

REPORT ON BOILERS.

Received at London Office

1 MAY 1923

Date of writing Report

1 MAY 1923

When handed in at Local Office

30 May 1923

Port of London

No. in Reg. Book.

Survey held at

London

Date, First Survey

25 April

Last Survey

30 May 1923

6789 on the Steel Tonnage "WANGARATTA"

(Number of Visits)

Gross 7918

Tons

Net

Master _____ Built at Belfast By whom built Worthman Clark & Co. Ltd Yard No. 440 When built 1919

Engines made at Belfast By whom made do Engine No. 440 When made do

Boilers made at Belfast By whom made do Boiler No. 440 When made do

Nominal Horse Power 1138 Owners British India Steam Navigation Co. Ltd Port belonging to Glasgow

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel _____ (Letter for Record S)

Ex front tube plates 17079 # Is forced draught fitted yes Coal or Oil fired Coal

Total Heating Surface of Boilers 17079 #

No. and Description of Boilers 3 Double ended multitubular Working Pressure 200 lbs

Tested by hydraulic pressure to ✓ Date of test ✓ No. of Certificate B.C. certificate Can each boiler be worked separately yes

Area of Firegrate in each Boiler 146.7 # No. and Description of safety valves to each boiler 3 Spring loaded

Area of each set of valves per boiler per Rule as fitted 42.54 # Pressure to which they are adjusted 200 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 12" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 20" Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 16'-3" Length 20'-6" Shell plates: Material Steel Tensile strength 28-32 tons

Thickness 1 15/32" Are the shell plates welded or flanged No Description of riveting: circ. seams end B.R. Lap inter. T.R. Lap

long. seams B.R. Laps Diameter of rivet holes in circ. seams 1 1/2" Pitch of rivets 4 3/8", 3.646" long. seams 1 1/2" 10 1/2", 5 1/4"

Percentage of strength of circ. end seams plate 58.8 rivets 54.3 Percentage of strength of circ. intermediate seam plate 66.25 rivets 68

Percentage of strength of longitudinal joint plate 85.7 rivets 89 combined Working pressure of shell by Rules 201 lbs

Thickness of butt straps outer 1 1/8" inner 1 1/8" No. and Description of Furnaces in each Boiler 8 Reighton type C.F.

Material Steel Tensile strength 26-30 tons Smallest outside diameter 41 3/16"

Length of plain part top ✓ bottom ✓ Thickness of plates crown 19" bottom 32" Description of longitudinal joint Weld

Dimensions of stiffening rings on furnace or c.c. bottom Double 3 1/2 x 3 1/2 x 1/2" Working pressure of furnace by Rules 210 lbs

End plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 1/32" Pitch of stays 21' x 16"

How are stays secured Double nut & washers 9 3/4' x 1" thick Working pressure by Rules 235 lbs

Tube plates: Material front Steel back Steel Tensile strength 26-30 tons Thickness 1 1/4" 1 1/4"

Mean pitch of stay tubes in nests 11 1/4' x 7/4' Pitch across wide water spaces 13 1/2" Working pressure front 230 lbs back 200 lbs

Girders to combustion chamber tops: Material Steel Tensile strength 28-32 tons Depth and thickness of girder 8" x 12"

at centre 8" x 12" Length as per Rule 4'-4 1/2" Distance apart 8 1/2" No. and pitch of stays 6 @ 6 3/4"

Working pressure by Rules 212 Combustion chamber plates: Material Steel

Tensile strength 26-30 tons Thickness: Sides 1/16" Back ✓ Top 1/16" Bottom 1/16"

Pitch of stays to ditto: Sides 8 1/2' x 9 1/2' Back ✓ Top 8 1/2' x 8' Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 212 Front plate at bottom: Material Steel Tensile strength 26-30

Thickness 1" Lower back plate: Material ✓ Tensile strength ✓ Thickness ✓

Pitch of stays at wide water space ✓ Are stays fitted with nuts or riveted over ✓

Working Pressure ✓ Main stays: Material Steel Tensile strength ✓

Diameter At body of stay, 3" 107 # No. of threads per inch 6 Area supported by each stay 336 #

Over threads, 3 1/4"

Working pressure by Rules 233 lbs Screw stays: Material Steel Tensile strength 26-30 tons

Diameter At turned off part, 1 3/4" 15 # No. of threads per inch 10 Area supported by each stay 7.44 sq ft

Over threads, 1 3/4", 1 5/8"

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Working pressure by Rules 208 Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, or Over threads } ✓

No. of threads per inch ✓ Area supported by each stay ✓ Working pressure by Rules ✓

Tubes: Material Iron External diameter { Plain 22 Stay } Thickness { 8 W.G. 5/16 3/8 } No. of threads per inch 11

Pitch of tubes 3 5/8" x 3 3/4" Working pressure by Rules ✓ Manhole compensation: Size of opening in shell plate 14 3/4" Section of compensating ring 22" x 1 5/8" No. of rivets and diameter of rivet holes 32 @ 1 1/2"

Outer row rivet pitch at ends 8 1/2" Depth of flange if manhole flanged 3 1/4" Steam Dome: Material ✓

Tensile strength Thickness of shell Description of longitudinal joint

Diameter of rivet holes Pitch of rivets Percentage of strength of joint { Plate Rivets }

Internal diameter Working pressure by Rules Thickness of crown No. and diameter of stays

Inner radius of crown Working pressure by Rules

How connected to shell Size of doubling plate under dome Diameter of rivet holes and pitch of rivets in outer row in dome connection to shell

Type of Superheater ✓ Manufacturers of { Tubes Steel castings }

Number of elements Material of tubes Internal diameter and thickness of tubes

Material of headers Tensile strength Thickness Can the superheater be shut off and the boiler be worked separately

Is a safety valve fitted to every part of the superheater which can be shut off from the boiler

Area of each safety valve Are the safety valves fitted with easing gear Working pressure as per Rules

Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes, castings and after assembly in place Are drain cocks or valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 23 inclusive for boilers been complied with

The foregoing is a correct description,

Manufacturer.

Dates of Survey { During progress of work in shops - - } while building { During erection on board vessel - - }

Duplicate of 7 1/2 "Royalstar"
Are the approved plans of boiler and superheater forwarded herewith No
(If not state date of approval.)
Total No. of visits

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

These boilers were built in 1919 under the survey of the British Corporation. Now opened up & with mountings examined & found satisfactory. Scantlings ascertained by actual measurement and found to agree with those shown on plan. Watchman Circulator now fitted.

These boilers are eligible in my opinion for classification with a working pressure of 200 lbs.

See Entry on machinery
Survey Fee ... £ : : When applied for. 192

Travelling Expenses (if any) £ : : When received. 192

TUES. 4 OCT 1927

FRI. 15 JAN 1928

FRI. MAR 1928

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

TUES. 25 NOV 1924

Assigned

See other Lon. Rpt 86684

TUES. 18 AUG 1925

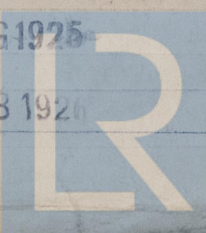
FRI. 26 FEB 1926

FRI. 20 JUN 1924

TUE DEC. 18 1923

FRI. 23 NOV. 1923

TUE DEC. 18 1923



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