

REPORT ON BOILERS.

No. 73004

Received at London Office

30 JUN 1948

Date of writing Report 18/6/1948 When handed in at Local Office 29.6.1948 Port of Glasgow
No. in Survey held at Glasgow Date, First Survey 8.9.47 Last Survey 29.6.1948
Reg. Book. 1948 on the Steamer "TAMBO" (Number of Visits 11) Tons { Gross
Net
Master Bowling Built at Glasgow By whom built Scott & Son Yard No. 388 When built 1949
Engines made at Glasgow By whom made Rankine & Son Engine No. 2871 When made 1948/9
Boilers made at Glasgow By whom made Barrington & Co. Ltd. Boiler No. 47/6 When made
Nominal Horse Power 107 Owners S. B. Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Coleman & Co. (Letter for Record P.)
Total Heating Surface of Boilers 1600 sq. ft. Is forced draught fitted NO Coal or Oil fired Oil
No. and Description of Boilers One P.E. R.T. Tube Type. Working Pressure 140 lbs.
Tested by hydraulic pressure to 260 lbs. Date of test 29/6/48 No. of Certificate 29706 Can each boiler be worked separately
Area of Firegrate in each Boiler No. and Description of safety valves to each boiler $2\frac{1}{4}$ " Donkey I.H.L.
Area of each set of valves per boiler { per Rule 6.45 EI as fitted 7.94 EI Pressure to which they are adjusted 140 lbs. Are they fitted with easing gear YES
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'-0" Length 11'-0" Shell plates: Material P. Tensile strength 29/335
Thickness 25/32 Are the shell plates welded or flanged NO Description of riveting: circ. seams { end D.R. inter. ✓
long. seams T.R. - D.R.S. Diameter of rivet holes in { circ. seams 15/16 Pitch of rivets { 2.99 long. seams 7/8 6 5/16
Percentage of strength of circ. end seams { plate 68.5 rivets 46.9 Percentage of strength of circ. intermediate seam { plate 86.1 rivets ✓
Percentage of strength of longitudinal joint { plate 86.1 rivets 90.1 combined 90.2 Working pressure of shell by Rules 145 lbs.
Thickness of butt straps { outer 5/8 inner 3/4 No. and Description of Furnaces in each Boiler 2 Donkey Type
Material P. Tensile strength 26/205 Smallest outside diameter 43 1/4
Length of plain part { top ✓ bottom ✓ Thickness of plates { crown 29/64 bottom 29/64 Description of longitudinal joint Welded
Dimensions of stiffening rings on furnace or c.c. bottom Working pressure of furnace by Rules 150 lbs.
End plates in steam space: Material P. Tensile strength 26/205 Thickness 15/16 Pitch of stays 17 1/2 x 16
How are stays secured into both sides - Wrought iron ends and nuts on two bottom stays. Working pressure by Rules 152 lbs.
Tube plates: Material { front P. back P. Tensile strength { 26/205 Thickness { 15/16 3/4
Mean pitch of stay tubes in nests 10.312 Pitch across wide water spaces 14 Working pressure { front 166 lbs. back 189 lbs.
Girders to combustion chamber tops: Material P. Tensile strength 28/325 Depth and thickness of girder
at centre (8 x 5/8) x 2 Length as per Rule 31.625 Distance apart 9 1/2 - 0 9 No. and pitch of stays
in each 2 @ 10 Working pressure by Rules 1416 lbs. Combustion chamber plates: Material P.
Tensile strength 26/205 Thickness: Sides 5/8 Back 5/8 Top 5/8 Bottom 1 1/16
Pitch of stays to ditto: Sides 10 x 9 1/2 Back 10 x 9 1/2 Top 10 x 9 1/2 Are stays fitted with nuts or riveted over into
Working pressure by Rules 142.5 lbs. Front plate at bottom: Material P. Tensile strength 26/205
Thickness 15/16 Lower back plate: Material P. Tensile strength 26/205 Thickness 15/16
Pitch of stays at wide water space 14 Are stays fitted with nuts or riveted over into
Working Pressure 210 lbs. Main stays: Material P. Tensile strength 28/325
Diameter { At body of stay, 2 1/2 or ✓ No. of threads per inch 6 Area supported by each stay 17 1/2 x 15
Working pressure by Rules 158 lbs. Screw stays: Material P. Tensile strength 26/205
Diameter { At turned off part, 1 7/8 or 1 7/8 No. of threads per inch 9 Area supported by each stay { 1 7/8 - 10 x 9 1/2 1 7/8 - 12 x 9 1/2

Working pressure by Rules

15946

Are the stays drilled at the outer ends

no.

Margin stays : Diameter

At turned off part,

or

Over threads

1 7/8 -

No. of threads per inch

9

Area supported by each stay

12 x 9 1/2 -

Working pressure by Rules

15946

Tubes : Material

P.

External diameter

Plain

Stay

3 -

Thickness

102.5.

No. of threads per inch

9.

Pitch of tubes

4 1/8 x 4 1/8 -

Working pressure by Rules

22546

Manhole compensation: Size of opening

20 x 16 -

Section of compensating ring

17 x 2 1/2 -

No. of rivets and diameter of rivet holes

40 @ 1 1/8

Outer row rivet pitch at ends

7 1/2 -

Depth of flange if manhole flanged

3 1/8 -

Steam Dome : Material

h.m. fitted

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 forgings

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

forgings and castings

and after assembly in place

valves fitted to free the superheater from water where necessary

Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with

A. Macneil

The foregoing is a correct description,

Manufacturers

Dates of Survey

During progress of work in shops - -

1947 Sep. 8 25 Oct. 13. 17. 1948 Jan. 14. 20

Are the approved plans of boiler and superheater forwarded herewith

(If not state date of approval.)

while building

During erection on board vessel - - -

Feb. 5 Apr. 29 May 13. 24 Jun 29

Total No. of visits

11

Is this Boiler a duplicate of a previous case

Yes.

If so, state Vessel's name and Report No.

P.B. 47/5.

GENERAL REMARKS

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

This Boiler has been built under Special Survey in accordance with The Rules & The approved plans & The materials & workmanship are good.

The boiler is to the order of Messrs. Plant & Sons, Ltd., Newcastle, & has been dispatched to Messrs. Scott & Sons, Ltd., Bowdrie for installation in their yard no 388.

This Boiler has been efficiently installed on board and the Safety valve adjusted to 140 lbs/sq in.

Survey Fee

...

£ 21 : 8 : 0

When applied for,

29 JUN 1948

Travelling Expenses (if any) £

✓ :

When received,

19

Committee's Minute

Assigned

Deferred for completion

A.R. Lunden.

Engineer Surveyor to Lloyd's Register of Shipping.



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