

REPORT ON BOILERS.

No. 52880

Received at London Office

14 SEP 1932

Date of writing Report 12th Sept 1932 When handed in at Local Office 12th Sept 1932 Port of Glasgow

No. in Survey held at Glasgow Date, First Survey 17 6 32 Last Survey 6th Sept 1932

Reg. Book. Supt. 5767 on the S. S. "BHADRAVATI" (Number of Visits 19) Tons {Gross 1307 Net 553}

Master Glasgow Built at Glasgow By whom built Harland & Wolff Ltd Yard No. 9256 When built 1932-9.

Engines made at Belfast By whom made Do. Engine No. 925 When made 1932

Boilers made at Do. By whom made Do. Boiler No. 925 When made 1932

Nominal Horse Power 269 Owners Bombay Steam Navigation Co. Ltd Port belonging to Bombay.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Bel. Rpt. (Letter for Record)

Total Heating Surface of Boilers 4546 sq. ft. Is forced draught fitted Yes Coal or Oil fired Both

No. and Description of Boilers Two Single-ended cylindrical. Working Pressure 200 lb./sq. in.

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

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2: Direct spring, Improved high lift.

Area of each set of valves per boiler {per Rule 7.92 sq. ft. as fitted 4.81 sq. ft.} Pressure to which they are adjusted 200 lb./sq. in. 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 Well clear. Is oil fuel carried in the double bottom under boilers No DB under boilers.

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers Length Shell plates: Material Tensile strength

Thickness Are the shell plates welded or flanged Description of riveting: circ. seams {end inter. }

ong. seams Diameter of rivet holes in {circ. seams long. seams } Pitch of rivets { }

Percentage of strength of circ. end seams {plate rivets } Percentage of strength of circ. intermediate seam {plate rivets }

Percentage of strength of longitudinal joint {plate rivets combined } Working pressure of shell by Rules

Thickness of butt straps {outer inner } No. and Description of Furnaces in each Boiler

Material Tensile strength Smallest outside diameter

Length of plain part {top bottom } Thickness of plates {crown bottom } Description of longitudinal joint

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules

End plates in steam space: Material Tensile strength Thickness Pitch of stays

How are stays secured Working pressure by Rules

Tube plates: Material {front back } Tensile strength Thickness { }

Mean pitch of stay tubes in nests Pitch across wide water spaces Working pressure {front back }

Girders to combustion chamber tops: Material Tensile strength Depth and thickness of girder

at centre Length as per Rule Distance apart No. and pitch of stays

in each Working pressure by Rules Combustion chamber plates: Material

Tensile strength Thickness Sides Back Top Bottom

Pitch of stays to ditto: Sides Back Top Are stays fitted with nuts or riveted over

Working pressure by Rules Front plate at bottom: Material Tensile strength

Thickness 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 Tensile strength

Diameter {At body of stay, or Over threads } No. of threads per inch Area supported by each stay

Working pressure by Rules Screw stays: Material Tensile strength

Diameter {At turned off part, or Over threads } No. of threads per inch Area supported by each stay

Working pressure by Rules Are the stays drilled at the outer ends 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 External diameter { Plain Stay Thickness { No. of threads per inch

Pitch of tubes Working pressure by Rules **Manhole compensation:** Size of opening in shell plate

Section of compensating ring No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends Depth of flange if manhole flanged **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 Eng

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

Number of elements Material of tubes Manufacturers of { Tubes Steel castings

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 22 inclusive for boilers been complied with

The foregoing is a correct description, Manufacturer.

Dates { During progress of work in shops - - } Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.)

while building { During erection on board vessel - - - } **SEE ACCOMPANYING MACHINERY REPORT.** Total No. of visits 19

Is this Boiler a duplicate of a previous case ☒ If so, state Vessel's name and Report No. ☒

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) *These Boilers have been efficiently fitted in the vessel, examined under steam and their safety valves adjusted as above. Together with the Engines, they are eligible, in my opinion, to have record in the Register Book as noted in accompanying Report 4.*

A.L.
12/9/32

Survey Fee ... £ : : When applied for, 19

Travelling Expenses (if any) £ : : When received, 19

J.D. Boyle
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute **GLASGOW 13 SEP 1932**

Assigned **SEE ACCOMPANYING MACHINERY REPORT.**