

# REPORT ON BOILERS.

No. 33440.

MON. DEC. 29. 1913

Date of writing Report 20.12.1913 When handed in at Local Office Port of Glasgow  
 No. in Survey held at Renfrew Date, First Survey 21.5.13 Last Survey 9.12.1913  
 Reg. Book. on the Non propelling Sand Pump Dredger. (Number of Vessels 18) } Gross Tons  
 Master Renfrew Built at Renfrew By whom built Lobnitz & Co When built 1913  
 Engines made at Renfrew By whom made Lobnitz & Co (No 113) When made 1913  
 Boilers made at Renfrew By whom made Lobnitz & Co Port belonging to Karachi  
 Registered Horse Power — Owners Karachi Port Trust

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel Steel Co of Scotland  
 (Letter for record 5) Total Heating Surface of Boilers 5400 sq ft Is forced draft fitted yes No. and Description of Boilers Four single ended Working Pressure 160 lbs Tested by hydraulic pressure to 320 lbs Date of test 20.11.13  
 No. of Certificate 12401 Can each boiler be worked separately yes Area of fire grate in each boiler 50 sq ft No. and Description of safety valves to each boiler 2 direct spring Area of each valve 5.94 sq in Pressure to which they are adjusted not adjusted  
 Are they fitted with easing gear — In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler —  
 Smallest distance between boilers or uptakes and bunkers or woodwork — Mean dia. of boilers 13'-3" Length 10'-0"  
 Material of shell plates steel Thickness 1 3/32 Range of tensile strength 28/32 tons Are the shell plates welded or flanged no  
 Descrip. of riveting: cir. seams DR lap long. seams DRS TR Diameter of rivet holes in long. seams 1 7/16 Pitch of rivets 8"  
 Lap of plates or width of butt straps 1 1/2" Per centages of strength of longitudinal joint 83 Working pressure of shell by rules 178 lbs Size of manhole in shell 17 1/2 x 21 1/2 Size of compensating ring 32 x 28 x 1 1/2 flange No. and Description of Furnaces in each boiler 3 Brighton Material steel Outside diameter 40" Length of plain part — Thickness of plates —  
 Description of longitudinal joint welded No. of strengthening rings — Working pressure of furnace by the rules 188 Combustion chamber plates: Material steel Thickness: Sides 7/16 Back 7/16 Top 7/16 Bottom 7/8 Pitch of stays to ditto: Sides 8 x 1/2 Back 8 x 1/2  
 Top 7 1/2 x 7 1/2 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 182 Material of stays steel Diameter at smallest part 1.41 Area supported by each stay 60 Working pressure by rules 188 End plates in steam space: Material steel Thickness 1/16  
 Pitch of stays 16 x 16 How are stays secured DN + W Working pressure by rules 162 Material of stays steel Diameter at smallest part 4.77  
 Area supported by each stay 256 Working pressure by rules 194 Material of Front plates at bottom steel Thickness 1/16 Material of Lower back plate steel Thickness 1/16 Greatest pitch of stays 15 1/2" Working pressure of plate by rules 149 Diameter of tubes 3 1/2  
 Pitch of tubes 4 3/4 x 4 3/4 Material of tube plates steel Thickness: Front 1/16 Back 1/16 Mean pitch of stays 9 1/2" Pitch across wide water spaces 14 1/4 Working pressures by rules 210 Girders to Chamber tops: Material steel Depth and thickness of girder at centre 2 plates 6 1/2 x 1 1/8 Length as per rule 27" Distance apart 7 1/2" Number and pitch of Stays in each 2 of 7 1/2"  
 Working pressure by rules 164 Superheater or Steam chest; how connected to boiler none Can the superheater be shut off and the boiler worked separately — Diameter — Length — Thickness of shell plates — Material — Description of longitudinal joint — Diam. of rivet holes — Pitch of rivets — Working pressure of shell by rules — Diameter of flue — Material of flue plates — Thickness —  
 If stiffened with rings — Distance between rings — Working pressure by rules — End plates: Thickness — How stayed —  
 Working pressure of end plates — Area of safety valves to superheater — Are they fitted with easing gear —

The foregoing is a correct description,  
 FOR LOBNITZ & CO., LIMITED,  
 J. W. Smitheo. Manufacturer.

Dates of Survey: During progress of work in shops 1913. May 21. June 12-27. July 7-13. Is the approved plan of boiler forwarded here yes  
 while building: During erection on board vessel Aug. 18-28. Sept 11-19. Oct. 2-8-15-20. Nov. 5-8-17-20. Dec. 9. Total No. of visits 18

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under special survey in accordance with the rules and approved plan enclosed and with copper main steam pipes have been tested to 320 lbs. Materials & workmanship are good. Vessel is being shipped to Karachi in pieces. This vessel will be eligible in my opinion for the record + NB with date when the boilers have been fitted on board and safety valves adjusted

Survey Fee ... .. £ 14 : 8 : } When applied for 20.12.1913  
 Travelling Expenses (if any) £ : : } When received 26.12.1913

Harry Clarke.  
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute GLASGOW 23 DEC. 1913  
 Assigned Deferred for completion

TUE. FEB. -9. 1915

