

REPORT ON BOILERS.

Received at London Office - 7 DEC 1927

Date of writing Report 1927 When handed in at Local Office - 6 DEC. 1927 Port of Sunderland.

No. in Survey held at Sunderland. Date, First Survey ✓ Last Survey Decr. 5 1927
 Reg. Book. on the S.S. "MASIMPUR" (Number of Visits ✓) Gross 5586 Tons Net 3201

Master Built at Sunderland By whom built Mr James Langford & Co No. 698 When built 1927
 Engines made at Sunderland. By whom made George Clark Ltd Engine No. 1147 When made 1927
 Boilers made at do By whom made do Boiler No. 1147 When made 1927
 Nominal Horse Power 658. Owners Burmah Oil Co Ltd Port belonging to Sunderland.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Company of Scotland Limited. (Letter for Record 5.)
 Total Heating Surface of Boilers 7822 1/4 Is forced draught fitted yes Coal or Oil fired oil
 No. and Description of Boilers Three cyl mult S.F. 3SB Working Pressure 200
 Tested by hydraulic pressure to 350 Date of test 4/8/27 No. of Certificate 3948 Can each boiler be worked separately yes
 Area of Firegrate in each Boiler as per app plan No. and Description of safety valves to each boiler 2 1/2" high lift high lift
 Area of each set of valves per boiler as fitted 9.8" Pressure to which they are adjusted 205 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 8'-0" Is oil fuel carried in the double bottom under boilers ✓
 Smallest distance between shell of boiler and tank top plating 2'-0" Is the bottom of the boiler insulated yes
 Largest internal dia. of boilers 15'-0 1/4" Length 11'-6" Shell plates: Material STEEL Tensile strength 28 to 32 TONS
 Thickness 1 3/8" Are the shell plates welded or flanged No Description of riveting: circ. seams end JRL
 long. seams TROBS Diameter of rivet holes in 1 5/8" FRONT 1 3/8" BACK Pitch of rivets 3 1/8" FRONT & 4 1/8" BACK
 Percentage of strength of circ. end seams plate 65.6 F 66.8 F Percentage of strength of circ. intermediate seam plate -
rivets 42.6 B 43.2 B rivets -
 Percentage of strength of longitudinal joint plate 85.13 Working pressure of shell by Rules 201 lbs
rivets 90.15 combined 88.2
 Thickness of butt straps outer 1 7/8" No. and Description of Furnaces in each Boiler 4 DEIGHTON'S
inner 1 1/8" Tensile strength 26 TO 30 TONS Smallest outside diameter 36 1/4"
 Material STEEL Thickness of plates crown 7 1/2" Description of longitudinal joint WELDED
bottom 3 1/2" Working pressure of furnace by Rules 209
 Dimensions of stiffening rings on furnace or c.c. bottom 209
 End plates in steam space: Material STEEL Tensile strength 26 TO 30 TONS Thickness 1 1/2" Pitch of stays 25" x 20"
 How are stays secured DN & W. Working pressure by Rules 204 LBS.
 Tube plates: Material STEEL Tensile strength 26 TO 30 TONS Thickness 1" F
back - 3/2" B WNS 210
 Mean pitch of stay tubes in nests 8.25" Pitch across wide water spaces 13 1/2" x 7 1/4" Working pressure front 500
back 288
 Girders to combustion chamber tops: Material STEEL Tensile strength 28 TO 32 TONS Depth and thickness of girder
 at centre 8 3/8" x 1 3/4" Length as per Rule 3 1/2" Distance apart 9" wings & 10" centre No. and pitch of stays
 in each 2 @ 9 1/2" Working pressure by Rules 208 LBS Combustion chamber plates: Material STEEL
 Tensile strength 26 TO 30 TONS Thickness: Sides 3/2" Back 28" Top 28" WINGS 3" C Bottom 25"
 Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" Back 9 1/2" x 9 1/4" Top 9" x 9 1/2" & 10" Are stays fitted with nuts or riveted over NUTS
 Working pressure by Rules 205" B CENTRE Front plate at bottom: Material STEEL Tensile strength 26 TO 30 TONS
 Thickness 1" Lower back plate: Material STEEL Tensile strength 26 TO 30 TONS Thickness 1"
 Pitch of stays at wide water space 15" x 9 1/4" Are stays fitted with nuts or riveted over NUTS
 Working Pressure 256 lbs Main stays: Material STEEL Tensile strength 28 TO 32 TONS
 Diameter At body of stay, 3 3/8" & 3 1/4" No. of threads per inch 6 Area supported by each stay 483 sq"
or 3 3/4" & 3 5/8"
 Working pressure by Rules 206 LBS Screw stays: Material STEEL Tensile strength 26 TO 30 TONS
 Diameter At turned off part, 1 3/4" No. of threads per inch 9 Area supported by each stay 90.2 sq"
or

Working pressure by Rules 202 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads 2" ✓

No. of threads per inch 9 Area supported by each stay 112" Working pressure by Rules 219 lbs

Tubes: Material Iron ✓ External diameter { Plain 2 1/2" ✓ Stay 2 1/2" ✓ Thickness { 9/16" ✓ 5/8" ✓ 3/8" ✓ 7/16" ✓ No. of threads per inch 9

Pitch of tubes 3 5/8" x 3 3/4" ✓ Working pressure by Rules 230 lbs Manhole compensation: Size of opening in shell plate 16" x 12" ✓ Section of compensating ring 8 1/2" x 1 3/8" ✓ No. of rivets and diameter of rivet holes 30 @ 1 3/8"

Outer row rivet pitch at ends 9 1/4" ✓ Depth of flange if manhole flanged ✓ 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 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 ✓

Area of each safety valve ✓ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler ✓

Rules ✓ Pressure to which the safety valves are adjusted ✓ Working pressure as per tubes ✓ and after assembly in place ✓ Hydraulic test pressure: 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 Yes ✓

The foregoing is a correct description,
 FOR GEORGE CLARK LIMITED W. B. Quinn Manufacturer.

Dates of Survey { During progress of work in shops - - - } Please see Mech. Report Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

{ During erection on board vessel - - - }

Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special Survey & the materials & workmanship are good. On completion they were tested by hydraulic pressure found sound & tight, & afterwards satisfactorily fitted in the vessel. The boilers are fitted for burning oil fuel F.P. above 150°F & Section 35 of the Rules fully complied with. For notation see machinery report

Survey Fee £ : ✓ : } When applied for, 192

Travelling Expenses (if any) £ : ✓ : } When received, 192

W. B. Quinn
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES, 13 DEC 1927

Assigned See Mch. rpt. attached

