

Rpt. 5a.

REPORT ON BOILERS.

No. 23015.

W. H. L. Rpt No. 18670

Received at London Office

Date of writing Report 11th MAY 1945. When handed in at Local Office 11th MAY 1945. Port of GREENOCK.

No. in Survey held at GREENOCK

Date, First Survey 14th MAY 1943. Last Survey 18th Apr 1945

(Number of Visits 13.) Gross 7317.88

Tons Net 5115.24

on the STEEL SCREW STEAMER EMPIRE EDDYSTONE

Built at WEST HARTLEPOOL By whom built WM GRAY & CO LTD

Yard No. 1176 When built 1945

Engines made at WEST HARTLEPOOL

By whom made CENTRAL MARINE ENGINE WORKS

Engine No. 1176 When made 1945

Boilers made at GREENOCK

By whom made JOHN G. KINCAID & CO LTD

Contract No. 284 x 737

Boiler No. 19/MS/M 455 When made 1943

Nominal Horse Power 510.

Owners MINISTRY OF WAR TRANSPORT Port belonging to WEST HARTLEPOOL

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Colvilles & Co

(Letter for Record S.)

Total Heating Surface of Boilers 7248

Is forced draught fitted Yes

Coal or Oil fired Coal

No. and Description of Boilers 3 Single under

Working Pressure 220 lbs

Tested by hydraulic pressure to 380

Date of test 26/6/43

No. of Certificate 2334

Can each boiler be worked separately Yes.

Area of Firegrate in each Boiler 54.84

No. and Description of safety valves to each boiler 2 1/4" Double opening I.H.L.

Area of each set of valves per boiler {per Rule 6.427

Pressure to which they are adjusted 220 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 21"

Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating 23 3/4"

Is the bottom of the boiler insulated Yes.

Largest internal dia. of boilers 15'-0 1/8"

Length 11'-6"

Shell plates: Material S

Tensile strength 29 3/32 tons

Thickness 1 1/32"

Are the shell plates welded or flanged No

Description of riveting: circ. seams {end DR

long. seams TR DBS

Diameter of rivet holes in {circ. seams 1 1/2"

Pitch of rivets {inter. 4.07

Percentage of strength of circ. end seams {plate 63.1 %

rivets 46.7 %

Percentage of strength of circ. intermediate seam {plate 85.5 %

Percentage of strength of longitudinal joint {plate 86.7 %

rivets 87.7 %

Percentage of strength of longitudinal joint {combined 87.7 %

Thickness of butt straps {outer 1 1/8"

No. and Description of Furnaces in each Boiler 3 Dighton corrugated

Material S

Tensile strength 24/30 tons

Smallest outside diameter 3'-9 1/2"

Length of plain part {top 1 1/4"

Thickness of plates {crown 1 1/16"

Description of longitudinal joint Weld

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

End plates in steam space: Material S

Tensile strength 24/30 tons

Thickness 1 1/32"

Pitch of stays 21 x 20"

How are stays secured DN

Tube plates: Material {front S

Tensile strength {24/30 tons

Thickness {1 1/16"

Mean pitch of stay tubes in nests 9.8125

Pitch across wide water spaces 14"

Girders to combustion chamber tops: Material S

Tensile strength 25/32 tons

Depth and thickness of girder

at centre 10 1/2" x 13 1/8"

Length as per Rule 2'-9 1/2"

Distance apart 9 1/4"

No. and pitch of stays

in each Three @ 8"

Combustion chamber plates: Material S

Tensile strength 24/30 tons

Thickness: Sides 1 1/16"

Back 1 1/16"

Top 1 1/16"

Bottom 1 3/16"

Pitch of stays to ditto: Sides 9 1/4 x 8"

Back 9 1/4 x 8"

Top 9 1/4 x 8"

Are stays fitted with nuts or riveted over Nuts except thro shell.

Front plate at bottom: Material S

Tensile strength 24/30 tons

Thickness 1 5/16"

Lower back plate: Material S

Tensile strength 24/30 tons

Thickness 2 1/32"

Pitch of stays at wide water space 14 x 8"

Are stays fitted with nuts or riveted over Nuts

Main stays: Material S

Tensile strength 25/32 tons

Diameter {At body of stay, 3 1/4"

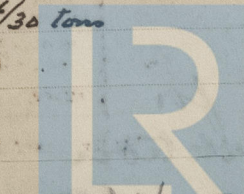
No. of threads per inch 6

Screw stays: Material S

Tensile strength 24/30 tons

Diameter {At turned off part, 1 3/4"

No. of threads per inch 9



© 2020

Lloyd's Register

008751-008752-0053 Foundation

Are the stays drilled at the outer ends No Margin stays: Diameter 1 7/8"
 No. of threads per inch 9
 Tubes: Material WELDED STEEL External diameter 3" Thickness 5/16" No. of threads per inch 9
 Pitch of tubes 4 1/4" x 4 1/8" Manhole compensation: Size of opening in
 shell plate ✓ Section of compensating ring ✓ No. of rivets and diameter of rivet holes ✓
 Outer row rivet pitch at ends 4 1/4" in end plate 16 x 12" 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 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 The Superheater Co. Ltd. Manufacturers of ✓
 Number of elements 18 LEFT HAND 11 CENTRE 12 RIGHT HAND Material of tubes Solid drawn Internal diameter and thickness of tubes 22/17 m/m.
 Material of headers ✓ Tensile strength ✓ Thickness ✓ Can the superheater be shut off and
 the boiler be worked separately No. Is a safety valve fitted to every part of the superheater which can be shut off from the boiler yes
 Area of each safety valve 1.767" Are the safety valves fitted with easing gear yes.
 Pressure to which the safety valves are adjusted 230 lbs. Hydraulic test pressure:
 tubes 1000 lbs. forgings and castings 660 lbs. and after assembly in place 660 lbs. Are drain cocks or
 valves fitted to free the superheater from water where necessary yes
 Have all the requirements of Sections 14 to 22 inclusive for boilers been complied with yes.

The foregoing is a correct description,
 For John G. Kincaid & Co. Ltd.
Director. Manufacturer.

Dates of Survey During progress of work in shops - - - (1943) MAY 14-19 JUNE 1-2-3-21-24-28. Are the approved plans of boiler and superheater forwarded herewith 10-7-41.
while building (1943) APRIL 16-18. (If not state date of approval.)
 Total No. of visits 13.

Is this Boiler a duplicate of a previous case Yes. If so, state Vessel's name and Report No. S.S. PACHUMBA RPTN° 18654.

GENERAL REMARKS (State quality of workmanship, opinions as to class, &c.) These boilers have been constructed in accordance with the Rules & approved plans, the Admiralty specification has been supervised. The materials & workmanship are sound & good.
These boilers have now been shipped to West Hamblepool for Messrs Central Marine Engine works A/MS 1093.
These boilers are eligible to be fitted in a vessel classed in the Society Register Book.
These boilers have been satisfactorily installed - and secured, examined under steam - and their safety valves adjusted
Arthur W. Oxford.
West Hamblepool

Survey Fee £ 48 : 6 : - When applied for, 12 MAY 1945.
 Travelling Expenses (if any) £ 12 : 1 : 6 When received, 19

Check of Hunter
 Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute GLASGOW 15 MAY 1945

Assigned Deferred for Completion

FRI. 24 AUG 1945
 See F.E. machy rpt.