

REPORT ON BOILERS.

No. 80084

Received at London Office

-9 FEB 1926

Report 18 Jan 1926 When handed in at Local Office

4/21 1926

Port of Newcastle on Tyne

Survey held at Walker & Walbend

Date, First Survey 8 May 1925

Last Survey 27 Jan 1926

(Number of Visits)

Gross 3854

Tons Net 2361

Built at Wallhead

By whom built S. H. W. R. L.

Yard No 1283 When built 1926

By whom made Swan Hunter & Wigham Richardson

Engine No. 1210 When made 1926

By whom made Swan Hunter & Wigham Richardson

Boiler No. 1210 When made 1926

Owners Byrom & Co Ltd

Port belonging to London

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Designers of Steel David Colville & Sons Ltd. plates Beardmore & Co. (Ld.) (Letter for Record S)

Rating Surface of Boilers 6812 Is forced draught fitted Yes Coal or Oil fired Oil

Description of Boilers two Cylindrical S.E. & Multitubular Working Pressure 210 lb

hydraulic pressure to 365 lb Date of test 9-10-25 No. of Certificate 9949 Can each boiler be worked separately Yes

Firegrate in each Boiler 78.5 No. and Description of safety valves to each boiler two direct Spring, high lift

each valve per boiler 4.65 as fitted 8.29 Pressure to which they are adjusted 210 lb Are they fitted with easing gear Yes

distance between boilers or uptakes and bunkers or woodwork 18" Is oil fuel carried in the double bottom under boilers Yes

distance between shell of boiler and tank top plating 24" Is the bottom of the boiler insulated Yes

Internal dia. of boilers 16'-6" Length 12'-0" Shell plates: Material Steel Tensile strength 30 to 34 tons

1 1/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end D.R.L.

TR. DBS Diameter of rivet holes in circ. seams 1 9/16" long. seams 1 1/2" Pitch of rivets 4.607"

age of strength of circ. end seams plate 66.08 rivets 43.43 Percentage of strength of circ. intermediate seam plate

age of strength of longitudinal joint plate 85.0 rivets 86.46 combined 87.29 Working pressure of shell by Rules 210 lb

ss of butt straps outer 1 1/8" inner 1 1/4" No. and Description of Furnaces in each Boiler 4 Deighton

Steel Tensile strength 26 to 30 tons Smallest outside diameter 41 7/8"

of plain part Thickness of plates crown 5/8" bottom Description of longitudinal joint weld

ions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 217 lb

ates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 3/16" Pitch of stays 18 1/2" x 16 1/2"

re stays secured Double nuts Working pressure by Rules 214 lb

lates: Material front Steel back Steel Tensile strength 26 to 30 tons Thickness 1 3/16"

itch of stay tubes in nests 9 1/4" Pitch across wide water spaces 13 1/2" x 7 1/4" Working pressure front 213 lb back 277 lb

s to combustion chamber tops: Material Steel Tensile strength 28 to 32 tons Depth and thickness of girder

9 5/8" x 1 1/2" Length as per Rule 32 1/2" Distance apart 9 5/8" No. and pitch of stays

3 of 8" Working pressure by Rules 215 lb Combustion chamber plates: Material Steel

strength 26 to 30 tons Thickness: Sides 1/16" Back 1/16" Top 1/16" Bottom 1/4"

f stays to ditto: Sides 9 1/4" x 8 3/8" Back 8 3/4" x 8 3/4" Top 9 5/8" x 8" Are stays fitted with nuts or riveted over nuts

ing pressure by Rules 211 lb Front plate at bottom: Material Steel Tensile strength 26 to 30 tons

ess 1" Lower back plate: Material Steel Tensile strength 26 to 30 tons Thickness 1 1/32"

ipping of stays at wide water space 13 1/2" x 9 1/8" Are stays fitted with nuts or riveted over nuts

ing Pressure 332 lb Main stays: Material Steel Tensile strength 28 to 32 tons

At body of stay, 2 7/8" = 3" No. of threads per inch 6 Area supported by each stay 290.44

ing pressure by Rules 210 lb Screw stays: Material Steel Tensile strength 26 to 30 tons

At turned off part, 1 3/4" No. of threads per inch 9 Area supported by each stay 75.5

Working pressure by Rules **240 lb** Are the stays drilled at the outer ends **No** Margin stays: Diameter { At turned off part, or Over threads **1 7/8"** ✓
 No. of threads per inch **9** ✓ Area supported by each stay **86"** ✓ Working pressure by Rules **248 lb** ✓
 Tubes: Material **Iron** ✓ External diameter { Plain **2 1/2"** ✓ Stay **2 1/2"** ✓ Thickness **3/8 - 5/16"** No. of threads per inch **9** ✓
 Pitch of tubes **33 1/4" x 35 1/8"** ✓ Working pressure by Rules **231 lb** ✓ Manhole compensation: Size of opening in
 shell plate **20" x 16"** ✓ Section of compensating ring **10 7/8" x 1 3/32"** ✓ No. of rivets and diameter of rivet holes **32 - 1 5/8"** ✓
 Outer row rivet pitch at ends **11"** ✓ Depth of flange if manhole flanged **2 7/8"** ✓ 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 Manufacturers of { Tubes 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 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,
SWAN, HUNTER & WIGHAM RICHARDSON, LTD. Manufacturer.
G. J. Hooley

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

See Index Report

Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

Total No. of visits

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

The two main Boilers built under Special Survey the material and workmanship found good and efficient
 The boilers tested under hydraulic pressure to 365 lb at the makers works and found satisfactory, subsequently fitted up on board the Vessel their Safety Valves adjusted under steam for their working pressures.
 The boilers fitted up for burning oil fuel under forced draught. flash point of oil above 150° F.

Survey Fee ... £
 Travelling Expenses (if any) £

When applied for, 192
 When received, 192

for **L. G. Shallcross** Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 12 FEB 1926

Assigned

See A. E. rpt on machs attached



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