

## REPORT ON BOILERS.

No. 23422

Received at London Office

Date of writing Report 2<sup>nd</sup> AUG. 1948 When handed in at Local Office 6<sup>th</sup> AUG. 1948 Port of GREENOCK

No. in Survey held at GREENOCK Date, First Survey 5<sup>th</sup> DECEMBER 1947 Last Survey 29<sup>th</sup> JULY 1948

Reg. Book: SINGSC "BRITISH ADVOCATE" Oil Eng. (Number of Visits...✓) Tons { Gross 8573.22  
Net 4936.77

on the BRITISH ADVOCATE

Master PORT GLASGOW By whom built LITHGOWS L<sup>d</sup> Yard No. 1033 When built 1945

Engines made at GREENOCK By whom made JOHN G KINCAID & CO L<sup>d</sup> Engine No. K189 When made 1945

Boilers made at do By whom made do Boiler No. K189 When made 1948

Nominal Horse Power 625 Owners BRITISH TANKER CO L<sup>d</sup> Port belonging to LONDON

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel COLVILLE L<sup>d</sup> (Letter for Record S)

Total Heating Surface of Boilers 4138<sup>4</sup> = 2660 Is forced draught fitted YES ✓ Coal or Oil fired Oil ✓

No. and Description of Boilers two cylindrical SE. Working Pressure 150 lbs ✓

Tested by hydraulic pressure to 275 Date of test 29-4-48 No. of Certificate 2479 Can each boiler be worked separately yes ✓

Area of Firegrate in each Boiler 7.84 No. and Description of safety valves to each boiler I.H.L. double spring x2

Area of each set of valves per boiler { per Rule 7.84 ✓  
as fitted 7.96 ✓ } Pressure to which they are adjusted 153 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 ✓ Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating Boiler on top deck Is the bottom of the boiler insulated yes ✓

Largest internal dia. of boilers 13'-0" Length 11'-6" Shell plates: Material S Tensile strength 38/32 tons ✓

Thickness 29/32 ✓ Are the shell plates welded or flanged No. ✓ Description of riveting: circ. seams { end DR ✓  
inter ✓ ✓ }  
long. seams TR.DBS ✓ Diameter of rivet holes in { circ. seams 1" ✓  
long. seams 15/16 ✓ } Pitch of rivets { plate 6.375" ✓  
rivets ✓ ✓ }

Percentage of strength of circ. end seams { plate 68.3 ✓  
rivets 43.8 ✓ } Percentage of strength of circ. intermediate seam { plate ✓ ✓  
rivets ✓ ✓ }

Percentage of strength of longitudinal joint { plate 85.29 ✓  
rivets 88.7 ✓ } Working pressure of shell by Rules 155.6 lbs ✓

Thickness of built straps { outer 11/8" ✓  
inner 13/16" ✓ } No. and Description of Furnaces in each Boiler Two Dighton corrugated

Material S Tensile strength 26/30 tons ✓ Smallest outside diameter 3'-7 15/16" ✓

Length of plain part { top ✓ ✓  
bottom ✓ ✓ } Thickness of plates { crown 15" ✓  
bottom 32 ✓ } Description of longitudinal joint Weld ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules ✓

End plates in steam space: Material S Tensile strength 26/30 tons ✓ Thickness 1 1/32" ✓ Pitch of stays 18 1/2" x 16 1/2" ✓

How are stays secured DN ✓ Working pressure by Rules 7/8" ✓

Tube plates: Material { front S ✓  
back ✓ ✓ } Tensile strength 24/30 tons ✓ Thickness 7/8" ✓

Mean pitch of stay tubes in nests 9.375" Pitch across wide water spaces 13.5" ✓ Working pressure { front ✓ ✓  
back ✓ ✓ }

Girders to combustion chamber tops: Material S Tensile strength 29/33 tons ✓ Depth and thickness of girder

at centre 8 3/4" x 1 1/2" ✓ Length as per Rule 2'-10 21/32" ✓ Distance apart 9 1/2" ✓ No. and pitch of stays

in each 3 @ 8 1/4" ✓ Working pressure by Rules ✓ ✓ Combustion chamber plates: Material S

Tensile strength 26/30 tons ✓ Thickness: Sides 2 1/32" ✓ Back 2 1/32" ✓ Top 2 1/32" ✓ Bottom 2 1/32" ✓

Pitch of stays to ditto: Sides 8 x 8 1/4" ✓ Back 8 x 8 1/4" ✓ Top 9 1/2 x 8 1/4" ✓ Are stays fitted with nuts or riveted over Sides & back: nuts ✓  
outside riveted inside ✓

Working pressure by Rules ✓ ✓ Front plate at bottom: Material S Tensile strength 26/30 tons ✓ Thickness 23/32" ✓

Thickness 7/8" ✓ Lower back plate: Material S Tensile strength 26/30 tons ✓ Thickness 23/32" ✓

Pitch of stays at wide water space Plan = 14 1/2" (13 1/2" x 8 1/4") ✓ Are stays fitted with nuts or riveted over Nuts both ends ✓

Working pressure 2 3/8" ✓ Main stays: Material S Tensile strength 28/32 tons ✓

Diameter { At body of stay 2 3/8" ✓  
or ✓ ✓ } No. of threads per inch 6 ✓ Area supported by each stay 26/30 tons ✓

Working pressure by Rules ✓ ✓ Screw stays: Material S Tensile strength 26/30 tons ✓

Diameter { At turned off part 1 3/8" x 1 1/2" ✓  
or ✓ ✓ } No. of threads per inch 9 ✓ Area supported by each stay ✓ ✓

002897-002906-0032



Working pressure by Rules..... Are the stays drilled at the outer ends *No* ✓ Margin stays: Diameter { At turned off part, *1 3/8"*  
 No. of threads per inch *9* ✓ Area supported by each stay..... Working pressure by Rules.....  
 Tubes: Material *S* External diameter { Plain *2 1/2"* ✓ Thickness { *10wg* ✓ No. of threads per inch *9* ✓  
 Pitch of tubes *3 3/4" x 3 3/4"* ✓ Working pressure by Rules..... Manhole compensation: Size of opening  
 shell plate *16 1/2" x 20 1/2"* ✓ Section of compensating ring *2' 9 1/2" x 2' 5 1/2" x 1 1/16"* No. of rivets and diameter of rivet holes *44 - 1 1/16"* ✓  
 Outer row rivet pitch at ends *7 1/2"* ✓ Depth of flange if manhole flanged *McNeil type door* 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  
 of rivets in outer row in dome connection to shell.....

Type of Superheater..... Manufacturers of { Tubes.....  
 Steel forgings.....  
 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..... forgings and castings..... and after assembly in place..... Are drain cocks  
 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,  
 for JOHN G. KINCAID & CO. LIMITED.  
*J. Kincaid* Chief Draughtsman, Manufacturer

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

SEE ACCOMPANYING MACHINERY REPORT

Are the approved plans of boiler and superheater forwarded herewith  
 (If not state date of approval.)  
 Total No. of visits..... ✓

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

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

*These boilers have been constructed under Special Survey in accordance with the  
 Rules & approved plans. The materials & workmanship are sound & good.  
 Their safety valves have been adjusted for a working pressure of 150 lbs.  
 For recommendations please see machinery report J.G.K.*

Survey Fee ... .. £  
 Travelling Expenses (if any) £

When applied for.....19.....  
 When received.....19.....

*See machinery report*

*Charles J. Hunter*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

SEE ACCOMPANYING MACHINERY REPORT



© 2020

Lloyd's Register  
 Foundation