

REPORT ON BOILERS.

No. 20168.

Received at London Office 24 JUN 1936

Date of writing Report 16.5.36 When handed in at Local Office 18th JUNE 1936 Port of Greenock

No. in Survey held at Greenock Date, First Survey 4th OCTOBER 1935. Last Survey 17-6-1936

on the S/S "Galayamuna" (Number of Visits ✓) Gross 4980.99 Tons Net 3049.61

Master Built at Glasgow By whom built Lithgow & Co. Yard No. 882 When built 1936

Engines made at Greenock By whom made John & Kinnear & Co. Ltd. Engine No. 644 When made 1936

Boilers made at ditto By whom made ditto Boiler No. 644 When made 1936

Nominal Horse Power Owners Seindia & Co. Ltd. Port belonging to Bombay.

MULTITUBULAR BOILERS — DONKEY.

Manufacturers of Steel Colville Scottish & Co. Ltd. Glasgow & Son Largo Felt & Co. (Letter for Record R ✓)

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 275 Date of test 24.4.36 No. of Certificate 2053 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 ✓

long. seams T R & D BS Diameter of rivet holes in {circ. seams 7/8" long. seams 3/4" Pitch of rivets {2.843 5 1/4" ✓

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 84.4 rivets 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 3/16" ✓

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 R & BS Working pressure of furnace by Rules 154 ✓

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 Steel back Steel Tensile strength {26-30 Thickness {15/16" 11/16" ✓

Mean pitch of stay tubes in nests 10.47" 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 4 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 1 No. of threads per inch 6 ✓ Area supported by each stay 270 # ✓

Working pressure by Rules 158 Screw stays: Material Iron Tensile strength 21 1/2 Min ✓

Diameter {At turned off part, 1 1/2" or Over threads 1 No. of threads per inch 9 ✓ Area supported by each stay 420 # ✓

Working pressure by Rules 145 Are the stays drilled at the outer ends 80 Margin stays: Diameter 13/4" 15/8"
No. of threads per inch 9 Area supported by each stay 92 sq" Working pressure by Rules 166
Tubes: Material Iron External diameter 3" Thickness 8 WG 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" 20" Section of compensating ring 2.4" 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
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
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 22 inclusive for boilers been complied with

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

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

SEE MACHINERY REPORT

Are the approved plans of boiler and superheater forwarded herewith No. 11/10/10
(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 Galagunga Chk Rpt 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 Mandy Rpt

Travelling Expenses (if any) £

When applied for, 19

When received, 19

[Signature]

W. C. Cairns

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW

23 JUN 1936

Assigned SEE ACCOMPANYING MACHINERY REPORT



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Foundation