

# REPORT ON BOILERS.

No. 59  
1404  
THU. 27 AUG. 1919

of writing Report July 21 1919 When handed in at Local Office 191 Port of Toronto

Survey held at St. Catharines Ont Date, First Survey Jan 10 Last Survey July 3 1919

Book. Woop. S. S. "WARMINGAN" (Number of Visits 36) Gross 2216 Tons Net 1329

on the S.M.B. Installation No. 00 Howden Boiler

Master R. Smith Built at Thra River P2 By whom built Thra River Shipbuilding Co. When built 1919

Boilers made at Montréal By whom made Commonwealth Bridge Co When made 1918

Boilers made at St. Catharines By whom made Eng'g Machine Co. of Canada When made 1918

Registered Horse Power 146.83 Owners British Ministry of Shipping Port belonging to

**MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY OR DONKEY~~—Manufacturers of Steel** Lulmo

Letter for record S Total Heating Surface of Boilers 5280 sq ft Is forced draft fitted Yes No. and Description of Boilers 2 Howden Working Pressure 186 lbs Tested by hydraulic pressure to 270 Date of test

of Certificate 43444 Can each boiler be worked separately Yes Area of fire grate in each boiler 60 sq ft No. and Description of safety valves to each boiler 2 Spring loaded Area of each valve 8.29 sq in Pressure to which they are adjusted 190 lbs

they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler Yes

Smallest distance between boilers or uptakes and bunkers or woodwork 28.32 Mean dia. of boilers 18.76 Length 9.0

Material of shell plates Steel Thickness 3/8 Range of tensile strength 26-30 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams Single long. seams Double Diameter of rivet holes in long. seams 7/8 Pitch of rivets 2.65

of plates 4 13/16 Per centages of strength of longitudinal joint 79.9 Working pressure of shell by rules 65.8

Size of manhole in shell 16x12 Size of compensating ring Yes No. and Description of Furnaces in each boiler

Material Steel Outside diameter 42 Length of plain part 20 Thickness of plates 3/8

Description of longitudinal joint Yes No. of strengthening rings Yes Working pressure of furnace by the rules Yes Combustion chamber

Material Steel Thickness: Sides 3/8 Back 3/8 Top 3/8 Bottom 3/8 Pitch of stays to ditto: Sides Yes Back Yes

If stays are fitted with nuts or riveted heads Yes Working pressure by rules Yes Material of stays Steel Diameter at smallest part 1

Area supported by each stay 15x15 How are stays secured Yes Working pressure by rules 199 Material of stays Steel Diameter at smallest part 1

Area supported by each stay Yes Working pressure by rules Yes Material of Front plates at bottom Steel Thickness 3/8 Material of

Power back plate Steel Thickness 3/8 Greatest pitch of stays Broken Working pressure of plate by rules 185 Diameter of tubes 2

Pitch of tubes 36x22 Material of tube plates Steel Thickness: Front 13/16 Back 13/16 Mean pitch of stays Yes Pitch across wide

Water spaces Yes Working pressures by rules Yes Girders to Chamber tops: Material Steel Depth and thickness of

Under at centre 6 1/2 x 2 1/2 Length as per rule 2-11 3/16 Distance apart 6 Number and pitch of Stays in each 4 2 6 3/4

Working pressure by rules 200 Superheater: Steam chest: how connected to boiler Yes Can the superheater be shut off and the boiler worked

separately No Diameter 27 Length 10 1/2 Thickness of shell plates 3/8 Material Steel Description of longitudinal joint Yes Diam. of rivet

Pitch of rivets 2.5 Working pressure of shell by rules 258 Diameter of flue Yes Material of flue plates Yes Thickness Yes

stiffened with rings Yes Distance between rings Yes Working pressure by rules Yes End plates: Thickness Yes How stayed Yes

Working pressure of end plates Yes Area of safety valves to superheater Yes Are they fitted with easing gear Yes

**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

Length Descrip. of riveting long. seams Dia. of rivet holes Whether punched or drilled Pitch of rivets

of plating Per centage of strength of joint 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

Radius of do. Stayed by Diameter of uptake Thickness of uptake plates

Thickness of water tubes

ENGINEERING & MACHINE WORKS OF CANADA, Limited  
The foregoing is a correct description,  
MANAGING DIRECTOR

During progress of work in shops - Jan 10, Feb 12, Mar 4, Apr 3, 22, 30, May 7, 10, 23, June 4, 13, 19, 20, July 8, 17, 24

During erection on board vessel - Oct 31, Nov 1, 12, 13, 30, Dec 9, 10, 18, 1919, Feb 6, 19, 26, May 3, 26, June 2, 12, 20, 30, July 2, 3

Total No. of visits 36 Is the approved plan of main boiler forwarded herewith No

donkey " " " " " " " " " " " "



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

These Boilers have been constructed under Special Survey.  
They are of good material & workmanship, have been tested  
under hydraulic pressure with satisfactory results.  
They have been shipped to Quebec to be fitted on board a  
wooden steamer & will be eligible for record with date  
when completed with the machinery.

These Boilers have been installed on the wooden Steamer "Wae Mangan" satisfactorily.

Transmit to Montreal for completion  
*[Signature]*

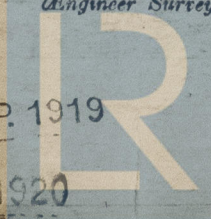
Certificate (if required) to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee .. £	When applied for,
Special .. .. \$ 60.00	July 27 1919
Donkey Boiler Fee .. .. £	When received,
Travelling Expenses (if any) \$ 22.50	19..

Committee's Minute  
Assigned

*John W. Gwynne & Robert C. Blyth*  
Engineer Surveyor to Lloyd's Register of Shipping.  
*R. C. Blyth*

TUE. 30. SEP. 1919  
FRI. 2 - JAN. 1920



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