

REPORT ON BOILERS.

No. 22688

Received at London Office 18 MAY 1944

Date of writing Report 11th MAY 1944. When handed in at Local Office 12th MAY 1944. Port of GREENOCK

No. in Survey held at GREENOCK Date, First Survey 22nd APRIL 1943. Last Survey 5th May 1944
 952 on the SINGLE SC MV. TREVIDER (Number of Visits)
 Tons { Gross 7376
 Net 5733
 Built at Port Glasgow By whom built LITHGOWS LTD Yard No. 996 When built 1944
 Engines made at G By whom made HARLAND & WOLFF LTD Engine No. 8462/1 When made 1944
 Boilers made at GREENOCK By whom made JOHN G. KINCAID & CO LTD Boiler No. 4157 When made 1944
 Nominal Horse Power 490 Owners HAIN STEAMSHIP CO LTD Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S
 Total Heating Surface of Boilers 1800^{ft} Is forced draught fitted Yes Coal or Oil fired
 No. and Description of Boilers 1 Cylindrical Working Pressure 150 lb
 Tested by hydraulic pressure to 275 Date of test 2-8-43 No. of Certificate 2344 Can each boiler be worked separately Yes
 Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 1/4" double spring 1HL
 Area of each set of valves per boiler { per Rule 6.8"
 as fitted 7.96" Pressure to which they are adjusted 150 lb 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 or 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 29/33 tons
 Thickness 7/8" Are the shell plates welded or flanged No Description of riveting: circ. seams { end 2R
 inter.
 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 21/32"
 inner 25/32"
 No. and Description of Furnaces in each Boiler Three Dighton corrugated
 Material S Tensile strength 26/30 tons Smallest outside diameter 3'-1 13/16"
 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 26/30 tons Thickness 1 1/32" Pitch of stays 20" x 20" end row
 How are stays secured DN 2 loose washers
 Tube plates: Material { front S Tensile strength 26/30 tons Thickness { 25/32"
 back S 23/32"
 Mean pitch of stay tubes in nests 9.81" Pitch across wide water spaces 14"
 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 21/32" Distance apart 10 1/2" No. and pitch of stays
 in each Three @ 7 3/4"
 Combustion chamber plates: Material S Tensile strength 26/30 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 on fire side
 Front plate at bottom: Material S Tensile strength 26/30 tons
 Thickness 25/32" Lower back plate: Material S Tensile strength 26/30 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 3 5/8"
 Over threads No. of threads per inch 6
 Screw stays: Material S Tensile strength 26/30 tons
 Diameter { At turned off part, 15/8"
 or 1 1/2"
 Over threads No. of threads per inch 9

Are the stays drilled at the outer ends No Margin stays: Diameter $\left\{ \begin{array}{l} \text{At turned off part,} \\ \text{or} \\ \text{Over threads} \end{array} \right. \frac{1\frac{3}{4}}{\checkmark}$

No. of threads per inch 9 ✓

Tubes: Material Lap welded iron External diameter $\left\{ \begin{array}{l} \text{Plain} \\ \text{Stay} \end{array} \right. \frac{3''}{\checkmark}$ Thickness $\left\{ \begin{array}{l} \text{9/16} \\ \text{5/16} \end{array} \right. \checkmark$ No. of threads per inch 9

Pitch of tubes 4 1/4" x 4 3/16" ✓

Manhole compensation: Size of opening in shell plate 19 1/2" x 15 1/2" ✓ Section of compensating ring 15" x 1 3/16" ✓ No. of rivets and diameter of rivet holes 38 - 15/16" ✓

Outer row rivet pitch at ends 7" ✓ 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 $\left\{ \begin{array}{l} \text{Plate} \\ \text{Rivets} \end{array} \right. \checkmark$

Internal diameter _____ Thickness of crown _____ No. and diameter of stays _____

How connected to shell _____ Inner radius of crown _____

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 $\left\{ \begin{array}{l} \text{Tubes} \\ \text{Steel forgings} \\ \text{Steel castings} \end{array} \right. \checkmark$

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 _____

Area of each safety valve _____ Is a safety valve fitted to every part of the superheater which can be shut off from the boiler _____

Pressure to which the safety valves are adjusted _____ Are the safety valves fitted with easing gear _____

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.
W. G. Kincaid Director. Manufacturer.

Dates of Survey $\left\{ \begin{array}{l} \text{During progress of} \\ \text{work in shops - -} \end{array} \right. \checkmark$ Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) _____

$\left\{ \begin{array}{l} \text{while} \\ \text{building} \end{array} \right. \left\{ \begin{array}{l} \text{During erection on} \\ \text{board vessel - - -} \end{array} \right. \checkmark$ Total No. of visits _____

SEE MACHINERY REPORT.

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M. J. TREUANIION CRK of IN 23560

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

This boiler has been constructed in accordance with the Rules & approved plans. The materials & workmanship are sound & good. It has been effectively installed in the vessel and its safety valves adjusted under steam to 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 J. Hunter
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 16 MAY 1944**

Assigned _____

