

REPORT ON BOILERS.

Received at London Office - 9 JAN 1925

Date of writing Report 1924 When handed in at Local Office 20.12.1924 Port of Middlesbrough

No. in Survey held at Stockton-on-Tees Date, First Survey 24th Nov. 1924 Last Survey 20th Dec. 1925

on the WEST WALES (Number of Visits 3) Gross 4340 Tons Net 2665

Master Built at Newcastle By whom built Wth Dobson & Co. Ltd. Yard No. 224 When built 1925

Engines made at Newcastle By whom made North Eastern Marine Eng. Co. Ltd. Engine No. 2590 When made 1925

Boilers made at Stockton By whom made Messrs Riley Bros Ltd. Boiler No. 5577 When made 1924

Nominal Horse Power 490 Owners Gibbs & Co. Port belonging to Cardiff

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel (Letter for Record 8)

Total Heating Surface of Boilers 1175 ft^2 Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers One Single Ended Working Pressure 120 $\text{lbs}/\text{sq. in.}$

Tested by hydraulic pressure to 230 lbs Date of test 20-12-24 No. of Certificate 6424 Can each boiler be worked separately

Area of Firegrate in each Boiler 35 ft^2 No. and Description of safety valves to each boiler 2 direct Spring

Area of each set of valves per boiler {per Rule 10.88 as fitted 11.88 Pressure to which they are adjusted 130 lbs 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 Is oil fuel carried in the double bottom under boilers

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

Largest internal dia. of boilers 11'-0" Length 11'-0" Shell plates: Material Steel Tensile strength 28-32

Thickness 21/32" Are the shell plates welded or flanged no Description of riveting: circ. seams {and 2 Riv. lat

Long. seams 2 Butt 3, 3 riveted. 4 rivets per pitch. Diameter of rivet holes in {circ. seams 15/16" long. seams 13/16" Pitch of rivets {3" x 6" 5 3/16"

Percentage of strength of circ. end seams {plate 68.66 rivets 43.2 Percentage of strength of circ. intermediate seam {plate rivets

Percentage of strength of longitudinal joint {plate 84.2 rivets 93.6 combined 92.0 Working pressure of shell by Rules 123 $\text{lbs}/\text{sq. in.}$

Thickness of butt straps {outer 13" x 1 1/2" inner 13" x 2 1/2" No. and Description of Furnaces in each Boiler Plain (2)

Material Material Steel Tensile strength 26-30 Smallest outside diameter 40"

Length of plain part {top 84 3/4 bottom 91.0 Thickness of plates {crown 41/64 bottom Description of longitudinal joint weld

Dimensions of stiffening rings on furnace or c.c. bottom none Working pressure of furnace by Rules 120 $\text{lbs}/\text{sq. in.}$

End plates in steam space: Material Steel Tensile strength 26/30 Thickness 23/32 Pitch of stays 15" x 14"

How are stays secured nuts & 7" x 1/2" loose washers Working pressure by Rules 123 $\text{lbs}/\text{sq. in.}$

Tube plates: Material {front Steel back Steel Tensile strength {26/30 26/30 Thickness {23/32 5/8"

Lean pitch of stay tubes in nests 10 1/4" Pitch across wide water spaces 14" x 9" Working pressure {front 126 $\text{lbs}/\text{sq. in.}$ back 120 $\text{lbs}/\text{sq. in.}$

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

at centre 6 1/4" x 1 1/4" Length as per Rule 30" Distance apart 7 1/2" No. and pitch of stays

in each 2 at 9" Working pressure by Rules 122 lbs Combustion chamber plates: Material steel

Tensile strength 26-30 Thickness: Sides 17/32 Back 19/32 Top 17/32 Bottom 31/32

Pitch of stays to ditto: Sides 8 7/8" x 9" Back 9 1/2" x 10" Top 7 1/2" x 9" Are stays fitted with nuts or riveted over nuts

Working pressure by Rules 121 lbs Front plate at bottom: Material Steel Tensile strength 26-30 tons

Thickness 23/32 Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 23/32

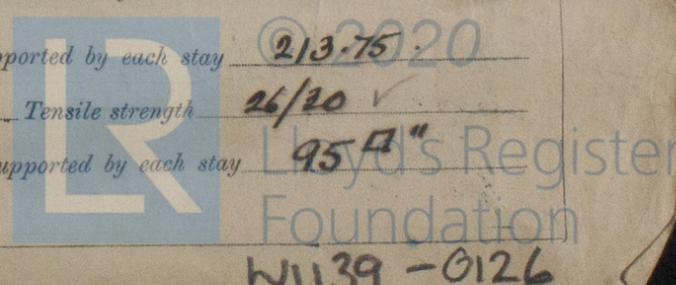
Pitch of stays at wide water space 14" x 10" Are stays fitted with nuts or riveted over nuts

Working Pressure 140 $\text{lbs}/\text{sq. in.}$ Main stays: Material Steel Tensile strength 28-32

Diameter {At body of stay 2" or Over threads 2" No. of threads per inch 6 Area supported by each stay 213.75 sq. in.

Working pressure by Rules 122 lbs Screw stays: Material steel Tensile strength 26/30

Diameter {At turned off part 1 1/2" or Over threads 1 1/2" No. of threads per inch 9 Area supported by each stay 95 sq. in.



Working pressure by Rules 132 lb Are the stays drilled at the outer ends NO Margin stays: Diameter ^{At turned off part,} 1 5/8 or ^{Over threads} 1 5/8
 No. of threads per inch 9 Area supported by each stay 110 Working pressure by Rules 138 lb
 Tubes: Material Iron External diameter ^{Plain} 3 1/4 Thickness ^{10 S.W.G.} 5/16 No. of threads per inch 9
 Pitch of tubes 4 1/2 x 4 1/2 Working pressure by Rules 130 4 188 lb Manhole compensation: Size of opening in
 shell plate 20" x 16" Section of compensating ring 7" x 3/4 No. of rivets and diameter of rivet holes 40 at 1 5/16"
 Outer row rivet pitch at ends 6 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
 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 FOR

RILEY BROS. (BOILERMAKERS) LIMITED
 The foregoing is a correct description,

J. H. Shields **SECRETARY** Manufacturer.

Dates of Survey ^{During progress of} 24th Nov. Dec. 2 20 ^{work in shops - -} 1924 Are the approved plans of boiler and superheater forwarded herewith
 while ^{During erection on} _____ ^{board vessel - - -} _____ (If not state date of approval.)
 building ^{board vessel - - -} _____ Total No. of visits 3

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has
been built under special survey; is of good material
& workmanship and on completion was tested by hydraulic
pressure with satisfactory results.

Survey Fee £ 7 : 16 : 6 } **MONTHLY A/c.** When applied for, _____ 192
 Travelling Expenses (if any) £ : : } When received, _____ 192

W. Roberts Wm Morrison
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 31 MAR 1925

Assigned

See other rpt
Nwc 790207



© 2020

Lloyd's Register
 Foundation