

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 Reg. Book. 89266 Survey held at Greenock Date, First Survey 14th September 1924 Last Survey 15th August 1928
on the SM/V "Benedict" (Number of Visits) Tons { Gross Net

Master Elangoie Built at By whom built Bylth's Wood St. 18 Yard No. 18 When built 1928
Engines made at Greenock By whom made John & Richard Coy 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 Beccan Breck Oil Shipping Co. Port belonging to Liverpool

MULTITUBULAR BOILERS Donkey, AUXILIARY, Donkey.

Manufacturers of Steel Steel Co of Scotland Gulehoff ungsleute Vereinigte Stahlwerke A.G. Thyssen (Letter for Record S)

Total Heating Surface of Boilers 2448 sq ft 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 old fuel No. and Description of safety valves to each boiler Double Spring
Area of each set of valves per boiler { per Rule 11.01 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 { end DR inter. Y

long. seams TR + DBS Diameter of rivet holes in { circ. seams 31/32 long. seams 27/32 Pitch of rivets { 3.366 6.516

Percentage of strength of circ. end seams { plate 71.25 rivets 46.2 Percentage of strength of circ. intermediate seam { plate 86.6 rivets 87.25

Percentage of strength of longitudinal joint { plate 86.6 rivets 87.25 combined 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 Singletons
Material S Tensile strength 26-30 Smallest outside diameter 36" 8/12

Length of plain part { top 13/32 bottom 13/32 Thickness of plates { crown 13/32 bottom 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 & 16 3/8

How are stays secured DN Washers Working pressure by Rules 166

Tube plates: Material { front S back S Tensile strength { 26.30 Thickness { 29/32 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

Tensile strength 26-30 Thickness: Sides 21/32 Back 5/8 Top 21/32 Bottom 21/32

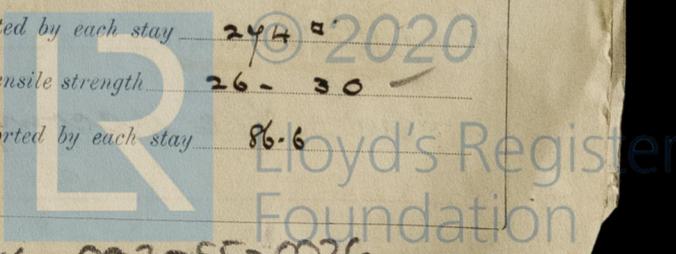
Pitch of stays to ditto: Sides 10 1/2 Back 9 1/4 & 9 1/8 Top 10 & 10 1/4 Are stays fitted with nuts or riveted over Nuts

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 13.75 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, 2 3/8 or Over threads 2 3/8 No. of threads per inch 6 Area supported by each stay 244
Working pressure by Rules 156 Screw stays: Material S Tensile strength 26-30
Diameter { At turned off part, 1 1/8 or 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 90 Margin stays: Diameter { At turned off part, 1 3/4" or Over threads 1 3/4" ✓
 No. of threads per inch 9 Area supported by each stay 105 Working pressure by Rules 172
 Tubes: Material 200 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 2.778 x 2.444 x 7/8" No. of rivets and diameter of rivet holes 36 at 1 1/16" ✓
 Outer row rivet pitch at ends 4.916" 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
 How connected to shell Inner radius of crown Working pressure by Rules Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater Manufacturers of { Tubes Steel castings Internal diameter and thickness of tubes
 Number of elements Material of tubes 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 *Yes*
 The foregoing is a correct description,
W. Carter Manufacturer.

Dates of Survey { During progress of work in shops - - - while building { During erection on board vessel - - - }
 Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) *Yes*
 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.*

Survey Fee Charged on Machinery Report : When applied for, 192
 Travelling Expenses (if any) £ : When received, 192
W. Gordon-Maclaine
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute *GLASGOW 28 AUG 1928*
 Assigned *See accompanying mach. report.*

