

REPORT ON BOILERS.

No. 26150
WED. JUN. 24 1914.

Received at London Office

Date of writing Report **22 JUN. 1914** When handed in at Local Office **23 JUN. 1914** Port of **SUNDERLAND**

No. in Survey held at **SUNDERLAND** Date, First Survey **6 March** Last Survey **22 June 1914**
 Reg. Book. on the **New Steel S.S. "Ladoga"** (Number of Visits) Gross **1917** Tons Net **1154**
 Master **A. W. Reid** Built at **Sunderland** By whom built **S. P. Austin & Son Ltd. (2161.C.)** When built **1914**
 Engines made at **Sunderland** By whom made **North Eastern Marine Eng Co. Ltd.** When made **1914**
 Boiler made at **Sunderland** By whom made **North Eastern Marine Eng Co. Ltd.** When made **1914**
 Registered Horse Power **194** Owners **W. Thomson & Co.** Port belonging to **Leith**

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ DONKEY. — Manufacturers of Steel **J. Spencer & Sons Ltd. Newburn**

(Letter for record **(8.)**) Total Heating Surface of Boilers **642 sq ft** Is forced draft fitted **no.** No. and Description of Boilers **one single ended** Working Pressure **120 lbs** Tested by hydraulic pressure to **240 lbs** Date of test **22-5-14**
 No. of Certificate **3214** Can each boiler be worked separately Area of fire grate in each boiler **26 sq ft** No. and Description of safety valves to each boiler **Two spring loaded** Area of each valve **3.94 sq in** Pressure to which they are adjusted **125 lbs**
 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 **10" on main deck** Mean dia. of boilers **10'-0"** Length **9'-0"**
 Material of shell plates **Steel** Thickness **19/32"** Range of tensile strength **28 3/4 to 32 1/2** Are the shell plates welded or flanged **no**
 Descrip. of riveting: cir. seams **D.R.** long. seams **D.R.D.B.S.** Diameter of rivet holes in long. seams **15/16"** Pitch of rivets **6"**
 Lap of plates or width of butt straps **10 5/8"** Per centages of strength of longitudinal joint rivets **86.5** plate **84.3** Working pressure of shell by rules **120.1 lbs** Size of manhole in shell **16" x 12"** Size of compensating ring **9 1/2" x 19 1/2"** No. and Description of Furnaces in each boiler **Two plain** Material **Steel** Outside diameter **2'-11 3/4"** Length of plain part **62"** Thickness of plates crown **1 1/2"** bottom **1 1/2"**
 Description of longitudinal joint **weld** No. of strengthening rings **none** Working pressure of furnace by the rules **121 lbs** Combustion chamber plates: Material **Steel** Thickness: Sides **1/16"** Back **1/16"** Top **1/16"** Bottom **1/16"** Pitch of stays to ditto: Sides **14 3/8" x 8"** Back **11 1/2" x 11 3/4"** Top **14" x 8"** If stays are fitted with nuts or riveted heads **nuts** Working pressure by rules **121 lbs** Material of stays **Steel** Area at smallest part **1.79 sq in** Area supported by each stay **115 1/2 sq in** Working pressure by rules **140.1 lbs** End plates in steam space: Material **Steel** Thickness **13/16"** Diameter at smallest part **3-14"**
 Pitch of stays **18" x 14"** How are stays secured **D.N. Wash** Working pressure by rules **120 lbs** Material of stays **Steel** Area at smallest part **3-14"**
 Area supported by each stay **252 sq in** Working pressure by rules **129 lbs** Material of Front plates at bottom **Steel** Thickness **13/16"** Material of Lower back plate **Steel** Thickness **13/16"** Greatest pitch of stays **15" x 11 3/4"** Working pressure of plate by rules **125 lbs** Diameter of tubes **3 1/4"**
 Pitch of tubes **4 1/16" x 4 3/4"** Material of tube plates **Steel** Thickness: Front **13/16"** Back **11/16"** Mean pitch of stays **11.9"** Pitch across wide water spaces **14 1/8"** Working pressures by rules **120 lbs** Girders to Chamber tops: Material **Steel** Depth and thickness of girder at centre **2 @ 4 3/4" x 3 1/4"** Length as per rule **2' 5/8"** Distance apart **14"** Number and pitch of Stays in each **2 @ 8"**
 Working pressure by rules **126 lbs** 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,
NORTH EASTERN MARINE ENGINEERING CO. LTD Manufacturer.
J. T. Harrison Secy
per J.C.

Dates of Survey: During progress of work in shops - - - **See Machinery report** Is the approved plan of boiler forwarded herewith **yes**
 while building: During erection on board vessel - - - Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)
 This boiler has been built under special survey, the materials & workmanship are of good quality & the hydraulic test proved satisfactory. It is securely fixed in place, mounted, & safety valves have been adjusted under steam.

Survey Fee ... £ 2. 0. 0 } When applied for, **23/6/14**
 Travelling Expenses (if any) £ : : } When received, **23/11/14**

William Butler
 Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute **FRI. JUN. 26. 1914**
 Assigned

