

REPORT ON BOILERS.

No. 107333

6 JUN 1950

Received at London Office

Date of writing Report 19... When handed in at Local Office 1 JUN 1950 19... Port of NEWCASTLE-on-TYNE

No. in Reg. Book. Survey held at Walker on Tyne Date, First Survey 8/7/49 Last Survey 26/5/50 19...

36202 on the M.V. BRITISH UNION (Number of Visits 111) Gross 8662.57 Tons Net 4985.17

Master Built at Walker on Tyne By whom built Swan Hunter & Wigham Rich^l Ltd No. 1876 When built 1950Engines made at Walker on Tyne By whom made Swan Hunter & Wigham Rich^l Ltd Engine No. 1876 When made 1950

Boilers made at " " " By whom made " " " Boiler No. 1876 When made 1950

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

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles Ltd (Letter for Record S)

Total Heating Surface of Boilers 4010 sq ft 2 boilers Is forced draught fitted Yes Oil fired WASTE HEAT

No. and Description of Boilers Two single ended multitubular Working Pressure 150 lbs sq in

Tested by hydraulic pressure to 275 lbs sq in Date of test 18-1-50 No. of Certificate P-1372 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 - Spring loaded lockburns Improved H.L.

Area of each set of valves per boiler per Rule 7.76 sq in as fitted 9.8 sq in Pressure to which they are adjusted 150 lbs sq in 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 double bottom under boilers No

Smallest distance between shell of boiler and tank top plating DECK 3' - 6" Is the bottom of the boiler insulated Yes

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

Thickness 27/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end D.R.L.J. inter

long. seams T.R.D.B.S. Diameter of rivet holes in circ. seams 15/16" Pitch of rivets 2.94" 6.0"

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 lbs sq in

Thickness of butt straps outer 21/32" inner 25/32" No. and Description of Furnaces in each Boiler 2 Deighton Type

Material Steel Tensile strength 26-30 Tons sq in Smallest outside diameter 3' - 9 3/4"

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

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

End plates in steam space: Material Steel Tensile strength 26-30 Tons sq in Thickness 1" Pitch of stays 18' 6" x 14' 4"

How are stays secured Screamed into both plates & nuts outside only Working pressure by Rules

Tube plates: Material front back Steel Tensile strength 26-30 Tons sq in Thickness 7/8" 3/4"

Mean pitch of stay tubes in nests 9 3/8" Pitch across wide water spaces 13 1/2" Working pressure front back

Girders to combustion chamber tops: Material Steel Tensile strength 28-32 Tons sq in Depth and thickness of girder

at centre 8' 1/4" x 1' 1/4" = 2 x 7/8" Length as per Rule 2' - 8 17/32" Distance apart 8' 1/8" No. and pitch of stays

in each 2 @ 10" Working pressure by Rules Combustion chamber plates: Material Steel

Tensile strength 26-30 Tons sq in 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 1/8" Are stays fitted with nuts or riveted over REMAINDER OF C.C. BACK STAYS RIVETED OVER INSIDE

Working pressure by Rules Front plate at bottom: Material Steel Tensile strength 26-30 Tons sq in

Thickness 7/8" Lower back plate: Material Steel Tensile strength 26-30 Tons sq in Thickness 7/8"

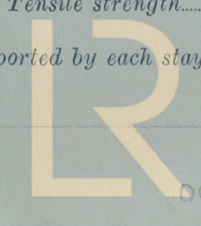
Pitch of stays at wide water space 13 1/2" 15 1/2" Are stays fitted with nuts or riveted over Nuts

Working pressure Main stays: Material Steel Tensile strength 28-32 Tons sq in

Diameter At body of stay 2 5/8" 2 3/8" No. of threads per inch 6 Area supported by each stay 29.8 sq in

Working pressure by Rules Screw stays: Material Steel Tensile strength 26-30 Tons sq in

Diameter At turned off part 1 1/2" No. of threads per inch 9 Area supported by each stay 97.4 sq in



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Working pressure by Rules. ☒ Are the stays drilled at the outer ends. ☒ Margin stays: Diameter ^{At turned off part.} _{or} ^{Over threads.} $1\frac{5}{8} \times 1\frac{3}{4}$ "
No. of threads per inch. $9\frac{1}{2}$ Area supported by each stay. $2\frac{1}{2}$ " Working pressure by Rules. ☒
Tubes: Material Seamless Steel External diameter ^{Plain.} $2\frac{1}{2}$ " ^{Stay.} $2\frac{1}{2}$ " Thickness $1\frac{1}{2}$ " $5/16$ " $1/4$ " No. of threads per inch. $9\frac{1}{2}$
Pitch of tubes. $3\frac{3}{4} \times 3\frac{3}{4}$ " Working pressure by Rules. ☒ Manhole compensation: Size of opening in
shell plate. 20×16 " Section of compensating ring $2\frac{1}{2} \times 20\frac{1}{2}$ " No. of rivets and diameter of rivet holes. $3.8 \times 1\frac{1}{8}$ "
Outer row rivet pitch at ends. 8 " Depth of flange if manhole flanged. $2\frac{1}{2}$ " 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. ☒ 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

None

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. Working pressure as per
Rules. Pressure to which the safety valves are adjusted. Hydraulic test pressure:
tubes. forgings and 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 22 inclusive for boilers been complied with.

The foregoing is a correct description,

FOR SWAN, HUNTER & WILSON

GENERAL MANAGER-ENGINEERING DEPT.

Manufacturer.

Dates of Survey ^{while building} _{During progress of work in shops - -} As listed on Report 46 Are the approved plans of boiler and superheater forwarded herewith. ☒
_{During erection on board vessel - - -} Total No. of visits.

Is this Boiler a duplicate of a previous case. ☒ If so, state Vessel's name and Report No. BRITISH ARBOUR. 106768

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

These boilers have been built under special survey in accordance with rule require-
ments & approved plans. Materials & workmanship are good. Hydraulic test satisfac-
tory. They have been efficiently installed & fixed in vessel, examined under steam
& their safety valves adjusted to the approved pressure.

Survey Fee £ : When applied for, 19.....
Travelling Expenses (if any) See Mch Report : When received 19.....

J. H. Matthews
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI. 30 JUN 1950

Assigned See F.E. mch. rph



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