

REPORT ON BOILERS.

No. 13919.

15 MAY 1930

Received at London Office

Date of writing Report 14 May 1930 When handed in at Local Office 14 May 1930 Port of Southampton

No. in Survey held at Cowes Date, First Survey 7 Oct 1929 Last Survey 28 April 1930

0889 on the Paddle Ferry Steamer "JOHN BENN" (Number of Visits 15) Tons { Gross Net

Master Built at Cowes By whom built Samuel White & Co Yard No. 1685 When built 1930

Engines made at do By whom made do Engine No. do When made do

Boilers made at do By whom made do Boiler No. do When made do

Nominal Horse Power 170 Owners London County Council Port belonging to London

MULTITUBULAR BOILERS—MAIN, ~~AUXILIARY~~ OR DONKEY.

Manufacturers of Steel W. M. Beardmore & Co. Ltd. (Letter for Record 3)

Total Heating Surface of Boilers 2620 sq ft Is forced draught fitted no Coal or Oil fired coal

No. and Description of Boilers 2 S.E. GUNBOAT TYPE 2B. Working Pressure 50 lbs/sq in

Tested by hydraulic pressure to 100 lbs/sq in Date of test 22.1.30 No. of Certificate 396 Can each boiler be worked separately yes

Area of Firegrate in each Boiler 48.5 sq ft No. and Description of safety valves to each boiler 2 spring loaded direct acting

Area of each set of valves per boiler { per Rule 12.55 sq ft as fitted 19.24 sq ft Pressure to which they are adjusted 52 lbs/sq in 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 5'-3" Is oil fuel carried in the double bottom under boilers no

Smallest distance between shell of boiler and tank top plating no Is the bottom of the boiler insulated no

Largest internal dia. of boilers 9'-7" Length 17'-3/4" Shell plates: Material steel Tensile strength 28/32

Thickness 7/16" Are the shell plates welded or flanged no Description of riveting: circ. seams { end S.R. int. D.R.

long. seams D.R.L. Diameter of rivet holes in { circ. seams 13/16" long. seams 13/16" Pitch of rivets { end 2 1/8" x 2.737" long 2 3/4"

Percentage of strength of circ. end seams { plate 61.76 rivets 45.8 Percentage of strength of circ. intermediate seam { plate 70.3 rivets 71.1

Percentage of strength of longitudinal joint { plate 70.48 rivets 70.8 combined Working pressure of shell by Rules 70.9 lbs/sq in

Thickness of butt straps { outer no inner yes No. and Description of Furnaces in each Boiler 2 Plain with adamant rings

Material steel Tensile strength 26/30 Smallest outside diameter 3'-10"

Length of plain part { top 3'-5 3/4" x 3 3/8" bottom 3'-5 3/4" x 3 3/8" Thickness of plates { crown 15/32" bottom 15/32" Description of longitudinal joint weld

Dimensions of stiffening rings on furnace 4'-5 1/2" x 4'-9 1/4" x 1/2" Working pressure of furnace by Rules 83.8 lbs/sq in

End plates in steam space: Material steel Tensile strength 26/30 Thickness 5/8" Pitch of stays 2'-0 1/2" x 1'-3"

How are stays secured Double nuts or washers Working pressure by Rules 62.2 lbs/sq in

Tube plates: Material { front steel back steel Tensile strength { 26/30 Thickness { m.c.c. 11/16" back 5/8" end plate 11/16"

Mean pitch of stay tubes in nests 1'-0 5/8" x 1'-0 9/16" Pitch across wide water spaces 1'-0 3/4" Working pressure { front end 111.7 lbs/sq in back c.c. 85 "

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

at centre slang stays Length as per Rule yes Distance apart 2'-1 1/4" No. and pitch of stays

in each 1 Working pressure by Rules appd. Combustion chamber plates: Material steel

Tensile strength 26/30 Thickness: Sides 7/16" Back 11/16" Top 7/16" Bottom 7/16"

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

Working pressure by Rules 66.7 lbs/sq in Front plate at bottom: Material steel Tensile strength 26/30

Thickness 5/8" Lower back plate: Material steel Tensile strength 26/30 Thickness 5/8"

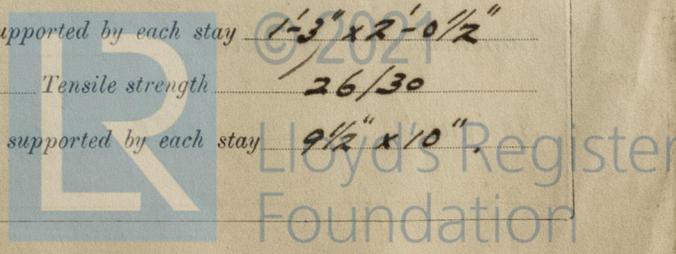
Pitch of stays at wide water space stay tubes 12 3/4" x 8 3/8" Are stays fitted with nuts or riveted over yes

Working Pressure 111.7 lbs/sq in Main stays: Material steel Tensile strength 28/32

Diameter { At body of stay, 1 3/4" or Over threads 1 3/4" No. of threads per inch 9 Area supported by each stay 1'-3" x 2'-0 1/2"

Working pressure by Rules 51.3 lbs/sq in Screw stays: Material steel Tensile strength 26/30

Diameter { At turned off part, 1 1/8" or Over threads 1 1/8" No. of threads per inch 9 Area supported by each stay 9 1/2" x 10"



Working pressure by Rules 64 7/16 Are the stays drilled at the outer ends no Margin stays: Diameter ^{At turned off part,} 1 1/8"
 No. of threads per inch 9 Area supported by each stay 9 1/2" x 10" Working pressure by Rules 64 7/16
 Tubes: Material Steel External diameter ^{Plain} 3" Thickness ^{12.L.S.G.} 1 1/32" No. of threads per inch 9
 Pitch of tubes 4 3/16" x 4 5/16" Working pressure by Rules 140 7/16 Manhole compensation: Size of opening in
 shell plate 19 1/2" x 15 1/2" Section of compensating ring 4" x 5/8" No. of rivets and diameter of rivet holes 28 @ 1 3/16"
 Outer row rivet pitch at ends 5" 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}
 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 fitted Manufacturers of ^{Tubes}
 Number of elements 1 Material of tubes Steel ^{Steel castings}
 Material of headers Steel Tensile strength 40,000 Thickness 1/2" 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 1 1/2" Are the safety valves fitted with easing gear Working pressure as per
 Rules 64 7/16 Pressure to which the safety valves are adjusted 64 7/16 Hydraulic test pressure:
 tubes 64 7/16, castings 64 7/16 and after assembly in place 64 7/16 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,
 For J. Samuel White & Company Ltd. J. J. Millan Manufacturer.
 Managing Director

Dates of Survey ^{During progress of work in shops - -} 15/7/29, 7/10/29, 15/10/29, 13/11/29, 19/11/29, 5/12/29, 11/12/29, 17/12/29
^{while building} ^{During erection on board vessel - - -} 7/1/30, 9/1/30, 13/1/30, 15/1/30, 22/1/30, 13/2/30, 17/3/30, 28/4/30 Are the approved plans of boiler and superheater forwarded herewith with
 (If not state date of approval.) "WIL CROOKS"
 Total No. of visits 15

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

These boilers have been constructed in general accordance with the approved plans and tested in accordance with the requirements of the Rules. The workmanship & materials are good.

Survey Fee £ : : } When applied for, 192
 Travelling Expenses (if any) £ : : } When received, 192

J. J. Millan & self
I. R. Home

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute TUE 20 MAY 1930

Assigned See F.E. Rpt.

