

Rpt. 5a.

3 APR 1945

IN D.O.

REPORT ON BOILERS.

Rt No.
Mell. 17999.

No. 17840.

Received at London Office

26 APR 1945

Date of writing Report 18th April 1945 When handed in at Local Office 24th April 1945 Port of MiddlesbroughNo. in Survey held at
Reg. Book.

Stockton-on-Tees.

Date, First Survey 6th December 1944 Last Survey 16th April 1945

on the

s/s "WAVE SOVEREIGN"

(Number of Visits 17.)
Tons { Gross 8181
Net 4559

Built at Harton Hill-on-Tees By whom built J. & W. Shipbuilding Co. Ltd. Yard No. 364 When built 1946-2

Engines made at West. Hartlepool. By whom made Richardson Westgarth. Engine No. 2754 When made 1946

Boilers made at Stockton-on-Tees. By whom made Stockton Chem. Engs. & Riley Mks. Boiler No. 6832 When made 1945

Nominal Horse Power 1210 Owners Admiralty Port belonging to London

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel The Steel Company of Scotland (Letter for Record 5)

Total Heating Surface of Boilers 2080 sq. ft. Is forced draught fitted Yes Coal or Oil fired Yes

No. and Description of Boilers 1 S.E. Marine Working Pressure 180 lb/sq. in.

Tested by hydraulic pressure to 320 lb. Date of test 16/4/45. No. of Certificate 7141. Can each boiler be worked separately

Area of Firegrate in each Boiler No. and Description of safety valves to each boiler 2 1/4" Double Spring - High Lift

Area of each set of valves per boiler { per Rule 6.67 sq. ft.
as fitted 7.950. Pressure to which they are adjusted 185 lb/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 3'-6" Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 18" Is the bottom of the boiler insulated Yes

Largest internal dia. of boilers 13'-3 13/16" Length 11'-6" Shell plates: Material Steel Tensile strength 29-33

Thickness 13/32" Are the shell plates welded or flanged No Description of riveting: circ. seams { end DR.
inter. -long. seams TR-DBS. Diameter of rivet holes in { circ. seams 13/16"
long. seams 1 1/16" Pitch of rivets { 3.59"
8 1/16"Percentage of strength of circ. end seams { plate 66.9%
rivets 44.7 Percentage of strength of circ. intermediate seam { plate -
rivets -Percentage of strength of longitudinal joint { plate 85.5
rivets 91.85
combined 87.36Thickness of butt straps { outer 7/8"
inner 1" No. and Description of Furnaces in each Boiler 3. Vertical Corrugated

Material Steel Tensile strength 26-30 Smallest outside diameter 3'-1 1/4"

Length of plain part { top -
bottom - Thickness of plates { crown 1/2"
bottom 1/2" 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 5/32" Pitch of stays 19" x 17 1/2"

How are stays secured Stays secured into back end plate, secured from end. Double nuts & washers.

Tube plates: Material { front Steel Tensile strength 26-30 Thickness { 1 3/16"
back 1 1/16"

Mean pitch of stay tubes in nests 9 3/8" 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 8 3/8" - 2 @ 13/16" Length as per Rule 2'-8" Distance apart 10' No. and pitch of stays

in each 2 - 10" Combustion chamber plates: Material Steel

Tensile strength 26-30 Thickness: Sides 2 1/32" Back 1 1/16" Top 2 1/32" Bottom 2 1/32"

Pitch of stays to ditto: Sides 10" x 8" Back 10 1/2" x 7 1/2" Top 10" x 10" Are stays fitted with nuts or riveted over

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

Thickness 1 3/16" Lower back plate: Material Steel Tensile strength 26-30 Thickness 2 7/32"

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

Main stays: Material Steel Tensile strength 28-32

Diameter { At body of stay, 2 7/8"
or Over threads No. of threads per inch 6

Screw stays: Material Steel Tensile strength 26-30

Diameter { At turned off part, 1 3/4"
or Over threads No. of threads per inch 9

Are the stays drilled at the outer ends 20. Margin stays: Diameter ^{At turned off part,} 1 7/8" or Over threads 1 7/8"
No. of threads per inch 9.
Tubes: Material Standard Steel External diameter ^{Plain} 2 1/2" ^{Stay} 2 1/2" Thickness ^{9. W. 9.} 3/8" - 5/16" No. of threads per inch 9.
Pitch of tubes 3 1/2" x 3 1/2" Manhole compensation: Size of opening in shell plate 20 1/2" x 16 1/2" Section of compensating ring 6 3/4" x 1 1/8" No. of rivets and diameter of rivet holes 36 - 1 3/4"
Outer row rivet pitch at ends 8 3/16" Depth of flange if manhole flanged ✓ Steam Dome: Material NONE.
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 Thickness of crown No. and diameter of 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 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
Pressure to which the safety valves are adjusted Hydraulic test pressure: tubes forgings and 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 22 inclusive for boilers been complied with For and on behalf of

STOCKTON CHEMICAL ENGINEERS & BOILER MAKERS LTD.

The foregoing is a correct description,

E. H. Milner. Manufacturer.

Dates of Survey ^{During progress of work in shops - -} 1944 Dec 6, 14, 21, 29, 1945 Jan 12, 23, Feb 3, 13, 22, March 1, 6, 13, 23, 28, April 6, 12, 16. Are the approved plans of boiler and superheater forwarded herewith 4/1/44
^{while building} ^{During erection on board vessel - -} March 1, 6, 13, 23, 28, April 6, 12, 16. (If not state date of approval.)
Total No. of visits 17.

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. M'doro Rpt. No. 17673.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) This boiler has been constructed under

Special Survey & is accordance with the Rule Requirements & approved plan.

The materials & workmanship are good & on completion the boiler was hydraulically tested to 180 lb/sq in & found satisfactory.

This boiler is being dispatched to the Furness Shipbuilding Co. - Harrogate Hill, for Richardson Westgarth's Contract No. 2754.

This boiler has now been securely fitted on board & maintained under working conditions & found satisfactory.

On completion the SV's were adjusted under steam to 185 lb/sq in.

Survey Fee ... £ 13 : 18 : 0 When applied for, 24 / 4 / 1945
SUPERVISION FEE 13 / 3 / 46
Travelling Expenses (if any) £ 3 : 9 : 6 When received, 19

L. J. H. Smith
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned See F.E. Mackay, rpt.



© 2020

Lloyd's Register
Foundation