

REPORT ON BOILERS.

No. 108477

Received at London Office.

30 JUN 1951

Date of writing Report.....19..... When handed in at Local Office.....25 JUN 1951.....19..... Port of Newcastle-on-Tyne

No. in Survey held at Walker-on-Tyne Date, First Survey..... Last Survey.....19.....
Reg. Book.on the M.V. BRITISH VISCOUNT (Number of Visits.....) Gross 8663.57
Net 4985.51

Built at Walker-on-Tyne By whom built Swan Hunter Wigham Richardson Ltd Yard No. 1878 When built 1951

Engines made at Walker-on-Tyne By whom made Swan Hunter Wigham Richardson Ltd Engine No. 1878 When made 1951

Boilers made at Walker-on-Tyne By whom made Swan Hunter Wigham Richardson Ltd Boiler No. 1878 When made 1950

Nominal Horse Power 334 Owners British Tanker Co Ltd Port belonging to London

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd. Glasgow (Letter for Record S.)

Total Heating Surface of Boilers 4010 Sq feet = 26 hrs. Of Superheaters ✓

Total for Register Book 4010 Sq feet Is forced draught fitted. yes. ✓ Coal or Oil fired. waste heat.

No. and Description of Boilers 2 S.E. multitubular Working Pressure 150 lb/sq

Tested by hydraulic pressure to 275 lb/sq Date of test 22-11-50 No. of Certificate 1425 Can each boiler be worked separately. yes. ✓

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler 2 - Cockburns ✓ I.H.L.

Area of each set of valves per boiler { per Rule 7.76 sq" as fitted 9.8 sq" ✓ Pressure to which they are adjusted 150 lb/sq ✓ Are they fitted with easing gear yes ✓

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 Passage way 2'-0" Is oil fuel carried in the boiler flat ✓

Smallest distance between shell of boiler and tank top plating boiler flat 3'-6" Is the bottom of the boiler insulated. yes. ✓

Largest internal dia. of boilers 12'-9" ✓ Length 11'-6" ✓ Shell plates: Material S.M. Steel Tensile strength 30-34 Tons.

If fusion welded, state name of welding Firm ✓ Have all the requirements of the Rules for Class I vessels

been complied with. ✓ Thickness 2 1/2" ✓ Are the shell plates welded or flanged. no ✓ Description of riveting: circ. seams { end D.R.L. ✓

long. seams T.R. D Butt straps ✓ Diameter of rivet holes in { circ. seams 1 1/8" ✓ Pitch of rivets { 2.94" ✓

Percentage of strength of circ. end seams { plate 68.18 rivets 42.56 Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓

Percentage of strength of longitudinal joint { plate 85.41 rivets 85.36 Working pressure of shell by Rules = 152.1 lb/sq

combined 87.90

Thickness of butt straps { outer 2 1/2" ✓ inner 2 1/2" ✓ No. and Description of Furnaces in each Boiler 2 Daighlon section. Withdrawable

Material S.M. Steel Tensile strength 26-30 Tons. ✓ Smallest outside diameter 3'-9 3/4"

Length of plain part { top ✓ bottom ✓ Thickness of plates 1/2" ✓ Description of longitudinal joint ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓ W.P. by Rules = 157 lb/sq

End plates in steam space: Material S.M. Steel Tensile strength 26-30 Tons Thickness 1" ✓ Pitch of stays 18 1/8" x 1 1/4"

How are stays secured Screwed into plate nuts outside ✓ W.P. by Rules = 153 lb/sq

Tube plates: Material { front S.M. Steel Tensile strength { 26-30 Tons. Thickness { 7/8" ✓

back S.M. Steel Thickness { 3/4" ✓

Mean pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 13 1/2" ✓ W.P. Front = 158 lb/sq

Girders to combustion chamber tops: Material S.M. Steel Tensile strength 28-32 Tons Depth and thickness of girder

at centre 8 1/4" x (1 1/4)" = 2 x 7/8" Length as per Rule 2'-8 1/2" ✓ Distance apart 8 3/8" ✓ No. and pitch of stays

in each 2 at 10" ✓ Combustion chamber plates: Material S.M. Steel

Tensile strength 26-30 Tons. Thickness: Sides 5/8" ✓ Back 23/32" ✓ Top 5/8" ✓ Bottom 5/8" ✓

Pitch of stays to ditto: Sides 10" x 8 1/4" Back 9 1/4" x 8" ✓ Top 10" x 8 7/8" ✓ Are stays fitted with nuts or riveted over. ✓

Front plate at bottom: Material S.M. Steel Tensile strength 26-30 Tons. Remainder of back stays riveted over. Inside & nutted outside.

Thickness 7/8" ✓ Lower back plate: Material S.M. Steel Tensile strength 26-30 Tons. Thickness 7/8" ✓

Pitch of stays at wide water space 13 1/2" (15) x 7/2" Are stays fitted with nuts or riveted over. nuts outside

Main stays: Material S.M. Steel Tensile strength 28-32 Tons. ✓

Diameter { At body of stay 2 3/8" ✓ No. of threads per inch 6 ✓ Area supported by each stay = 298 sq"

Over threads 2 3/8" ✓

Screw stays: Material S.M. Steel Tensile strength 26-30 Tons. ✓

Diameter { At turned off part 1 1/2" ✓ No. of threads per inch 9 ✓ Area supported by each stay = 97.9 sq"

Over threads 1 1/2" ✓

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004458-004458-0242

Are the stays drilled at the outer ends no ✓
Margin stays: Diameter { At turned off part 1 5/8" ✓
or 1 3/4" ✓
Over threads...
No. of threads per inch 9 ✓
Tubes: Material S. D. Steel External diameter { Plain 2 1/2" ✓
Stay 2 1/2" ✓ Thickness { 3/16" ✓
1/4" ✓ No. of threads per inch 9 ✓
Pitch of tubes 3 3/4" ✓
Manhole compensation: Size of opening in
shell plate 20" x 16" ✓ Section of compensating ring 27/32" x 20 1/2" ✓ No. of rivets and diameter of rivet holes 38 - 1 1/8" ✓
Outer row rivet pitch at ends 8 ✓ Depth of flange if manhole flanged 2 1/2" ✓ 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 Thickness of crown No. and diameter of
stays Inner radius of crown
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 forgings
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
Pressure to which the safety valves are adjusted Hydraulic test pressure
tubes forgings and castings and after assembly in place Are drain cocks
valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes ✓

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD. The foregoing is a correct description,

John Lindsay

Dates of Survey while building { During progress of work in shops - -
During erection on board vessel - - - } PLEASE SEE RPT. LB
Are the approved plans of boiler and superheater forwarded herewith yes ✓
(If not state date of approval.)
Total No. of visits

Is this Boiler a duplicate of a previous case yes ✓ If so, state Vessel's name and Report No. "British Union" & "British Ardour"
107333 106768

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, Secretaries' letters and the Rules of the Society for a working pressure of 150 lbs per sq inch.

The materials and workmanship are good. Hydraulic test to 275 lbs per sq inch satisfactory

They have been securely installed in the vessel and their safety valves adjusted under steam to 150 lbs per sq inch

Survey Fee £

Travelling Expenses (if any) £

When applied for, 19...

When received, 19...

See machinery report

John Lindsay

Engineer Surveyor to Lloyd's Register of Shipping.

FRI. 20 JUL 1951

Committee's Minute

Assigned

See F.E. Welch. rpt.



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