

13/5

Rpt. 5a.

AR 1946

REPORT ON BOILERS.

See No. 34478

Mem No. 18001

Received at London Office 6 - MAR 1946

Date of writing Report

19

When handed in at Local Office

4:3:1946

Port of Middlesbrough

No. in Reg. Book.

Survey held at Stockton-on-Tees

Date, First Survey 7:9:45

Last Survey 22:2:1946

"BRITISH MARQUIS"

(Number of Visits 16) Tons Gross 8563 Net 4908

Built at Sunderland By whom built Wm Leiford & Sons Ltd

Yard No. 435 When built 1946

Engines made at Sunderland By whom made Wm Leiford & Sons Ltd

Engine No. 435 When made 1946

Boilers made at Stockton-on-Tees By whom made Stockton C.E. & Riley Boilers Ltd

Boiler No. 6928 When made 1946

Nominal Horse Power Owners British Danks Co Ltd

Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Appleby Farnham Steel Co. Ltd

(Letter for Record Exhaust Gas + Coal or Oil fired) S. J.

Total Heating Surface of Boilers 2020 sq

Is forced draught fitted Yes

No. and Description of Boilers 1 S.E. marine

Working Pressure 150 150 150

Tested by hydraulic pressure to 275 lb. Date of test 22/2/46 No. of Certificate 7165 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 7.65 to 14.10

Area of each set of valves per boiler {per Rule as fitted} Pressure to which they are adjusted 150 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 No

Smallest distance between shell of boiler and tank top plating Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 12'-10 3/16" Length 11'-6" Shell plates: Material Steel Tensile strength 29-33

Thickness 29/32" Are the shell plates welded or flanged No. Description of riveting: circ. seams {end D.R. Lap. inter. 3-187"

long. seams TR-DAS Diameter of rivet holes in {circ. seams 1 1/16" long. seams 1 1/16" Pitch of rivets 7 1/4"

Percentage of strength of circ. end seams {plate 66.6% rivets 48.7} Percentage of strength of circ. intermediate seam {plate 84.9 rivets 103}

Percentage of strength of longitudinal joint {plate 84.9 rivets 103 combined}

Thickness of butt straps {outer 23/32" inner 27/32" No. and Description of Furnaces in each Boiler 2 Deighton Corrugated

Material Steel Tensile strength 26-30 Smallest outside diameter 8'-10"

Length of plain part {top Thickness of plates {crown 1/2" bottom Description of longitudinal joint welded

Dimensions of stiffening rings on furnace or c.c. bottom

End plates in steam space: Material Steel Tensile strength 26-30 Thickness 1" Pitch of stays 18"x17"

How are stays secured Double nuts & washers screwed into both plates

Tube plates: Material {front Steel back Tensile strength 26-30 Thickness 3/4"

Mean pitch of stay tubes in nests 9 1/8" Pitch across wide water spaces 13 1/2"

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

at centre 7"-2 25/8" Length as per Rule 2'-3 1/2" Distance apart 9" No. and pitch of stays

in each 2 29" Combustion chamber plates: Material Steel

Tensile strength 26-30 Thickness: Sides 2 1/32" Back 1 9/32" Top 2 1/32" Bottom 2 1/32"

Pitch of stays to ditto: Sides 10"x9" Back 9 1/2"x8 1/4" Top 9"x9" Are stays fitted with nuts or riveted over Auto.

Front plate at bottom: Material Steel Tensile strength 26-30

Thickness 7/8" Lower back plate: Material Steel Tensile strength 26-30 Thickness 3/4"

Pitch of stays at wide water space 13 1/2" Are stays fitted with nuts or riveted over Auto.

Main stays: Material Steel Tensile strength 28-32

Diameter {At body of stay, or Over threads 2 3/4" No. of threads per inch 6

Screw stays: Material Steel Tensile strength 26-30

Diameter {At turned off part, or Over threads 1 1/2" No. of threads per inch 9

Are the stays drilled at the outer ends

Margin stays: Diameter { At turned off part, or Over threads

No. of threads per inch

Tubes:

Material

External diameter

Plain

Stay

Thickness

No. of threads per inch

Pitch of tubes

shell plate

Section of compensating ring

No. of rivets and diameter of rivet holes

Manhole compensation: Size of opening

Outer row rivet pitch at ends

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

Internal diameter

Thickness of crown

No. and diameter

stays

Inner radius of crown

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 at

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

Pressure to which the safety valves are adjusted

tubes

forgings and castings

and after assembly in place

Hydraulic test pressure

valves fitted to free the superheater from water where necessary

Are drain cocks

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

The foregoing is a correct description,

Dates of Survey { During progress of work in shops - - - 1945 Sep: 7-13 Oct: 19-31 Nov 14
while building { During erection on board vessel - - - 23-29 Dec: 14-20-28 (1946) Jan 11-16 Feb: 7-14-19-22

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

Total No. of visits

Is this Boiler a duplicate of a previous case

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

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

This boiler has been constructed under Special Survey & in accordance with the Rule Requirements & approved plan. The materials & workmanship are good & on completion the boiler was hydraulically tested to 275 lbs p.s.i. & found satisfactory. This boiler is being forwarded to Sunderland for Wm. Tompkins' Contract No. 735.

This boiler has been successfully fired on board the vessel. Fitted to burn oil fuel (S.P. above 150°F). Safety valves adjusted to working pressure as above.

For recommendation please see Machinery Rpt. D. H. Law.

Survey Fee ... £ 20 : 5 :

Travelling Expenses (if any) £ :

When applied for, 5/3/46 19

When received, 19

L. Norman Stuart

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 14 JUN 1946

Assigned

See F. E. Machy. rpt.



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