

REPORT ON BOILERS.

No. 29008

Received at London Office 31 JAN 1925

Date of writing Report 29th Jan 1925 When handed in at Local Office 29th Jan 1925 Port of Sunderland

No. in Survey held at Sunderland Date, First Survey Last Survey Jan 20 1925

Reg. Book. 9th JORDAENS. (Number of Visits) Gross Tons Net

Master Built at Hoboken By whom built Antwerp Eng. Co. Yard No. 89 When built 1925

Engines made at Sunderland By whom made J. E. Marine Eng. Co. Ltd Engine No. 2596 When made 1925

Boilers made at Sunderland By whom made J. E. Marine Eng. Co. Ltd Boiler No. 2596 When made 1925

Nominal Horse Power 175 Owners Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel David Colville & Son Ltd. (Letter for Record S)

Total Heating Surface of Boilers 3036⁷ Is forced draught fitted No Coal or Oil fired Coal

No. and Description of Boilers 2 Single Ended Marine Type 2SB. Working Pressure 180 lbs

Tested by hydraulic pressure to 320 lbs Date of test 22-12-24 No. of Certificate 3908. Can each boiler be worked separately

Area of Firegrate in each Boiler 385⁴ No. and Description of safety valves to each boiler 2 Direct Spring Loaded

Area of each set of valves per boiler { per Rule 14.34⁰ as fitted 19.24⁰ Pressure to which they are adjusted Are they fitted with easing gear

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 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 12'-9⁷/₈" Length 10'-6" Shell plates: Material Steel Tensile strength 28 to 32 tons

Thickness 1¹/₁₆" Are the shell plates welded or flanged No Description of riveting: circ. seams { end D. R. LAP inter. 3" Bottom front 3³/₈" Remainder 8"

long. seams T. R. D. B. S Diameter of rivet holes in { circ. seams 1¹/₂" long. seams 1³/₂" Pitch of rivets { plate 3" Bottom front 3³/₈" Remainder 8"

Percentage of strength of circ. end seams { plate 48.5 rivets 45.2 Percentage of strength of circ. intermediate seam { plate 86.3 rivets 85.1

Percentage of strength of longitudinal joint { plate 86.3 rivets 85.1 combined 89.6 Working pressure of shell by Rules 180.1 lbs.

Thickness of butt straps { outer 4¹/₈" inner 1" No. and Description of Furnaces in each Boiler 2 Dugton

Material Steel Tensile strength 26 to 30 tons Smallest outside diameter 3'-6⁵/₁₆"

Length of plain part { top Thickness of plates { crown 1¹/₂" bottom 1¹/₂" Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 181 lbs.

End plates in steam space: Material Steel Tensile strength 26 to 30 tons Thickness 1¹/₂" Pitch of stays 20³/₄" x 19"

How are stays secured Double nuts and washers Working pressure by Rules 184 lbs.

Tube plates: Material { front Steel Tensile strength { 26 to 30 tons Thickness { 7¹/₈" 3¹/₄"

Mean pitch of stay tubes in nests 10.5" Pitch across wide water spaces 15" Working pressure { front 184 lbs back 182 lbs

Girders to combustion chamber tops: Material Steel Tensile strength 26 to 30 tons Depth and thickness of girder

at centre 2 @ 4¹/₂" x 7¹/₈" Length as per Rule 2'-6⁷/₈" Distance apart 10" No. and pitch of stays

in each 2 @ 9¹/₂" Working pressure by Rules 183 lbs Combustion chamber plates: Material Steel

Tensile strength 26 to 30 tons Thickness: Sides 2³/₂" Back 2³/₂" Top 2³/₂" Bottom 1⁵/₁₆"

Pitch of stays to ditto: Sides 10¹/₂" x 9¹/₂" Back 10⁹/₁₆" x 9" Top 10" x 9¹/₂" Are stays fitted with nuts or riveted over Nuts in C. Co. 4 in 134 backs

Working pressure by Rules 181.5 lbs. Front plate at bottom: Material Steel Tensile strength 26 to 30 tons

Thickness 7¹/₈" Lower back plate: Material Steel Tensile strength 26 to 30 tons Thickness 7¹/₈"

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

Working Pressure 186 lbs Main stays: Material Steel Tensile strength 28 to 32 tons

diameter { At body of stay, 2⁷/₈" No. of threads per inch 6 Area supported by each stay 394.2 sq. in

Working pressure by Rules 182 lbs Screw stays: Material Steel Tensile strength 26 to 30 tons

diameter { At turned off part, 1¹/₄" No. of threads per inch 9 Area supported by each stay 100.3 sq. in

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Working pressure by Rules 181 lb 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 126.4 ✓ Working pressure by Rules 196 lb

Tubes: Material Woot Iron ✓ External diameter { Plain Stay } 3 1/4" ✓ Thickness { No 8 W.C. ✓ } No. of threads per inch 9 ✓

Pitch of tubes 4 9/16" x 4 5/8" ✓ Working pressure by Rules 250 lb ✓ Manhole compensation: Size of opening in end plate 16" x 12" ✓ Section of compensating ring ✓ No. of rivets and diameter of rivet holes ✓

Outer row rivet pitch at ends 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 { 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 Manufacturer's of { Tubes Steel castings } Internal diameter and thickness of tubes

Number of elements Material of tubes 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,
FOR THE NORTH EASTERN MARINE ENGINEERS LTD. Manufacturer.
O. T. Adams

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 (If not state date of approval.)
Total No. of visits

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) The materials and workmanship are good and the boiler have been constructed under special survey.

RETAILED

Survey Fee ... £ See machinery report When applied for, 192
Travelling Expenses (if any) £ See machinery report When received, 192

George Anderson
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUES. 28 APR 1925
Assigned See Ant. 13631