

REPORT ON BOILERS.

No. 44612

- 7 APR 1934

Received at London Office

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Date of writing Report 5-4-1934 When handed in at Local Office 10 Port of HULL

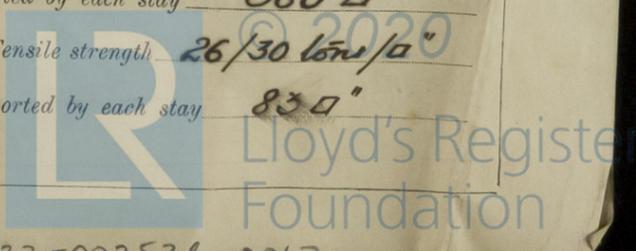
No. in Survey held at Hull Date, First Survey 24th Jan. 1934 Last Survey 26th March, 1934

on the Steel S.S. "BRONTES" (Number of Visits 10) Tons { Gross Net

Master _____ Built at Peterley By whom built Cook, Lellor & Gimmell Yard No. 590 When built 1934-5
Engines made at Hull By whom made Charles D. Holmes & Co. Ltd Engine No. 1455 When made 1934
Boilers made at do By whom made ditto Boiler No. 1455 When made 1934
Nominal Horse Power _____ Owners Hentikson & Co. Ltd Port belonging to Hull

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Iron Co. Ltd., Scunthorpe (Letter for Record "S")
Total Heating Surface of Boilers 1940 sq. ft. Is forced draught fitted No. Coal or Oil fired Coal
No. and Description of Boilers One, single ended, return tube Working Pressure 210 lbs/sq. in.
Tested by hydraulic pressure to 365 lbs/sq. in. Date of test 2-3-34 No. of Certificate 3084 Can each boiler be worked separately
Area of Firegrate in each Boiler 54 sq. ft. No. and Description of safety valves to each boiler Two - spring-loaded
Area of each set of valves per boiler { per Rule 10.8 as fitted 11.88 Pressure to which they are adjusted 210 lbs/sq. in. 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 1/4" 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 174" Length 10'-8" Shell plates: Material Steel Tensile strength 29.33 tons/sq. in.
Thickness 43/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams { end D.B. lap inter. ✓
long. seams T.R. - D.B.S. Diameter of rivet holes in { circ. seams 1 3/8" long. seams 1 3/8" Pitch of rivets { 3.75" 9.25"
Percentage of strength of circ. end seams { plate 63.2% rivets 46.7% Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓
Percentage of strength of longitudinal joint { plate 85.13% rivets 86.8% combined 87.6% Working pressure of shell by Rules 212 lbs/sq. in.
Thickness of butt straps { outer 33/32" inner 31/32" No. and Description of Furnaces in each Boiler 3 - plain
Material Steel Tensile strength 26/30 tons/sq. in. Smallest outside diameter 42.5"
Length of plain part { top 75" bottom 75" Thickness of plates { crown 53/64" bottom 53/64" Description of longitudinal joint Weld
Dimensions of stiffening rings on furnace or c.c. bottom ✓ Working pressure of furnace by Rules 212 lbs/sq. in.
End plates in steam space: Material Steel Tensile strength 26/30 tons/sq. in. Thickness 38/32" Pitch of stays 19 1/4" x 18 1/4"
How are stays secured Double nuts & washers Working pressure by Rules 212 lbs/sq. in.
Tube plates: Material { front Steel back " Tensile strength { 26/30 tons/sq. in. Thickness { 30/32" 28/32"
Mean pitch of stay tubes in nests 10.7" Pitch across wide water spaces 14" Working pressure { front 223 lbs/sq. in. back 212 lbs/sq. in.
Girders to combustion chamber tops: Material Steel Tensile strength 29/33 tons/sq. in. Depth and thickness of girder at centre 10" x 56/32" Length as per Rule 36.219' Distance apart 9' 4 1/2" No. and pitch of stays in each 3 @ 8" Working pressure by Rules 227 lbs/sq. in. Combustion chamber plates: Material Steel
Tensile strength 26/30 tons/sq. in. Thickness: Sides 24/32" Back 23/32" Top 23/32" Bottom 24/32"
Pitch of stays to ditto: Sides 10" x 8 1/2" Back 9 3/8" x 8 1/2" Top 9 1/2" x 8" Are stays fitted with nuts or riveted over Nuts
Working pressure by Rules 215 lbs/sq. in. Front plate at bottom: Material Steel Tensile strength 26/30 tons/sq. in.
Thickness 30/32" Lower back plate: Material Steel Tensile strength 26/30 tons/sq. in. Thickness 28/32"
Pitch of stays at wide water space 14 1/4" x 8 1/4" Are stays fitted with nuts or riveted over Nuts
Working Pressure 211 lbs/sq. in. Main stays: Material Steel Tensile strength 28/32 tons/sq. in.
Diameter { At body of stay, 3 1/4" or Over threads 3 1/4" No. of threads per inch 8 Area supported by each stay 360 sq. in.
Working pressure by Rules 220 lbs/sq. in. Screw stays: Material Steel Tensile strength 26/30 tons/sq. in.
Diameter { At turned off part, 1 3/4" or Over threads 1 3/4" No. of threads per inch 10 Area supported by each stay 83 sq. in.



Working pressure by Rules 212 lbs/sq in Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 1 7/8" x 2"
 No. of threads per inch 10 Area supported by each stay 98 sq in Working pressure by Rules 217 lbs
 Tubes: Material Iron External diameter ^{Plain} 3 1/2" Thickness ^{8. N.G.} 5/16" x 3/8" No. of threads per inch 9
 Pitch of tubes 4 3/4" Working pressure by Rules 215 lbs/sq in Manhole compensation: Size of opening in
 shell plate 16" x 12" Section of compensating ring 38.3/25" x 43/32" No. of rivets and diameter of rivet holes 58 @ 1 1/2"
 Outer row rivet pitch at ends 10.46 Depth of flange if manhole flanged 3/4" (dome manhole) Steam Dome: Material Steel-
 Tensile strength 26/30 tons/sq in Thickness of shell 24/32" Description of longitudinal joint S.R. - Lap-
 Diameter of rivet holes 1 1/2" Pitch of rivets 2.25" Percentage of strength of joint ^{Plate} 54%
 Internal diameter 33" Working pressure by Rules 230 lbs/sq in Thickness of crown 28/32" No. and diameter of
 stays 2 @ 2 1/4" Inner radius of crown ✓ Working pressure by Rules ✓
 How connected to shell Wetted. Size of doubling plate under dome 57.5" x 43/32" Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1 1/2" dia - 10.46" pitch-

Type of Superheater The Superheater Co. Ltd Manufacturers of ^{Tubes} ✓
 Number of elements 41 Material of tubes Steel ^{Steel castings} ✓ Internal diameter and thickness of tubes 17 1/2" x 3 7/16"
 Material of headers Forged Steel Tensile strength ✓ Thickness 15/8" Can the superheater be shut off and
 the boiler be worked separately Yes. Is a safety valve fitted to every part of the superheater which can be shut off from the boiler Yes.
 Area of each safety valve 1.76 sq in Are the safety valves fitted with easing gear Yes. Working pressure as per
 Rules Approved for 210 lbs/sq in Pressure to which the safety valves are adjusted 215 lbs/sq in Hydraulic test pressure:
 tubes 1000 lbs/sq in, castings 630 lbs/sq in and after assembly in place 420 lbs/sq in Are drain cocks or valves fitted
 to free the superheater from water where necessary Yes.
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with Yes.

The foregoing is a correct description,
 FOR CHARLES D. HOLMES & CO., LTD,
 Manufacturer.

Dates of Survey ^{During progress of} 1934 JAN. 24-30 Feb. 5-12 20-26 Are the approved plans of boiler and superheater forwarded herewith Yes.
^{work in shops - -} Mar. 2-16 (If not state date of approval.)
^{while} 1934 Mar. 22-26 Total No. of visits 10
^{building} board vessel - - -

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

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

See machinery report

Survey Fee ... £ ✓ When applied for, 19
 Travelling Expenses (if any) £ ✓ When received, 19

D. J. Johnson + John Mackinlay
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI 13 APR 1934

Assigned

See other Rpt
(Incl 44612)



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