

REPORT ON BOILERS.

No. 11875

Received at London Office 26 AUG 1924

Sept 17 24

of writing Report 21st August 1924 When handed in at Local Office 21st August 1924 Port of Southampton

0.26. in Survey held at Southampton Date, First Survey 31st March 1923 Last Survey 21st August 1924

Book. on the S. Pilot Boat "PIONEER" (Number of Visits 59.) Tons {Gross 281.34 Net 124.58}

ter Built at Southampton By whom built J. J. Henrycroft Yard No. 1028 When built 1924

ines made at Southampton By whom made J. J. Henrycroft & Co. Ltd. Engine No. 1028 When made 1924

ers made at do. By whom made do. Boiler No. 1028 When made 1924.

inal Horse Power 102.85 Owners Honourable Corporation of Trinity House Port belonging to London.

ULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Port Talbot Steel Co Ltd. (Letter for Record S)

al Heating Surface of Boilers 2051 # Is forced draught fitted No Coal or Oil fired Coal

and Description of Boilers One single ended cylindrical Working Pressure 180 lbs.

sted by hydraulic pressure to 360 lbs Date of test 27/5/24 No. of Certificate 372 Can each boiler be worked separately

ea of Firegrate in each Boiler 61.5 # No. and Description of safety valves to each boiler 3" double spring loaded

ea of each set of valves per boiler {per Rule 13.15 # as fitted 14.137 # Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

case of donkey boilers, state whether steam from main boilers can enter the donkey boiler

allest distance between boilers or uptakes and bunkers or woodwork 9" from shell Is oil fuel carried in the double bottom under boilers

allest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated No

largest internal dia. of boilers 14'-6 5/8" Length 10'-6" Shell plates: Material Steel Tensile strength 28-32 tons

ickness 1 3/16" Are the shell plates welded or flanged No Description of riveting: circ. seams {end D.R. Lap inter. 3.583"}
ing. seams T.R.D.B.S. Diameter of rivet holes in {circ. seams 1 1/4" long. seams 1 3/16" Pitch of rivets {plate 8 1/8" rivets 8 1/8"}

ercentage of strength of circ. end seams {plate 65.2 rivets 47.3 Percentage of strength of circ. intermediate seam {plate rivets}

ercentage of strength of longitudinal joint {plate 85.4 rivets 88.5 combined 88.5 Working pressure of shell by Rules 181.5 lbs.

ickness of butt straps {outer 1 1/8" inner 1 1/8" No. and Description of Furnaces in each Boiler 3 Deighna

aterial Steel Tensile strength 26-30 tons Smallest outside diameter 3'-5 5/16"

ength of plain part {top bottom} Thickness of plates {crown 1 1/4" bottom 3/32"} Description of longitudinal joint Welded

Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 186 lbs.

nd plates in steam space: Material Steel Tensile strength 26-30 tons Thickness 1 1/4" Pitch of stays 2 1/4" x 19"

ow are stays secured D.N. & W. Working pressure by Rules 180 lbs.

ube plates: Material {front back} Steel Tensile strength {26-30 tons Thickness {13/16" 3/4"}

lean pitch of stay tubes in nests 10.56" Pitch across wide water spaces {14 1/2" x 4 1/16" 9" 1/16" double Working pressure {front 212.5 lbs back 180 lbs}

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

t centre 8 1/4" x 1" x 2 Length as per Rule 2'-5 1/8" Distance apart 11" No. and pitch of stays

a each 2 @ 9 1/2" Working pressure by Rules 256 lbs. Combustion chamber plates: Material Steel

Tensile strength 26-30 tons Thickness: Sides 25/32" Back 25/32" Top 25/32" Bottom 25/32"

itch of stays to ditto: Sides 9 1/2" x 12" Back 9 1/4" x 8" Top 9 1/2" x 11" Are stays fitted with nuts or riveted over Nuts

Working pressure by Rules 181 lbs. Front plate at bottom: Material Steel Tensile strength 26-30 tons

Thickness 13/16" Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 15/16"

itch of stays at wide water space 14 1/2" x 8" Are stays fitted with nuts or riveted over Nuts

Working Pressure 264 lbs. Main stays: Material Steel Tensile strength 28-32 tons

iameter {At body of stay 3 1/4" Over threads No. of threads per inch 6 Area supported by each stay 2 1/4" x 19"

Working pressure by Rules 199 lbs. Screw stays: Material Steel Tensile strength 26-30 tons

iameter {At body of stay Back 1 5/8" Side 1 1/8" No. of threads per inch 9 Area supported by each stay Back 9 1/4" x 8" Side 9 1/2" x 11"

REPORT ON BOILERS

Working pressure by Rules 187 lb. Are the stays drilled at the outer ends ☒ Margin stays: Diameter ^{At turned off part,} 1 3/4" Over threads 1 3/4"

No. of threads per inch 9 Area supported by each stay 11 7/8" x 8" Working pressure by Rules 191 lb.

Tubes: Material L.W. Iron External diameter ^{Plain} 3 1/4" Thickness ^{Stay} 1/4" & 5/16" No. of threads per inch 9

Pitch of tubes Plain 4 5/8" x 4 7/8" Working pressure by Rules 192 lb. Manhole compensation: Size of opening 9"

Shell 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 7/8" 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

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

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

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

The foregoing is a correct description,

J. Donaldson Manufacturer

Dates of Survey 1923 Mar 21, Apr 16, May 1, 2, 11, 22, 25, June 7, 20, 21, July 4, 12, 19, 28, 31. Are the approved plans of boiler and superheater forwarded herewith (If not state date of approval.) 29/3/23.

work in shops - Sept 3, 13, 19, 26, Oct 17, 24, Nov 1, 7, 20, Jan 1, 4.

while building During erection on board vessel - Apr 9, 23, 24, 28, May 5, 13, 15, 23, 27, 30. Total No. of visits 59.

1924 June 3, 4, 11, 13, 16, 17, 20, 26, July 17, 28, Aug 21.

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

This Boiler has been built under Special Survey, and in accordance with the Rules and approved plans. It has been fitted in the above Vessel, easing gear fitted and Safety Valves adjusted under steam to the working pressure provided by the Rules.

Survey Fee £ : : When applied for, 192

Travelling Expenses (if any) £ : : When received, 192

H. H. Garnett

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute FRI 29 AUG 1924

Assigned



© 2021

Lloyd's Register
Foundation