

# REPORT ON BOILERS.

No. 11927

Received at London Office

SAT. 26 FEB. 1921

Date of writing Report 24-2-21. When handed in at Local Office 24 FEB 1921 Port of

No. in Survey held at Date, First Survey Dec 2<sup>nd</sup> / 1919. Last Survey Feb 23<sup>rd</sup> 1921.  
 Reg. Book. on the Men<sup>r</sup> Crocker & Co Vessel No 288 "Kinnaird Head".  
 Master Built at Connaught Quay, Flint By whom built J. Crocker & Co.  
 Engines made at By whom made When made  
 Boilers made at Burkenhead By whom made Cammell Laird & Co Ltd When made 1921  
 Registered Horse Power Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY OR DONKEY.—Manufacturers of Steel Parkgate Iron & Steel Co. Ltd  
 Letter for record S Total Heating Surface of Boilers 1490 sq ft Is forced draft fitted No. and Description of

Boilers One, Cylindrical Multitubular (S.B.) Working Pressure 130 lbs Tested by hydraulic pressure to 260 lbs Date of test 9.4.20  
 No. of Certificate 2119 Can each boiler be worked separately Area of fire grate in each boiler 48 sq ft No. and Description of

safety valves to each boiler Two, Spring loaded Area of each valve 7.07 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 Inside Mean dia. of boilers 13'-0" Length 10'-0"

Material of shell plates Steel Thickness 13/16" Range of tensile strength 28-32 tons Are the shell plates welded or flanged No  
 Descrip. of riveting: cir. seams DR., lap. long. seams T.R. Double Straps Diameter of rivet holes in long. seams 1" Pitch of rivets 6 1/2"

Gap of plates or width of butt straps 14 5/8" Per centages of strength of longitudinal joint rivets 111% Working pressure of shell by  
 rules 131 lbs. Size of manhole in shell 16" x 12" Size of compensating ring McNeil plate 84.6% Working pressure of shell by

Boiler 3 - Plain Material Steel Outside diameter 3'-3 3/4" Length of plain part top 6'-0" Thickness of plates crown 2 1/2"  
 Description of longitudinal joint Welded No. of strengthening rings Working pressure of furnace by the rules 130 lbs. Combustion chamber  
 plates: Material Steel Thickness: Sides 9/16" Back 9/16" Top 9/16" Bottom 3/4" Pitch of stays to ditto: Sides 9 1/2" x 8 1/2" Back 9 1/2" x 8 1/2"

Top 9" x 7 1/2" If stays are fitted with nuts or riveted heads Nuts Working pressure by rules 131 lbs. Material of stays Steel Area at  
 smallest part 1.450" Area supported by each stay 83.125" Working pressure by rules 140 lbs End plates in steam space: Material Steel Thickness 15/16"

Pitch of stays 18 1/2" x 17" How are stays secured Double nuts & washers Working pressure by rules 132 lbs Material of stays Steel Area at smallest part 4.57 sq in  
 Area supported by each stay 314.5 sq in Working pressure by rules 151 lbs Material of Front plates at bottom Steel Thickness 7/8" Material of

Lower back plate Steel Thickness 25/32" Greatest pitch of stays 15" x 8 3/4" Working pressure of plate by rules 140 lbs Diameter of tubes 3 1/2" ext.  
 Pitch of tubes 4 5/8" x 4 5/8" Material of tube plates Steel Thickness: Front 7/8" Back 13/16" Mean pitch of stays 11 9/16" Pitch across wide

water spaces 14 1/2" Working pressures by rules 130 lbs Girders to Chamber tops: Material Steel Depth and thickness of  
 girder at centre 2 in No. 6 1/2" x 15/16" Length as per rule 30 5/8" Distance apart 9" Number and pitch of Stays in each 3 in No 7 1/2"

Working pressure by rules 132 lbs Steam dome: description of joint to shell % of strength of joint  
 Diameter Thickness of shell plates Material Description of longitudinal joint Diam. of rivet holes  
 Pitch of rivets Working pressure of shell by rules Crown plates Thickness How stayed

be chamber heater. Type Date of Approval of Plan Tested by Hydraulic Pressure to  
 Date of Test Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler  
 Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

The foregoing is a correct description,  
 CAMMELL LAIRD AND COMPANY LIMITED J. W. Ireland Manufacturer.

Dates During progress of work in shops - - - 1919-1920  
 Survey while building During erection on board vessel - - -

Is the approved plan of boiler forwarded herewith Yes  
 Total No. of visits 25

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This Boiler has now been built under  
 Special Survey, and in accordance with the approved plan, & Certificate letter (E) dated  
 9<sup>th</sup> August 1919. The workmanship and materials are of good quality, & when  
 tested to twice working pressure was found satisfactory in every respect.

Survey Fee ... £ 9 : 18 :  
 Travelling Expenses (if any) £ : :  
 When applied for, 24 FEB 1921  
 When received, 1-4-21

Committee's Minute LIVERPOOL 25 FEB 1921  
 Assigned Transmit to London. M.

Engineer Surveyor to Lloyd's Register of Shipping.

Lloyd's Register Foundation

W 494-0097

Rel 1/3/21