

## REPORT ON BOILERS.

No. 81352

19 MAY 1927

Received at London Office

Date of writing Report 14 May 1927 When handed in at Local Office 18/5/1927 Port of

NEWCASTLE-ON-TYNE

No. in Reg. Book. Survey held at Walker on Tyne

Date, First Survey 10 May Last Survey 12 May 1927

on the STEEL SCREW STEAMER BRITISH COLONY.

(Number of Visits —) Gross 6917.37 Tons Net 4142.63

Master Built at Walker By whom built Swan Hunter & Richardson Ltd Yard No. 1224 When built 1927. 5  
 Engines made at Walker By whom made Swan Hunter & Richardson Ltd Engine No. 1224 When made 1927. 5  
 Boilers made at Walker By whom made Swan Hunter & Richardson Ltd Boiler No. 1224 When made 1927. 5  
 Nominal Horse Power 585 584 Owners British Tanker Co Ltd Port belonging to London

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Stay Boss—David Colville &amp; Sons Ltd

Manufacturers of Steel Plate Steel Company of Scotland—Deighton, Furnace Co Ltd (Letter for Record S)  
 Total Heating Surface of Boilers 1020 ft<sup>2</sup> Is forced draught fitted No Coal or Oil fired oil Working Pressure 120 lb

No. and Description of Boilers 1 Single ended cylindrical multitubular Tested by hydraulic pressure to 230 lb Date of test 24.9.26 No. of Certificate 121 L.G.S. Can each boiler be worked separately  
 Area of Firegrate in each Boiler oil No. and Description of safety valves to each boiler 2 direct spring high lift Pressure to which they are adjusted 125 lb Are they fitted with easing gear yes

Area of each set of valves per boiler {per Rule 7.56 as fitted 7.9 Pressure to which they are adjusted 125 lb Are they fitted with easing gear yes  
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler N.R. valve  
 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 yes  
 Largest internal dia. of boilers 10'-4 1/2" Length 10'-6" Shell plates: Material Steel Tensile strength 30/34 tons DR LAP  
 Thickness 2 1/32" Are the shell plates welded or flanged no Description of riveting: circ. seams {end 3 3/4" inter. 3 1/2" long. seams 7/8" Pitch of rivets {plate 72.4% rivets 44.24% Percentage of strength of circ. intermediate seam {plate 75% rivets 75.1% combined Working pressure of shell by Rules 124.6 lb

Percentage of strength of longitudinal joint {plate 75% rivets 75.1% combined Working pressure of shell by Rules 124.6 lb  
 Thickness of butt straps {outer 1 1/2" inner 7/8" No. and Description of Furnaces in each Boiler 2 Deighton Corrugated  
 Material Steel Tensile strength 26/30 tons Smallest outside diameter 2'-10 5/8"  
 Length of plain part {top bottom Thickness of plates {crown 3/8" bottom Description of longitudinal joint weld  
 Dimensions of stiffening rings on furnace or c.e. bottom Working pressure of furnace by Rules 152 lb

End plates in steam space: Material Steel Tensile strength 26/30 tons Thickness 7/8" Pitch of stays 20" x 13 1/2"  
 How are stays secured Double nuts and washers Working pressure by Rules 129 lb  
 Tube plates: Material {front Steel back Steel Tensile strength {26/30 tons Thickness {7/8" 5/8"  
 Lean pitch of stay tubes in nests 11 1/4" x 7 1/2" Pitch across wide water spaces 13 1/2" Working pressure {front 159 lb back 156 lb

Orders to combustion chamber tops: Material Steel Tensile strength 28/32 tons Depth and thickness of girder  
 centre 6 3/4" x 1 1/4" Length as per Rule 28.71 Distance apart 9 1/4" No. and pitch of stays  
 each 3 of 8" pitch Working pressure by Rules 123 lb Combustion chamber plates: Material Steel  
 Tensile strength 26/30 tons Thickness: Sides 17/32" Back 2 1/32" Top 17/32" Bottom 5/8"  
 Pitch of stays to ditto: Sides 9 3/4" x 8" Back 9 1/2" x 8 1/4" Top 9 1/4" x 8" Margin stays, top side stays, nutted both ends. Other stays riveted inside C. Chambers.  
 Working pressure by Rules 129 lb Front plate at bottom: Material Steel Tensile strength 26/30 tons  
 Thickness 7/8" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 7/8"  
 Pitch of stays at wide water space 13 1/2" x 9 1/2" Are stays fitted with nuts or riveted over Nuts on back margin stays

Working Pressure 230 lb Main stays: Material Steel Tensile strength 28/32 tons  
 Diameter {At body of stay 2 1/4" No. of threads per inch 6 Area supported by each stay (19 3/4" x 14 3/4") - 3.2  
 Working pressure by Rules 120 lb Screw stays: Material Steel Tensile strength 26/30 tons  
 Diameter {At turned off part 1 3/8" No. of threads per inch 9 Area supported by each stay (9 3/4" x 8) - 1.2

Register of Shipping

Working pressure by Rules  $128\frac{1}{2}$  Are the stays drilled at the outer ends  $no$  Margin stays: Diameter { At turned off part, 15/8" Over threads }  
No. of threads per inch 9 Area supported by each stay  $(10 \times 11\frac{1}{2}) - 1.75$  Working pressure by Rules  $130\frac{1}{2}$   
Tubes: Material *Crow* External diameter { Plain  $2\frac{1}{2} \times 10 W G$  Stay  $2\frac{1}{2} \times 5/16$  Thickness  $5/16$  No. of threads per inch 9 }  
Pitch of tubes  $3\frac{3}{4}$  Working pressure by Rules  $153\frac{1}{2}$  Manhole compensation: Size of opening in  
shell plate  $20 \times 16$  Section of compensating ring  $2''$  Flanged,  $2'-9\frac{3}{4}'' \times 2'-9\frac{3}{4}'' \times 2/32$  No. of rivets and diameter of rivet holes  $32, 1\frac{1}{8}$  dia of hole  
Outer row rivet pitch at ends  $5\frac{3}{4}$  Depth of flange if manhole flanged  $2''$  Steam Dome: Material *none*  
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  
Number of elements Material of tubes Manufacturers of { Tubes Steel castings }  
Material of headers Tensile strength Internal diameter and thickness of tubes  
the boiler be worked separately Is a safety valve fitted to every part of the superheater which can be shut off and  
Area of each safety valve Are the safety valves fitted with easing gear. Can the superheater be shut off and  
Rules Pressure to which the safety valves are adjusted Working pressure as per  
tubes, castings and after assembly in place Hydraulic test pressure:  
to free the superheater from water where necessary. Are drain cocks or valves fitted

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with

FOR  
The foregoing is a correct description,

*G. F. Swamy* Manufacturer

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

*See mch report*

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.)

*The boiler built and fitted upon board the vessel under special survey  
the material and workmanship found good and efficient*

*See mch report*

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

*L. G. Shallerors*

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 20 MAY 1927

Assigned

*See mch report attached*



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Foundation