

REPORT ON BOILERS.

No. 22560.

Received at London Office 27 JAN 1944

Date of writing Report 17th JAN 1944 When handed in at Local Office 20th JAN. 1944. Port of GREENOCK

No. in Reg. Book 39937 on the Survey held at GREENOCK Date, First Survey 30th JUNE 1943. Last Survey 11th JAN. 1944.
 M.V. "TREVANION" (Number of Visits 8.) Tons { Gross 7375.27 Net 5133.54
 Built at PORT GLASGOW By whom built LITHGOWS LTD Yard No. 985 When built 1944
 Engines made at GLASGOW By whom made HARLAND & WOLFF LTD Engine No. 8462/2 When made 1943
 Boilers made at GREENOCK By whom made JOHN G KINCAID & CO LTD Boiler No. K153 When made 1944
 Nominal Horse Power 490. Owners HAIN STEAMSHIP CO LTD Port belonging to LONDON

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record (S) ✓)
 Total Heating Surface of Boilers 1800⁴ Is forced draught fitted Yes Coal or Oil fired Oil
 No. and Description of Boilers 1 Cylindrical SE Working Pressure 150 lbs
 Tested by hydraulic pressure to 275 lbs Date of test 7th Aug 43 No. of Certificate 2346 2337 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 1/2" double opening S.H.L.
 Area of each set of valves per boiler { per Rule 6.8" as fitted 7.96 Pressure to which they are adjusted 150 lbs 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 on uptakes and bunkers or woodwork 12" Is oil fuel carried in the double bottom under boilers Yes
 Smallest distance between shell of boiler and tank top plating 2'-8" Is the bottom of the boiler insulated Yes
 Largest internal dia. of boilers 12'-11 1/8" Length 11'-6" Shell plates: Material S Tensile strength 29 1/3 tons
 Thickness 7/8" Are the shell plates welded or flanged No Description of riveting: circ. seams { end DR inter. ✓
 long. seams T.R.O.B.S. Diameter of rivet holes in { circ. seams 15/16" long. seams 15/16" Pitch of rivets { 2-9" 6-75"
 Percentage of strength of circ. end seams { plate 67.7 rivets 43.2 Percentage of strength of circ. intermediate seam { plate ✓ rivets
 Percentage of strength of longitudinal joint { plate 86.1 rivets 86.6 combined 89.6
 Thickness of butt straps { outer 2 1/32" inner 25/32" No. and Description of Furnaces in each Boiler Three Deighton corrugated ✓
 Material S Tensile strength 24/30 tons Smallest outside diameter 3-1 1/8"
 Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 13/32" bottom 13/32" Description of longitudinal joint Weld
 Dimensions of stiffening rings on furnace or c.c. bottom ✓
 End plates in steam space: Material S Tensile strength 24/30 tons Thickness 1 1/32" Pitch of stays 20 x 20" ✓
 How are stays secured D.N. & loose washers ✓
 Tube plates: Material { front S back S Tensile strength { 24/30 tons Thickness { 25/32" 23/32" 32/32"
 Mean pitch of stay tubes in nests 9.81" Pitch across wide water spaces 1'-2"
 Girders to combustion chamber tops: Material S Tensile strength 29/33 tons Depth and thickness of girder
 at centre 8 1/4" x 1 1/2" Length as per Rule 2'-7 3/32" Distance apart 10 1/2" No. and pitch of stays
 in each Three @ 7 3/4" Combustion chamber plates: Material S
 Tensile strength 24/30 tons Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"
 Pitch of stays to ditto: Sides 10 x 8 1/2" Back 10 x 8 1/2" Top 10 1/2 x 7 3/4" Are stays fitted with nuts or riveted over Nuts inside
 Front plate at bottom: Material S Tensile strength 24/30 tons
 Thickness 25/32" Lower back plate: Material S Tensile strength 24/30 tons Thickness 13/16"
 Pitch of stays at wide water space 15 x 8 1/2" Are stays fitted with nuts or riveted over Nuts ✓
 Main stays: Material S Tensile strength 28/32 tons
 Diameter { At body of stay, 3 3/8" or Over threads 3 7/8" No. of threads per inch 6
 Screw stays: Material S Tensile strength 24/30 tons
 Diameter { At turned off part, or Over threads 1 5/8 x 1 1/2 No. of threads per inch 9

Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 3/4" or Over threads

No. of threads per inch 9

Tubes: Material S External diameter { Plain 3" Stay 3" Thickness { 9/16" 5/16" No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 1/4" Manhole compensation: Size of opening in END PLATE

Section of compensating ring 16 x 12 No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends 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 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

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

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

The foregoing is a correct description,
For JOHN G. KINCAID & CO. LIMITED.
Director Manufacturer.

Dates of Survey { During progress of work in shops - - (1943) JUNE 30. JULY 21. 23. AUG. 8. 9. Are the approved plans of boiler and superheater forwarded herewith Yes (If not state date of approval.)

while building { During erection on board vessel - - - DEC. 13. 28. (1944) JAN. 11. Total No. of visits 8

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 constructed in accordance with the Rules and approved plans. The materials & workmanship are sound & good. It has been effectively installed in the vessel & its safety valves adjusted under steam to a safe working pressure. For recommendations please see Machinery report.

Survey Fee ... £ : When applied for, 19

Travelling Expenses (if any) £ : When received, 19

See machinery report

Charles H. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 25 JAN 1944

Assigned



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Foundation