

REPORT ON BOILERS.

No. 34834

Received at London Office

29 MAY 1918

of writing Report

101

When handed in at Local Office

101

Port of Glasgow

in Survey held at
Book.

Clydebank

Date, First Survey 1st October 1914

Last Survey 14th May 1918

(Number of Visits

Gross
Net

on the Standard Boilers S.O. 14/17 G.H.T. SS WARAFRICAN

Built at Govan By whom built Harland & Wolff (No 524 G.) When built

Lines made at Glasgow By whom made Harland & Wolff Ltd (No 526) When made 1918

Boilers made at Clydebank By whom made John Brown & Co Ltd When made 1918

Registered Horse Power Owners Shipping Controller Port belonging to London

WATER TUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel De Colville & Sons

Number for record 5 Total Heating Surface of Boilers 1668 sq ft Is forced draft fitted yes No. and Description of

Boilers Three Single ended Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 19.2.18

of Certificate 14108 Can each boiler be worked separately yes Area of fire grate in each boiler 63.3 sq ft No. and Description of

Valves to each boiler Double Spring loaded Area of each valve 9.62 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 or uptakes and bunkers or woodwork 1-9 Mean dia. of boilers 15-6 Length 11-6

Material of shell plates steel Thickness 1 1/4 Range of tensile strength 28/32 tons Are the shell plates welded or flanged no

Description of riveting: cir. seams DR lap long. seams DBS. TR Diameter of rivet holes in long. seams 1 1/8 Pitch of rivets 9/8

Lap of plates or width of butt straps 19 1/2 x 1 1/8 in 15/16 Per centages of strength of longitudinal joint rivets 88.3 Working pressure of shell by

Rules 182 lbs Size of manhole in shell end 16 x 12 Size of compensating ring end flanged in No. and Description of Furnaces in each

Boiler 3 Deighton Material steel Outside diameter 50 3/8 Length of plain part top — Thickness of plates crown 19

Description of longitudinal joint weld No. of strengthening rings — Working pressure of furnace by the rules 187 Combustion chamber

plates: Material steel Thickness: Sides 2 3/32 Back 1 1/16 Top 2 3/32 Bottom 2 3/32 Pitch of stays to ditto: Sides 10 5/8 x 9 1/4 Back 10 1/4 x 8 3/4

Top 10 5/8 x 9 1/4 If stays are fitted with nuts or riveted heads nuts Working pressure by rules 180 Material of stays steel Diameter at

smallest part 2-39 Area supported by each stay 99 Working pressure by rules 216 End plates in steam space: Material steel Thickness 1 1/2

Pitch of stays 21 3/4 x 20 3/8 How are stays secured DNTW Working pressure by rules 189 Material of stays steel Diameter at smallest part 8-29

Area supported by each stay 454 Working pressure by rules 189 Material of Front plates at bottom steel Thickness 3 1/32 Material of

Lower back plate steel Thickness 2 1/32 Greatest pitch of stays 13 5/8 Working pressure of plate by rules 205 Diameter of tubes 2 3/4

Pitch of tubes 4 x 3 7/8 Material of tube plates steel Thickness: Front 3 1/32 Back 3/4 Mean pitch of stays 9 1/8 Pitch across wide

water spaces 13 5/8 Working pressures by rules 182 Girders to Chamber tops: Material steel Depth and thickness of

girder at centre 2 plates 10 x 7/8 Length as per rule 36 Distance apart 10 5/8 Number and pitch of Stays in each 3 of 9 1/4

Working pressure by rules 182 Superheater or Steam chest: how connected to boiler none 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 —

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 —

Survey request form

No. 2/34 attached

John Brown & Company, Limited.

The foregoing is a correct description;

W. Henderson Assistant Secretary

Manufacturers

Dates During progress of 1914 (Oct. 11, 1918, Jan. 9, 30, Feb. 9, 27, Mar. 8)
Survey while work in shops — —
building During erection on board vessel — —

Is the approved plan of boiler forwarded herewith

Total No. of visits 7

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed under special survey in accordance with the rules and approved plans have been tested by hydraulic pressure to 360 lbs. Materials & workmanship are good.

These boilers are intended to be fitted to Messrs Harland & Wolff's No 524 Glasgow.

I hereby declare have now been satisfactorily fitted to the vessel

Survey Fee £ : : When applied for, 191

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

Harry Clarke 2020
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 28 MAY 1918

Assigned See attached machinery report.

Lloyd's Register
Foundation

002194-002205-0272