

REPORT ON BOILERS.

No. 80370

Received at London Office

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Writing Report 19th April 1926 When handed in at Local Office 19th April 1926 Port of *Newcastle on Tyne*
 Survey held at *Scotswood & Walker* Date, First Survey 19th May 1925 Last Survey 16th April 1926
 on the *Steel Screw Steamer, Arthur W. Sewall* (Number of Visits —) Gross Tons 6030
 Built at *Halker* By whom built *Whitworth & Co Ltd* Yard No. 1012 When built 1926
 made at *Scotswood* By whom made *do* Engine No. 60 When made 1926
 made at *Elswick* By whom made *do* Boiler No. 60 When made 1926
 Horse Power 626 Owners *J. A. Christensen* Port belonging to *Oslo*

TUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel *D Colville & Sons Ltd* (Letter for Record *✓*)
 Heating Surface of Boilers *9810 sq ft* Is forced draught fitted *yes* Coal or Oil fired *Oil or Coal*
 Description of Boilers *Three, Single Ended.* Working Pressure *180 lb per sq in*
 by hydraulic pressure to *320 lb* Date of test *24/12/25* No. of Certificate *119964* Can each boiler be worked separately *yes*
 Firegrate in each Boiler *80 sq ft* No. and Description of safety valves to each boiler *2, direct spring*
 each set of valves per boiler *25 sq in* Pressure to which they are adjusted *180 lb* Are they fitted with edging gear *yes*
 of donkey boilers, state whether steam from main boilers can enter the donkey boiler *None*
 distance between boilers or uptakes and bunkers or woodwork *20"* Is oil fuel carried in the double bottom under boilers *yes*
 distance between shell of boiler and tank top plating *33"* Is the bottom of the boiler insulated *yes, Blanketed*
 internal dia. of boilers *16'-6 7/16"* Length *12'-0"* Shell plates: Material *Steel* Tensile strength *30/34 tons*
 Are the shell plates welded or flanged *No* Description of riveting: circ. seams *2 R Lap*
 Double straps (5 rivets) Diameter of rivet holes in *1 3/32"* Pitch of rivets *4 1/16"*
 Percentage of strength of circ. intermediate seam *None*
 Working pressure of shell by Rules *182 lb per sq in*
 No. and Description of Furnaces in each Boiler *4 Morrisons*
 Tensile strength *26/30 tons* Smallest outside diameter *41 1/16"*
 Thickness of plates *17/32"* Description of longitudinal joint *Welded*
 Working pressure of furnace by Rules *187 lb per sq in*
 Material *Steel* Tensile strength *26/30 tons* Thickness *1 1/16"* Pitch of stays *20" x 16"*
 Working pressure by Rules *184 lb per sq in*
 Material *Steel* Tensile strength *26/30 tons* Thickness *23/32"*
 Pitch of stay tubes in nests *9 1/2"* Pitch across wide water spaces *13 1/2"* Working pressure *196 lb*
 to combustion chamber tops: Material *Steel* Tensile strength *28/32 tons* Depth and thickness of girder *152 lb*
 Length as per Rule *33 3/4"* Distance apart *9 1/4"* No. and pitch of stays
 Working pressure by Rules *190 lb per sq in* Combustion chamber plates: Material *Steel*
 Tensile strength *26/30 tons* Thickness: Sides *11/16"* Back *11/16"* Top *11/16"* Bottom *1"*
 stays to ditto: Sides *9 1/2" x 8 1/2"* Back *10 1/8" x 8 1/8"* *10 1/2" x 8 1/2"* *9 1/4" x 8 1/2"* Are stays fitted with nuts or riveted over *Nuts*
 Working pressure by Rules *180 lb per sq in* Front plate at bottom: Material *Steel* Tensile strength *26/30 tons*
 Lower back plate: Material *Steel* Tensile strength *26/30 tons* Thickness *7/8"*
 stays at wide water space *15" x 8 3/8"* Are stays fitted with nuts or riveted over *Nuts*
 Working pressure *182 lb per sq in* Main stays: Material *Steel* Tensile strength *28/32 tons*
 At body of stay, *3"* No. of threads per inch *6* Area supported by each stay *320 sq in*
 Over threads *3"* Screw stays: Material *Iron* Tensile strength *21 1/2 tons*
 Working pressure by Rules *210 lb per sq in* No. of threads per inch *9* Area supported by each stay *81 x 88 sq in*
 At turned off part, *1 5/8" x 1 3/4"*

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Working pressure by Rules 188 lb Are the stays drilled at the outer ends No Margin stays: Diameter 1 7/8" (At turned off part, or Over threads) Rpt. 13.
No. of threads per inch 9 Area supported by each stay 10 1/4" Working pressure by Rules 199 lb RE
Tubes: Material Iron External diameter 2 1/2" Thickness 9/16" No. of threads per inch 9
Pitch of tubes 3 3/4" x 3 1/4" Working pressure by Rules 230 lb Manhole compensation: Size of o
shell plate 20" x 16" Section of compensating ring 3 1/2" x 32" x 1 9/32" No. of rivets and diameter of rivet holes 25, 1 1/32"
Outer row rivet pitch at ends 9 5/16" Depth of flange if manhole flanged 3 9/16" Steam Dome: Material None
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 di
stays ✓ Inner radius of crown ✓ Working pressure by Rules ✓ Owners
How connected to shell ✓ Size of doubling plate under dome ✓ Diameter of rivet holes ✓ Electric L
of rivets in outer row in dome connection to shell ✓

Type of Superheater None 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 sh
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 pressu
Rules ✓ Pressure to which the safety valves are adjusted ✓ Hydraulic test ✓ they over
tubes ✓ castings ✓ and after assembly in place ✓ Are drain cocks or cal
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, ✓
FOR STRONG, WHITWORTH & CO

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

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under special survey, the materials and workmanship are of good quality. They have been securely fitted on board and found tight under full steam pressure.
For recommendations as to class please see machinery report

Survey Fee £ See Machinery Report When applied for, 192
Travelling Expenses (if any) £ : : When received, 192

Committee's Minute

MAY 21 1926

Assigned

See A. E. rpt. attached

George Murdoch
Engineer Surveyor to Lloyd's Register of S



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