

# REPORT ON BOILERS.

No. 30858

Received at London Office FRI. 27 DEC. 1918

Date of writing Report 19-12-18 When handed in at Local Office 24/12/18 Port of Hull  
 No. in Survey held at Hull Date, First Survey 31-12-17 Last Survey 18-12-18  
 Reg. Book. on the twin steel screw tug *Spry* (Steel type tug) (Number of Visits) Gross 507 Tons Net 55  
 Master Built at *Hessle* By whom built *Livingstone & Cooper* When built 1918-12  
 Engines made at *Birmingham* By whom made *Belliss & Howden Ltd* When made 1918-12  
 Boilers made at *Hull* By whom made *Earle's Ltd* When made 1918-12  
 Registered Horse Power Owners *British Admiralty* Port belonging to

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel

Letter for record *S* Total Heating Surface of Boilers *4216 sq ft* Is forced draft fitted *no* No. and Description of *F 12-7-18*  
 Boilers *Two single ended* Working Pressure *160* Tested by hydraulic pressure to *320* Date of test *19-7-18*  
 No. of Certificate *A 3306* Can each boiler be worked separately *yes* Area of fire grate in each boiler *63 sq ft* No. and Description of  
 Safety valves to each boiler *two spring loaded* Area of each valve *7.07 sq in* Pressure to which they are adjusted *165 lbs*  
 Are they fitted with easing gear *yes* In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler *✓*  
 Smallest distance between boilers *14 in* dia. of boilers *16 ft* Length *10'-0"*  
 Material of shell plates *steel* Thickness *1 1/2 in* Range of tensile strength *28-32 tons* Are the shell plates welded or flanged *no*  
 Descrip. of riveting: cir. seams *double* long. seams *P.R.B.S.* Diameter of rivet holes in long. seams *1 1/8 in* Pitch of rivets *7 3/4 in*  
 No. of plates or width of butt straps *16 1/2* Per centages of strength of longitudinal joint *92* Working pressure of shell by  
 No. *162* Size of manhole in shell *19" x 15"* Size of compensating ring *9" x 1 1/2 in* No. and Description of Furnaces in each  
 Boiler *Three Morrison* Material *steel* Outside diameter *46 1/2 in* Length of plain part *7 1/2 in* Thickness of plates *3 1/2 in*  
 Description of longitudinal joint *welded* No. of strengthening rings *✓* Working pressure of furnace by the rules *163* Combustion chamber  
 Plates: Material *steel* Thickness: Sides *19/32* Back *19/32* Top *19/32* Bottom *7/8 in* Pitch of stays to ditto: Sides *9" x 8"* Back *9 1/2" x 8"*  
 If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *164* Material of stays *steel* Area at  
 Smallest part *1.48 sq ft* Area supported by each stay *74 sq in* Working pressure by rules *160* End plates in steam space: Material *steel* Thickness *1 3/32 in*  
 No. of stays *19 x 17* How are stays secured *by nuts* Working pressure by rules *165* Material of stays *steel* Area at smallest part *5.18 sq ft*  
 Area supported by each stay *328 sq in* Working pressure by rules *167* Material of Front plates at bottom *steel* Thickness *27/32 in* Material of  
 Top back plate *steel* Thickness *27/32 in* Greatest pitch of stays *14" x 6 3/4 in* Working pressure of plate by rules *160* Diameter of tubes *3 in*  
 No. of tubes *4 x 4 1/2* Material of tube plates *steel* Thickness: Front *27/32 in* Back *27/32 in* Mean pitch of stays *10 1/2 in* Pitch across wide  
 Spaces *13 in* Working pressures by rules *162* Girders to Chamber tops: Material *steel* Depth and thickness of  
 Girder at centre *7 1/2" x 1 1/2 in* Length as per rule *28.125* Distance apart *8 1/2 in* Number and pitch of Stays in each *Two 8 1/2 in*  
 Working pressure by rules *166* 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 *✓*

FOR EARLE'S  
 The foregoing is a correct description,  
 SHIPBUILDING & ENGINEERING CO. (LIMITED)  
*Act. by order* Manufacturer.

1917 Dec 31 to Dec 18<sup>th</sup> 1918

Is the approved plan of boiler forwarded herewith *yes*  
 Total No. of visits *95*

## GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.)

These boilers have been constructed in accordance with the approved plans, the specification & the rules of the Lloyds Register. The materials & workmanship are good on completion they were fitted in above, the safety valves adjusted under steam tested for accumulation which did not exceed 169 lbs. examined under steam found tight. In my opinion the vessel is eligible for the years 12-14.

Survey Fee ... £ 16 : 2 :  
 Selling Expenses (if any) £ : :  
 When applied for, 8/11 1919  
 When received, 4/3 1919

be kept in London see letter 3/8/18

Committee's Minute

TUE. 31 DEC. 1918

Thank & Stanger  
 Engineer Surveyor to Lloyd's Register of Shipping.