

REPORT ON BOILERS.

No. 16282

Received at London Office

12 MAR 1925

Date of writing Report 14.2.1925 When handed in at Local Office 11 March 1925 Port of WEST HARTLEPOOL

No. in Reg. Book. Survey held at West Hartlepool Date, First Survey Last Survey 192

90453 on the S S "QUERIMBA" (Number of Visits) Tons Gross 7700 Net 7198

Master Built at Sunderland By whom built Wm Gray & Co Ltd Yard No. 964 When built 1925

Engines made at West Hartlepool By whom made Central Marine Eng. Works Engine No. 964 When made 1925

Boilers made at ditto By whom made ditto Boiler No. 964 When made 1925

Nominal Horse Power Owners British India S. N. Co Ltd Port belonging to London.

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel D Colville & Co Ltd (Letter for Record S)

Total Heating Surface of Boilers 5010 sq. ft Is forced draught fitted yes Coal or Oil fired coal

No. and Description of Boilers 2 single ended Working Pressure 225 lbs

Tested by hydraulic pressure to 388 Date of test 12.11.24 No. of Certificate 3648 Can each boiler be worked separately yes

Area of Firegrate in each Boiler 63 sq. ft No. and Description of safety valves to each boiler 2 Cockburn Mc Nicol high lift

Area of each set of valves per boiler {per Rule 8.70" as fitted 9.8174" Pressure to which they are adjusted 230 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 10" Is oil fuel carried in the double bottom under boilers no

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

Largest internal dia. of boilers 15'-0" Length 12'-6" Shell plates: Material Steel Tensile strength 29/33

Thickness 1 15/32 Are the shell plates welded or flanged no Description of riveting: circ. seams {end 2 R Lash inter. 2 R Lash

long. seams J. R. D. B. S. Diameter of rivet holes in {circ. seams 1 1/2" long. seams 1 1/2" Pitch of rivets {End 4 1/2" Intu 4 3/4"

Percentage of strength of circ. end seams {plate 66 rivets 42.5 Percentage of strength of circ. intermediate seam {plate 68.4 rivets 60.4

Percentage of strength of longitudinal joint {plate 85.4 rivets 87.4 combined 88.1 Working pressure of shell by Rules 225 lbs

Thickness of butt straps {outer 1 1/8" inner 1 1/4" No. and Description of Furnaces in each Boiler 3 Deightons

Material Steel Tensile strength 26/30 Smallest outside diameter 46 3/8"

Length of plain part {top bottom Thickness of plates {crown 3/4 bottom 4 Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 238

End plates in steam space: Material Steel Tensile strength 26/30 Thickness 1 5/16 Pitch of stays 19 3/4 x 19 1/2

How are stays secured Double nuts & washers Working pressure by Rules 236

Tube plates: Material {front back Steel Tensile strength {26/30 Thickness {31/32 13/16

Mean pitch of stay tubes in nests 10" Pitch across wide water spaces 14" Working pressure {front 249 back 237

Girders to combustion chamber tops: Material Steel Tensile strength 28/32 Depth and thickness of girder

at centre 10 1/4 x 1 3/4 Length as per Rule 38 1/2 Distance apart 8 3/8 No. and pitch of stays

in each 3 9 1/2 Working pressure by Rules 233 Combustion chamber plates: Material Steel

Tensile strength 26/30 Thickness: Sides 23/32 Back 23/32 Top 23/32 Bottom 7/8

Pitch of stays to ditto: Sides 8 3/8 x 9 1/2 Back 8 3/8 x 9 1/2 Top 8 3/8 x 9 1/2 Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 226 Front plate at bottom: Material Steel Tensile strength 26/30

Thickness 31/32 Lower back plate: Material Steel Tensile strength 26/30 Thickness 15/16

Pitch of stays at wide water space 15 x 8 3/8 Are stays fitted with nuts or riveted over nuts

Working Pressure 245 Main stays: Material Steel Tensile strength 28/32

Diameter {At body of stay or Over threads} 3 3/8 No. of threads per inch 6 Area supported by each stay 19 1/2 x 19 3/4

Working pressure by Rules 226 Screw stays: Material Steel & iron Tensile strength 26/30 2 1/2

Diameter {At turned off part or Over threads} 1 3/4 No. of threads per inch 9 Area supported by each stay 9 1/2 x 8 3/8

Working pressure by Rules 228 Are the stays drilled at the outer ends no ✓ Margin stays: Diameter { At turned off part, or Over threads 2" ✓
No. of threads per inch 9 ✓ Area supported by each stay 11 $\frac{3}{4}$ " x 8 $\frac{3}{8}$ " ✓ Working pressure by Rules 252
Tubes: Material Iron ✓ External diameter { Plain } 2 $\frac{3}{4}$ " ✓ Thickness { 8 W.G. ✓ } $\frac{1}{4}$ " $\frac{3}{16}$ " $\frac{3}{8}$ " ✓ No. of threads per inch 9 ✓
Pitch of tubes 4" x 4" ✓ Working pressure by Rules 275 + 296 Manhole compensation: Size of opening in
shell plate 16" x 20" ✓ Section of compensating ring 22" x 1 $\frac{5}{32}$ " ✓ No. of rivets and diameter of rivet holes 28" x 1 $\frac{7}{16}$ " ✓
Outer row rivet pitch at ends 10" ✓ Depth of flange if manhole flanged 4 $\frac{1}{2}$ " ✓ Steam Dome: Material none ✓
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 none 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 yes.

FOR THE CENTRAL MARINE ENGINE WORKS,
The foregoing is a correct description,

M. J. G.

Manufacturer.

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

Are the approved plans of boiler and superheater forwarded herewith
(If not state date of approval.)

Total No. of visits _____

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

See accompanying machinery report.

Survey Fee £

Travelling Expenses (if any) £

When applied for, 192

When received, 192

R. D. Shilston

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 13 MAR 1925

Assigned



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Foundation