

# REPORT ON BOILERS.

No. 46139

Received at London Office

24 NOV 1926

Date of writing Report **18<sup>th</sup> Oct 1926** When handed in at Local Office **21-10-1926** Port of **Glasgow**

No. in Surrey held at **Renfrew** Date, First Survey **13<sup>th</sup> April** Last Survey **15<sup>th</sup> Oct 1926**

on the **non-propelling bucket dredger "Telford"** (Number of Visits **30**) Tons { Gross **424** Net

Master \_\_\_\_\_ Built at **Renfrew** By whom built **Lobnitz & Co** Yard No. **918** When built **1926**

Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ Engine No. \_\_\_\_\_ When made \_\_\_\_\_

Boilers made at **Renfrew** By whom made **Lobnitz & Co Ltd** Boiler No. **918** When made **1926**

Nominal Horse Power \_\_\_\_\_ Owners **London & N. E. Ry Co** Port belonging to **Hull**

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

Manufacturers of Steel **Wm Beardmore & Co Ltd** (Letter for Record **S.**)

Total Heating Surface of Boilers **1404 sq ft** Is forced draught fitted **no** Coal or Oil fired

No. and Description of Boilers **One - multitubular** Working Pressure **120**

Tested by hydraulic pressure to **230** Date of test **13-7-26** No. of Certificate **17179** Can each boiler be worked separately **yes**

Area of Firegrate in each Boiler **47 sq ft** No. and Description of safety valves to each boiler **2 - spring loaded**

Area of each set of valves per boiler { per Rule **6.5** as fitted **6.5** Pressure to which they are adjusted **125** Are they fitted with easing gear **yes**

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

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

Smallest distance between shell of boiler and tank top plating **Open floors** Is the bottom of the boiler insulated **no**

Largest internal dia. of boilers **12'-9"** Length **10'-0"** Shell plates: Material **S** Tensile strength **28-32**

Thickness **27/32"** Are the shell plates welded or flanged **no** Description of riveting: circ. seams { end **T.R.** inter. **none**

Long. seams **T.R.I.B.S.** Diameter of rivet holes in { circ. seams **1"** long. seams **1"** Pitch of rivets { **3 3/4"** **6 1/4"**

Percentage of strength of circ. end seams { plate **69** rivets **47** Percentage of strength of circ. intermediate seam { plate **84** rivets **91.5**

Percentage of strength of longitudinal joint { plate **84** rivets **91.5** combined **90** Working pressure of shell by Rules **131**

Thickness of butt straps { outer **1 1/16"** inner **13/16"** No. and Description of Furnaces in each Boiler **2 - Deighton**

Material **S** Tensile strength **26-30** Smallest outside diameter **46.375"**

Length of plain part { top **7/16"** bottom **7/16"** Description of longitudinal joint **weld**

Dimensions of stiffening rings on furnace or c.e. bottom **none** Working pressure of furnace by Rules **134**

plates in steam space: Material **S** Tensile strength **26-30** Thickness **3/4"** Pitch of stays **15" x 13 1/2"**

Are stays secured **I.N.W.** Working pressure by Rules **125**

End plates: Material { front **S** back **S** Tensile strength { **26-30** **26-30** Thickness { **3/4"** **3/4"**

Pitch of stay tubes in nests **9.2"** Pitch across wide water spaces **15"** Working pressure { front **128** back **128**

Boilers to combustion chamber tops: Material **S** Tensile strength **28-32** Depth and thickness of girder

Centre **6 1/2" x 1 1/8"** Length as per Rule **27"** Distance apart **7 1/2"** No. and pitch of stays

each **2 - 8 1/2" x 7 1/2"** Working pressure by Rules **150** Combustion chamber plates: Material **S**

Tensile strength **26-30** Thickness: Sides **1/2"** Back **1/2"** Top **1/2"** Bottom **7/8"**

Pitch of stays to ditto: Sides **8 1/2" x 8"** Back **8" x 8"** Top **8 1/2" x 7 1/2"** Are stays fitted with nuts or riveted over **nuts**

Working pressure by Rules **124** Front plate at bottom: Material **S** Tensile strength **26-30**

Thickness **3/4"** Lower back plate: Material **S** Tensile strength **26-30** Thickness **1 1/16"**

Pitch of stays at wide water space **13 1/2" x 8"** Are stays fitted with nuts or riveted over **nuts**

Working Pressure **128** Main stays: Material **S** Tensile strength **28-32**

Diameter { At body of stay, **2 1/4"** No. of threads per inch **6** Area supported by each stay **15" x 13 1/2"**

Working pressure by Rules **172** Screw stays: Material **S** Tensile strength **26-30**

Diameter { At turned off part, **1 1/2"** No. of threads per inch **9** Area supported by each stay **8" x 8 1/2"**

Working pressure by Rules **185** Are the stays drilled at the outer ends **no** Margin stays: Diameter <sup>At turned off part.</sup> <sub>or</sub> <sup>Over threads</sup> **1 3/4** ✓  
 No. of threads per inch **9** Area supported by each stay **86"** Working pressure by Rules **210**  
 Tubes: Material **Steel** ✓ External diameter <sup>Plain</sup> **3 1/4"** ✓ <sup>Stay</sup> **3 1/4"** ✓ Thickness **10 B.W.G.** ✓ No. of threads per inch **9** ✓  
 Pitch of tubes **4 1/4" x 4 1/4"** ✓ Working pressure by Rules **130** Manhole compensation: Size of opening in shell plate **19" x 23"** ✓ Section of compensating ring **41" x 31" x 27/32"** No. of rivets and diameter of rivet holes **59 x 1"**  
 Outer row rivet pitch at ends **5 1/2"** ✓ Depth of flange if manhole flanged **3"** ✓ Steam Dome: Material **Woods**  
 Tensile strength \_\_\_\_\_ Thickness of shell \_\_\_\_\_ Description of longitudinal joint \_\_\_\_\_  
 Diameter of rivet holes \_\_\_\_\_ Pitch of rivets \_\_\_\_\_ Percentage of strength of joint <sup>Plate</sup> <sub>Rivets</sub> \_\_\_\_\_  
 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** \_\_\_\_\_ Manufacturers of <sup>Tubes</sup> \_\_\_\_\_ <sub>Steel castings</sub> \_\_\_\_\_  
 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 \_\_\_\_\_ 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 \_\_\_\_\_

**FDR LOBNITZ & Co., LIMITED**  
 The foregoing is a correct description,  
*H. O. Bedford* Director Manufacturer.

Dates of Survey <sup>During progress of work in shops - - -</sup> **1926 Apr 13-20-28 May 11-18-21-26-28** Are the approved plans of boiler and superheater forwarded herewith **yes** (If not state date of approval.)  
<sup>while building</sup> <sup>During erection on board vessel - - -</sup> **June 14-15-18-23-29 July 6-13 Aug 11-14-24-25-27**  
**Sep 8-9-14-21-29 Oct 1-5-13-15** Total No. of visits **30**

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) *This boiler has been built under special survey, in accordance with the approved plan, and the Society's Rules & requirements, the materials and workmanship are good, the boiler has been securely fitted on board, and in my opinion is eligible for the record + N. B. 10.26.*

*The safety valves were adjusted under steam to 125 lbs. Thickness washers 3/8". The sea connections were examined, the feed arrangements for the boiler, & the bilges were tested under steam.*

**It is submitted that this vessel is eligible for THE RECORD. + NB 10.26.**

Survey Fee ... £ **9 8 0** When applied for, **22 NOV 1926**  
 Fitting out ... £ **2 2 0** When received, **26.11.1926**  
 Travelling Expenses (if any) £ \_\_\_\_\_

**120 1/2**  
*Jas. Cairns*  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 23 NOV 1926**

Assigned **+ N.B. 10.26**

