

REPORT ON BOILERS.

No. 23534

Received at London Office.

Date of writing Report 29th July 1947 When handed in at Local Office 30th July 1947 Port of Greenock
 No. in Survey held at Port Glasgow Date, First Survey 5-6-47 Last Survey 24-7-1947
 eg. Book. 85418 on the S/S "YEWFOREST" (ex Empire Yenchueh-46) (Number of Visits 15) Tons Gross 1047
Net 569
 Built at Aberdeen By whom built J. LEWIS & SONS LTD Yard No. 1945
 Engines made at Aberdeen By whom made J. LEWIS & SONS LTD Engine No. 1945
 Boilers made at Paisley By whom made A.F. CRAIG & CO LTD Boiler No. 1945
 Nominal Horse Power 129.4 Owners JOHN STEWART & CO SHIPPING LTD Port belonging to GLASGOW

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel 1953 aft (Letter for Record YES)
 Total Heating Surface of Boilers ONE SINGLE END MULTITUBULAR CYLINDRICAL Coal or Oil fired OIL
 No. and Description of Boilers ONE SINGLE END MULTITUBULAR CYLINDRICAL Working Pressure 200 lbs
 Tested by hydraulic pressure to 200 lbs Date of test 200 lbs No. of Certificate TWO 2" COLGURN H.L. TYPE
 Area of Firegrate in each Boiler 200 lbs No. and Description of safety valves to each boiler YES
 Area of each set of valves per boiler 6.283 sq ft Pressure to which they are adjusted 200 lbs Are they fitted with easing gear YES
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler YES
 Smallest distance between boilers or uptakes and bunkers or 6'-0" Is oil fuel carried in the double bottom under boilers No
 Smallest distance between shell of boiler and tank top plating Boiler over open bilge Is the bottom of the boiler insulated YES
 Largest internal dia. of boilers 14'-6 7/16" Length 10'-5 3/16" Shell plates: Material STEEL Tensile strength 29/32 TONS
 Thickness 1 9/32" Are the shell plates welded or flanged No Description of riveting: circ. seams DOUBLE
 Long. seams DOUBLE RIVETED D.B.S. Diameter of rivet holes in 1 3/8" Pitch of rivets 3.83"
 Percentage of strength of circ. end seams 64.1 Percentage of strength of circ. intermediate seam 48.0
 Percentage of strength of longitudinal joint 85.2 Working pressure of shell by Rules 92.2
 Thickness of butt straps 3 1/32" No. and Description of Furnaces in each Boiler THREE OF DEIGHTON SECTION
 Material STEEL Tensile strength 26/30 TONS Smallest outside diameter 3'-7 3/16"
 Length of plain part 1 3/32" Thickness of plates 1 9/32" Description of longitudinal joint WELDED
 Dimensions of stiffening rings on furnace or c.c. bottom 26/30 TONS Working pressure of furnace by Rules 1 1/4"
 End plates in steam space: Material STEEL Tensile strength 26/30 TONS Thickness 1 1/4" Pitch of stays 19 1/4" x 19
 How are stays secured NUTS BACK & FRONT Working pressure by Rules 29/32"
 Tube plates: Material STEEL Tensile strength 26/30 TONS Thickness 25/32"
 Mean pitch of stay tubes in nests 10.22" Pitch across wide water spaces 1'-2 1/4" Working pressure 28/32 TONS
 Girders to combustion chamber tops: Material STEEL Tensile strength 28/32 TONS Depth and thickness of girder 9 1/2"
 at centre 8 3/4" x 7 1/8" Length as per Rule 2'-4 1/2" Distance apart 9 1/2" No. and pitch of stays STEEL
 in each 3 AT 7 1/2" Working pressure by Rules 23/32" Combustion chamber plates: Material STEEL
 Tensile strength 26/30 TONS Thickness: Sides 23/32" Back 1 1/16" Top 23/32" Bottom 23/32"
 Pitch of stays to ditto: Sides 10 1/4" x 8 3/4" Back 8 1/2" x 9 1/4" Top 7 1/2" x 9 1/2" Are stays fitted with nuts or riveted over NUTS
 Working pressure by Rules 29/32" Front plate at bottom: Material STEEL Tensile strength 26/30 TONS Thickness 13/16"
 Thickness 29/32" Lower back plate: Material STEEL Tensile strength 26/30 TONS Thickness 13/16"
 Pitch of stays at wide water space 14" x 8 1/4" Are stays fitted with nuts or riveted over NUTS
 Working pressure 29/32" Main stays: Material STEEL Tensile strength 28/32 TONS
 Diameter 3" No. of threads per inch 6 Area supported by each stay 26/30 TONS
 Working pressure by Rules 29/32" Screw stays: Material STEEL Tensile strength 26/30 TONS
 Diameter 1 1/2" No. of threads per inch 9 Area supported by each stay 26/30 TONS

Working pressure by Rules..... Are the stays drilled at the outer ends..... No ✓ Margin stays: Diameter { At turned off part..... ✓ or Over threads..... 1 7/8" 1 2" 2" ✓ CONNECTION ✓

No. of threads per inch..... 9 ✓ Area supported by each stay..... Working pressure by Rules.....

Tubes: Material..... HOT ROLLED WELOLESS STEEL External diameter { Plain..... 3 1/4" ✓ Stay..... 3 1/4" ✓ Thickness { 8 W.G. ✓ INNER 1/4" MARGIN 5/16" No. of threads per inch..... 9 ✓ CORNERS 3/8" ✓

Pitch of tubes..... 4 1/2" x 4 3/8" ✓ Working pressure by Rules..... Manhole compensation: Size of opening shell plate..... 16" x 12" ✓ Section of compensating ring..... 2' 10 1/2" x 2' 7" x 1 9/32" ✓ No. of rivets and diameter of rivet holes..... 36 Holes 1 3/8" ✓

Outer row rivet pitch at ends..... 9 5/16" ✓ Depth of flange if manhole flanged..... M. Neil Type 2004 ✓ 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 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 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 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 Rules..... Pressure to which the safety valves are adjusted..... Hydraulic test pressure tubes..... forgings and castings..... and after assembly in place..... Are drain cock 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,
..... Manufacturer.....

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

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)..... 'NEWFOREST' (ex 'EMPIRE FENCHURCH') Built to B.C.C.
This Boiler has been built under the Survey of the British Corporation Register
Please refer to Machinery Report for Recommendation
The foregoing particulars are submitted for the information of the Committee

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

A. Y. Sinclair
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute..... GLASGOW 26 AUG 1947
Assigned..... SEE ACCOMPANYING MACHINERY REPORT.....