

# REPORT ON BOILERS.

No. 39455

Received at London Office THU. 18 DEC. 1919

Date of writing Report Dec 6<sup>th</sup> 1919 When handed in at Local Office Dec 6<sup>th</sup> 1919 Port of GLASGOW

No. in Survey held at Renfrew Date, First Survey 4/3/1918 Last Survey 15/9/1919  
 (Number of Visits 22) } Gross  
 Reg. Book. on the Two Yarrow Water-tube boilers for N° M 395 for Dundee Shipbuilding Co Tons } Net

Master Built at \_\_\_\_\_ By whom built \_\_\_\_\_ When built \_\_\_\_\_

Engines made at \_\_\_\_\_ By whom made \_\_\_\_\_ When made \_\_\_\_\_

Boilers made at Renfrew By whom made Babcock & Wilcox When made 1919

Registered Horse Power \_\_\_\_\_ Owners H.M. Government Port belonging to \_\_\_\_\_

## MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Glasgow Iron & Steel Co

Letter for record \_\_\_\_\_ ) Total Heating Surface of Boilers 6990 sq ft Is forced draft fitted Yes No. and Description of 8-9-19

Boilers Two Yarrow Water tube Working Pressure 235 Tested by hydraulic pressure to 353 Date of test 15.9.19

No. of Certificates 14894 Can each boiler be worked separately Yes Area of fire grate in each boiler 65 sq ft No. and Description of \_\_\_\_\_

Safety valves to each boiler Two Cockburn Full Bore Area of each valve 2.46 sq in Pressure to which they are adjusted \_\_\_\_\_

Are they fitted with easing gear \_\_\_\_\_ 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 \_\_\_\_\_ Mean dia. of Steam Drum 4' 2" Length 9' 6"

Material of shell plates Steel Thickness 3/8" & 1/2" Range of tensile strength 26/30 28/32 Are the shell plates welded or flanged No

Descrip. of riveting: cir. seams D.R. Lap. long. seams D.R. D.B.S. Diameter of rivet holes in long. seams 27/32 Pitch of rivets 3 19/64

Width of butt straps 8 1/4" Per centages of strength of longitudinal joint \_\_\_\_\_ Working pressure of shell by \_\_\_\_\_

Size of manhole in END shell 16" x 12" Size of compensating ring Flanged No. and Description of Furnaces in each \_\_\_\_\_

Material None Outside diameter \_\_\_\_\_ Length of plain part \_\_\_\_\_ Thickness of plates \_\_\_\_\_

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

Material: Sides \_\_\_\_\_ Back \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_ Pitch of stays to ditto: Sides \_\_\_\_\_ Back \_\_\_\_\_

If stays are fitted with nuts or riveted heads \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of stays \_\_\_\_\_ Area at \_\_\_\_\_

Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ End plates in steam DRUM space: Material Steel Thickness 1/16" x 1"

How are stays secured \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of stays \_\_\_\_\_ Area at smallest part \_\_\_\_\_

Area supported by each stay \_\_\_\_\_ Working pressure by rules \_\_\_\_\_ Material of Front plates at bottom \_\_\_\_\_ Thickness \_\_\_\_\_ Material of \_\_\_\_\_

Water back plate \_\_\_\_\_ Thickness \_\_\_\_\_ Greatest pitch of stays \_\_\_\_\_ Working pressure of plate by rules \_\_\_\_\_ Diameter of tubes 1 1/8" x 1 1/2"

Pitch of tubes 1 1/16" - 2 1/16" Material of tube plates Steel Thickness: Water Pocket 1/2" Steam Drum 1/2" Mean pitch of stays \_\_\_\_\_ Pitch across wide \_\_\_\_\_

Working pressures by rules \_\_\_\_\_ Girders to Chamber tops: Material \_\_\_\_\_ Depth and thickness of \_\_\_\_\_

Length as per rule \_\_\_\_\_ Distance apart \_\_\_\_\_ Number and pitch of Stays in each \_\_\_\_\_

Working pressure by rules \_\_\_\_\_ Steam dome: description of joint to shell \_\_\_\_\_ % of strength of joint \_\_\_\_\_

Diameter 2' 5 1/8" x 9' 3" long. Thickness of shell plates 3/8" & 1/2" Material Steel Description of longitudinal joint D.R. D.B.S. Diam. of rivet holes 27/32

Pitch of rivets 3 1/32 Working pressure of shell by rules 323 Crown plates \_\_\_\_\_ Thickness \_\_\_\_\_ How stayed \_\_\_\_\_

SUPERHEATER. Type None Date of Approval of Plan \_\_\_\_\_ Tested by Hydraulic Pressure to \_\_\_\_\_

Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler \_\_\_\_\_

Pressure to which each is adjusted \_\_\_\_\_ Is Easing Gear fitted \_\_\_\_\_

Survey request form \_\_\_\_\_ The foregoing is a correct description, \_\_\_\_\_

No. 2222 attached to Gls Rpt 39246. Babcock & Wilcox Limited Manufacturer.

Is the approved plan of boiler forwarded herewith \_\_\_\_\_

During progress of work in shops: Apr 15, May 15, 22, 30, June 10, 12, July 5, Aug 2, Sept 12, Dec 9, 1919, Jan 12, Feb 10, 19, Apr 19, May 13, July 9

During erection on board vessel: Aug 25, Sept 1, 8, 15

Total No. of visits 22

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been built under Special Survey in accordance with the approved plan. The material and workmanship are of good quality. These boilers are still lying in the makers works at Renfrew and it is not known for what purpose they will now be used.

Survey Fee £ \_\_\_\_\_ : : When applied for, \_\_\_\_\_ 191 \_\_\_\_\_

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

Committee's Minute GLASGOW 16 DEC 1919

Assigned TRANSMIT TO LONDON

David C Barr. Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

W222-0198