

REPORT ON BOILERS.

No. 18945.

Date of writing Report 29.6.28 When handed in at Local Office 15th August 1928 Port of Greenock
 Received at London Office 23 AUG 1928

No. in Survey held at Greenock Date, First Survey 14th September 1928 Last Survey 15th August 1928
 Reg. Book. 89266 on the SM/r "Benedict" (Number of Visits ☒)
 Master Elangoie Built at By whom built By the wood 830 Yard No. 18 When built 1928
 Engines made at Greenock By whom made John & Richard & Co Engine No. 1724 When made 1928
 Boilers made at ditto By whom made ditto Boiler No. 1724 When made 1928
 Nominal Horse Power 490 Owners The Bocar break oil Shipping Co Port belonging to Liverpool

MULTITUBULAR BOILERS Donkey, AUXILIARY, Donkey.

Manufacturers of Steel Steel Co of Scotland Gulehoff ungschutte Vereinigte Stahlwerke A.G. Thyssen (Letter for Record S)
 Total Heating Surface of Boilers 2448 Is forced draught fitted No Fuel Oil fired oil
 No. and Description of Boilers 2 single ended Working Pressure 150
 Tested by hydraulic pressure to 245 Date of test 13.4.28 No. of Certificate 1814 Can each boiler be worked separately yes
 Area of Firegrate in each Boiler 11.07 No. and Description of safety valves to each boiler Double flange
 Area of each set of valves per boiler as fitted 11.8 Pressure to which they are adjusted 155 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 woodwork 19" Is oil fuel carried in the double bottom under boilers No
 Smallest distance between shell of boiler and tank top plating 20" Is the bottom of the boiler insulated yes
 Largest internal dia. of boilers 11-2 7/32 Length 10-6" Shell plates: Material S Tensile strength 28-32
 Thickness 25/32 Are the shell plates welded or flanged yes Description of riveting: circ. seams DR
 long. seams TR + DBS Diameter of rivet holes in circ. seams 31/32" Pitch of rivets 3.366
 Percentage of strength of circ. end seams plate 71.25 rivets 46.2 Percentage of strength of circ. intermediate seam plate 86.6
 Percentage of strength of longitudinal joint plate 87.25 rivets 87.25 Working pressure of shell by Rules 150.8
 Thickness of butt straps outer 5/8 inner 3/4 No. and Description of Furnaces in each Boiler 2 single
 Material S Tensile strength 26-30 Smallest outside diameter 36" 8 1/2
 Length of plain part top bottom 13/32 Thickness of plates 13/32 Description of longitudinal joint weld
 Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 156
 End plates in steam space: Material S Tensile strength 26-30 Thickness 29/32 Pitch of stays 16 3/4 x 16 3/8
 How are stays secured DN + Washers Working pressure by Rules 166
 Tube plates: Material front S Tensile strength 26.30 Thickness 29/32
back S 11/16"
 Mean pitch of stay tubes in nests 10.56 Pitch across wide water spaces 14" Working pressure front 156
back 156
 Girders to combustion chamber tops: Material S Tensile strength 28-32 Depth and thickness of girder
 at centre 8 1/2 x 3 1/4 (3) Length as per Rule 31.68 Distance apart 10 1/16" No. and pitch of stays
 in each 2 at 10" Working pressure by Rules 154 Combustion chamber plates: Material S
 Tensile strength 26-30 Thickness: Sides 21/32 Back 5/8" Top 21/32 Bottom 21/32
 Pitch of stays to ditto: Sides 10 1/2 10 1/2 Back 9 1/4 9 1/8" Top 10 1/2 10 1/2 Are stays fitted with nuts or riveted over nuts
 Working pressure by Rules 166 Front plate at bottom: Material S Tensile strength 26-30
 Thickness 29/32 Lower back plate: Material S Tensile strength 26-30 Thickness 29/32
 Pitch of stays at wide water space 13 7/8" Are stays fitted with nuts or riveted over nuts
 Working Pressure 154 Main stays: Material S Tensile strength 28-32
 Diameter At body of stay, Over threads 2 3/8" No. of threads per inch 6 Area supported by each stay 24 1/4
 Working pressure by Rules 156 Screw stays: Material S Tensile strength 26-30
 Diameter At turned off part, Over threads 1 1/8" No. of threads per inch 9 Area supported by each stay 86.6

Working pressure by Rules 152 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 13 1/4" or Over threads 13 1/4" No. of threads per inch 9 Area supported by each stay 105 Working pressure by Rules 172 Tubes: Material 20u External diameter { Plain 3" Stay 3" Thickness { 9 WG 5/16, 1/4, 3/8" No. of threads per inch 9 Pitch of tubes 4 3/16 x 4 1/4" Working pressure by Rules 150 Manhole compensation: Size of opening in shell plate 20" x 16" Section of compensating ring 2' 7 7/8" x 2' 4 1/4" x 7/8" No. of rivets and diameter of rivet holes 36 at 1 1/16" Outer row rivet pitch at ends 4 9/16" 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 Working pressure by Rules Thickness of crown No. and diameter of 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

Number of elements Material of tubes Manufacturers of { Tubes Steel castings 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 Working pressure as per Rules Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes 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 23 inclusive for boilers been complied with

The foregoing is a correct description, J. G. Kincaid & Co. Ltd. Manufacturer.

Dates of Survey { During progress of work in shops - - - while building { During erection on board vessel - - -

See Machinery Report

Are the approved plans of boiler and superheater forwarded herewith Yes. (If not state date of approval.) Total No. of visits

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

These Boilers have been built under special survey in accordance with the approved plans. The workmanship & material are of good quality, they are now securely fitted fitted on board. This Report accompanies that of the Machinery.

Charged on Machy Rpt

When applied for, 192 When received, 192

W. E. Gordon-Mitchell

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 28 AUG 1928

Assigned See accompanying machy report.



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