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REC'D NEW YORK July 23-1919

# REPORT ON BOILERS.

No. 59  
UCL 10 1404  
THU. 27 AUG. 1919

Received at London Office

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

Port of Toronto

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

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

on the S.M.B. Installation No. 50 Howden Boiler

Builder R. Smith Built at Three Rivers P2 By whom built Three Rivers Shipbuilding Co. When built 1919

Machines made at Montreal By whom made Dominion 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 7/8* 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*

Description of riveting: cir. seams *Single* long. seams *Stitch* Diameter of rivet holes in long. seams *7/8* Pitch of rivets *2.5*

Number of plates *218* Size of manhole in shell *16x12* Size of compensating ring *13x9* Working pressure of shell by rules *65.8*

**No. and Description of Furnaces in each boiler**

Material *Steel* Outside diameter *18 7/8* Length of plain part *6* Thickness of plates *3/8*

Description of longitudinal joint *Stitch* No. of strengthening rings *1* Working pressure of furnace by the rules *185* Combustion chamber

Material: Material *Steel* Thickness: Sides *3/8* Back *3/8* Top *3/8* Bottom *3/8* Pitch of stays to ditto: Sides *4 2/3* Back *4 2/3*

If stays are fitted with nuts or riveted heads *Yes* Working pressure by rules *197* Material of stays *Steel* Diameter at smallest part *1 1/2*

Area supported by each stay *6 1/4 x 2 1/2* Working pressure by rules *200* Material of front plates at bottom *Steel* Thickness *3/8* Material of

power back plate *Steel* Thickness *3/8* Greatest pitch of stays *4 2/3* Working pressure of plate by rules *185* Diameter of tubes *2*

pitch of tubes *3 1/2 x 2 1/2* Material of tube plates *Steel* Thickness: Front *1 3/8* Back *1 3/8* Mean pitch of stays *4 2/3* Pitch across wide

water spaces *Yes* Working pressures by rules *200* Girders to Chamber tops: Material *Steel* Depth and thickness of

girder at centre *6 1/4 x 2 1/2* Length as per rule *2-11 3/8* Distance apart *6* Number and pitch of Stays in each *4 2/3*

Working pressure by rules *200* Superheater: Steam chest: how connected to boiler *Shell* 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 *Stitch* Diam. of rivet

plates *13/16* Pitch of rivets *2.5* Working pressure of shell by rules *255* Diameter of flue *13* Material of flue plates *Steel* Thickness *3/8*

stiffened with rings *Yes* Distance between rings *12* Working pressure by rules *255* End plates: Thickness *3/8* How stayed *Yes*

Working pressure of end plates *255* Area of safety valves to superheater *12* 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

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

Temp. of plating Per centage of strength of joint Rivets Plates 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.

Lloyd's Register Foundation

W1592-0023

**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 "Vae Mingan" satisfactorily.

Transmit to Montreal for completion.

*[Signature]*

Certificate (if required) to be sent to

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	

Committee's Minute

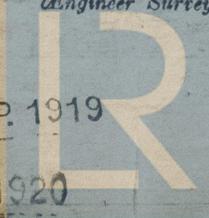
Assigned

TUE SEP 9 1919

TUE. 30. SEP. 1919

FRI. 2 - JAN. 1920

John W. Coyne & Robert C. Blyth  
 Engineer Surveyor to Lloyd's Register of Shipping.  
*[Signature]*



Lloyd's Register  
 Foundation

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