

REPORT ON BOILERS.

No. 100.416

Received at London Office

28 MAY 1942

Writing Report

19

When handed in at Local Office

26 MAY 1942

19

Port of

NEWCASTLE-ON-TYNE

Survey held at Newcastle on Tyne
on the s/s "CONGONIAN."

Date, First Survey 26 Aug. 1941 Last Survey 7 May 1942

(Number of Visits) Gross 6082
Tons Net 3452

Built at Newcastle By whom built Swan, Hunter & Wigham Richardson Ltd Yard No. 1708 When built 1942-

s made at Newcastle By whom made ditto. Engine No. 1708 When made 1942-

s made at do. By whom made ditto. Boiler No. 1708 When made 1942-

al Horse Power Owners United Africa Co. Port belonging to Liverpool.

TITUBULAR BOILERS—MAIN, ~~AUXILIARY~~, OR ~~DONKEY~~.

Facturers of Steel The Steel Company of Scotland (Letter for Record S.)

Heating Surface of Boilers 8682 sq ft Is forced draught fitted Yes Coal or Oil fired Oil fired

nd Description of Boilers 3. Single ended. Working Pressure 220 lbs

l by hydraulic pressure to 380 lbs Date of test 9/2/42 No. of Certificates 945, 946, 947. Can each boiler be worked separately Yes

of Firegrate in each Boiler Oil fired No. and Description of safety valves to each boiler Two 2 1/2" dia Corkburn's Imp'd High Lift.

of each set of valves per boiler per Rule 8.86 sq in Pressure to which they are adjusted 220 lbs Are they fitted with easing gear Yes

se of donkey boilers, state whether steam from main boilers can enter the donkey boiler No Donkey Bk.

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

est distance between shell of boiler and tank top plating 2'-5" Is the bottom of the boiler insulated Yes

must internal dia. of boilers 15'-9 1/2" Length 11'-6" Shell plates: Material S. Tensile strength 30 to 34 tons

ness 1 15/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end D.R. Lap.

seams T.R. dth. butt straps Diameter of rivet holes in circ. seams 1 17/32" Pitch of rivets 4.534"

ntage of strength of circ. end seams plate 66.22 rivets 42.4 Percentage of strength of circ. intermediate seam plate none rivets

ntage of strength of longitudinal joint plate 85.32 rivets 86.33 Working pressure of shell by Rules 221 lbs

combined 87.92

ness of butt straps outer 1 1/8" inner 1 1/2" No. and Description of Furnaces in each Boiler Three "Deighton" Corrugated

rial S. Tensile strength 26 to 30 tons Smallest outside diameter 47 1/2"

th of plain part top 2 3/32" bottom Thickness of plates crown 2 3/32" Description of longitudinal joint Fire welded

nsions of stiffening rings on furnace or c.c. bottom none Working pressure of furnace by Rules 222 lbs

plates in steam space: Material S. Tensile strength 26 to 30 tons Thickness 1 3/8" Pitch of stays 20 1/2" x 19"

are stays secured Nuts inside & outside (screwed thro' front plate only) Working pressure by Rules 227 lbs

plates: Material front S. back S. Tensile strength 26 to 30 tons Thickness 1 5/16" 27/32"

pitch of stay tubes in nests 8 1/2" x 12 3/4" Pitch across wide water spaces 8 1/2" x 14" Working pressure front 225 lbs back 221 lbs

ers to combustion chamber tops: Material S. Tensile strength 28 to 32 tons Depth and thickness of girder

ntre 10" x 3/4" x two Length as per Rule 32 15/32" Distance apart 10" No. and pitch of stays

ch 3 @ 7 3/4" Working pressure by Rules 222 lbs Combustion chamber plates: Material S.

ile strength 26 to 30 tons Thickness: Sides 27/32" Back 1 1/16" Top 27/32" Bottom 27/32"

of stays to ditto: Sides 9 5/8" x 10" Back 8 7/16" x 8 7/8" Top 7 3/4" x 10" Are stays fitted with nuts or riveted over with nuts

king pressure by Rules 220 lbs Front plate at bottom: Material S. Tensile strength 26 to 30 tons

ness 1 5/16" Lower back plate: Material S. Tensile strength 26 to 30 tons Thickness 1 1/2"

of stays at wide water space 8 7/8" x 14" Are stays fitted with nuts or riveted over with nuts

ing Pressure 243 lbs Main stays: Material S. Tensile strength 28 to 32 tons

eter At body of stay, 3 5/8" No. of threads per inch 6 Area supported by each stay 450.9 sq in

Over threads 226 lbs Screw stays: Material S. Tensile strength 26 to 30 tons

eter At turned up part, 1 3/4" No. of threads per inch 9 Area supported by each stay 73 sq in

Over threads

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Working pressure by Rules 249th Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 7/8" + 2"
Over threads 1 7/8" + 2"

No. of threads per inch 9 Area supported by each stay 96.6 sq in (for 1 7/8") Working pressure by Rules 220th

Tubes: Material S. External diameter { Plain 3 9/16 Thickness { 8 wg, 5/16, 3/8 No. of threads per inch 9 Rpt. 13.

Pitch of tubes 4 1/4" x 4 1/4" Working pressure by Rules 220th Manhole compensation: Size of open

shell plate 20" x 16" Section of compensating ring 22 1/16" x 1 15/32" No. of rivets and diameter of rivet holes 38 @ 1 17/32

Outer row rivet pitch at ends 10 1/2" Depth of flange if manhole ring flanged 3" Steam Dome: Material None

Tensile strength Thickness of shell Description of longitudinal joint Date of work

Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate
Rivets No. in

Internal diameter Working pressure by Rules Thickness of crown No. and diam 359A Reg.

stays Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and Built a

of rivets in outer row in dome connection to shell

Y. H. + Steel

of rivets in outer row in dome connection to shell

Type of Superheater *N.E. Mar. Smoke tube type* Manufacturers of *Yalbot Stead*
Proddingham I.S. Co

Number of elements *204* Material of tubes *S. D. 5th* Internal diameter and thickness of tubes *1 5/8", 2 1/2"*

Material of headers *Forged Steel* Tensile strength *26 to 30 tons* Thickness *1 7/8"* Can the superheater be shut off

the boiler be worked separately *Yes* Is a safety valve fitted to every part of the superheater which can be shut off from the boiler *Yes*

Area of each safety valve *3.96 sq in (2 1/4" dia)* Are the safety valves fitted with easing gear *Yes* Working pressure

Rules *220th* Pressure to which the safety valves are adjusted *205th* Hydraulic test pressure

tubes *1500th* forgings *and castings* *660th* and after assembly in place *440th* Are drain cocks

valves fitted to free the superheater from water where necessary *Yes*

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with *Yes*

The foregoing is a correct description, test for
G. F. Swann Manufact the g

Dates of Survey while building	During progress of work in shops - -	See Machinery Report	Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)	10/4
	During erection on board vessel - - -		Total No. of visits	injury

Is this Boiler a duplicate of a previous case No. If so, state Vessel's name and Report No. ✓

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

These Boilers have been constructed under special survey in accordance with the approved plans and the Society's Rules, and the materials and workmanship are good.

The Boilers have been efficiently fitted on board the vessel, and tested under steam under working conditions with satisfactory results.

See also Duchy Ppt H.

Survey Fee	£	See <i>machinery Rpt</i>	When applied for,	19
Travelling Expenses (if any)	£	:	:		When received,	10

Watt.

Engineer Surveyor to Lloyd's Register of Ships ^{ables,}

Committee's Minute

TUE 16 JUN 1942

Assigned

See Nov. J.E. 100416

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