

Rpt. 5.

# REPORT ON BOILERS.

No. 10733

Received London Office  
FRI 11 OCT 1918

Date of writing Report *10/10/18* When handed in at Local Office *10/10/18* Port of *Grimsey*  
 No. in Survey held at *Lincoln* Date, First Survey *Nov 23 1917* Last Survey *30th Sept 1918*  
 Reg. Book. *101* on the *Irish Type boiler N. A. 25 (Builder N. 42,924) (John Heath)* Tons Gross *18* Net *16*  
 Master *F. Pearce* Built at *Goole* By whom built *Case 18 6. L. 10. 62* When built *1919*  
 Engines made at *Newbury* By whom made *Plenty & Sons. Ltd* When made *1919*  
 Boilers made at *Lincoln* By whom made *Ruston Proctor & Co. Ld* When made *1918*  
 Registered Horse Power \_\_\_\_\_ Owners *F. Pearce.* Port belonging to *Grimsey.*

**MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.**—Manufacturers of Steel *Stewart & Lloyds*  
 (Letter for record *7*) Total Heating Surface of Boilers *1347* Is forced draft fitted *no* No. and Description of Boilers *one SE return tube* Working Pressure *180* Tested by hydraulic pressure to *360* Date of test *14 Sept 18*  
 No. of Certificate *162* Can each boiler be worked separately *✓* Area of fire grate in each boiler *39.5* No. and Description of safety valves to each boiler *2 direct spring* Area of each valve *5.93* Pressure to which they are adjusted *180 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 or uptakes and bunkers or woodwork *abt 7"* Mean dia. of boilers *12'-6"* Length *10'-0"*  
 Material of shell plates *✓* Thickness *1 1/32* Range of tensile strength *28/32* Are the shell plates welded or flanged *no*  
 Descrip. of riveting: cir. seams *double* long. seams *treble butt* Diameter of rivet holes in long. seams *1 1/16* Pitch of rivets *7 7/16*  
 Lap of plates or width of butt straps *16"* Per centages of strength of longitudinal joint rivets *88.1* Working pressure of shell by rules *182* Size of manhole in shell *12 1/4 x 16 1/4* Size of compensating ring *16 1/4 x 12 1/4 x 1 1/32* No. and Description of Furnaces in each boiler *3 plain* Material *✓* Outside diameter *36 1/2* Length of plain part *76* Thickness of plates crown *3 3/4* bottom *3 1/4*  
 Description of longitudinal joint *welded* No. of strengthening rings *none* Working pressure of furnace by the rules *190* Combustion chamber plates: Material *✓* Thickness: Sides *7/8* Back *7/8* Top *7/8* Bottom *7/8* Pitch of stays to ditto: Sides *9 x 8* Back *9 x 8* Top *7/8* Bottom *7/8* Pitch of stays *11 1/8* Material of stays *I* Diameter at smallest part *1.92* Area supported by each stay *72* Working pressure by rules *200* End plates in steam space: Material *✓* Thickness *1 1/8* Pitch of stays *18 x 18* How are stays secured *traces* Working pressure by rules *185* Material of stays *✓* Diameter at smallest part *6.22*  
 Area supported by each stay *324* Working pressure by rules *200* Material of Front plates at bottom *✓* Thickness *1"* Material of Lower back plate *✓* Thickness *15/16* Mean pitch of stays *12 1/2* Working pressure of plate by rules *241* Diameter of tubes *3 1/2*  
 Pitch of tubes *4 3/4* Material of tube plates *✓* Thickness: Front *1* Back *27/32* Mean pitch of stays *11 7/8* Pitch across wide water spaces *14 1/2* Working pressures by rules *207* Girders to Chamber tops: Material *✓* Depth and thickness of girder at centre *2-7 x 7/8* Length as per rule *28 1/2* Distance apart *8 3/4* Number and pitch of Stays in each *2-8 1/2*  
 Working pressure by rules *183*. Superheater or Steam chest; how connected to boiler \_\_\_\_\_ 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 \_\_\_\_\_

**VERTICAL DONKEY BOILER**—No. \_\_\_\_\_ Description \_\_\_\_\_ Manufacturers of steel \_\_\_\_\_  
 Made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_ Where fixed \_\_\_\_\_ Working pressure \_\_\_\_\_  
 tested by hydraulic pressure to \_\_\_\_\_ Date of test \_\_\_\_\_ No. of Certificate \_\_\_\_\_ Fire grate area \_\_\_\_\_ Description of safety valves \_\_\_\_\_  
 No. of safety valves \_\_\_\_\_ Area of each \_\_\_\_\_ Pressure to which they are adjusted \_\_\_\_\_ If fitted with easing gear \_\_\_\_\_ If steam from main boilers can enter the donkey boiler \_\_\_\_\_  
 Dia. of donkey boiler \_\_\_\_\_ Length \_\_\_\_\_ Material of shell plates \_\_\_\_\_ Thickness \_\_\_\_\_ Range of tensile strength \_\_\_\_\_  
 Descrip. of riveting long. seams \_\_\_\_\_ Dia. of rivet holes \_\_\_\_\_ Whether punched or drilled \_\_\_\_\_ Pitch of rivets \_\_\_\_\_  
 Lap of plating \_\_\_\_\_ Per centage of strength of joint Rivets \_\_\_\_\_ Working pressure of shell by rules \_\_\_\_\_ Thickness of shell crown plates \_\_\_\_\_  
 Radius of do. \_\_\_\_\_ No. of Stays to do. \_\_\_\_\_ Dia. of stays \_\_\_\_\_ Diameter of furnace Top \_\_\_\_\_ Bottom \_\_\_\_\_ Length of furnace \_\_\_\_\_  
 Thickness of furnace plates \_\_\_\_\_ Description of joint \_\_\_\_\_ Working pressure of furnace by rules \_\_\_\_\_ Thickness of furnace crown plates \_\_\_\_\_  
 Radius of do. \_\_\_\_\_ Stayed by \_\_\_\_\_ Diameter of uptake \_\_\_\_\_ Thickness of uptake plates \_\_\_\_\_  
 Thickness of water tubes \_\_\_\_\_

The foregoing is a correct description,  
*Ruston, Proctor & Co Ld* Manufacturer.  
 per *C. D. Parfiter*

Dates of Survey while building: During progress of work in shops -- *1917 Nov. 23, 1918 Jan 11, 23, Feb 1, 12, 22, Mar 15, Apr 12, 24, May 3, 8, 17, 22, Jun 7, 12, 20, 24, Jul 5, 12, 18, 29, Aug 2, 20, 27, Sep 6, 14, 30.*  
 During erection on board vessel --- *28.*  
 Total No. of visits *28.*

Is the approved plan of main boiler forwarded herewith \_\_\_\_\_  
 " " " donkey " " \_\_\_\_\_

GENERAL REMARKS (State quality of workmanship, options and class, &c.)

This boiler has been built under special survey and the workmanship is good. Uptake examined in course of construction.

Certificate (if required) to be sent to the Committee's Minute. (The Surveys are required not to write on or within the space for Committee's Minute.)

The amount of Entry Fee .. £	:	:	When applied for.
Special .. £	6-2-0	1000	18
Donkey Boiler Fee .. £	:	:	When required.
Travelling Expenses (if any) £	6	20/12	18 MR

*Charters & Whitehead*  
Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute  
Assigned *See Minute No 31175*

FRI. 4 JUL. 1919