

REPORT ON BOILERS.

No. 8423.

Date of writing Report 5th March 1923 When handed in at Local Office 15th March 1923 Port of Bunda Received at London Office FRIDAY 16 MAR 1923

No. in Survey held at Bunda Date, First Survey 23rd Dec. 1921 Last Survey 10th March 1923

Reg. Book. 18th British Commodore (Number of Visits 22) Gross Tons { Net Tons

Master Bunda Built at Bunda By whom built Caledon S.B. & C. Co. No 288 When built 1923

Engines made at Manchester By whom made Metropolitan-Vickers Electrical Co when made 1922

Boilers made at Bunda By whom made Caledon S.B. & C. Co. No 483 when made 1923

Registered Horse Power British Tankers Ltd Port belonging to London

MULTITUBULAR BOILERS ~~MAIN, AUXILIARY OR~~ DONKEY. — Manufacturers of Steel Beardmore, S. Durham, Scotland 175

(Letter for record S) Total Heating Surface of Boilers 1114 Is forced draft fitted no No. and Description of Boilers 1 Single-ended multitubular Working Pressure 120 lbs Tested by hydraulic pressure to 230 Date of test 4-7-22

No. of Certificate 997 Can each boiler be worked separately ✓ Area of fire grate in each boiler 27.34 No. and Description of safety valves to each boiler Two spring loaded Area of each valve 7.06 Pressure to which they are adjusted 125 lbs

Are they fitted with easing gear Yes In case of donkey boilers, state whether steam from main boilers can enter the donkey boiler no

Smallest distance between boilers or uptakes and bunkers or woodwork 18" INT Mean dia. of boilers 10'-6" Length 10'-6"

Material of shell plates S Thickness 5/8" Range of tensile strength 28/32 lbs Are the shell plates welded or flanged no

Descrip. of riveting: cir. seams L. D. R. long. seams S. Straps T. R. Diameter of rivet holes in long. seams 11/16" Pitch of rivets 4 7/8"

Lap of plates or width of butt straps 10 3/16" Per centages of strength of longitudinal joint rivets 92.6 Working pressure of shell by rules 125 lbs Size of manhole in shell 16" x 12" Size of compensating ring 39 x 33 x 5/8" No. and Description of Furnaces in each boiler Two corrugated Material S Outside diameter 35 1/2" Length of plain part top Thickness of plates crown 3 3/8" bottom 3 3/8"

Description of longitudinal joint weld No. of strengthening rings none Working pressure of furnace by the rules 148 Combustion chamber plates: Material S Thickness: Sides 5/8" Back 3/4" Top 5/8" Bottom 5/8" Pitch of stays to ditto: Sides 8 1/2" x 8" Back 10 1/2" x 9 1/2"

Top 8 1/2" x 10" If stays are fitted with nuts or riveted heads nuts as shown Working pressure by rules 131 Material of stays S Area at smallest part 196" Area supported by each stay 65" Working pressure by rules 125 End plates in steam space: Material S Thickness 1"

Pitch of stays 24" x 15" How are stays secured S. nuts & washers Working pressure by rules 120 Material of stays S Area at smallest part 4'10 1/4"

Area supported by each stay 360" Working pressure by rules 123 Material of Front plates at bottom S Thickness 3/4" Material of Lower back plate S Thickness 3/4" Greatest pitch of stays 14 1/4" x 9 1/2" Working pressure of plate by rules 205 Diameter of tubes 3" lat

Pitch of tubes 4 1/4" x 4 1/4" Material of tube plates S Thickness: Front 3/4" Back 3/4" Mean pitch of stays 10" Pitch across wide water spaces 14 1/4" Working pressures by rules 137 Girders to Chamber tops: Material S Depth and thickness of girder at centre 6" x 1" Length as per rule 25 3/4" Distance apart 8 1/2" Number and pitch of Stays in each 2 @ 10"

Working pressure by rules 123 Superheater or Steam chest; how connected to boiler ✓ 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 ✓

If 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 ✓

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

Lap of plating Per centage of strength of joint Rivets 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 plates

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

Thickness of water tubes

The foregoing is a correct description,
FOR AND ON BEHALF OF
THE CALEDON SHIPBUILDING & ENGINEERING CO. LTD.
Manufacturer.

Dates of Survey while building

During progress of work in shops — 1921 DEC. 23. 1922 JAN. 6. 14. 20. FEB. 4. 14. MAR. 6. MAY 12. JUNE 8. JULY 4. 13.

During erection on board vessel — 1922 OCT. 16. 24. 1923 JAN. 23. 29. FEB. 1. 8. 10. 19. 26. MARCH. 8. 10.

Total No. of visits 22.

Is the approved plan of main boiler forwarded herewith ✓" " " donkey " " " Yes

GENERAL REMARKS

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

This boiler has been built under special survey and in accordance with the Rules and approved plan: the materials and workmanship are sound and good, on completion it was tested by water pressure to 230 lbs per square inch and found tight and satisfactory in all respects

It has been fitted on board in a satisfactory manner, tried under working conditions and found efficient.

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	£	:	:	19
Donkey Boiler Fee ...	£	:	:	When received,
Travelling Expenses (if any) £	:	:	:	19

J. H. Mackie for self & J. H. Mackie
Engineer Surveyor to Lloyd's Register of British and Foreign Shipping.

Committee's Minute TUE. 20 MAR. 1923

Assigned



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Foundation