

REPORT ON BOILERS.

48200
#7937
No. #7940

Received at London Office 25.11.1928

Date of writing Report 1928 When handed in at Local Office 7.5.1928 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 8.12.27 Last Survey 2.5.28 1928

on the new steel M/V "CLYDEFIELD" (Number of Visits 19) Tons {Gross 6758, Net 3949}

Master Built at Glasgow By whom built W & W Henderson & Co. Ltd Yard No. 808 When built 1928

Engines made at Glasgow By whom made Harland & Wolff Ltd Engine No. 808 When made 1928

Boilers made at Glasgow By whom made W & W Henderson & Co. Ltd Boilers No. 808 When made 1928

Nominal Horse Power 647 Owners Hunting Lion Ltd Port belonging to Newcastle

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Gutehoffnungshütte A.G. Oberhausen (Letter for Record 15)

Total Heating Surface of Boilers 2924 Is forced draught fitted yes Coal or Oil fired oil

No. and Description of Boilers two single ended Working Pressure 120

Tested by hydraulic pressure to 230 Date of test 12-4-28 No. of Certificate 17861 Can each boiler be worked separately yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler two high lift

Area of each set of valves per boiler (per Rule 10.84 sq, as fitted 11.98 sq) Pressure to which they are adjusted Are they fitted with easing gear

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 Is oil fuel carried in the double bottom under boilers

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated

Largest internal dia. of boilers 11-10 3/8 Length 11-6 Shell plates: Material Steel Tensile strength 28-32 tons

Thickness 11/16 Are the shell plates welded or flanged no Description of riveting: circ. seams end DR, inter. -

long. seams DBS, TR Diameter of rivet holes in circ. seams 1", long. seams 13/16 Pitch of rivets 4", 5.375"

Percentage of strength of circ. end seams (plate 75, rivets 47.1) Percentage of strength of circ. intermediate seam (plate, rivets)

Percentage of strength of longitudinal joint (plate 84.8, rivets 87.5, combined 91.6) Working pressure of shell by Rules 121

Thickness of butt straps (outer 5/8, inner 3/4) No. and Description of Furnaces in each Boiler Two Deighton

Material Steel Tensile strength 26-30 tons Smallest outside diameter 41.25

Length of plain part (top, bottom) Thickness of plates (crown 3/8, bottom 3/8) Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 128

End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 53/64 Pitch of stays 15" x 14"

How are stays secured NTN Working pressure by Rules 121

Tube plates: Material (front steel, back) Tensile strength 26-30 tons Thickness (49/64, 41/64)

Mean pitch of stay tubes in nests 7 1/2 Pitch across wide water spaces 13 1/2 Working pressure (front 120.5, back 262)

Girders to combustion chamber tops: Material Steel Tensile strength 28-32 tons Depth and thickness of girder at centre 2 @ 7 1/2" x 5/8 Length as per Rule 32.375 Distance apart 9 No. and pitch of stays in each 2 @ 10 Working pressure by Rules 121

Tensile strength 26-30 tons Thickness: Sides 37/64, Back 19/32, Top 37/64, Bottom 37/64

Pitch of stays to ditto: Sides 10" x 9, Back 10" x 10, Top 10" x 9 Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 121 Front plate at bottom: Material steel Tensile strength 26-30 tons

Thickness 49/64 Lower back plate: Material steel Tensile strength 26-30 tons Thickness 43/64

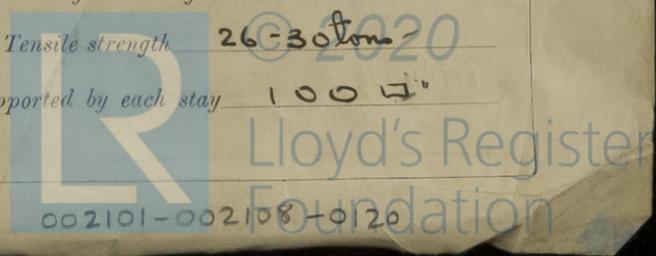
Pitch of stays at wide water space 14 Are stays fitted with nuts or riveted over nuts

Working Pressure 121 Main stays: Material steel Tensile strength 28-32 tons

Diameter (At body of stay, Over threads) 2 1/4 No. of threads per inch 6 Area supported by each stay 255 sq

Working pressure by Rules 136 Screw stays: Material steel Tensile strength 26-30 tons

Diameter (At turned off part, Over threads) 1 1/2 No. of threads per inch 9 Area supported by each stay 100 sq



Working pressure by Rules 125 Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part.} 1 5/8"
 No. of threads per inch 9 Area supported by each stay 120 sq Working pressure by Rules 126
 Tubes: Material Iron External diameter ^{Plain} 2 3/4" Thickness ^{10 L W G} 5/16 & 3/8" No. of threads per inch 9
 Pitch of tubes 3 3/4" & 3 3/4" Working pressure by Rules 175 Manhole compensation: Size of opening in
 shell plate 20 x 16 Section of compensating ring 6 1/2 x 1 1/16 No. of rivets and diameter of rivet holes 42 @ 1 5/16"
 Outer row rivet pitch at ends 11 5/8" Depth of flange if manhole flanged 3" Steam Dome: Material none
 Tensile strength 808 Thickness of shell 1/2" Description of longitudinal joint
 Diameter of rivet holes 5/8" Pitch of rivets 3" Percentage of strength of joint ^{Plate} 85
 Internal diameter 35 1/2" Working pressure by Rules 808 Thickness of crown 1/2" No. and diameter of
 stays 808 Inner radius of crown 1/2" Working pressure by Rules 808
 How connected to shell castings Size of doubling plate under dome 1/2" Diameter of rivet holes and pitch
 of rivets in outer row in dome connection to shell 1 5/8"

Type of Superheater none

Manufacturers of ^{Tubes} W. & A. Mitchell & Co. Ltd.
 Number of elements 1 Material of tubes castings Internal diameter and thickness of tubes 2 3/4" x 5/16"
 Material of headers castings Tensile strength 808 Thickness 1/2" Can the superheater be shut off and
 the boiler be worked separately no Is a safety valve fitted to every part of the superheater which can be shut off from the boiler
 Area of each safety valve 1 1/2 sq in Are the safety valves fitted with easing gear no Working pressure as per
 Rules 175 Pressure to which the safety valves are adjusted 175 Hydraulic test pressure:
 tubes castings and after assembly in place 225 Are drain cocks or valves fitted
 to free the superheater from water where necessary no

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with yes

The foregoing is a correct description,
 FOR DAVID & WILKINSON & CO., LTD.
 S. J. Davis
 Director
 Manufacturer.

Dates of Survey ^{During progress of work in shops - -} 127 Dec 8 (1928) Jan 10-30 Feb 8-16-28 Are the approved plans of boiler and superheater forwarded herewith
 while building ^{During erection on board vessel - - -} Mar 9-16-22-29 Apr 6-12-13-16-17-19-20 Total No. of visits 19
23 May 2

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

The materials and workmanship are good.
 The boilers have been constructed under special survey in accordance with
 the Rules.

A. G.
 5/5/28

Survey Fee (FORCED DRAUGHT) 24 : 8 When applied for, 8-MAY 1928
 Travelling Expenses (if any) £ 19 : 10 When received, 1 June 1928

S. J. Davis
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 8-MAY 1928

Assigned TRANSMIT TO LONDON

