

REPORT ON BOILERS.

No. 92378

PLEASE RETURN THIS REPORT
WITH YOUR FIRST ENTRY.

Date of writing Report 12.4.1961 When handed in at Local Office 18.4.1961 Port of GLASGOW
 Received at London Office
 No. in Reg. Book Survey held at Glasgow Date, First Survey 25.10.60 Last Survey 29.3.1961
 on the (Number of Visits 21) Tons {Gross Net
 Built at By whom built Yard No. When built
 Engines made at Newbury, Berks By whom made Plenty & Sons Ltd. Engine No. 2909 When made
 Boilers made at Glasgow By whom made D. Rowan & Co. Ltd. Boiler No. B623 When made 1961
 as per Rule Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd.
 Total Heating Surface of Boilers 2908 sq. ft. Of Superheaters -
 Total for Register Book Is forced draught fitted Yes Coal or Oil fired Oil
 No. and Description of Boilers One Marine Horizontal Return Tube Working Pressure 200 lb/sq.
 Tested by hydraulic pressure to 350 lb/sq. Date of test 28.3.61 No. of Certificate 25856 Can each boiler be worked separately -
 Area of Firegrate in each Boiler - No. and Description of safety valves to each boiler One - 2 1/2" Double Spring Loaded
 Area of each set of valves per boiler {per Rule 4.23 as fitted 4.9087 Pressure to which they are adjusted Improved High Lift
 In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Are they fitted with easing gear Yes
 Smallest distance between boilers or uptakes and bunkers or woodwork Is oil fuel carried in the double bottom under boilers.
 Actual smallest distance between boilers or uptakes and bunkers or woodwork Is the bottom of the boiler insulated
 Largest internal dia. of boilers 15'6" Length 11'6" Shell plates: Material Steel Tensile strength 29/33 Tons
 Fusion welded, state name of welding Firm Have all the requirements of the Rules for Class I vessels
 In compliance with Thickness 1.3/8" Are the shell plates welded or flanged Description of riveting: circ. seams {end Double riveting
 Rivet seams T.R.D.B.S. Diameter of rivet holes in {circ. seams 1.5/16" front 1.7/16" back 3.423" front 3.924" back
 Percentage of strength of circ. end seams {plate 61.66 front 63.39 back Pitch of rivets {9.11/16"
 Rivets 45.59 front 47.69 back Percentage of strength of circ. intermediate seam {plate rivets
 Percentage of strength of longitudinal joint {plate rivets combined 88.42
 Thickness of butt straps {outer 1.3/64" inner 1.11/64" No. and Description of Furnaces in each Boiler 3 @ 3'9" Int. dia. Daigton Section
 Material Steel Tensile strength 26/30 Tons Smallest outside diameter 3'10.5/16" Gourley-Stephen End
 Thickness of plain part {top 3.7/8" bottom 3.7/8" Thickness of plates 21/32" Description of longitudinal joint Welded
 Dimensions of stiffening rings on furnace or c.c. bottom
 Shell plates in steam space: Material Steel Tensile strength 26/30 Tons Thickness 1.11/32" Pitch of stays 20.3/8" x 19.1/2"
 Are stays secured Double Nuts
 Shell plates: Material {front Steel Tensile strength 26/30 Tons Thickness 7/8"
 {back Steel Tensile strength 26/30 Tons Thickness 3/4"
 Pitch of stay tubes in nests 9.7/8" Pitch across wide water spaces 13.3/4" x 7.3/4"
 Stays to combustion chamber tops: Material Steel Tensile strength 28/32 Tons Depth and thickness of girder
 Centre 12.5/8" x 1.1/4" Length as per Rule 2'10.9/16" Distance apart 9.3/8" + 8" Centre No. and pitch of stays
 Welded Girder Combustion chamber plates: Material Steel
 Tensile strength 26/30 Thickness: Sides 45/64 Back 11/16" Top 45/64" Bottom 25/32"
 of stays to ditto: Sides 9.1/4" x 9" Back 9.1/2" x 8" Top - Are stays fitted with nuts or riveted over Welded
 plate at bottom: Material Steel Tensile strength 26/30 Tons
 Thickness 7/8" Lower back plate: Material Steel Tensile strength 26/30 Tons Thickness 51/64"
 of stays at wide water space 13.1/2" x 8" Are stays fitted with nuts or riveted over Welded
 Stays: Material Steel Tensile strength 28/32 Tons
 At body of stay 3 1/4" x 3 1/4" x 2 1/4" No. of threads per inch 6
 Over threads 3 1/4" x 3 1/4" x 2 1/4"
 Stays: Material steel Tensile strength 26/30 Tons
 At turned off part 1 5/8" x 1 7/8" x 2" No. of threads per inch 9
 Over threads 1 5/8" x 1 7/8" x 2"

Are the stays drilled at the outer ends. No Margin stays: Diameter { At turned off part, 1 5/8" 1 7/8" 2"
or 1 5/8" 1 7/8" 2"
Over threads. 1 5/8" 1 7/8" 2"
No. of threads per inch 9
Tubes: Material Steel External diameter { Plain 2 3/4" 2 3/4" 2 3/4"
Stay 2 3/4" 2 3/4" 2 3/4"
Thickness { 5/16" 5/16" 3/8" No. of threads per inch 9
Pitch of tubes 4" x 3 7/8" Manhole compensation: Size of opening
shell plate 19 1/2" x 15 1/2" Section of compensating ring 17 5/8" x 1 3/8" No. of rivets and diameter of rivet holes 32 rivets, 1 7/8"
Outer row rivet pitch at ends 9 7/8" Depth of flange if manhole flanged 3" 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 Thickness of crown No. and diameter
stays Inner radius of crown
How connected to shell Size of doubling plate under dome Diameter of rivet holes and
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
Pressure to which the safety valves are adjusted Hydraulic test pressure
tubes forgings and castings and after assembly in place Are drain cocks
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 so far as applicable

The foregoing is a correct description,
Geo. J. Fingle Manufacturer

Dates of Survey while building { During progress of work in shops - - 1960 Oct. 25 Dec. 13, 20. 1961 Jan. 11, 16, 19
During erection on board vessel - - - Feb. 1, 3, 9, 13, 20, 23 Mar. 1, 7, 14, 16, 17, 20, 22, 27, 28
Are the approved plans of boiler and superheater forwarded herewith Yes
(If not state date of approval.) DR. 53893, 10.8.
Total No. of visits 21

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.)

The boiler has been constructed under Special Survey in accordance with the Rules,
approved plans and Secretary's letters, the materials and workmanship being found good.
The boiler will be eligible, in my opinion, to be classed in the R.B. with the main
machinery when satisfactorily installed and tested in the vessel.

Survey Fee ... £ 45. 0 : 0 } When applied for, 20 APR 1961
Travelling Expenses (if any) £ 1 : 1 : 0 } When received, 19

Date entry made in RFB. 18/4/61
Surveyor's Initials. JM

Committee's Minute. GLASGOW 25 APR 1961

Assigned Deferred for completion

John Macleod
Engineer Surveyor to Lloyd's Register of Ship
(J. MACLEOD)