

## REPORT ON BOILERS.

No. 49108

Received at London Office

-1 MAY 1929

Date of writing Report 28-4-1929 When handed in at Local Office 22-4-1928 Port of Glasgow  
No. in Survey held at Glasgow Date, First Survey 11-9-28 Last Survey 19-4-1929  
on the new steel S/S "CHAUCER". (Number of Visits 76) Gross Tons 211.57 Net Tons 182.57  
Master Built at Port Glasgow By whom built Robert Duncan & Co Ltd Yard No. 389 When built 1929  
Engines made at Glasgow By whom made David Rowan & Co Ltd Engine No. 892 When made 1929  
Boilers made at Glasgow By whom made David Rowan & Co Ltd Boiler No. 892 When made 1929  
Nominal Horse Power 557 Owners Shakespear Shipping Co Ltd Port belonging to London

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

Manufacturers of Steel James Dunlop & Co Ltd (Letter for Record (S))  
Total Heating Surface of Boilers 8334 Is forced draught fitted yes Coal or Oil fired coal  
No. and Description of Boilers three, single ended Working Pressure 180  
Tested by hydraulic pressure to 320 Date of test 21-12-28 No. of Certificate 18151 Can each boiler be worked separately yes  
Area of Firegrate in each Boiler 612 No. and Description of safety valves to each boiler two, direct spring  
Area of each set of valves per boiler (per Rule 17.8079) (as fitted 19.24) Pressure to which they are adjusted 185 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 9" Is oil fuel carried in the double bottom under boilers no  
Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated yes  
Largest internal dia. of boilers 16'-3" Length 11'-6" Shell plates: Material steel Tensile strength 29-33 tons  
Thickness 1 9/32 Are the shell plates welded or flanged no Description of riveting: circ. seams end DR  
long. seams DBS TR Diameter of rivet holes in (circ. seams F 1 3/16 B 1 5/16) (long. seams 1 7/16) Pitch of rivets F 3.19 B 3.66  
Percentage of strength of circ. end seams (plate F 62.7 B 64.4) (rivets F 43 B 46) Percentage of strength of circ. intermediate seam (plate 85.5) (rivets 86.6) Working pressure of shell by Rules 182  
Percentage of strength of longitudinal joint (plate 88.3) (combined 88.3)  
Thickness of butt straps (outer 31/32) (inner 1 3/32) No. and Description of Furnaces in each Boiler Three Deighton 30 ft  
Material steel Tensile strength 26-30 tons Smallest outside diameter 3'-11 1/16  
Length of plain part (top) (bottom) Thickness of plates (crown 1 9/32) (bottom 1 3/32) Description of longitudinal joint welded  
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 180  
End plates in steam space: Material steel Tensile strength 26-30 tons Thickness 1 7/16 Pitch of stays 23 3/8 x 23  
How are stays secured DN steel Working pressure by Rules 181  
Tube plates: Material (front steel) (back steel) Tensile strength 26-30 tons Thickness (front 3 7/32) (back 4 1/32)  
Mean pitch of stay tubes in nests 10 1/4 Pitch across wide water spaces 13 1/2 Working pressure (front 207) (back 183)  
Girders to combustion chamber tops: Material steel Tensile strength 26-30 tons Depth and thickness of girder  
at centre 2 @ 9 1/8 x 7/8 Length as per Rule 36.6 Distance apart 9 1/4 No. and pitch of stays  
in each 3 @ 8 3/4 Working pressure by Rules 183 Combustion chamber plates: Material steel  
Tensile strength 26-30 tons Thickness: Sides 2 1/32 Back 2 1/32 Top 2 1/32 Bottom 1 3/16  
Pitch of stays to ditto: Sides 8 3/4 x 9 1/2 Back 8 3/4 x 9 1/2 Top 8 3/4 x 9 1/2 Are stays fitted with nuts or riveted over nuts  
Working pressure by Rules 180 Front plate at bottom: Material steel Tensile strength 26-30 tons  
Thickness 3 7/32 Lower back plate: Material steel Tensile strength 26-30 tons Thickness 2 5/32  
Pitch of stays at wide water space 13 1/2 Are stays fitted with nuts or riveted over nuts  
Working Pressure 182 Main stays: Material steel Tensile strength 28-32 tons  
Diameter (At body of stay, or over threads) 3 1/4 & 3 3/4 No. of threads per inch 6 Area supported by each stay 506 sq in & 559 sq in  
Working pressure by Rules 183 & 193 Screw stays: Material steel Tensile strength 26-30 tons  
Diameter (At turned off part, or over threads) 1 7/8 No. of threads per inch 9 Area supported by each stay 830 sq in



Working pressure by Rules 183 Are the stays drilled at the outer ends ☒ Margin stays: Diameter { At turned off part. 1 7/8" Over threads 1  
No. of threads per inch 9 Area supported by each stay 106" Working pressure by Rules 201  
Tubes: Material Iron External diameter { Plain 2 1/2" Stay 2 1/2" Thickness { 9 w.s. 3/16" 3/8" 7/16" No. of threads per inch 9  
Pitch of tubes 3 3/4" x 3 7/8" Working pressure by Rules 184 Manhole compensation: Size of opening in  
shell plate 15 1/2" x 19 1/2" Section of compensating ring 9 1/4" x 1 9/16" No. of rivets and diameter of rivet holes 32 @ 1 3/8"  
Outer row rivet pitch at ends 9 1/2" Depth of flange if manhole flanged 3 Steam Dome: Material none  
Tensile strength 88 Thickness of shell 1/2" Description of longitudinal joint  
Diameter of rivet holes 3/8" Pitch of rivets 4" Percentage of strength of joint { Plate 100% Rivets 100%  
Internal diameter 30" Working pressure by Rules Thickness of crown 1/2" No. and diameter of  
stays 5 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 { Tubes Steel castings  
Number of elements Material of tubes Internal diameter and thickness of tubes  
Material of headers Tensile strength 88 Thickness 1/2" 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 0.81 Are the safety valves fitted with easing gear Working pressure as per  
Rules Pressure to which the safety valves are adjusted 120 lb Hydraulic test pressure:  
tubes castings and after assembly in place 120 lb 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

The foregoing is a correct description,  
For David Brown & Co. Ltd. Manufacturer.  
Arch. Trierson

Dates of Survey { During progress of work in shops - - } See Accompanying  
while building { During erection on board vessel - - } machy Report  
Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)  
Total No. of visits 76

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

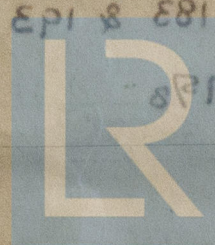
The materials and workmanship are good.  
The boilers have been constructed under special Survey in accordance with the Rules, satisfactorily fitted to the vessel and their safety valves adjusted under steam.

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

S. J. Davis.  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 23 APR 1929

Assigned "See Accompanying machy. Report."



© 2020

Lloyd's Register  
Foundation