

# AUXILIARY REPORT ON BOILERS.

No. 104585

Received at London Office.  
NEWCASTLE-ON-TYNE

Surveying Report. 15-6-47 When handed in at Local Office 3 - JUL 1947 Port of

Survey held at Wallsend Date, First Survey 11<sup>th</sup> DECEMBER, 1945 Last Survey 9<sup>th</sup> JUNE 1947

on the 3/3 PATRICIAN. (Number of Visits 135) Tons Gross Net

Built at Sunderland By whom built J. L. Thompson Yard No. 649 When built 1947-6  
made at Wallsend By whom made Wallsend Shipway & Engg Co. Engine No. 998 When made 1947  
made at Wallsend By whom made ditto Boiler No. 998 When made 1947  
Horse Power 4926 = 328 Owners Ellerman Lines Port belonging to

## TUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Constructors of Steel Colvilles Ltd., Glasgow (Letter for Record S.)  
Heating Surface of Boilers 4926 sq ft Is forced draught fitted Yes Coal or Oil fired Oil fired  
Description of Boilers 2 Single Ended Working Pressure 160 lb  
by hydraulic pressure to 290 lb Date of test 18-10-46 No. of Certificate N°1223. Can each boiler be worked separately Yes  
Firegrate in each Boiler 2 No. and Description of safety valves to each boiler Two 2 1/2" Cockburn's Sup. High Lift.  
each set of valves per boiler 8.8 sq inches Pressure to which they are adjusted 165 lb Are they fitted with easing gear Yes  
Aux. of donkey boilers, state whether steam from main boilers can enter the donkey boilers. No  
distance between boilers or uptakes and bunkers or woodwork 19" Is oil fuel carried in the double bottom under boilers Yes  
distance between shell of boiler and tank top plating 2'-3" Is the bottom of the boiler insulated Yes  
internal dia. of boilers 14'-6" Length 12'-8 1/2" Shell plates: Material Stl Tensile strength 29-33 tons  
Are the shell plates welded or flanged No Description of riveting: circ. seams end D.R. inter Nil  
ams T.R. Dble butt straps Diameter of rivet holes in circ. seams 1 3/32" Pitch of rivets 3-352  
plate of strength of circ. end seams rivets 43.0. Percentage of strength of circ. intermediate seam plate Nil rivets Nil  
plate of strength of longitudinal joint plate 86.0 rivets 86.5 Working pressure of shell by Rules 162 lb.  
combined 89.3  
ess of butt straps outer 25/32 inner 29/32 No. and Description of Furnaces in each Boiler 3 C.f. (Depth type)  
al Stl Tensile strength 26-30 tons Smallest outside diameter 3'-5 1/2"  
of plain part top bottom Thickness of plates crown 1 1/2" bottom 1 1/2" Description of longitudinal joint Fire weld  
sions of stiffening rings on furnace or c.c. bottom Nil Working pressure of furnace by Rules 174 lb  
lates in steam space: Material Stl Tensile strength 26-30 tons Thickness 1 1/4" Pitch of stays 21" x 21"  
re stays secured Nutted inside & outside Working pressure by Rules 182 lb  
plates: Material front back Stl Tensile strength 26-30 tons Thickness front 1" back 13/16"  
pitch of stay tubes in nests 10 3/4" Pitch across wide water spaces 13 1/2" x 7 1/2" Working pressure front 216 lb back 205 lb  
rs to combustion chamber tops: Material Stl Tensile strength 29-33 tons Depth and thickness of girder  
tre 9 1/2" x 3/4" dble Length as per Rule 38 5/8" Distance apart 9" No. and pitch of stays  
h 3 at 9 5/32" Working pressure by Rules 162 lb Combustion chamber plates: Material Stl  
e strength 26-30 tons Thickness: Sides 5/8" Back 1/16" Top 5/8" Bottom 3/4"  
of stays to ditto: Sides 9" x 9 3/32" Back 9 1/2" x 10 1/2" Top 9 x 9 5/32" Are stays fitted with nuts or riveted over. The 1 1/2" dia in Back-end are RIVETED. Remainder are NUTTED.  
ing pressure by Rules 163 lb Front plate at bottom: Material Stl Tensile strength 26-30 tons  
ness 1" Lower back plate: Material Stl Tensile strength 26-30 tons Thickness 7/8"  
of stays at wide water space 14" x 10" max Are stays fitted with nuts or riveted over. with nuts  
ing pressure 210 lb Main stays: Material Stl Tensile strength 28-32 tons  
eter At body of stay 3 1/4" No. of threads per inch 6 Area supported by each stay 441 sq in  
Over threads 3 1/4" Screw stays: Material Stl Tensile strength 26-30 tons  
ing pressure by Rules 26-30 tons  
eter At body of stay 1 1/2" No. of threads per inch 9 Area supported by each stay

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Foundation

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(1/2) 1954  
Working pressure by Rules (1/2) 164 lb Are the stays drilled at the outer ends. No Margin stays: Diameter { At turned off part... 1 5/8" Over threads... 1 3/8" }  
No. of threads per inch 9 Area supported by each stay Working pressure by Rules 183 lb 13.  
Tubes: Material S.D.S.L External diameter { Plain 2 1/2" Stay 2 1/2" } Thickness 9 1/16" 3/8" No. of threads per inch 9.  
Pitch of tubes 3 3/4" x 3 7/8" Working pressure by Rules 166 lb min. Manhole compensation: Size of shell plate 20" x 16" Section of compensating ring 19" x 1 1/2" No. of rivets and diameter of rivet holes 48 2 1/2"  
Outer row rivet pitch at ends 7 13/16" Depth of flange if manhole flanged 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 stays Inner radius of crown Working pressure by Rules  
How connected to shell Size of doubling plate under dome Diameter of rivet holes of rivets in outer row in dome connection to shell  
Type of Superheater NONE FITTED. 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 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 casing gear Working pressure Rules Pressure to which the safety valves are adjusted Hydraulic test tubes forgings and castings and after assembly in place Are drawn 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.

FOR THE WALLSEND SLIPWAY & ENGINEERING CO. LIMITED.  
J. B. Kerr GENERAL MANAGER

Dates of Survey while building { During progress of work in shops - - During erection on board vessel - - } PLEASE SEE MACHINERY REPORT Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 30  
Total No. of visits

Is this Boiler a duplicate of a previous case. Yes. If so, state Vessel's name and Report No. Egyptian. Nav. Rpt No 1043

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)  
These 2 Aux. Donkey Boilers (for auxiliaries essential at sea), have been constructed under special survey in accordance with the approved plans and the Rules, and the materials and workmanship are good.  
The Boilers have been efficiently fitted on board and tested satisfactorily under working conditions.

See also Mch. Rpt H.2.

Survey Fee ... £ 43: 7/- } When applied for 3 - JUL 1947  
Travelling Expenses (if any) £ : : } When received 19

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI. 25 JUL 1947

Assigned See F.E. Mch. rph