

# REPORT ON BOILERS.

Hull RPL No. 32207

No. 11502

Received at London Office

MON. APR. 19 1920

Date of writing Report *16 Apr 1920* When handed in at Local Office *17 Apr 1920* Port of *Grimsby*  
 No. in Survey held at *Lincoln* Date, First Survey *20 Dec 1919* East Survey *16 April 1920*  
 Reg. Book. on the *S.S. "INVERTYNE"* (Number of Visits *8*) Gross *259* Tons Net *111*  
 Master Built at *Nessle* By whom built *Henry Scarr & Co* When built *1920*  
 Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_  
 Boilers made at *Lincoln* By whom made *Ruston & Hornsby & Co* When made *1920*  
 Registered Horse Power \_\_\_\_\_ Owners *British Mexican Pet Co.* Port belonging to *London.*

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel *Stewart & Lloyd Beardmore*

Letter for record *S* Total Heating Surface of Boilers *814 sq ft* Is forced draft fitted *no* No. and Description of Boilers *One single End* Working Pressure *180 lbs* Tested by hydraulic pressure to *360 lbs* date of test *16.4.20*  
 No. of Certificate *191* Can each boiler be worked separately *✓* Area of fire grate in each boiler *30.5 sq ft* No. and Description of safety valves to each boiler *Two spring loaded* Area of each valve *3.980 sq in* Pressure to which they are adjusted *185 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 of uptake and bunkers or woodwork *3'-0"* Mean dia. of boilers *10'-0"* length *9'-6"*  
 Material of shell plates *Steel* Thickness *3/32"* Range of tensile strength *28-32 tons* are the shell plates welded or flanged *no*  
 Descrip. of riveting: cir. seams *DTR Lap* long. seams *D.B.S. T.R.* Diameter of rivet holes in long. seams *15/16"* Pitch of rivets *7"*  
 Top of plates or width of butt straps *13 3/4"* Per centages of strength of longitudinal joint rivets *86.9* Working pressure of shell by rules *182 lbs* Size of manhole in shell *16" x 12"* Size of compensating ring *6 1/2" x 2 1/2"* No. and Description of Furnaces in each boiler *Two plain* Material *Steel* Outside diameter *3'-2"* Length of plain part *6'-0"* Thickness of plates crown *11/16"* bottom *1/16"*  
 Description of longitudinal joint *Weld* No. of strengthening rings *nil* Working pressure of furnace by the rules *180 lbs* Combustion chamber plates: Material *Steel* Thickness: Sides *9/16"* Back *9/16"* Top *9/16"* Bottom *9/16"* Pitch of stays to ditto: Sides *8 x 7/4"* Back *8 x 7/2"*  
 Top *8 x 7"* If stays are fitted with nuts or riveted heads *nuts* Working pressure by rules *182 lbs* Material of stays *Steel* Area at smallest part *1.5* Area supported by each stay *60 sq in* Working pressure by rules *225* End plates in steam space: Material *Steel* Thickness *7/8"*  
 Pitch of stays *4 x 14* How are stays secured *DN + N* Working pressure by rules *185* Material of stays *Steel* Area at smallest part *3.43 sq in*  
 Area supported by each stay *196 sq in* Working pressure by rules *182 lbs* Material of front plates at bottom *Steel* Thickness *7/8"* Material of Lower back plate *Steel* Thickness *7/8"* Greatest pitch of stays *13 1/4 x 7 1/2"* Working pressure of plate by rules *230 lbs* Diameter of tubes *3 1/4"*  
 Pitch of tubes *4 1/4 x 4 3/8"* Material of tube plates *Steel* Thickness: Front *7/8"* Back *7/16"* Mean pitch of stays *9.7"* Pitch across wide water spaces *13 1/4"* Working pressures by rules *288 lbs* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *8" x 1 1/8"* Length as per rule *28 1/4"* Distance apart *7"* Number and pitch of Stays in each *2 @ 8"*  
 Working pressure by rules *190 lbs* Steam dome: description of joint to shell *nil* % 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 \_\_\_\_\_  
 Tested by Hydraulic Pressure to \_\_\_\_\_

UPERHEATER. 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,  
*Ruston & Hornsby Ltd.* Manufacturer.  
*W. C. D. Purdie*  
 Is the approved plan of boiler forwarded herewith *yes* Standard \_\_\_\_\_  
 8 in Shops \_\_\_\_\_  
 Total No. of visits \_\_\_\_\_

Dates of Survey: During progress of work in shops - - - *1919 Dec 20, 1920 Jan 13, 27 Feb 13, 27*  
 while building: During erection on board vessel - - - *Mar 12, 31, Apr 16*

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *This boiler has been constructed under special survey in accordance with the requirements of the Society's Rules & the approved plan, the workmanship & materials are good & the boiler was found sound & tight under water pressure. This boiler is eligible for fitting on board a vessel cleared with this Society.*

Survey Fee ... £ *2 : 14 : -* When applied for, *17 April 1920*  
 Travelling Expenses (if any) £ *1 : 14 : 6* When received, *30/6/20*  
*The boiler has been satisfactorily fitted & cleared in the vessel for notation see machinery report*

Committee's Minute \_\_\_\_\_ TUE. OCT. 26 1920  
 Assigned \_\_\_\_\_  
 Engineer Surveyor to Lloyd's Register of Shipping.