

REPORT ON BOILERS.

No. 24504

Received at London Office. 10 OCT 1951

Date of writing Report. 29th SEPT. 1951. When handed in at Local Office. 5th OCTOBER 1951. Port of GREENOCK

No. in Reg. Book. Survey held at GREENOCK Date, First Survey. 3rd OCTOBER. 1949 Last Survey 18th SEPTEMBER 1951

on the SING Se BRITISH PIONEER. Oil Eng. (Number of Visits...✓) Gross... Tons Net...

Master Built at GLASGOW By whom built. BLYTHSWOOD S/C Yard No. 97 When built. 1951

Engines made at GREENOCK By whom made. JOHN G. KINCAID & CO L^d Engine No. K213 When made. 1951

Boilers made at do By whom made. do Boiler No. K213 When made. 1951

Nominal Horse Power 625 Owners BRITISH TANKER CO L^d Port belonging to LONDON

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel COLVILLE L^d (Letter for Record S)

Total Heating Surface of Boilers 4138 Is forced draught fitted Yes Coal or Oil fired or Gas

No. and Description of Boilers Two cylindrical SE 12-1-51 2627 Working Pressure 150 lb

Tested by hydraulic pressure to 275 ✓ Date of test 22-1-51 No. of Certificate 2630 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler Double opening 1HL

Area of each set of valves per boiler { per Rule. 7.84 ✓ as fitted. 7.96 ✓ Pressure to which they are adjusted 153 lb 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 ✓

Smallest distance between shell of boiler and tank top plating Boilers on lower 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 29/32 tons

Thickness 29/32 ✓ Are the shell plates welded or flanged No Description of riveting: circ. seams { end DR inter 3.158" ✓

long seams TROBS ✓ Diameter of rivet holes in { circ. seams 1 1/16" ✓ long seams 1 1/16" ✓ Pitch of rivets { 6.375 ✓

Percentage of strength of circ. end seams { plate 68.3 rivets 43.8 Percentage of strength of circ. intermediate seam { plate 85.29 rivets 88.7

Percentage of strength of longitudinal joint { plate 88.7 rivets 88.3 Working pressure of shell by Rules 155.6 lb ✓

Thickness of built straps { outer 1 1/16" ✓ inner 13/16" ✓ No. and Description of Furnaces in each Boiler Three Dighton corrugated

Material S Tensile strength 26/30 tons ✓ Smallest outside diameter 3'-7 1/2" ✓

Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 15/32" ✓ bottom 1/32" ✓ Description of longitudinal joint Weld ✓

Dimensions of stiffening rings on furnace or c.c. bottom None Working pressure of furnace by Rules 26/30 tons ✓

End plates in steam space: Material S Tensile strength 26/30 tons ✓ Thickness 1 1/16" ✓ 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 S Tensile strength 26/30 tons ✓ Thickness { 7/8" ✓ 11/16" ✓

Lean pitch of stay tubes in nests 9.375" ✓ Pitch across wide water spaces 13.5" ✓ Working pressure { front 7/8" ✓ back 11/16" ✓

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

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

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 riveted inside. Nuts outside

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

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

Pitch of stays at wide water space 14 1/2" x 8 1/4" ✓ Are stays fitted with nuts or riveted over Nuts

Working pressure Main stays: Material S Tensile strength 28/32 tons ✓

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

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 Over threads No. of threads per inch 9 ✓ Area supported by each stay



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Working pressure by Rules..... Are the stays drilled at the outer ends. *No* ✓ Margin stays: Diameter { At turned off part..... *1 5/8* or Over threads..... *1 5/8*
No. of threads per inch. *9* ✓ Area supported by each stay..... Working pressure by Rules.....
Tubes: Material. *S* External diameter { Plain..... *2 1/2* Stay..... *2 1/2* ✓ Thickness { *10 w.g.* *1/4* *3/16* ✓ 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 in
shell plate. *16 1/2 x 20 1/2* ✓ Section of compensating ring. *2'9 1/2 x 2'5 1/2 x 1 1/2* No. of rivets and diameter of rivet holes. *40 - 1 1/8*
Outer row rivet pitch at ends. *7 1/2* ✓ Depth of flange if manhole flanged. *Mr Reid 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 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..... 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.....

For JOHN G. KINCAID & COY., LIMITED.
The foregoing is a correct description,

W. D. Humphreys
Chief Draughtsman.

Dates of Survey while building { During progress of work in shops - - - - - Are the approved plans of boiler and superheater forwarded herewith. *Yes*
{ 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. *BRITISH PREMIER GRN N° 2436*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
These boilers have been constructed under special survey in accordance with the Rules and approved plans. The materials & workmanship are sound & good. Their safety valves have been adjusted under steam for a working pressure of 150 lbs/sq. in. I recommend please see machinery report J.G.H.N.

Survey Fee £
Travelling Expenses (if any) £ *See machinery report*
When applied for.....19.....
When received.....19.....

Charles J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute.....

Assigned.....



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