

RECEIVED  
Rpt. 5a.  
20 DEC 1946  
IN D.O.

NEWCASTLE-on-TYNE No 104516

# REPORT ON BOILERS.

No. 10413  
18 DEC 1946

Received at London Office

Date of writing Report 19 16.12.46 When handed in at Local Office 16.12.46 Port of NEWCASTLE-ON-TYNE

No. in Reg. Book. Survey held at Wallsend Date, First Survey (1946) Oct. 12<sup>th</sup> Last Survey Dec. 11<sup>th</sup> 1946

on the M.V. LAMPANIA (Number of Visits 13) Tons { Gross 6437.59 Net 3625.14

Master ✓ Built at Hebburn By whom built Hawthorn, Leslie & Co Yard No. 690 When built 1947

✓ Main Oil Engines made at Newcastle (St. Peters) By whom made ditto Engine No. 4038 When made 1947

Donkey Boiler made at Wallsend By whom made N.E. MAR. ENG. CO (1938) LTD Boiler No. 3159 When made 1946

Nominal Horse Power of Boiler 230 Owners Anglo-Saxon Petroleum Co. Ltd Port belonging to London

## MULTITUBULAR BOILER ~~MAIN, AUXILIARY, OR~~ DONKEY.

Manufacturers of Steel COLNIELLS LTD (Letter for Record S.)

Total Heating Surface of Boilers 3453 sq ft. Is forced draught fitted YES Coal or Oil fired OIL FIRED OR EXH. GAS.

No. and Description of Boilers One, Single Ended Working Pressure 180 LBS/IN<sup>2</sup>

Tested by hydraulic pressure to 320 <sup>1/2</sup> lb Date of test 6-12-46 No. of Certificate 1233 Can each boiler be worked separately ✓

Area of Firegrate in each Boiler ✓ No. and Description of safety valves to each boiler Two of 3" Cockburns Imp'd High Lift.

Area of each set of valves per boiler { per Rule 11.13 sq ins as fitted 14.12 Pressure to which they are adjusted 11.07 Are they fitted with casing gear YES

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

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

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

Largest internal dia. of boilers 16'-0 3/8" Length 12'-6" (mean) Shell plates: Material Stl Tensile strength 28-32 tons

Thickness 1 5/16" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D.R. inter. ✓

long. seams T.R. Dble butt straps Diameter of rivet holes in { circ. seams } 1 3/8" Pitch of rivets { long. seams } 4" 9 1/2"

Percentage of strength of circ. end seams { plate 65.6 rivets 46.4 Percentage of strength of circ. intermediate seam { plate rivets

Percentage of strength of longitudinal joint { plate 85.52 rivets 91.7 combined 89.34 Working pressure of shell by Rules 180.8 lb/IN<sup>2</sup>

Thickness of butt straps { outer 1" inner 1 1/8" No. and Description of Furnaces in each Boiler 3 C.F. (Morison type)

Material Stl Tensile strength 26-30 tons Smallest outside diameter 3'-11 7/16"

Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 1 9/32" bottom 1 9/32" Description of longitudinal joint fire weld

Dimensions of stiffening rings on furnace or c.c. bottom N/A Working pressure of furnace by Rules 181 lb

End plates in steam space: Material Stl Tensile strength 28-32 tons Thickness 1 1/32" Pitch of stays 23" x 20"

How are stays secured Nutted inside & outside Working pressure by Rules 182 lb

Tube plates: Material { front } Stl Tensile strength { back } 26-30 tons Thickness { front 29/32" back 25/32"

Mean pitch of stay tubes in nests 9 7/8" Pitch across wide water spaces 13 3/4" x 7 3/4" Working pressure { front 225 lb. back 223 lb.

Girders to combustion chamber tops: Material Stl Tensile strength 28-32 tons Depth and thickness of girder

at centre 11" x 7/8" dble. Length as per Rule 40" Distance apart 10 1/2" No. and pitch of stays

in each 3 of 9 1/2" pitch. Working pressure by Rules 196 lb Combustion chamber plates: Material Stl

Tensile strength 26-30 tons Thickness: Sides 3/4" Back 3/4" Top 3/4" Bottom 3/4"

Pitch of stays to ditto: Sides 9 1/2" x 7 1/4" Back 9" x 7 1/16" Top 10 1/2" x 9 1/2" Are stays fitted with nuts or riveted over C.C. marginal & corner are NUTTED. Remainder - riveted over.

Working pressure by Rules min. 185 lb (at sides) Front plate at bottom: Material Stl Tensile strength 26-30 tons

Thickness 29/32" Lower back plate: Material Stl Tensile strength 26-30 tons Thickness 7/8"

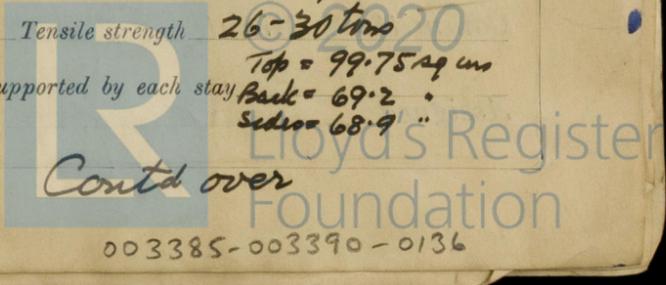
Pitch of stays at wide water space 14 5/8" x 9" Are stays fitted with nuts or riveted over marginal - are NUTTED. Remainder - riveted over.

Working Pressure 212 lb. Main stays: Material Stl Tensile strength 28-32 tons

Diameter { At body of stay, 3 1/4" or 3 1/2" No. of threads per inch 6. Area supported by each stay 460 sq ins

Working pressure by Rules 200 lb Screw stays: Material Stl. Tensile strength 26-30 tons

Diameter { At turned off part, 2", 1 3/4", 1 1/2" No. of threads per inch 9. Area supported by each stay Top = 99.75 sq ins. Back = 69.2. Sides = 68.9"



003385-003390-0136

Working pressure by Rules 182 lb Are the stays drilled at the outer ends No Margin stays: Diameter <sup>At turned off part</sup> 1 3/4" + 2"  
 No. of threads per inch 9 Area supported by each stay 100.6 sq in Working pressure by Rules 180 lb  
 Tubes: Material Seamless Stl External diameter <sup>Plain</sup> 2 3/4" Thickness <sup>9. W.G.</sup> 3/8", 5/16" No. of threads per inch 9  
 Pitch of tubes 3 7/8" x 4" Working pressure by Rules 210 lb min (for 5/16" thick) Manhole compensation: Size of opening in  
 shell plate 20 1/2" x 16 1/2" Section of compensating ring 17" x 1 3/8" No. of rivets and diameter of rivet holes 34 of 1 1/2" dia  
 Outer row rivet pitch at ends 10 1/2" Depth of flange if manhole flanged 4" Steam Dome: NIL  
 Tensile strength Thickness of shell Description of longitudinal joint  
 Diameter of rivet holes Pitch of rivets Percentage of strength of joint <sup>Plate</sup> <sup>Rivets</sup>  
 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 NIL Manufacturers of <sup>tubes</sup> NIL <sup>Steel forgings</sup> <sup>Steel castings</sup>  
 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,  
**THE NORTH EASTERN MARINE ENGINEERING CO. (1938) LTD.**  
*J. A. Orle* Manufacturer.

Dates of Survey <sup>During progress of</sup> <sup>work in shops</sup> (1946) Oct. 1, 3, 11, 15, 18, 19, 21, 27, 29 Are the approved plans of boiler and superheater forwarded herewith 3/6/46  
<sup>while</sup> <sup>building</sup> <sup>board vessel</sup> 4, 6, 9, 11 (If not state date of approval.) **DIRECTOR**  
 Total No. of visits 13

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. M.V. LATIA.  
NE Mar Bk No 3124. New Rpt. 103754

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.)  
*This Donkey Boiler has been constructed under special Survey in accordance with the approved plan & the Society's Rules, and the materials and workmanship are good*  
*The Boiler is to be sent to Hebburn to be fitted on board, Hawthorn Leslie's Yard No 690.*  
*The boiler has been efficiently installed on board, examined under steam and the safety valves adjusted to the approved pressure.*

*J. A. Orle Newcastle-on-Tyne*

Survey Fee ... £ 34 : 10 : } When applied for, 19  
 Travelling Expenses (if any) £ : : } When received, 19  
 17. DEC 1946

*A. Watt*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI, 27 JUN 1947

Assigned See F.E. mch. rpt.

