

REPORT ON BOILERS.

No. 28421

Received at London Office **MUN. SEP. 25 1922**

Date of writing Report **19** When handed in at Local Office **23 SEP 1922** Port of **SUNDERLAND**

No. in Survey held at **SUNDERLAND** Date, First Survey **14th Sept 1922**

Reg. Book. on the **S.S. 'BRITISH ADVOCATE'** (Number of Visits) Gross **6993** Tons Net **4151**

Master **Sunderland** Built at **Sunderland** By whom built **Lie Jas Laing & Sons Ltd (683)** When built **1922**

Engines made at **Sunderland** By whom made **Miss G. Clark Ltd (1125)** When made **1922**

Boilers made at **Sunderland** By whom made **Miss G. Clark Ltd (1125 1/2)** When made **1922**

Registered Horse Power **-** Owners **British Tanker Co. Ltd** Port belonging to **London**

MULTITUBULAR BOILERS ~~MAIN AUXILIARY OR DONKEY.~~ — Manufacturers of Steel **Sydney & Sons**

(Letter for record **S**) Total Heating Surface of Boilers **974 5/8** Is forced draft fitted **No** No. and Description of Boilers **one single ended** Working Pressure **120 lb** Tested by hydraulic pressure to **230 lb** Date of test **9.3.22**

No. of Certificate **3796** Can each boiler be worked separately Area of fire grate in each boiler **oil fuel only** No. and Description of safety valves to each boiler **2 spring valves** Area of each valve **5.41 0"** Pressure to which they are adjusted **125 lb**

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 **no bunkers in way in 1 boiler** Mean dia. of boilers **10.4 5/8** Length **10-6**

Material of shell plates **S** Thickness **1/4** Range of tensile strength **28-32** Are the shell plates welded or flanged **No**

Descrip. of riveting: cir. seams **lap all** long. seams **1 1/2 to 2** Diameter of rivet holes in long. seams **15/16** Pitch of rivets **3 3/8**

Top of plates or width of butt straps **9 1/2** Per centages of strength of longitudinal joint **81** Working pressure of shell by rules **123** rivets **81** plate **95.7**

Size of manhole in shell **12 x 16** Size of compensating ring **8 1/2 x 7 1/4** No. and Description of Furnaces in each boiler **2 Duglton** Material **S** Outside diameter **35"** Length of plain part **top - bottom -** Thickness of plates **crown 3/8 bottom 5/8**

Description of longitudinal joint **welded** No. of strengthening rings **-** Working pressure of furnace by the rules **149** Combustion chamber plates: Material **S** Thickness: Sides **5/8** Back **5/8** Top **5/8** Bottom **5/8** Pitch of stays to ditto: Sides **10 3/4 x 9** Back **8 3/4 x 8 1/2**

Top **8 3/4 x 12** If stays are fitted with nuts or riveted heads **nuts** Working pressure by rules **121** Material of stays **S** Area at smallest part **1.73 0"** Area supported by each stay **96 3/4** Working pressure by rules **157** End plates in steam space: Material **S** Thickness **1 3/2**

Pitch of stays **20 x 24 1/2** How are stays secured **d.n.r.w.** Working pressure by rules **124** Material of stays **S** Area at smallest part **4.9 0"**

Area supported by each stay **490 0"** Working pressure by rules **131** Material of Front plates at bottom **S** Thickness **1 3/2** Material of Lower back plate **S** Thickness **1 3/2** Greatest pitch of stays **14 1/2** Working pressure of plate by rules **240** Diameter of tubes **3"**

Pitch of tubes **4 5/8 x 4 1/4** Material of tube plates **S** Thickness: Front **1 3/2** Back **1/4** Mean pitch of stays **10 1/2** Pitch across wide water spaces **14"** Working pressures by rules **228** Girders to Chamber tops: Material **S** Depth and thickness of girder at centre **6 5/8 x 1 3/4** Length as per rule **27 1/2** Distance apart **12"** Number and pitch of Stays in each **2, 8 3/4**

Working pressure by rules **125** Steam dome: description of joint to shell % of strength of joint

Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes

Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

SUPERHEATER. Type Date of Approval of Plan Tested by Hydraulic Pressure to

Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,

FOR GEORGE CLARK LIMITED **W. S. Spruce** Manufacturer.

Dates of Survey During progress of work in shops - - - Is the approved plan of boiler forwarded herewith

while building During erection on board vessel - - - Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) **The donkey boiler for this vessel has been built under special survey, the materials and workmanship are sound and good and the boiler has been fitted and fixed in the vessel in a satisfactory manner**

Survey Fee ... £ **6 : 10** : } When applied for, **19**

Travelling Expenses (if any) £ : : } When received, **6.10.22**

Committee's Minute **TUE. 26 SEP. 1922**

Assigned **W. S. Spruce** Engineer Surveyor to Lloyd's Register of Shipping.



If not, state whether, and when, one will be sent

In a Report also sent on the hull of the ship

Im. 11.10. - Copyable link.