

## REPORT ON BOILERS.

No. 9015

Received at London Office

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Date of writing Report 191 When handed in at Local Office 191 Port of *Belfast*

No. in Survey held at *Belfast* Date, First Survey Last Survey 191

Reg. Book. *Thin 5/5 "GRAPHIC"* (Number of Visits ) Gross *1871*

*2/1/24* on the Master *—* Built at *Belfast* By whom built *Harland & Wolff* When built *1906*

Engines made at *Belfast* By whom made *Harland & Wolff, Ltd.* When made *1906*

Boilers made at *"* By whom made *"* When made *1923*

Registered Horse Power *552* Owners *Belfast S.S. Co. Ltd.* Port belonging to *Belfast*

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY. Manufacturers of Steel *O. Colville & Sons*

(Letter for record *S.*) Total Heating Surface of Boilers *4836 sq. ft.* Is forced draft fitted *Yes* No. and Description of Boilers *1 - double ended Multitubular* Working Pressure *215* Tested by hydraulic pressure to *373* Date of test *13/9/23*

No. of Certificate *—* Can each boiler be worked separately *Yes* Area of fire grate in each boiler *oil fuel* No. and Description of safety valves to each boiler *3 - direct spring* Area of each valve *9.620"* Pressure to which they are adjusted *220*

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 *27"* Mean dia. of boilers *15.8"* Length *19.10 1/4"*

Material of shell plates *Steel* Thickness *1 1/2"* Range of tensile strength *80/34* Are the shell plates welded or flanged *No*

Descrip. of riveting: cir. seams *strapped* long. seams *O. & A. T. & S.* Diameter of rivet holes in long. seams *1 5/8"* Pitch of rivets *10 1/2"*

Top of plates width of butt straps *1.1 5/4"* Per centages of strength of longitudinal joint rivets *94.6* Working pressure of shell by rules *215.82* Size of manhole in shell *16" x 12"* Size of compensating ring *36" x 32"* No. and Description of Furnaces in each boiler *6 - corrugated* Material *Steel* Outside diameter *4.2 1/16"* Length of plain part top *3"* Thickness of plates crown *2 1/2"* bottom *3 1/2"*

Description of longitudinal joint *—* No. of strengthening rings *2* Working pressure of furnace by the rules *220.24* combustion chamber plates: Material *Steel* Thickness: Sides *3/32"* Back *2 1/32"* Top *2 1/32"* Bottom *3/4"* Pitch of stays to ditto: Sides *7 3/4" x 8 1/4"* Back *—*

Top *8" x 8"* If stays are fitted with nuts or riveted heads *Nuts* Working pressure by rules *234.4* Material of stays *Steel* Diameter at smallest part *1.76"* Area supported by each stay *64 sq. in.* Working pressure by rules *237.7* End plates in steam space: Material *Steel* Thickness *1 1/8"*

Pitch of stays *6 1/4" x 6 3/4"* How are stays secured *into nuts & washer outside* Working pressure by rules *250* Material of stays *Steel* Diameter at smallest part *7.07*

Area supported by each stay *272 sq. in.* Working pressure by rules *289* Material of Front plates at bottom *Steel* Thickness *7/8"* Material of Lower back plate *—* Thickness *—* Greatest pitch of stays *—* Working pressure of plate by rules *—* Diameter of tubes *2 3/4"*

Pitch of tubes *4" x 4"* Material of tube plates *Steel* Thickness: Front *7/8"* Back *1 1/16"* Mean pitch of stays *8" x 8"* Pitch across wide water spaces *1 1/4"* Working pressures by rules *266.7* Girders to Chamber tops: Material *Steel* Depth and thickness of girder at centre *10" x 7 1/8" x 2* Length as per rule *2.8"* Distance apart *8"* Number and pitch of Stays in each *6.8"*

Working pressure by rules *342.6* Superheater or Steam chest *—* now 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 *—*

For HARLAND &amp; WOLFF Ltd. The foregoing is a correct description,

*F. E. Lebeck* Manufacturer.

Dates of Survey } During progress of work in shops - - -

while building } During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith *Yes*

Total No. of visits

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

*The material & workmanship of this boiler, so far as could be seen, is good.*

Survey Fee ... £ : : When applied for, 191

Travelling Expenses (if any) £ : : When received, 191

*H. B. Southwell*  
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute

FRI. JAN. 4 1924

Assigned

Lloyd's Register  
Foundation

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