

REPORT ON BOILERS.

No. 127270

Received at London Office. 14 JUL 1948

Date of writing Report.....19..... When handed in at Local Office.....19..... Port of Liverpool

No. in Reg. Book. 37021 Survey held at LYTHAM. Date, First Survey 28/12/45 Last Survey 3/5/48

on the SS. HAZELFIELD. (Number of Visits 44) Gross 692 Tons Net 324

Master..... Built at LYTHAM By whom built LYTHAM S.B. & ENG. CO. Yard No. 889 When built 1948

Engines made at LYTHAM By whom made Do Engine No. 559 When made 1948

Boilers made at Do By whom made Do Boiler No. 560 When made 1948

Nominal Horse Power 146 Owners ZILLAH SHIPPING & CARRYING CO. LD. Port belonging to LIVERPOOL

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel CONVILLES LTD. CONSETT IRON CO. LD. (Letter for Record SB (S))

Total Heating Surface of Boilers 1753 Is forced draught fitted Yes. Coal or Oil fired Oil

No. and Description of Boilers 1 MARINE SCOTCH TYPE. Working Pressure 200 lbs/sq. in.

Tested by hydraulic pressure to 350 lbs/sq. in. Date of test 3-10-47 No. of Certificate 2719. Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 40.0 No. and Description of safety valves to each boiler One B.O.T. Duplex Spring Loaded.

Area of each set of valves per boiler per Rule 10.2 as fitted 11.88 Pressure to which they are adjusted 200 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 No DB.

Smallest distance between boilers or uptakes and bunkers or woodwork Well Clear Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 9" Is the bottom of the boiler insulated No.

Largest internal dia. of boilers 13' 7 1/8" Length 11'-0" Shell plates: Material STEEL Tensile strength 32/36

Thickness 1 1/16" Are the shell plates welded or flanged No Description of riveting: circ. seams DR. inter. 39/16

long. seams T.R. DB. Diameter of rivet holes in circ. seams 13/16 long. seams 1 3/16 Pitch of rivets 7 7/8"

Percentage of strength of circ. end seams plate 66.7 rivets 42.1 Percentage of strength of circ. intermediate seam plate 84.92 rivets 89.28

Percentage of strength of longitudinal joint plates 87.69 combined 87.69 Working pressure of shell by Rules 201 lbs/sq. in.

Thickness of butt straps outer 1 1/16 inner 1 5/16 No. and Description of Furnaces in each Boiler 3. DEIGHTON SECTION.

Material STEEL Tensile strength 26/30 Smallest outside diameter 2'-11"

Length of plain part top 8 1/2 bottom 8 1/2 Thickness of plates crown 1/2 bottom 1/2 Description of longitudinal joint WELDED.

Dimensions of stiffening rings on furnace or c.c. bottom Yes Working pressure of furnace by Rules 205.7

End plates in steam space: Material STEEL Tensile strength 26/30 Thickness 1 3/32 Pitch of stays 18 1/4 x 17 1/2

How are stays secured DOUBLE NUTS & WASHERS. Working pressure by Rules 204.

Tube plates: Material front STEEL back " Tensile strength 26/30 Thickness 7/8" 23/32

Mean pitch of stay tubes in nests 7 1/2 Pitch across wide water spaces 14" Working pressure front 208 back 327

Girders to combustion chamber tops: Material STEEL Tensile strength 28/32 Depth and thickness of girder at centre 7 3/4 x 27 3/32 Length as per Rule 30 3/64 Distance apart 9 1/2 No. and pitch of stays in each 2. 9 1/2 Working pressure by Rules 204 Combustion chamber plates: Material STEEL Tensile strength 26/30 Thickness 7/8

Working pressure by Rules 235 Front plate at bottom: Material STEEL Tensile strength 26/30 Thickness 7/8

Lower back plate: Material STEEL Tensile strength 26/30 Thickness 7/8

Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over NUTS.

Working pressure 219 Main stays: Material STEEL Tensile strength 28/32

Diameter At body of stay 2 3/4 Over threads 3 No. of threads per inch 6 Area supported by each stay 324 sq. in. Approx.

Working pressure by Rules 202 Screw stays: Material STEEL Tensile strength 28/32

Diameter At turned off part 1 3/4 Over threads 1 3/4 No. of threads per inch 9 Area supported by each stay 85.5 sq. in.

Working pressure by Rules 212. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 178 or Over threads...
No. of threads per inch 9 Area supported by each stay 84.5 sq. Approx. Working pressure by Rules 252
Tubes: Material STEEL External diameter { Plain 2 1/2 Stay 2 1/2 Thickness { 3/16 3/8 7/16 No. of threads per inch 9
Pitch of tubes 3 3/4 Working pressure by Rules 300 Manhole compensation: Size of opening in
shell plate 16" x 20" Section of compensating ring 27 1/4 x 31 1/4 x 1 1/16 Ew. No. of rivets and diameter of rivet holes 36 @ 1 3/16
Outer row rivet pitch at ends 8" Depth of flange if manhole flanged 3" 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 NONE Manufacturers of Tubes Steel forgings 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 forgings and 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 22 inclusive for boilers been complied with Yes

The foregoing is a correct description,
THE LYTHAM BUILDING AND ENGINEERING COMPANY LIMITED Manufacturer.

Dates of Survey while building { During progress of work in shops - - Are the approved plans of boiler and superheater forwarded herewith Yes (If not state date of approval.)
During erection on board vessel - - 21-11-47 etc Total No. of visits

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey to approved plans in accordance with the Society's Rules. It is fitted on board, tried under working conditions & found satisfactory.

E. F. Butler.

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

E. F. Butler for
Engineer Surveyor to Lloyd's Register of Shipping.
J. A. Gidley & Self.

Committee's Minute LIVERPOOL 13 JUL 1948
Assigned See Minute on Liverpool J.C. Mack Rep.