

## REPORT ON BOILERS.

No. 10016

Received at London Office

3 NOV 1927

Date of writing Report 24 October 1927 When handed in at Local Office

192

Port of AMSTERDAM

No. in Survey held at AMSTERDAM

Date, First Survey 6 April 1925 Last Survey 18 October 1927

835 on the Steel Screw Steamer "E L A X"

(Number of Visits 14) Gross 7400

Tons Net

Built at Amsterdam By whom built Nederl. Schipsb. My. Yard No. 184 When built 1927

Engines made at Amsterdam By whom made Werkspoor Engine No. - When made 1927

Boilers made at Amsterdam By whom made Werkspoor Boiler No. - When made 1927

Nominal Horse Power 1200 Owners Anglo-Saxon Petroleum Co. Ltd. Port belonging to London

## MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colville (Lunnys Leeds Forge) (Letter for Record S. ✓)

Total Heating Surface of Boilers 2452 sq. ft. Is forced draught fitted Yes ✓ Coal or Oil fired

No. and Description of Boilers 2 Horizontal marine boilers Working Pressure 180 lb ✓

Tested by hydraulic pressure to 320 lb. Date of test 4-1-24 No. of Certificate 315/516 Can each boiler be worked separately Yes ✓

Area of Firegrate in each Boiler 2 No. and Description of safety valves to each boiler 2 Spring loaded ✓

Area of each set of valves per boiler {per Rule 9.44 inch as fitted 9.44 inch Pressure to which they are adjusted 180 lb. Are they fitted with easing gear Yes ✓

In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler L

Smallest distance between boilers or uptakes and bunkers or woodwork L Is oil fuel carried in the double bottom under boilers Yes ✓

Smallest distance between shell of boiler and tank top plating 2" Is the bottom of the boiler insulated Yes ✓

Largest internal dia. of boilers 10' 6" Length 10' 6" Shell plates: Material Steel Tensile strength 29 1/4 - 33 tons

Thickness 29/32" Are the shell plates welded or flanged No. ✓ Description of riveting: circ. seams {end - All united

Long. seams All butt strap butt welded Diameter of rivet holes in {circ. seams 63/64" long. seams 63/64" Pitch of rivets {3 1/4" 1 1/16" ✓

Percentage of strength of circ. end seams {plate 40% rivets 38% Percentage of strength of circ. intermediate seam {plate L rivets L

Percentage of strength of longitudinal joint {plate 85.3% rivets 84.5% combined 88% Working pressure of shell by Rules 198 lb

Thickness of butt straps {outer 53/64" inner 53/64" No. and Description of Furnaces in each Boiler 2 Marine furnaces

Material Steel Tensile strength 26-30 tons Smallest outside diameter 34 1/2" ✓

Length of plain part {top L bottom L Thickness of plates {crown 15/32" bottom 15/32" Description of longitudinal joint Welded ✓

Dimensions of stiffening rings on furnace or c.c. bottom L Working pressure of furnace by Rules 195 lb

End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 63/64" Pitch of stays 15 3/4" x 15 3/4" ✓

How are stays secured All nuts ✓ Working pressure by Rules 182 lb

Tube plates: Material {front Steel back Steel Tensile strength {26/30 tons Thickness {63/64" 25/32" ✓

Mean pitch of stay tubes in nests 10" Pitch across wide water spaces 14 3/16" Working pressure {front 183 lb back 186 lb

Girders to combustion chamber tops: Material Steel Tensile strength 28/30 tons Depth and thickness of girder

at centre 6 3/8" x 1 1/2" Length as per Rule 25 5/8" Distance apart 4 7/8" No. and pitch of stays

in each 2 x 8 1/4" Working pressure by Rules 190 lb. Combustion chamber plates: Material Steel

Tensile strength 26/30 tons Thickness: Sides 23/32" Back 23/32" Top 23/32" Bottom 23/32" ✓

Pitch of stays to ditto: Sides 8 1/4" x 4 7/16" Back 8 1/4" x 4 7/16" Top 8 1/4" x 4 7/16" Are stays fitted with nuts or riveted over riveted over ✓

Working pressure by Rules 190 lb. Front plate at bottom: Material Steel Tensile strength 26/30 tons

Thickness 63/64" Lower back plate: Material Steel Tensile strength 26/30 tons Thickness 63/64" ✓

Pitch of stays at wide water space 13 x 5 7/8" Are stays fitted with nuts or riveted over nuts ✓

Working Pressure 330 lb Main stays: Material Steel Tensile strength 28/30 tons ✓

Diameter {at body of stay, 2 1/2" No. of threads per inch 8 Area supported by each stay 248 sq. in. ✓

Working pressure by Rules 183 lb. Screw stays: Material Steel Tensile strength 26/30 tons ✓

Diameter {at turned off part, 1 1/2" No. of threads per inch 11 Area supported by each stay 62.5 sq. in. ✓



PILLARS

Working pressure by Rules 190 lb Are the stays drilled at the outer ends Yes Margin stays: Diameter 1 1/2"  
No. of threads per inch 11 Area supported by each stay 60 sq. inch Working pressure by Rules 206 lb  
Tubes: Material Lap welded iron External diameter 2 3/4" Thickness 5/16" No. of threads per inch 11  
Pitch of tubes 3 15/16" Working pressure by Rules 215 lb Manhole compensation: Size of opening 14 1/2" x 18 1/2"  
Section of compensating ring 16 sq. inch No. of rivets and diameter of rivet holes 40 - 1 1/8"  
Outer row rivet pitch at ends 4 1/2" Depth of flange if manhole flanged 3" Steam Dome: Material No Dome  
Tensile strength < Thickness of shell < Description of longitudinal joint <  
Diameter of rivet holes < Pitch of rivets < Percentage of strength of joint <  
Internal diameter < Working pressure by Rules < Thickness of crown < No. and diameter of rivets <  
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 No Superheater 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 shut off from the boiler <  
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 tested <  
Rules < Pressure to which the safety valves are adjusted < Hydraulic test pressure <  
tubes < 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 23 inclusive for boilers been complied with Yes

The foregoing is a correct description,

WERKSPOR

Dates of Survey: During progress of work in shops - 6/4, 15/4, 22/4, 4/5, 14/5, 22/5, 3/6, 24/6, 14/7, 1925  
while building: During erection on board vessel - 4/1 - 1926  
Are the approved plans of boiler and superheater forwarded herewith Yes  
(If not state date of approval.) London office 12.1.26  
Total No. of visits 14

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

The boiler has been made under Special Survey in accordance with the plans, Rules and Society's letter. Material tested as required and workmanship good.

Survey Fee ... Free : : When applied for, 192  
Travelling Expenses (if any) £ : : When received, 192

P. W. Bennett

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 8 NOV 1927

Assigned

See S. 8 rpt. attached



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