

REPORT ON BOILERS.

No. 18219

13 FEB 1942

Received at London Office

1 DEC 1941 4 NOV 1941

Date of writing Report 21/11/1941 When handed in at Local Office 21/11/1941 Port of WEST HARTLEPOOL.

No. in Survey held at WEST HARTLEPOOL

Date, First Survey 1st October

Last Survey 21st November 1941

on the Sln Trawen. BUTSER

(Number of Visits 8) Gross 511 Tons Net 167

uilt at Beverley. By whom built Cook, Melton & Gummell Ltd. Yard No. 683 When built 1942-1

Engines made at Hull. By whom made B.D. Holmes & Co. Engine No. 1593 When made 1942-1

Boilers made at West Hartlepool. By whom made Central Marine Engine Works Boiler No. R347 When made 1941

ominal Horse Power 156. Owners The Admiralty Port belonging to

MULTITUBULAR BOILERS—MAIN, AUXILIARY, OR DONKEY.

Manufacturers of Steel Messrs Colvilles & Co. Glasgow.

(Letter for Record S.

Total Heating Surface of Boilers 2358 sq ft Is forced draught fitted Yes.

Coal or Oil fired Coal.

No. and Description of Boilers 1 single ended multitubular

Working Pressure 220 lbs/sq in.

Tested by hydraulic pressure to 380 lbs/sq in. Date of test 21-11-41 No. of Certificate 3950 Can each boiler be worked separately Yes

Area of Firegrate in each Boiler 634 sq ft No. and Description of safety valves to each boiler 2 Spring loaded.

Area of each set of valves per boiler per Rule 15.15 12.53 as fitted 16.59. Pressure to which they are adjusted 220 lbs/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 None

Smallest distance between boilers or uptakes and bunkers or woodwork 18" 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 No

Largest internal dia. of boilers 15'-6" Length 11'-0" 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. inter.

long. seams T.R. Double butt strap Diameter of rivet holes in circ. seams 1 1/2" long. seams 1 3/16" Pitch of rivets 3 1/2" 9 3/8"

Percentage of strength of circ. end seams plate 62.6 rivets 43.7. Percentage of strength of circ. intermediate seam plate rivets

Percentage of strength of longitudinal joint plate 84.66 rivets 85.67 combined 86.47.

Thickness of butt straps outer 1 3/4" inner 1 3/2" No. and Description of Furnaces in each Boiler 3 Deighton section

Material Steel Tensile strength 26-30 tons Smallest outside diameter 3'-9 1/2"

Length of plain part top bottom Thickness of plates crown 1 1/2" bottom 1 1/4" 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 3/2" Pitch of stays 18 3/4" x 18 1/4"

How are stays secured Double nuts & washers.

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

Mean pitch of stay tubes in nests 9 1/4" x 9" Pitch across wide water spaces 14 1/2"

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

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

in each 3 @ 7 3/8" Combustion chamber plates: Material Steel

Tensile strength 26-30 tons Thickness: Sides 3/32" Back 1/16" Top 1/16" Bottom 15/16"

Pitch of stays to ditto: Sides 9 1/2" x 8 1/4" Back 9 x 8 1/4" Top 9 1/4" x 7 3/8" 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 29/32"

Pitch of stays at wide water space 14 1/2" x 9" 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 1/4" 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.

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 1/2"
Stay 3 1/2"

Thickness

8 SWG.
5/16 3/8 7/16

No. of threads per inch 9

Pitch of tubes

4 5/8" x 4 1/2"

Manhole compensation: Size of opening

shell plate

Section of compensating ring

No. of rivets and diameter of rivet holes

Outer row rivet pitch at ends

Depth of flange if manhole flanged

Steam Dome: Material

Steel

Tensile strength

26-30 Kca

Thickness of shell

3/4"

Description of longitudinal joint

S.R. LAP

Diameter of rivet holes

1 1/2"

Pitch of rivets

2 1/2"

Percentage of strength of joint

Plate 54

Rivets 43.8

Internal diameter

2-9"

Thickness of crown

3/8"

No. and diameter

stays

2 @ 2 3/8"

Inner radius of crown

3/8"

How connected to shell

Double rivets

Size of doubling plate under dome

4-11 1/4" DIA. 1 1/2" thick

Diameter of rivet holes and pitch

of rivets in outer row in dome connection to shell

1 7/8" x 4"

Type of Superheater

Number of elements

Material of tubes

Material of headers

Tensile strength

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

None

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

Yes

The foregoing is a correct description,
for THE CENTRAL MARINE ENGINE WORKS,

(Signature)

Manufacture

Dates of Survey { During progress of work in shops - - }
while building { During erection on board vessel - - - }

1941 Oct 1-10-20-23-25 Nov 6-14-21

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

17-6-41

Total No. of visits 8

Is this Boiler a duplicate of a previous case

Yes

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

R346 RPTN° 18216

GENERAL REMARKS

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

This boiler has been

constructed under special survey and in accordance with the approved plans for a working pressure of 220 lbs per square inch.

The materials and workmanship have been found good. Upon completion the boiler was tested in the presence of the undersigned by a hydraulic pressure of 380 lbs per square inch. Shewed no signs of weakness and were found tight and sound in every respect at that pressure. This boiler is to fitted in Messrs B.D. Holmes, CR° 1593.

Survey Fee ... £ 15 : 14 : 0

When applied for, 19

Travelling Expenses (if any) £

When received, 19

Arthur W. Oxford
Engineer Surveyor to Lloyd's Register of Shipping.

Committee's Minute

FRI. 20 FEB 1942

Assigned

See Hul. J.E. 51507



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Foundation