

REPORT ON BOILERS.

No. 28775

Received at London Office

MAR. 26 1924

Date of writing Report

192

When handed in at Local Office

25 MAR 1924

Port of

Sunderland

No. in
Reg. Book.

Survey held at Sunderland

Date, First Survey

Last Survey 22nd Nov 1924

6030 on the new steel S/S USK BRIDGE

(Number of Visits)

Gross 2530
Net 1515

Master

Built at Burntisland

By whom built

Burntisland SBC Co

Yard No. 121

When built 1923

Engines made at

Sunderland

By whom made

North Eastern Marine Eng Co Ltd

Engine No. 2530

When made 1923

Boilers made at

Sunderland

By whom made

North Eastern Marine Eng Co Ltd

Boiler No. 272

When made 1923

Nominal Horse Power

Owners

Hk Side S.S. Co Ltd (R. Jones & Co Mgrs)

Port belonging to

Newport (mon)

7-9 MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel John Spence & Sons Ltd (Letter for Record S)

Total Heating Surface of Boilers 588 sq ft Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers one single ended marine Working Pressure 120

Tested by hydraulic pressure to 230 Date of test 21.1.24 No. of Certificate 3861 Can each boiler be worked separately

Area of Firegrate in each Boiler 23.8 sq ft No. and Description of safety valves to each boiler two direct spring

Area of each set of valves per boiler per Rule 5.44 as fitted 6.28 Pressure to which they are adjusted 125 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 18" Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating 2'-6" Is the bottom of the boiler insulated no

Largest internal dia. of boilers 9'-0" Length 9'-13/4" Shell plates: Material steel Tensile strength 28-32 tons

Thickness 9/16 Are the shell plates welded or flanged no Description of riveting: circ. seams end DR inter. 3"

Long. seams DRs. DR Diameter of rivet holes in circ. seams 3/4" Pitch of rivets 4 3/16"

Percentage of strength of circ. end seams plate 75 rivets 44 Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 82 rivets 86.6 combined 93.7 Working pressure of shell by Rules 123

Thickness of butt straps outer 9/16 inner 9/16 No. and Description of Furnaces in each Boiler two plain

Material steel Tensile strength 26-30 Smallest outside diameter 2'-8 3/4"

Length of plain part top 5'-4 1/2" bottom 4'-9 1/2" Thickness of plates crown 3/32 bottom 6/64 Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom none Working pressure of furnace by Rules 131

End plates in steam space: Material steel Tensile strength 26-30 Thickness 7/8" Pitch of stays 17x15"

How are stays secured WN + W Working pressure by Rules 135

End plates: Material front steel Tensile strength 26-30 Thickness 7/8" 23/32

Back steel Pitch of stay tubes in nests 10" Pitch across wide water spaces 14 1/2" Working pressure front 130 back 184

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

centre 2 @ 6 1/2" x 3/4" Length as per Rule 24" Distance apart 12" No. and pitch of stays

each 2 @ 8 1/2" Working pressure by Rules 126 Combustion chamber plates: Material steel

Tensile strength 26-30 Thickness: Sides 23/32 Back 11/16 Top 23/32 Bottom 23/32

Pitch of stays to ditto: Sides 12x12 1/2" Back 11 1/2" x 11" Top 12x8 1/2" Are stays fitted with nuts or riveted over nuts

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

Thickness 7/8 Lower back plate: Material steel Tensile strength 26-30 Thickness 7/8

Pitch of stays at wide water space 15" Are stays fitted with nuts or riveted over nuts

Working Pressure 175 Main stays: Material steel Tensile strength 28-32

Diameter At body of stay 2 1/8 Over threads No. of threads per inch 6 Area supported by each stay 2550"

Working pressure by Rules 148 Screw stays: Material steel Tensile strength 26-30

Diameter At turned off part 1 5/8 Over threads No. of threads per inch 9 Area supported by each stay 126.50"

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Working pressure by Rules 120 Are the stays drilled at the outer ends no Margin stays: Diameter { At turned off part, 13/4" or Over threads

No. of threads per inch 9 Area supported by each stay 1490 Working pressure by Rules 121

Tubes: Material Wrought Iron External diameter { Plain 3 1/4" Stay 3 1/4" Thickness { 9 w g 5/16" No. of threads per inch 9

Pitch of tubes 4 3/8" x 4 3/8" Working pressure by Rules 162 Manhole compensation: Size of opening in shell plate 16" x 20" Section of compensating ring 7" x 3/4" flanged No. of rivets and diameter of rivet holes 32 @ 29/32"

Outer row rivet pitch at ends 5 3/4" Depth of flange if manhole flanged 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 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

The foregoing is a correct description,
W. Campbell Allen Manufacturer.
Assistant Secretary

Dates of Survey { During progress of work in shops - - } Please see Machinery Rpt
while building { During erection on board vessel - - } Do

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

Total No. of visits

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

The materials and workmanship are good.

The boiler has been constructed under special survey, satisfactorily fitted in the stokehold and its safety valves adjusted under steam.

Survey Fee ... £ 4 : 4 : When applied for, 25 MAR 1924

Travelling Expenses (if any) £ : : When received, 22-4-1924

S. C. Davis & R. J. Pasthope
Engineer Surveyor to Lloyd's Register of Shipping.

FRI 22 AUG 1924

Committee's Minute FRI 20 JUN 1924

Assigned

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