

REPORT ON BOILERS.

No. 18469.

Received at London Office

- 8 OCT 1943 14 FEB 1944

Date of writing Report 6th Oct 1943 When handed in at Local Office 6th Oct 1943 Port of WEST HARTLEPOOLNo. in Survey held at WEST HARTLEPOOL
eg. Book.Date, First Survey March 16th Last Survey September 30th 1943(Number of Visits 13) Gross 597
Tons Net 0.17

on the "SESAME"

J2537.

Built at SELBY By whom built COCHRANE & SONS L^o.Yard No. 1275 When built 1944
1650Engines made at HULL By whom made MESS^{rs} C. D. HOLMES & C^o.

Engine No. 1647 When made

Boilers made at WEST HARTLEPOOL By whom made CENTRAL MARINE ENGINE WORKS, Boiler No. R322 When made 1943.

Nominal Horse Power

Owners Admiralty

Port belonging to

MULTITUBULAR BOILERS MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Mess^{rs} Colvilles, Sth Glasgow.

(Letter for Record S.

Total Heating Surface of Boilers 3550 sq

Is forced draught fitted Yes.

Coal or Oil fired Oil

Working Pressure 210 lbs

No. and Description of Boilers 1 Single ended multitubular

Tested by hydraulic pressure to 365 lbs Date of test 20-9-43 No. of Certificate 4,010. Can each boiler be worked separately -

Area of Firegrate in each Boiler OIL FIRED No. and Description of safety valves to each boiler Cockburn H.L. double spring loaded

Area of each set of valves per boiler {per Rule 16.14 sq ft 9.86
as fitted 16.59 sq ft Pressure to which they are adjusted 204 lb. 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 2 FT. Is oil fuel carried in the double bottom under boilers No

Smallest distance between shell of boiler and tank top plating NONE Is the bottom of the boiler insulated No

Largest internal dia. of boilers 17'0" Length 11'6" Shell plates: Material Steel Tensile strength 31-35 tons

Thickness 1 1/2" Are the shell plates welded or flanged No. Description of riveting: circ. seams end D.R. LAP

Long. seams TR. Double butt straps Diameter of rivet holes in {circ. seams 1 7/16"
long. seams 1 1/2" Pitch of rivets {3 1/2"
10 1/2"Percentage of strength of circ. end seams {plate 62.2
rivets 43. Percentage of strength of circ. intermediate seam {plate
rivetsPercentage of strength of longitudinal joint {plate 84.8
rivets 86.7
combined 86.9.Thickness of butt straps {outer 1 1/8"
inner 1 1/4" No. and Description of Furnaces in each Boiler 3 Corrugated. Deighton section.

Material Steel Tensile strength 26-30 tons Smallest outside diameter 4'3 1/2"

Length of plain part {top
bottom Thickness of plates {crown 3/4"
bottom 3/4" 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 tons Thickness 1 3/16" Pitch of stays 20 3/4" x 16"

How are stays secured Double nuts and washers.

Tube plates: Material {front Steel Tensile strength 26-30 tons Thickness 15/16" 29/32"

Mean pitch of stay tubes in nests 10 5/8" x 8 1/2" Pitch across wide water spaces 13 1/2"

Girders to combustion chamber tops: Material Steel Tensile strength 29-33 tons Depth and thickness of girder

at centre 9 x 1 3/4" 2-7/8" plates length as per Rule 2'8 3/32" Distance apart 9 3/4" No. and pitch of stays

in each 3 at 7 3/4" Combustion chamber plates: Material Steel

Tensile strength 26-30 tons Thickness: Sides 2 3/32" Back 2 3/32" Top 1 1/8" Bottom 7/8"

Pitch of stays to ditto: Sides 10 x 8 1/2" Back 9 1/2 x 8 3/8" Top 9 3/4 x 7 3/4" Are stays fitted with nuts or riveted over Nuts

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

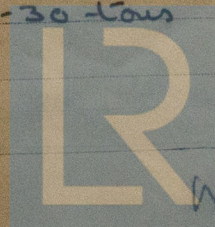
Thickness 15/16" Lower back plate: Material Steel Tensile strength 26-30 tons Thickness 27/32"

Pitch of stays at wide water space 13 3/4 x 8 7/8" Are stays fitted with nuts or riveted over Nuts

Main stays: Material Steel Tensile strength 28-32 tons

Diameter {At body of stay,
or Over threads 3 1/8" No. of threads per inch 6

Screw stays: Material Steel Tensile strength 26-30 tons

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

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SESAME

J 2537

Are the stays drilled at the outer ends

No.

Margin stays: Diameter { At turned off part, or Over threads 2"

No. of threads per inch

9.

Tubes: Material L.W. IRON

External diameter { Plain 3" Stay 3"

Thickness { 8WG 5/16 3/8 7/16

No. of threads per inch 9.

Pitch of tubes 4 1/4" x 4 1/4"

Manhole compensation: Size of opening in

shell plate 16 x 12

Section of compensating ring 3'-0" x 2'-4 1/2" x 1 1/2"

No. of rivets and diameter of rivet holes 32 @ 1 1/2"

Outer row rivet pitch at ends 10 1/2"

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 NONE

Manufacturers of

Tubes

Steel forgings

Steel castings

Internal diameter and thickness of tubes

Number of elements

Material of tubes

Tensile strength

Thickness

Can the superheater be shut off and

Material of headers

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: is a governor or other an

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 YES

The foregoing is a correct description,

(M. G. & Co. Ltd.)

Manufacturer

Dates of Survey { During progress of work in shops - - - 1943 Mar. 16. 18. July 21. 27. Aug. 11 while building { During erection on board vessel - - - 16. 24. 26 Sept. 2. 3. 10. 16. 20.

Are the approved plans of boiler and superheater for approval here with (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.

Boiler R 361.

GENERAL REMARKS

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

This boiler has been

built under special survey and in accordance with the approved plan for a working pressure of 210 lbs per square inch.

The materials and workmanship have been found good. Upon completion the boiler was tested in the presence of the undersigned to 365 lbs per square inch hydraulic pressure, showed no signs of weakness and were found tight and sound in every respect at that pressure. This boiler is being despatched to Hull for fitting on board.

The above boiler installed on SESAME at Hull, examined under steam, safety valves adjusted as overleaf, accumulation test held and afterwards examined after all tests and found satisfactory in every respect. W.S. Shields.

Survey Fee

£ 23 : 16 : 0

When applied for, 7th Oct. 1943.

Travelling Expenses (if any) £

When received, 19

Arthur W. Oxford.

Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

Assigned

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TUES. 22 FEB 1944



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