

## REPORT ON BOILERS.

No. 133067

6 JUN 1951

Received at London Office

Date of writing Report 7-5-51 When handed in at Local Office 9-5-51 Port of Liverpool

Survey held at Birkenhead Date, First Survey 16/6/49 Last Survey 30-4-1951

on the single screw Tug "GENERAL PUEYRREDON" (Number of Visits 3/8) Gross 12741 Net 7396

Built at Birkenhead By whom built Cammell, Laird &amp; Co. Ltd. Yard No 1204 When built 1951

Engines made at Birkenhead By whom made Cammell, Laird &amp; Co. Ltd. Engine No 1204 When made 1951

Boilers made at Birkenhead By whom made Cammell, Laird &amp; Co. Ltd. Boiler No 1204 When made 1951

MN Nominal Horse Power 483 Owners Yacimientos Petroliferos Fiscales Port belonging to Buenos Aires

## MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

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

Total Heating Surface of Boilers 5800 sq ft - 2 boilers Of Superheaters ✓

Total for Register Book ✓ Is forced draught fitted yes ✓ Coal or Oil fired oil ✓

No. and Description of Boilers Two single ended return tube Working Pressure 130 lb

Tested by hydraulic pressure to 275 lb Date of test 26-7-50 No. of Certificate 2780, 2781 Can each boiler be worked separately yes ✓

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler one double 2 3/4" Improved High Lift

Area of each set of valves per boiler { per Rule 11.2 0" as fitted 11.8 0" ✓ Pressure to which they are adjusted 150 lb Are they fitted with easing gear yes ✓

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork well clear Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating ✓ Is the bottom of the boiler insulated yes ✓

Largest internal dia. of boilers 15'-6" ✓ Length 12'-0" ✓ Shell plates: Material Steel Tensile strength 29-33 T/O ✓

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

been complied with ✓ Thickness 1 1/16" Are the shell plates welded or flanged no ✓ Description of riveting: circ. seams { end D.R. ✓ inter ✓

long. seams { Double Butt Straps Diameter of rivet holes in { circ. seams 1 1/8" ✓ long. seams 1 1/8" ✓ Pitch of rivets { 2.94" ✓ 7 7/8" ✓

Percentage of strength of circ. end seams { plate 61 rivets 50 Percentage of strength of circ. intermediate seam { plate ✓ rivets ✓

Percentage of strength of longitudinal joint { plate 85.7 rivets 88 combined 89

Thickness of butt straps { outer 7/8" ✓ inner 15/16" ✓ No. and Description of Furnaces in each Boiler Three Deighton Section

Material Steel Tensile strength 26-30 T/O ✓ Smallest outside diameter 3'-10 7/8" ✓

Length of plain part { top ✓ bottom ✓ Thickness of plates 9/16" ✓ Description of longitudinal joint Weld ✓

Dimensions of stiffening rings on furnace or c.c. bottom ✓

End plates in steam space: Material Steel Tensile strength 26-30 T/O ✓ Thickness 1 3/32" ✓ Pitch of stays 22" x 17 1/2" ✓

How are stays secured Double nuts and outside washers

Tube plates: Material { front Steel Tensile strength 26-30 T/O ✓ back Steel Tensile strength 26-30 T/O ✓ Thickness { 7/8" ✓ 13/16" ✓

Mean pitch of stay tubes in nests 11 1/4" x 7 3/4" Pitch across wide water spaces 13 1/2" ✓

Girders to combustion chamber tops: Material Steel Tensile strength 28-32 T/O ✓ Depth and thickness of girder

at centre 12 1/2" x 1 1/4" ✓ Length as per Rule 3'-1 1/2" ✓ Distance apart 9" ✓ No. and pitch of stays

Welded to c.c. top ✓ Combustion chamber plates: Material Steel

Tensile strength 26-30 T/O ✓ Thickness: Sides 2 1/32" ✓ Back 1/16" ✓ Top 2 1/32" ✓ Bottom 7/8" ✓

Pitch of stays to ditto: Sides 9 1/2" x 9 1/2" ✓ Back 9 3/4" x 9 1/2" ✓ Top Welded ✓ Are stays fitted with nuts or riveted over nuts

Front plate at bottom: Material Steel Tensile strength 26-30 T/O ✓

Thickness 7/8" ✓ Lower back plate: Material Steel Tensile strength 26-30 T/O ✓ Thickness 7/8" ✓

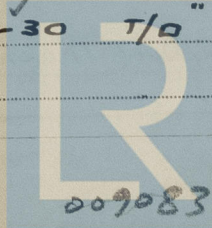
Pitch of stays at wide water space 15" x 9 1/2" ✓ Are stays fitted with nuts or riveted over nuts ✓

Main stays: Material Steel Tensile strength 28-32 T/O ✓

Diameter { At body of stay 3" ✓ or No. of threads per inch 6 ✓ Over threads

Screw stays: Material Steel Tensile strength 26-30 T/O ✓

Diameter { At turned off part 1 5/8" ✓ or No. of threads per inch 9 ✓ Over threads



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Are the stays drilled at the outer ends to ✓ Margin stays: Diameter 1 3/4" <sup>turned off part</sup> <sub>or</sub> <sup>Over threads</sup>  
No. of threads per inch 9 ✓  
Tubes: Material Steel External diameter 2 1/2" ✓ Plain 2 1/2" ✓ Stay 2 1/2" ✓ Thickness 9/16" ✓ No. of threads per inch 9 ✓  
Pitch of tubes 3 3/8" x 3 3/4" (C) 3 3/4" x 3 3/4" (W) ✓ Manhole compensation: Size of opening in  
shell plate 17 1/4" x 21 1/4" ✓ Section of compensating ring 15 1/2" x 1 3/16" ✓ No. of rivets and diameter of rivet holes 48 x 1 1/8" ✓  
Outer row rivet pitch at ends 7 3/8" ✓ Depth of flange if manhole flanged 3 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 ✓  
Internal diameter ✓ Thickness of crown ✓ Rivets ✓ 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 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 yes ✓

The foregoing is a correct description of the boiler and superheater  
E. Stewart Manufacturer.

for ENGINEERING MANAGER

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 ✓

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

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, the Society's Rules and the Secretary's letters. The materials and workmanship are good. They have been properly installed in the vessel and tried under working conditions with satisfactory results

See Rpt 4a  
Survey Fee ... £ 73 : 6 : 0 } When applied for ✓ 19...  
Travelling Expenses (if any) £ - : : } When received ✓ 19...

G. Pinner  
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute LIVERPOOL 15 JUN 1951

Assigned See Liverpool Machinery Rpt.



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