

# REPORT ON BOILERS.

No. 30,638

Received at London Office

TUE 6-AUG 1918

Date of Report *2/8* 1918 Port of *Hull*  
 Date, First Survey *21-1-18* Last Survey *31-4-1918*  
 Name of Vessel *Edward Bruce* (Number of Plates) *824*  
 Gross Tons *149*  
 Built at *Gool* By whom built *Gool & B. Rep 60 Ltd* When built *1918*  
 By whom made *Campbell Gas Engine Co. Ltd.* When made *1918*  
 By whom made *Chas. D. Holmes & Co. Ltd (12235)* When made *1918*  
 Owners *British Admiralty* Port belonging to *✓*

**WATER TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel *J. Spencer Stone Pri-Valley*  
 Total Heating Surface of Boilers *1440 sq ft* Is forced draft fitted *no* No. and Description of Boilers *one single ended*  
 Working Pressure *200 lbs* Tested by hydraulic pressure to *400 lbs* Date of test *4-4-18*  
 Certificate No. *3284* Can each boiler be worked separately *✓* Area of fire grate in each boiler *48 sq ft* No. and Description of Valves to each boiler *two spring loaded* Area of each valve *4.9 sq in* Pressure to which they are adjusted *200 lbs*  
 They fitted with easing gear *yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *✓*  
 Distance between boiler *165 in* and bunkers or *1-boiler lagged* dia. of boilers *165 in* Length *10'-8 in*  
 Material of shell plates *steel* Thickness *1 1/16 in* Range of tensile strength *28-32* Are the shell plates welded or flanged *no*  
 Riveting: cir. seams *double* long. seams *T.P.D.B.* Diameter of rivet holes in long. seams *1/4 in* Pitch of rivets *8 1/2 in*  
 Width of butt straps *18 in* Per centages of strength of longitudinal joint: rivets *85.9* Working pressure of shell by rules *85.5*  
 Size of manhole in shell *16" x 12"* Size of compensating ring *7 x 1 1/16 in* No. and Description of Furnaces in each boiler *Three plain*  
 Material *steel* Outside diameter *40 in* Length of plain part *78 1/2 in* Thickness of plates: crown *1 1/16 in* bottom *1 1/16 in*  
 Description of longitudinal joint *welded* No. of strengthening rings *✓* Working pressure of furnace by the rules *206* Combustion chamber: Material *steel* Thickness: Sides *3/4 in* Back *23/32 in* Top *3/4 in* Bottom *3/4 in* Pitch of stays to ditto: Sides *10' x 8"* Back *9 1/2' x 8 3/4"*  
 If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *208* Material of stays *steel* Area at smallest part *2.07 sq in* Area supported by each stay *88 sq in* Working pressure by rules *211* End plates in steam space: Material *steel* Thickness *1 7/8 in*  
 How are stays secured *8 x 4 in* Working pressure by rules *210* Material of stays *steel* Area at smallest part *7.5 sq in*  
 Area supported by each stay *335 sq in* Working pressure by rules *213* Material of Front plates at bottom *steel* Thickness *1 7/16 in* Material of back plate *steel* Thickness *1 7/16 in* Greatest pitch of stays *13 1/2" x 9 1/2"* Working pressure of plate by rules *216* Diameter of tubes *3 1/2 in*  
 Material of tube plates *steel* Thickness: Front *15/16 + 3/16 in* Back *7/8 in* Mean pitch of stays *10 in* Pitch across wide spaces *14 in* Working pressures by rules *275* Girders to Chamber tops: Material *steel* Depth and thickness of girder at centre *11" x 1 1/4 in* Length as per rule *36.218* Distance apart *11 in* Number and pitch of Stays in each chamber *Three 8"*  
 Working pressure by rules *201* Steam dome: description of joint to shell *✓* % of strength of joint *✓*  
 Thickness of shell plates *✓* Material *✓* Description of longitudinal joint *✓* Diam. of rivet holes *✓*  
 Working pressure of shell by rules *✓* Crown plates *✓* Thickness *✓* How stayed *✓*

**SUPERHEATER.** Type *✓* Date of Approval of Plan *✓* Tested by Hydraulic Pressure to *✓*  
 Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *✓*  
 Pressure to which each is adjusted *✓* Is Easing Gear fitted *✓*

The foregoing is a correct description,  
 for **CHARLES D. HOLMES & CO. LTD.** Manufacturer.

During progress of work in shops: 1918: Jan 21, 25, 30, Feb 4, 12, 27, Mar 1, 6, 8, 11, 12  
 During erection on board vessel: Jul 4, 11, 12, 17, 22, 27, 31  
 Is the approved plan of boiler forwarded herewith *copy already sent*  
 Total No. of visits *33*

**GENERAL REMARKS** (State quality of workmanship, opinions as to class, &c.) *This boiler has been constructed under special survey in accordance with the approved plan & the rules of this Society, the materials & workmanship are good, the boiler was tested by hydraulic pressure as above found sound & tight. It has been properly fitted & secured on board the vessel & its safety valves adjusted in steam. The vessel has been built under the inspection of the British Registrar.*

Survey Fee ... £ *7-0-6* When applied for, *2/8* 1918  
 Travelling Expenses (if any) £ ... When received, *30-6-* 1918

TUE. FEB. 28 1922  
 Frank H. Stanger & W. H. Roberts  
 Engineer Surveyor to Lloyd's Register of Shipping.  
 Lloyd's Register Foundation  
 TUE. MAR. 7 1922  
 TUE. 5 SEP. 1922

8510-6038  
 W309-0158