

# REPORT ON BOILERS.

No. 20484

Received at London Office

JAN 12 1935

Date of writing Report 12 1937 When handed in at Local Office 30<sup>th</sup> DEC. 1937 Port of Greenock

No. in Survey held at Greenock Date, First Survey 14<sup>th</sup> JUNE 1934 Last Survey 29<sup>th</sup> DECEMBER 1934

on the S/S "Jalatrishna" (Number of Visits ) Tons {Gross 4990.61, Net 3044.44}

Master P. Ellergou By whom built Lithgow & Co Yard No. 904 When built 1937

Engines made at Greenock By whom made John & Richard & Co Engine No. 695 When made 1937

Boilers made at ditto By whom made ditto Boiler No. 695 When made 1937

Nominal Horse Power \_\_\_\_\_ Owners Scindia S.N. Co Port belonging to Bombay

## MULTITUBULAR BOILERS ~~MAIN~~ DONKEY.

Manufacturers of Steel Thomas Walmesley, Son & Co. Ltd. Glasgow, S.C. (Letter for Record )

Total Heating Surface of Boilers 913 Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers one Single Ended Working Pressure 150

Tested by hydraulic pressure to 245 Date of test 22.10.37 No. of Certificate 2123 Can each boiler be worked separately

Area of Firegrate in each Boiler 32 No. and Description of safety valves to each boiler one Double Spring

Area of each set of valves per boiler {per Rule 6.92, as fitted 4.94} Pressure to which they are adjusted 155 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 12" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating Boiler in Tween Deck Is the bottom of the boiler insulated yes

Largest internal dia. of boilers 10.6" Length 10.0" Shell plates: Material S Tensile strength 29.33

Thickness 23/32 Are the shell plates welded or flanged  Description of riveting: circ. seams {end DR, inter. DR}

long. seams TRODBS Diameter of rivet holes in {circ. seams 7/8", long. seams 3/4"} Pitch of rivets {2.843, 5.14"}

Percentage of strength of circ. end seams {plate 69.2, rivets 46.4} Percentage of strength of circ. intermediate seam {plate 85.4, rivets 84.4}

Percentage of strength of longitudinal joint {plate 85.4, rivets 84.4, combined 88.95} Working pressure of shell by Rules 151

Thickness of butt straps {outer 9/16", inner 11/16"} No. and Description of Furnaces in each Boiler 2 plain

Material S Tensile strength 26.30 Smallest outside diameter 3.3 13/16"

Length of plain part {top 6.9 7/8", bottom 7.4"} Thickness of plates {crown 23/32, bottom 23/32} Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom 6 x 3 1/2 x 5/8 T Bar Working pressure of furnace by Rules 157

End plates in steam space: Material S Tensile strength 26.30 Thickness 15/16" Pitch of stays 19 x 15

How are stays secured DN Washers Working pressure by Rules 158

Tube plates: Material {front S, back S} Tensile strength {26.30} Thickness {15/16", 11/16"}

Mean pitch of stay tubes in nests 10.44" Pitch across wide water spaces 14" Working pressure {front 171, back 153}

Girders to combustion chamber tops: Material S Tensile strength 29.33 Depth and thickness of girder at centre 4 1/2 x 11/16 (2)

Length as per Rule 2.3 11/16" Distance apart 9 5/8" No. and pitch of stays in each 3 at 4"

Working pressure by Rules 144 Combustion chamber plates: Material S Tensile strength 26.30 Thickness: Sides 5/8" Back 5/8" Top 5/8" Bottom 5/8"

Pitch of stays to ditto: Sides 9 x 9 1/2" Back 9 x 8" Top 4 x 9 5/8" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 186 Front plate at bottom: Material S Tensile strength 26.30 Thickness 15/16" Lower back plate: Material S Tensile strength 26.30 Thickness 15/16"

Pitch of stays at wide water space 14" Are stays fitted with nuts or riveted over Nuts Working Pressure 278 Main stays: Material S Tensile strength 28.32

Diameter {At body of stay, 2 1/4", or Over threads, \_\_\_\_\_} No. of threads per inch 6 Area supported by each stay 240 Working pressure by Rules 158 Screw stays: Material Iron Tensile strength 21 1/2 Diameter {At turned off part, 1 1/2", or Over threads, \_\_\_\_\_} No. of threads per inch 9 Area supported by each stay 720



Working pressure by Rules 145. Are the stays drilled at the outer ends No Margin stays: Diameter { At turned off part, 1 3/4", 1 5/8" }  
 No. of threads per inch 9 Area supported by each stay 92 sq. in. Working pressure by Rules 166  
 Tubes: Material Iron External diameter { Plain } 3" Thickness { 8 WG } 9/32" No. of threads per inch 9  
 Pitch of tubes 4 3/16" + 4 3/16" Working pressure by Rules 142 Manhole compensation: Size of opening in  
 shell plate 16" x 20" Section of compensating ring 2' 4" x 2' 3" + 23/32" No. of rivets and diameter of rivet holes 36 at 1 1/6"  
 Outer row rivet pitch at ends 5 3/8" 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 }  
 Internal diameter Working pressure by Rules Thickness of crown Rivets 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 forgings  
 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 forgings and 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 22 inclusive for boilers been complied with

The foregoing is a correct description,  
 For JOHN G. KINCAID & CO. LIMITED.  
W. Carter Director, Manufacturer.

Dates of Survey { During progress of }  
 work in shops - - }  
 while { During erection on }  
 building board vessel - - - }  
 SEE MACHINERY REPORT Are the approved plans of boiler and superheater forwarded herewith  
 (If not state date of approval.)  
 Total No. of visits

Is this Boiler a duplicate of a previous case Yes If so, state Vessel's name and Report No. S/S Jalaganga 4th R/P/17:20151

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been built under Special Survey in accordance with the approved plan & the workmanship & material are of good quality. It is now securely fitted on board

Survey Fee charged on Maelby kept }  
 Travelling Expenses (if any) £ : }  
 When applied for, 19  
 When received, 19

W. Gordon-Muclivie  
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 11 JAN 1938  
 Assigned SEE ACCOMPANYING MACHINERY REPORT.

