

REPORT ON BOILERS.

No. 45594

Received at London Office

28 APR 1926

Date of writing Report 21 April 1926 When handed in at Local Office 26-4-1926 Port of Glasgow
No. in Reg. Book. Survey held at Glasgow. Date, First Survey 18-1-26 Last Survey 19-4-1926
on the Steam Tug "Chantice" (Number of Visits 26) Tons { Gross Net
Master Built at Leith By whom built Cun (John) & Smalls Ltd. No. When built
Engines made at Leith By whom made Gov & Bonhill Ltd Engine No. 247 When made 1926.
Boilers made at Glasgow. By whom made The York S.B. & F.C. (1921) Ltd Boiler No. 1865 When made 1926
Nominal Horse Power 127. Owners Crown Agents for the Colonies Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Co. of Scotland Ltd. (Letter for Record S)
Total Heating Surface of Boilers 1910 sq. ft. Is forced draught fitted Coal or Oil fired
No. and Description of Boilers One Cyl. Mult. Single End. Working Pressure 130 lb.
Tested by hydraulic pressure to 245 lb. Date of test 19.4.26 No. of Certificate 17103 Can each boiler be worked separately
Area of Firegrate in each Boiler 57.75 sq. ft. 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 14'-6" Length 10'-6" Shell plates: Material S. Tensile strength 28/32 T.
Thickness 7/8 Are the shell plates welded or flanged No. Description of riveting: circ. seams { end L.D.R. { inter. S.
long. seams DBS/TR. Diameter of rivet holes in { circ. seams 1 1/2 { long. seams 1 5/16 Pitch of rivets { 3/4 { 6/8
Percentage of strength of circ. end seams { plate 69.25 { rivets 45.3 Percentage of strength of circ. intermediate seam { plate 86.2 { rivets 88.3
Percentage of strength of longitudinal joint { plate 11/16 { rivets 13/16 combined 90.3 Working pressure of shell by Rules 131 lb.
Thickness of butt straps { outer 11/16 { inner 13/16 No. and Description of Furnaces in each Boiler 3. Dighton
Material S. Tensile strength 26/30 T. Smallest inside diameter 42 7/8"
Length of plain part { top 1 { bottom 1 Thickness of plates { crown 7/16 { bottom 7/16 Description of longitudinal joint Weld
Dimensions of stiffening rings on furnace or c.c. bottom 4 in. Working pressure of furnace by Rules 146 lb.
End plates in steam space: Material S. Tensile strength 26/30 T. Thickness 1" Pitch of stays 20 1/2 x 18 1/2"
How are stays secured D.N.W. Working pressure by Rules 131 lb.
Tube plates: Material { front S. { back S. Tensile strength { 26/30 T. { Thickness { 25/32" { 3/4"
Mean pitch of stay tubes in nests 14 1/4 x 9 1/2" Pitch across wide water spaces 14 1/2" Working pressure { front 137 lb. { back 130 lb.
Girders to combustion chamber tops: Material S. Tensile strength 28/32 T. Depth and thickness of girder
at centre 6 1/2 x 1 1/2" Length as per Rule 29 1/16" Distance apart 9 1/4" No. and pitch of stays
in each 2 @ 9 1/2" Working pressure by Rules 134 lb. Combustion chamber plates: Material S
Tensile strength 26/30 T. Thickness: Sides 19/32" Back 9/16" Top 19/32" Bottom 19/32"
Pitch of stays to ditto: Sides 9 1/2 x 9" Back 9 1/2 x 8 1/2" Top 9 1/2 x 9 1/4" Are stays fitted with nuts or riveted over Nuts
Working pressure by Rules 134 lb. Front plate at bottom: Material S. Tensile strength 26/30 T.
Thickness 25/32" Lower back plate: Material S. Tensile strength 26/30 T. Thickness 23/32"
Pitch of stays at wide water space 14 1/2 x 8 1/2" Are stays fitted with nuts or riveted over Nuts
Working Pressure 138 lb. Main stays: Material S. Tensile strength 28/32 T.
Diameter { At body of stay, 2 5/8" { Over threads 2 5/8" No. of threads per inch 8 Area supported by each stay 379 sq. in.
Working pressure by Rules 131 lb. Screw stays: Material S. Tensile strength 26/30 T.
Diameter { At turned off part, 1 1/2" { Over threads 1 1/2" No. of threads per inch 9 Area supported by each stay 87.87 sq. in.

Working pressure by Rules 144 lb Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 1 5/8"
No. of threads per inch 9 Area supported by each stay 104.12 sq. in. Working pressure by Rules 147 lb.
Tubes: Material I. External diameter { Plain 3 1/2" Thickness { 9 w.c. No. of threads per inch 9
Stay 3 1/2" Pitch of tubes 4 3/4" x 4 3/4" Working pressure by Rules 137 lb. Manhole compensation: Size of opening in shell plate 18 3/4" x 14 3/4" Section of compensating ring 15 1/4" x 7/8" No. of rivets and diameter of rivet holes 36 - 1 1/16"
Outer row rivet pitch at ends 7 5/8" Depth of flange if manhole flanged 3 1/4" Steam Dome: Material Iron
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 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 _____, castings _____ and after assembly in place _____ Are drain cocks or valves fitted to free the superheater from water where necessary _____

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

The foregoing is a correct description,
FOR THE FORTH SHIPBUILDING & ENGINEERING CO. (LINDSAY BURNET'S BOILER WORKS) Snclair Couper Manufacturer.

Dates of Survey { During progress of work in shops - - - 1926 Jan 18 21 22 24 Feb 2 4 8 10 12 Are the approved plans of boiler and superheater forwarded herewith Yes
while building { During erection on board vessel - - - 16 19 24 Mar 1 2 6 10 12 16 19 23 25 Apr (If not state date of approval.)
Total No. of visits 26
6 9 13 15 19

GENERAL REMARKS

(State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under special survey in accordance with the Rules. The materials and workmanship employed in its manufacture are sound and good. It will be fitted on board the Vessel at Louth.

Survey Fee ... £ 12 : 14 : 0

Travelling Expenses (if any) £ — :

When applied for, 21/4/1926

When received, 26/4/1926

W. Lane

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 27 APR 1926

Assigned

TRANSMIT TO LONDON

UES. 16 NOV 1926

See Lth. Report No 17032



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