

REPORT ON BOILERS.

No. 62642
JUL 31 1940

Received at London Office

Writing Report 19 When handed in at Local Office 27. 7. 1940 Port of GLASGOW
 Date, First Survey 1939 Oct. 3rd Last Survey 27th July 1940
 (Number of Visits) Gross Tons }
 Net Tons }

By whom built Wm. Hamilton & Co. Ltd. Yard No 439 When built 1940
 By whom made David Brown & Co. Ltd. Engine No. 1040 When made 1940
 By whom made -do- Boiler No. 1040 When made 1940
 Owners Cornwall Ship Management Co. Ltd. Port belonging to Lucas

TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles, Ltd. (Letter for Record S)
 Heating Surface of Boilers 1703 sq ft Is forced draught fitted Yes Coal or Oil fired Oil
 Description of Boilers One single-ended Working Pressure 225 lb.
 by hydraulic pressure to 388 lb. Date of test 20-3-40 No. of Certificate 20539 Can each boiler be worked separately Yes
 of Firegrate in each Boiler — No. and Description of safety valves to each boiler 1 - 1 3/4" I.H.L. draft
 of each set of valves per boiler (per Rule 4.4.0" as fitted 4.8.0") Pressure to which they are adjusted 225 lb. Are they fitted with easing gear Yes
 of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes
 Is oil fuel carried in the double bottom under boilers Yes
 Is the bottom of the boiler insulated Yes
 External dia. of boilers 12'-6" Length 11'-6" Shell plates: Material steel Tensile strength 29/35 tons
 Thickness 1 7/32" Are the shell plates welded or flanged NO Description of riveting: circ. seams end double
 Diameter of rivet holes in (circ. seams B 1 9/16" F 1 9/16" inter. B 3.594" F 3.159" long. seams 1 9/16" Pitch of rivets 8 9/8"
 Percentage of strength of circ. intermediate seam (plate 85.2 rivets 93.9 combined 89)
 No. and Description of Furnaces in each Boiler 2 Reighton
 Tensile strength 26/30 tons Smallest outside diameter 3'-7 1/32"
 Thickness of plates (crown 4 3/64" bottom 4 3/64") Description of longitudinal joint welded
 plates in steam space: Material steel Tensile strength 26/30 tons Thickness 1 3/32" Pitch of stays 1 1/4" x 17"
 plates: Material (front steel back steel) Tensile strength 26/30 tons Thickness (front 29/32" back 25/32")
 pitch of stay tubes in nests 9.25" Pitch across wide water spaces 13 1/2"
 plates to combustion chamber tops: Material steel Tensile strength 28/32 tons Depth and thickness of girder 20 8 5/8" x 7/8"
 Length as per Rule 2'-7 9/16" Distance apart 9" No. and pitch of stays 3 @ 7 1/2"
 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 2 1/32" Top 1 1/16" Bottom 1 3/16"
 of stays to ditto: Sides 7 1/2" x 9" Back 8 1/8" x 8 1/4" Top 7 1/2" x 9" Are stays fitted with nuts or riveted over Nuts
 plate at bottom: Material steel Tensile strength 26/30 tons Thickness 29/32"
 Lower back plate: Material steel Tensile strength 26/30 tons Thickness 29/32"
 of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over Nuts
 stays: Material steel Tensile strength 28/32 tons
 At body of stay, 2 1/2" + 2 3/4" No. of threads per inch 6
 At turned off part, 1 5/8" No. of threads per inch 9

W192-0114

Are the stays drilled at the outer ends NO Margin stays: Diameter { At turned off part, 1 7/8" or Over threads

No. of threads per inch 9

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

Pitch of tubes 3 5/8" x 3 3/4" Manhole compensation: Size of opening

shell plate 15 1/2" x 19 1/2" Section of compensating ring 9 1/2" x 1 7/8" No. of rivets and diameter of rivet holes 34 @ 1 5/16"

Outer row rivet pitch at ends 8 7/8" 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 _____ Thickness of crown _____ No. and diameter of stays _____ Inner radius of crown _____

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 Internal diameter and thickness of tubes

Number of elements _____ Material of tubes _____ 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 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,
 For David Rowan & Co. Ltd.
 Arch. H. Grierson, Manufacture

Dates of Survey { During progress of work in shops - - - Are the approved plans of boiler and superheater forwarded herewith 24/7/40 (If not state date of approval.)
 while building { During erection on board vessel - - - **SEE ACCOMPANYING MACHINERY REPORT.**

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 in accordance with the Rules and approved plans, and the materials and workmanship are good. It has been satisfactorily installed in the vessel and the safety valves have been adjusted under steam to the working pressure.

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27/7/40

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

A. J. Brown
 Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute **GLASGOW 30 JUL 1940**

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**

