners

British S. Am. S.V. Co. Ltd.

Port belonging to

London.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel

(Letter for Record)

Total Heating Surface of Boilers

Is forced draught fitted

Coal or Oil fired

No. and Description of Boilers

Working Pressure

Tested by hydraulic pressure to

Date of test

No. of Certificate

Can each boiler be worked separately

Area of Firegrate in each Boiler

No. and Description of safety valves to each boiler

Area of each set of valves per boiler

{ per Rule
as fitted

Pressure to which they are adjusted

Are they fitted with easing gear

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

Smallest distance between shell of boiler and tank top plating

Is the bottom of the boiler insulated

Largest internal dia. of boilers

Length

Shell plates: Material

Tensile strength

Thickness

Are the shell plates welded or flanged

Description of riveting: circ. seams { end
inter.

Long. seams

Diameter of rivet holes in { circ. seams
long. seams

Pitch of rivets

Percentage of strength of circ. end seams

{ plate
rivets

Percentage of strength of circ. intermediate seam

{ plate
rivets

Percentage of strength of longitudinal joint

{ plate
rivets
combined

Working pressure of shell by Rules

Thickness of butt straps

{ outer
inner

No. and Description of Furnaces in each Boiler

Material

Tensile strength

Smallest outside diameter

Length of plain part

{ top
bottom

Thickness of plates

{ crown
bottom

Description of longitudinal joint

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

Working pressure of furnace by Rules

End plates in steam space: Material

Tensile strength

Thickness

Pitch of stays

How are stays secured

Working pressure by Rules

Tube plates: Material

{ front
back

Tensile strength

Thickness

Lean pitch of stay tubes in nests

Pitch across wide water spaces

Working pressure

{ front
back

Girders to combustion chamber tops: Material

Tensile strength

Depth and thickness of girder

At centre

Length as per Rule

Distance apart

No. and pitch of stays

At each

Working pressure by Rules

Combustion chamber plates: Material

Tensile strength

Thickness: Sides

Back

Top

Bottom

Pitch of stays to ditto: Sides

Back

Top

Are stays fitted with nuts or riveted over

Working pressure by Rules

Front plate at bottom: Material

Tensile strength

Thickness

Lower back plate: Material

Tensile strength

Thickness

Pitch of stays at wide water space

Are stays fitted with nuts or riveted over

Working Pressure

Main stays: Material

Tensile strength

Diameter

{ At body of stay,
or
Over threads

No. of threads per inch

Area supported by each stay

Working pressure by Rules

Screw stays: Material

Tensile strength

Diameter

{ At turned off part,
or
Over threads

No. of threads per inch

Area supported by each stay



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Foundation

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Working pressure by Rules *Are the stays drilled at the outer ends* Margin stays: Diameter ^{At turned off part.} _{or} ^{Over threads}
 No. of threads per inch Area supported by each stay Working pressure by Rules
 Tubes: Material External diameter ^{Plain} _{Stay} Thickness No. of threads per inch
 Pitch of tubes Working pressure by Rules Manhole compensation: Size of opening
 shell plate Section of compensating ring No. of rivets and diameter of rivet holes
 Outer row rivet pitch at ends Depth of flange if manhole flanged 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
 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

Type of Superheater *N.E.M. Smoke tube* Manufacturers of *Tubes L:!*
 Number of elements *144* Material of tubes *S.D. Steel* Steel castings *Appleby, Bradingham Steel Co.*
 Material of headers *Forged Steel* Tensile strength *26/30* Thickness *1/8"* Internal diameter and thickness of tubes *15 3/4" x 2 1/2"*
 the boiler be worked separately *Yes.* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes.*
 Area of each safety valve *3.14 sq ft* Are the safety valves fitted with easing gear *Yes.* Working pressure as
 Rules *1500 lbs.* Pressure to which the safety valves are adjusted *220 lbs.* Hydraulic test pressure
 tubes *1500 lbs.* castings *660 lbs.* and after assembly in place *440 lbs.* Are drain cocks or valves fitted
 to free the superheater from water where necessary *Yes.* *Yes.*

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes.*

The foregoing is a correct description,

Manufacture

Dates of Survey ^{During progress of work in shops - - -} _{while building} ^{During erection on board vessel - - -}
 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.)

For recommendation please see Machinery Rpt.

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

J. H. Haaw.

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute

FRI. 6 SEP 1946

Assigned *For details see J.E. Webb Rpt.*



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